Understanding Form Language

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Overview

- Frameworks of Understanding
  - Gestalt
  - Golden Section
  - Semiotics
  - Visual Form Language Structure
- Form Language "Movements"
  - Biomimicry
  - Industrialization
  - Anthropomorphism
- Some Examples

Framework of Understanding

Various established ways of characterizing and understanding form language:

- Gestalt Principles
- Golden Proportions
- Theories of Semiotics
- Visual Form Language Structure

Framework of Understanding: Gestalt

Various established ways of characterizing and understanding form language:

- Psychological term meaning "unified whole"
- Theories of visual perception, developed by German Psychologists
- Generally refer to two dimensional compositions; can be applied to three dimensions as well.

Framework of Understanding: Gestalt | Figure/Ground

Framework of Understanding: Gestalt | Proximity
Various established ways of characterising and understanding form language:
Fibonacci studied rabbits.

If a male and female rabbit are put in a field,
And, after one month, they make sweet love,
So at the end of the second month,
a female can produce another pair of rabbits,
And rabbits never die,
And the female always produces both a male and female,
How many pairs of rabbits are there in one year?

Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct

EEK. THAT'S A LOT OF RABBITS.

In fact, there are 144 pairs of rabbits after a year.
The sequence of numbers produced is known as the Fibonacci Sequence of Numbers. It goes on forever.
Why should we care?
It's a golden rectangle.

By connecting quarter circles together ...
... we make a curve ...
... known as the Fibonacci spiral.

The Fibonacci spiral is found all around us in nature ...

Framework of Understanding: Golden Proportions
IDUS 250 The Development of Product Form
A documented human preference for golden section proportions (and the Fibonacci spiral) - 1:1.618, or roughly 5:8 (images from Geometry of Design: Studies in Proportion and Composition).

Various established ways of characterizing and understanding form language:
- Gestalt principles
- Golden Proportions
- Theories of Semiotics
- Visual Form Language Structures
Framework of Understanding: Theories of Semiotics

Semiotics is the study of signs.

What is a "sign"? (What does it mean to signify something?)

Signs:

1. Carry meaning
2. Usually communicate the meaning
3. Use "codes" to help communicate meaning and values
   - The name of the item
   - The body movements necessary to use the item
   - The preferences for an item over another item

Consider this item as a "sign":

- It has a name
  What relevance does the name have?
- It has meaning
  How is meaning different than function?
- It has cultural connotations and connections
  What does it mean to have an iPod? How is it different than having a Walkman?

Framework of Understanding: Visual Form Language Structures

Various established ways of characterizing and understanding form language:

Gestalt Principles
Golden Proportions
Theories of Semiotics
Visual Form Language Structures

Describe what you see. Can you? Why or why not?
Framework of Understanding: Visual Form Language Structures

Form Language “Movements”
Trends are usually identified “after the fact”:
- Biomimicry
- Industrialization
- Anthropomorphism

Form Language “Movements” : Biomimicry
(also referred to as Bionics)
To study nature and then imitate or take inspiration from these natural designs
- Not just related to form
- System approach
- Complex problem solving via evolution

Form Language “Movements” : Biomimicry
Birdhouse gourd
Chiasso Vera Vase, 2005

Form Language “Movements” : Industrialization
What does the word “Industrial” in “Industrial Design” actually refer to?
- Roots of our field in the Industrial Revolution
- Mechanical (i.e., analog) nature of many products
- Mass production, etc

Industrialization refers to the form (and often material) characteristics that make a product seem technologically advanced

Form Language “Movements” : Industrialization
Black may beetle
Beetle Cabriolet Prototype, 1948
Form Language "Movements" : Industrialization

Apple G5 Tower, 2005

Form Language "Movements" : Industrialization

Avante Elite Toaster Oven, 2005

Form Language "Movements" : Industrialization

Porter-Cable 12 Volt Drill, 2004

Form Language "Movements" : Anthropomorphism

Psychological process, assigning real-life (human or animal) characteristics to inanimate objects.

- Making things familiar
- Keeping things the same
- Reflecting product attributes
- Projecting human values

People do this naturally; designers can also encourage people to do this.

Form Language "Movements" : Anthropomorphism

Toaster, Philips By Alessi Workshop, Alessandro Mendini, 1994

Form Language "Movements" : Anthropomorphism

Electric Water Kettle, Philips By Alessi Workshop, Alessandro Mendini, 1994
Form Language “Movements” : Anthropomorphism

Some Examples

Consider the vocabulary you would use to describe the following products ...

Xcute DV1 Cellular Telephone, 2005

Mytan Sun Lotion Dispenser, 2005

Audi TT Coupe, 2000

Hug Salt and Pepper Shakers, Alberto Mantilla, 2002
Summary

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- Some Examples