Design
[d ZIN]

1. To conceive, invent, contrive
2. To form a plan for
3. To draw a sketch
4. To have as a goal or purpose, to intend
5. A visual composition, pattern
6. A reasoned purpose, intention

“Design is the conscious and intuitive effort to impose meaningful order.”  - Victor Papanek
“Making provides the fullest opportunity for experiencing the world.”

- Denzil Hurley

We have a need to shape our environment ... to participate.
“Creative works are an extension of the inner world of the individual – manifest in the actual world.”  - Denzil Hurley

poetry ... meaning ... metaphor ...
There is no linear process for design ...

... but there are a series of organizational principles to be considered.
Design principles

genergy

scale  structure

circulation  enclosure

order / organization

shape  size  color  texture
geometry

1 a : a branch of mathematics that deals with the **measurement, properties, and relationships** of **points, lines, angles, surfaces, and solids**

   b : a particular type or system of geometry

2 a : **CONFIGURATION**

   b : surface shape

3 : an **arrangement of objects** or parts that suggests geometric figures
geometry  form
geometry

form

Villa Lante, Italy

primary shapes
geometry

primary shapes

form
“Geometric organization in and of itself does not yield the dynamic concept or inspiration. What it does offer to the creative idea is a process of composition, a means of interrelationship of form, and a method for achieving visual balance. It is a system of bringing the elements together into a cohesive whole.”

Kimberly Elam
scale

1. An instrument or device used in such measurement

2. The relationship of one part of an object to an outside measure, such as a human body or some standard reference.

We automatically receive sensory information ... like “that’s too hot” ... or ... “wow, that car is small.”
scale
The human preference for golden section proportions has been documented throughout history ... from the architecture of Stonehenge and ancient Greece and to the present.
The human preference for golden section proportions has been documented throughout history ... from the architecture of Stonehenge and ancient Greece and to the present.
scale
scale

ecology

scale is relative ...
1 In music, literature & architecture, the structure of a work is its underlying framework.

2 An arrangement of parts.
   * soil structure *

3 Organization of parts dominated by the general character of the whole.

“I’m not trying to imitate nature, I’m trying to find the principles she’s using.”  Buckminster Fuller

“If a surface element or ornament is faulty it can be removed without affecting the structure. If the structure is at fault, no amount of superficial correction will set it right.”  Tim McCreight
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<table>
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<tbody>
<tr>
<td><strong>circulation</strong></td>
<td></td>
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<tr>
<td>1</td>
<td>Orderly movement through space</td>
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<tr>
<td>2</td>
<td>Flow</td>
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<td>3</td>
<td>Thread that links spaces</td>
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<table>
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<th>Entrance / Exit</th>
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<td>Sequence of spaces</td>
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<tr>
<td>Stairs … Ramps … Thresholds</td>
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<td>Trails … Roads … Alleys</td>
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- people
- animals
- bikes
- cars
- water
- …
circulation
| circulation | ![Image of a garden path](image_url) |
circulation
The act of closing or the condition of being closed.

1. Linear vertical elements can define the vertical edges of a volume of space.

2. A vertical plane will articulate the space that it fronts.

3. An “L” shaped configuration of planes generates a field of space from the corner outward along a diagonal.

4. Dihedral planes define a volume of space between them that is mostly oriented toward the open ends of the configuration.

5. A “U” shaped configuration of planes defines a volume of space that is oriented toward the open ends of the configuration.

6. Four planes enclose an interrelated space and articulate the field of space around the enclosure.

Inside vs. Outside
enclosure

L-shaped

parallel planes
enclosure

U-shaped

Enclosure on 4 sides
1. A condition of logical or comprehensible arrangement among separate elements

2. A condition of methodical or prescribed arrangement to achieve proper appearance or function

“Order without diversity can result in monotony or boredom … diversity without order can produce chaos.”

F. Ching
“Musical notes well-played might be pleasant, but they do not become a melody until there is an order in their arrangement.”

Tim McCreight
“We seek order. We will stare at a random collection of dots or puffy clouds in the sky until we are able to impose an order, to make it look like something.”  

Tim McCreight
order  organization  linear
order organization

clustered
order  organization

grid symmetry
order organization
g r i d s y m m e t r y
"Rhythm – Any kind of movement characterized by regular recurrence of strong and weak elements." Tim McCreight
"Rhythm requires multiplicity; one element cannot have rhythm."

Tim McCreight
Important or significant - visibly unique.

Achieved by:

- Exceptional size
- Unique shape
- Strategic Location
- Form
- Contrast
- Rhythm

“In the visual arts, hierarchy is the presentation of certain elements as more important than others. By conveying a clear sense of hierarchy an artist provides stability, sequence, and movement within a design.”  Tim McCreight
“The time-honored tricks to test hierarchy are to either turn a composition upside-down, or stand back and squint. Though apparently childish, these devices show the eye not what it “thinks” is most obvious, but what really is most obvious.”

Tim McCreight