

# **ELEMENTS AND PRINCIPLES OF DESIGN**

## **CLAY MODELS PROJECT DESCRIPTION**

# **ELEMENTS OF DESIGN**

**Line**

**Shape**

**Form**

**Color**

**Value**

**Texture**

**Hierarchy**

**Space**

# Lines, Shapes, Forms

Paul Klee



An active line on a walk, moving freely, without goal. A walk for a walk's sake. The mobility agent, is a point, shifting its position forward (Fig. 1):



Fig. 1

The same line, accompanied by complementary forms (Figs. 2 and 3):



Fig. 2



Fig. 3



The same line, circumscribing itself (Fig. 4):

Fig. 4



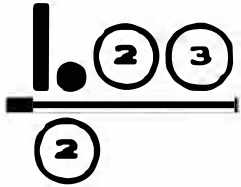
Two secondary lines, moving around an imaginary main line (Fig. 5):

Fig. 5



# Lines, Shapes, Forms

Paul Klee



An active line, limited in its movement by fixed points (Fig. 6):

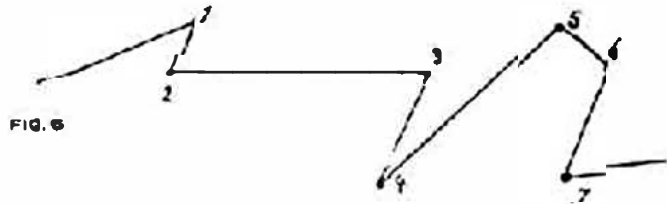
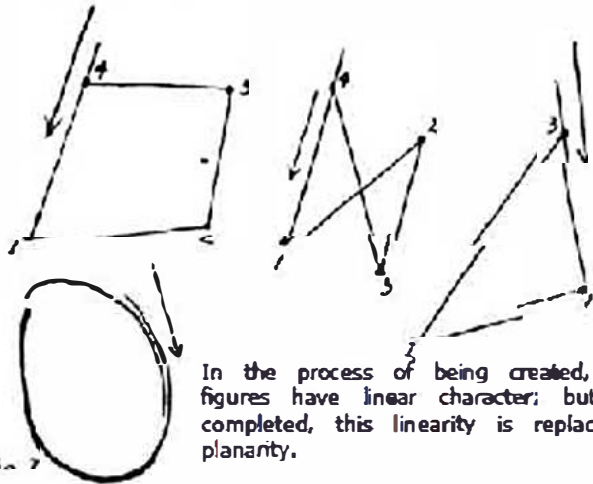


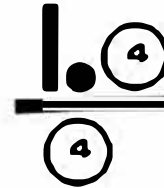
FIG. 6



A medial line which is both: point progression and planar effect (Fig. 7):



In the process of being created, these figures have linear character; but once completed, this linearity is replaced by planarity.



Passive lines which are the result of an activation of planes (line progression) (Fig. 8):

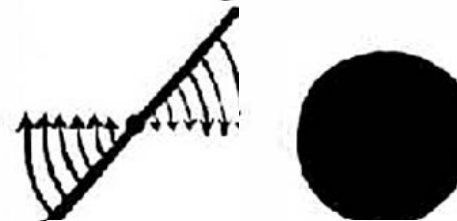
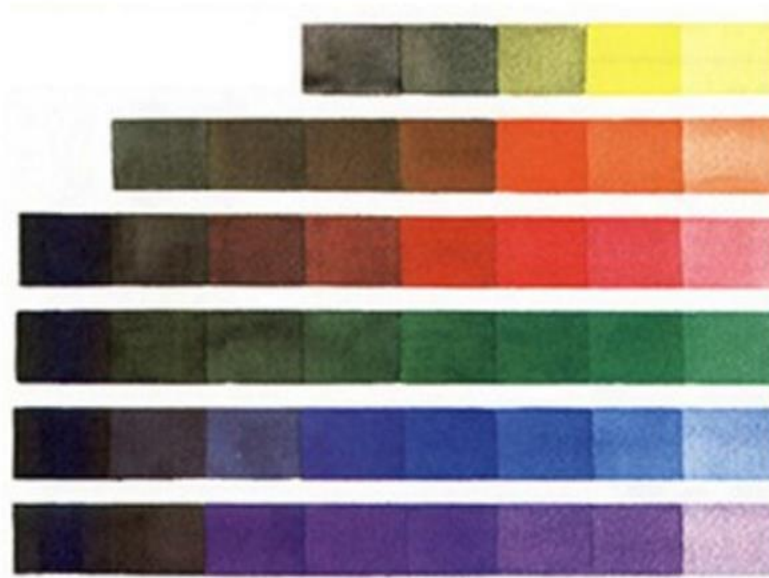


Fig. 8

Passive angular lines and passive circular lines become active as planar constituents.

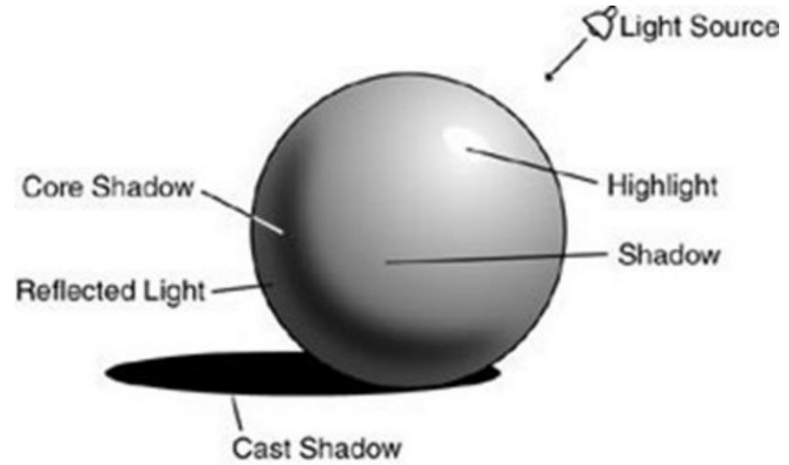
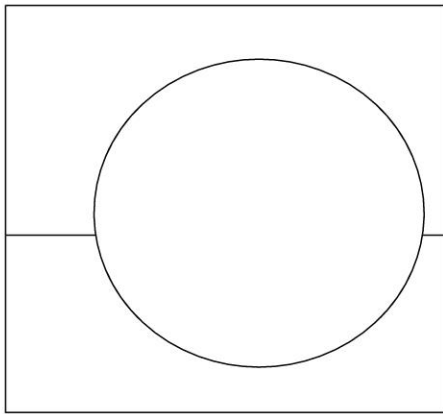
# Value



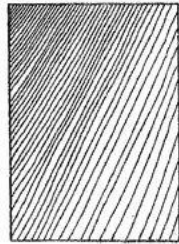
Value is also sometimes referred to as tone, is the relative lightness and darkness of an object. (It has nothing to do with the price of the design!)

Value

Shadow, highlights, midtones



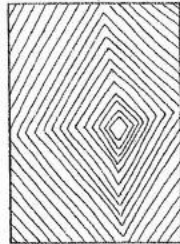
# Texture



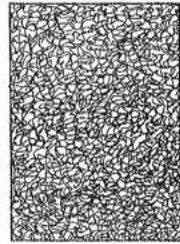
1. Continuous line



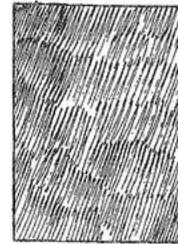
2. Engraving effect



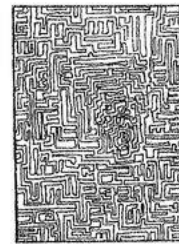
3. Geometric pattern



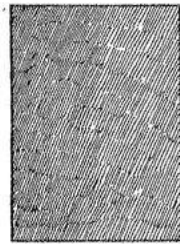
4. Randomly scribbled line



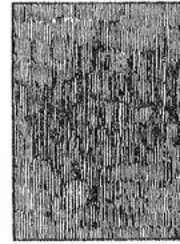
5. Scribbled loops of line



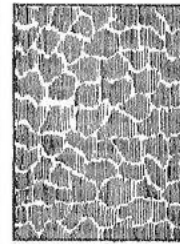
6. Reticulated scribbling



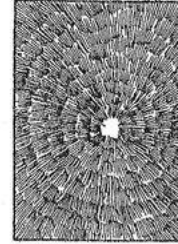
7. Clusters of hatched lines



8. Layered parallel line



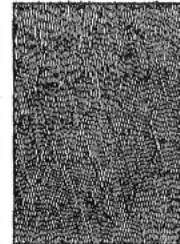
9. Reticulated clusters of hatched lines



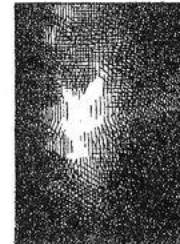
10. Radiating clusters of line



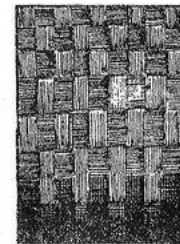
11. Crosshatched lines—variant 1



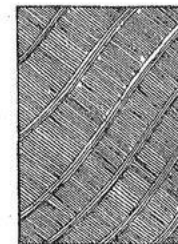
12. Crosshatched lines—variant 2



13. Crosshatched lines—variant 3



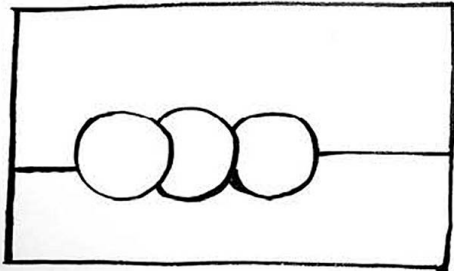
14. Symmetrical-weave pattern—variant 1



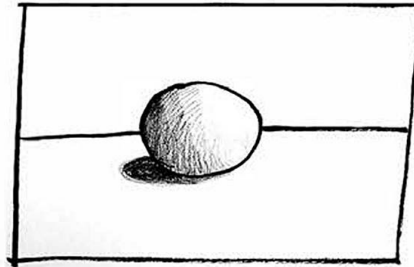
15. Symmetrical-weave pattern—variant 2

# Space

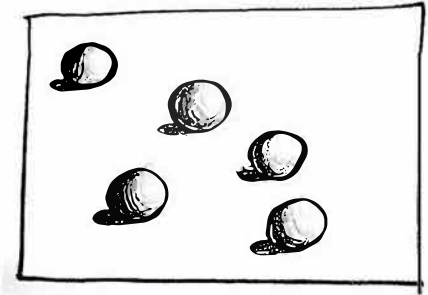
① OVERLAP



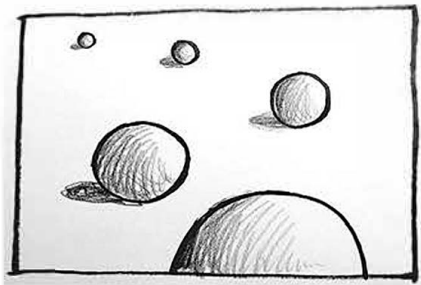
② SHADING



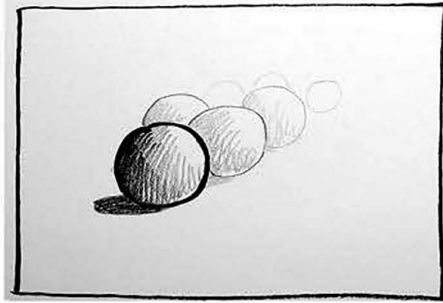
③ PLACEMENT



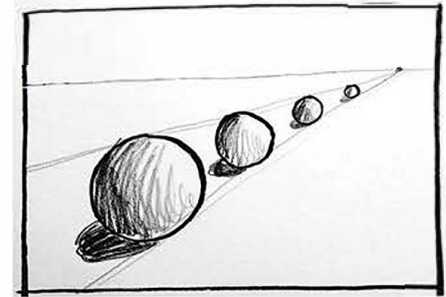
④ SIZE



⑤ VALUE and FOCUS



⑥ LINEAR PERSPECTIVE





# **PRINCIPLES OF DESIGN**

**Balance**

**Contrast**

**Movement**

**Rhythm**

**Repetition**

**Unity**

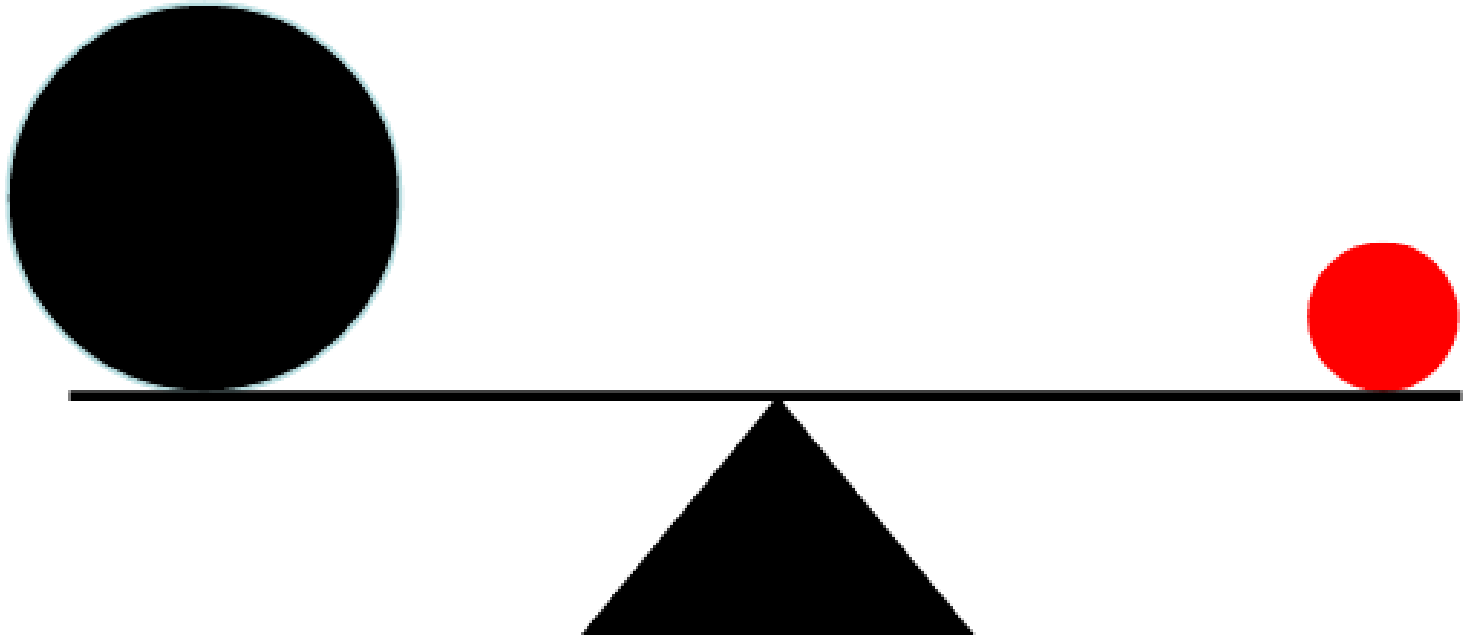
**Emphasis**

**Proportion / Scale**

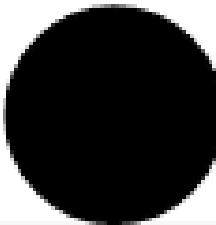
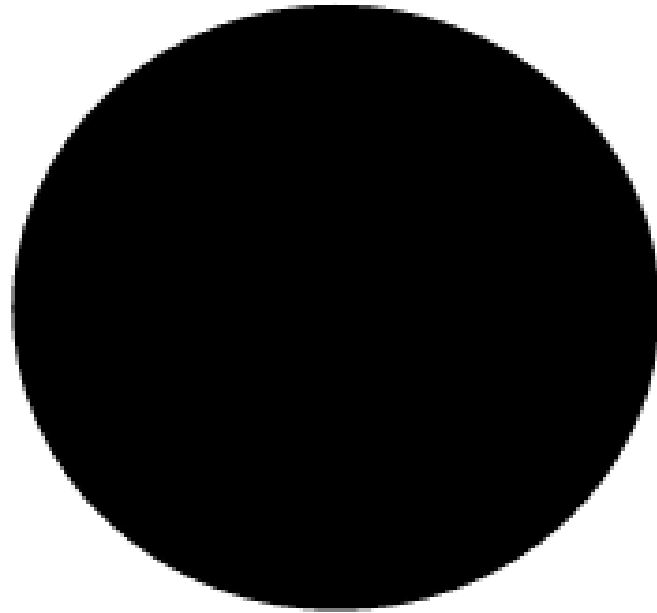
# Visual Weight and Balance



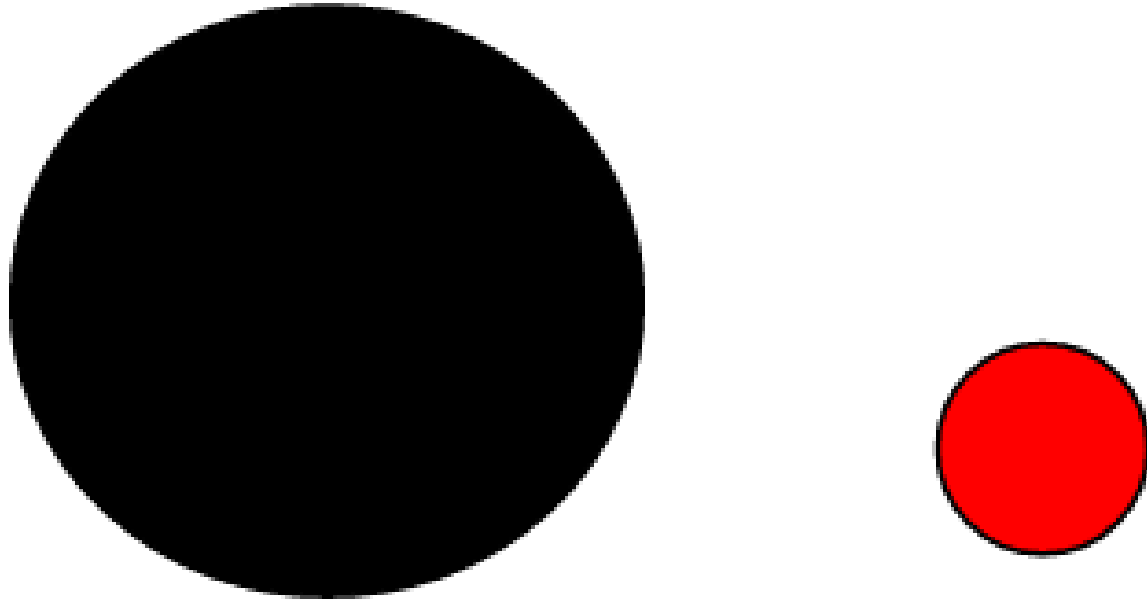




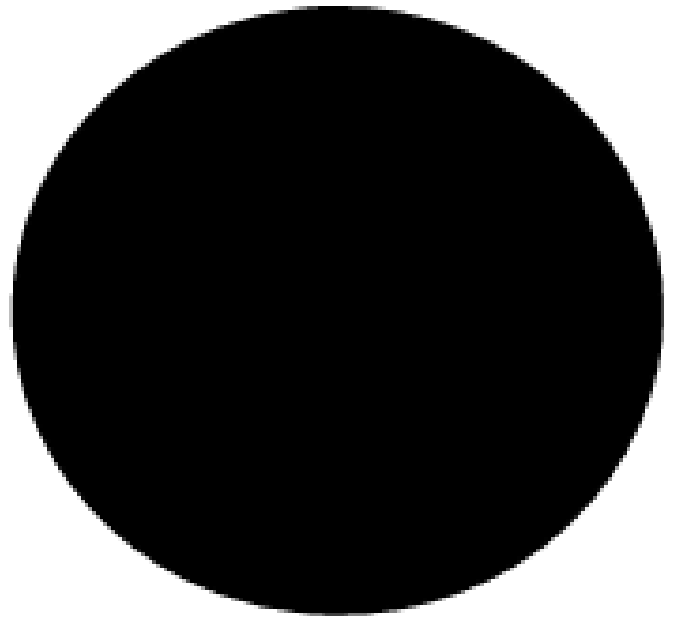
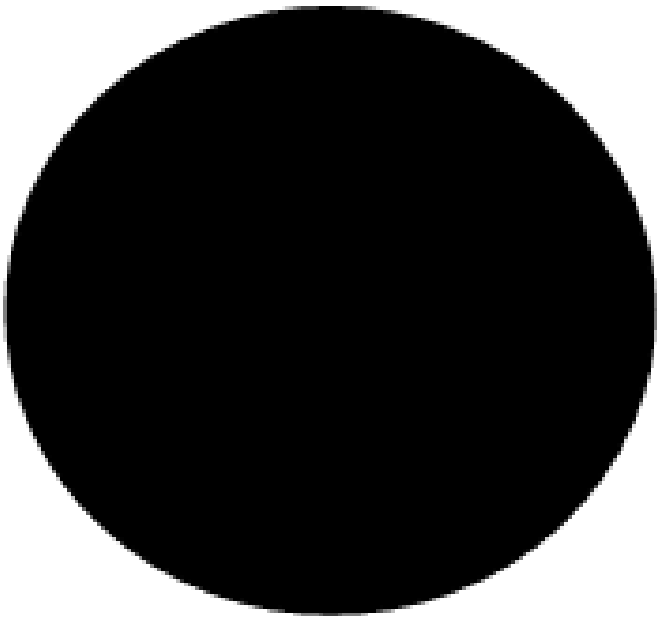
Unbalanced



# Asymmetrical Balance

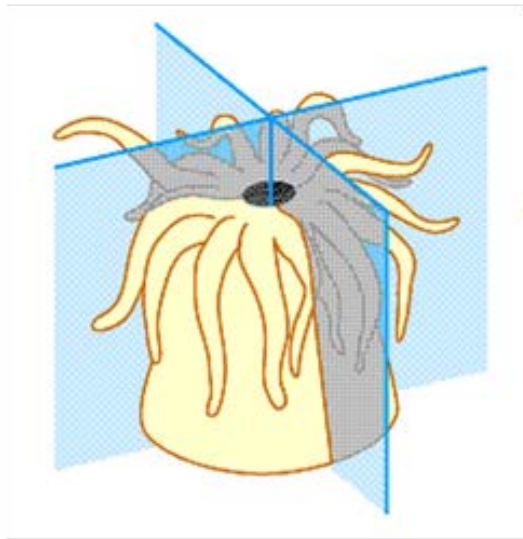


Symmetrical Balance

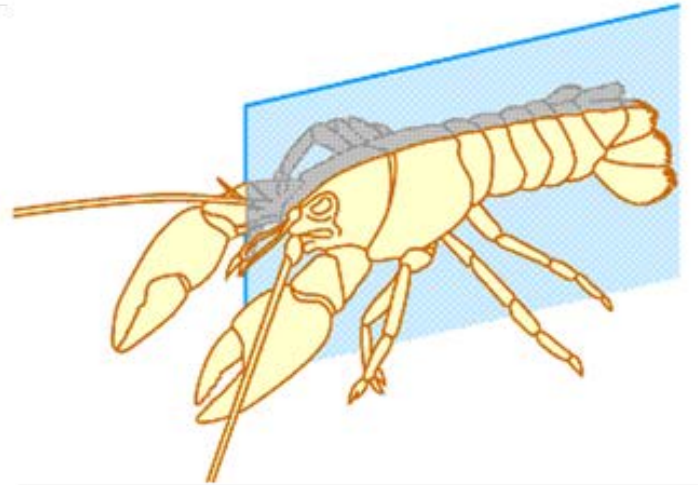




Asymmetry

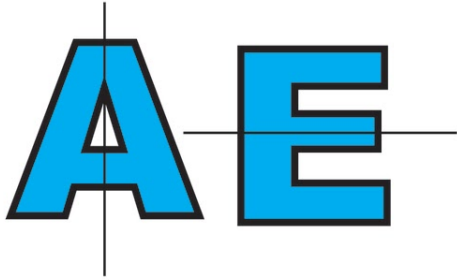


Radial symmetry

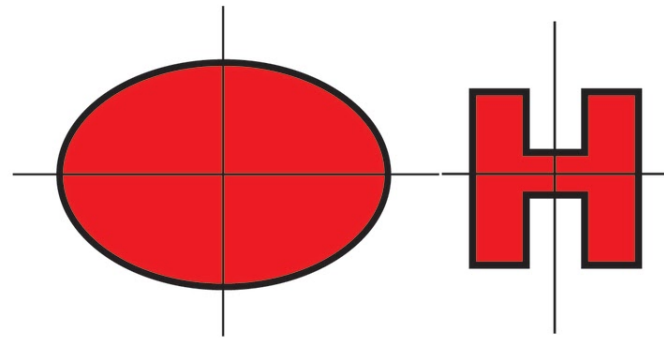


Bilateral symmetry

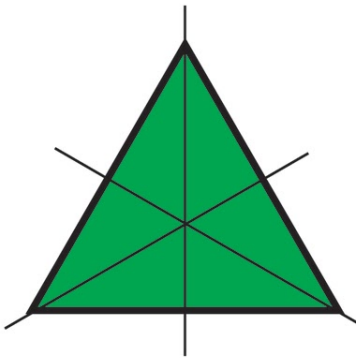




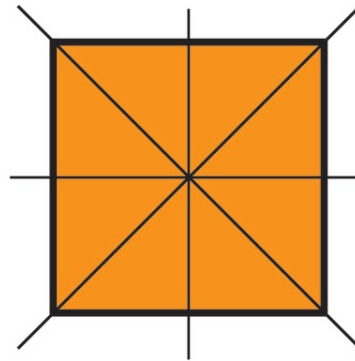
D1 - Symmetry about one axis



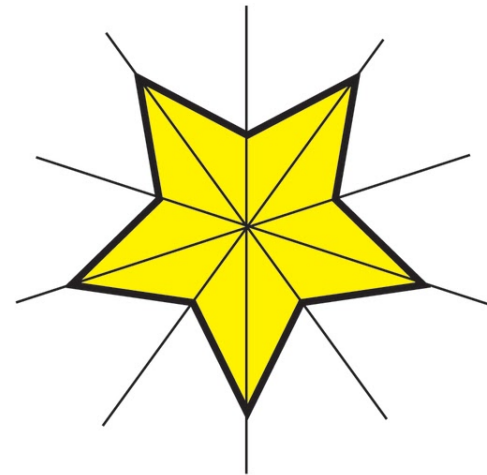
D2 - Symmetry about two axis



D3 - Symmetry about three axis



D4 - Symmetry about four axis



D5 - Symmetry about five axis

Contrast is the difference between two values

An example of low contrast

An example of high contrast

An example of low contrast between two colors

An example of high contrast between two colors

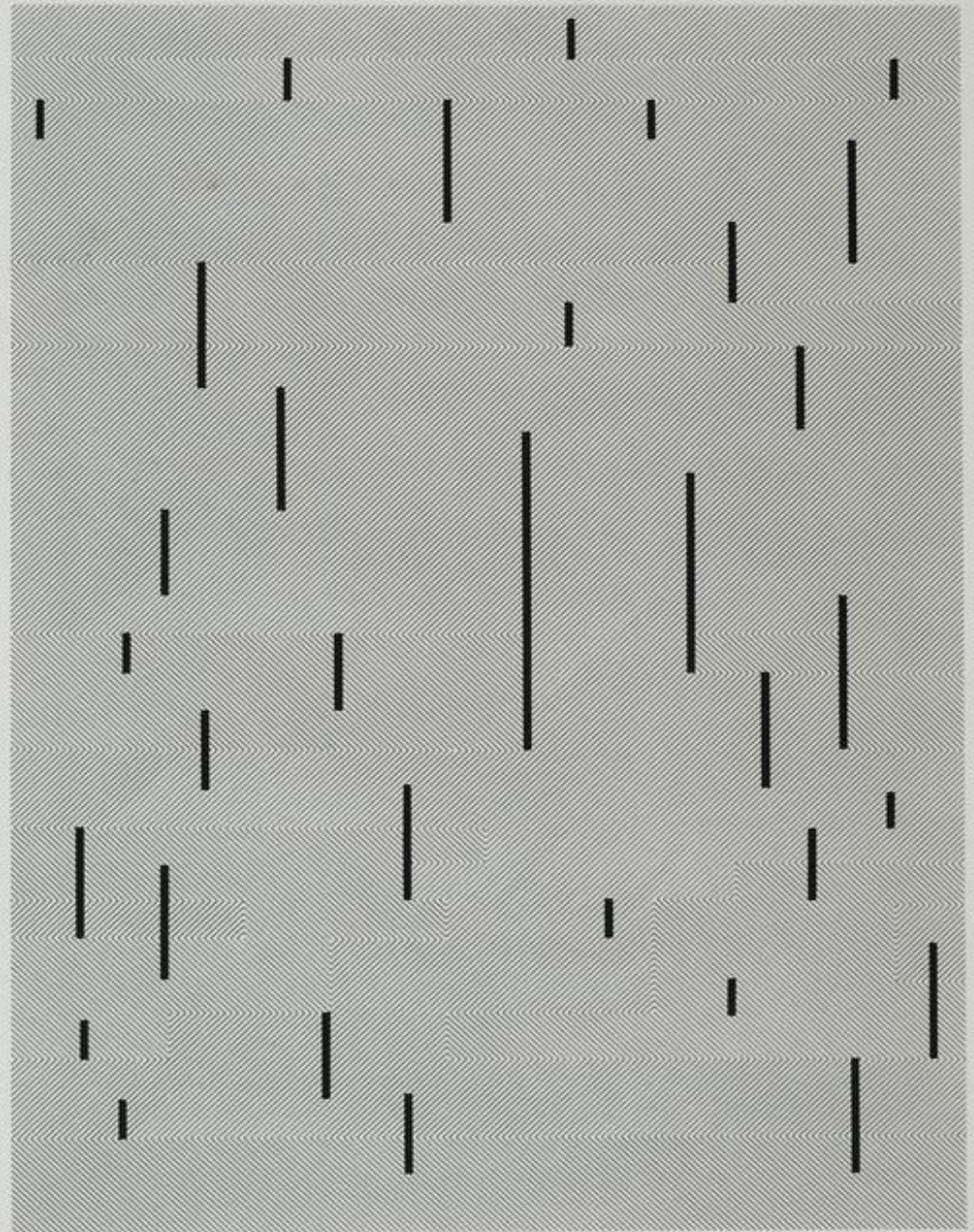
# Movement

The Starry Night, Vincent van Gogh, 1889



# Rythm

Anni Albers, With Vericals, 1945-1983



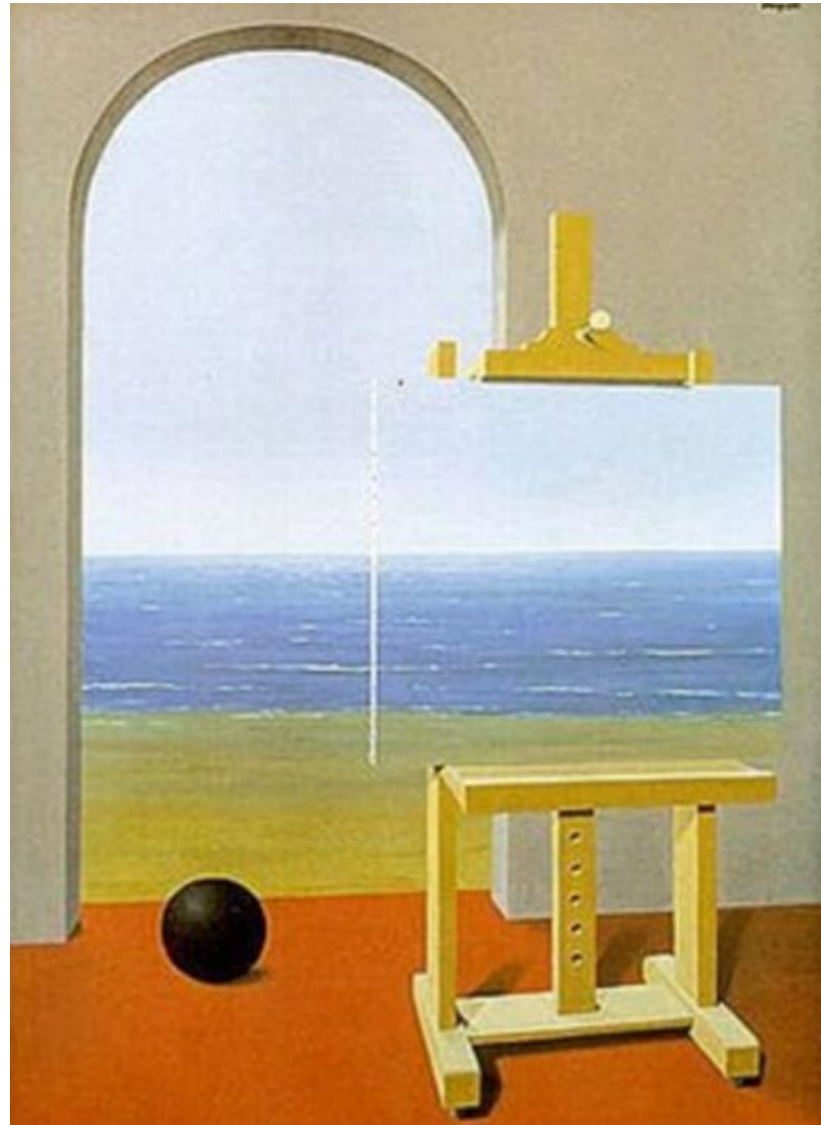
# Unity by Repetition

Golconde, Rene Magritte



# Emphasis

The Human Condition, Rene Magritte

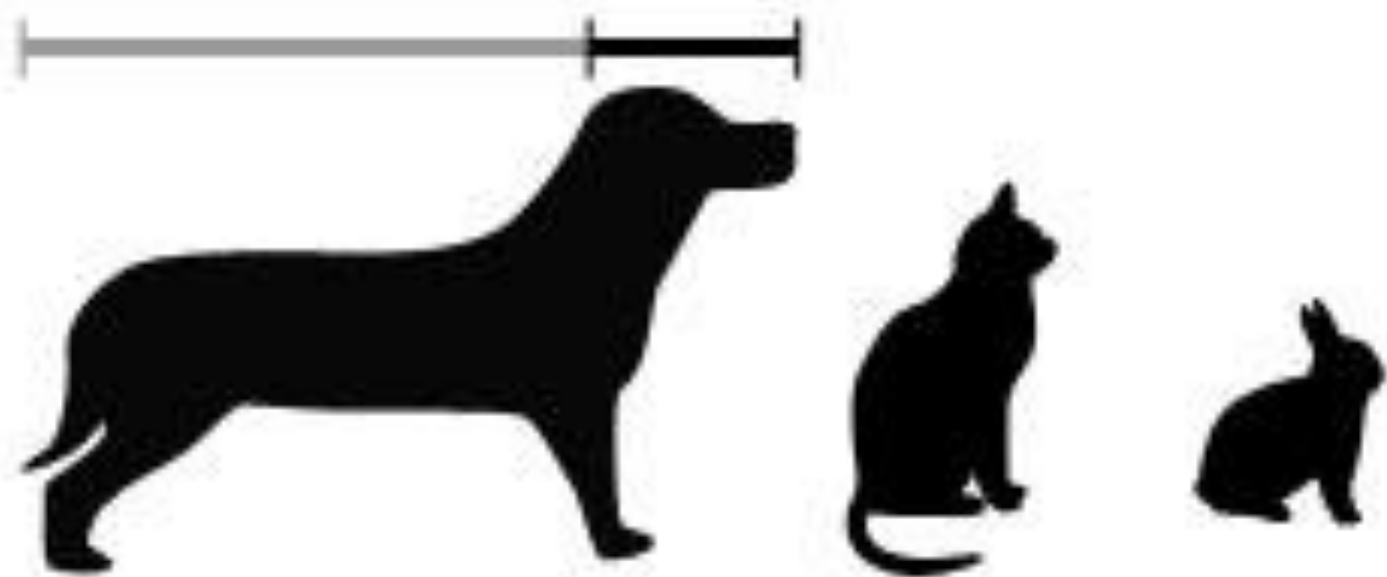


Emphasis is defined as an area or object within the artwork that draws attention and becomes a focal point. Subordination is defined as minimizing or toning down other compositional elements in order to bring attention to the focal point.

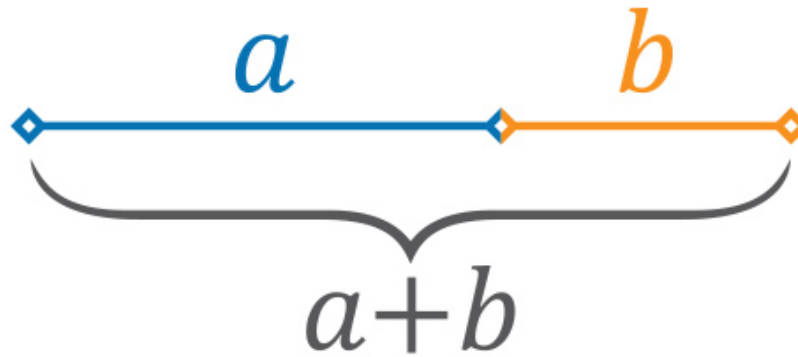
## Proportion / Scale

The Listening Room, Rene Magritte, 1952









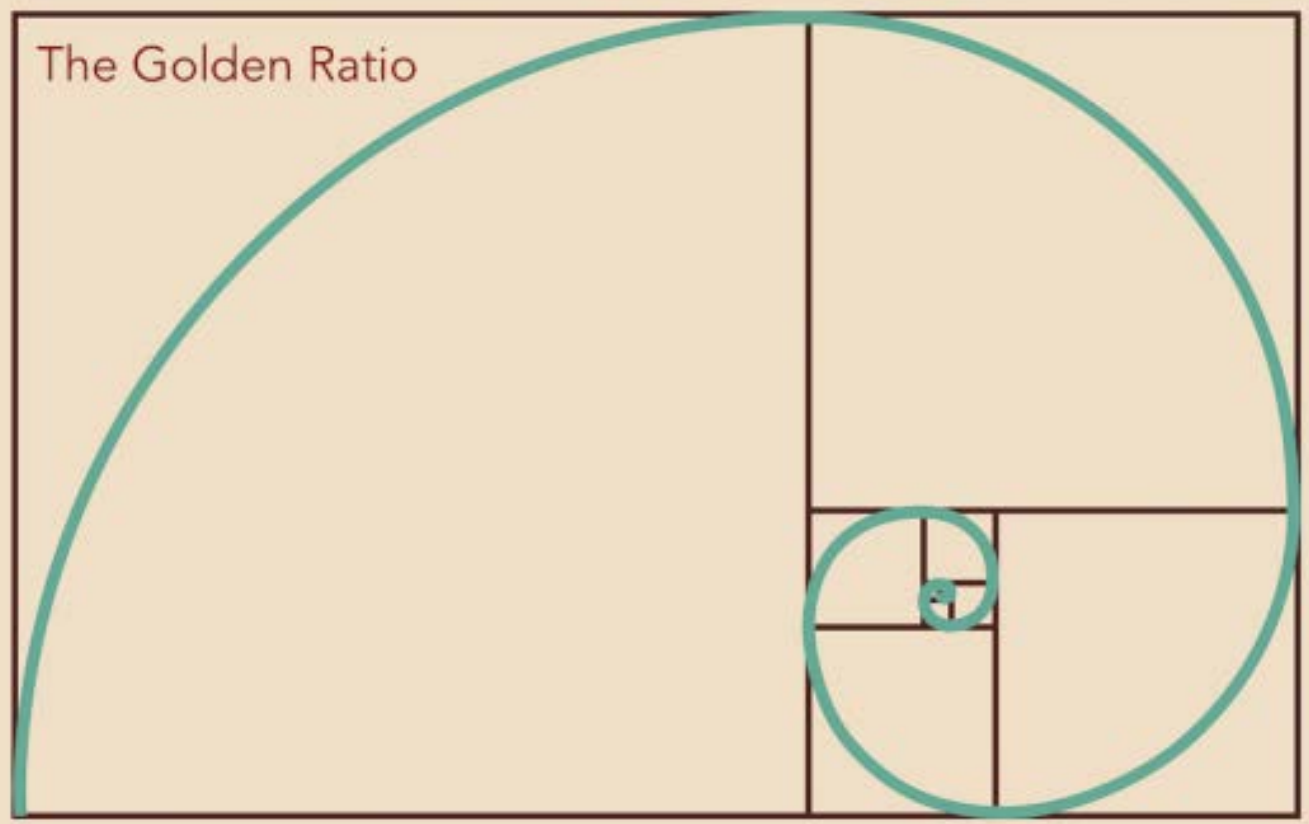
$a+b$  is to  $a$  as  $a$  is to  $b$

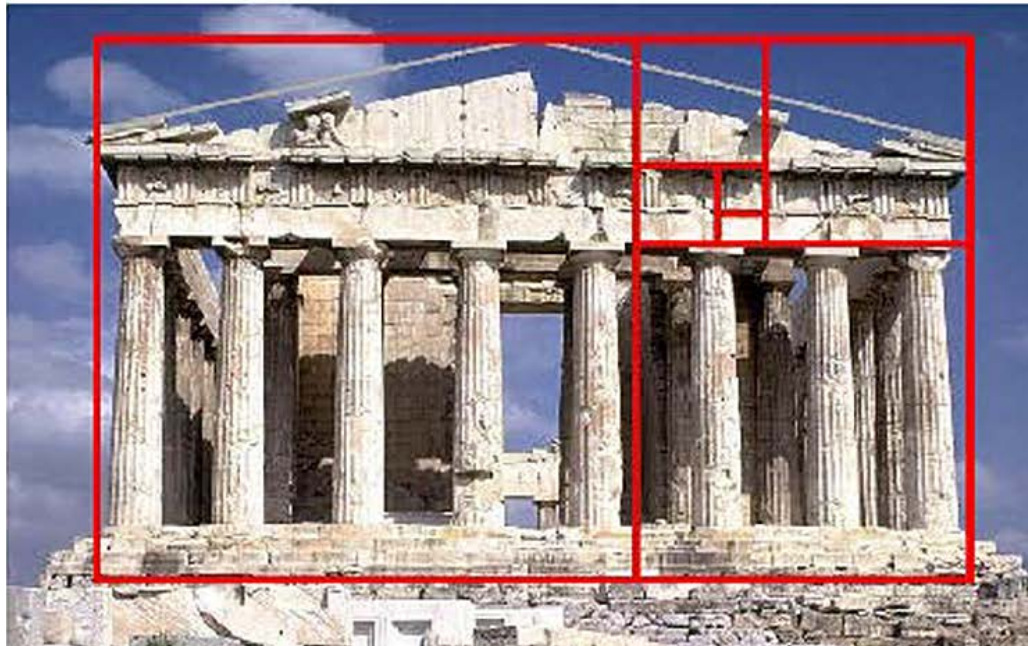
$$\frac{a+b}{a} = \frac{a}{b} = \varphi = 1.6180339887\dots$$



$$\frac{a}{b} = \frac{a+b}{a} = \mathbf{1.618\dots}$$

$$\frac{61.77}{38.22} = \mathbf{1.618}$$
$$\frac{100}{61.77} = \mathbf{1.618}$$





Parthenon, Athens, Greece



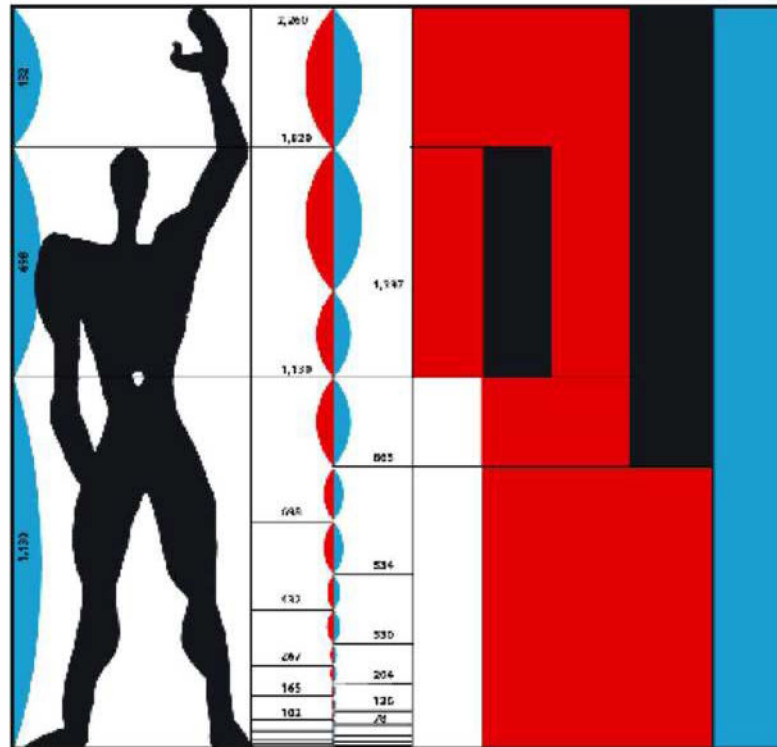
Top to bottom of lower case letters



Top to bottom of lower case g



[www.goldennumber.net](http://www.goldennumber.net)



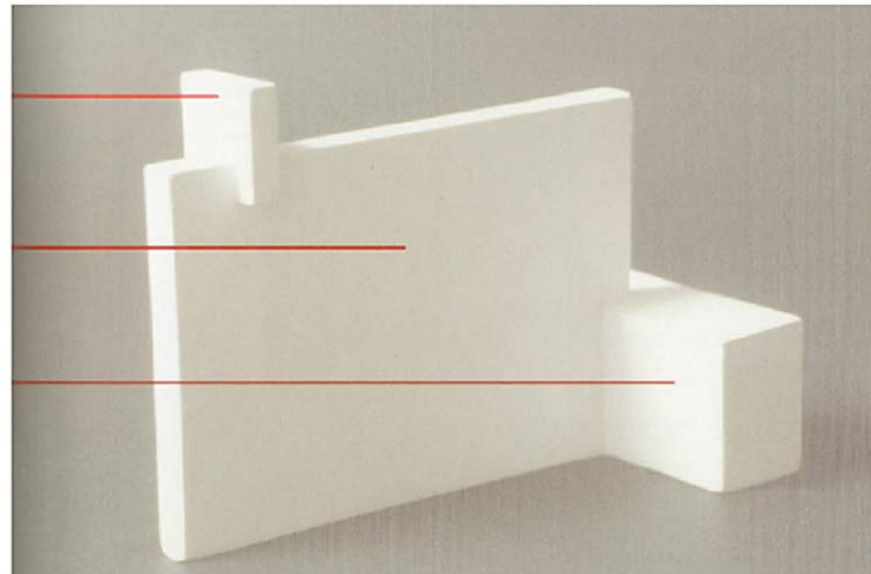
# Project 01: Clay models

## RULES / CONSTRAINTS

- \* Make 3 grouping of 3 rectangular volumes
- \* No volume should be longer than 4 inches in any direction
- \* Keep the axes of the volumes static (only perpendicular relationships)
- \* No two volumes should have the same measurements
- \* The subdominant volume should improve the character of the dominant
- \* The subordinate should make the design more 3-dimensional
- \* No view should be uninteresting in character
- \* Consider the overall, the inherent and the comparative proportions
- \* Never emphasize the cube as an overall proportion
- \* Consider all three ways of joinery: piercing, wedging and cradling

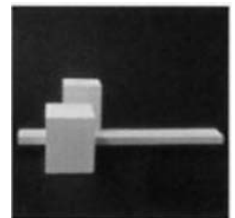
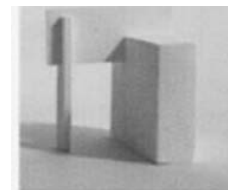
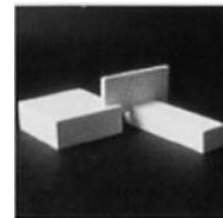
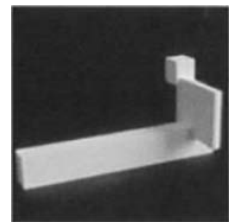
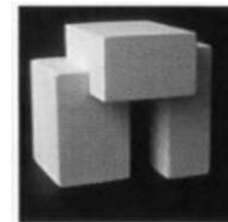
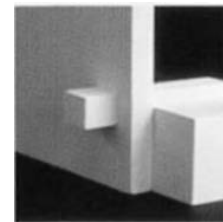
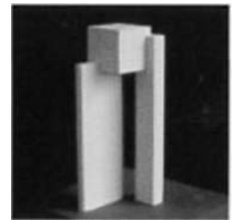
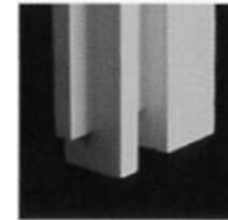
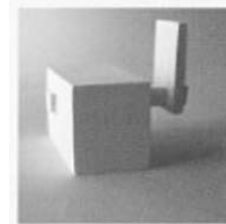


SUBORDINATE  
**DOMINANT**  
SUBDOMINANT

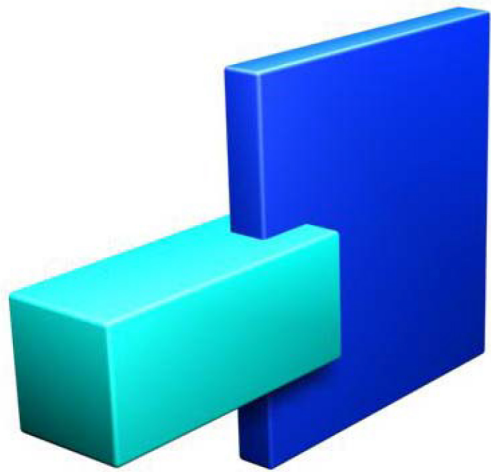


# JOINTS AND CONNECTIONS

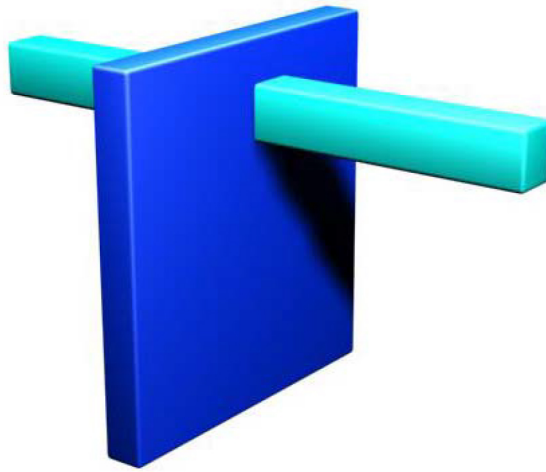
ATTACH  
DETACH  
PARALLEL  
PERPENDICULAR  
INTERSECT  
ETC.



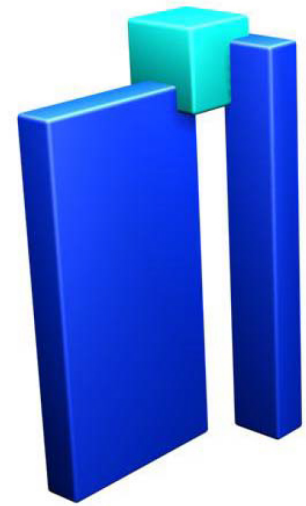




WEDGING



PIERCING



CRADLING

