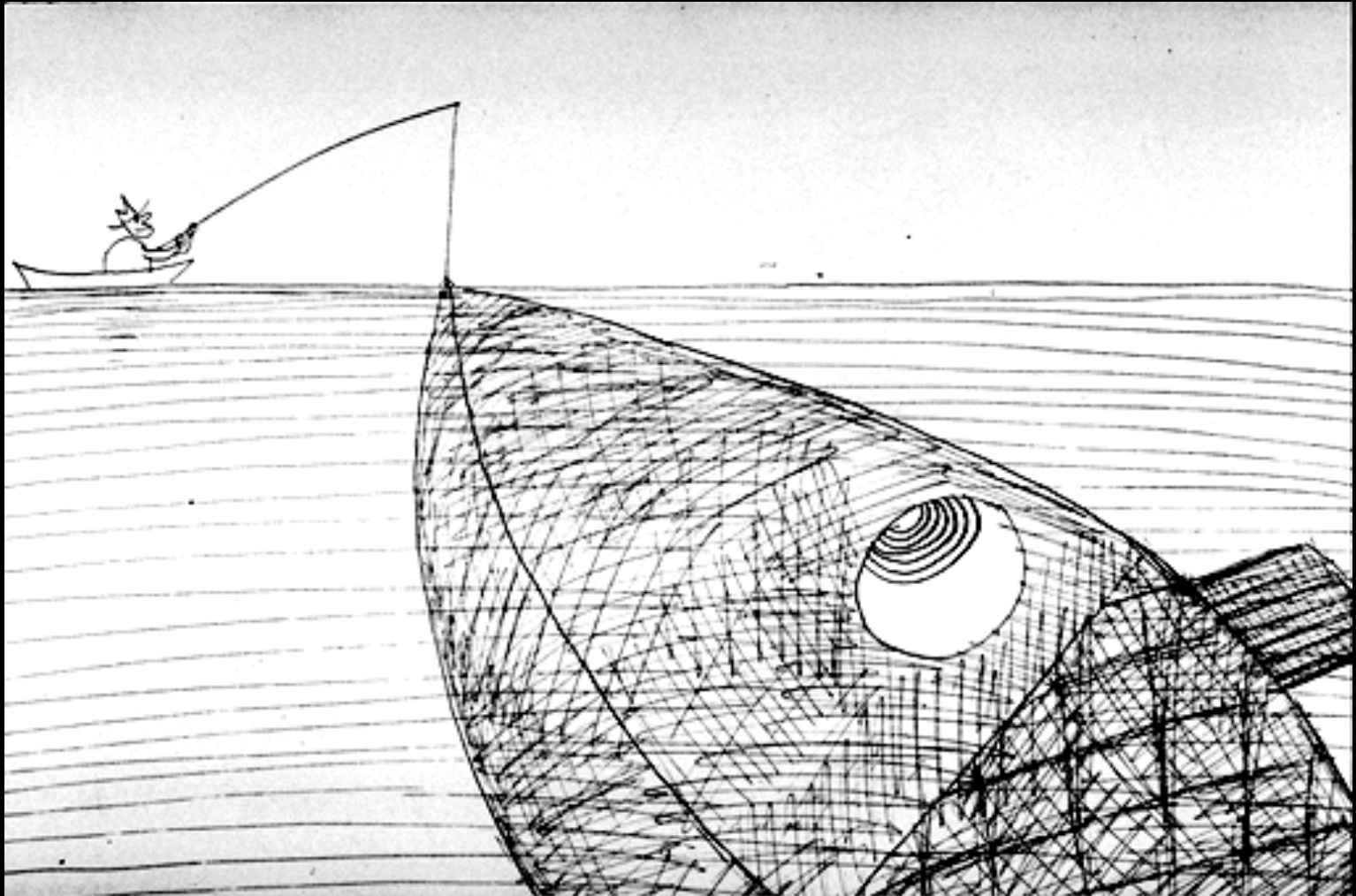# Scale and Proportion

"The Fisherman," Saul Steinberg, from The Labyrinth

Scale vs. Proportion

- What is the difference between scale and proportion?

  - Scale = size

  - proportion = relative size

- Context can help determine the relationship between scale and proportion

Human Scale reference

Loan Nguyen

We understand human scale as a reference. It's either large-scale (big) or small-scale (small) depending upon how it relates to average human-scale.

Interior, Salisbury Cathedral, photo by C. Jirousek

Scale in artwork

- Small scale= intimate= must get physically close to objects to appreciate them
- Miniatures= genre of artwork. In USA, the overall area of the image must not exceed 25 square inches 5 x 5.

Fudogs 6 x 6 inches

Nicholas Hiliard, self portrait. 1577, Diameter 1 5/8". Victoria and Albert Museum, London

Miniatures in painting

Beverly Abbott,
"White Pelicans Resting on a Sandbar", 4.2 x 10.7 centimeters, 1⅜ x 4¼ inches
Medium: Oil on Ivorine

Markissia Touliatos,"Girl from Samos, Greece", 8.2 x 6.2 centimeters, 3⅛ x 2½ inches
Medium: Oil on ivorine

John M. Angelini "Eilean Donan Castle (Scotland)", 5 x 7.5 centimeters, 2 x 3 inches
Medium: Watercolor

Chrys R., "C.F.V. 3V. Railway III", 5.9 x 5.9 centimeters, 2⅜ x 2⅜ inches
Medium: Gouache on Paper

More Claus Oldenburg and Coosje van Bruggen

Claus Oldenburg, *Floor Cone* 1962 (as installed at Green Gallery, New York, Fall 1962)
Canvas filled with foam rubber and cardboard boxes, painted with synthetic polymer paint and latex
Collection Museum of Modern Art, New York
© Claes Oldenburg and Coosje van Bruggen / Licensed by VAGA, New York

Plantoir, 2001

Claus Oldenburg (American, born Sweden, 1929) and Coosje van Bruggen (American, born The Netherlands, 1942)
Stainless steel, aluminum, fiber-reinforced plastic, painted with polyurethane enamel, edition 3/3; 23 ft. 11 in. x 4 ft. 5 in. x 4 ft. 9 in. (723.9 x 134.6 x 144.8 cm)

Claus Oldenburg and Coosje van Bruggen
Spoonbridge and Cherry, 1985-1988
aluminum, stainless steel, paint
354 x 618 x 162 in.

A few more works

Even more works

Earthworks

- **Earthworks**
  design on a grand scale

  - Nasca lines
  - Spiral jetty- Great Salt Lake
  - Lightning fields
  - Star Axis

Created by Nazca culture between 200 BCE and 700 CE

Charles Ross *Star Axis*

More *Star Axis*

Photos by Jill O'Bryan

Walter De Maria *The lightning Field*

The Lightning Field, (1977), by the American sculptor Walter De Maria, was commissioned and is maintained by the Dia Center for the Arts. Isolated in and interacting with the high desert of southwestern New Mexico, the sculpture consists of 400 stainless steel poles situated in a rectangular grid array one mile by one kilometer.

Robert Smithson

Robert Smithson's monumental earthwork *Spiral Jetty* (1970) is located on the Great Salt Lake in Utah. Using black basalt rocks and earth from the site, the artist created a coil 1,500 feet long and 15 feet wide that stretches out counter-clockwise into the translucent red water. Spiral Jetty was acquired by Dia Art Foundation as a gift from the Estate of the artist in 1999.

Photo by George Stienmetz

Playing with scale: Surrealism and Fantasy

- Reaction to the brutality of war

- Reaction against rational thought

- Grew out of Dada movement

- Essence of human life was beyond conscious thought

- Founders were: André Breton, Louis Aragon, Benjamin Péret, Paul Eluard, and Phillippe Soupault

Surrealism became a revolutionary artistic movement
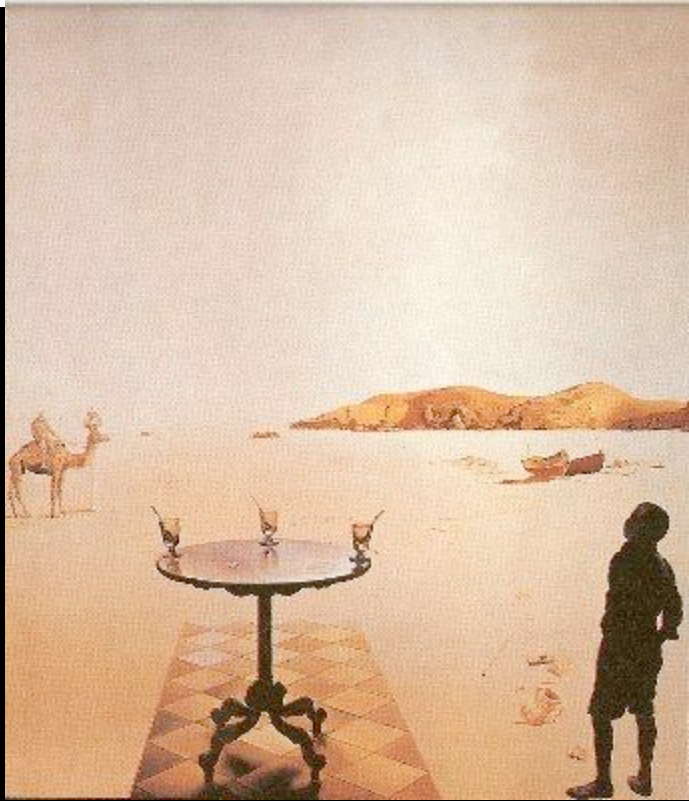
Salvador Dali, *Sun Table*
1936
Oil on panel

Rene Magritte, *La Trahison des Images*, 1928
Oil on Canvas

Yves Tanguy , *Infinite Divisibility*
1942
Oil on Canvas

Rene Magritte

Rene Magritte, The listening Room

Rene Magritte, Personal Values

These images play with juxtaposition between scale and proportion.

Familiar Objects, Familiar Scale

Throughout our daily lives, we develop expectations for the scale of familiar objects. We expect a paperclip to be small, and an elephant to be large. By playing with the scale of such objects, we can create spatial illusions and conceptual relationships. Contrasts in scale can also imply motion or depth as well as establish hierarchies.

Playing with scale

Playing with scale—Charles Ray

"Fall '91" made in 1992

Playing with scale—Charles Ray

"Family Romance" 1993

Playing with scale—Mona Hatoum

"Marble Slicer" 2002

Playing with scale—Mona Hatoum

"Paravent" 2008

Playing with scale—Katharina Fritsch

"Rat King" 1993

Playing with scale—Katharina Fritsch

Playing with scale—Katharina Fritsch

Playing with scale—Katharina Fritsch

"Baby with Poodles" 1995-96

Proportion

- Proportion is linked to ratio (mathematical)
- Mathematical formulas for determining the *Greek ideal proportions.*
- Ideal proportions of the human body- 7 heads tall-
- Ancient Greeks believed that geometry would "lead the soul toward truth and create the sprit of philosophy". Believed mathematics was the controlling force in the universe.
- The perfect rectangle = the golden rectangle (Greek notions of perfection)
- Proportions are found in relationship of parts to whole. The ratio is called the golden mean

The Golden Rectangle

- As a western culture our notions of order come directly from the Greeks.

- Mayans, Persians, Asians? Do they have the same notions of order?

- Start with a square, divide square in half, rotate the diagonal, the distance from the edge of square is the width of the golden rectangle, the height remains the same.

- Pine Cones, nautilus shells, all have these proportions
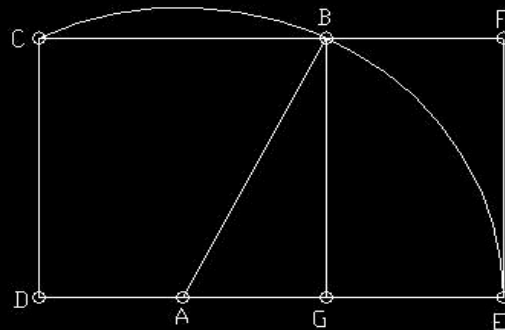
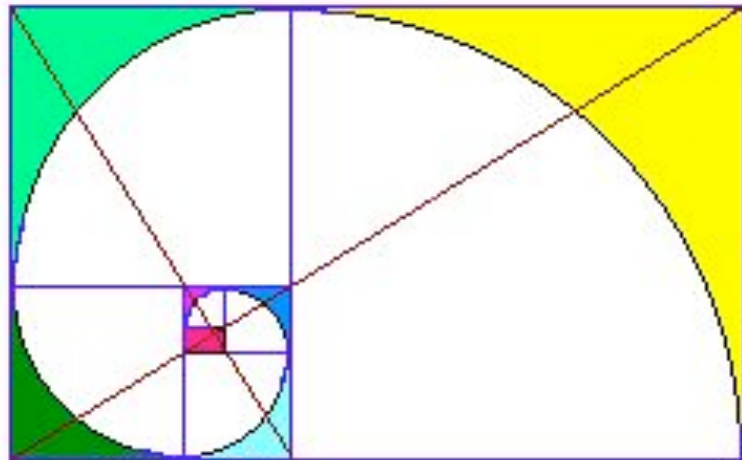DE / DC = ∅ = 1.618...

$1 : 1.618$
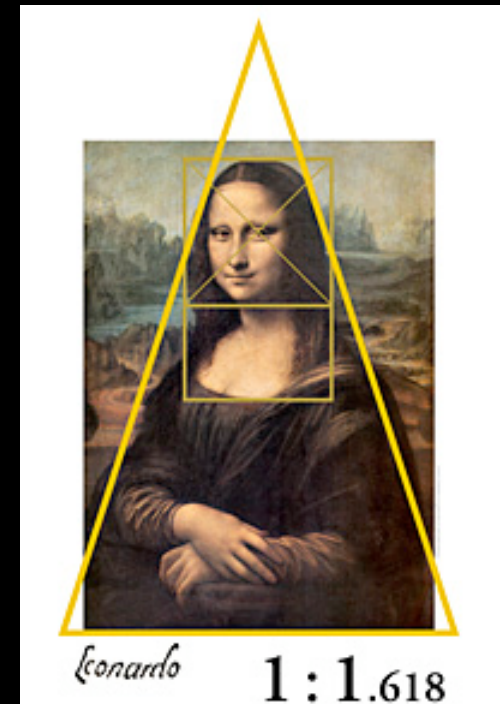
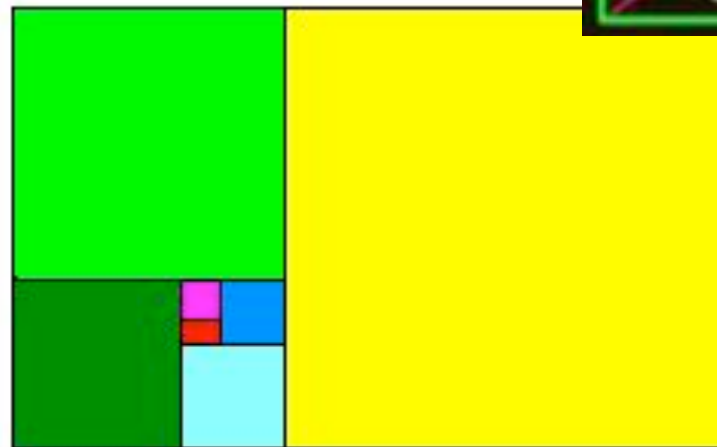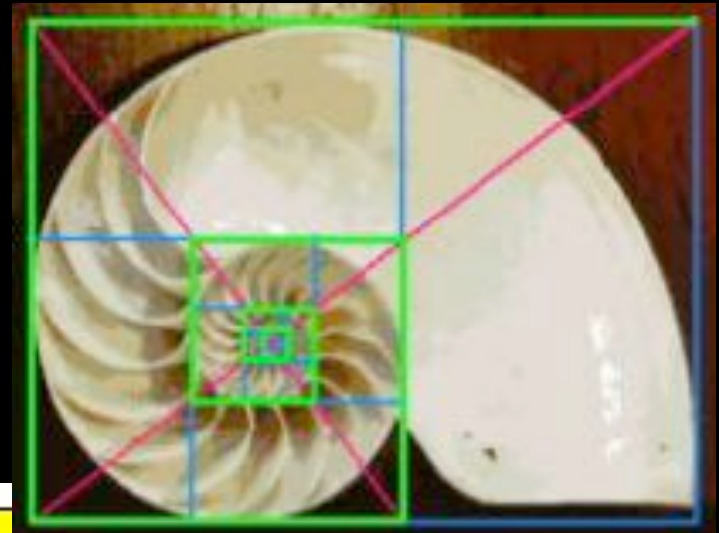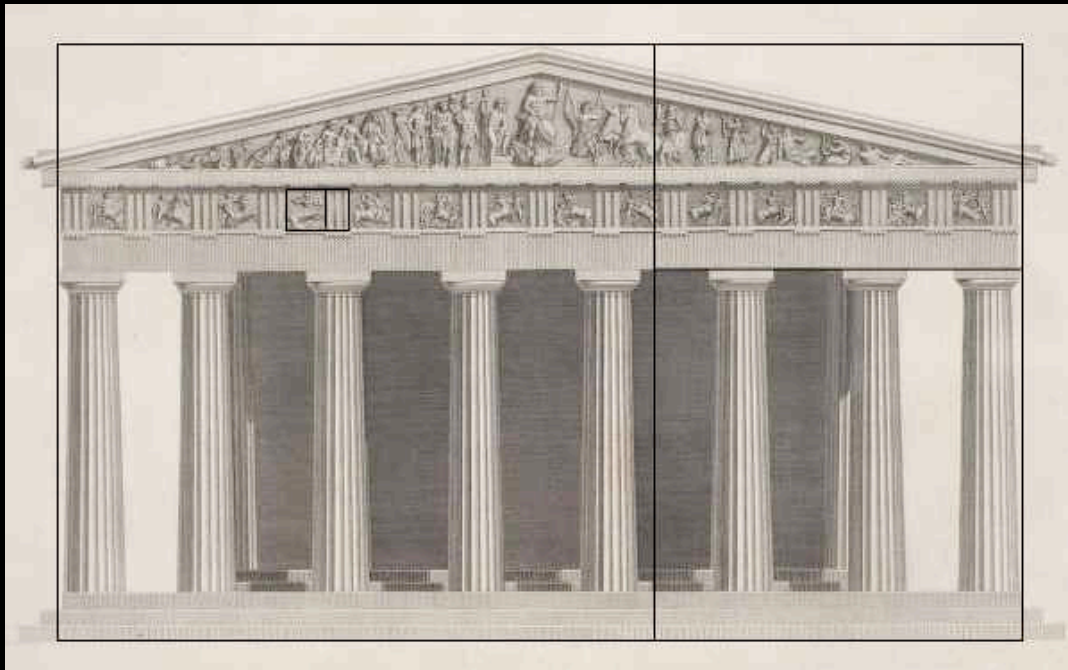# The Nautilus shell

Figure 1

Figure 2

Examples in Greek Architecture

- A drawing of the Parthenon
  Athens, Greece
  [Golden Proportions overlaid]
  from the book
  Antiquities of Athens
  By Stewart and Revett
  Published in 179

The Architects of the Parthenon used the Golden Proportion in a number of areas in its design.

For example, on the gable side of the building, the width and height of the building combine to create a golden rectangle. The total height of the building is approximately 1.618 times the height to the top of the columns, and the frieze sculptures.

Source
www.coastal-style.com/parthenon.html

Scale and Proportion Review

- Scale = size | proportion = relative size
- Human scale helps the viewer to determine the correct scale of an image
- Large scale and small scale works have different effects on the viewer
- Surrealism and Fantasy create irrational juxtapositions of scale and proportion
- Proportion is linked to mathematical ratio and is about relative size