TWO-DIMENSIONAL DESIGN
PROFESSOR: LINDA ALLEN-KODAMA

SPACE, DEPTH AND PERSPECTIVE

SPACE: The expanse within which all things are contained. Merely an illusion for images rendered on a flat format such as paper, canvas or board. A reality when working with three-dimensional formats such as sculpture or architecture.

PERSPECTIVE: From the Latin word PROSPECTUS which means "to look forward." PERSPECTIVE is the illusion of depth, no matter what method is used.

THE ILLUSION OF SPACE

1. OVERLAPPING: A simple device for creating the illusion of depth

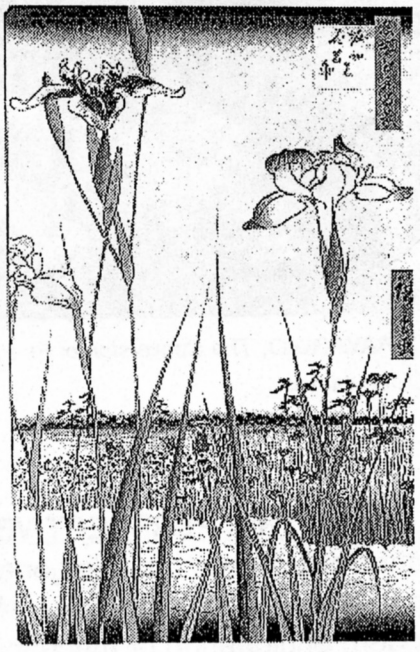
- each same size but "stacked-up"
- both overlapped and diminished in size - more realistic.

FRA ANGELICO, *Christ Glorified in the Court of Heaven,* 1435

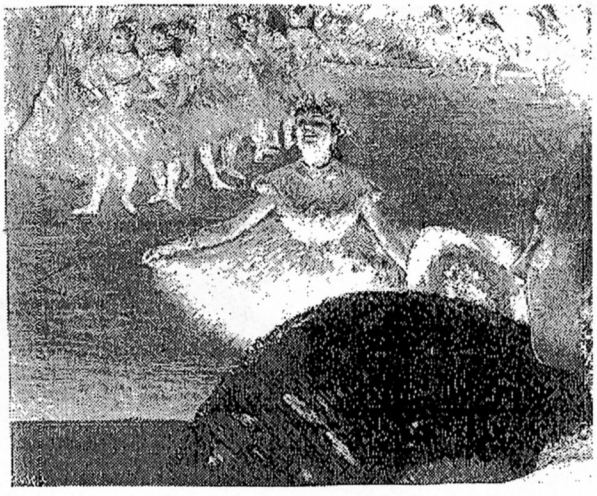
2. SIZE: The easiest way to create the illusion of space or distance is through diminishing size. Very early in life we recognize that as an object gets further away it becomes smaller.

3. VERTICAL LOCATION: A spatial device in which elevation on the page (format) gives rudimentary recession into the illusion of space or depth; the higher the position the further back in space. This device is used in historical Asian and Middle Eastern art. It appears more flat and sometimes decorative - usually lacking great spatial depth.

- Combined with size difference, vertical location give deeper spatial depth.



UTAGAWA (ANDO) HIROSHIGE, *Horikiri Iris Garden* from *One Hundred Famous of Edo,* 1857 Woodblock print

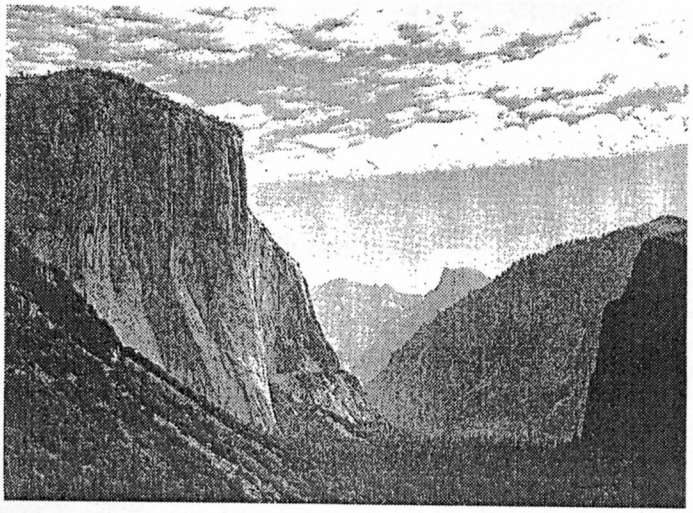


- Vertical location is based on a visual fact. As we stand and look before us the closest place is the ground at our feet. As we lift out eyes upward objects gradually move further away until we reach the HORIZON LINE or EYE LEVEL.

EDGAR DEGAS, *Dancer with a Bouquet of Flowers, Ca.* 1878-80 Oil on canvas.

4. <u>VALUE</u>: Used as the achromatic gray scale or as an attribute of color.

• **ATMOSPHERIC** or **AERIAL PERSPECTIVE:** Uses value or color to show depth. Value contrast lessens as things recede and contours are less distinct. Colors become more neutral or bluish in the distance as well as lighter in value.



ANSEL ADAMS, *Yosemite Valley from Inspiration Point, 20th century*
Photograph

CARAVAGGIO, *The Conversion of St. Paul, 1601, Oil on canvas*

• **CHIAROSCURO:** Italian word for light/dark. The modeling of form by almost imperceptible gradations of value from light to dark as well as dynamic shifts from light to dark between objects that are farther apart. Highlights are closest to the light source, while objects moving farther away from the light source beome increasingly darker in value.

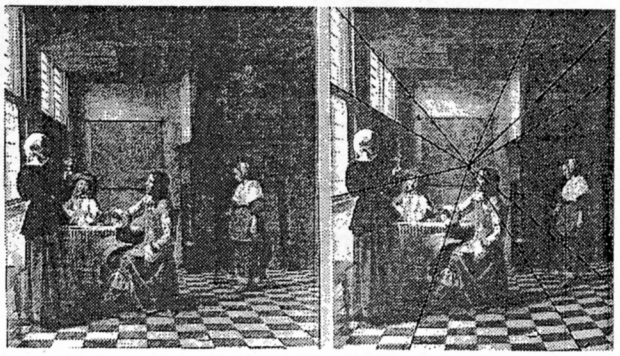
5. <u>ISOMETRIC PERSPECTIVE</u>: Similar to linear perspective but while planes still recede on a diagonal, the lines remain parallel - not vanishing to a point on the horizon. Mainly used in Asian (Japanese) art or in modern engineering or mechanical drawings.

SUZUKI HARUNOBU, *Justice, Righteousness, The Five Cardinal Virtues,* ca. 1750's Woodcut

6. <u>LINEAR PERSPECTIVE</u>: Based on a fixed point of view, usually only one eye is used for sighting yet is three-dimensionally based on binocular vision.
YOU CAN <u>NOT</u> SHIFT YOUR HEAD WHILE SIGHTING because all shapes change.

- This is a complex spatial system based on a relatively simple visual phenomenon:
  As parallel lines recede they appear to converge and meet on an imaginary line called the HORIZON LINE (eye level), where the earth meets the sky. An example would be high ways or railroad tracks.
  - In the Renaissance (1500's) the formulation was developed that parallel lines on parallel planes all converge at the same place (VANISHING POINT) on the horizon. (See marquetry-wood inlay).

  - This has been the major device of perspective in Western art for several hundred years (until Modernism).
  - It approximates real vision.
  - By its very nature it acts as a unifying factor. All lines coverging to one point organizes many trapezoidal shapes into a coherent pattern.

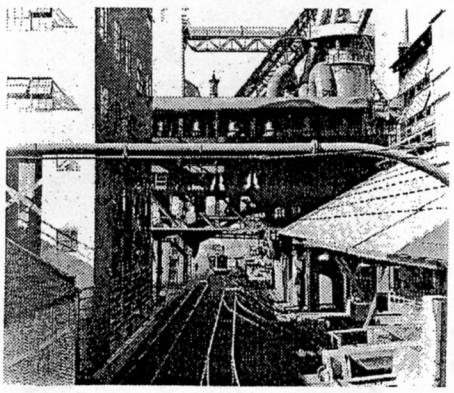


PIETER deHOOCH, *An Interior Scene,* ca. 1750's

<u>TYPES OF LINEAR PERSPECTIVE</u>

1. **ONE-POINT -** PARALLEL - One side of the object (bldg., box, etc.) is parallel to the picture plane and the other side diminishes in size as it recedes toward the vanishing point on the horizon line. All sides recede to one common vanishing point. Everything parallel to the horizon and the central vertical axis remain parallel.

PIETRO PERUGINO, *The Delivery of the Keys to St. Peter,* 1482, Fresco, Sistine Chapel

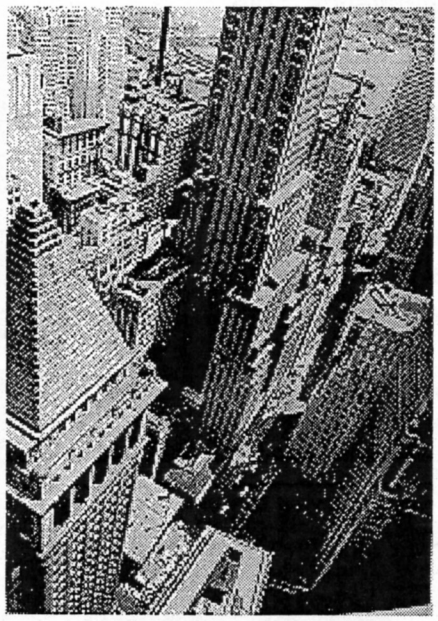


CHARLES SHEELER, *City Interior, 1936*

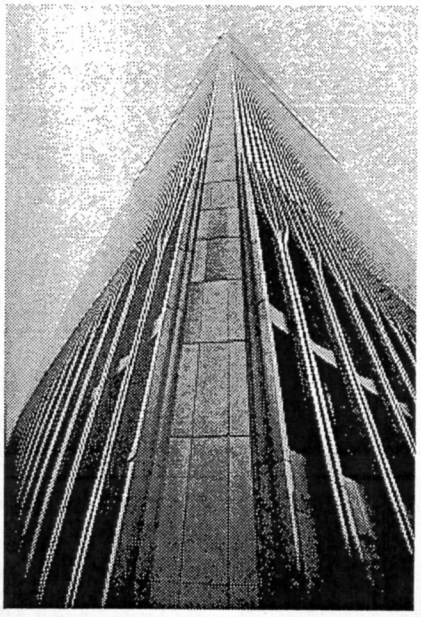
2. **TWO-POINT** - ANGULAR - When looking at the corner of a room (bldg., box, etc.) where no side is parallel to the picture plane, the "horizontal" lines, if extended, would meet at two different, widely spaced vanishing points (one or more possibly outside the picture plane). Vertical lines remain parallel to the central axis.

3. **THREE-POINT** - OBLIQUE - Also called BIRD'S-EYE-VIEW or WORM'S-EYE-VIEW.

Used when the point-of-view becomes so extreme that the parallel verticals no longer remain parallel and instead recede to a third vanishing point not connected to the horizon line.



BIRD'S-EYE-VIEW

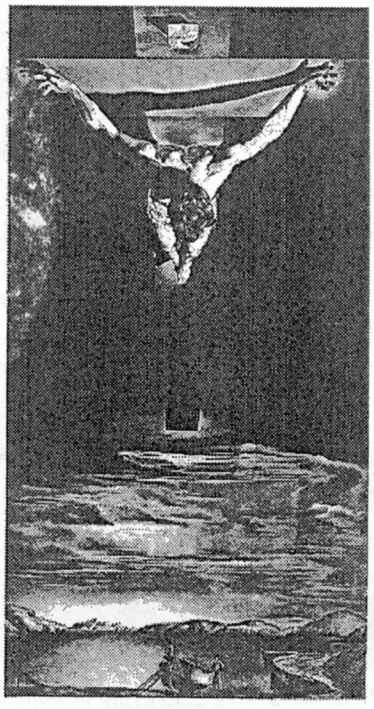


WORM'S-EYE-VIEW
View prior to 2001 from the bottom of what was the World Trade Center, NY

7. **AMPLIFIED PERSPECTIVE** - FORESHORTENING

This is a very special point-of-view where an object is pointed right at you, the forms overlapping and appearing compressed. An example would be Montgomery Flagg's poster of Uncle Sam, "I Want You."

JAMES MONTGOMERY FLAGG, *I Want YOU, W.W. II recruiting poster*

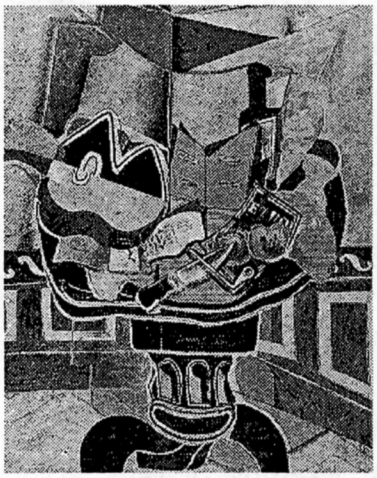


SALVADOR DALI, *Christ of St John of the Cross,* 1951, oil on canvas

8. <u>EMPIRICAL PERSPECTIVE</u>: This relies on the artist's observation rather than the set of rules of linear perspective. The well-trained eye for size and shape relationships, angles and sighting against vertical and horizontal edges can create relatively accurate, convincing perspective without engaging in the "construction of space" with the "rules."

9. <u>MULTIPLE PERSPECTIVE</u>: Used when several different views of a single object are combined in one image. Examples: Ancient Egyptian Art, Ancient Near Eastern Art, Indian Art and the period known as Cubism.

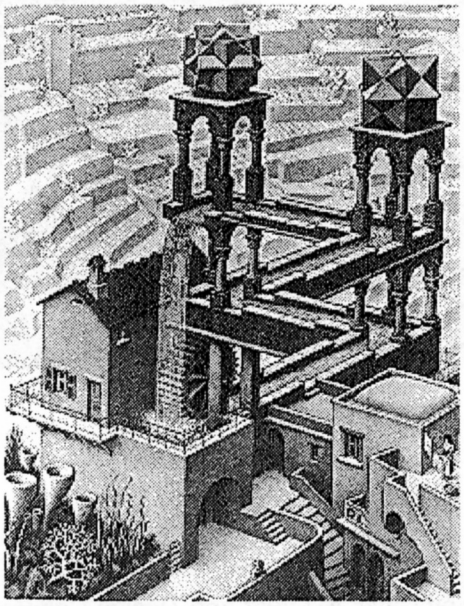
GEORGE TOOKER, *The Subway,* 1950, tempera on board



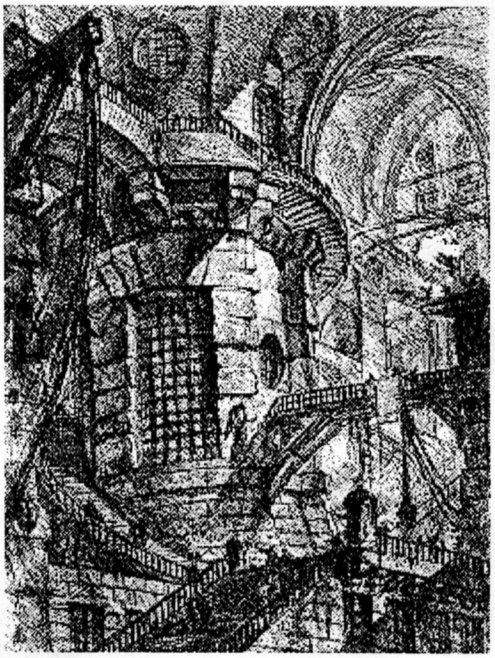
Twentieth century artists have continued to use this concept and in many cases have disregarded the tradition of linear perspective to emphasize content over naturalism using many of the ancient forms of perspective.

GEORGE BRAQUE, *The Round Table,* 1929, oil on canvas

10. <u>SPATIAL PUZZLES</u>: The distortion of the rules and images - optical illusions. Examples are M.C, Escher or Magrette's surrealism.



M.C. ESCHER, *Waterfall,* 1961
Lithograph

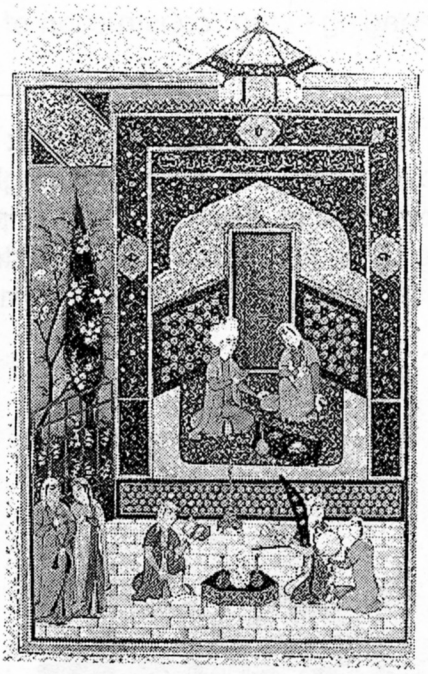


GIOVANNI BATTISTA PIRANESI,
The Prisons, ca. 1750, Etching

11. <u>HIERATIC SCALING:</u> Size equals importance or rank, not by spatial location or distance. Used in Egyptian, some Middle Eastern and Gothic art.

EGYPTIAN BAS RELIEF, *King Akhanaten with His Family, 18th Dynasty, Ca. 1355 B.C.*

MEISTER FRANKE, *The Pursuit of St. Barbara, ca. 1410-15, tempera and gesso on plaster*

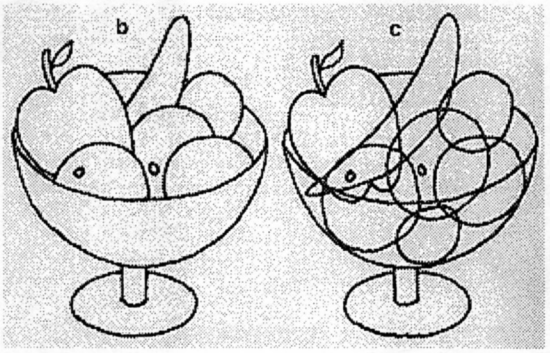


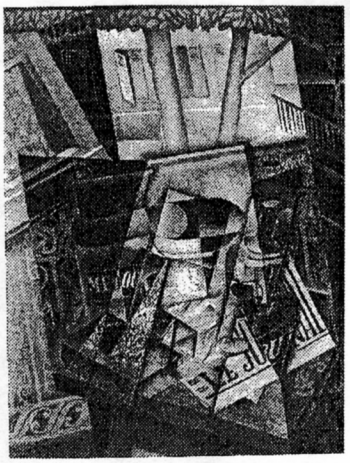
PERSIAN MINIATURE, Bahram Gur in the Turquoise on Wednesday, 16th century,

12. <u>TRANSPARENCY</u>: When two things overlap, but both are seen. This transparency does not give a clear spatial pattern of depth and is called EQUIVOCAL SPACE. An example of transparency is used in the period of Cubism, and other twentieth century art.

NORMAN IVES,*I: Centaur, 1973,* Serigraph

JUAN GRIS, *Still Life Before an Open Window: Place Ravignan,* 1915





Some concepts and visual examples taken from *Design Basics* by David A. Lauer and *Design Concepts and Applications* by Cheatham