

PERSPECTIVE

University of the Pacific

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PERSPECTIVE

Perspective is an art technique for creating an illusion of three-dimensions (depth and space) on a two-dimensional (flat) surface. Perspective is what makes a drawing seem to have form, distance, and look "real." The same rules of perspective apply to all subjects, whether it's a landscape, seascape, still life, interior scene, portrait, or figure drawing.

PERSPECTIVE

There are three approaches to Perspective when drawing, each with their own rules:

1. Linear Perspective (also called vanishing point perspective)
2. Aerial Perspective
3. Isometric Perspective

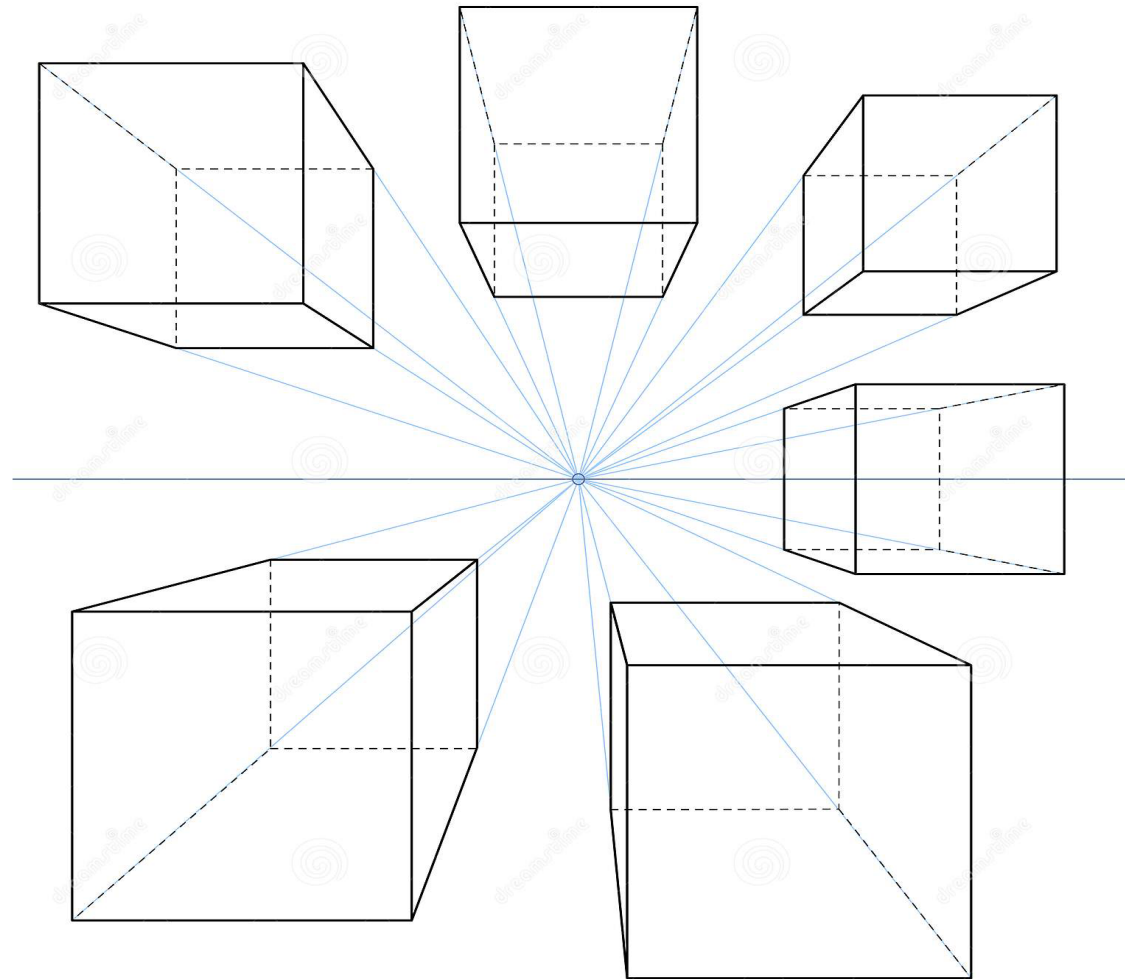
LINEAR PERSPECTIVE

Linear perspective, a system of creating an illusion of depth on a flat surface. All parallel lines (orthogonals) in a painting or drawing using this system converge in a single vanishing point on the composition's horizon line.

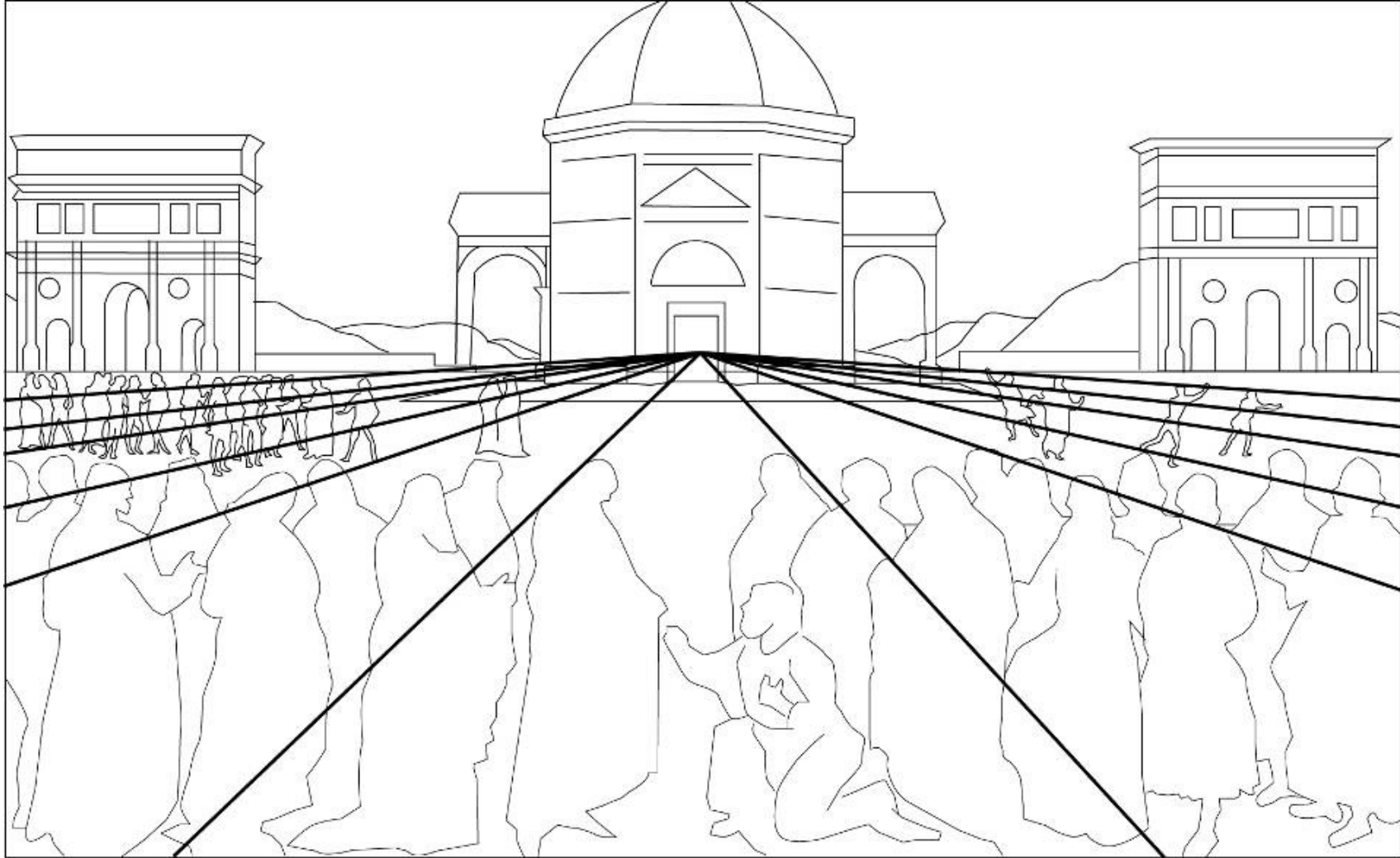
LINEAR ONE-POINT PERSPECTIVE

A drawing has **one-point perspective** when it contains only one vanishing point on the horizon line. This type of perspective is typically used for images of roads, railway tracks, hallways, or buildings viewed so that the front is directly facing the viewer. Any objects that are made up of lines either directly parallel with the viewer's line of sight or directly perpendicular (the railroad slats) can be represented with one-point perspective. These parallel lines converge at the vanishing point.

ONE-POINT PERSPECTIVE



LINEAR ONE-POINT PERSPECTIVE

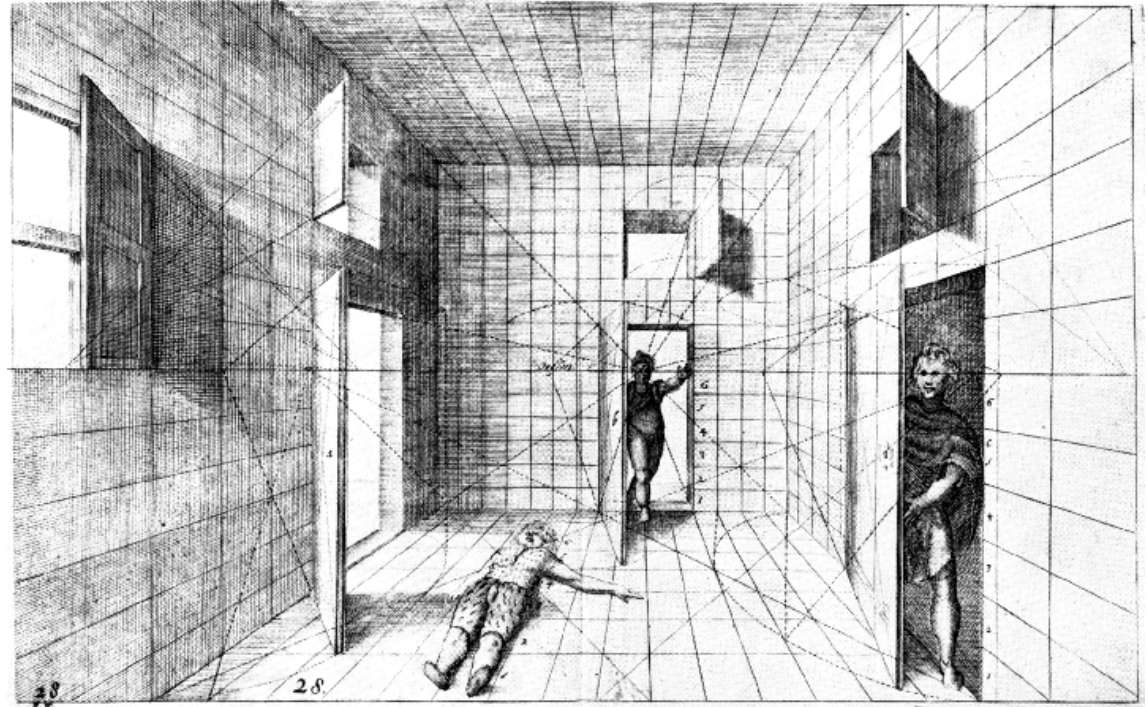




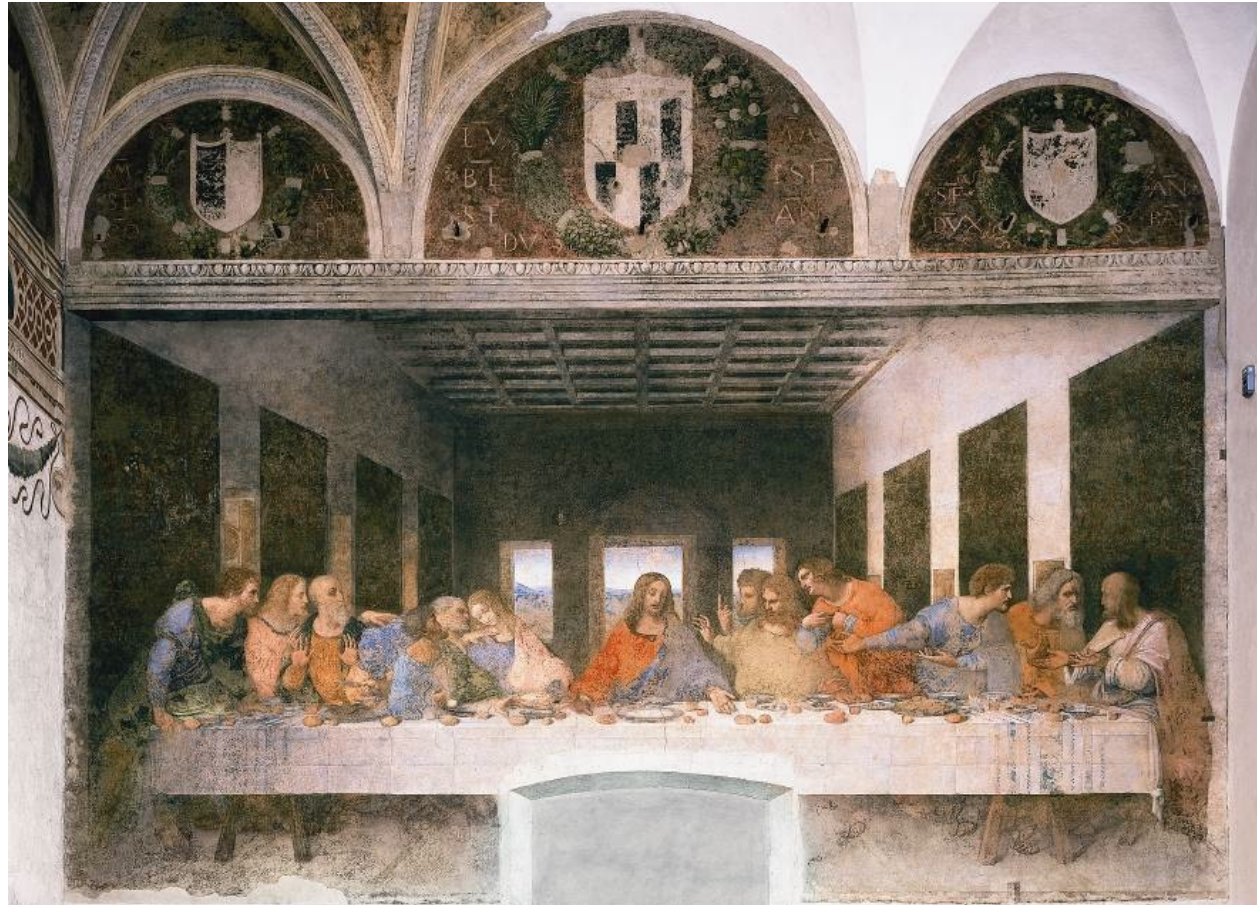
ITALIAN RENAISSANCE

- A rebirth in science and art takes place in Fifteenth Century Florence
- Brunelleschi is credited with linear mathematical perspective
- Natural perspective is achieved in 2-D art for the first time

- **Linear Perspective**
 - 1435 “discovery” by Filippo Brunelleschi
 - 1st treatise on painting by Alberti
- **Oil Painting**
 - Flanders artists used in early 1400s; advanced painting
- **Artistic Geniuses**
 - Jan Van Eyck, Albrecht Dürer, Leonardo Da Vinci, Michelangelo



JAN VREDEMAN DE VRIES, *Perspective* (Leiden, 1604–5), plate 28. Courtesy, the Bancroft Library, Berkeley, California.



Title: *The Last Supper, wall painting in the refectory, Monastery of Santa Maria delle Grazie, Milan Italy*

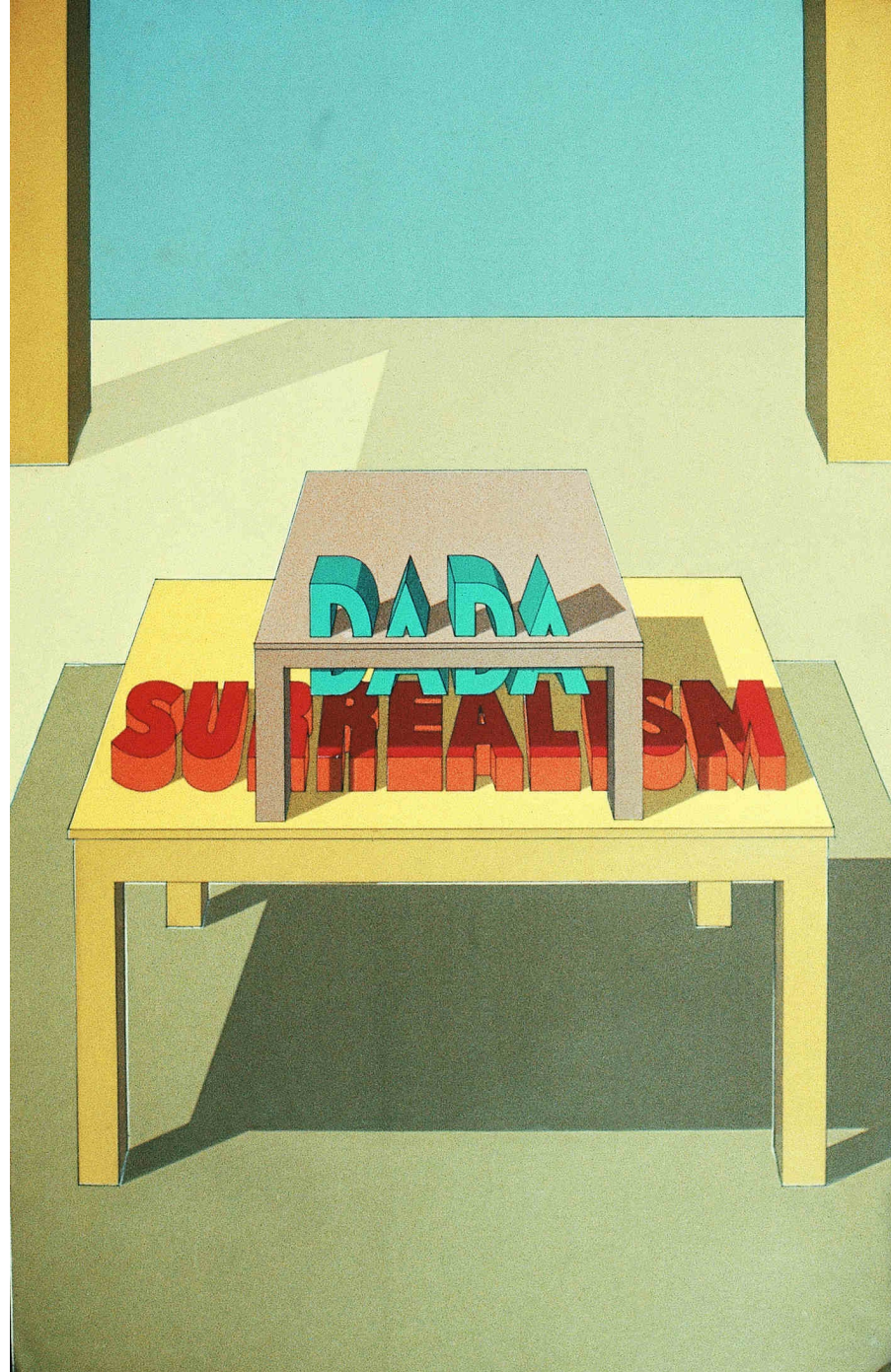
Artist: Leonardo da Vinci

Date: 1495-1498

Source/ Museum: n/a

Medium: Tempera and oil on plaster

Size: 15'2" X 28'10" (4.6 X 8.8 m)





Title: *View of an Ideal City*

Artist: Anonymous

Date: c.1500

Source/ Museum: Walters Art Museum, Baltimore

Medium: Oil on panel

Size: 30 1/2" X 7 1/8" (77.4 cm X 2.17 m)





Title: *Tribute Money*, Brancacci Chapel, Church of Santa Maria del Carmine, Florence

Artist: Masaccio

Date: c. 1427

Source/ Museum: n/a

Medium: Fresco

Size: 8'1" X 19'7" (2.46 X 6m)



Title: *Annunciation*, Monastery of San Marco, Florence, north corridor

Artist: Fra Angelico

Date: c. 1438-1445

Source/ Museum: n/a

Medium: Fresco

Size: 7'1" X 10'6" (2.2 X 3.2 m)



Title: School of Athens, Stanza della Segnatura, Vatican, Rome

Artist: Raphael

Date: 1510-1511

Source/ Museum: n/a

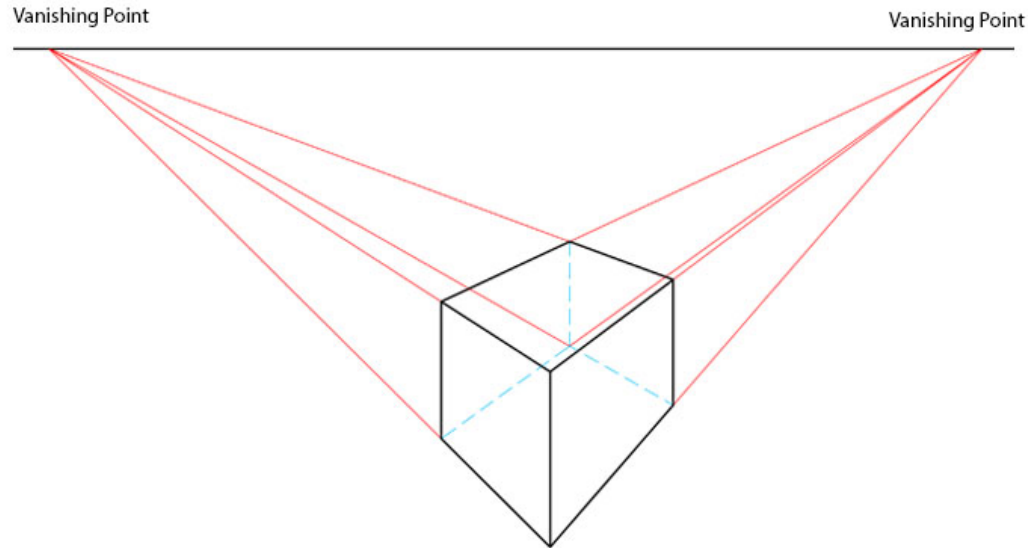
Medium: Fresco

Size: 19' X 27' (5.79 X 8.24 m)

LINEAR TWO-POINT PERSPECTIVE

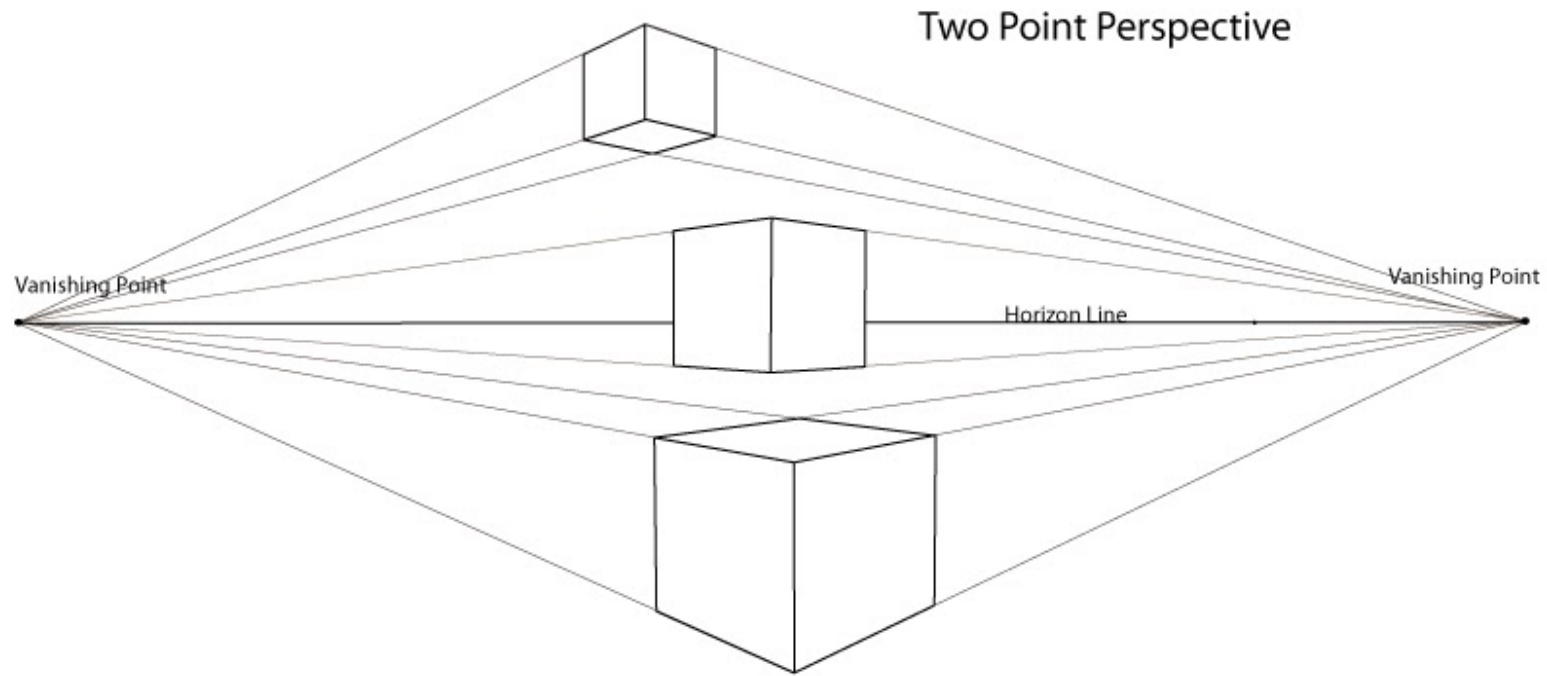
A drawing has two-point perspective when it contains two vanishing points on the horizon line. In an illustration, these vanishing points can be placed arbitrarily along the horizon. Two-point perspective can be used to draw the same objects as one-point perspective, rotated: looking at the corner of a house, or at two forked roads shrinking into the distance, for example. One point represents one set of parallel lines, the other point represents the other. Seen from the corner, one wall of a house would recede towards one vanishing point while the other wall recedes towards the opposite vanishing point.

TWO-POINT PERSPECTIVE

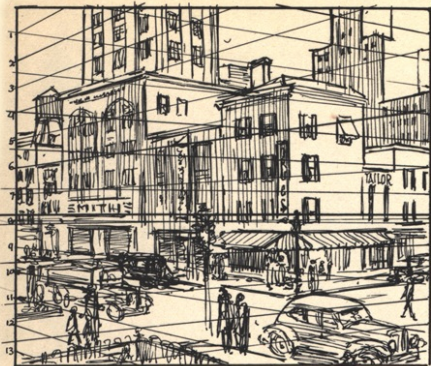


Two-point perspective = two vanishing points on the horizon line. Note how vertical the vertical lines of the box are. The verticals are 90 degree angles from the horizon line since the box is viewed at a distance.

TWO-POINT PERSPECTIVE



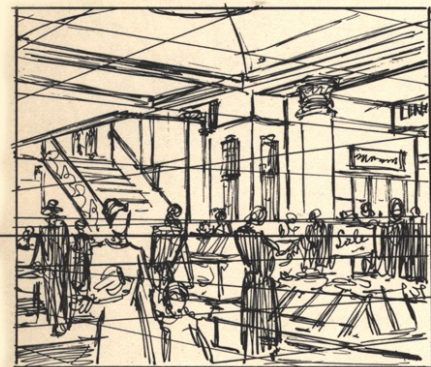
PERSPECTIVE GUIDE LINES HELP YOU TO COMPOSITION



TWO VANISHING POINTS PERSPECTIVE
A FAST WAY TO COMPOSITION. MARK OFF EVEN SPACES DOWN EACH SIDE. RUN LINES OUT TO VANISHING POINTS. THRU PICTURE. YOU CAN NOW USE YOUR EYE, FILLING SPACE AS DESIRED.



ONE VANISHING POINT PERSPECTIVE
TAKE A POINT ON THE HORIZON, DRAW RADIATING LINES IN ALL DIRECTIONS FROM IT. YOU CAN NOW BUILD ON THOSE LINES BY CHOICE. OF COURSE YOU NEED TO KNOW PERSPECTIVE TO DO IT.

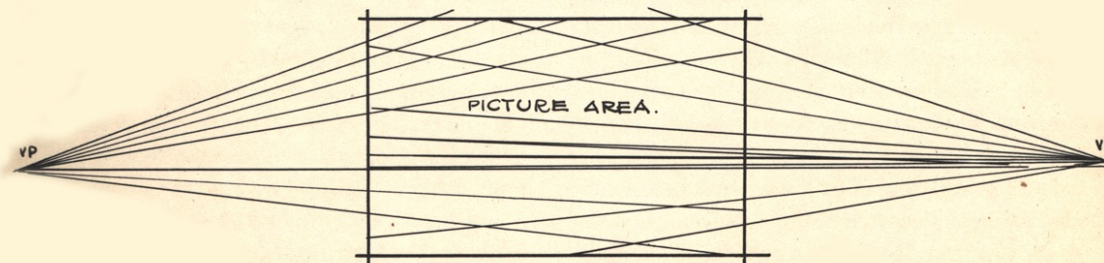


THE SAME APPLIES TO INTERIORS.

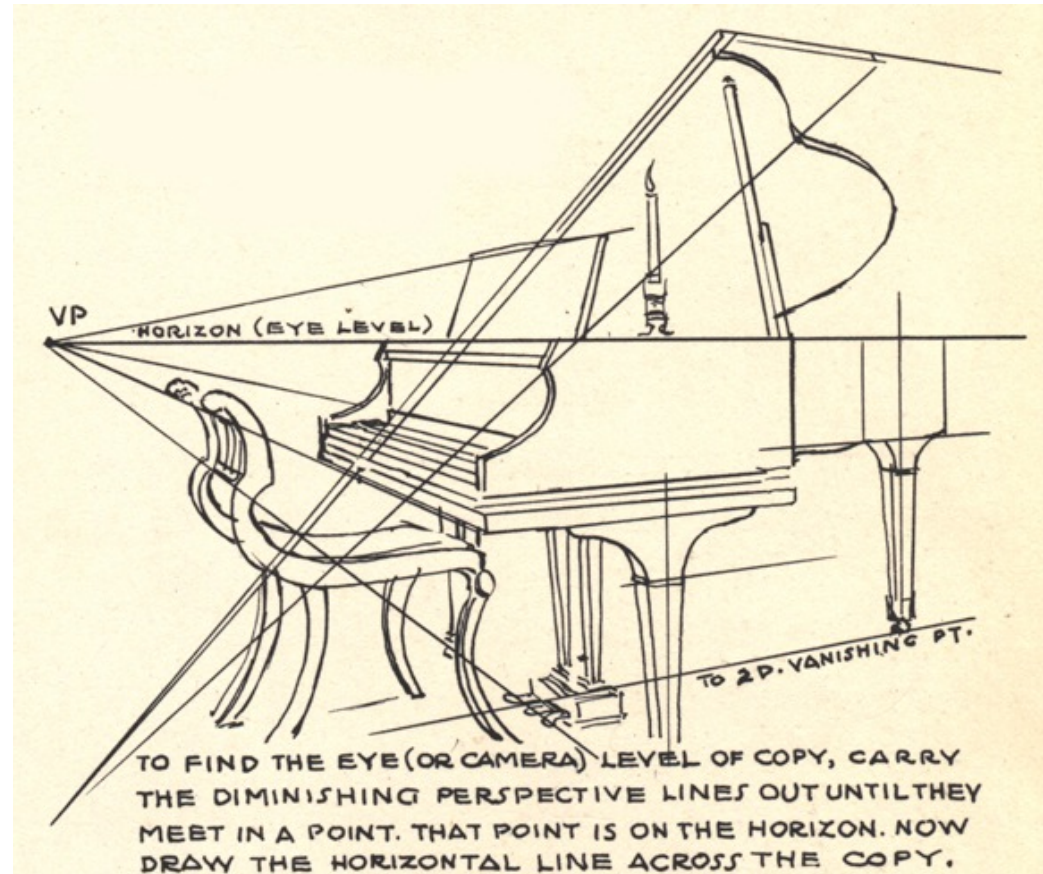


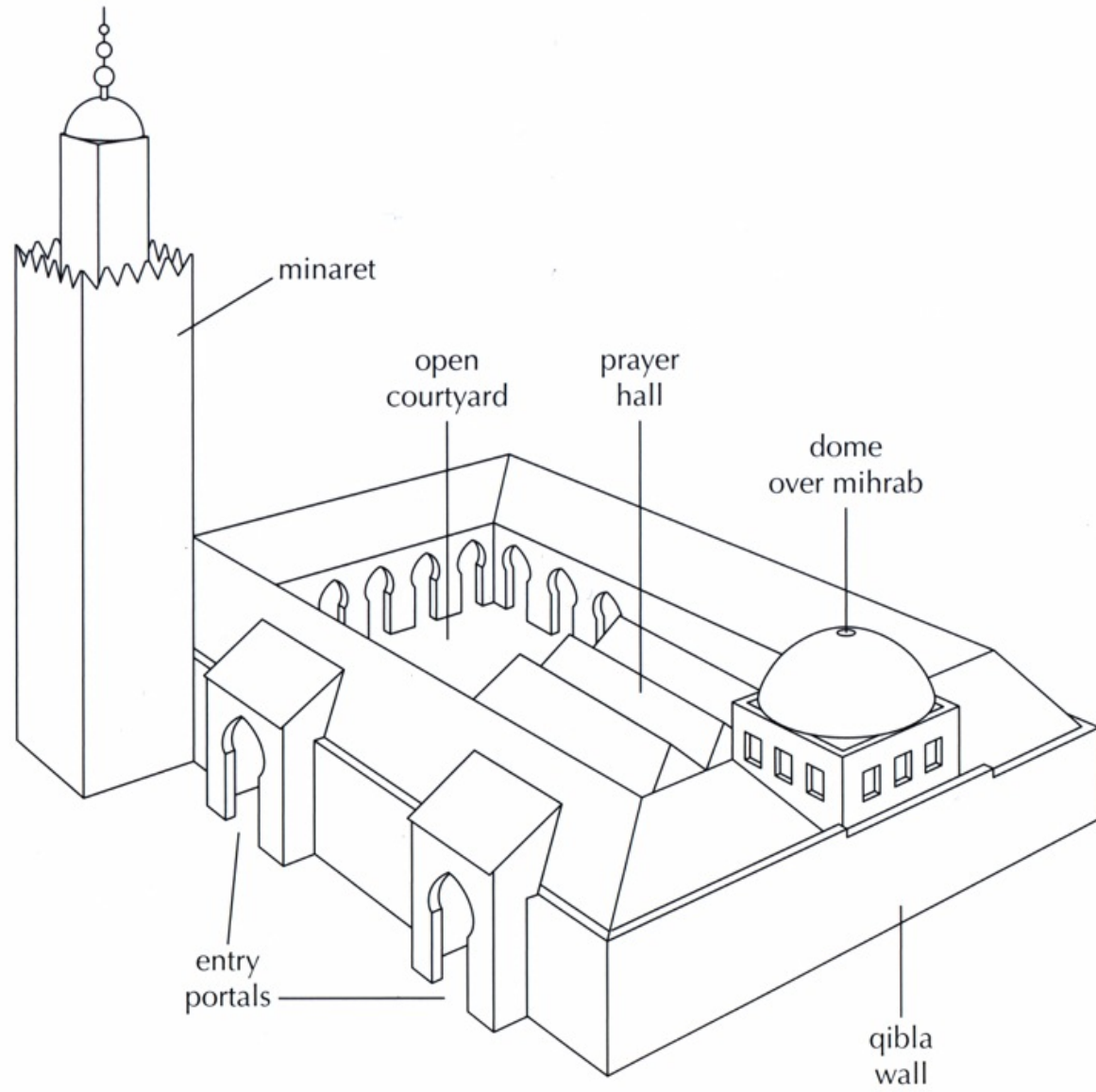
ALSO ONE POINT FOR INTERIORS.

THE PERSPECTIVE LINES ARE MERELY GUIDE LINES TO HELP THE EYE.

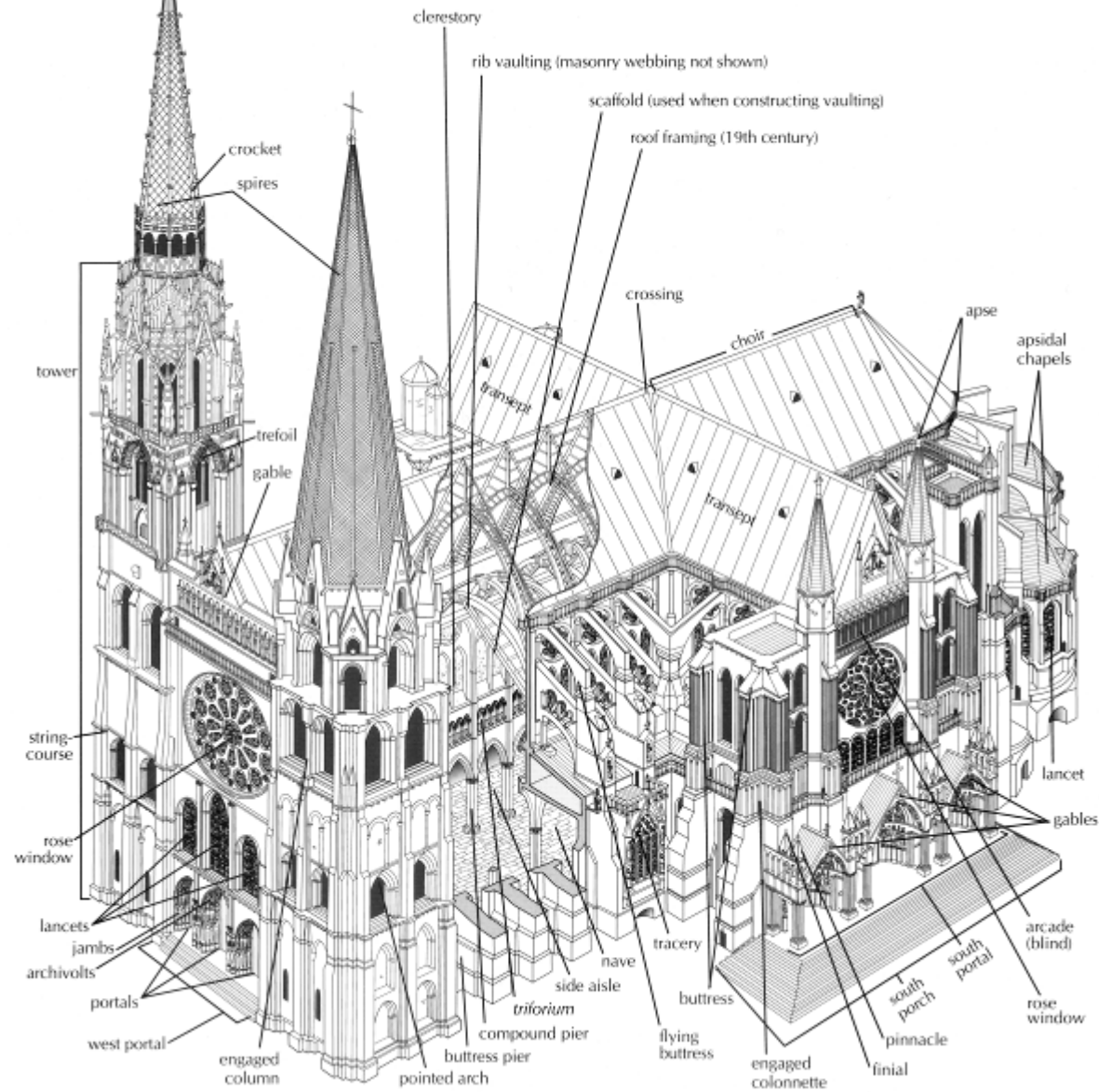


Without knowledge of perspective, drawing something as complicated as a grand piano and chair would be very difficult.





Chartres Cathedral



Title: Elements of Architecture: The Gothic Church

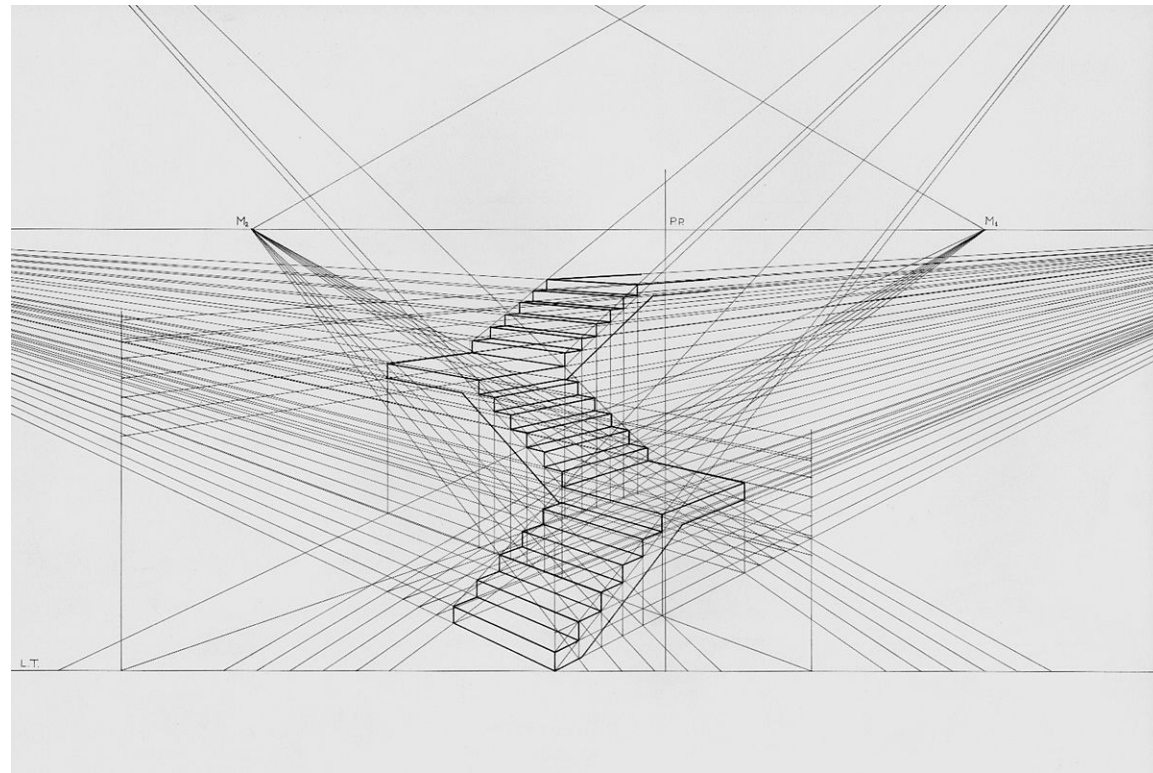
Artist: n/a

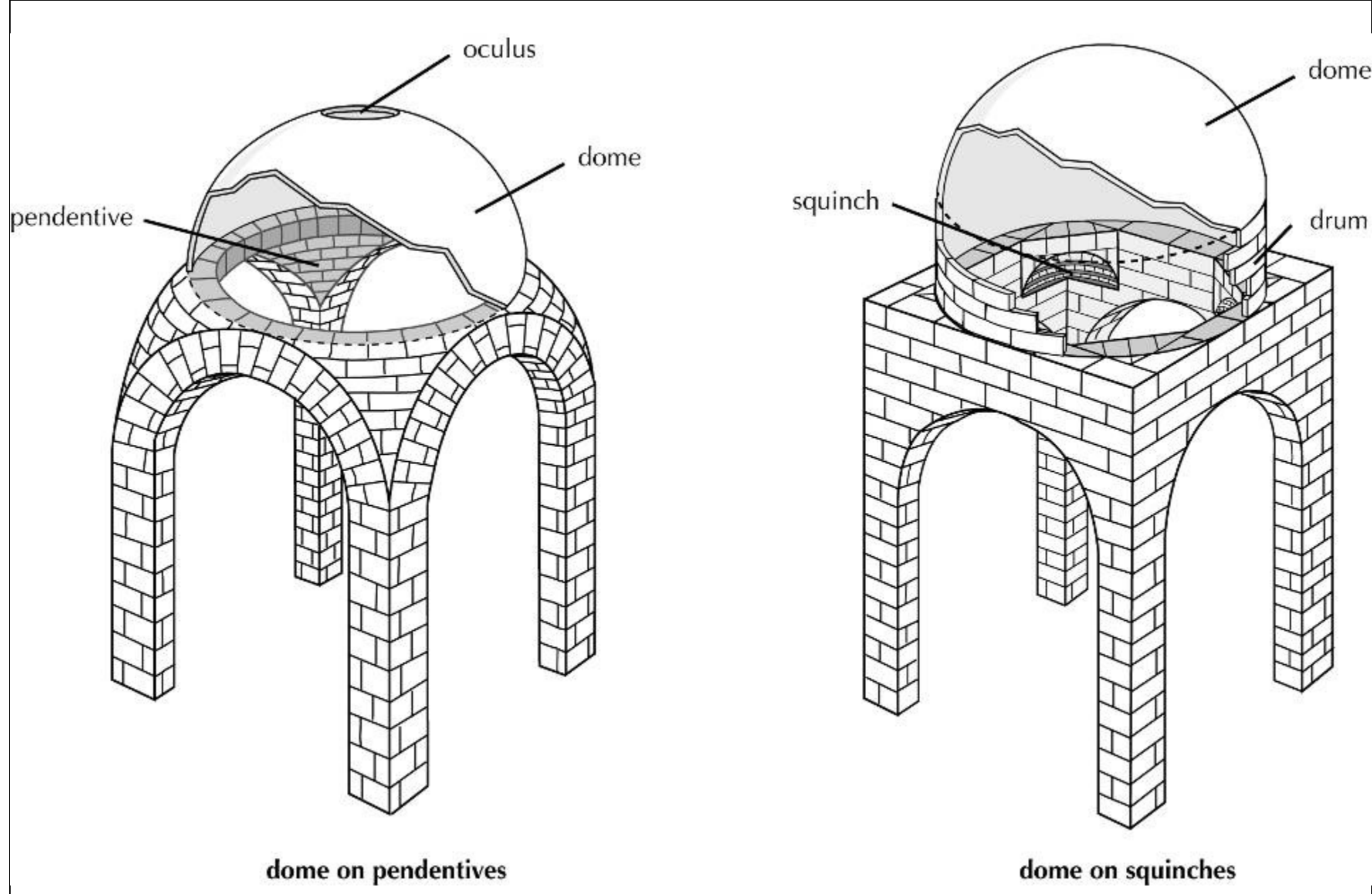
Date: n/a

Museum/ Source: n/a

Medium: n/a

Size: n/a





dome on pendentives

dome on squinches

Title: Elements of Architecture: Pendentives and Squinches

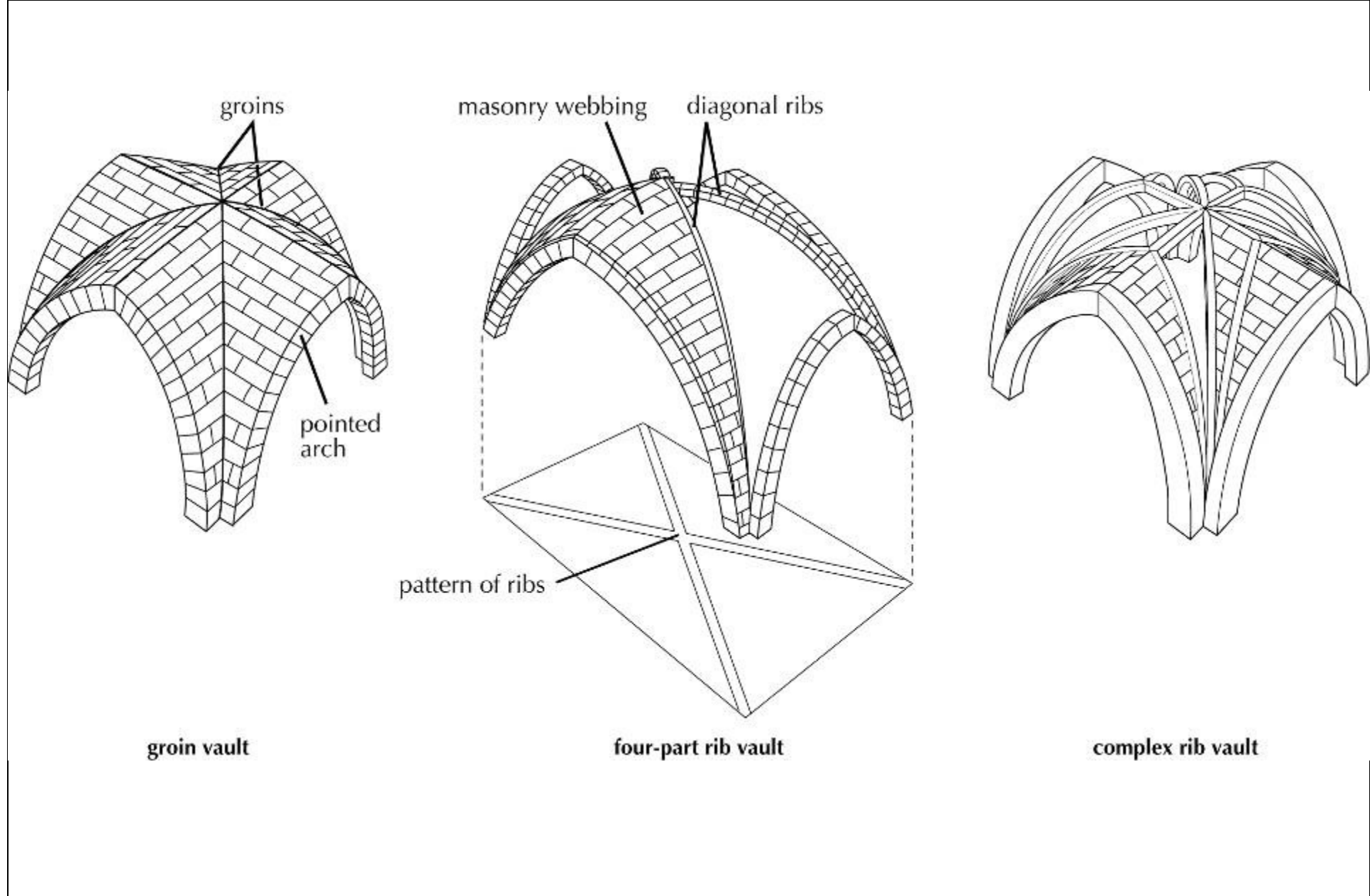
Artist: n/a

Date: n/a

Source/ Museum: n/a

Medium: n/a

Size: n/a



Title: Elements of Architecture: Rib Vaulting

Artist: n/a

Date: n/a

Museum/ Source: n/a

Medium: n/a

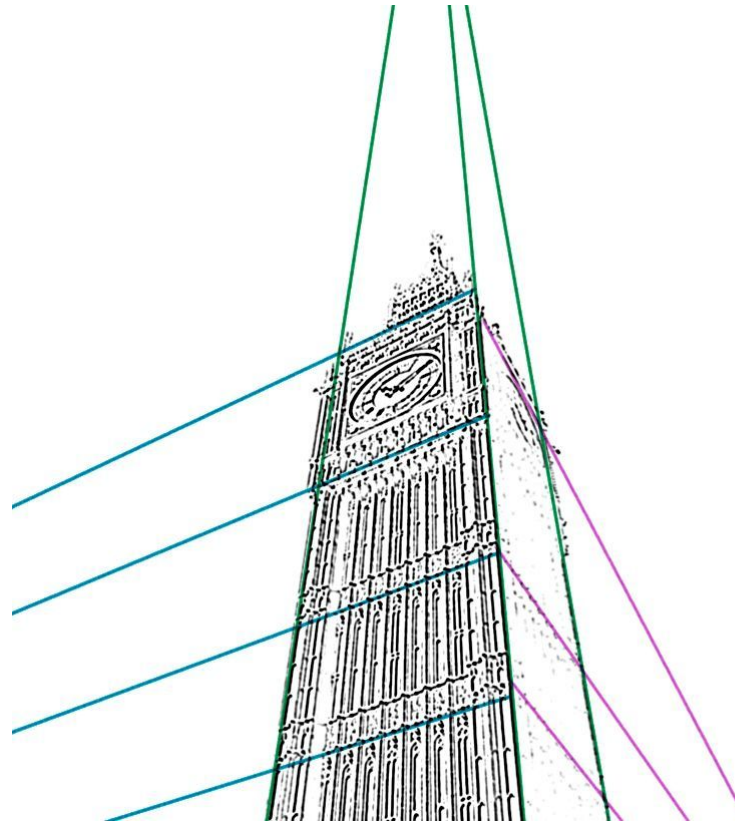
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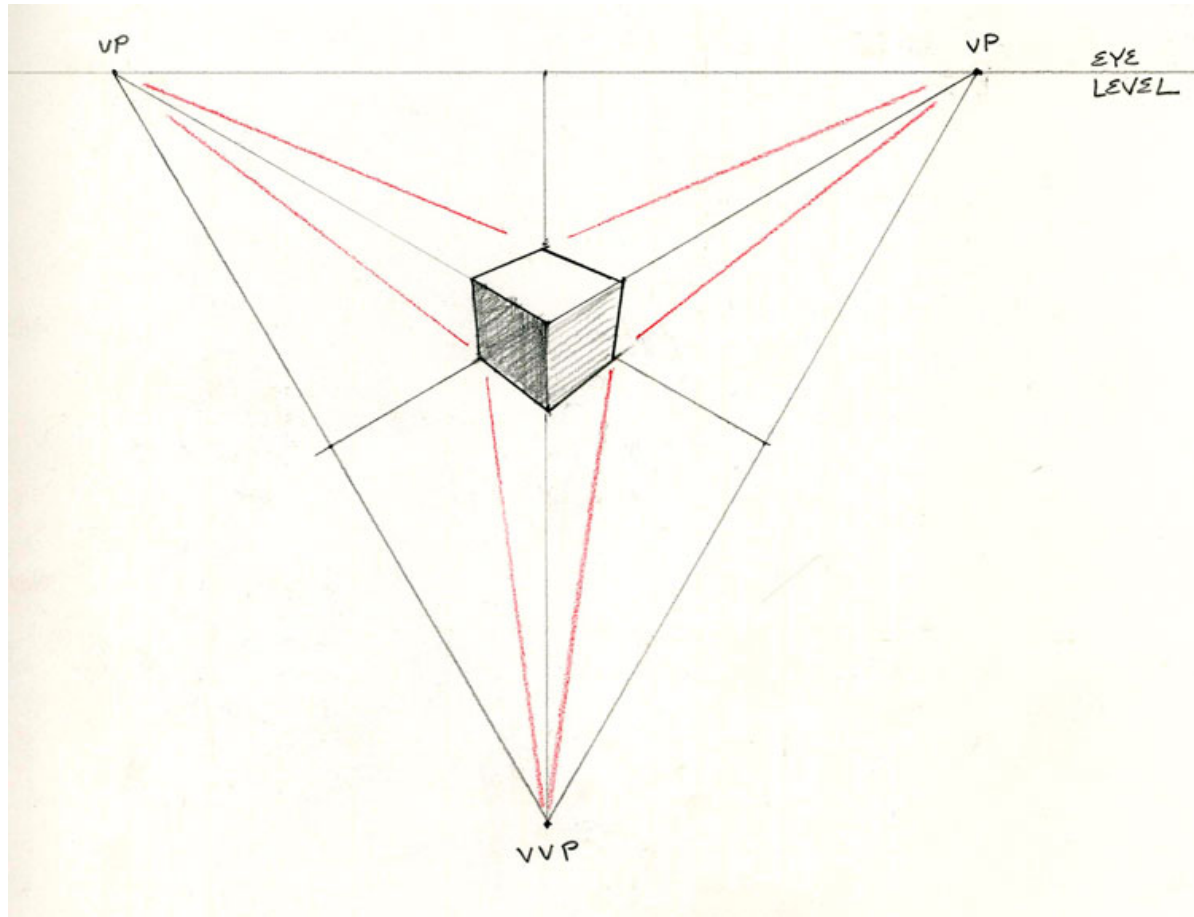
LINEAR THREE-POINT PERSPECTIVE

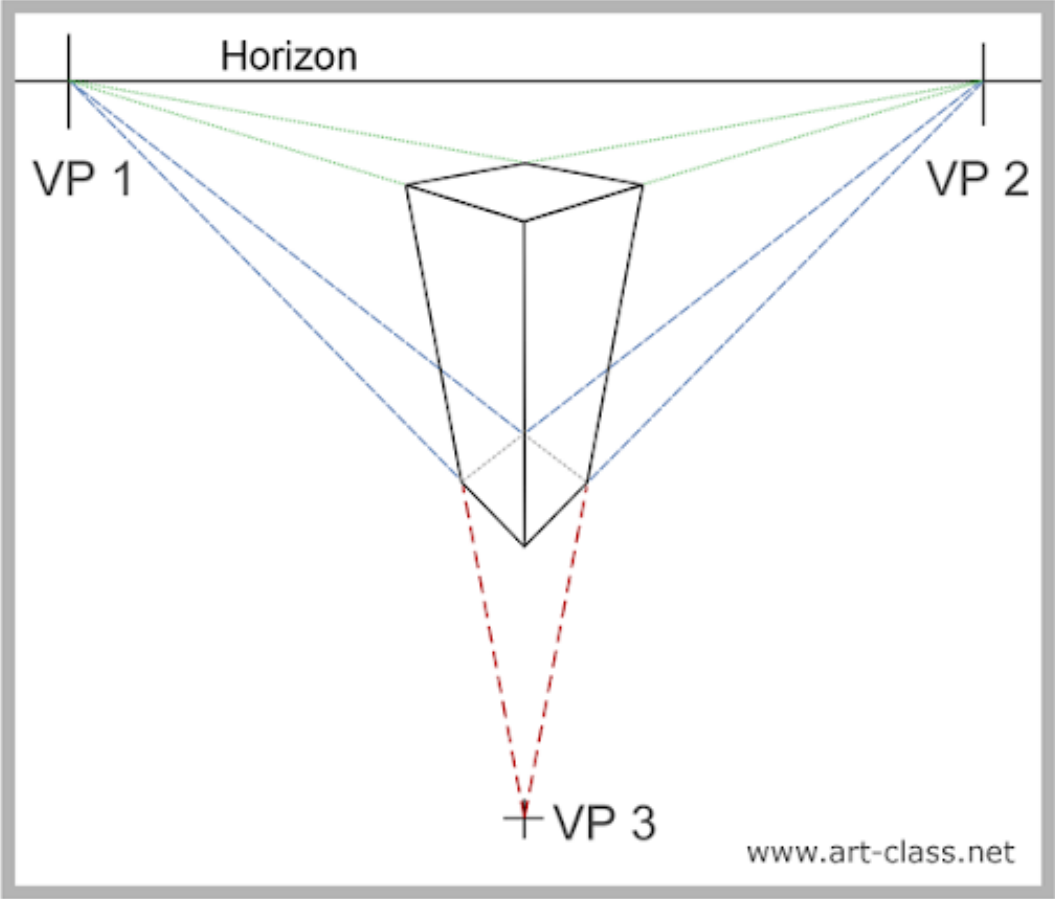
Three Point Perspective is most commonly used when drawing buildings viewed from a low or high eye-level. The low eye level in our illustration above creates the illusion that the box shape is towering above us and that we are looking up. It naturally suggests the scale of a tall building.

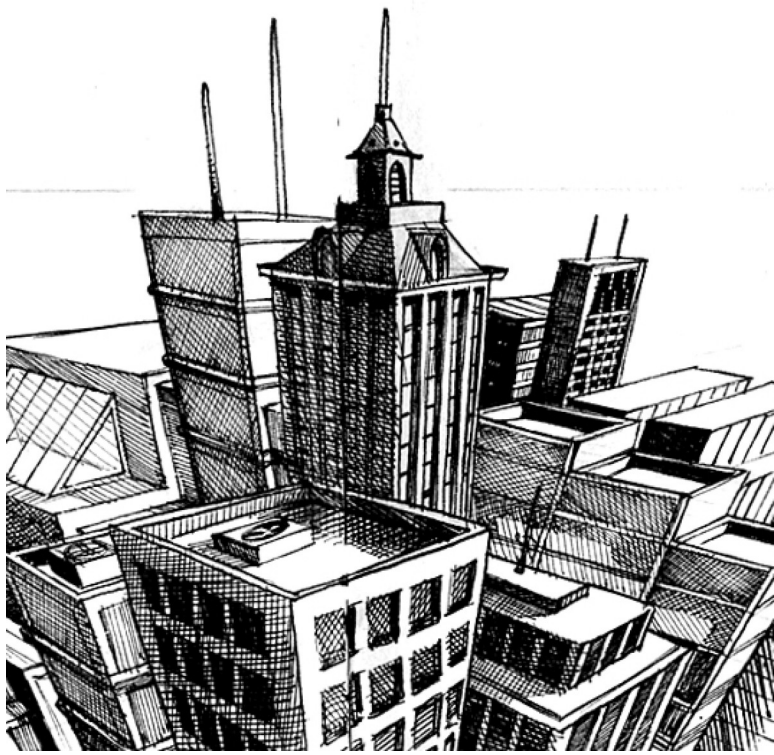
THREE-POINT PERSPECTIVE

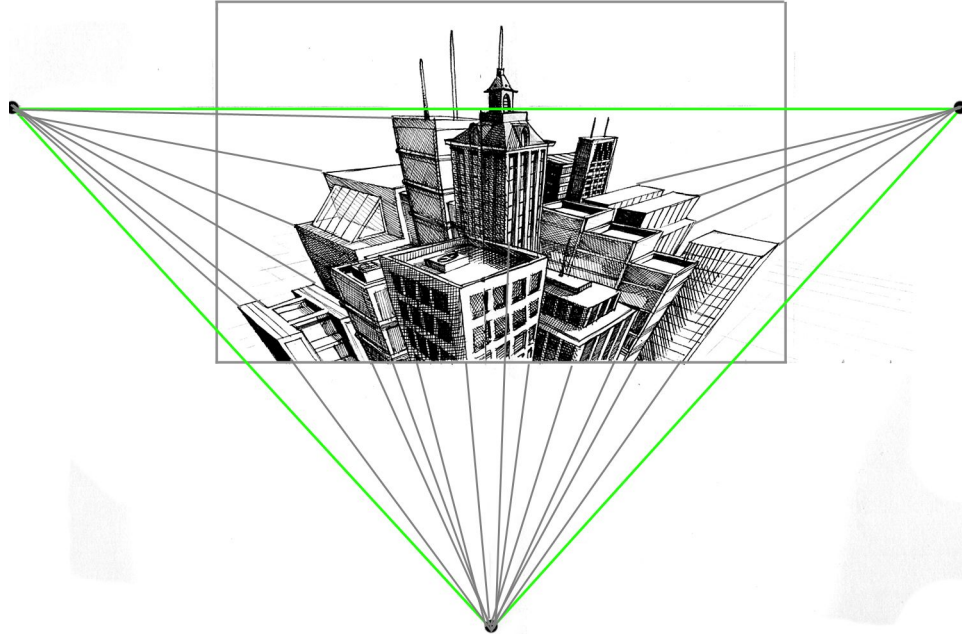
Note how the vertical transversal lines, which were parallel in one and two point perspective, now appear to recede. They form a third set of orthogonal lines, which rise from the ground plane and eventually meet at vanishing point 3, high above the picture plane.

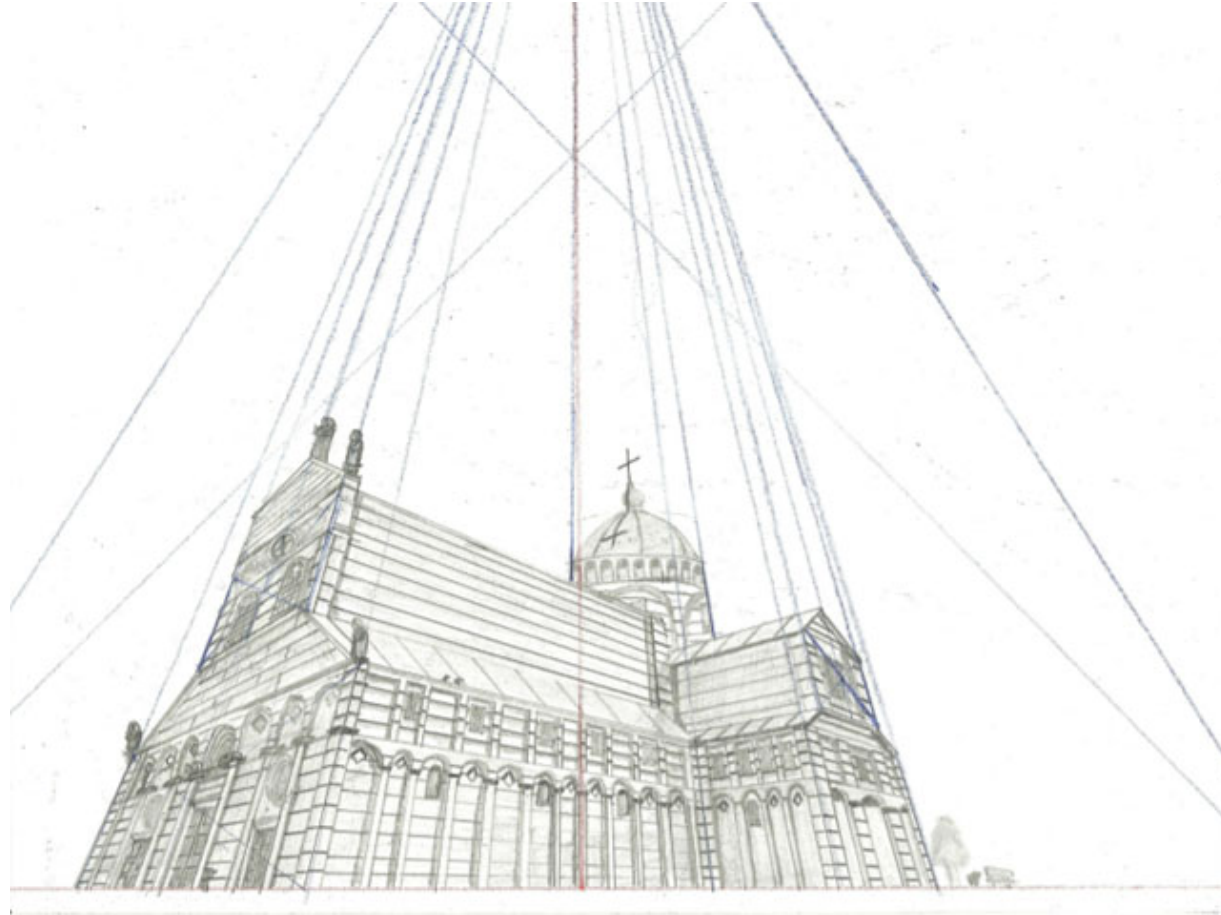


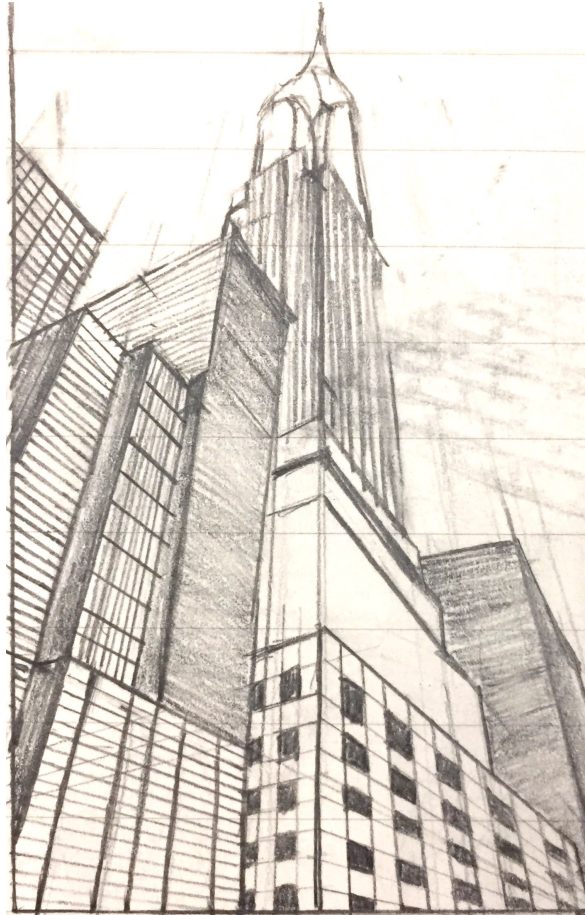




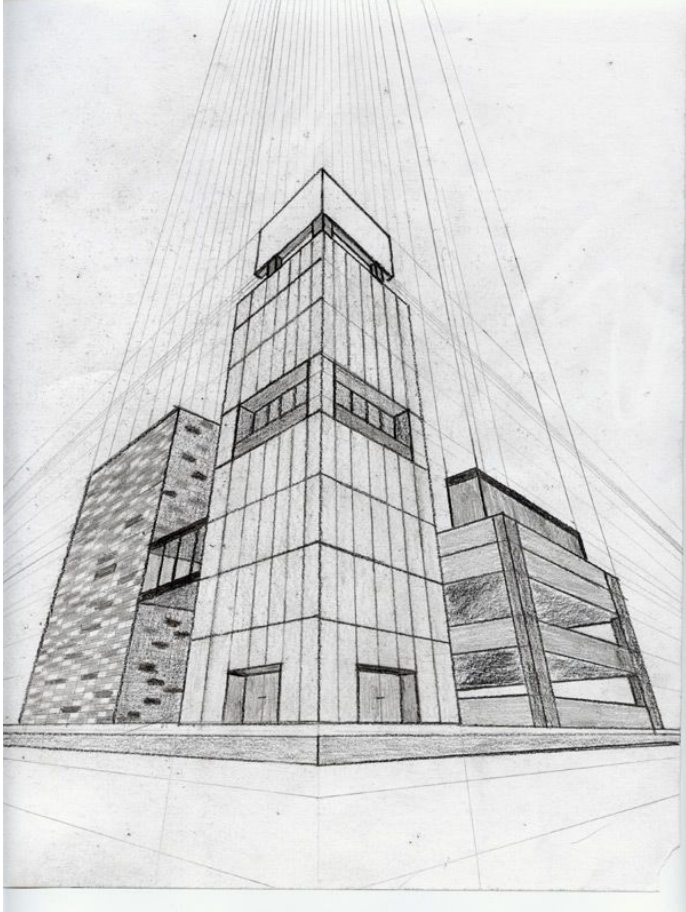


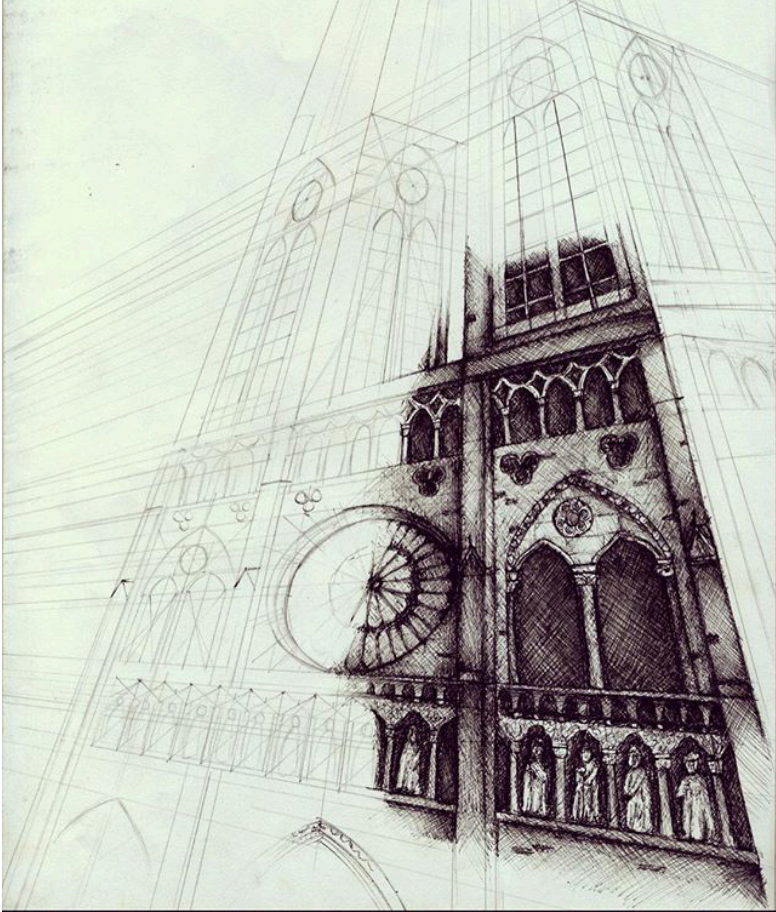


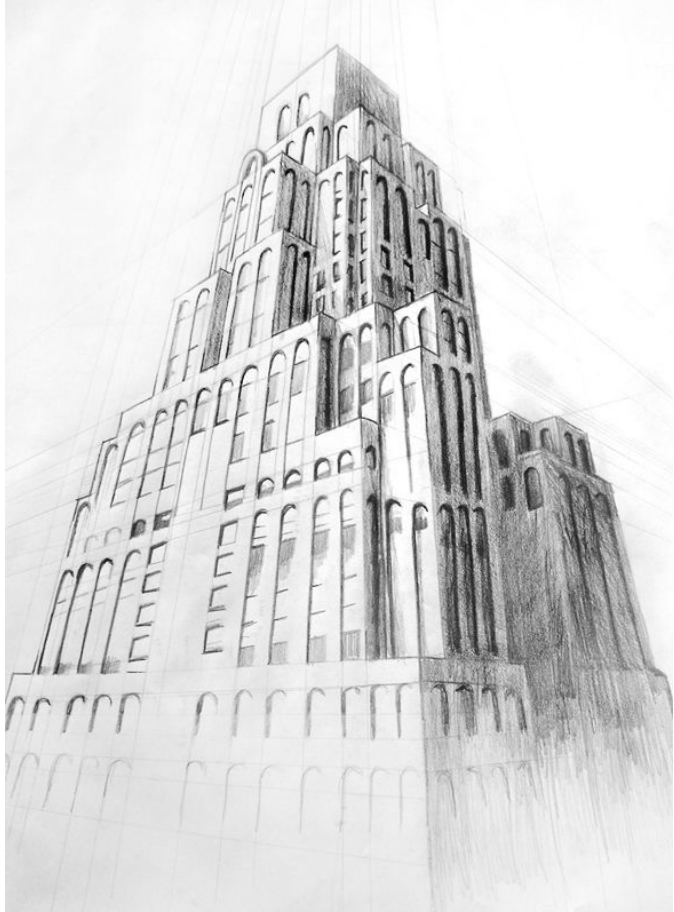


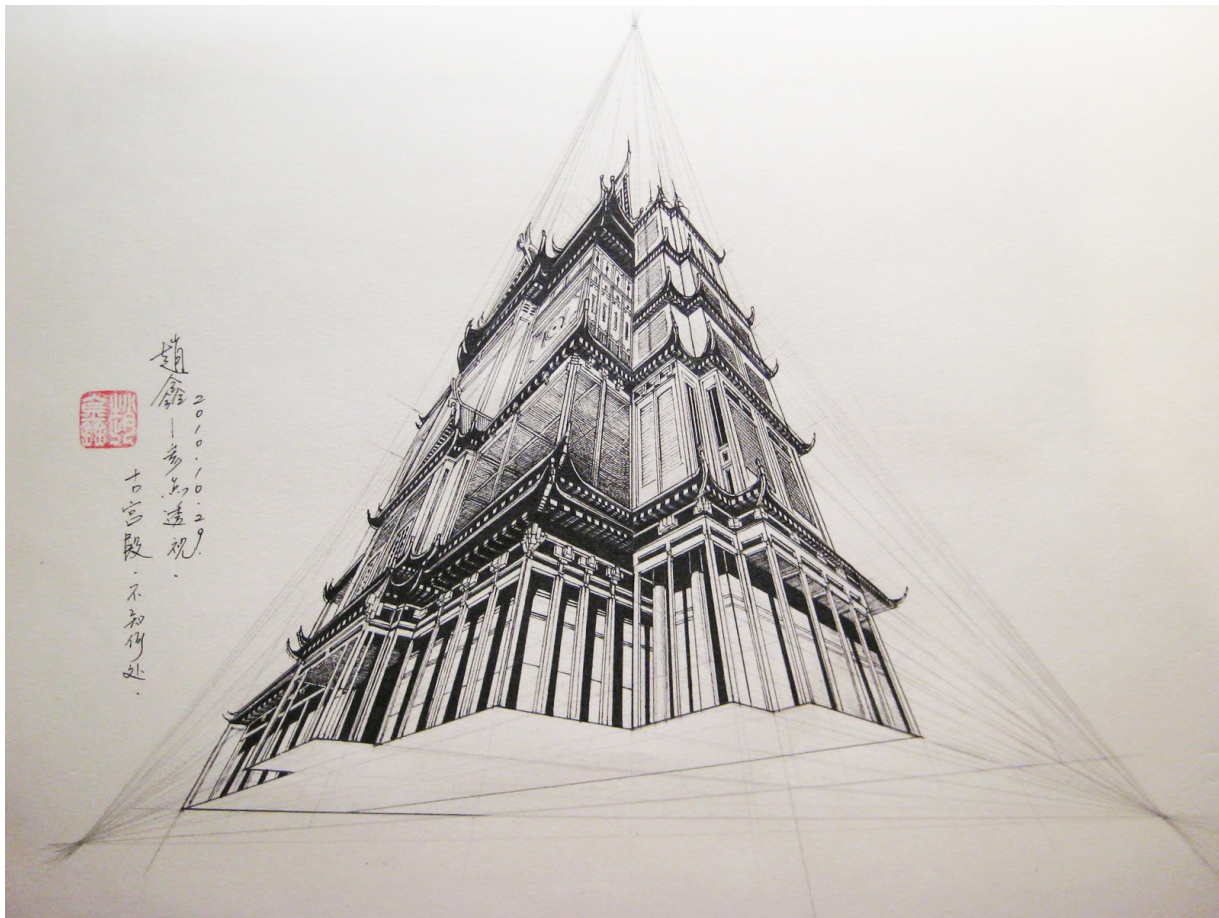






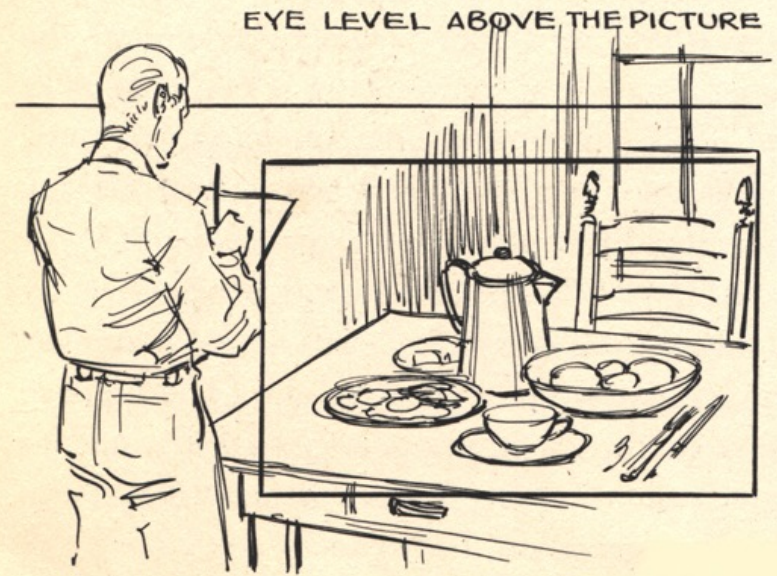
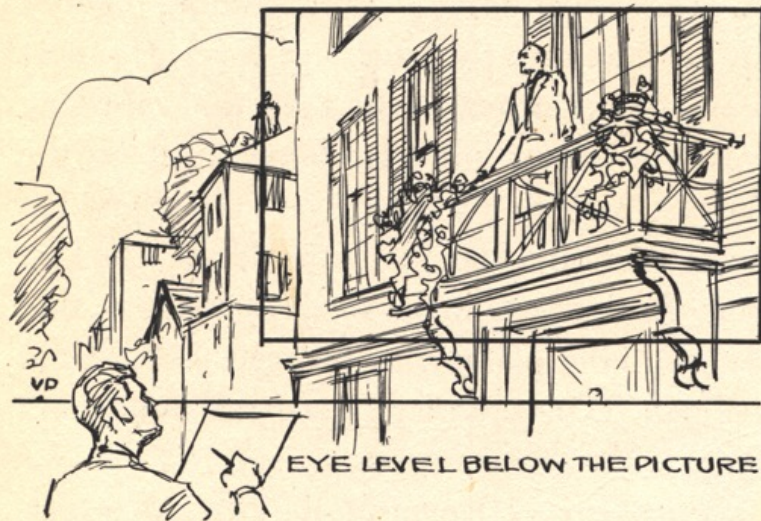
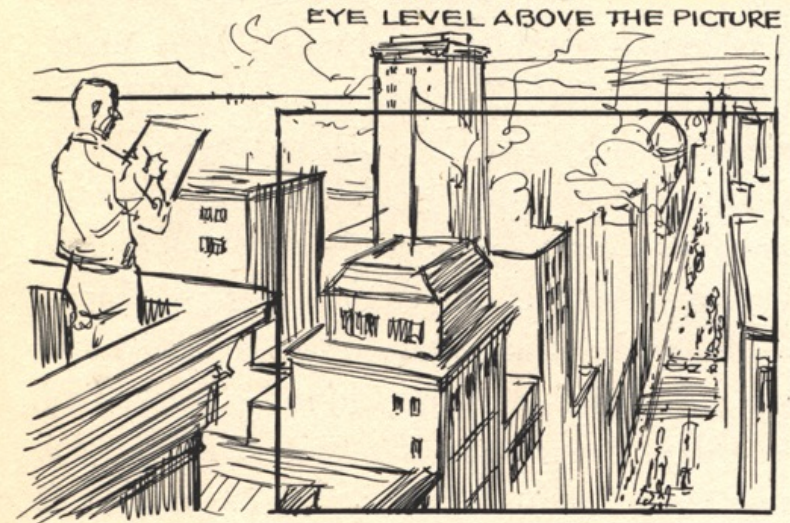
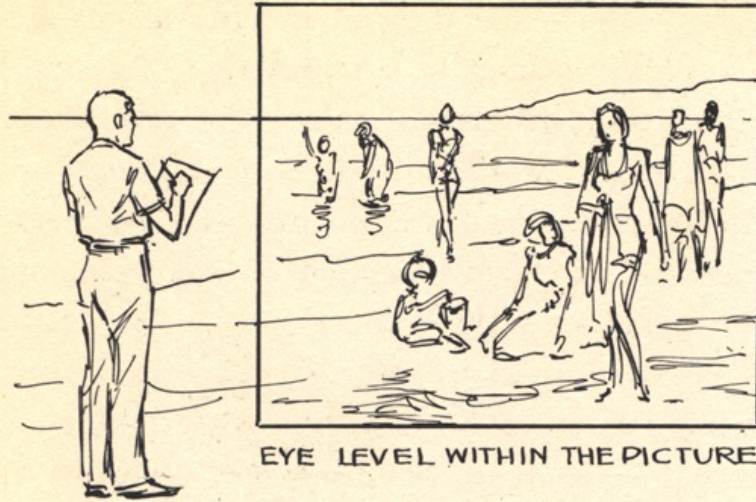






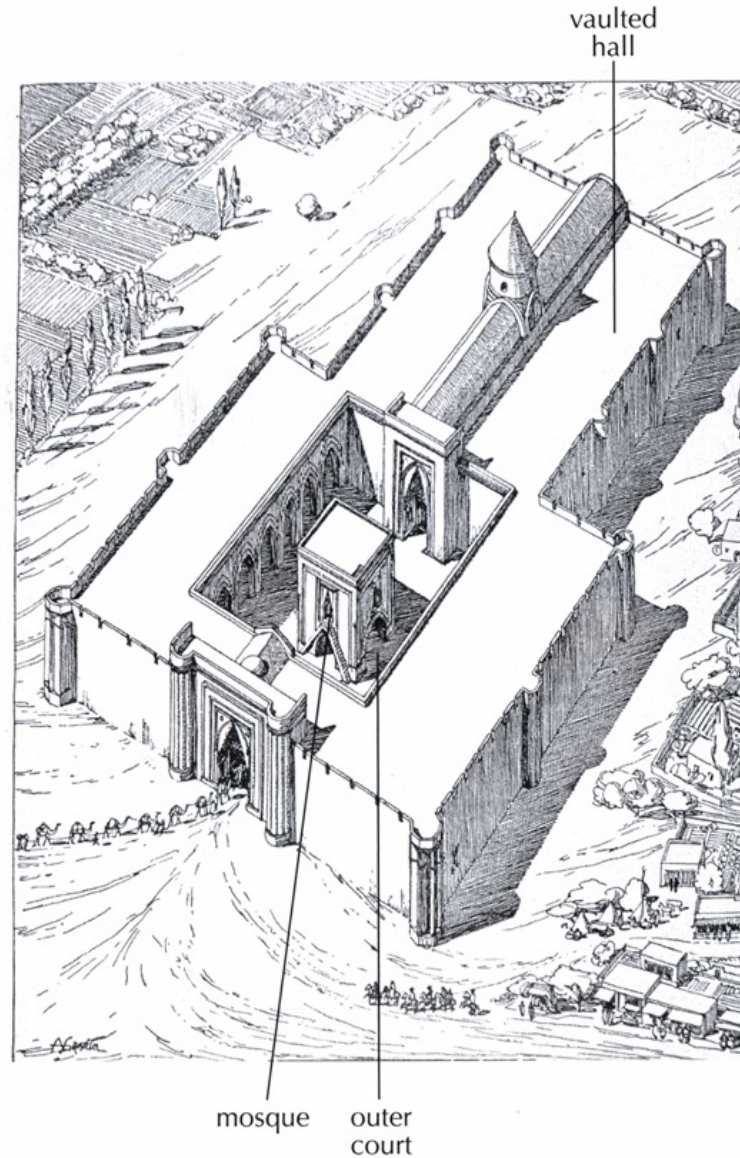
2010.10.29
十层殿 - 不知何处

EYE LEVEL, CAMERA LEVEL, AND HORIZON MEAN THE SAME



AERIAL PERSPECTIVE

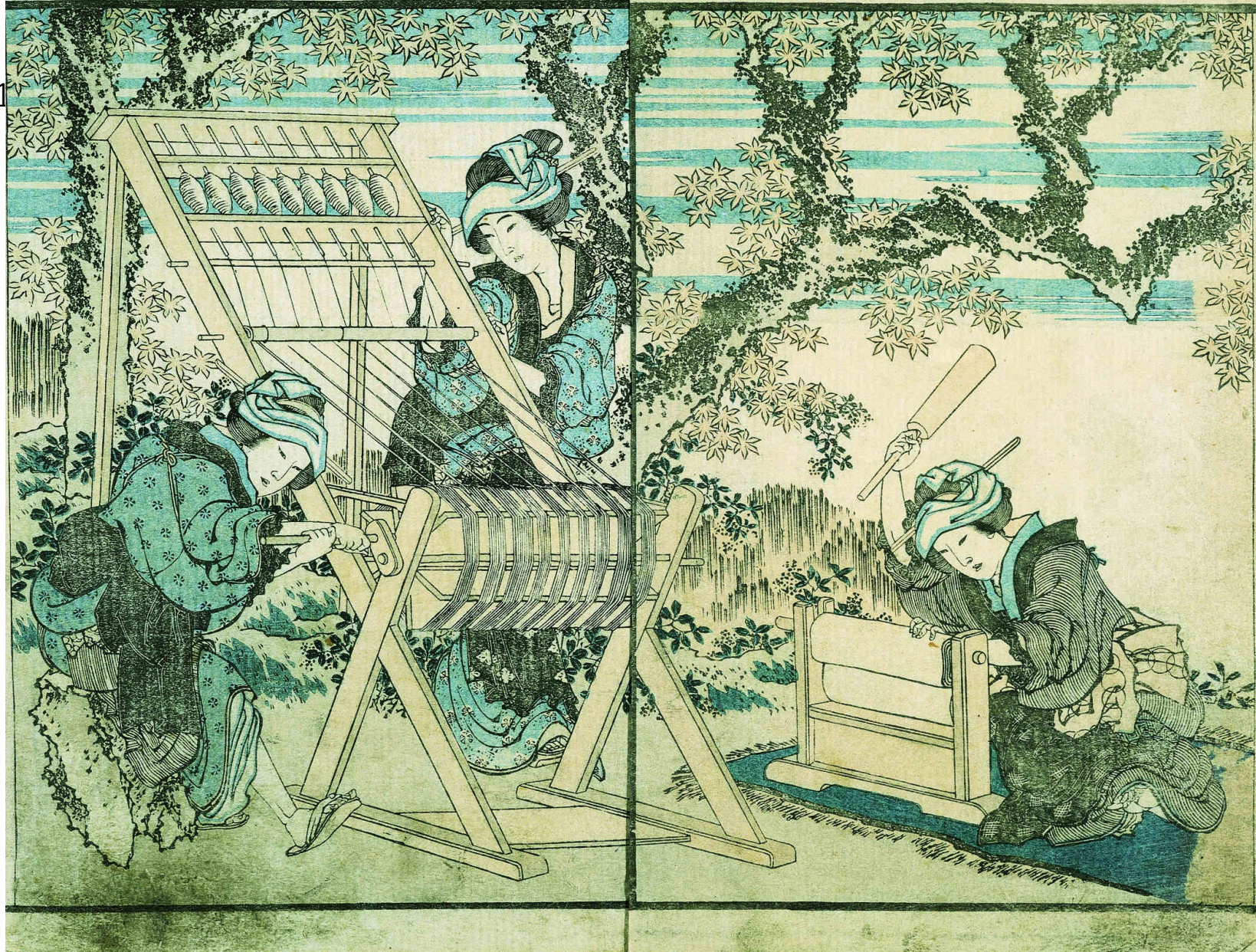
Aerial Perspective or atmospheric perspective refers to the effect the atmosphere has on the appearance of an object as it is viewed from a distance.



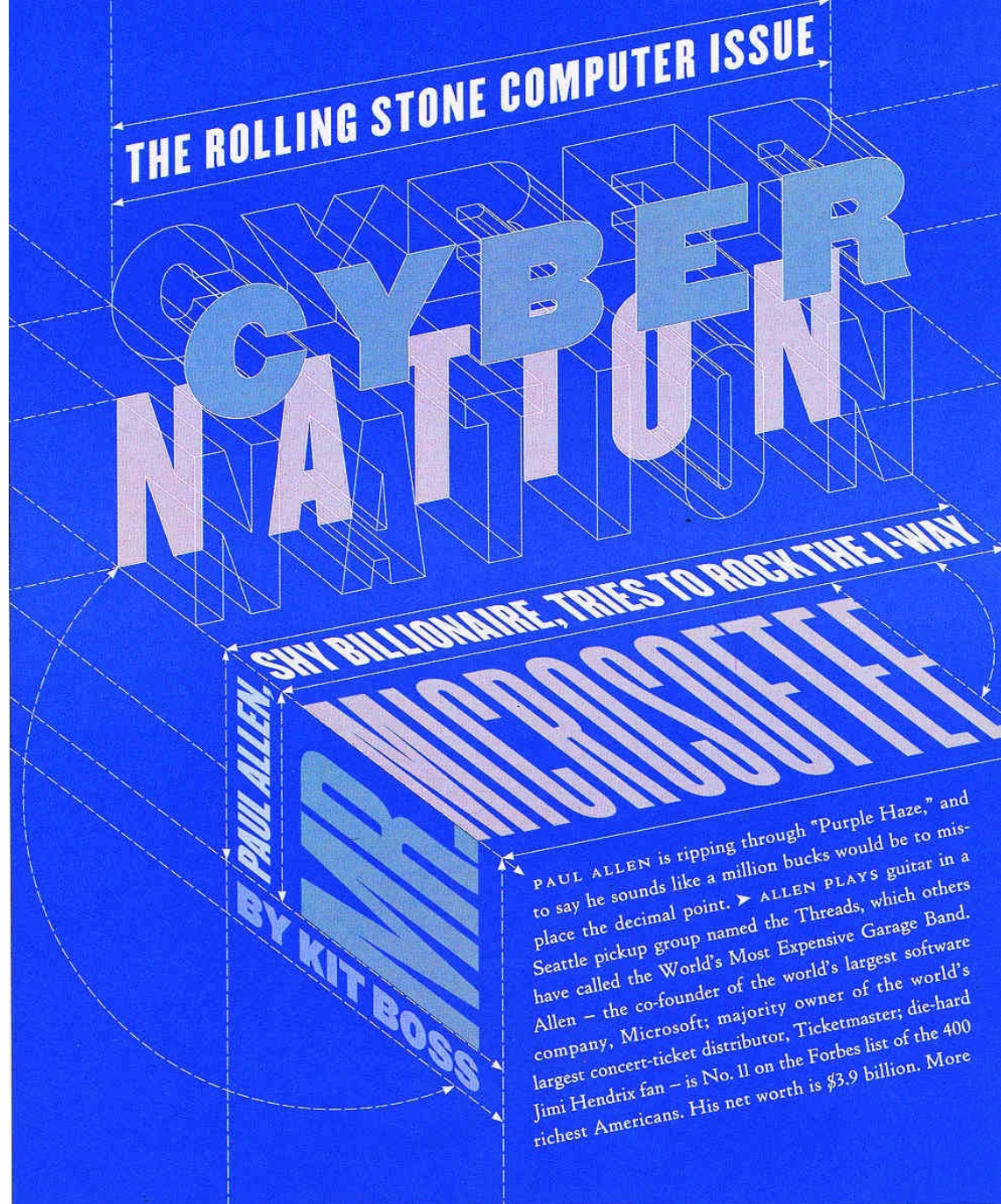


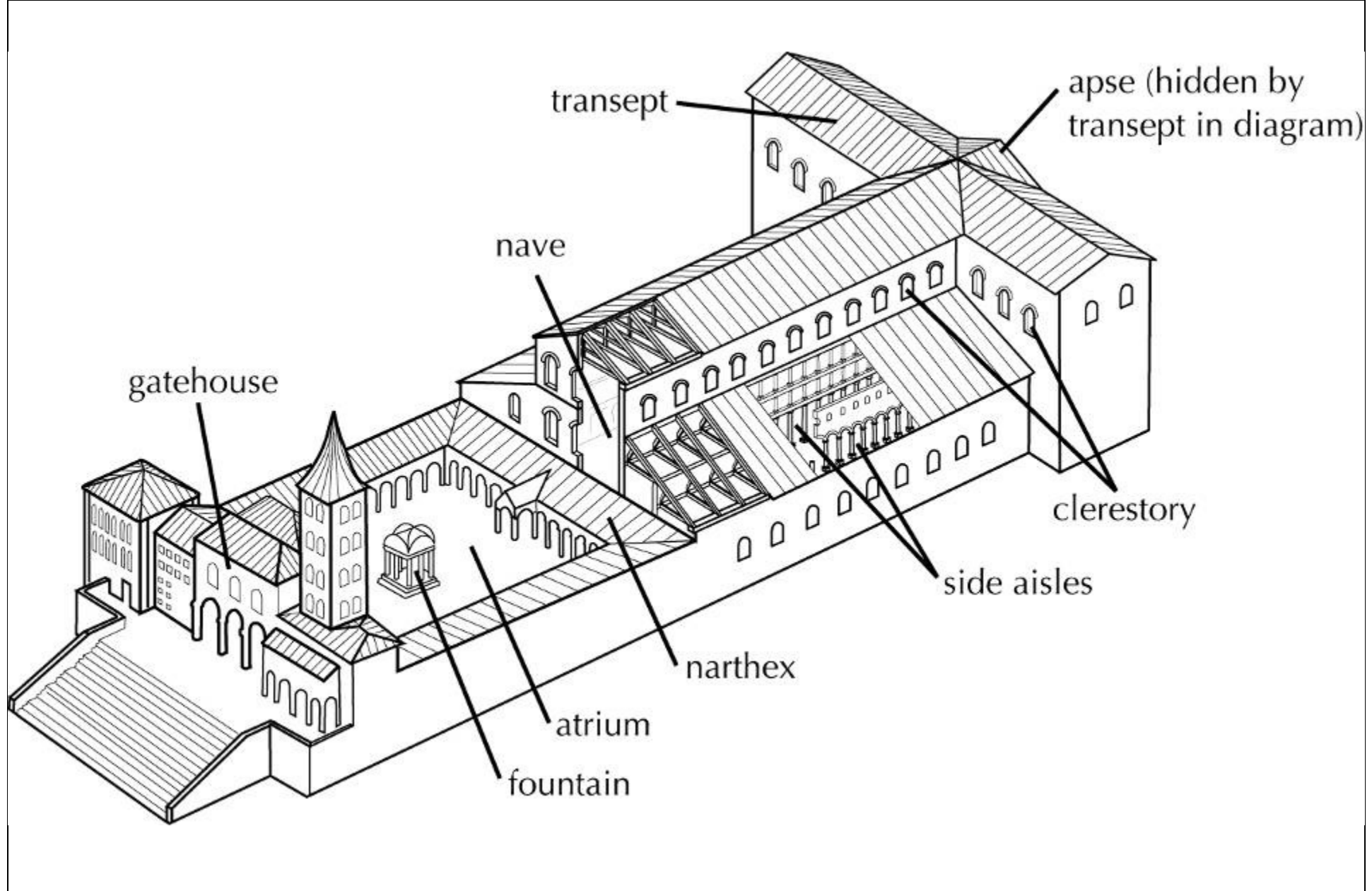
ISOMETRIC PERSPECTIVE

- A favorite of Japanese artists
- Frequently used by graphic designers
- Has a playful quality



24-17





Title: Reconstruction drawing of Old Saint Peter's, Rome

Artist: n/a

Date: c.320-327; atrium added in later 4th century. For plan see "Basilica-Plan and Central-Plan Churches," page 171

Source/ Museum: n/a

Medium: n/a

Size: n/a

21-21

