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4.510 Digital Design Fabrication  
Fall 2008

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## ANDREA PALLADIO



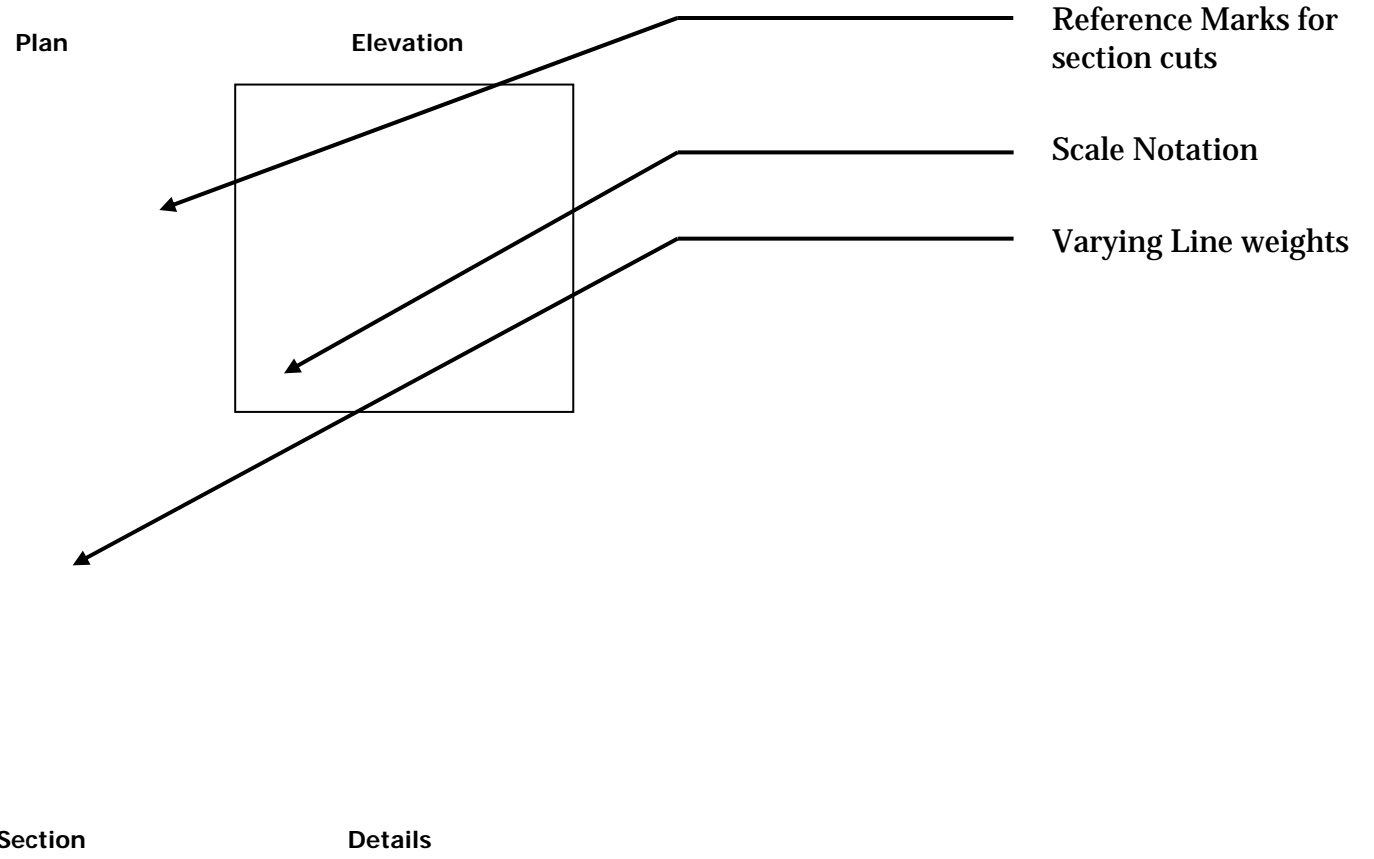
Palladio was a stone mason

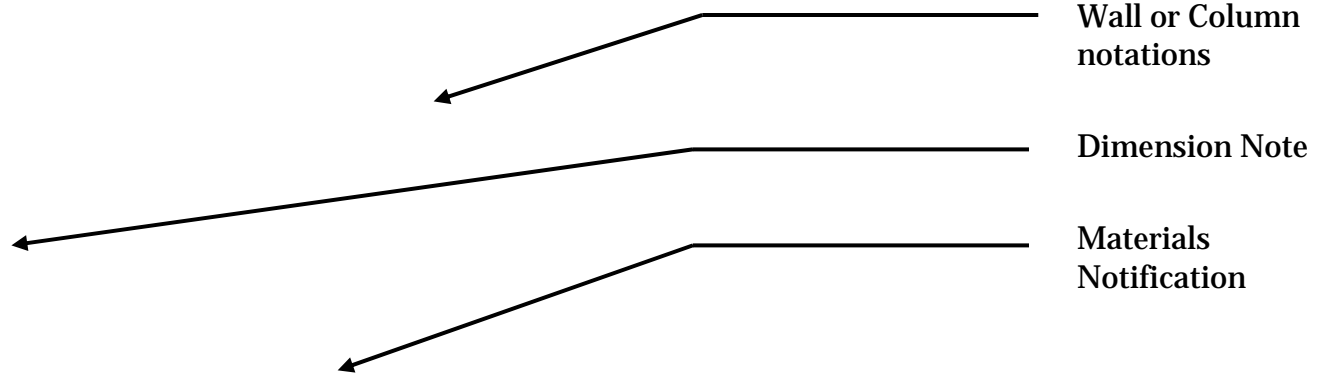
Palladio Designed over 30 villas throughout the Veneto only 19 were built 1535 - 1570

Drawings in the Four Books were written after the buildings were constructed

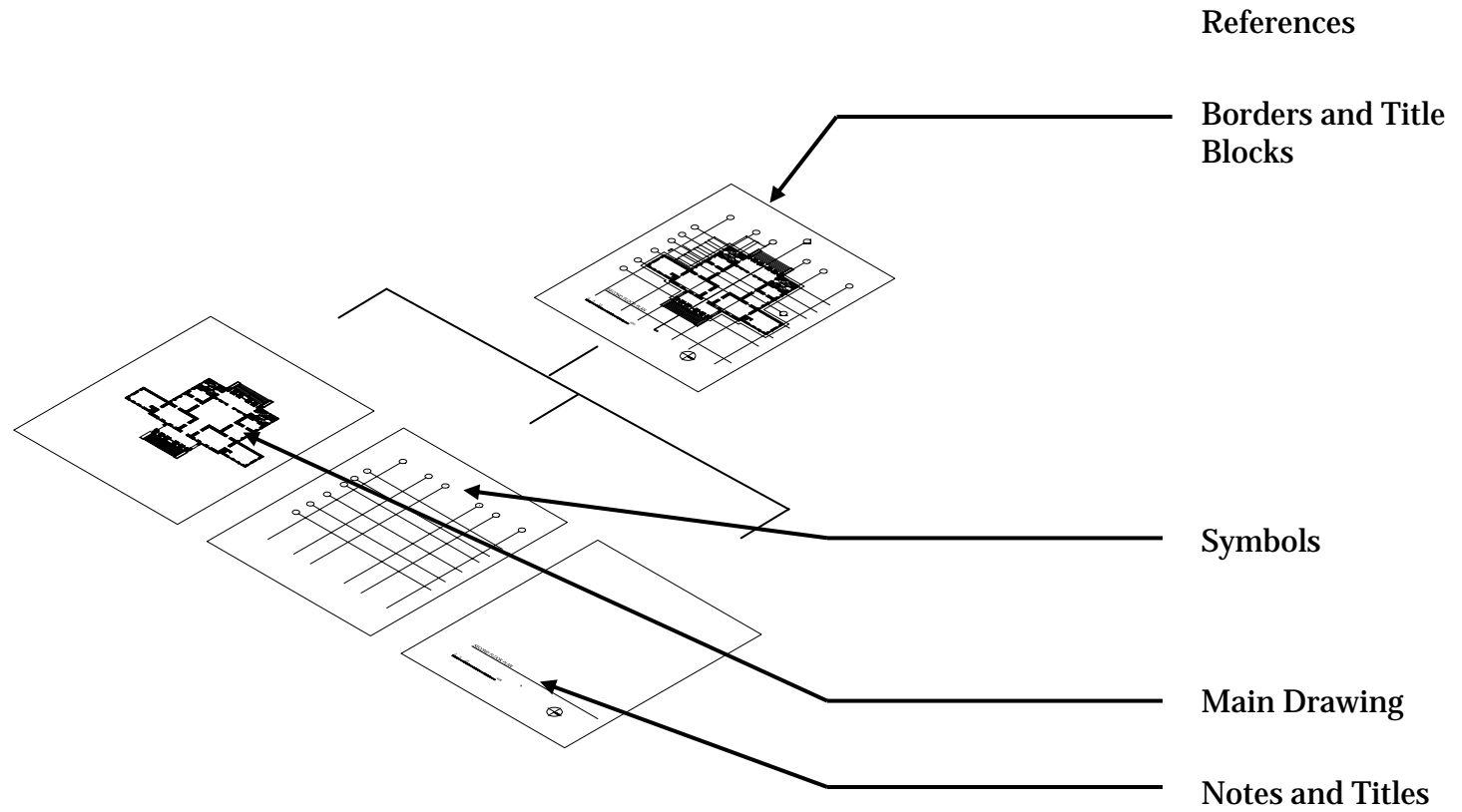
The first book contained the rules

Second Book contained drawings of the villas





# STRUCTURING DOCUMENTS



# LINES AND VECTORS

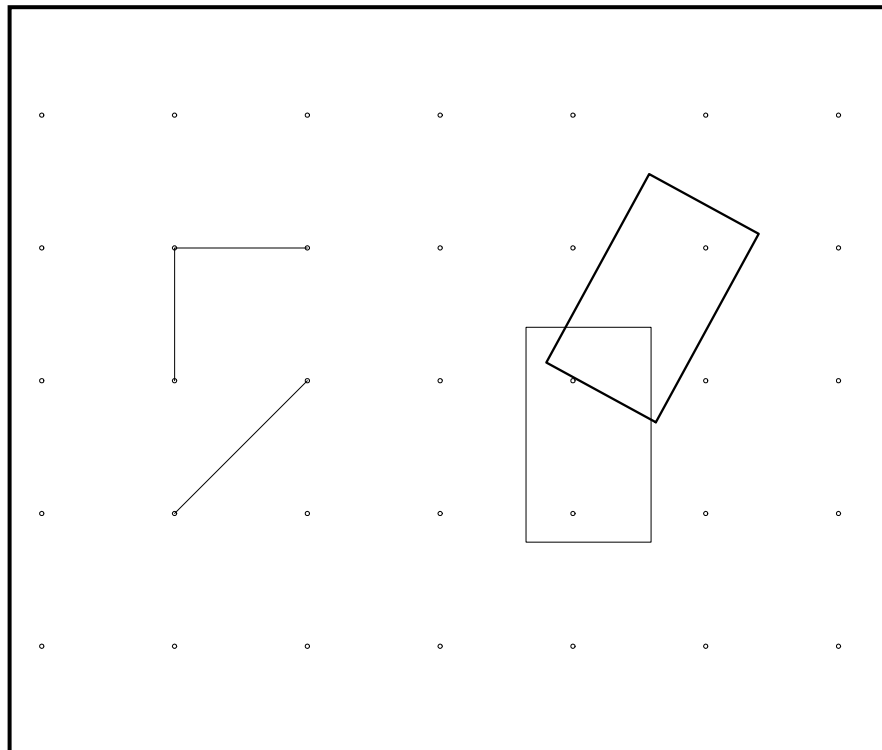
## CAD SYSTEMS

Lines

Coordinate Systems

Transformations

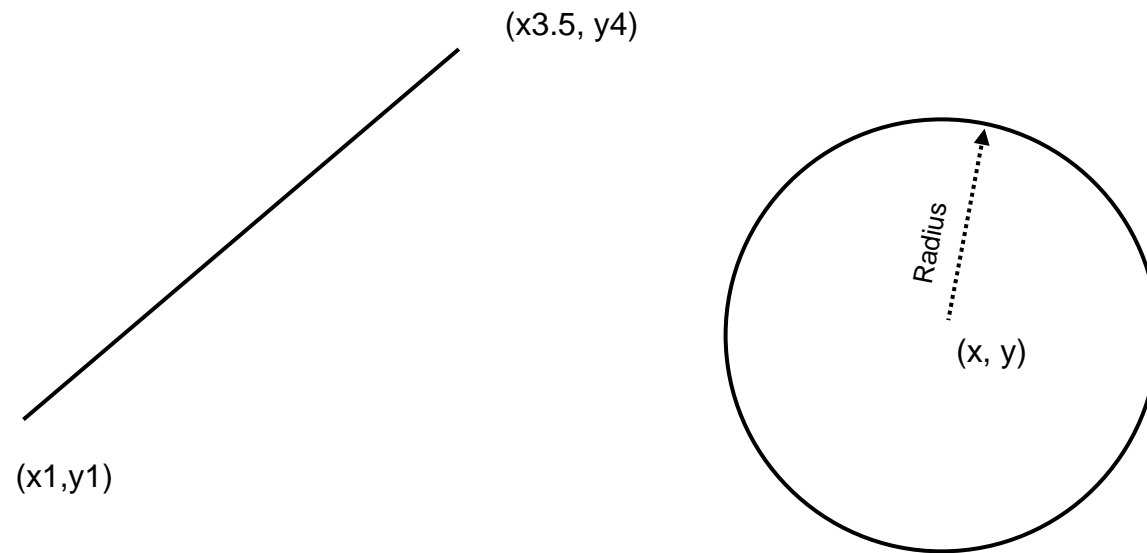
Operations



# POINTS, LINES AND MANIPULATION

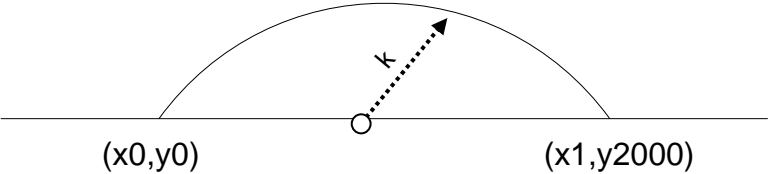
Geometric Entities

Lines are based on the Coordinates not the scale





# POINTS, LINES AND MANIPULATION



( $\kappa = ?$ )

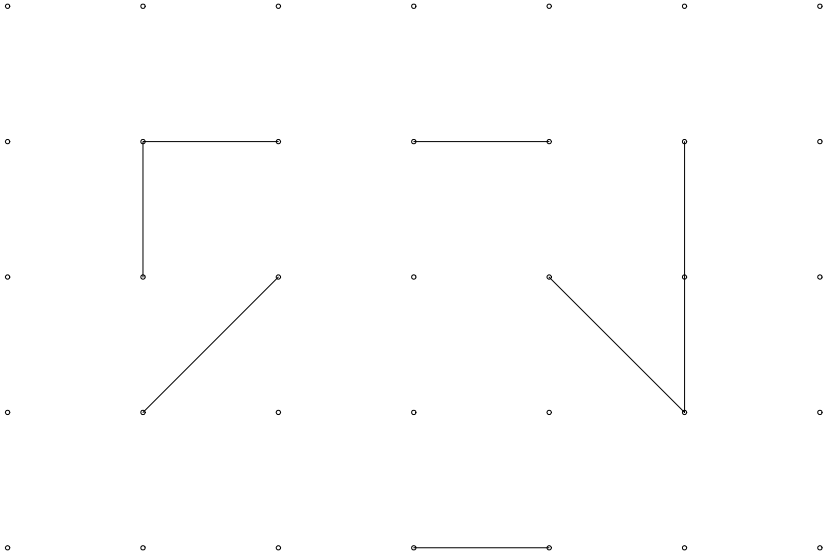
# COORDINATE SYSTEMS

Grid System

Lines Can Snap to Modules

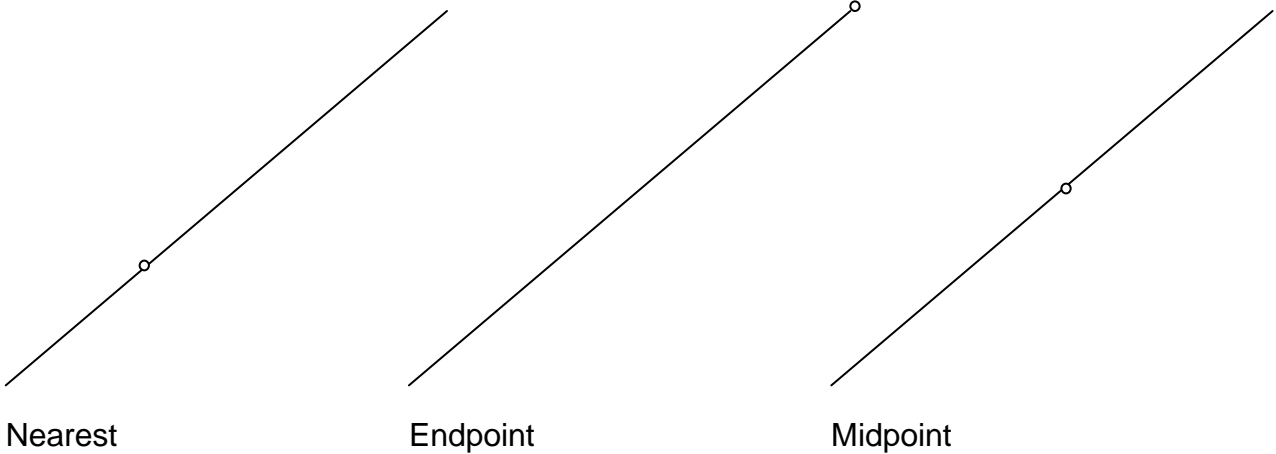
Lines Can Snap to Orthogonal Axes

Lines Can Snap to Objects



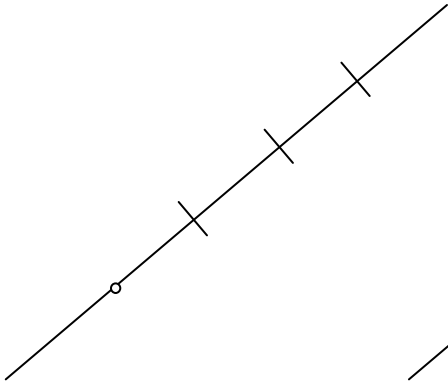
# COORDINATE SYSTEMS

## Points on Lines

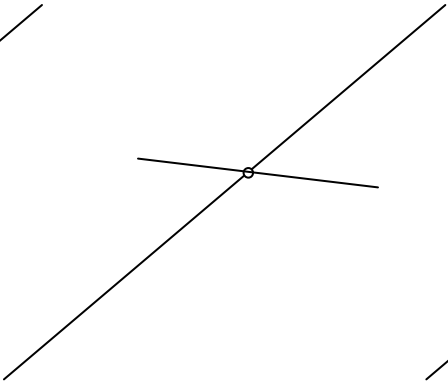


# COORDINATE SYSTEMS

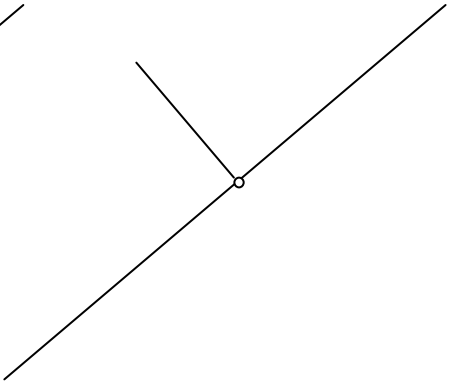
## Points on Lines



Equal Divisions



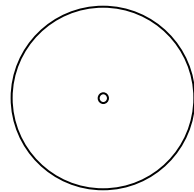
Intersections



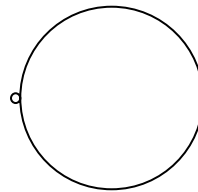
Perpendicular

# COORDINATE SYSTEMS

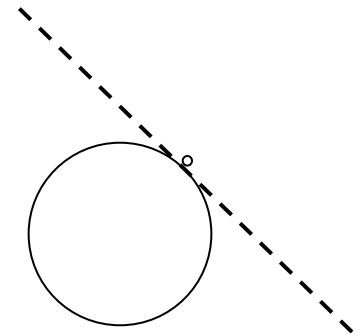
## Points on Lines



Center Point



Quadrant



Tangent  
(to last point)

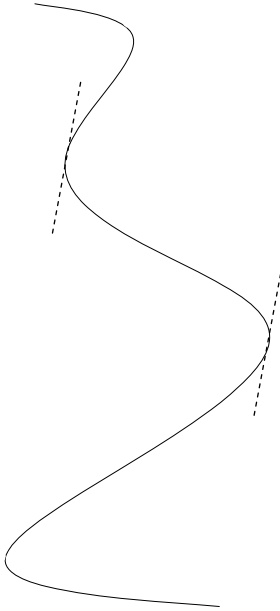
# LINE TYPES



Straight

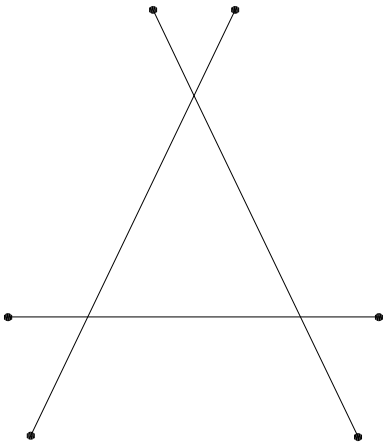


Arcs

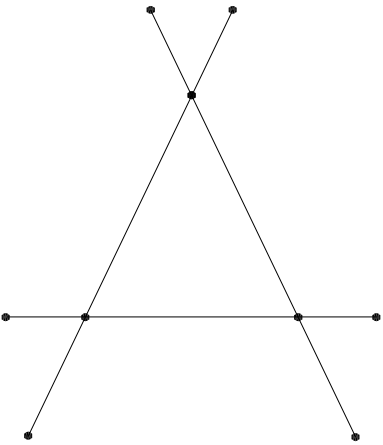


Splines

# LINE SEGMENTS

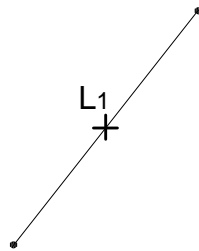


Three Segment

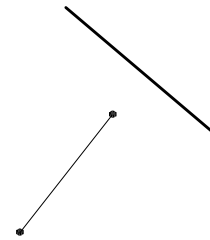


Nine Segments

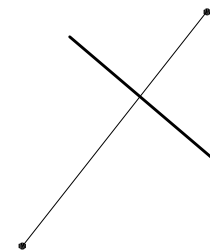
# LINE OPERATIONS



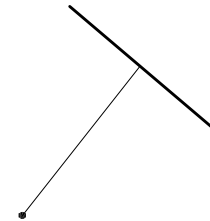
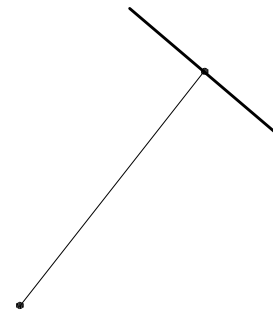
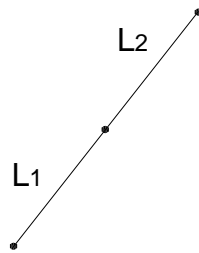
Break Operation



Extend Operation



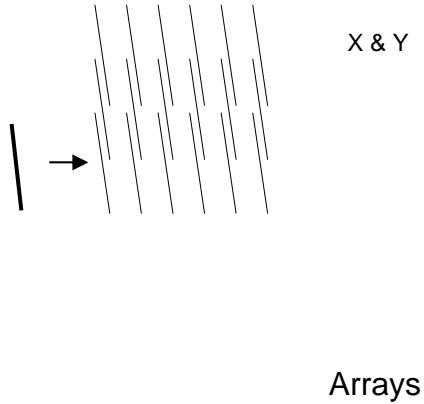
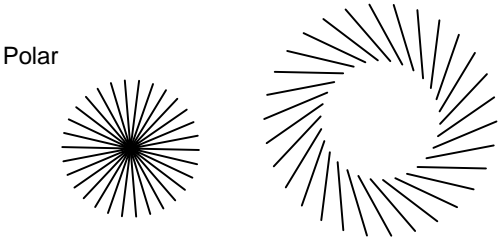
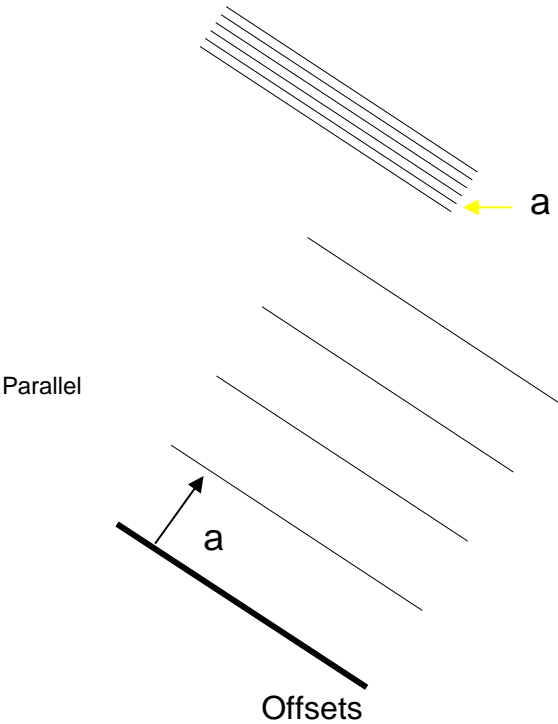
Trim Operation



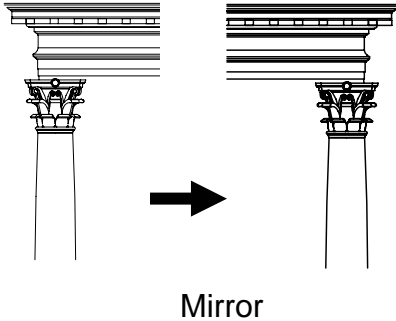
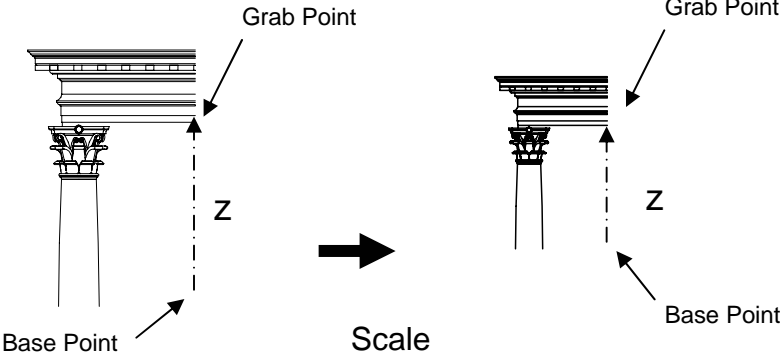
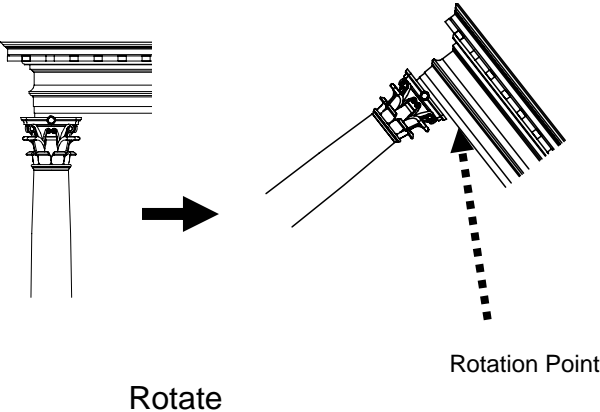
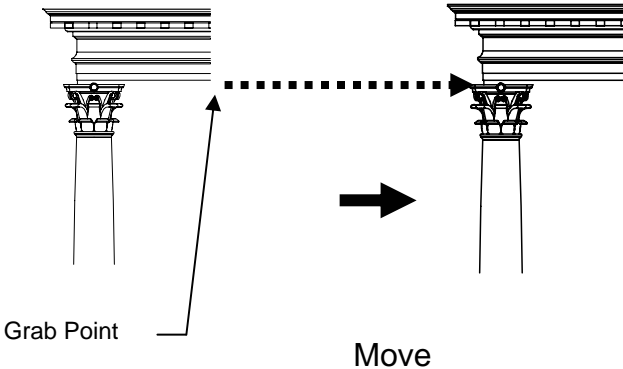


# GEOMETRIC CONSTRUCTS

## Offsets

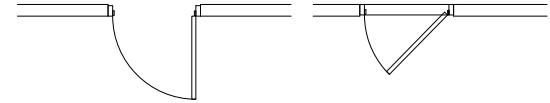


# TRANSFORMATIONS

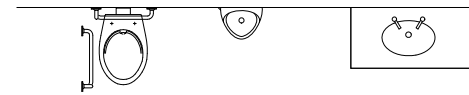


# PRE-DEFINED OBJECTS

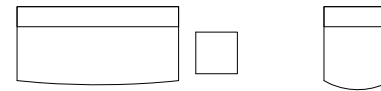
Doors



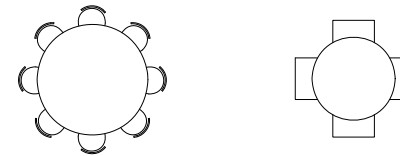
Bathroom



Furniture



Chairs & Tables



Office Furniture

