

PERSPECTIVE DRAWING

JT Wunderlich PhD and JJ Wunderlich

ONE-POINT PERSPECTIVE

- Lines into distance converge at a **VANISHING POINT** ("F" in the image below) on the **HORIZON LINE**
 - Moving this point from side to side along the horizon line changes the viewer's lateral position within the drawing
- Horizontal and Vertical lines are parallel to the edges of the paper
 - **FORESHORTENING** means things closer to you seem bigger, so sequences of horizontal or vertical lines get further apart as they get closer
 - Use **diagonal lines** to help you with the spacing

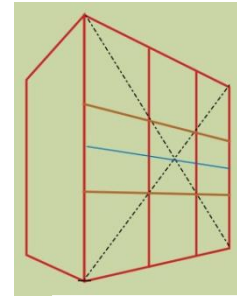
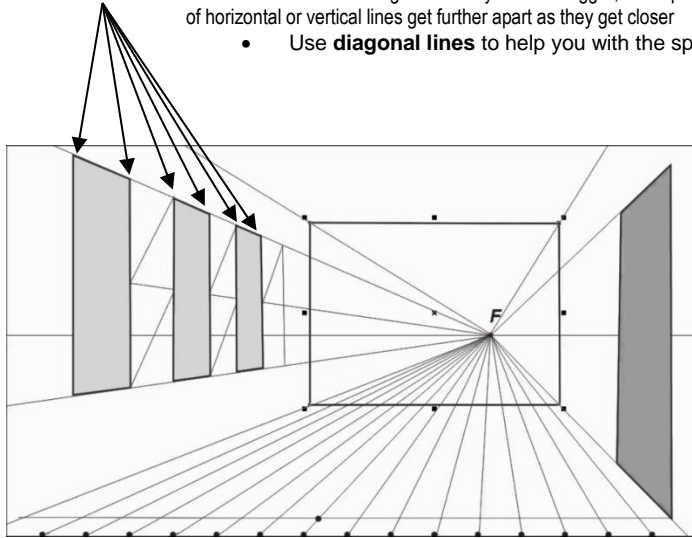


Image from: <http://kaplanpicturemaker.com/perspective/architecture>

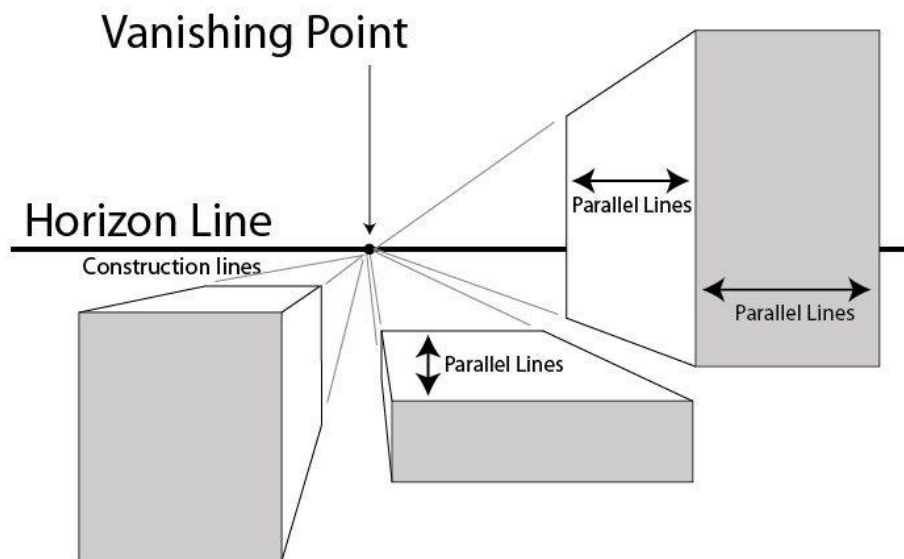
HORIZON LINE

This line will be higher in the drawing if the viewer's eyes are high above the ground

Watch **VIDEO** by others:

<https://www.youtube.com/watch?v=SqP9QsOBoqk>

The vanishing point is ALWAYS on the horizon line.



Start by drawing the gray shape first.

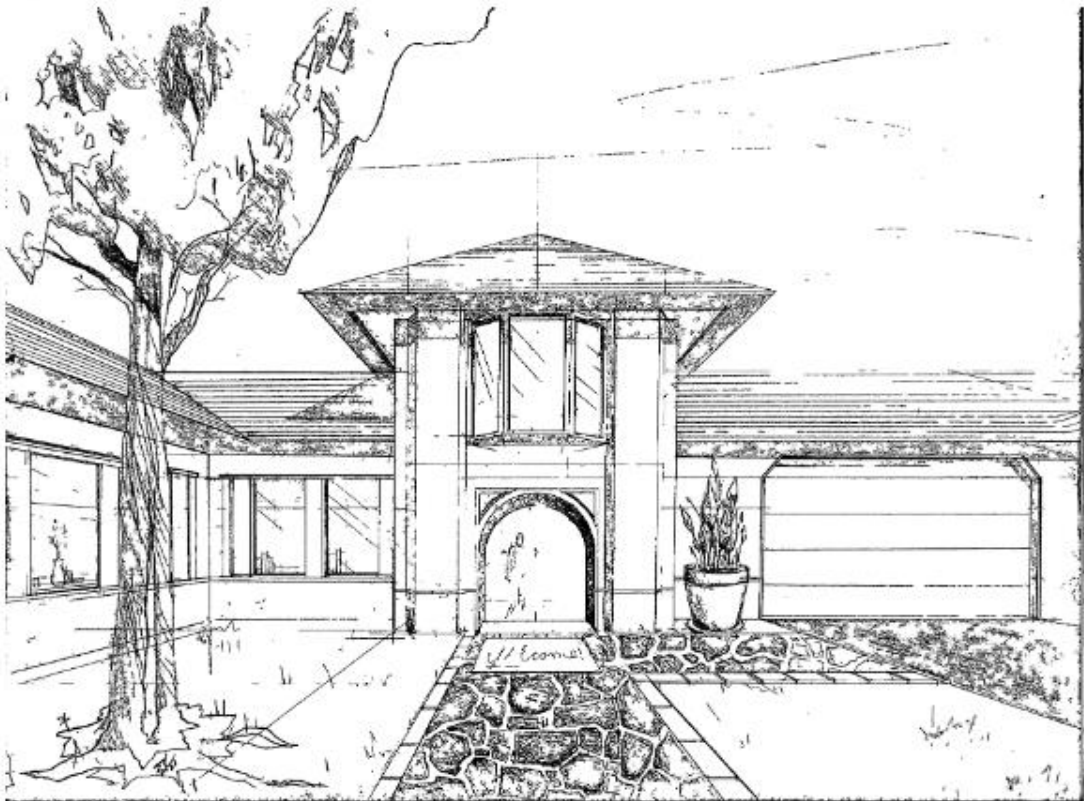


Acropolis 9x11"

ONE-POINT EXTERIOR PERSPECTIVE
by JJ Wunderlich IV
[2019 Portfolio](#)



Japanese Temple 9x11"



Midwestern Villa 9x11"

ONE-POINT EXTERIOR PERSPECTIVES
by JJ Wunderlich IV
[2019 Portfolio](#)

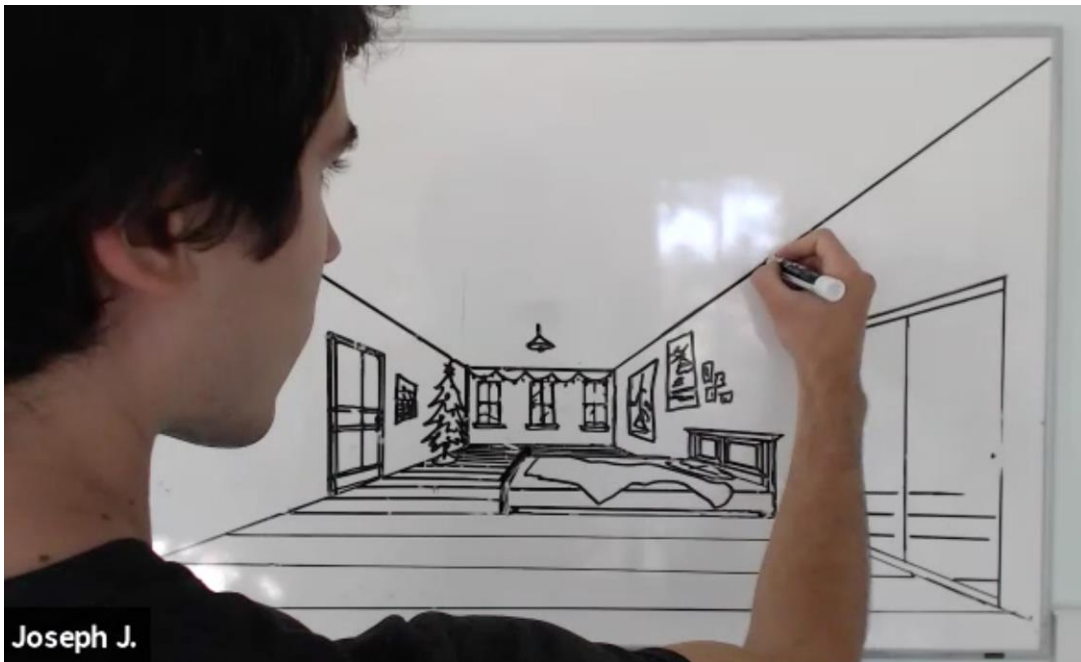


Italian Plaza 9x11"

ONE-POINT EXTERIOR PERSPECTIVE

by JJ Wunderlich IV

[2019 Portfolio](#)



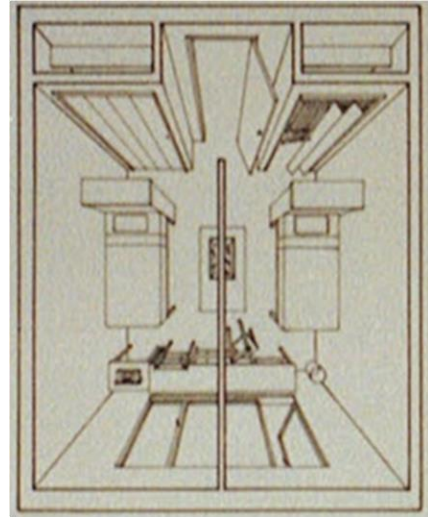
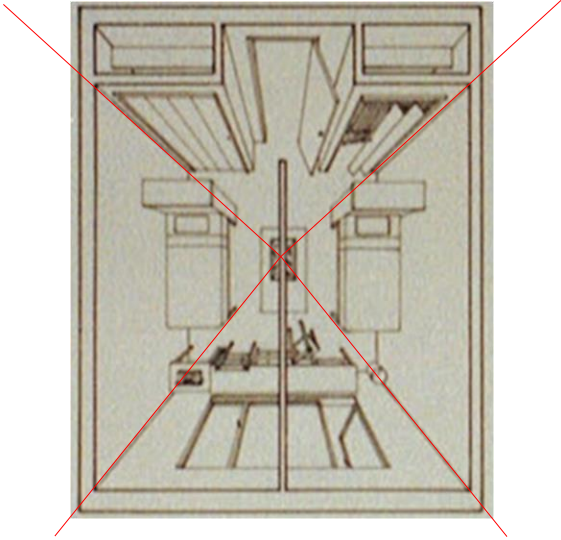
Joseph J.

ONE-POINT INTERIOR PERSPECTIVE

by JJ Wunderlich IV – Dorm Room (2020)

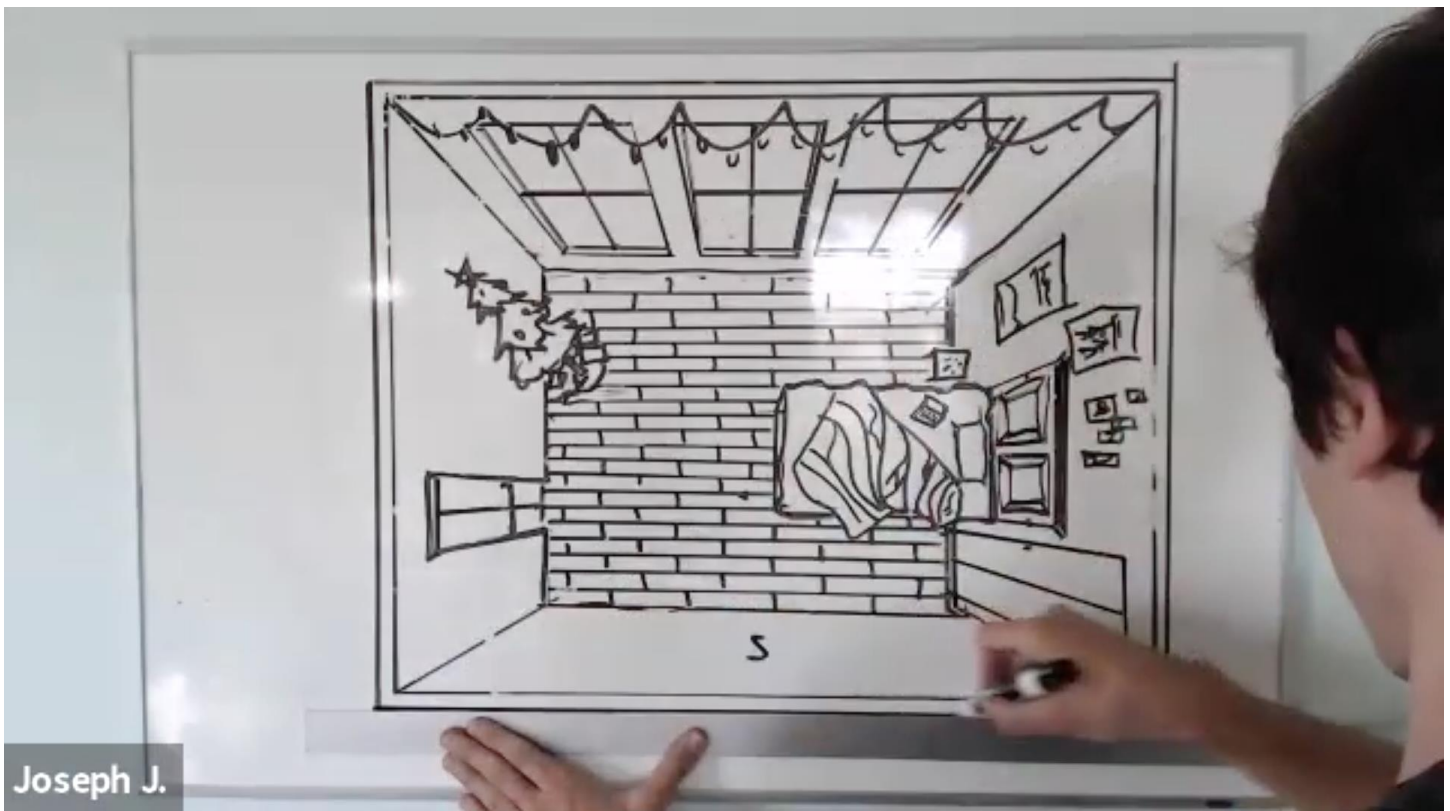
Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students

Watch [JJWIV VIDEO #1: \(MP4, YouTube\)](#)



ONE-POINT OVERHEAD INTERIOR PERSPECTIVE

by JT Wunderlich PhD -- Dorm Room Design (1981, as a student)
with Japanese-style translucent privacy-screen divider and a shared
fish tank, and shared dresser drawers

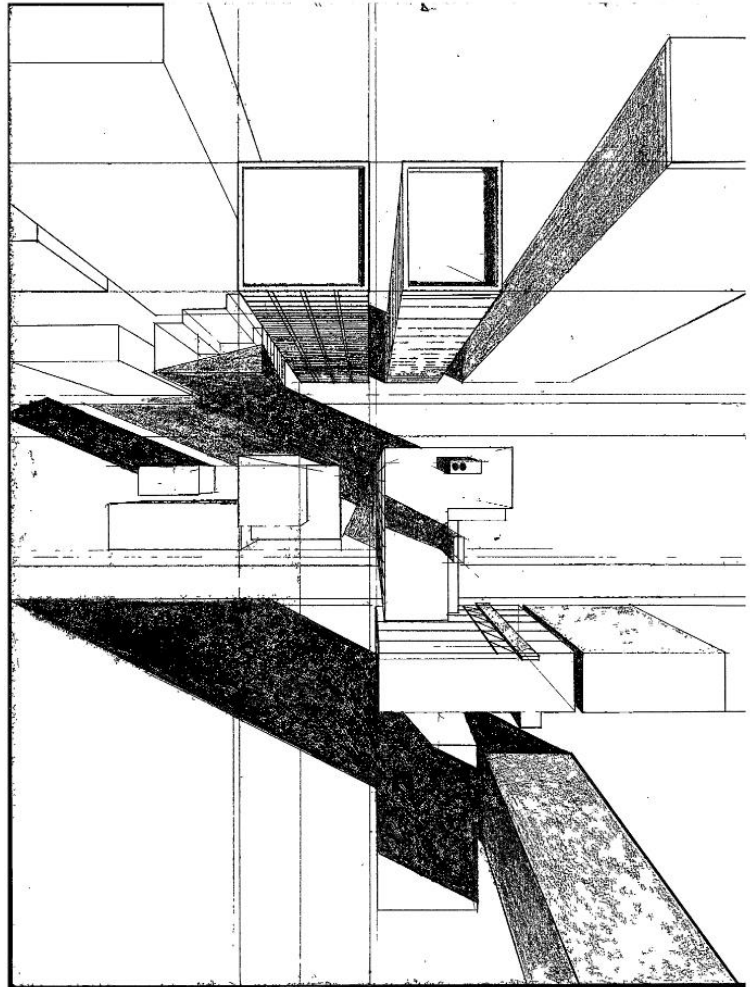
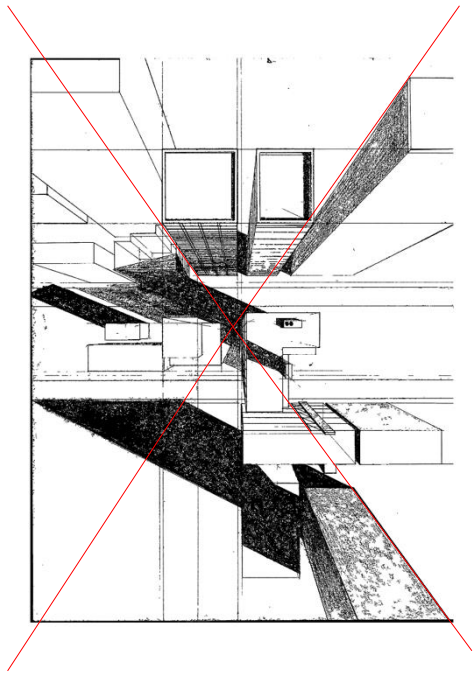


ONE-POINT OVERHEAD INTERIOR PERSPECTIVE

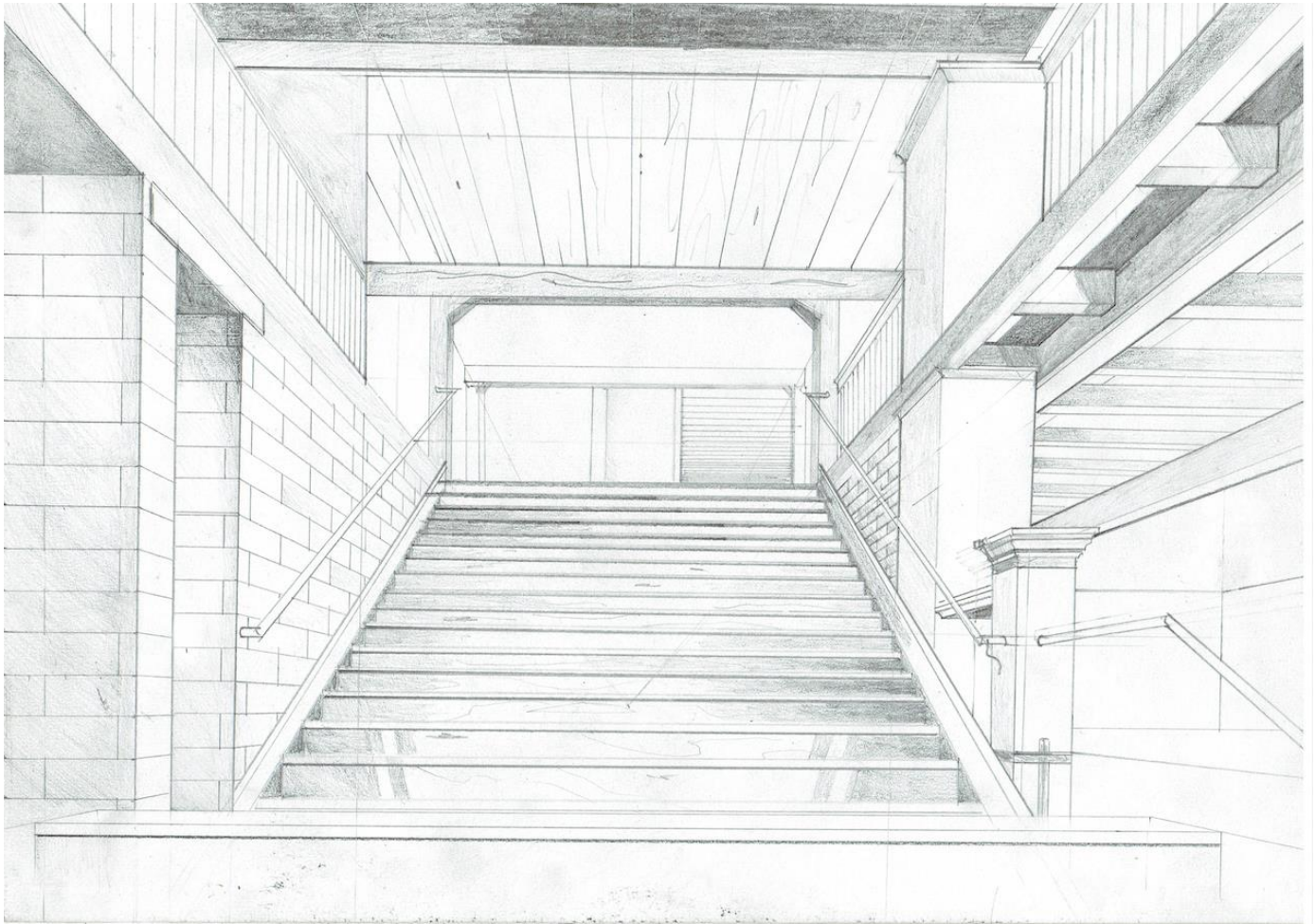
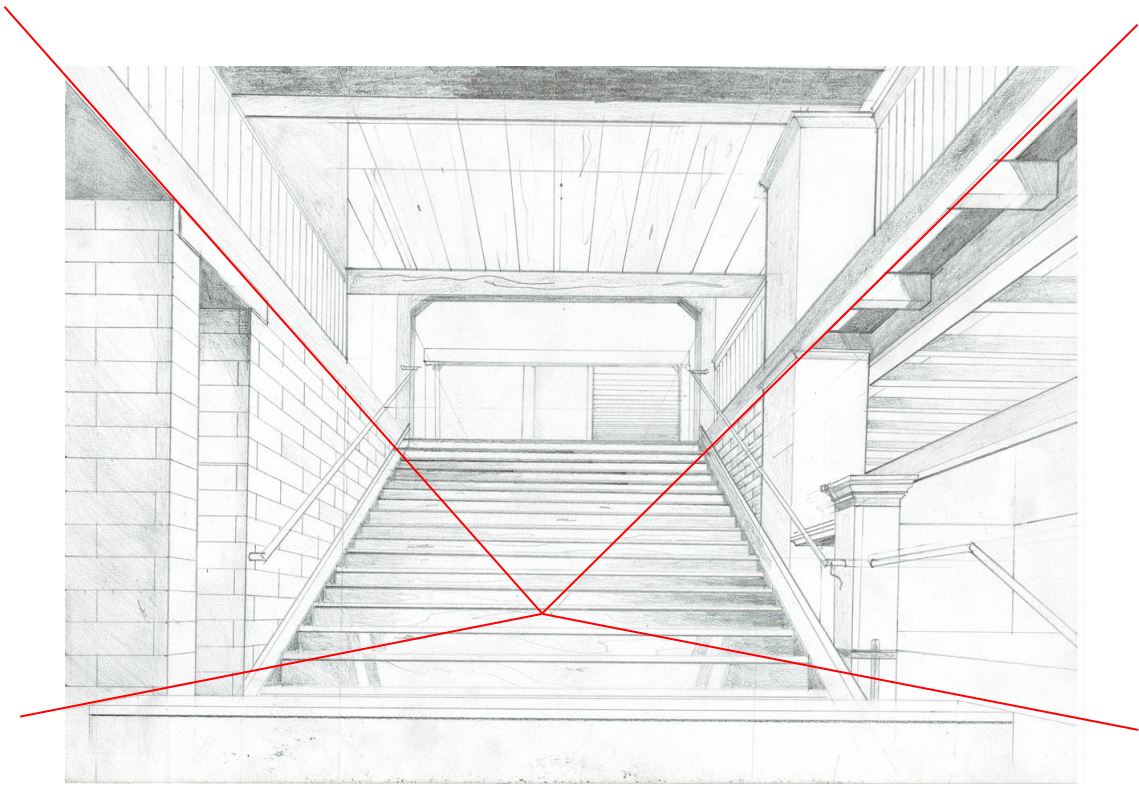
by JJ Wunderlich IV – Dorm Room (2020)

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Watch [JJWIV VIDEO #1](#)(continued): ([MP4](#), [YouTube](#))



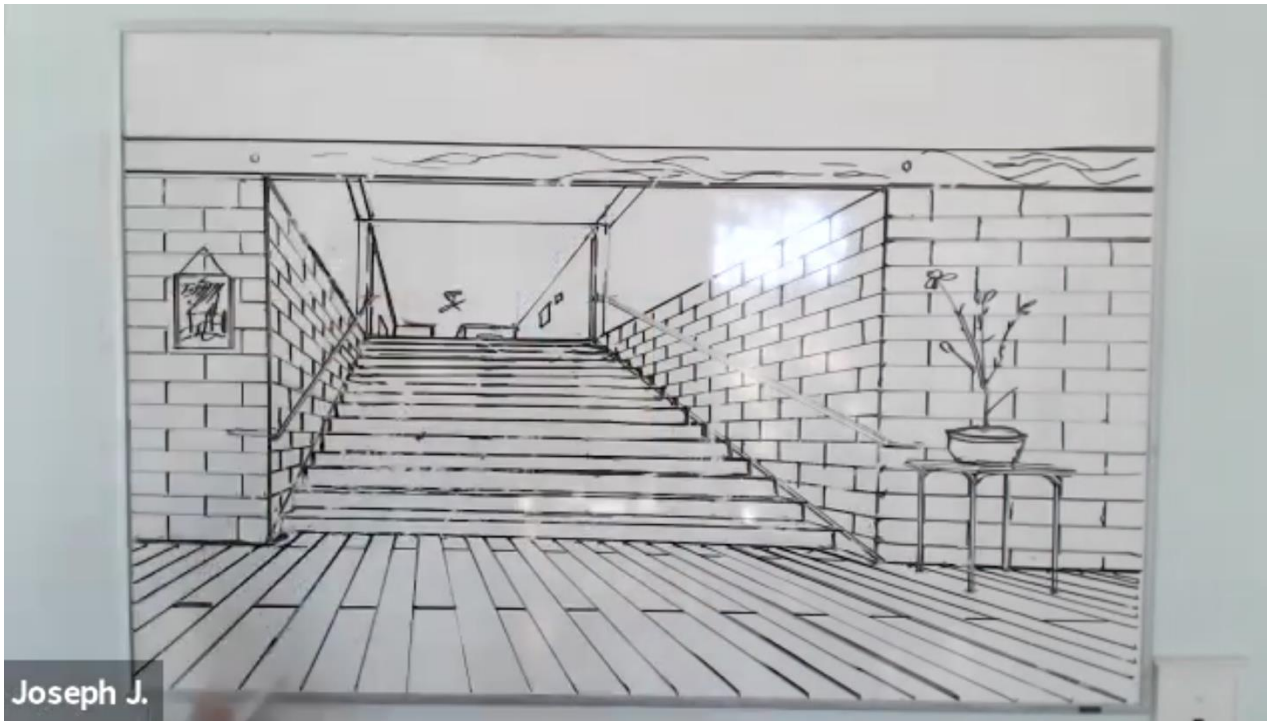
ONE-POINT OVERHEAD EXTERIOR PERSPECTIVE
by JJ Wunderlich IV
[2019 Portfolio](#)



ONE-POINT INTERIOR PERSPECTIVE

by JJ Wunderlich IV (2020)

Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students



ONE-POINT INTERIOR PERSPECTIVE

by JJ Wunderlich IV (2020)

Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students

Watch [JJWIV VIDEO #2: \(MP4, YouTube\)](#)



ONE-POINT EXTERIOR PERSPECTIVE

by JJ Wunderlich IV -- Japanese Town (2020)

Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students

TWO-POINT PERSPECTIVE

- Vertical lines are parallel to the edges of the paper
- Horizontal lines converge to two vanishing points on horizon line

- **FORESHORTENING** means things closer to you seem bigger, so sequences of horizontal or vertical lines get further apart as they get closer
 - Use **diagonal lines** to help with things like finding the centers of windows, or the location of roof peaks on gables

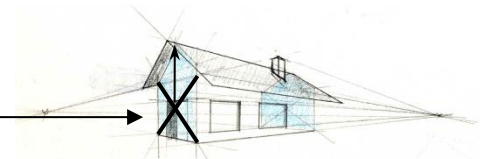
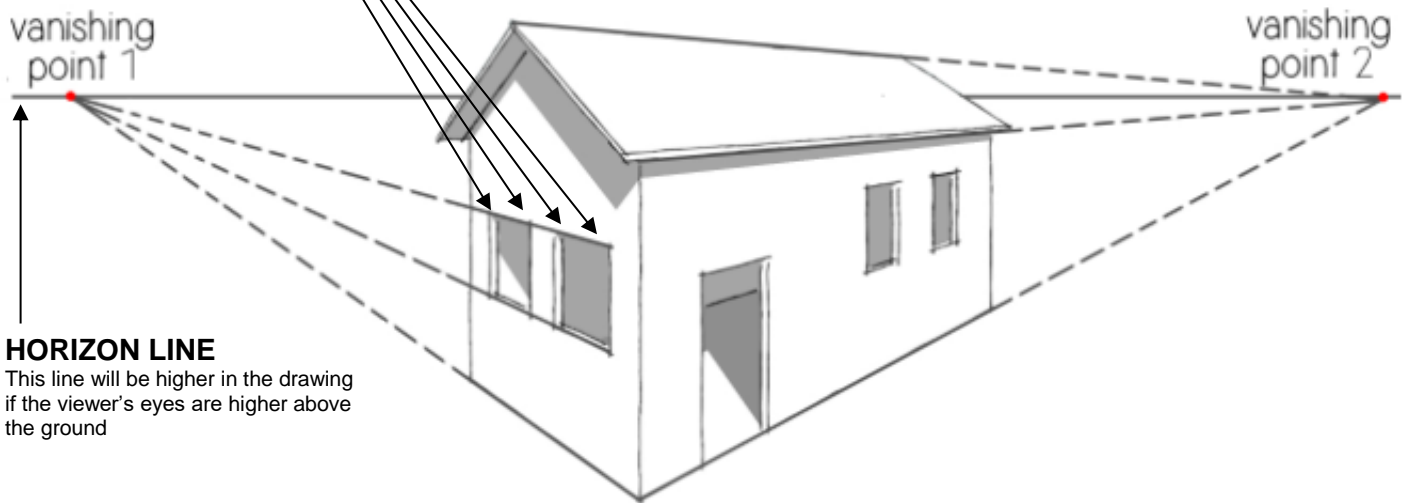
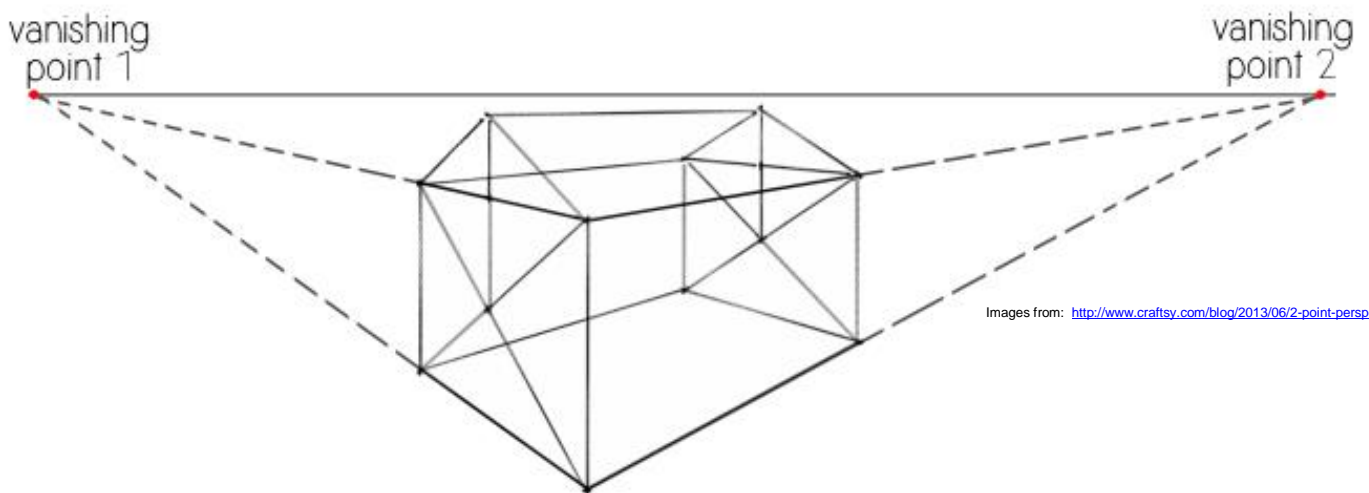


Image from: <http://www.threecolordisasters.com/?p=231>



HORIZON LINE
This line will be higher in the drawing if the viewer's eyes are higher above the ground



Images from: <http://www.craftsy.com/blog/2013/06/2-point-perspective/>

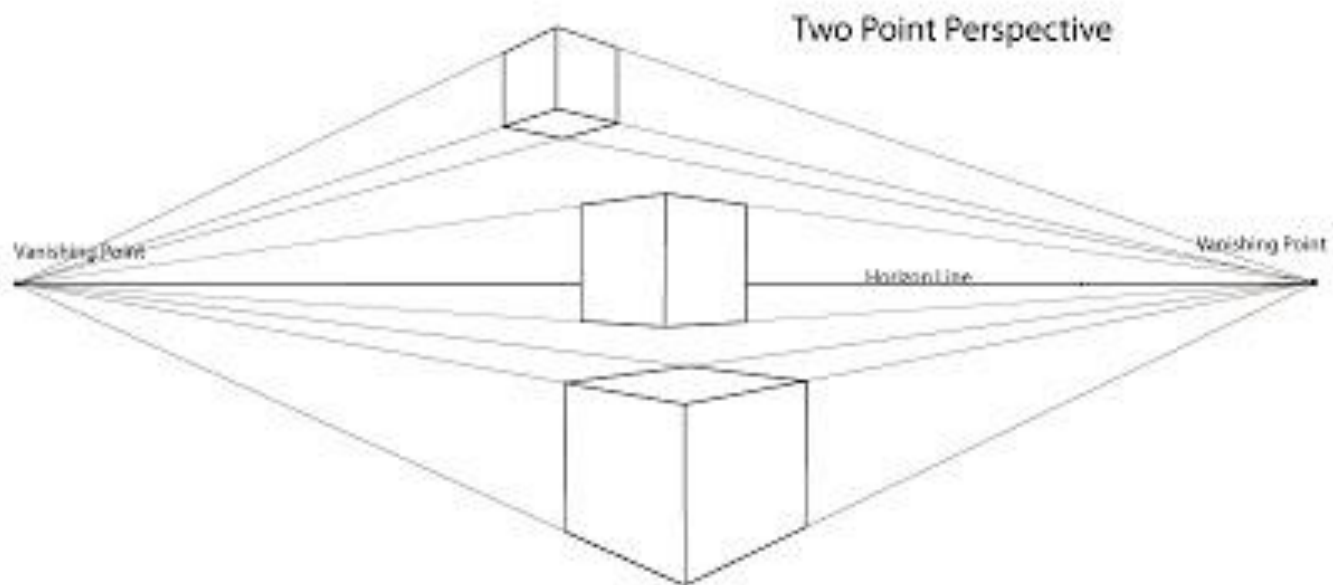
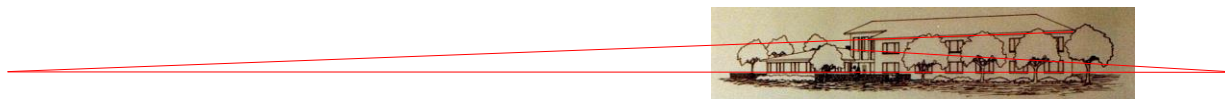
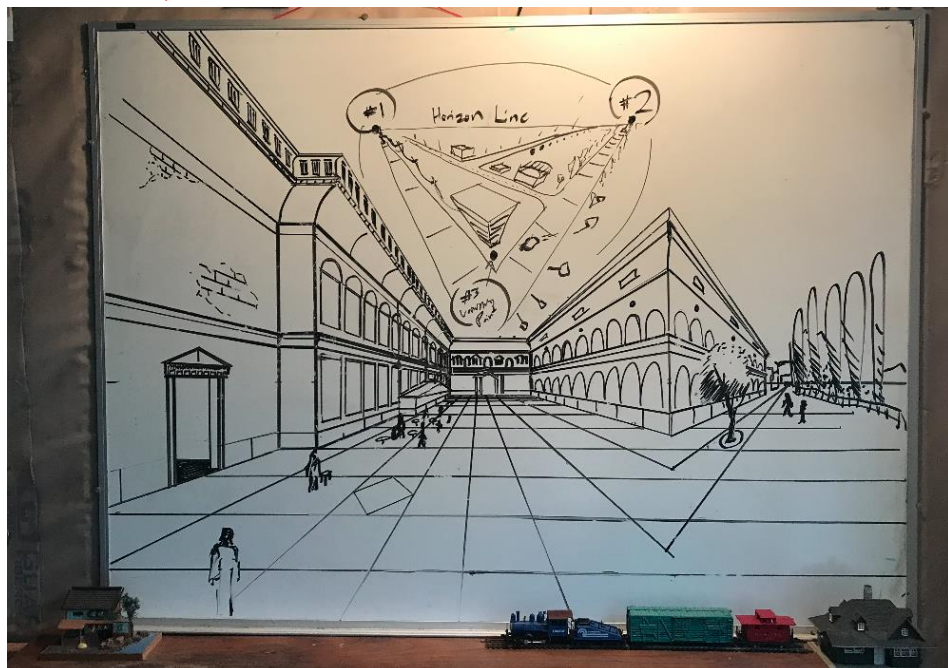


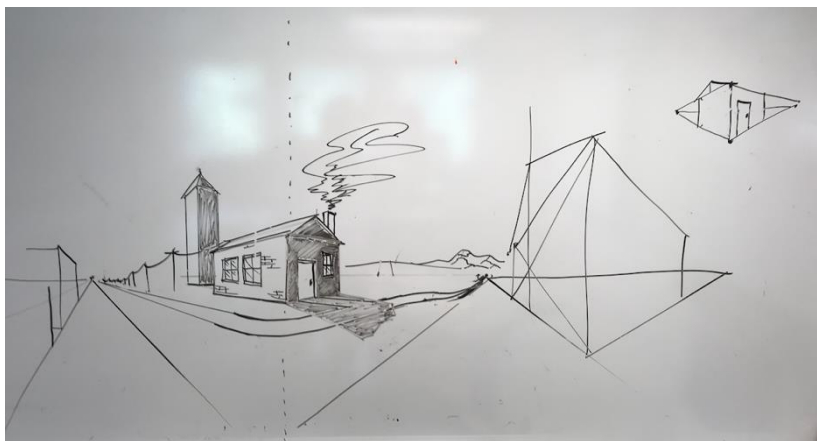
Image from: <http://www.paintdrawpaint.com/2010/09/drawing-basics-two-point-perspective.html>



TWO-POINT PERSPECTIVE
by JT Wunderlich PhD -- Arts Interest House (1981, as a student)
Common area (left) with Dorms (right)



TWO-POINT PERSPECTIVE (lower drawing)
THREE-POINT PERSPECTIVE (upper drawing)
 by JJ Wunderlich IV – Venice, and view of a random city (2020)
 Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students



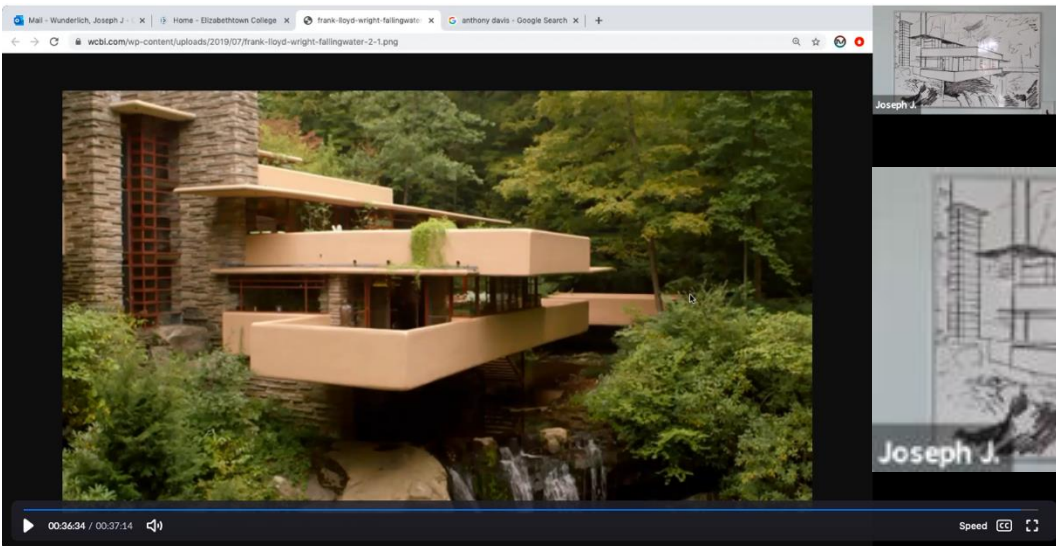
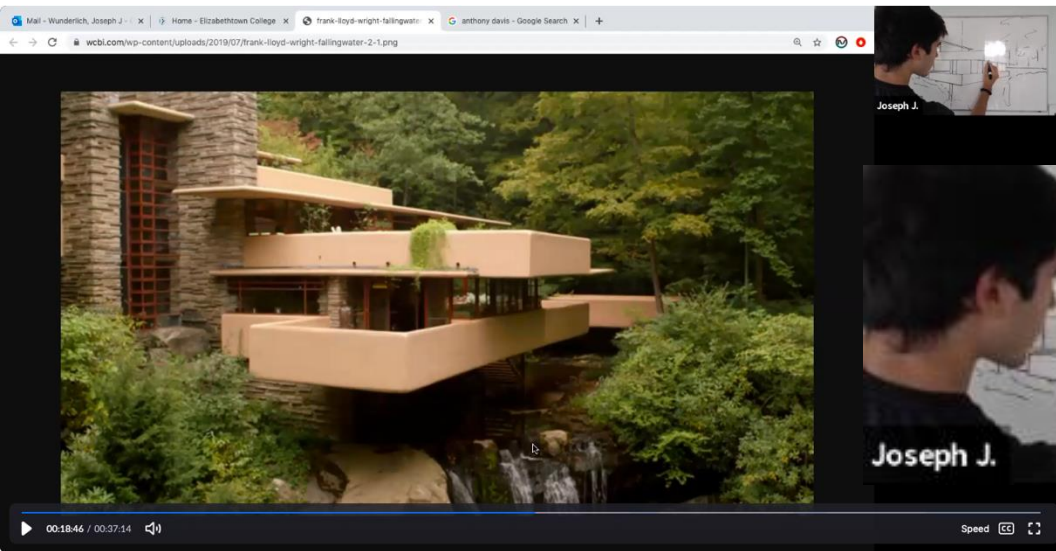
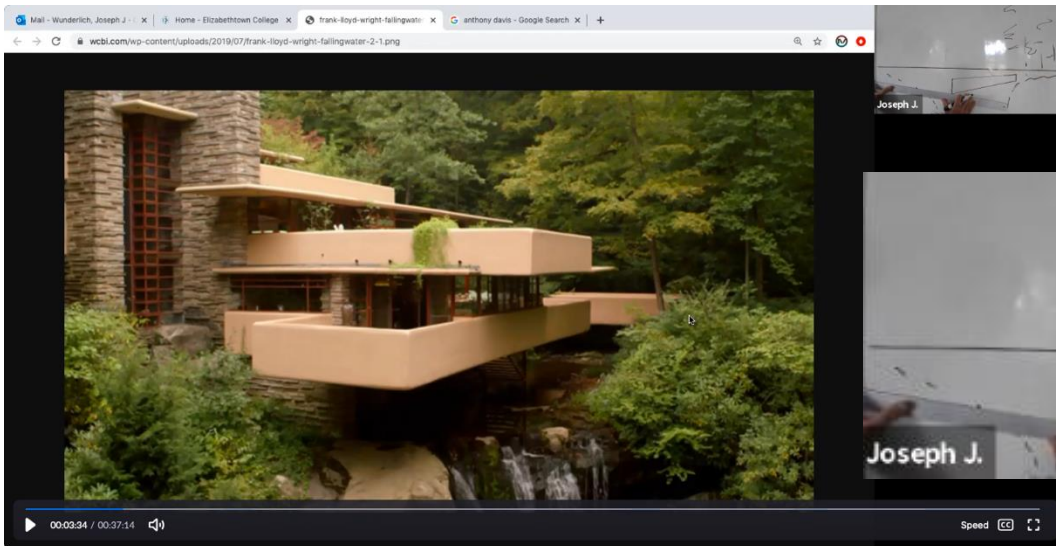
TWO-POINT PERSPECTIVE

by JJ Wunderlich IV (2019)
 Tutoring [EGR/ART499 Architecture Studio](#) and [ART371 Architecture Theory](#) students



TWO-POINT PERSPECTIVE

by JJ Wunderlich IV – Campus Dormitory Building (2020)
Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students
Watch [JJWIV VIDEO #3: \(MP4, YouTube\)](#)



TWO-POINT PERSPECTIVE
by JJ Wunderlich – Campus Dormitory Building (2020)
Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students
Watch JJW VIDEO #4: ([MP4](#), [YouTube](#))

THREE-POINT PERSPECTIVE

(Vertical lines converge to a **vanishing point below or above**)

- Horizontal lines converge to two vanishing points on horizon line

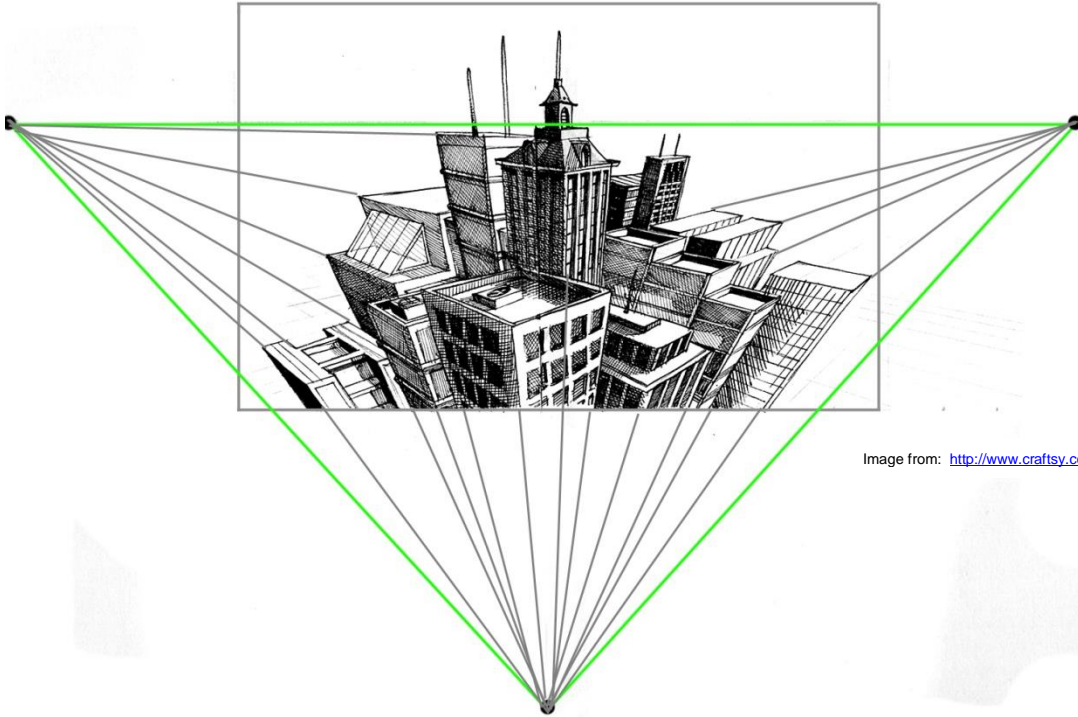


Image from: <http://www.craftsy.com/blog/2013/08/three-point-perspective/>

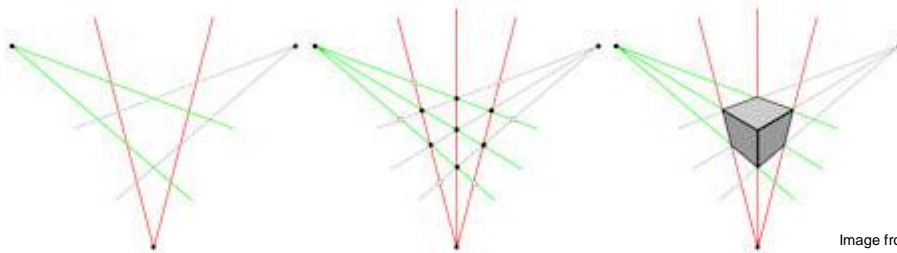


Image from: <http://pixshark.com/3-point-perspective-interior.htm>

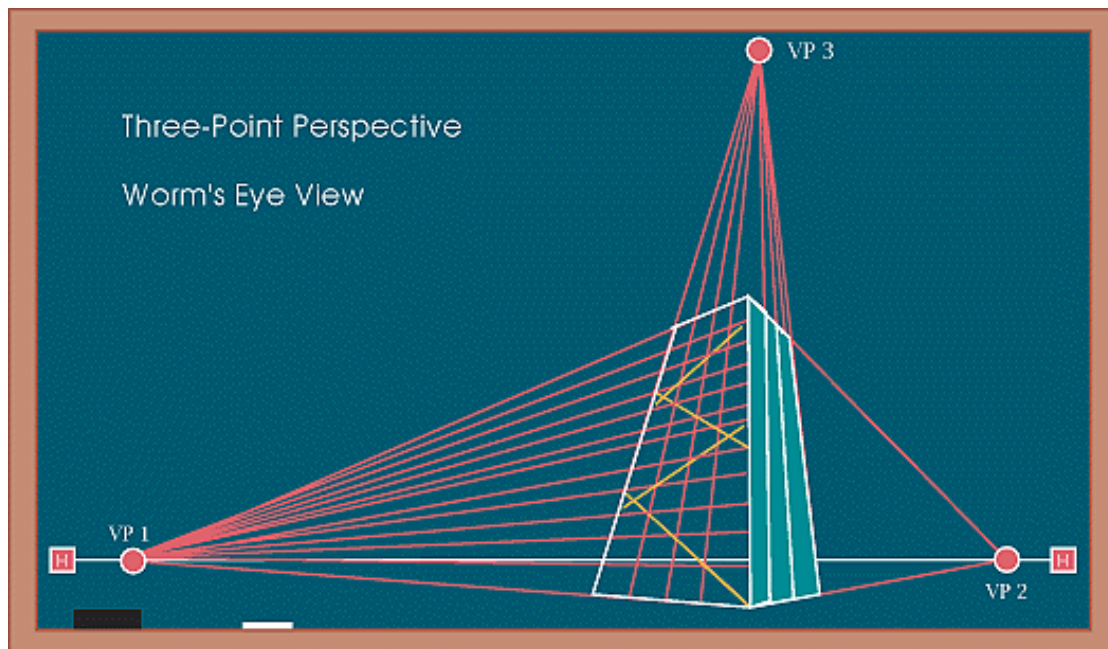
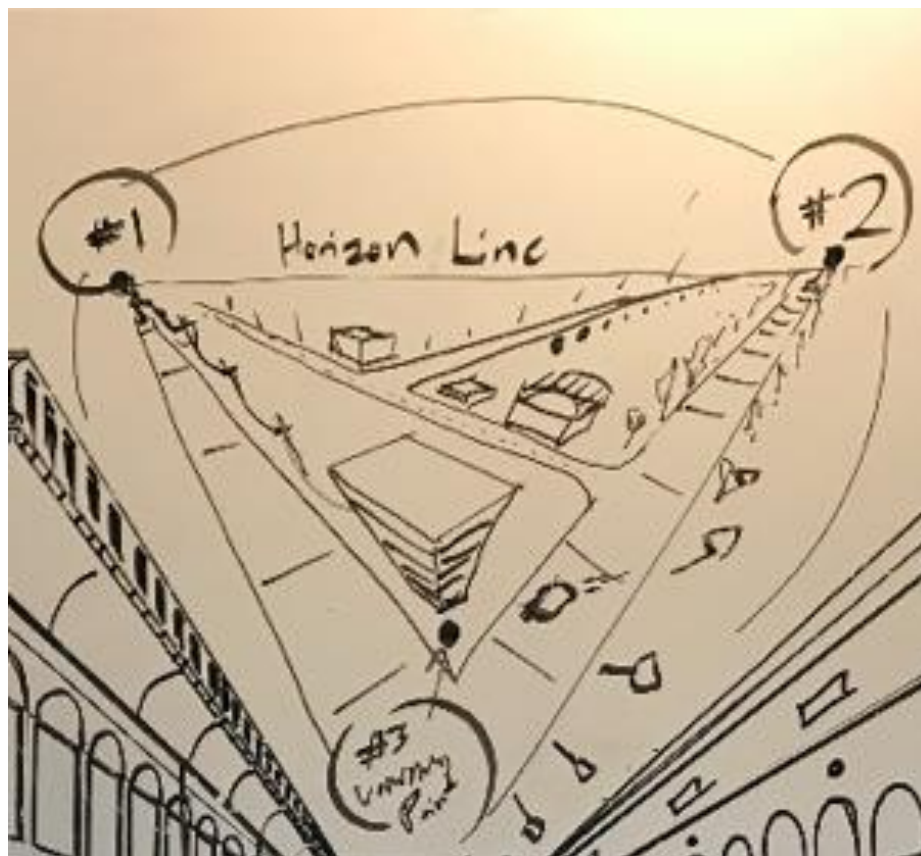
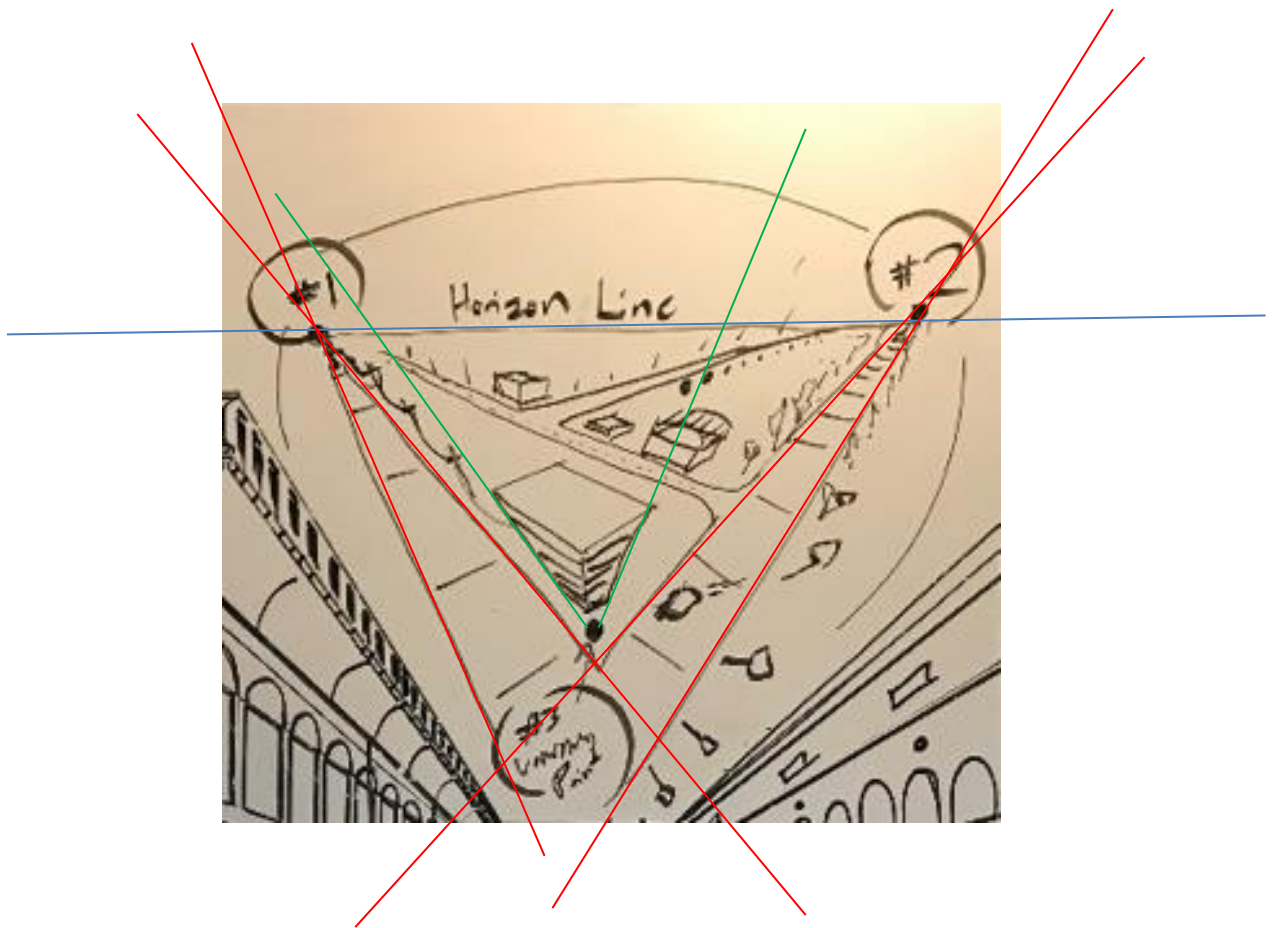


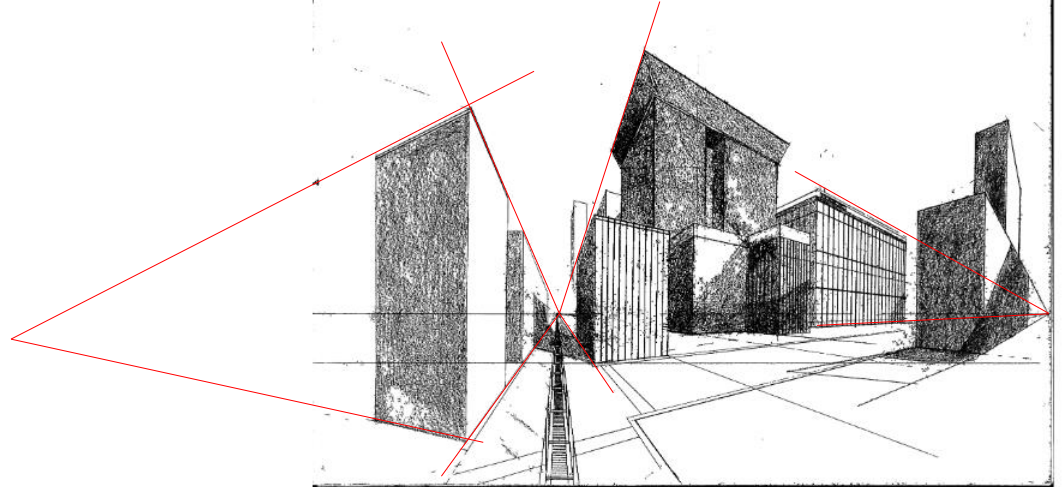
Image from: http://moorestuff.us/ART_STUFF/chalkboard/12_lp-ex3.htm



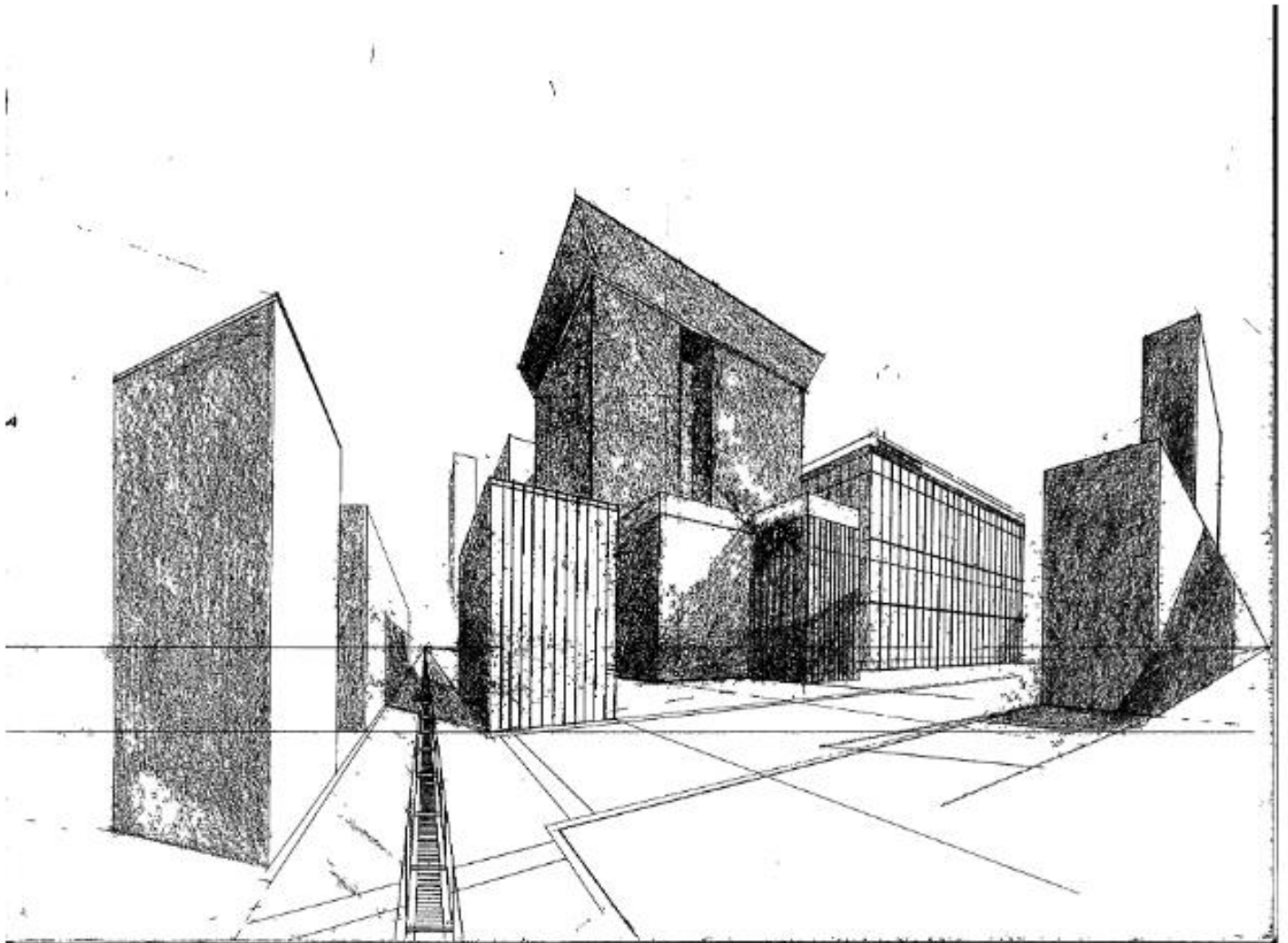
THREE-POINT PERSPECTIVE

by JJ Wunderlich IV -- Arial view of a city (2020)
Tutoring 20 Freshman [FYS100 Conceptual Architecture](#) students

MULTI-POINT PERSPECTIVE

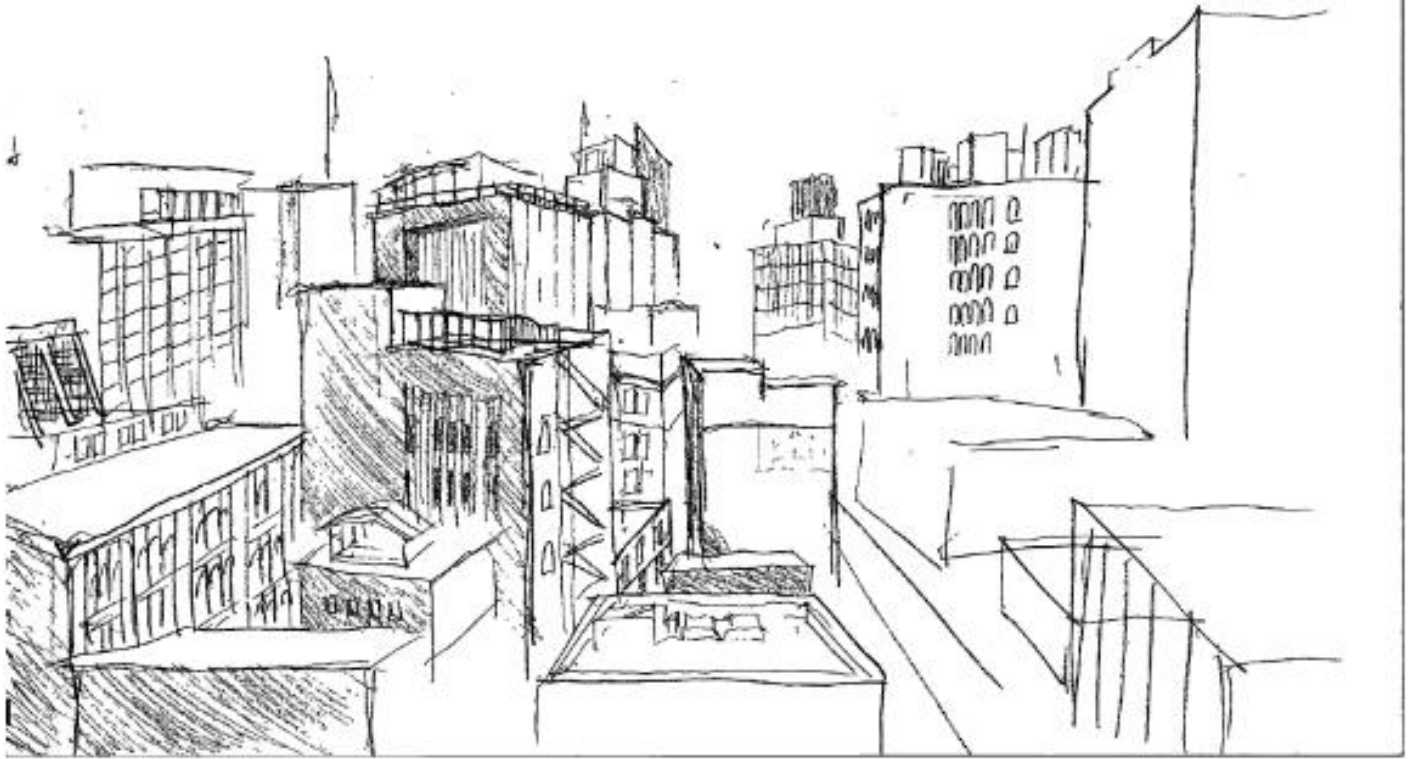


Skyscrapers 9x11"



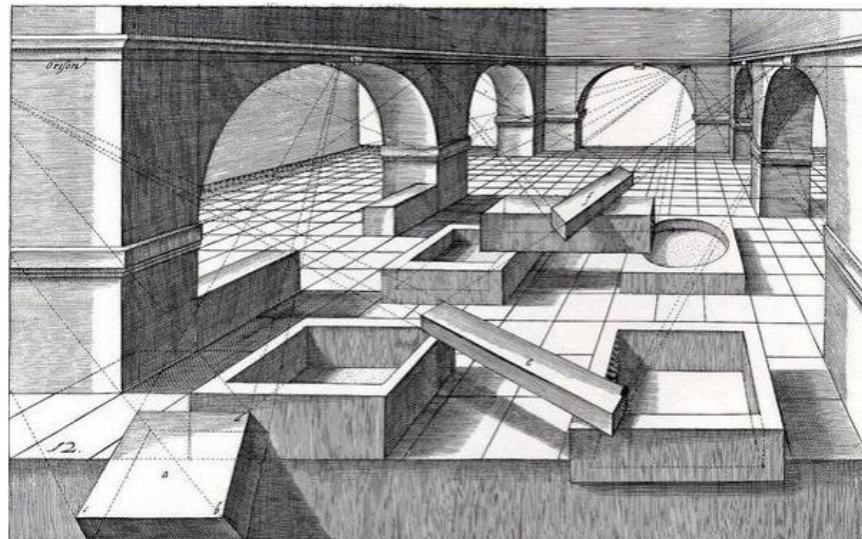
Skyscrapers 9x11"

MULTI-POINT PERSPECTIVE
by JJ Wunderlich IV – New York City
[2019 Portfolio](#)

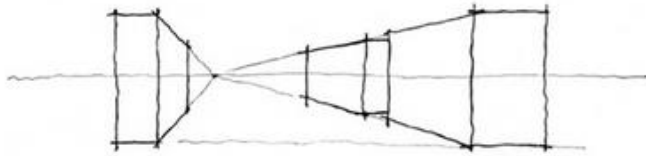


New York 9x11"

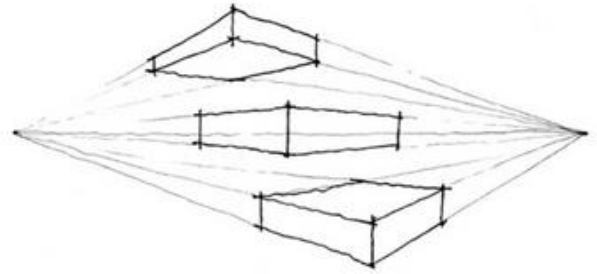
MULTI-POINT PERSPECTIVE
by JJ Wunderlich IV
[2019 Portfolio](#)



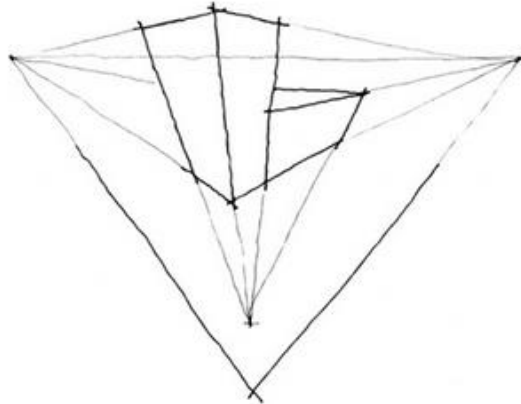
Rendering by Dutch Renaissance Artist Hans Vredeman de Vries, 1604.



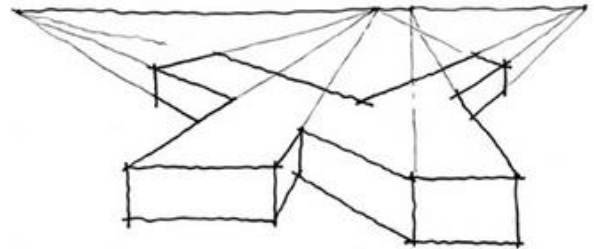
1-point perspective



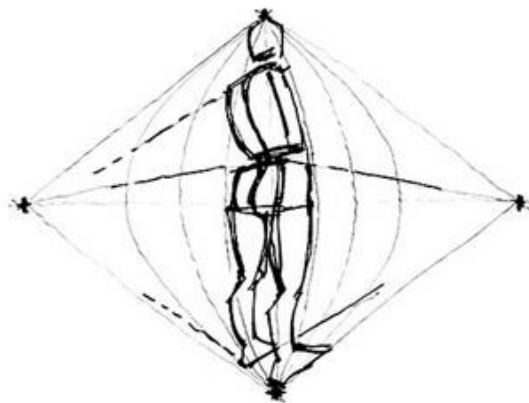
2-point perspective



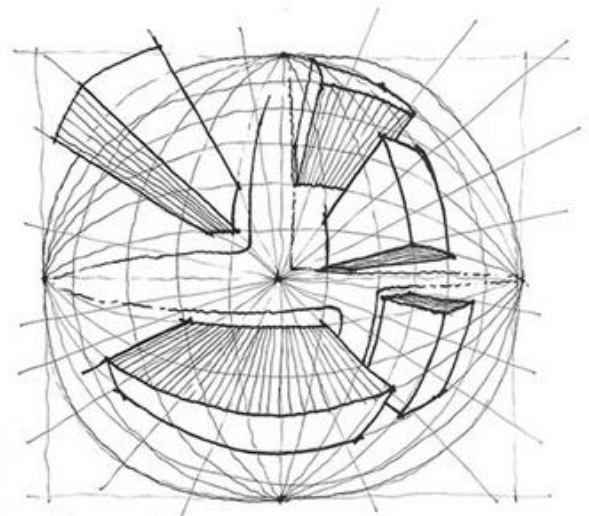
3-point perspective



Multi-point perspective



4-point perspective



5-point perspective

Watch “REVIT vs. Sketchup 3D Modeling Software” [JJWIV VIDEO #5: \(MP4 YouTube\)](#)

Read “REVIT Tutorials 3D Modeling Software” by JTW_PhD: ([PDF's](#))

Watch “Virtual Reality” [JJWIV VIDEO #6: \(MP4 YouTube\)](#)

NOTES and FURTHER READING

1. The one, two, three, and multi point perspective techniques shown above are **LINEAR PERSPECTIVE** techniques; and the four and five point perspective techniques are **CURVILINEAR PERSPECTIVE** techniques.
2. Engineers often use [PARALLEL PROJECTION DRAWINGS](#) (e.g., Orthographic Projections) rather than perspective drawing so dimensions can be easily scaled off of the drawings (e.g., there is no “Foreshortening”). Simpler Computer Games may also use these techniques.
3. Perspective drawing is an approximation of human vision, and is what is attempted in the Computer Graphics of sophisticated Architectural Rendering software (like in [Etown REVIT student projects](#)), and in modern Computer Game software ([like in Etown Lumion student projects](#)). Read (and listen to) more (using PPTX-w/audio for clickable links where available) JTW_PhD Lectures:
 - “**Human vs. Machine Vision**” [PPTX-w/Audio](#) [MP4](#) [YouTube](#) [PDF](#)
 - “**Intro to Neural Networks (and Symbolic AI)**” [PPTX-w/Audio](#) [MP4](#) [YouTube](#) [PDF](#)
 - “**Intro Neural Network Code**” [MP4](#) [YouTube](#)
 - “**Color, Display-Technologies**” [PPTX-w/Audio](#) [MP4](#) [YouTube](#) [PDF](#)
 - “**Graphics Cards I**” [PPTX-w/Audio](#) [MP4](#) [YouTube](#) [PDF](#)
 - “**Graphics Cards II**” [PPTX-w/Audio](#) [MP4](#) [YouTube](#) [PDF](#)

Listen to 2020 “2020 Christmas Concert” [JJWIV VIDEO #7: \(MP4 YouTube\)](#)