MATH 121

(Day 6)

Piero della Francesca’s Diagonal Construction

Richard Hammack:

www.people.vcu.edu/~rhammack/Math121/
Two Types of Perspective

- One-point perspective (Viewer faces object(s) straight-on)
- Two-point perspective (Viewer faces object(s) at an angle)

Problems of two-point perspective:

▶ How do you locate multiple vanishing points?
▶ What if one or more vanishing points lie off your paper?

Today's Goal:
Examine the art and mathematics of Piero della Francesca; Learn how he overcame these problems.
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Piero della Francesca

1415–1492
Piero della Francesca, *Madonna di Sengallia*, c. 1473
Piero della Francesca, *Legend of the True Cross: Annunciation*, c. 1453
Piero della Francesca, *St. Anthony Polyptych; Annunciation*, c. 1465
From Peiro's book *On Perspective for Painting*, c. 1475
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viewer

picture plane

“stage”
Piero’s floorplan and its perspective view

A “stage” on which to create a scene
How to locate the perspective image $P'$ of a point $P$
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Diagram showing the perspective drawing of a box with labeled points B, C, V, K, G, R, S, and T.
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