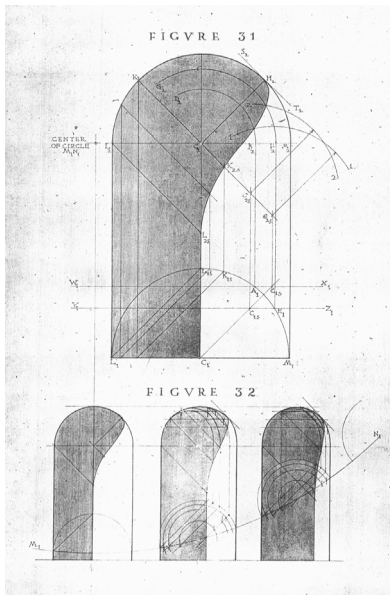


48-175 Descriptive Geometry

6 units • Spring 2022

Descriptive geometry deals with solving problems in three-dimensional geometry through working with two-dimensional planes using basic mechanical tools. Descriptive geometry deals with physical space, the kind that one is used to since birth. Things one can see around us have geometry and even things that one cannot see, also have geometry. All these things concern geometric objects almost always in relationships—that is, next to, above, below, intersecting with, occluding, hidden by and so on—to one another that sometimes requires us to make sense of it all—in other words, when we try to solve geometric problems albeit in architecture, engineering, or the sciences. In fact, descriptive geometry has proved itself to be practically useful; it has been one of the more important factors in the design of scientific apparatus, engineering systems and architectural structures—it is the basis of modern geometrical computing. Descriptive geometry is constructive—meaning, one uses conventional mechanical drawing tools: namely, compass, ruler, protractor, divider, triangles, etc., to construct solutions to geometric problems. This course specifically revolves around the historical techniques for manually solving three-dimensional geometry problems.



“... to study architectural shadows carefully and with their [sic!] artistic faculties fully awake to their essential value, that they may express them quickly, readily and truly on all their studies in design...”

Architectural Shades and Shadows

Henry Kerr
McGoodwin

Architect, educator
and one time Dean
of College of Fine
Arts, Carnegie
Institute of
Technology

circa 1923

