Composites, Conventions, Axonometrics

From Thin to Thick
Theory of Axonometric Projection
AXONOMETRIC CONSTRUCTIONS
matrix of projection types

PROJECTIONS

PARALLEL

OBLIQUE

CABINET (1:2)

CAVALIER (1:1)

ORTHOGRAPHIC

AXONOMETRIC

ISOMETRIC (3 AXES =)

ARCHITECTURAL AXONOMETRICS

TRIMETRIC (3 AXES)

DIMETRIC (2 AXES)

CONIC/CENTRAL

PERSPECTIVE

NORMAL

PLAN

SECTION
TRIMETRIC AS PROJECTION
TRIMETRIC AS PROJECTION
TRIMETRIC AS PROJECTION
all axes are foreshortened
ISOMETRIC AS PROJECTION
special case trimetric: all axes are foreshortened equally
ISOMETRIC AS PROJECTION
all axes are drawn true length - all shapes reconstructed
ARCHITECTURAL AXONOMETRIC AS PROJECTION
parallel oblique projection - projection plane parallel to one face
ARCHITECTURAL AXONOMETRIC AS CONSTRUCTED

cavalier axo: all axes are drawn true length - plan shape preserved
ARCHITECTURAL AXONOMETRIC AS CONSTRUCTED

cabinet axo: receding lines at half-length - plan shape preserved
Archigram (Peter Cook)
1964

Plug-In City

Courtesy of Archigram. Used with permission.
League of Nations Competition Entry
Hannes Meyer
1927
Schroder House
Gerrit Rietveld
1920's

Drawing of Schröder House removed due to copyright restrictions.
See Phaidon picture gallery for a reference image.
Maison Particulière
Theo van Doesburg
1923

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See Martin Sommer's webpage on Doesburg for a reference image.
Nursing home in Agra, Switzerland, competition project, 1980

State bank in Freiburg, Switzerland, 1977-1982

Administrative center in Brühl, Germany, competition project, 1980

Courtesy of Mario Botta Architetto. Used with permission.
Whig Hall: Princeton University
Charles Gwathmey
1975

Project axonometrics of Whig Hall removed due to copyright restrictions. See page 2 of Gwathmey Siegel’s project PDF on Whig Hall for reference images.
Temple of 'Histoire de L'Architecture'
Auguste Choisy
1899

Solar Shading (section bias)

Francis Ching
Intermodal Station
Bernard Tschumi
1988-2001

Courtesy of Bernard Tschumi Architects (Alison McIlvride). Used with permission.
Glass Video Gallery
Bernard Tschumi
1990

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Exploded axonometric drawing of Kash Villa removed due to copyright restrictions.
Habitat ‘67
Moshe Safdie
1967

Courtesy of Safdie Architects. Used with permission.
Bramante's Tempietto in Rome
Daniel Castor

Courtesy of Daniel Castor. Used with permission.
Sketchpad

Ivan Sutherland