# Composites, Conventions, Axonometrics From Thin to Thick



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# **AXONOMETRIC CONSTRUCTIONS**

matrix of projection types



# **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



[CAVALIER]



# **ARCHITECTURAL AXONOMETRIC AS CONSTRUCTED**

cabinet axo: receding lines at half-length - plan shape preserved



[CAVALIER]



[CABINET]



### Plug-In City

Archigram (Peter Cook) 1964





#### League of Nations Competition Entry

Hannes Meyer 1927



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#### Schroder House

Gerrit Rietveld 1920's

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#### Maison Particuliére

Theo van Doesburg 1923

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#### Worm's Eye Axonometrics

Mario Botta



Nursing home in Agra, Switzerland, competition project, 1980

State bank in Freiburg, Switzerland, 1977-1982

Courtesy of Mario Botta Architetto. Used with permission.



Administrative center in Brühl, Germany, competition project, 1980

#### 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.

#### Temples from "Histoire de L'Architecture"

Auguste Choisy 1899



Source: Choisy, Auguste. "Architecture Grecque." In *Histoire de l'architecture*. Vol 1. G. Baranger, 1899. This work is in the public domain.

#### Solar Shading (section bias)

Francis Ching



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Source: Ching, Francis D. K. "1.18 Solar Shading." In Building Construction Illustrated. 4th ed. John Wiley & Sons, Inc., 2008. ISBN: 9780470087817.

#### Intermodal Station

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Bernard Tschumi 1988-2001



Courtesy of Bernard Tschumi Architects (Alison McIlvride). Used with permission.

### **Glass Video Gallery**

Bernard Tschumi 1990



Courtesy of Bernard Tschumi Architects (Alison McIlvride). Used with permission.

#### **Exploded Axon**



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## **Cosmic Thing**

Damian Ortega 2002

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### Kash Villa

Hariri + Hariri 1989

Exploded axonometric drawing of Kash Villa removed due to copyright restrictions.

#### Habitat '67

Moshe Safdie 1967



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Courtesy of Safdie Architects. Used with permission.

#### Bramante's Tempietto in Rome

Daniel Castor



Courtesy of Daniel Castor. Used with permission.

#### Bramante's Tempietto in Rome

Daniel Castor



# Sketchpad Ivan Sutherland

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