

# Precedent Study

## Introduction:

Architecture and structure are inherently united. Without structure there can be no architecture. But some architectural works merely employ structure, hiding it within walls, ceilings and roofs while other architectural works exalt structure, making it an integral part of the architectural language, using it to communicate meaningfully on all levels.

By making a close study of one of these architectural works you can observe and understand the integration of these two fundamental themes. The process of detailed and large scale model building requires careful research, analysis and understanding of images and documents.

## Objectives:

- To be able to research a specific architectural work.
- To be able to determine the structurally and architecturally significant component(s) of the work.
- To be able to read and interpret architectural drawings specifically as they relate to structural components.
- To be able to analyze photographs to understand the specific architectural work.
- To be able to analyze the photographs in conjunction with other documents to determine size, position and material of building components
- To be able to determine an appropriate scale at which to represent the significant component of the work.
- To be able to choose appropriate materials and techniques to construct a model of the project.

## Problem:

Choose and research an architectural work that exalts the structural component and model the structurally significant component in great detail and, if necessary at large scale. The project may be either an individual or a group project.

## Process:

1. Using the library, internet and your environment review the list of buildings and other similar buildings.
2. Choose a building to work with.
3. Determine the structurally significant aspect of your work.
4. Research your structure to define size, materials, connections and all other components of your structure.
5. Choose an appropriate scale to represent your work.
6. Strategize materials and connections
7. Construct your model

## Requirements:

### Model

- Construct an accurate, fully detailed model of your structure
- Group project will be at a large scale, wall section models should be approximately 5' tall. Review plans and scales for other models with me.

### Presentation

- Present what is structurally significant about your work to the class.
- Presentations should be no more than 15 minutes
- Presentations may use any media or material

## Building Choices:

*I am confident that all of these buildings have an appropriate combination of architecture and structure and can be adequately researched. If you would like to work with another building bring documents describing the building to class so that I can review them.*

1. Dulles International Airport, Washington DC, Saarinen (Eero) and Associates, 1962 *Building Section*
2. Kursaal Auditorium and Congress Center, Rafael Moneo. San Sebastian, Spain 1989-1999 *Wall Section*
3. 88 Wood Street, Richard Rogers Partnership, London, England, 2000 *Wall Section*
4. Yerba Buena Lofts, Stanley Saitowitz Office/Natoma Architects, San Francisco Californai, 2002 *Wall Section*
5. Law Courts, Richard Rogers Partnership, Bordeaux, France, 1998 *Structural Bay*
6. Financial Times Printing Works, London, England, Nicholas Grimshaw & Partners, 1988 *Wall Section*
7. Sainsbury Center for Visual Arts, Norwich, England, Foster Associates, 1977 *Building Section*
8. Kunsthhaus, Bregenz, Austria, Atelier Peter Zumthor, 1997 *Wall Section*
9. Wohlen High School Assembly Hall, Wohlen, Switzerland, Santiago Calatrava, 1988 *Structural Diagram*
10. Museum of Contemporary Art, Barcelona, Spain, Richard Meier Architects, 1995 *Wall Section*
11. The Beehive, Culver City, California, Eric Owen Moss Architects, 2001 *Wall Section*
12. Cite des Sciences et de L'Industrie, Paris, France, Adrien Fainsilber, 1986 *Glass Wall*
13. Cite of Arts and Sciences, Valencia, Spain, Santiago Calatrava, 1998 *Building Section*

14. Oriente Station, Lisbon, Portugal, Santiago Calatrava, 1996, *Structural Bay*
15. Sagrada Familia, Barcelona, Spain, Barcelona Spain, 1882-1896 *Structural Detail*
16. Madrid Barajas Airport, Madrid, Spain, Richard Rodgers Partnership, 1997-2005, *Structural Bay*
17. Continental Train Platform, Waterloo Station, London, England, Nicholas Grimshaw and Partners, 1993, *Building Section*
18. Kansai International Airport, Osaka, Japan, Renzo Piano Building Workshop, 1988-94, *Wall Section*
19. Jean-Marie Tjibaou Cultural Center, Noumea, New Caledonia, 1991-98, Renzo Piano Building Workshop, *Wall Section of Structural Module*

	EXCELLENT	VERY GOOD	GOOD	AVERAGE	FAIR	POOR	INCOMPLETE
<b>Research</b> – depth- details of construction are fully resolved	20	18	16	14	12	10	5
<b>Research</b> - breadth- the relationship of the structural component to each other and architectural elements is fully resolved	20	18	16	14	12	10	5
<b>Model</b> - A structurally meaningful aspect is selected for the model	20	18	16	14	12	10	5
<b>Scale</b> - model is built at an appropriate scale	10	9	8	7	6	5	2.5
<b>Material</b> – model is built out of materials that accurately represent the construction	20	18	16	14	12	10	5
<b>Construction</b> – model is accurate	20	18	16	14	12	10	5
<b>Construction</b> – model accurately represents details and connections	20	18	16	14	12	10	5
<b>Construction</b> – model is model is well crafted	20	18	16	14	12	10	5
<b>Model</b> – is creative	10	9	8	7	6	5	2.5
<b>Model</b> – is aesthetically pleasing	10	9	8	7	6	5	2.5
<b>Presentation</b> – accurate and complete	20	18	16	14	12	10	5
<b>Presentation</b> – organized and focused	10	9	8	7	6	5	2.5
<b>TOTAL</b>							