High-Tech Architecture also known as Late Modernism or Structural Expressionism, is an architectural style that emerged in the 1970s, incorporating elements of high-tech industry and technology into building design.



RICHARD ROGERS and RENZO PIANO, Georges Pompidou National Center of Art and Culture (the "Beaubourg"), Paris, France, 1977.



Rogers and Piano. Pompidou Center, Paris, France, 1972-6

Rogers and Piano. Pompidou Center, Paris, France, 1972-6

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Rogers and Piano. Pompidou Center, Paris, France, 1972-6



Rogers and Piano. Pompidou Center, Paris, France, 1972-6

NORMAN FOSTER, Hong Kong and Shanghai Bank, Hong Kong, China, 1979– 1986. No internal supporting structure.

Natural sunlight is the major source of lighting inside the building.



## **Postmodern Architecture** (1970s – Present)

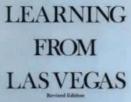
Postmodern architecture evolved from Modernism, yet it rebels against that style.

Instead of "form follows function" - form is adopted for its own sake

• While modernism is rooted in minimal and true use of material as well as absence of ornament, postmodernism seeks exuberance in the use of building techniques, angles, and stylistic references.

 Eclectic, fun and humorous, postmodernist buildings may startle, surprise, and even amuse.

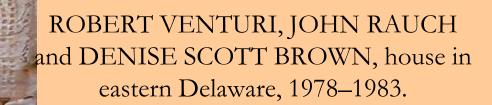




## ROBERT VENTURI, JOHN RAUCH and DENISE SCOTT BROWN, house in eastern Delaware, 1978–1983.



#### Classical Broken Pediment



*The Treasury* at Petra. Jordan. Classical. 1<sup>st</sup> c. Greek-influenced architect



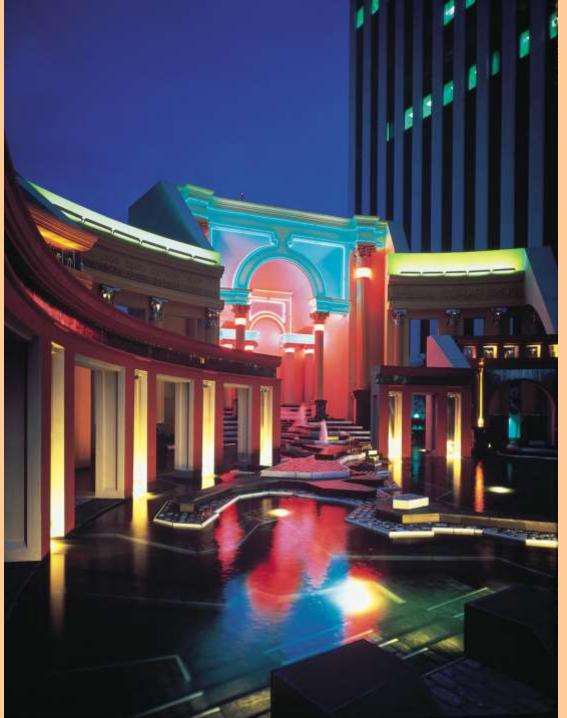
Le Corbusier, *Villa Savoye* at Poissy, France (1929–30). ROBERT VENTURI, JOHN RAUCH and DENISE SCOTT BROWN, house in eastern Delaware, 1978–1983.





CHARLES MOORE, Piazza d'Italia, New Orleans, Louisiana, 1976-1980.

**CHARLES MOORE,** *Piazza d'Italia*, New Orleans, Louisiana, 1976–1980.



Comparison: The International Style: Le Corbusier. *Villa Savoye* 1928-1929. Poissy, France



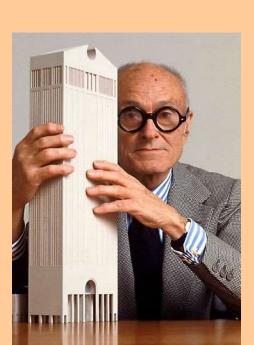


**Charles Moore, Piazza d'Italia**, New Orleans, Louisiana, 1976-1980.



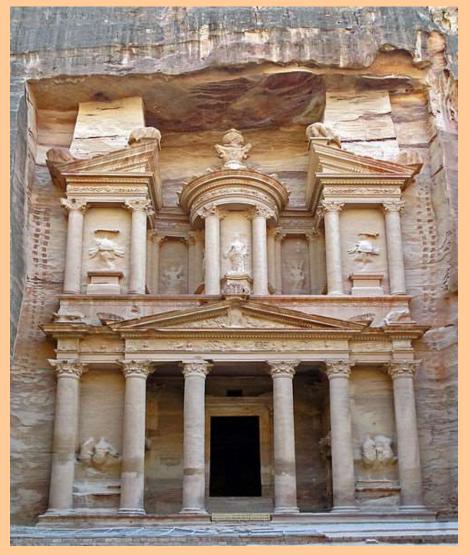
Chippendale style chest, 18th century

PHILIP JOHNSON and JOHN BURGEE (with Simmons Architects), AT&T (now Sony) Building, New York, 1978–1984.





#### Classical Broken Pediment



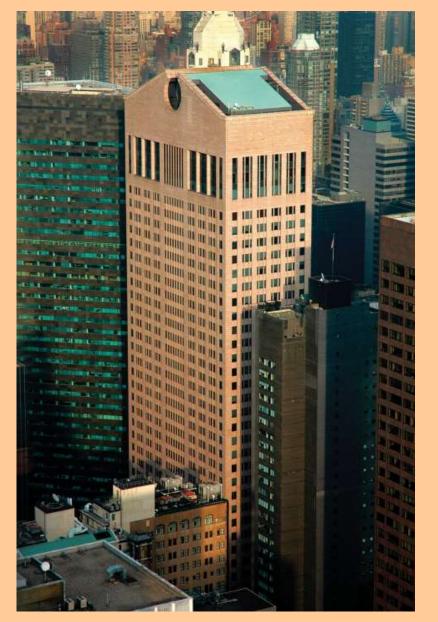
*The Treasury* at Petra. Jordan. Classical. 1<sup>st</sup> c. Greek-influenced architecture



PHILIP JOHNSON and JOHN BURGEE AT&T (now Sony) Building, New York, 1978–1984.



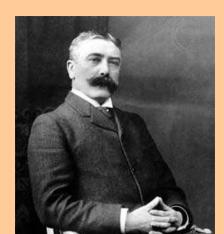
#### Ludwig Mies van der Rohe and Philip Johnson. *Seagram Building*., NY, 1954-8



PHILIP JOHNSON and JOHN BURGEE AT&T (now Sony) Building, New York, 1978–1984.

## <u>Structuralism</u>

European critical movement of the mid-20th century. It is based on the linguistic theories of Ferdinand de Saussure, which hold that language is a self-contained system of signs, and the cultural theories of Claude Lévi-Strauss, which hold that cultures, like languages, can be viewed as systems of signs and analyzed in terms of the structural relations among their elements.

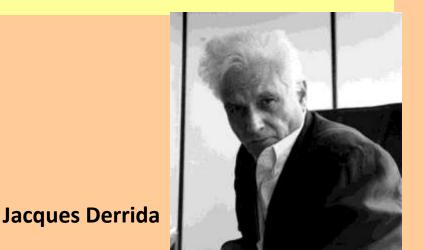


Ferdinand de Saussure

## **Deconstruction**

Philosophically sceptical approach to the possibility of coherent meaning in language, initiated by the French philosopher Jacques Derrida. Derrida used Saussure's insights to develop Deconstruction, a perspective that focuses on the lack of a truth "out there" to provide meaning.

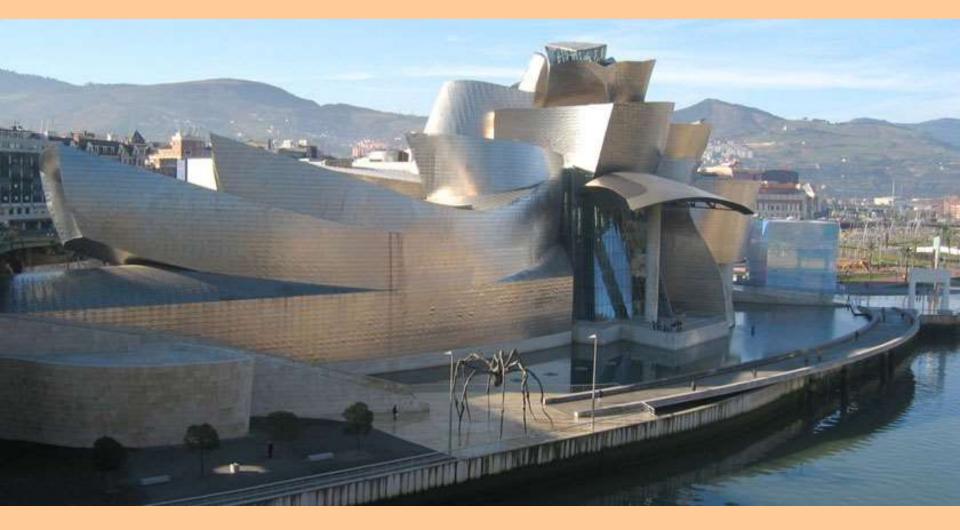
Deconstruction holds that texts and images do not refer to any authentic, coherent world outside themselves. Deconstructive artists seek to 'deconstruct' our systems of knowledge that seem 'universal' and expose their myths, clichés and stereotypes.



Deconstructivist buildings often use abstract and non-geometrical forms. They often have no immediately apparent visual logic, often appearing fragmented and having unusual penetrations. They may appear to be made up of unrelated, disharmonious abstract forms.



GÜNTER BEHNISCH, Hysolar Institute Building, University of Stuttgart, Stuttgart, Germany, 1987.

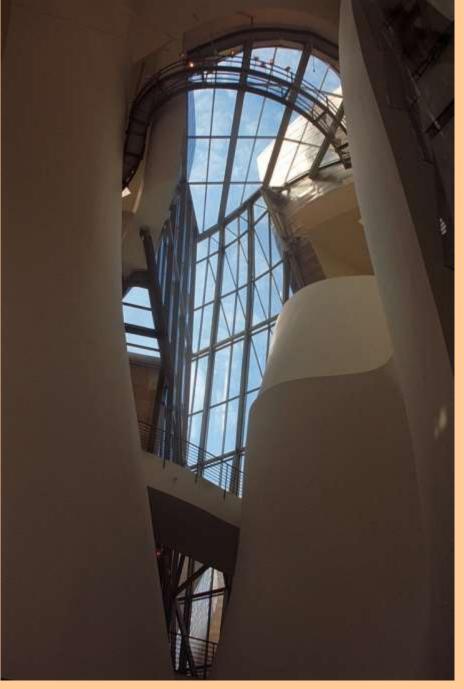


Frank Gehry. The Guggenheim Museum, Bilbao, Spain. 1997.



FRANK GEHRY, Guggenheim Bilbao Museum, Bilbao, Spain, 1997.

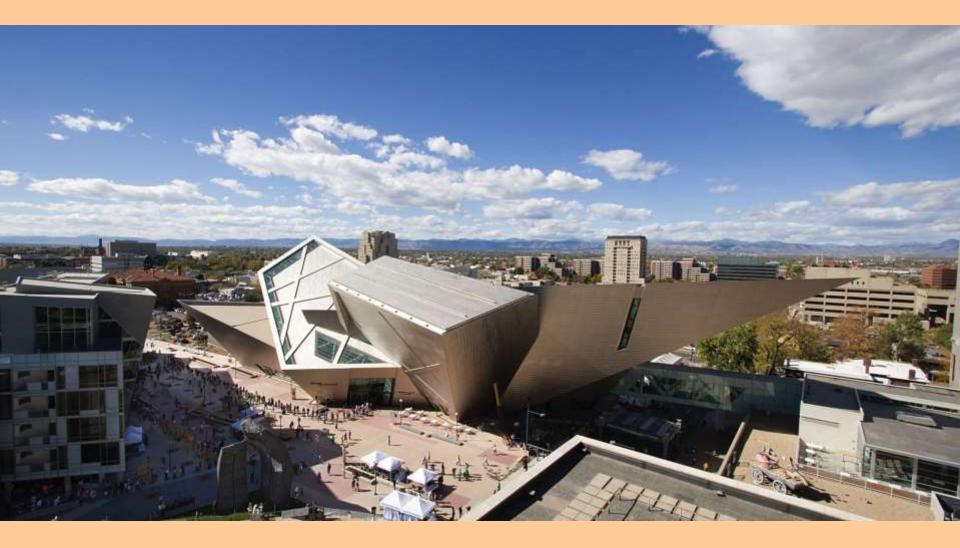
Frank Gehry. Entrance to the Guggenheim Museum, Bilbao, Spain. 1997.



Frank Gehry, atrium of Guggenheim Bilbao Museum, Bilbao, Spain, 1997.



The new main central branch of the Seattle Public Library was designed by the Dutch architect Rem Koolhaas and opened in 2004.



### DANIEL LIBESKIND, Denver Art Museum, Denver, Colorado, 2006

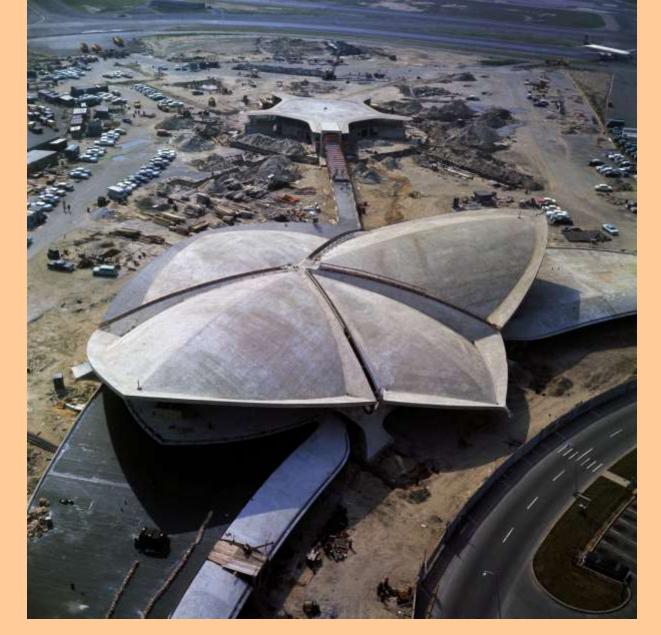


## Expressionism, Neo-Expressionism and Futuristic Architecture

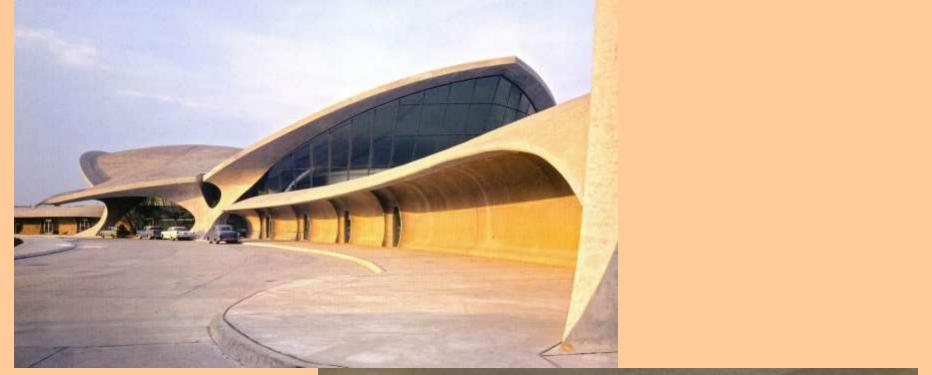
Erich Mendelsohn Einstein Tower in Potsdam-Berlin, 1919-22 (Intended to be made of concrete, it was constructed of stucco over brick for reasons of economy) German Expressioinsm style was characterized by adoption of novel materials, formal innovation, and very unusual massing, some times inspired by natural biomorphic forms, sometimes by the new technical possibilities offered by the mass production of brick, steel and glass.



JOERN UTZON, Sydney Opera House, Sydney, Australia, 1959–1972.



EERO SAARINEN, Trans World Airlines terminal (terminal 5), John F. Kennedy International Airport, New York, 1956-1962.





EERO SAARINEN, Trans World Airlines terminal (terminal 5), John F. Kennedy International Airport, New York, 1956-1962.







Zaha Hadid's 'bratislava culenova city center' scheduled for completion in 2013 In 2004, Hadid became the first female and first Muslim recipient of the Pritzker Architecture Prize, (architecture's equivalent of the Nobel Prize). In 2006, she was honoured with a retrospective spanning her entire work at the Guggenheim Museum in New York.



Norman Foster The Reichstag Dome. 1999

The glass cupola brings plenty of natural light and ventilation down to the parliament floors and into its own entrance, reflected by its mirrored-core. A large sun shield tracks the movement of the sun electronically and blocks direct sunlight to avoid excess heat and uncomfortable glaze.





The Reichstag before the war with original dome. 1894. Renovated 1961-64, 1992 (Neo-Baroque)





Intro To LEED Certification<a href="http://youtu.be/DTIZBFeF2Nc">http://youtu.be/DTIZBFeF2Nc</a>

# Green or Sustainable Architecture

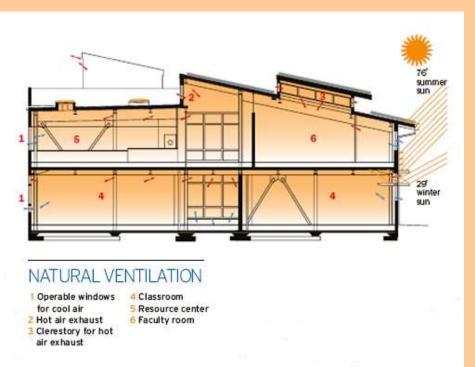
Architecture that seeks to minimize the negative environmental impact of buildings by enhancing efficiency and moderation in the use of materials, energy, and development space.



VBN Architects, Kirsch Center for Environmental Studies, De Anza College, Cupertino, CA. 2005

The first LEED Platinum community college building in the United States.





The Kirsch Center reached a total score of 52 points out of a possible 69 Sustainable Sites 11/14 Water Efficiency 3/5 Energy and Atmosphere 16/17 Materials and Resources 4/9 Indoor Air Quality 15/15 Innovation and Design Process 3/5





**Thom Mayne. San Francisco Federal Building** At Seventh and Mission Streets. 2007. No AC in the building but received only Silver Leed Certificate

• Example of an unsuccessful green design



Renzo Piano, Jean Marie Tjibaou Cultural Center, Nouméa, New Caledonia. 1991-98. The pavilions themselves were inspired by traditional Kanak huts. Built from iroko wood as well as glass, steel, and bamboo, they respect traditional construction methods according to the most sophisticated engineering studies.

Operable roof skylights and a screen of laminated wood facilitate natural ventilation using the wind to push hot air out of the top, while a bamboo wall filters light into the interior.



Renzo Piano, Jean Marie Tjibaou Cultural Center, Nouméa, New Caledonia. View from back. 1991-98



Google's planned Mountain View HQ https://youtu.be/HOMV7Q11-fI