

Early Twentieth Century Architecture

New Simplicity: Vienna before WWI

Adolf Loos (1870-1933),

Austrian architect.



Educated in Dresden, Germany, he practiced in Vienna, and spent extended periods in the U.S where he visited Chicago and encountered the writings of Sullivan – who advocated abandoning ornaments in architecture.

Opposed to both Art Nouveau and Beaux-Arts historicism.

His work strongly influenced European Modernist architects after World War I.

“When a tattooed man dies at liberty, it simply means he hasn’t had time to commit his crime”.

From *Ornament and Crime* by
Adolf Loos

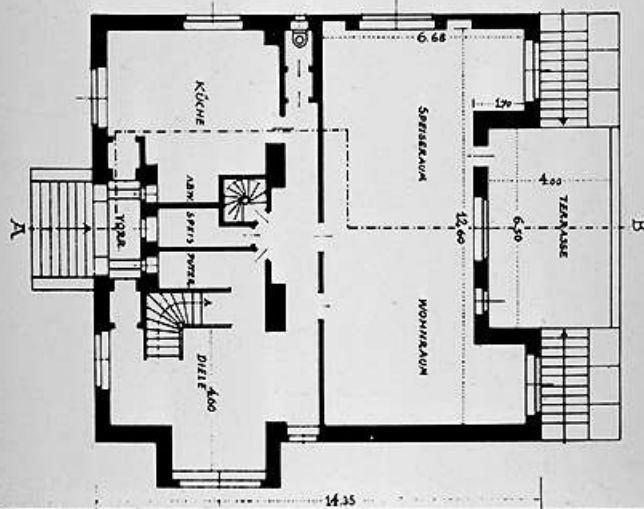
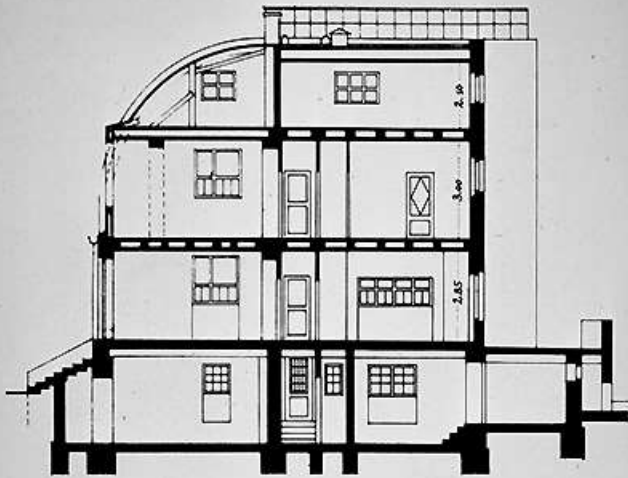


Adolf Loos, *Steiner House*, Vienna,
Austria, 1910.



Adolf Loos, *Steiner House*, Vienna, Austria, 1910.

The main facade is a symmetrical balanced composition of rectangles.



2.19 Adolf Loos, Steiner House, Vienna, 1910. rear view.



Adolf Loos, *Steiner House*, Plan/Section/Side Facades, Austria, 1910.

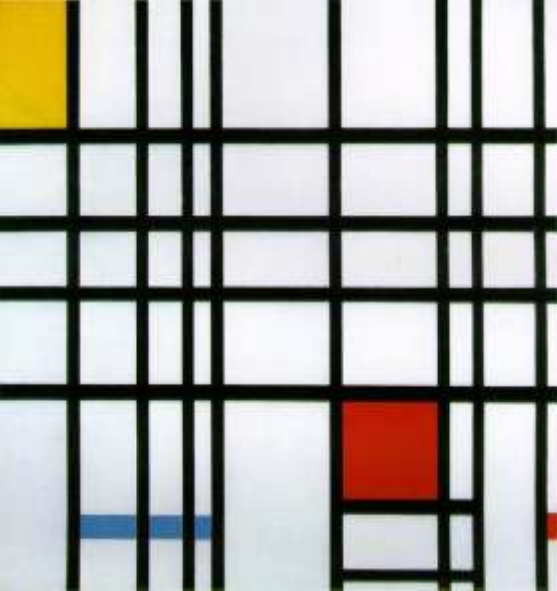


Comparison: Joseph Maria Olbrich, Secession Building ,1898,
Vienna, Austria (Austrian Art Nouveau)

Adolf Loos, *Steiner House*, Vienna, Austria,
1910.



Modern Architecture Between the Wars



Piet Mondrian,
*Composition
with Red,
Yellow and
Blue*
1921
Oil on canvas



Gerrit Rietveld.
Chair
1917
(Netherlands)
Wood
(lacquered).
66x83x88cm

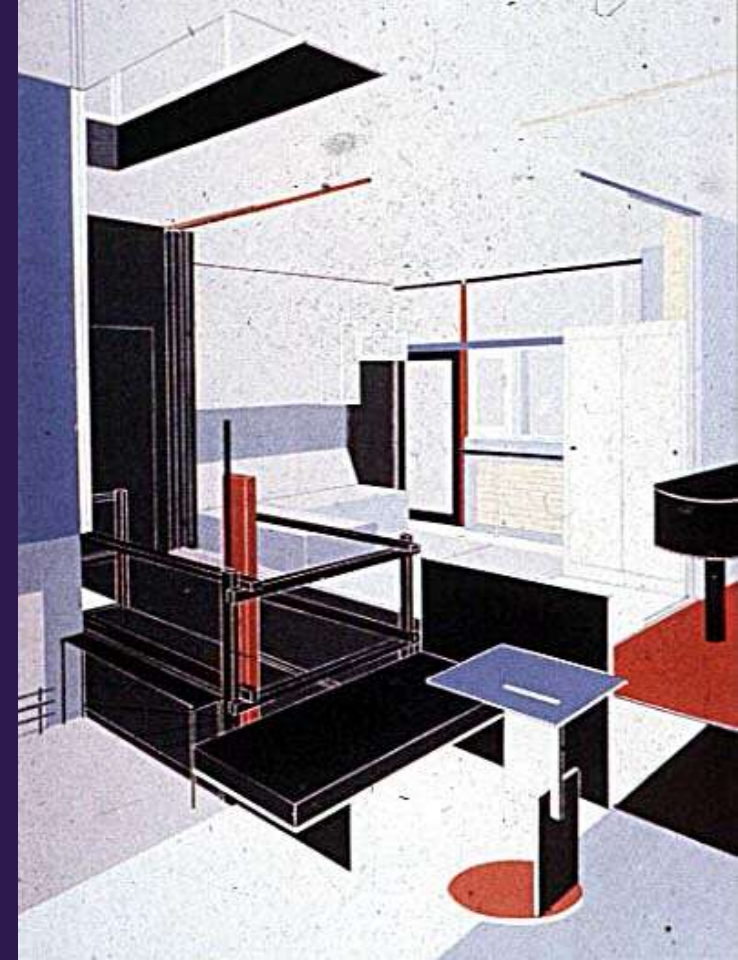
De Stijl / The Style

A group of artists and architects in the Netherlands in the 1920s, including Mondrian and van Doesburg, who advocated the creation of forms that were universal, spatially unbounded, and attuned to modern technology.

<https://youtu.be/zyZZktZgamI>

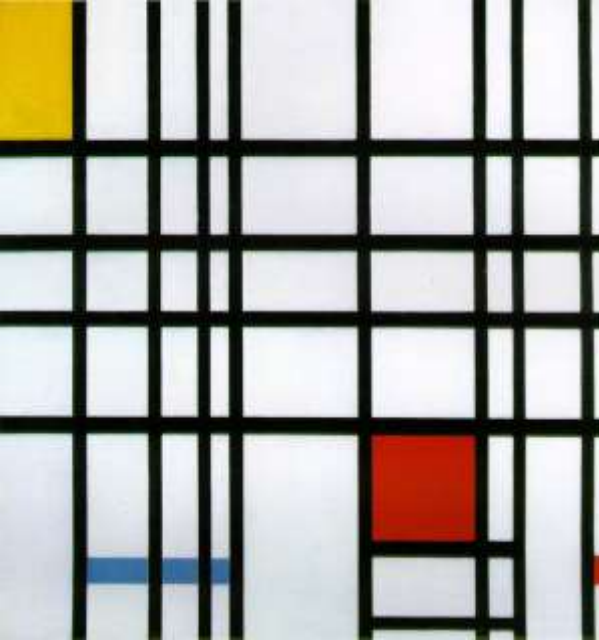


Gerrit Rietveld, *Schroder House*, 1924, Utrecht, Netherlands



Created close relationship between the inside and outside.

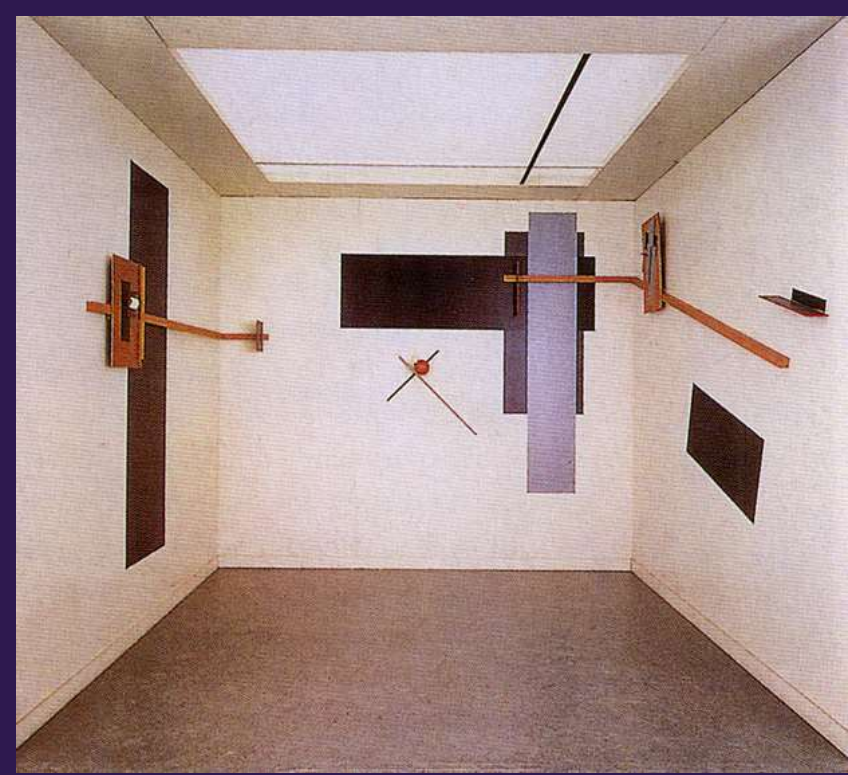




Piet Mondrian,
*Composition with
Red, Yellow and
Blue*

1921

Oil on canvas



El Lissitzky, *Proun Space*, 1923, for
Berlin exhibition



Gerrit Rietveld, *Schroder House*,
1924, Utrecht, Netherlands

Bauhaus (German for “House of Building”): **1919-33**

German school of art, design and architecture. It was founded by Walter Gropius with the ideal of integrating art, craftsmanship, and technology.

Realizing that mass production had to be the precondition of successful design in the machine age, its members rejected the Arts and Crafts Movement's emphasis on individually executed luxury objects.

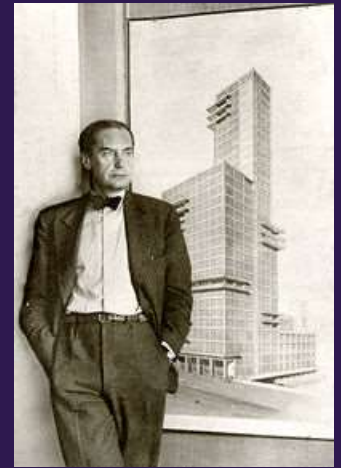
Walter Gropius (1883-1969)

German-U.S. architect, designer and educator.

He studied in Munich and Berlin and in 1919 became director of the Staatliches Bauhaus Weimar.

In 1934 Gropius fled Germany for Britain, and in 1937 he arrived in the U.S, taking a position at Harvard University.

Gropius believed that all design should be approached through a systematic study of the particular needs and problems involved, taking into account modern construction materials and techniques without reference to previous forms or styles.





**Walter Gropius and Adolph Meyer, *Fagus Shoe*
Factory Alfred-an-der-Leine, Germany, 1911-25**



Curtain Wall: Nonbearing wall of glass, metal, or masonry attached to a building's exterior structural frame.

This three-story factory uses a steel frame, allowing the facade to be made almost entirely of glass (“curtain wall”).



**Walter Gropius
and Adolph Meyer,
Fagus Factory,
Alfred-an-der-Leine,
Germany, 1911-16**



Walter Gropius and Adolph Meyer, *Fagus Factory*, Alfed-an-der-Leine, Germany, 1911-16





**Peter Behrens, *AEG Turbine
Factory*, 1909, Berlin, Germany**



**Walter Gropius and Adolph Meyer,
Fagus Factory, Alfed-an-der-Leine,
Germany, 1911-25**



Walter Gropius, *Shop Block*, the Bauhaus, Dessau, Germany, 1925-1926

With its dynamic International Style composition, asymmetrical plan, smooth white walls set with horizontal windows, and flat roof, the building became a monument of the Modernist movement.



- projected steel skeleton, which pulled the function of support to the inside





Mechanically opened windows



Ceiling with light fixtures for stage



Bauhaus-Dessau
Atelier

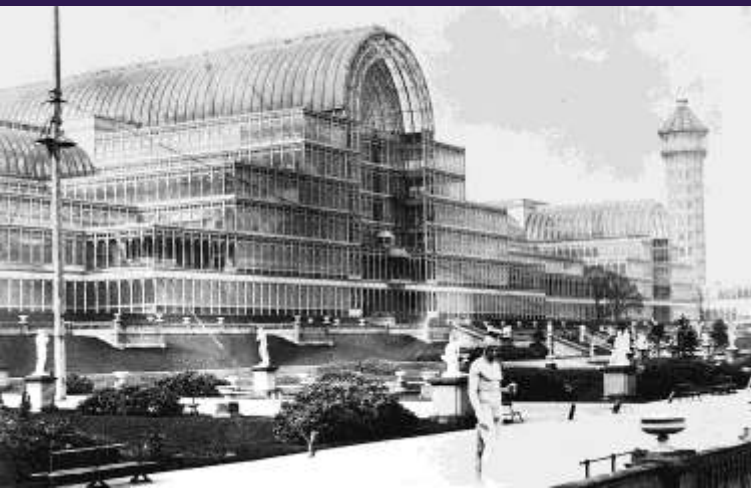


Walter Gropius,
Atelier, the
Bauhaus, Dessau,
Germany, 1925-
1926



Gerrit Rietveld, *Schroder House,*
1924, Utrecht, Netherlands

Joseph Paxton, *Crystal*
***Palace,* London, 1850**



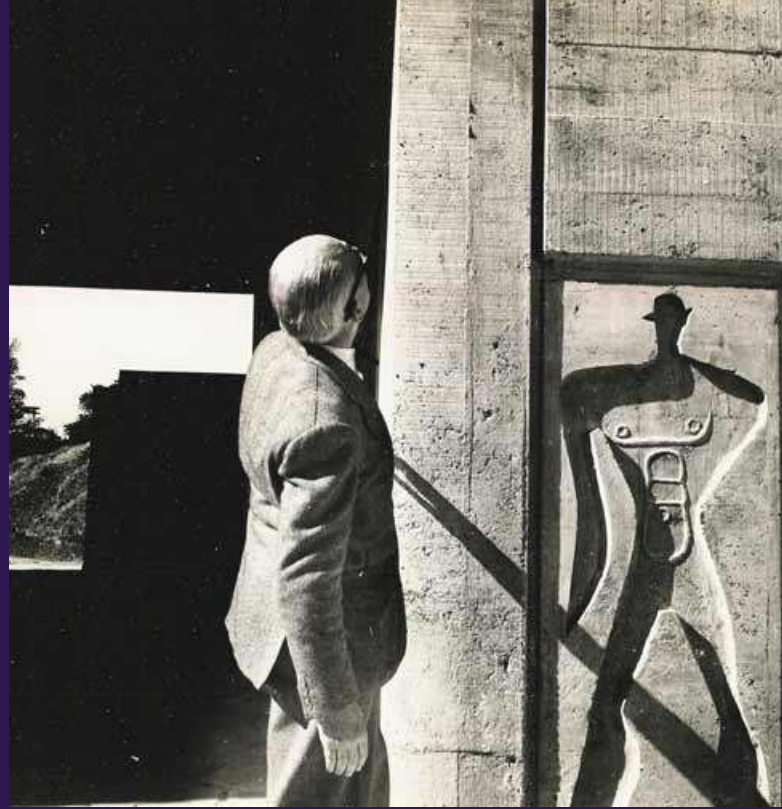
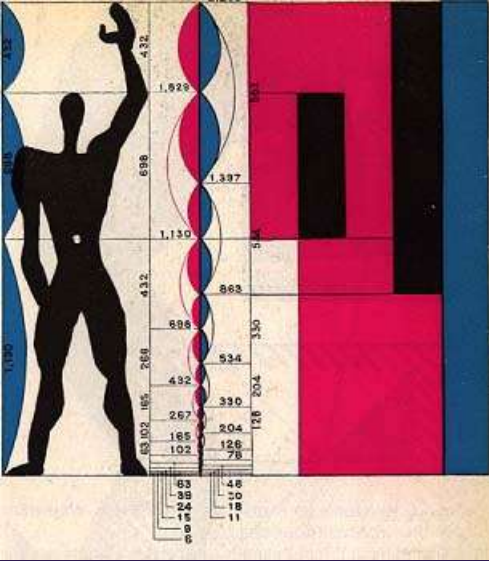
Charles Garnier, *The*
***Opera House,* Paris.**
1861-74



Le Corbusier (Charles-Edouard Jeanneret-Gris) (1887-1965), Swiss-born French architect and city planner.

His visionary books, startling white houses and urban plans (that included skyscraper cities and mass-produced housing) set him at the head of the modern movement in the 1920s,





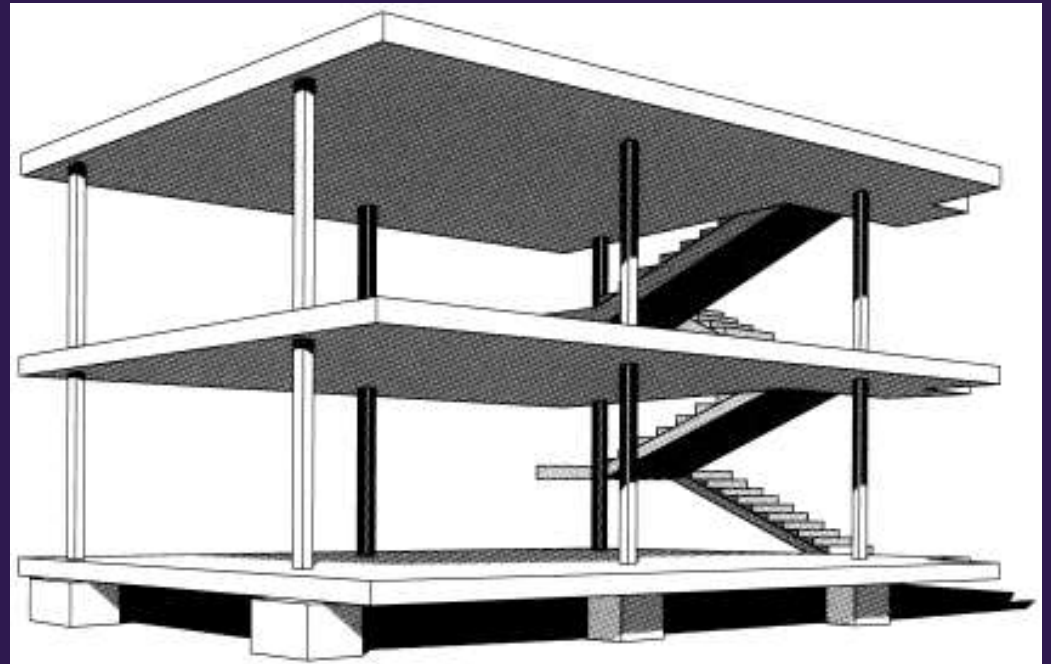
Le Corbusier, *The Modular*

The **Modulor** is a scale of proportions devised by Le Corbusier. He used the golden ratio and Fibonacci sequence in his Modular system for the scale of architectural proportion.



Leonardo Da Vinci, *Vitruvian Man*, 1492

Le Corbusier. *Perspective drawing for Domino House project, Marseilles, France, 1914-15*



A basic building prototype to be massed produced using inexpensive, standardized materials, with free-standing pillars and rigid floors. The structure can be repeated indefinitely either vertically or horizontally.



Le Corbusier, *Villa Savoye* at Poissy, France (1929–30).



- Structure raised on slender concrete pillars
- Open floor plan
- Long strip windows-ribbon windows
- Roof terrace/garden
- Integral garage



Villa Savoye, details, France 1929–30.







Le Corbusier's. '*Plan Voisin de Paris*' (Presented at the International Exposition in Paris, 1925)

The International Style

Architectural style that developed in Europe and the U.S. in the 1920s and '30s and dominated Western architecture in the mid 20th century.

The style's most common characteristics:

- Geometric, usually rectilinear forms
- Clean lines
- Open interior spaces
- Large expanses of glass, steel, and reinforced-concrete construction
- Light, plane surfaces devoid of applied ornamentation

Walter Gropius, Ludwig Mies van der Rohe, and Le Corbusier are among the architects most clearly associated with the style.

Ludwig Mies van der Rohe (1886-1969), German architect and designer.

Mies learned masonry from his father and later worked in the office of Peter Behrens.

He was director of the Bauhaus in 1930–33, first in Dessau and during its final months, in Berlin. After moving to the U.S. in 1937, he became director of the School of Architecture at Chicago's Armour Institute.

His buildings, steel skeletons sheathed in glass curtain-wall facades, exemplify Mies's edict that “less is more.”

He had a great impact on the skyline of American cities.



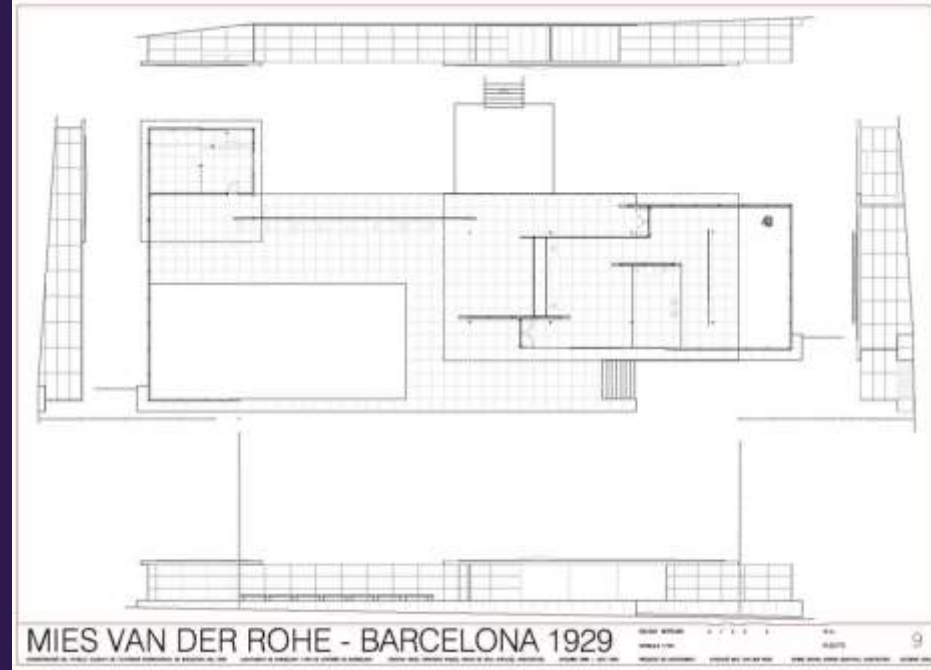
Mies van der Rohe, *The Barcelona chair*.



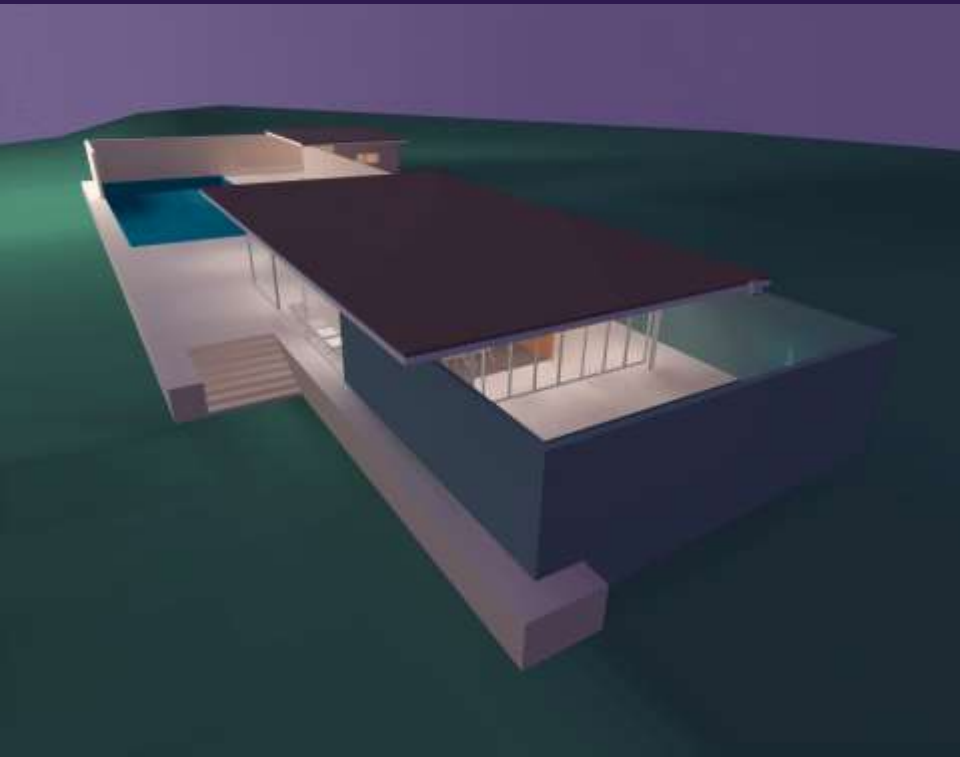


The German Pavilion, built 1928-1929 for the Barcelona International Exposition, demolished 1930, Rebuilt in 1959 to the original design.





**Mies van der Rohe, *German Pavilion*,
model and plan. 1929**



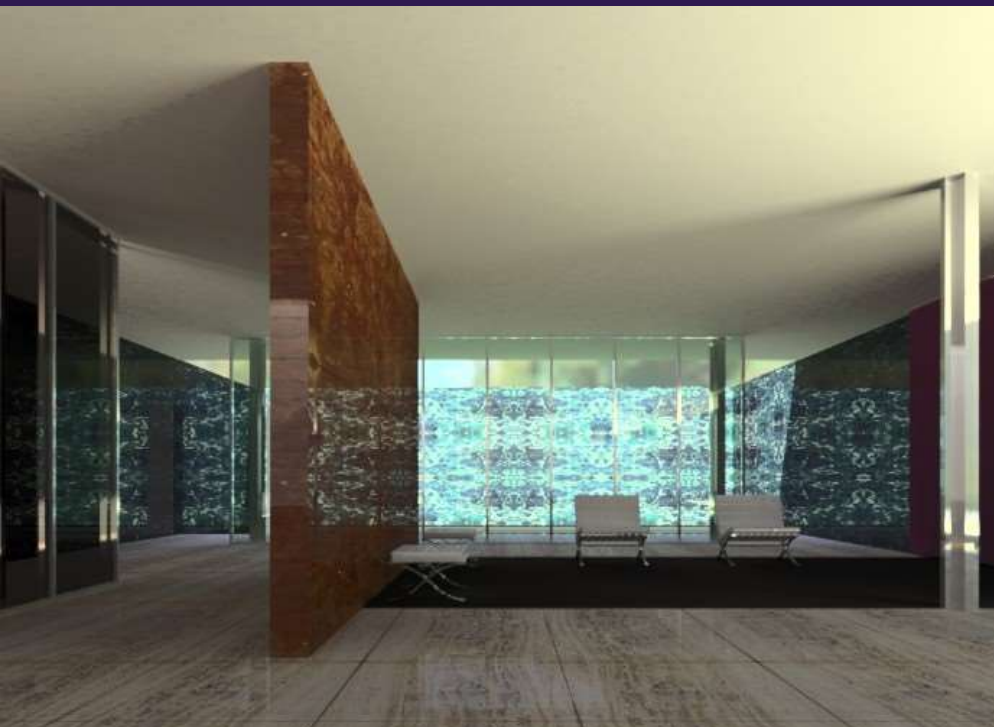


Mies van der Rohe, *German Pavilion*, 1929

His Pavilion for the 1929 International Exposition in Barcelona, Spain, a travertine platform with chromed steel columns and spaces defined by planes of extravagant onyx, marble, and frosted glass.



Mies van der Rohe, *German Pavilion, 1929*





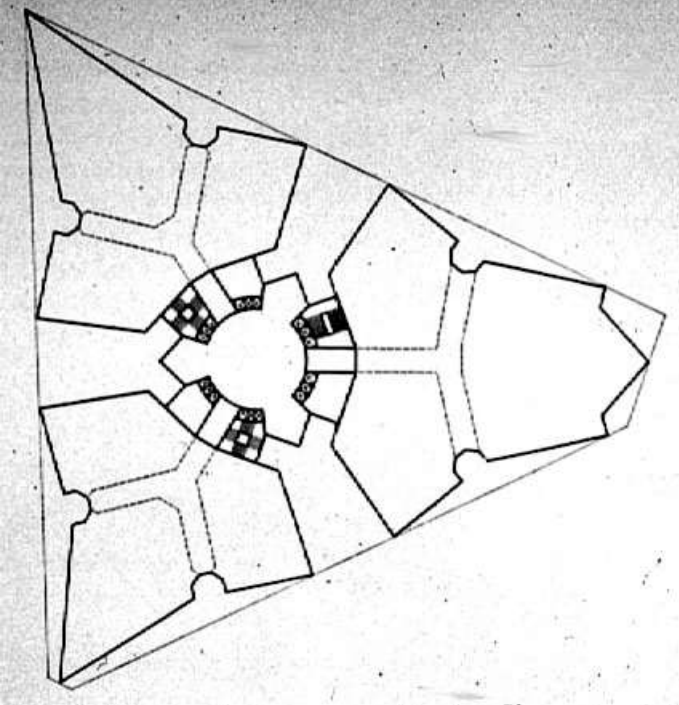
**Le Corbusier, *Villa Savoye* at Poissy,
France 1929–30.**



**Gerrit Rietveld, *Schroder House*,
1924, Utrecht, Netherlands**



**Mies van der Rohe,
German/Barcelona Pavilion, 1929**

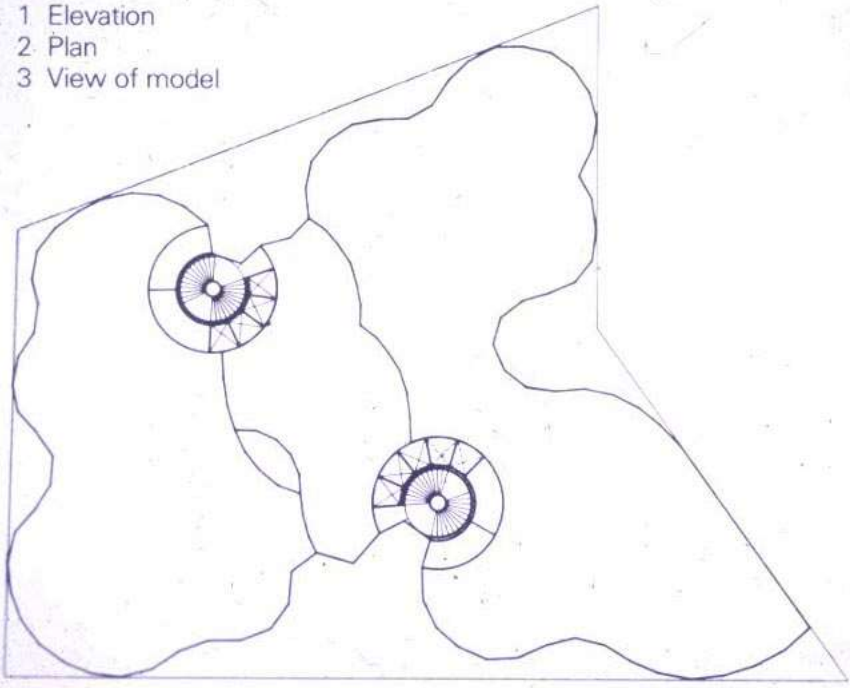


In 1921 and 1922 Mies completed two designs for skyscrapers that never were built (the first completely glazed office building was not built until 1950).

One triangular in plan the second a free-form plan of wavy curves.



- 1 Elevation
- 2 Plan
- 3 View of model



Mies van der Rohe - *Maquette Glass Skyscraper (never built), 1922*

Continuously curving glass curtain wall.



Class Assignment:

Describe the International Style – its characteristics, materials, leading architects, sources of influence, colors, and the philosophies behind it. Bring specific examples.

Art Deco (1920s and 1930s):

International, decorative movement, which emphasized:

- Absolute bilateral symmetry in composition
- Use of angular shapes - influenced by Art Nouveau, Bauhaus, Cubist, Native American, and Egyptian sources
- A sleek and anti-traditional elegance that symbolized wealth and sophistication.
- Distinguishing features: simple, clean shapes, with a “streamlined” look; ornament that is geometric or stylized from representational forms.
- Typical motifs included stylized animals, foliage, nude female figures, and sun rays.

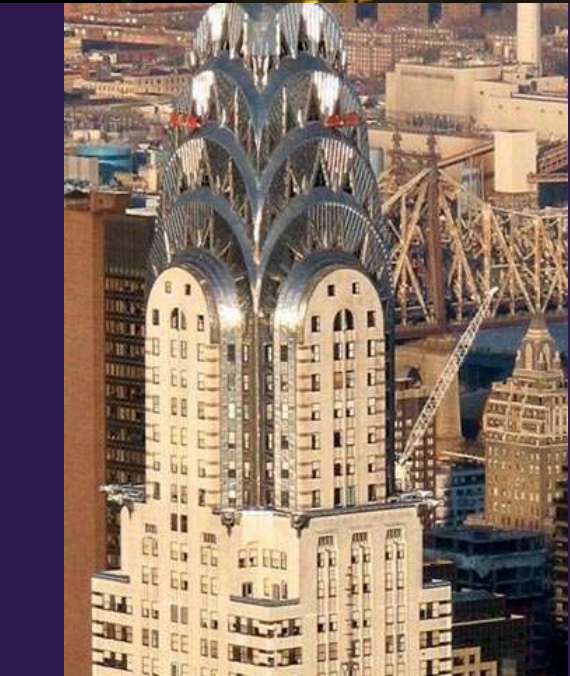
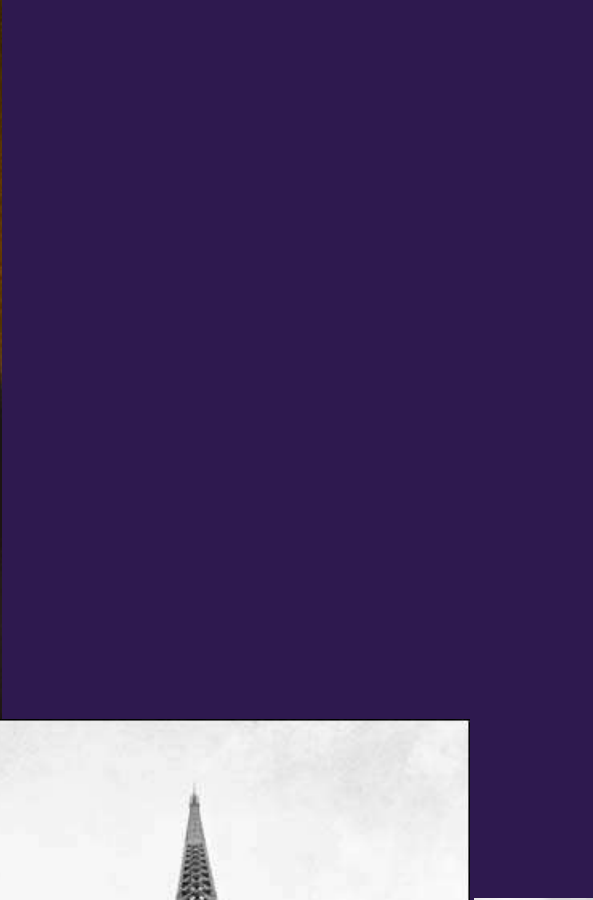


Marlin Hotel - Art Deco architecture on Collins Ave. - Miami Beach, FL

Office building (1928–30) in New York City designed by William Van Alen (1883–1954), Beaux-Arts trained architect.. Its futuristic automotive ornamentation was specified by its owner, Walter P. Chrysler.

William Van Alen, *Chrysler Building*, New York City, New York, 1928-1930. Spire of stainless steel, overall height 1,048', Art Deco







Sculptures modeled after Chrysler automobile radiator caps decorate the lower setbacks, along with ornaments of car wheels.





Chrysler Building, interior details.





Reinhard & Hofmeister with HW Corbett & Raymond Hood,
Rockefeller Center, New York City, 1927-35, art Deco



Lee Lawrie, *Wisdom* - Relief sculpture above the main entrance to the GE Building, Rockefeller Center, NYC, 1932



45 Rockefeller Plaza (Rockefeller Center):
wall decoration above door (art deco)

The building is stripped off ornamentation and it has a strong sense of upward movement and verticality. The building is a simple slab with white brick vertical piers alternating with red and black brick patterned spandrels. Thus the appearance of windows is minimized.



Raymond Hood and John Mead Howells,
Daily News Building; 42nd Street between
Second and Third Avenues, New York,
1929-31



Daily News Building, Art Deco entrance and the ornate bas relief over the entrance

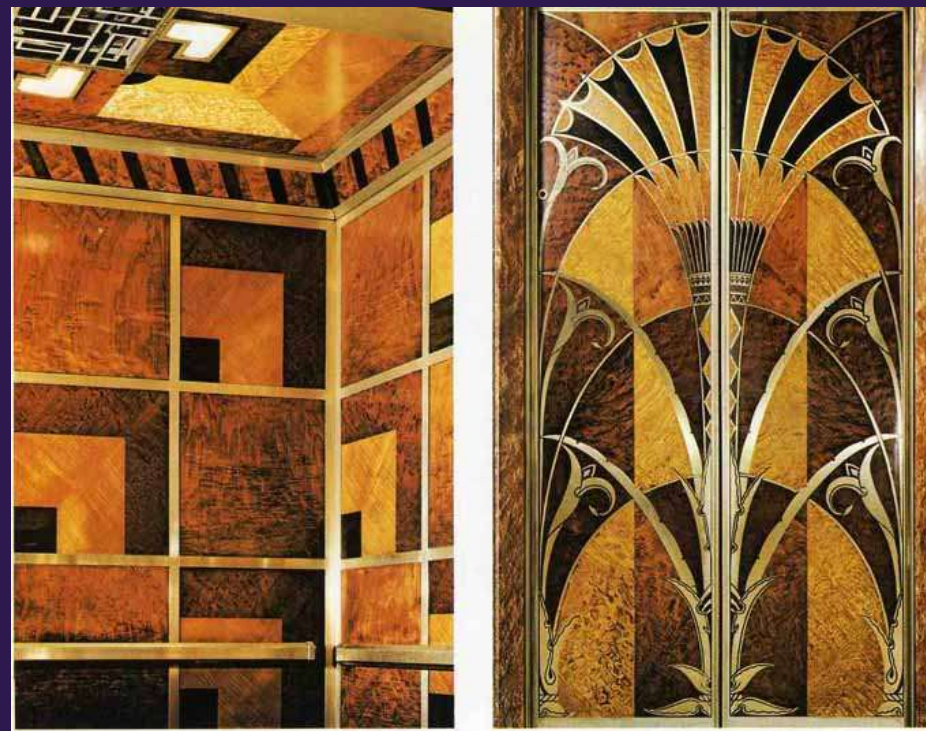


Daily News Building, Art Deco entrance and the ornate bas relief over the entrance





Victor Horta, *Tassel House* (Art Nouveau style) interior detail, 1893, Belgian



William Van Alen, *Chrysler Building*, interior details, 1928.

Compare

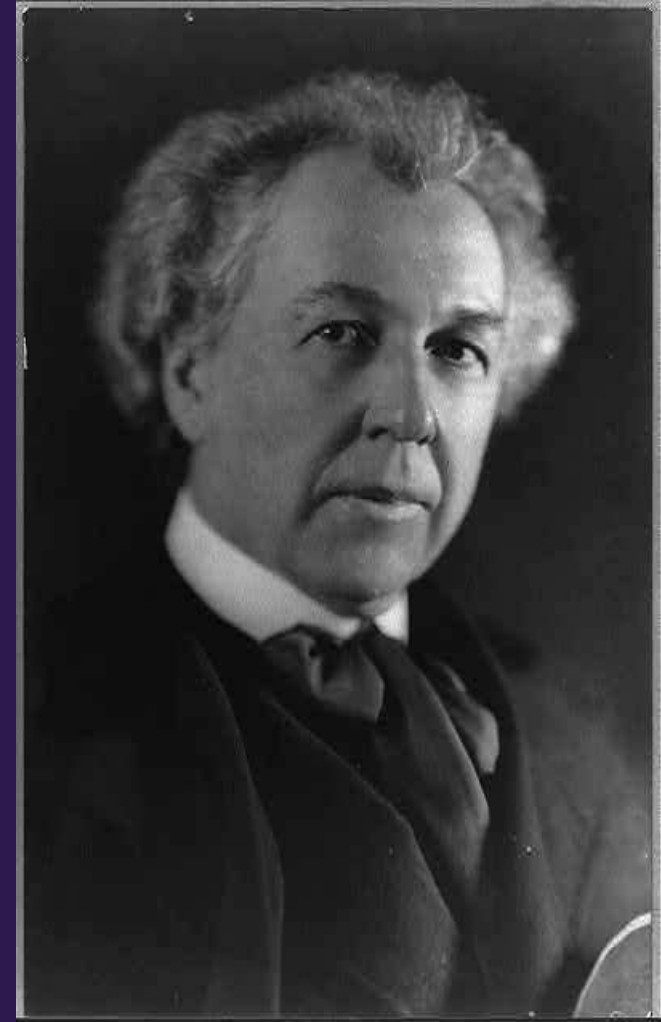
**Modernism in Harmony with Nature:
Later Works of Frank Lloyd Wright**

Frank Lloyd Wright (1867-1959), American architect.

Studied engineering briefly at the University of Wisconsin, and worked for the firm of Dankmar Adler (1887–1900) and Louis Sullivan in Chicago before opening his own practice there in 1893.

His legacy is an architectural style that departed from European influences to create a purely American form, one that included the idea that buildings can be in harmony with the natural environment.

Frank Lloyd Wright, *Robie House*, Chicago, Illinois, 1907-1909.



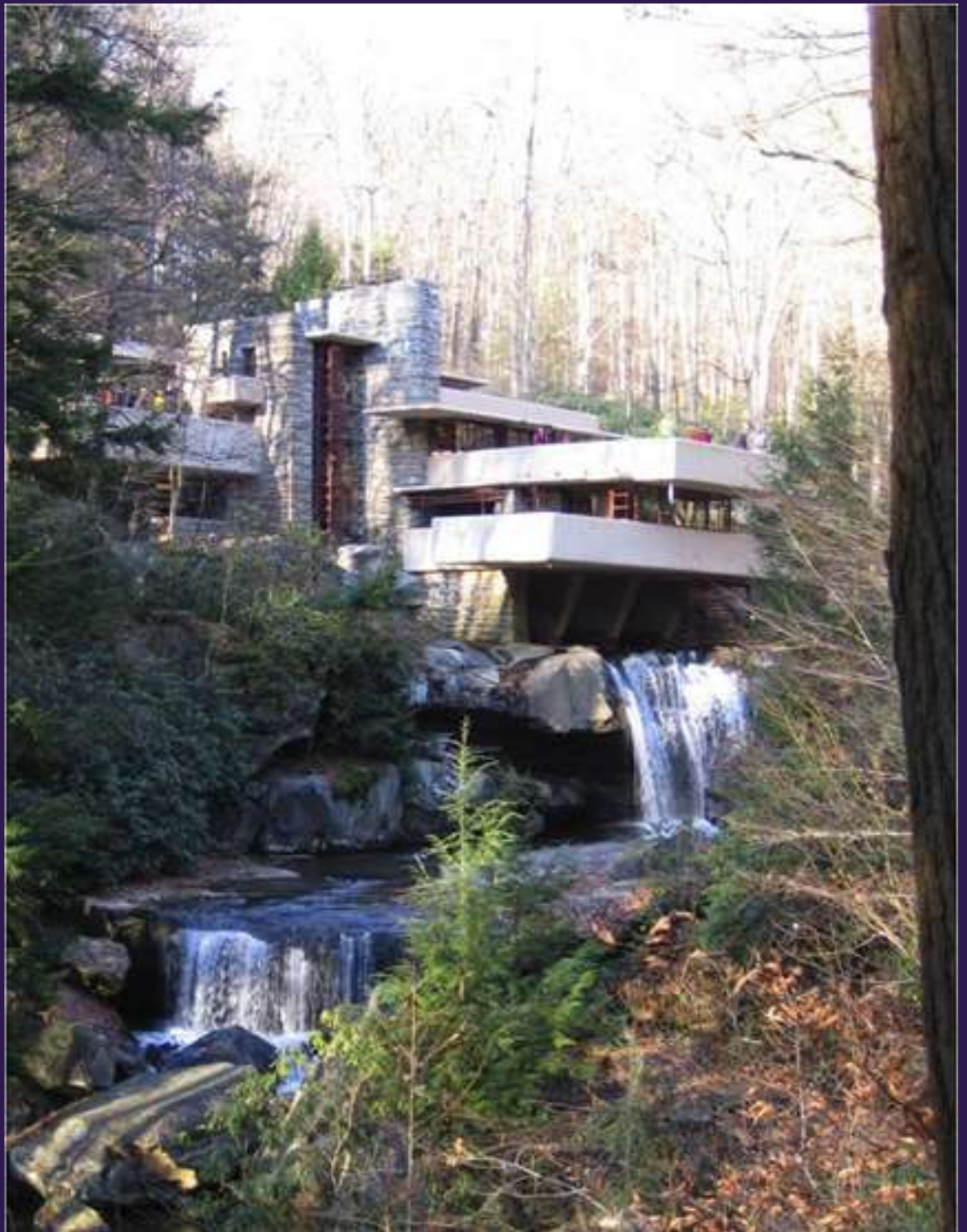


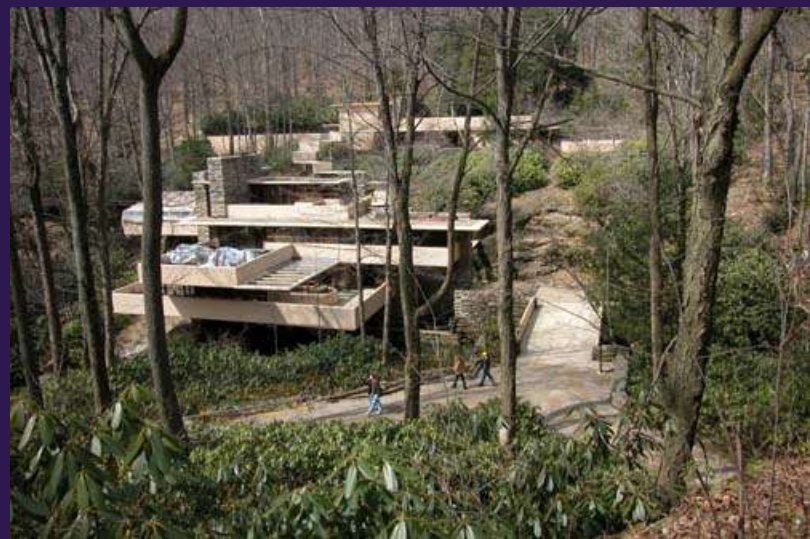
Frank Lloyd Wright,
Fallingwater, 1935, Mill
Run, PA

Fallingwater was voted the best building in the U.S. in 1991 by members of the American institute for Architects.



Wright, *Kaufmann House*
(*Fallingwater*), Bear Run,
Pennsylvania, 1936-1939.





*Kaufmann House (Fallingwater),
Bear Run, Pennsylvania, 1936-1939.*



Fallingwater (Kaufmann House): living room





Fallingwater details



FRANK LLOYD WRIGHT, Solomon R. Guggenheim Museum, New York, 1943-1959. ⁶²



FRANK LLOYD WRIGHT, Solomon R. Guggenheim Museum (exterior view from the northwest), New York, 1943–1959 (photo 1962).

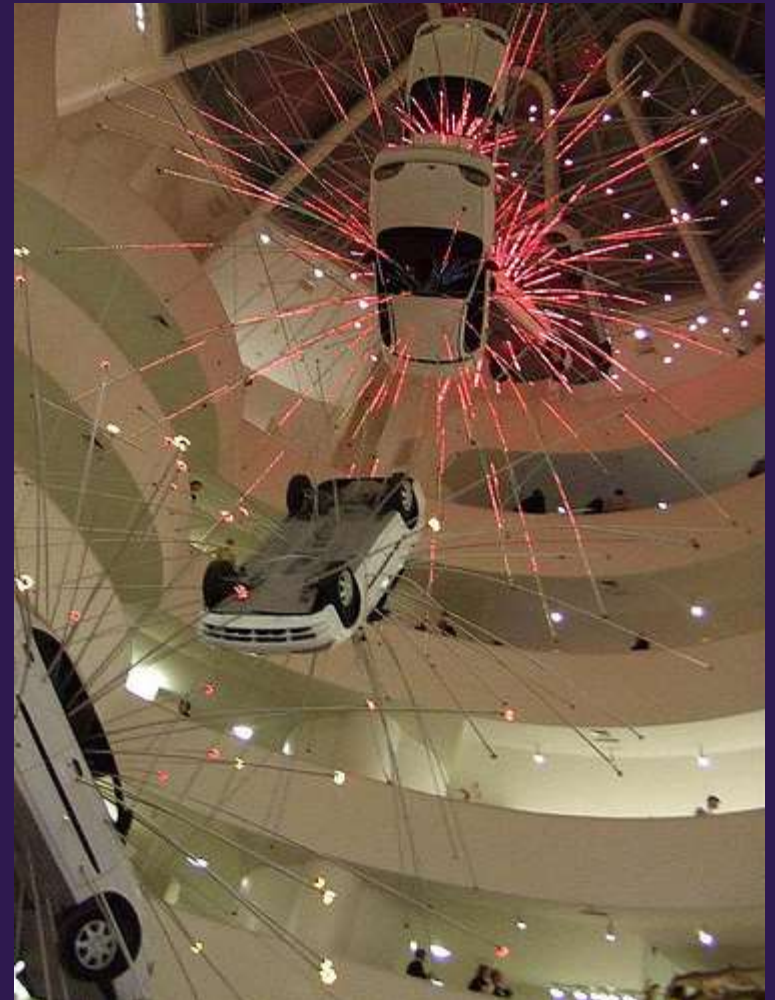


FRANK LLOYD WRIGHT,
Solomon R. Guggenheim
Museum. Interior. New
York, 1943–1959





YouTube Play projection on the
Guggenheim Museum. 2010



Cai Guo-Qiang
Inopportune: Stage One, 2004
Nine cars and sequenced multichannel
light tubes

Later Works by Mies van der Rohe



Ludwig Mies van der Rohe
860 – 880 N. Lake Shore
Drive (1949-1951), Chicago

“Less is more.”

-Mies van der Rohe



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

<https://youtu.be/ZyyuflY5k2k>