

20th CENTURY ARCHITECTURE



Frank Lloyd Wright

ROBIE HOUSE

Chicago, Illinois
1907-09

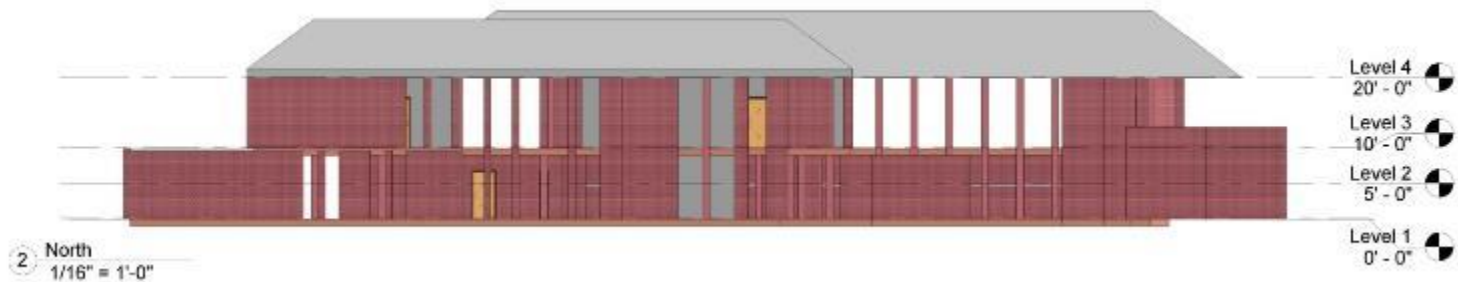
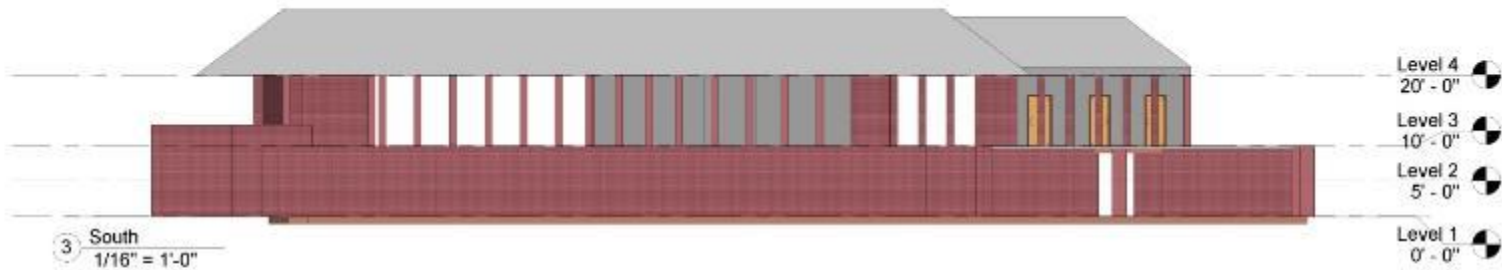
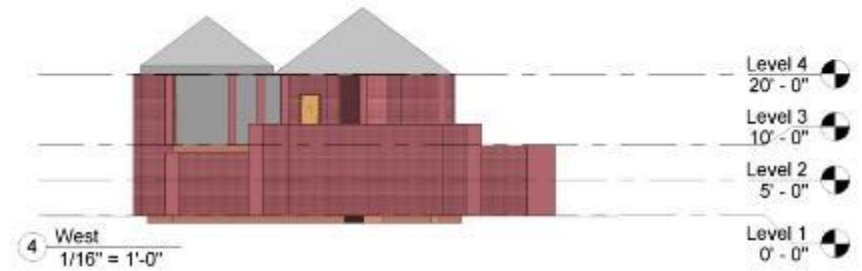
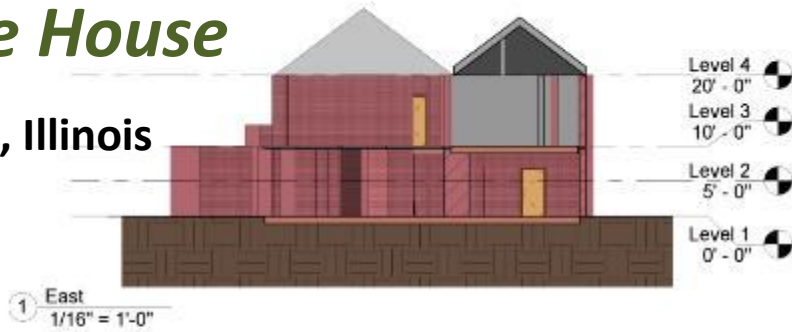
- The **Frederick C. Robie House** is a U.S. National Historic Landmark in the Chicago, Illinois
- The Robie House is one of the best known examples of Wright's Prairie style of architecture
- The prominent cantilevered roof eaves, continuous bands of art-glass windows, and the use of Roman brick emphasize the horizontal design
- The design of the art glass windows is an abstract pattern of coloured and clear glass using Wright's favorite 30 and 60-degree angles



Frank Lloyd Wright

Robie House

Chicago, Illinois
1907-09





Frank Lloyd Wright

Kaufmann House (Fallingwater)

Bear Run, Pennsylvania
1936-39

- Fallingwater is the name of this very special house built over a waterfall
- Frank Lloyd Wright, America's most famous architect, designed the house for his clients, the Kaufmann family
- It instantly became famous, and today it is a National Historic Landmark
- **Why is it so famous?** It's a house that doesn't even appear to stand on solid ground, but instead stretches out over a waterfall; it captured everyone's imagination when it was on the cover of Time magazine in 1938



 FALLINGWATER

MAIN FLOOR PLAN



William van Allen

Chrysler Building

New York, New York, 1928-30

- The **Chrysler Building** is an Art Deco style skyscraper in New York City
- At 1,046 feet, the structure was the world's tallest building for 11 months before it was surpassed by the Empire State Building in 1931
- It is still the tallest *brick* building in the world
- After the destruction of the World Trade Center, it was again the second-tallest building in New York City until December 2007, when the spire was raised on the Bank of America Tower, pushing the Chrysler Building into third position
- The Chrysler Building is considered by many contemporary architects to be one of the finest buildings in New York City
- Although the building was built and designed specifically for the car manufacturer, the corporation did not pay for the construction of it and never owned it, as Walter P. Chrysler decided to pay for it himself, so that his children could inherit it



Luwig Mies Van Der Rohe

model for a glass skyscraper

Berlin, Germany
1922

- This design for a crystal tower was created in 1921
- It was based on the idea that a supporting steel skeleton would be able to free the exterior walls from their load-bearing function, allowing a building to have a surface that is more translucent than solid
- Mies van der Rohe determined its shape by experimenting with light reflections on a glass model
- The design uses just steel and glass



Le Corbusier
(Charles Edouard
Jeanneret)

Villa Savoye

Poissy-sur-Seine,
France, 1929-30



- A modernist villa in Poissy, in the outskirts of Paris, France
- It was designed by Swiss architects, Le Corbusier and his cousin, Pierre Jeanneret, and built between using reinforced concrete
- The house was originally built as a country retreat for the Savoye family
- During WWII the Jewish Savoye family was sent to concentration camps by the Nazis who took over the house and used it for storage
- After being purchased by the neighbouring school, it became property of the French state in 1958, and after surviving several plans of demolition, it was designated as an official French historical monument in 1965

Le Corbusier (Charles Edouard Jeanneret)

Villa Savoye

Poissy-sur-Seine, France, 1929-30

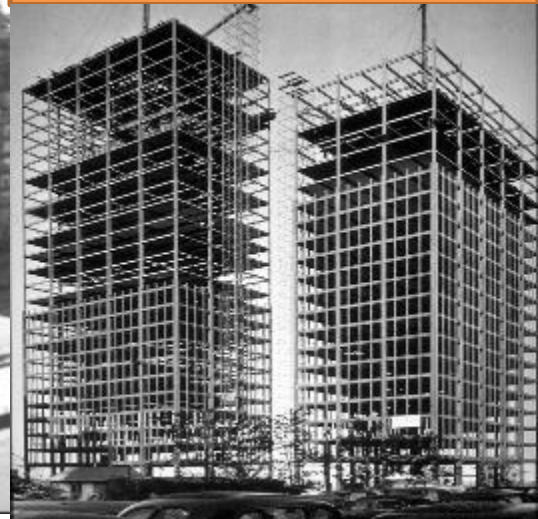




Ludwig Mies van der
Rohe

*Lake Shore Drive
Apartments*

Chicago, Illinois
1951



- **860–880 Lake Shore Drive** is a twin pair of glass-and-steel apartment towers on N. Lake Shore Drive along Lake Michigan in Chicago, Illinois
- Materials: steel, aluminum, glass
- The use of steel straight from the mill creates the perfect balance between structure and spirit
- The vertical windows and columns emphasize height
- Each building alone is symmetrical
- Contains a total of 288 apartments



William J. Levitt

Levittown

Levittown, New York
began 1947

- Levittown is midway between the villages of Hempstead and Farmingdale
- The planned 2,000 home rental community was quickly successful
- Half of the properties had been rented within two days of the community being announced on May 7, 1947
- Levittown was designed to provide a large amount of housing at a time when there was a high demand for affordable family homes
- This suburban development became a symbol of the “American Dream” as it allowed thousands of families to become home owners
- But Levittown also became a symbol of racial segregation
- In accordance with this policy, the buying agreement signed by all those who purchased homes in Levittown stated that the property could not be used or rented by any individuals other than those of the Caucasian race

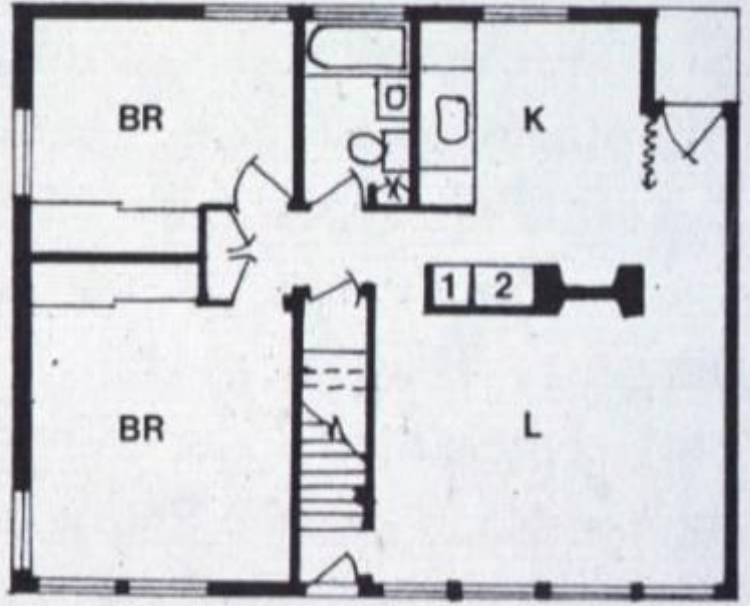
William J. Levitt

Levittown

Levittown, New York
begun 1947



13. Dream house for a new homeowner, with wife and children. Levittown, New York, 1948. This housing represents the basic strategy of building homes as retreats for male workers and as workplaces for their wives. (Bernard Hoffman, LIFE Magazine. (c) 1950, Time, Inc.)



One of four different styles of the Jubilee



One of four different styles of the Levittower



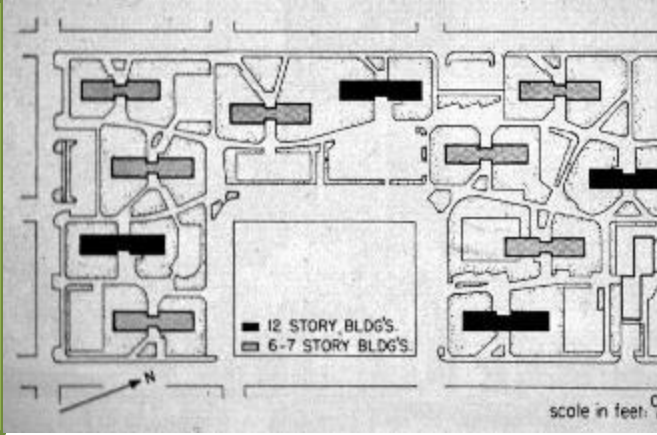
Levittown IN 1957



Minoru Yamasaki

Pruitt-Igoe Houses

St. Louis, Missouri
1955



- **Pruitt-Igoe** was a large urban housing project first occupied in 1954
- Living conditions began to decline soon after its completion in 1956
- By the late 1960s, the complex had become internationally infamous for its poverty, crime, and segregation
- The project was designed by architect Minoru Yamasaki who later designed New York's World Trade Center
- In 1968, the federal Department of Housing began encouraging the remaining residents to leave Pruitt-Igoe
- In December 1971, state and federal authorities agreed to demolish two of the buildings with explosives



Ludwig Mies van der Rohe

Seagram Building

New York, New York

1958

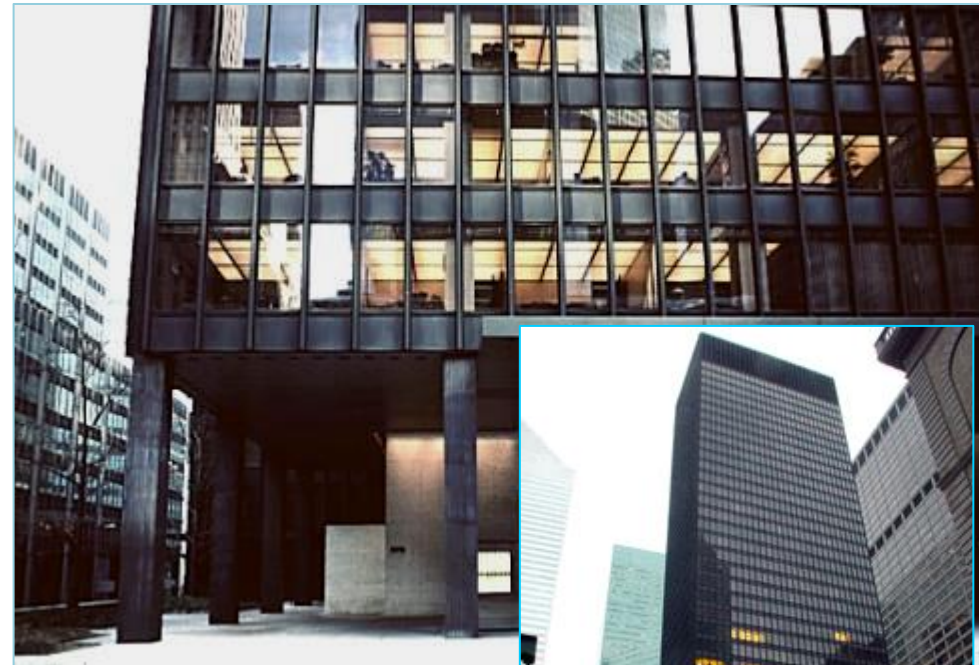
- The **Seagram Building** is a skyscraper, located at 375 Park Avenue, New York City
- The structure was designed by German architect Ludwig Mies van der Rohe
- The building stands 515 feet tall with 38 stories, and was completed in 1958
- It stands as one of the finest examples of the functionalist aesthetic and a masterpiece of corporate modernism
- The Seagram Building sits just across Park Avenue, set the architectural style for skyscrapers in New York for several decades



Ludwig Mies van der Rohe

Seagram Building

New York, New York
1958



Skidmore, Owings, and Merrill

Sears (Willis) Tower

Chicago, Illinois
1974

- **Willis Tower** (formerly named and still commonly referred to as **Sears Tower**) is a 108-story skyscraper in Chicago, Illinois
- The skyscraper is one of the most popular tourist destinations in Chicago, and over one million people visit its observation deck each year
- In 2009, the Willis Group obtained the right to rename the building and the building was officially renamed Willis Tower



Imagineers

Main Street USA, Disneyland

Anaheim, California
1955



- **Walt Disney Imagineering** is the design and development arm of The Walt Disney Company, responsible for the creation and construction of Disney theme parks worldwide
- **Main Street, U.S.A.** is the first "themed land" inside the main entrance of the many 'Disneyland'-style parks run by The Walt Disney Company around the world
- Each Main Street, U.S.A. (except Tokyo Disneyland) has a train station above the entrance
- At Disneyland Park, Disneyland Paris and Hong Kong Disneyland, Sleeping Beauty Castle stands in the distance beyond the end of the street

Imagineers

Main Street USA, Disneyland
Anaheim, California
1955



Max Abromovitz

Lincoln Center, Avery Fisher Hall

New York, New York
1962



- **Avery Fisher Hall**, a concert hall in New York City, New York, is part of the Lincoln Center for the Performing Arts complex
- It is the home of the New York Philharmonic, with a capacity of 2,738 seats
- The hall opened in 1962 as **Philharmonic Hall**
- The hall was renamed for Avery Fisher, a member of the Philharmonic board of directors, following his \$10.5 million donation to the orchestra in 1973

Wallace Harrison

Lincoln Center, Metropolitan Opera House

New York, New York, 1966

- The Metropolitan Opera House contains 3,800 seats and 195 standing room places
- On display in the lobby, and visible to the outside plaza, are two murals created for the space by Marc Chagall
- Suspended in the lobby are 11 crystal chandeliers resembling constellations or starbursts
- The auditorium contains 21 matching chandeliers
- The auditorium is fan-shaped and decorated in gold and white with five levels above the orchestra



Eero Saarinen

Trans World Airlines Terminal

JFK Airport, New York
1956-1962

The **TWA Flight Center** or **Trans World Flight Center**, opened in 1962 as a standalone terminal at New York City's John F. Kennedy International Airport (*JFK*) for Trans World Airlines



Frank Lloyd Wright
*Solomon R. Guggenheim
Museum*
New York, New York
1943-1959



- The **Solomon R. Guggenheim Museum** is a well-known art museum located in New York City
- It is the permanent home of a renowned and continuously expanding collection of art and also features special exhibitions throughout the year
- Designed by Frank Lloyd Wright, the cylindrical museum building, wider at the top than the bottom, was conceived as a "temple of the spirit" and is one of the 20th century's most important architectural landmarks

Le Corbusier

Notre-Dame-du-Haut

Ronchamp, France

1950-1955

The chapel of **Notre Dame du Haut** was completed in 1954 and is one of the most important examples of twentieth-century religious architecture

The chapel is a working religious building and it attracts 80,000 visitors each year



- The site is high on a hill near Belfort in eastern France
- The structure is made mostly of concrete and is small and enclosed by thick walls
- The lighting in the interior is soft and indirect from the windows and it reflects off the whitewashed walls of the chapels with projecting towers
- Small pieces of stained glass are set deep within the walls
- The glass glows like deep-set rubies, emeralds, and jewels of all colours

Le Corbusier

Notre-Dame-du-Haut

Ronchamp, France
1950-1955



Joern Utzon

Sydney Opera House

**Sydney, Australia
1959-1972**

The **Sydney Opera House** is a multi-venue performing arts centre in Sydney, New South Wales, Australia



- Although the roof structures are commonly referred to as "shells", they are precast concrete panels supported by precast concrete ribs, not shells
- Though the shells appear uniformly white from a distance, they actually feature a subtle chevron pattern composed of 1,056,006 tiles in two colours: glossy white and matte cream
- The original cost and scheduling estimates in 1957 projected a cost of \$7 million and completion date of 26 January 1963 (Australia Day); in actuality, the project was completed ten years later and cost more than fourteen times over budget

Kallman, McKinnell
and Knowles

Boston City Hall

Boston,
Massachusetts
1968



- The **Boston City Hall** was built in 1968
- Designed by Gerhard Kallmann, a Columbia University professor, and Michael McKinnell, a Columbia graduate student
- All of the concrete used in the structure, excluding that of the columns, is mixed with a light, coarse rock
- The City Hall was designed to create an open and accessible place for the city's government, with the most heavily used public activities all located on the lower levels directly connected to the plaza

Hugh Stubbins and Associates

Citicorp Center

New York, New York
1978

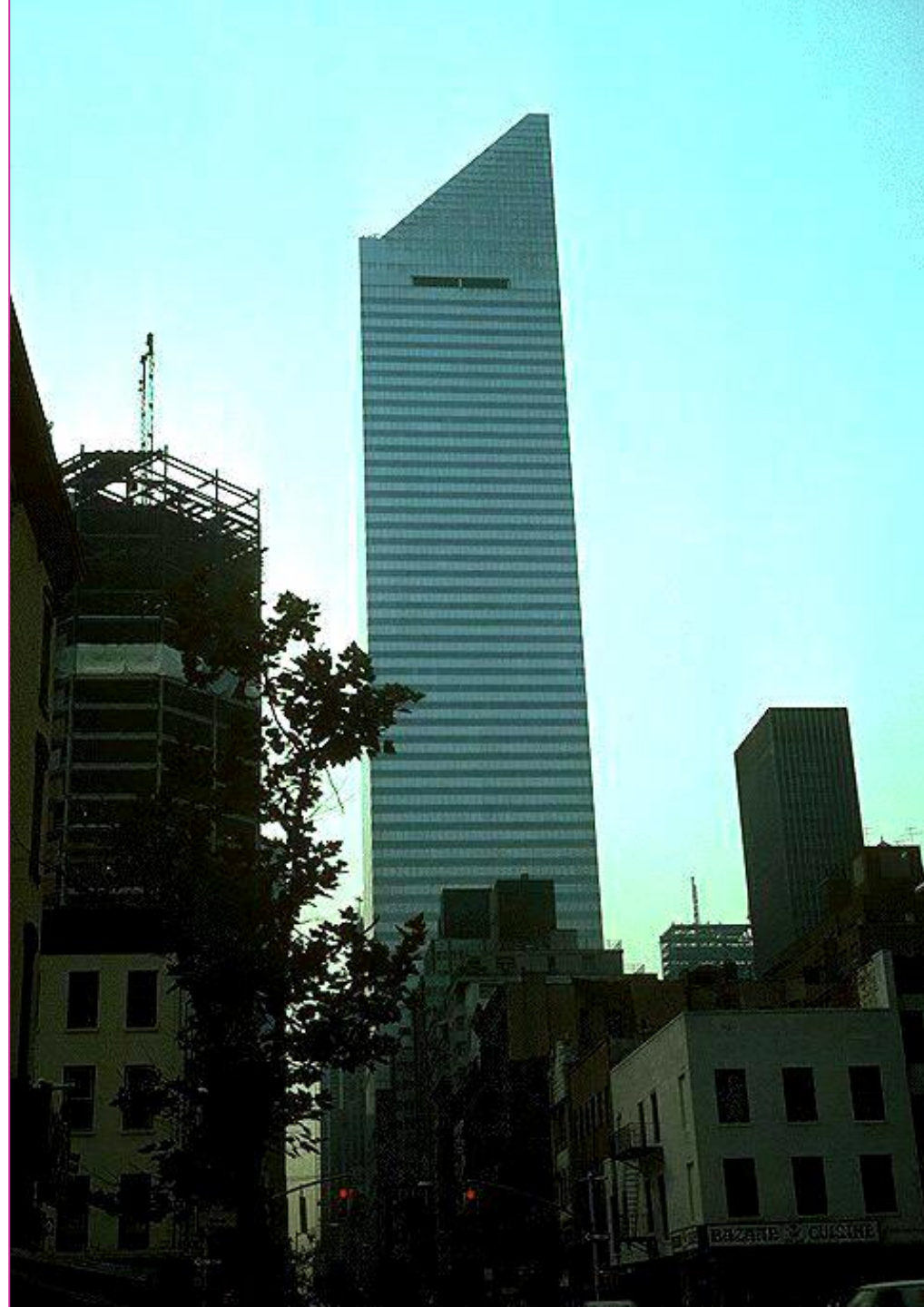
- The **Citigroup Center** (formerly **Citicorp Center** and now known as **601 Lexington Avenue**) is one of the ten tallest skyscrapers in New York City
- The 59-floor, 915-foot building contains 1.3 million square feet of office space, and is one of the most distinctive in New York's skyline, thanks to a 45° angled top and a unique stilt-style base
- The building features double-deck elevators, which are separated to serve only odd or even floors
- The building is visible in numerous television shows and movies



Hugh Stubbins and Associates

Citicorp Center

New York, New York
1978





Renzo Piano and Richard Rogers

Centre Georges Pompidou

Paris, France, 1977



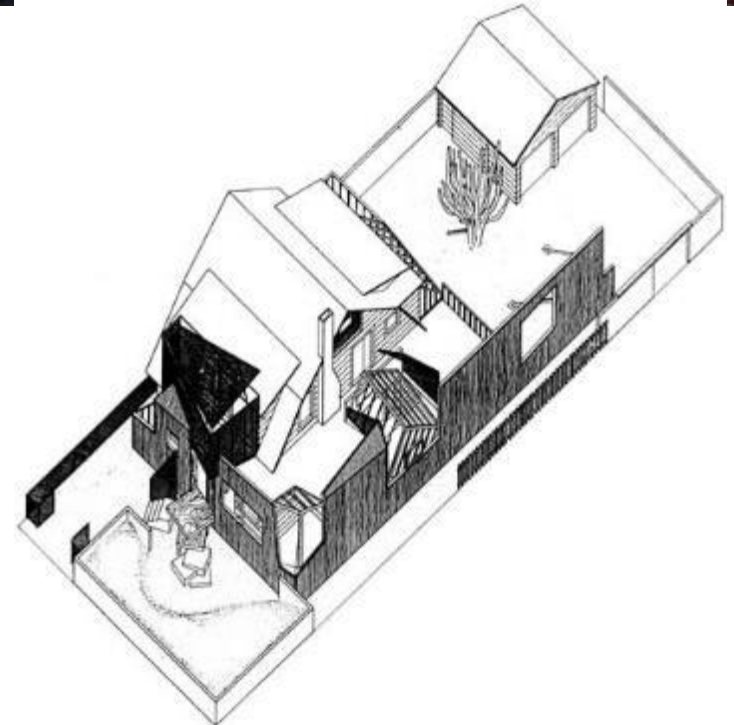
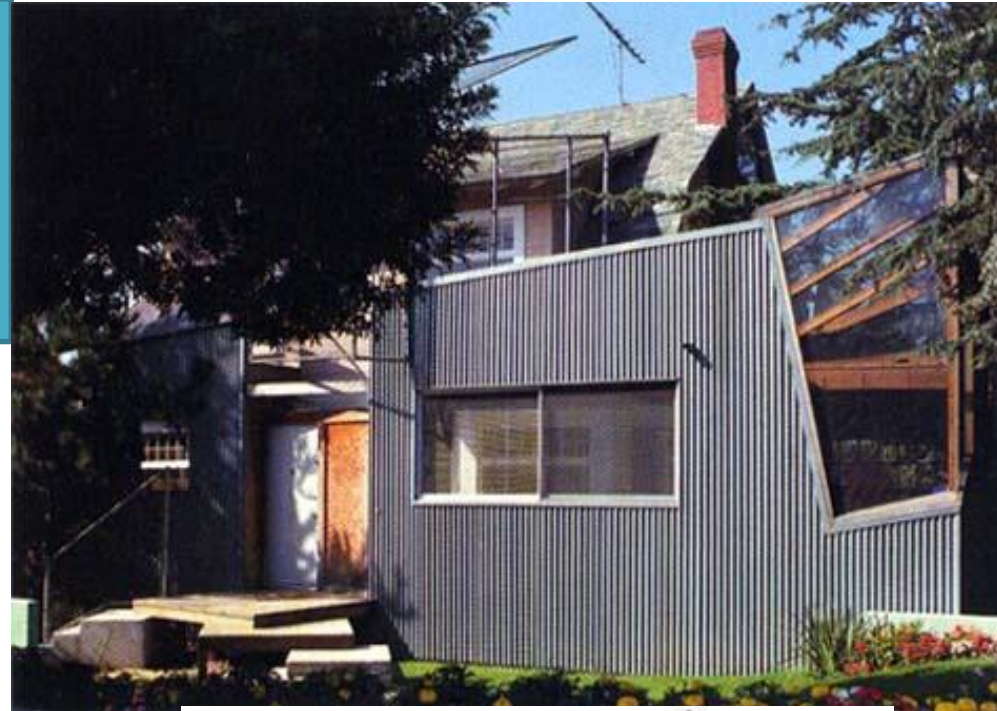
- It houses a vast public library, the Musée National d'Art Moderne, which is the largest museum for modern art in Europe, and a centre for music and acoustic research
- National Geographic described the reaction to the design as "love at second sight"
- It has exposed skeleton of brightly coloured tubes for mechanical systems
- The building is so modern and different that it stands out from those around it
- The outside of the building reflects the modern art that is held inside

Frank Gehry

The Architect's House

Santa Monica, California
1979

- The **Gehry Residence** is Frank Gehry's own house
- It was originally an extension built around an existing house
- It makes use of unconventional materials such as metal, plywood, chain link fencing, and wood framing
- In 1978, he chose to wrap the outside of the house with a new exterior while still leaving the old exterior visible
- In the fall of 1991, they chose to remodel due to the needs of their growing family, which included two teenage boys
- Many of Gehry's neighbours were not happy at the unusual building being built in their neighbourhood
- It's rumoured that one neighbour used to regularly bring his dog to defecate on Gehry's lawn in protest



Philip Johnson

AT&T Building (Sony Building)

New York, New York
1979

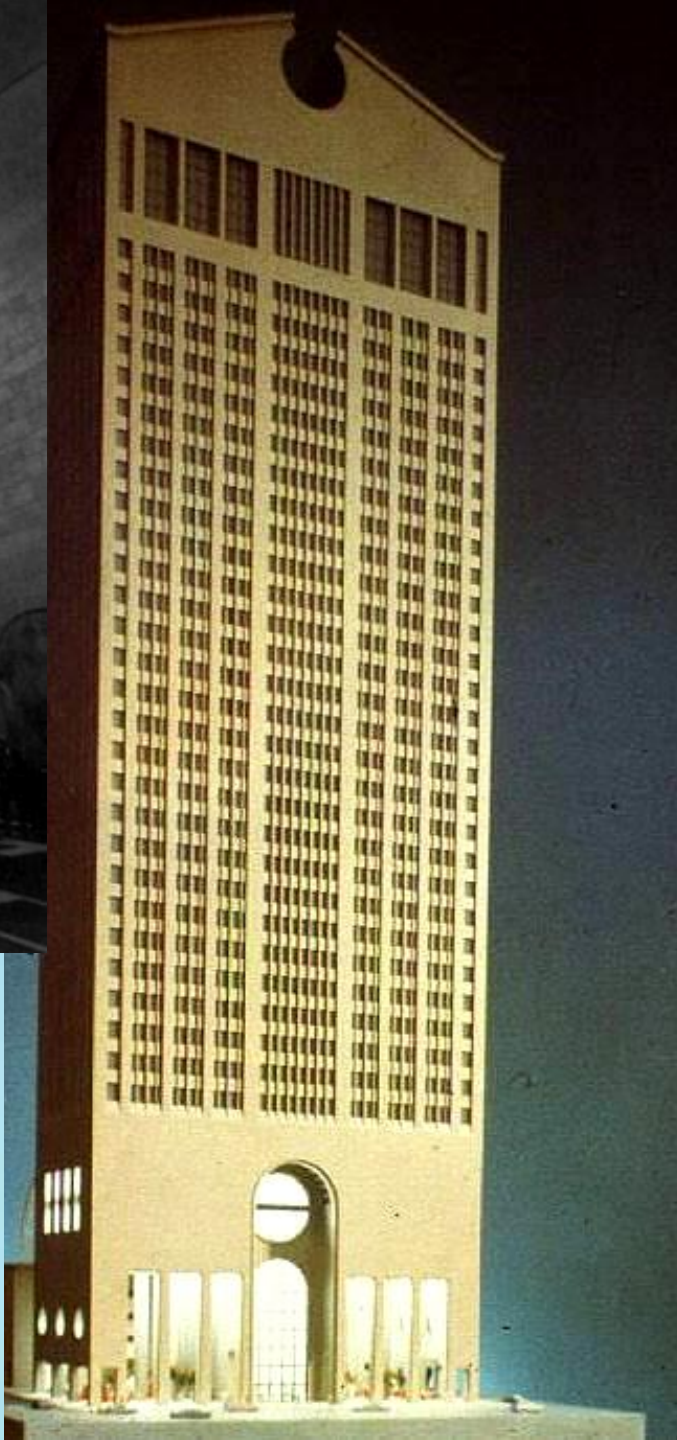
- The **Sony Tower**, formerly the **AT&T Building**, is a 647 feet (197 m) tall, 37-story skyscraper located in the New York City borough of Manhattan
- It is the headquarters of Sony Corporation of America
- It became immediately controversial for its ornamental top (sometimes mocked as "Chippendale", after the open pediments characteristic of the famous English designer's bookcases and other cabinetry
- It has a spectacular arched entranceway, measuring about seven stories in height



Philip Johnson

AT&T Building (Sony Building)

New York, New York
1979



Charles Moore

Piazza d'Italia

New Orleans,
Louisiana
1978

- Moore designed fountain in the shape of the Italian peninsula, surrounded by multiple colonnades, a clock tower, and a campanile and Roman temple
- The central fountain, located in the middle of a city block
- The fountain and its surrounding colonnades playfully appropriated classical forms and orders, but are executed in modern materials (stainless steel, neon)



- The **Portland Building** is a 15-story municipal office building located in Portland, Oregon
- Built at a cost of US \$29 million, it opened in 1982 and was considered architecturally ground-breaking at the time
- The building's style remains controversial among Portlanders as well as the entire architecture field
- In 1990, *The Oregonian* stated: "it's hard to find anyone who doesn't like Pioneer Courthouse Square.... it's even harder to find anyone who admits to liking the Portland Building"
- Pietro Belluschi said, "I think it's totally wrong. It's not architecture, it's packaging. I said at the time that there were only two good things about it: 'It will put Portland on the map, architecturally, and it will never be repeated'"
- In October 2009, *Travel Leisure* magazine called the Portland Building "one of the most hated buildings in America"



Michael Graves

The Portland Building

Portland, Oregon
1980



Gaskin and Bezanski

New York, New York Hotel and Casino

**Las Vegas, Nevada
1996**

- Its architecture is meant to evoke the New York City skyline; the hotel includes several towers configured to resemble New York City towers such as the Empire State Building and the Chrysler Building
- In front of the property is a lake representing New York Harbor, with a 150-foot-tall (46 m) replica of the Statue of Liberty, and several other NY replicas
- Within the resort, one will find gambling areas, lounges, restaurants, and meeting rooms, which are named after New York City neighborhoods or landmarks
- The main casino area, for example, is named after Central Park, while the shops are modeled after Greenwich Village

Cesar Pelli

Petronas Towers

Kuala Lumpur,

Malaysia

1997



- Twin skyscrapers in Kuala Lumpur
- Towers were built at a whopping cost of US \$ 1-2 billion
- The towers together have 1,000,000 square meter of floor space
- The towers combined have 32, 000 windows, 1,800 doors, 765 staircases and 88 stories
- They were designed to represent grace and strength using geometric principles illustrated in Islamic architecture
- The buildings contain 80,000 cubic meters of concrete, almost 11,000 tonnes of reinforcement, and 7,500 tonnes of structural steel beams and trusses
- The Skyway connecting the towers is closed on Mondays and free passes to visit the towers must be obtained on first-come, first-served basis
- Visitors are allowed to access the bridge at 41st level because 42nd level is occupied by tenants
- There are 10 escalators in each building of Petronas Towers
- They also include an art gallery, an 840-seat concert hall, and an underground parking lot
- The main occupant of the Petronas Towers is Petronas, the national oil-company of Malaysia
- The sky-bridge is the highest two story bridge in the world



Frank Gehry

Guggenheim Bilbao Museo

Bilbao, Spain

1997



- Museum of modern and contemporary art
- Located in Spain and was instantly hailed as the most important structure of its time
- With over a hundred exhibitions and more than ten million visitors to its credit, the Guggenheim Museum Bilbao has changed the way people think about museums, and it continues to challenge assumptions about the connections between art, architecture, and collecting
- A total 256,000 square feet
- There are over nineteen galleries

Frank Gehry

Guggenheim Bilbao Museo

Bilbao, Spain
1997



Polshek Partnership

Rose Center for Earth and Space

**New York, New York
2000**

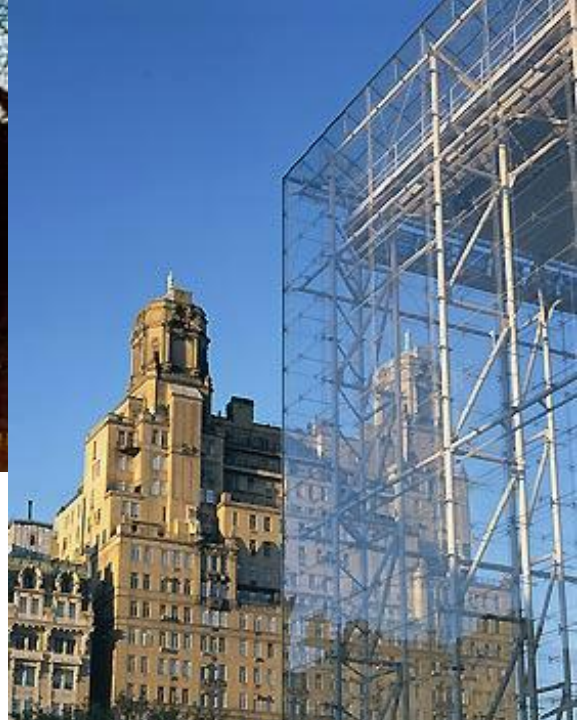
- **The Rose Center for Earth and Space** is a part of the American Museum of Natural History in New York City
- It is housed in a glass cube containing the spherical Space Theater
- The building consists of a six-story high glass cube enclosing a 87-foot illuminated sphere that appears to float — although it is actually supported by truss work
- Its floor covers 333,500 square feet of research, education, and exhibition space as well as the Hayden Planetarium
- Also located in the facility is the Department of Astrophysics, the newest academic research department in the Museum



Polshek Partnership

Rose Center for Earth and Space

New York, New York
2000



Time Warner Center

New York, New York, 2004

- **Time Warner Center** is a twin-tower building
- It consists of two 750 ft. twin towers bridged by a multi-story atrium containing upscale retail shops
- The total floor area of 2.8 million ft. is divided between offices, residences, and hotels
- The Shops at Columbus Circle is an upscale shopping mall located in a curving arcade at the base of the building, with a large Whole Foods Market grocery store in the basement
- The complex is also home to Jazz at Lincoln Center's Frederick P. Rose Hall, CNN studios, *Anderson Cooper 360°*, *Erin Burnett OutFront*, and *Piers Morgan Tonight* among other shows, are broadcast live



Skidmore, Owings & Merrill (SOM)

Time Warner Center

New York, New York, 2004

