Le Corbusier, Unite d’Habitation (1947-1953), Marseilles, France

-when his friend Raoul Dautry was appointed Minister of Reconstruction in 1945 he allowed Le Corbusier to design a special block of flats in Marseille

-this work represents his continuous research into the design of unit housing in the context of the urban visions he has been presenting
-the block is predicated upon a self-supporting community, like a village with its own services and schools

Le Corbusier

Unite d'habitation, Marseilles, section through *pilotis* and service undercroft (the 'terrain artificiel')

-creation of an artificial terrain on pilottis
-the space between the terrain and the pilottis accommodates mechanical devices, ducts, wires and so forth

Le Corbusier

Unite d’Habitation, Marseilles, 1946-52,
cross section

1. Portico
2. Entry
3. Service duct
4. Internal street
5. Shops
6. Nursery school
7. Roof deck

-the metaphor of the artificial terrain on pillotis is programmatically supported, too.
-an independent community with its own shops, a school and a roof Garden
-Two units are joined in such a way that each unit is open to both directions

Unite d’Habitation (1947-1953), section

Marseilles, France

Le Corbusier

Le Corbusier

Unite d'Habitation, Marseilles, interior of an up-going unit

Le Corbusier with a model of the roof of the *Unite d'habitation* in Marseilles

-the roof garden: the adoption of forms based upon nautical objects.

Le Corbusier

Roof of the *Unite d'Habitation* in Marseilles, detail with outline of the mountains on the horizon

Surrealistic relationship with the mountains in the far distance.
Reciprocity between far and near.

-the project was opposed at both local and national level, and the block during construction was referred to as la Maison du Fada or House of the loony.
-As it became weathered gradually, its reception became favorable and remained popular with its residents

Carpenter Center, Harvard University (1960-1963), funded by Alfred St. Vrain Carpenter

Cambridge, Massachusetts

Le Corbusier (Jose Luis Sert, Dean of the Graduate School of Design, Harvard University)

-Le Corbusier’s only North American commission strangely with the adoption of Sun-breaker facade
-Jose Luis Sert, who was once Le Corbusier’s assistant in the Rue de Sevres studio, became the new Dean of the Graduate School of Architecture at Harvard
-Sert called Le Corbusier in when a benefactor, St Vrain Carpenter, offered to fund a center for the visual arts
-Le Corbusier declared as one of reasons for accepting the commission was to put on show in the USA the repertory of his architectural vocabularies

-he adopted free-plan ‘loft’ building amply lit from the edges by a variety of fenestration devices, including brise-soleil

-the heart of the idea was an S-shaped ramp linking the new function to the nearby streets
-the main studios were formed as free hand curves, extending from a cubic volume to the center
-the power of the scheme arose from the dramatic interpenetration of curved and rectangular volumes, of transparent and massive elements, whose dynamism was further varied by the fact of changing position

Frank Lloyd Wright after 1930s

-1920s was a difficult time for Wright.

-He once fled to Europe with the wife of his client (Mrs. Cheney) and came back to open in 1911 Taliesin East (Spring Green, WI), his studio.

-But, not long before it was opened, in 1914, a deranged maid set fire on the studio and killed people including his second wife.

-This had a long psychological effect upon Wright until the end of the 1920s.

-His extravagant expenditure also put him to a financial difficulty during the period.

-The 1930s gave him a new stability partly because of his marriage with Olgivanna, his third wife, (1927) and further solved his financial problems with the help of the Taliesin foundation – a sort of rural retreat and architectural school in which young men took care of the farm and the estate, assisted with food preparation and other chores, while learning the basics of Wright’s organic philosophy

Frank Lloyd Wright, Taliesin West (1938), Arizona

-in 1938, Wright began to build a second Taliesin in the Arizona desert north-east of Phoenix
-called Taliesin West
-the activities of the Taliesin Fellowship were thereafter split seasonally between the two centers

-Wright built Taliesin west with sloping walls of what he called “desert concrete,” natural desert stones laid in concrete
-The building echoed the colours, texture and forms of the surrounding desert. The walls also supported shed roofs framed in timber. The roof was covered with stretched canvas which served to flood the interiors with diffused desert sunlight

“There is suggestion in the strata and character in the formations. . . For in the stony bone-work of the Earth, the principles that shaped stone as it lies, or as it rises and remains to be sculptured by winds and tide – there sleep forms and styles enough for all the ages of man”
Wright, in Curtis, p. 200

Jacobs House
(1936)

Frank Lloyd Wright

Usonian Houses (USONIA – United States of North America)
-a low-cost house prototype
-this word was drawn from Samuel Butler's term for the United States in his Utopian novel *Erewhon* of 1872
-Wright designed a kit of parts including a concrete-slab foundation floated on a drained bed of cinders and sand, into which radiating hot-water pipes were inserted (floor-heating system)
-The roof was a simple insulated slab containing a ventilation system and was made to overhang the edges of the dwelling to throw water clear, to give a sense of shelter, to protect from glare and to provide a horizontal related to the earth plane
-the walls were prefabricated from three layers of board and two of tar-paper
-No formal dinning room or drawing room. It was abolished in favor of an alcove with a table in it, a space blending kitchen and living areas together
-this was a response to the servantless clients who would be expected to buy Usonian houses, and a reflection of pre-First World War formalities in American life in general
-response to the housing need of the emergent sub-urban middle-class

Falling Water (1936)
Client: Edgar J. Kaufmann
Bear Run,Pennsylvania

-built for Edgar J. Kaufmann
-culminating example for his opposition to box architecture and for his organic architecture

-a series of horizontal trays placed in response to the steep topographical condition dominated by rock strata and a fall.
-It creates a compositional ensemble with the surrounding forests of verticality and the water tumbling down
-the building was placed above a waterfall
-it was formed from cantilevered concrete trays rooted to a core embedded in the boulders
-its horizontal layers soared free of apparent support over the cascades and pool of the stream
-Walls were avoided almost entirely as a way of creating continuity with the outside nature

-the sense of shelter was formed by the overhangs and by screen-like windows detailed to enhance the vertical and horizontal rhythms
-the chimney core was made from local stone laid rough, in contrast to the smooth finish of the concrete balconies
-the effects of dappled light, surrounding foliage and tumbling water, and the feeling of the horizontal expansion in all directions from the interiors: integration of architecture and nature

-Entrance sequence: crossing a bridge (next slide), going through a street covered with a pergola (the following lside), small entrance, a flight of steps, and the openness of a living room towards the nature outside
-a major part of the interior space was given over to a large living-room, suitable to the function of a weekend house
-the opening of the corner to emphasize the continuity

-“[A]lthough all of Fall Water is opened by broad bands of windows, people inside are sheltered as in a deep cave, secure in the sense of the hill behind them. Their attention is directed towards the outside by low ceilings . . . the materials of the structure blend with the colorings of the rocks and trees, while occasional accents are provided by bright furnishings, like the wildflowers or birds outside. The paths within the house, stairs and passages, meander without formality or urgency. . . Sociality and privacy are both available.”
By Kaufman’s son, in Curtis, p. 200

Frank Lloyd Wright

From An American Architecture

Frank Lloyd Wright

From An American Architecture

Singleton House, Los Angeles, 1959
Richard Neutra

Wright’s organic architecture

“. . . now you are released by way of glass and the cantilever and the sense of space which becomes operative. Now you are related to the landscape. . . You are as much part of it as the trees, the flowers, the ground. . . You are now free to become a natural feature of your environment and that, I believe, was intended by your maker.”

Wright, in Curtis, p. 200

Characteristics and Criticisms of Organic architecture by Wright

1. idealized relationship bt. the human being and nature
2. the determination of the architectural form by the features of the site to a certain degree, which might disregard the tension bt. the site specificity and the universality of the construction system especially in modern period
3. picturesque dimension of his organic architecture
4. emphasis upon visual continuity, which is more or less literal, a version of continuity in architecture

Karuizawa Summer House, 1933
Antonin Raymond

Frank Lloyd Wright, The Administration Center of Johnson Wax in Racine, 1936, Racine, Wisconsin

The Administration center of Johnson Wax in Racine, Wisconsin (1936)

Frank Lloyd Wright

-an inward-looking community which would foster togetherness while mirroring the hierarchy of the firm
-the administration building was designed as a large window-less rectangle covered in brick, lit from above, with trays suspended inwards from its edges looking into a hypostyle hall two storeys high to the core
-this space was articulated by a grid of slender mushroom supports in concrete.
-The supports were joined together at four spots and the space between supports was glazed

-the atmosphere of underwater world
-this mushroom support system was developed by Wright intuitively.
-Wright proved to the nervous client that the slender columns could support the anticipated loads by building a mock-up and piling heavy weights on it
-the exterior of the Johnson Wax building had curved corners and a streamlined character
-later, in the extension for the laboratory Tower, he adopted “tree-trunk” structure.
-A series of trays cantilevered from a central spine of reinforced concrete

-the exterior of the Johnson Wax building had curved corners and a streamlined character
-a contrast between the low, spread base and the tall tower

-later, in the extension for the laboratory Tower, he adopted “tree-trunk” structure.
-A series of trays cantilevered from a central spine of reinforced concrete

Guggenheim Museum (1944-1957)

New York, New York

Frank Lloyd Wright

-By the end of the war, he was nearly 70 and involved in the design of the Guggenheim Museum

-the site was on a corner opposite to the Central Park in Manhattan
-the building was to house an extensive collection of non-objective art
-the shape of the building is based upon the organic spiral form
-ancillary volumes containing offices and the director’s apartment are fashioned in the same smooth, curved layers, and from the outside the building is a complete antidote to the grid of the city and the prevalent box-frame architecture
-the construction material is concrete treated smooth and without texture

-translation of the organic metaphor for the cause of the architectural theme “continuity”
-the spiral form also combined centrality and procession, equilibrium and movement, and an inherent sense of growth and aspiration
-the building is organized around an expanding spiral ramp which arises around central volume in ever wider bands-one passes through a low zone of transition and comes into a stunning space with light coming in from the top

-one passes through a low zone of transition and comes into a stunning space with light coming in from the top
-One starts a journey through a spiraling ramp to the top where one can come down through an elevator
-The journey could take place the other way around: one goes up to the top story with an elevator and comes down gradually to the ground level

“Here for the first time architecture appears plastic, one floor flowing into anther (more like sculpture) instead of the usual superimposition of stratified layers cutting and butting into each other by way of post and beam construction.

The whole building, cast in concrete, is more like an egg shell – in form a great simplicity . . . The light concrete flesh is rendered strong enough everywhere to do its work by embedded filaments of steel either separate or in mesh. The structural calculations are thus those of the cantilever and continuity rather than the post and beam. The net result of such construction is a greater repose, the atmosphere of the quiet unbroken wave: no meeting of the eye with abrupt changes of form.” (Curtis, p. 268)

Larkin Building

Buffalo, New York

Frank Lloyd Wright