DESIGNING FOR A NEW LIFESTYLE.
MODERNISM IN ARCHITECTURE

PART I: EUROPE
FIRST WORLD WAR

acted as an enormous stimulus to the growth and technological development of industry.
MODERN CITY

became part of a new productive mechanism
WHY DID MODERN ARCHITECTURE BEGIN?

Because a number of problems had to be tackled...
the unhealthy state of overcrowded and polluted cities
oppressive and alienating environments
the need to upgrade production to cope with the complexity and quantity of demand
Modern architecture developed in different parts of the world

MODERN MOVEMENT
USA
Organic architecture

Scandinavian Countries
Empirical Rationalism

France
Formal Rationalism

Italy
Italian Rationalism

URSS
Soviet Constructivism
Modern architecture developed all over the world according to the following principles:
the central role of urban planning in relation to architectural design
the use of new materials: like concrete and steel
the rationality of form
as the expression of a new aesthetic
the industrialization of processes
(prefabrication in building and industrial design)
a trend to consider architecture and industrial production as a way to promote mass civilization
WALTER GROPIUS
AND THE BAUHAUS
WALTER GROPIUS (1883 – 1969)

Walter Gropius was born on May 18, 1883, in Berlin.

He studied architecture in Munich and Berlin before working for the designer Peter Behrens.

In 1919, he was appointed the master of the Art College in Weimar. Over the next few years, he transformed the school into the Bauhaus, bringing on several unique artists as professors, including Paul Klee and Wassily Kandinsky.

In 1924 Gropius moved the Bauhaus in Dessau.

In 1934, he fled Germany to England. He moved to the United States after being offered a professorship at Harvard University.

Gropius died on July 5, 1969 in Boston.
AEG TURBINE FACTORY AND FAGUS FACTORY

Peter Behrens,
AEG Turbine Factory, 1909, Berlin.

Walter Gropius
and Adolf Meyer,
Fagus Factory, 1911,
Alfred an der Leine.
Walter Gropius,
The Bauhaus Complex,
1925-1926, Dessau.
The world Bauhaus is formed by the word *Bau* which means “building” in the sense of “creating” and *Haus*, “House / Home”, so Bauhaus can be translated as “House of creating”.

It was a community where students and artists lived together, learning from each other to create “global architecture”.

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**THE BAUHAUS COMPLEX**

1. Classrooms
2. Workshops
3. Offices
4. Auditorium
5. Students’ wing
The declared aims of Bauhaus were:

- to search for formal efficiency, the harmonious meeting place between function and aesthetic appeal;
- to eliminate the separation between “arts” and “crafts”;
- to establish constant contact with the leaders of crafts and industry of the country.
BAUHAUS AND MODERN DESIGN

TEXTILES

GRAPHICS

INDUSTRIAL DESIGN

Marcel Breuer, *Vassily chair*, 1926.
LUDWIG MIES VAN DER ROHE
LUDWIG MIES VAN DER ROHE (1883 – 1969)

Born in Germany in 1886, Ludwig Mies van der Rohe broke new ground with his architectural designs. During World War I, Mies served in the German military.

He then became a well-known architect in Germany, creating such structures as the German Pavilion for the 1929 Barcelona Exposition.

Mies took over the Bauhaus, but with the rise of Nazis and the continued hostility in Dessau, it became clear that even after the move to Berlin in 1932, the school was doomed.

In the late 1930s, Mies emigrated to the United States. There he created such well-known Modernist works as the Lake Shore Drive Apartments and the Seagram Building.

He died in Chicago in 1969.
BARCELONA PAVILION, 1929
The Barcelona Pavilion, an emblematic work of the Modern Movement, was designed by Ludwig Mies van der Rohe and Lilly Reich as the German Pavilion for the Barcelona International Exhibition, held on Montjuïc in 1929.

Built from glass, steel and four different kinds of marble (Roman travertine, green Alpine marble, ancient green marble from Greece and golden onyx from the Atlas Mountains).

After the closure of the Exhibition, the Pavilion was disassembled in 1930. In 1983 began the works of reconstruction and the new building was opened on its original site in 1986.
Located in the heart of New York City, the Seagram Building designed by Mies van der Rohe is a 38-story building on Park Avenue. This is Mies' first attempt at tall office building construction. Mies' set back the building far from the street edge, creating a highly active open plaza. The plaza attracts users with its two large fountains surrounded by generous outdoor seating. By making this move, Mies distanced himself from New York urban morphology, lot line development, and the conventional economics of skyscraper construction.
LE CORBUSIER
Le Corbusier (real name Charles-Edouard Jeanneret-Gris) was born in Switzerland on October 6, 1887.

After designing his first house, in 1907, at age 20, Le Corbusier took trips through central Europe and the Mediterranean, including Italy.

His travels included apprenticeships with various architects, most significantly with structural rationalist Auguste Perret, a pioneer of reinforced concrete construction, and later with renowned architect Peter Behrens.

In 1917, Le Corbusier moved to Paris, where he worked as an architect on concrete structures under government contracts.
Already before the war, Le Corbusier had investigated the possibilities of reinforced concrete technology in the so called *Maison Domino*. This would be the basis of his architecture. It uses standardized elements in a combinatorial game of units (domino).
THE FIVE POINTS OF NEW ARCHITECTURE

PILOTIS: reinforced concret pylons, designed to lift the structure from the ground.

FREE FAÇADE, based on the principle that thanks to the reinforced concrete skeleton, the façade loses its function as the load-bearing element and can be made up free horizontal and vertical elements.

FREE PLAN: continuous walls are replaced by concrete pylons. This allows the architect to design freely the inner space of the building.

RIBBON WINDOWS: long horizontal windows that runs along the entire perimeter of the building.

TOIT TERRASSE: roof terrace, which must include skylights and roof gardens. Sloping roofs are eliminated.
A house is a machine for living in.
VILLA SAVOYE, POISSY, 1929
LE CORBUSIER’S
FIVE POINTS OF ARCHITECTURE
AS SEEN IN THE VILLA SAVOYE

THE ROOF
The roof of the Villa Savoye is a recreational area, shelter, and garden in one. A wall provides privacy and shade, and its open layout lets in light to the second floor - adding to the open design of the entire building.

THE WINDOWS
The horizontal windows of the villa make it easy for air and light to enter the interior of the building, making the second floor feel very open. It also grants a great view of the surrounding yard, from wherever one stands inside the villa.

THE PILOTIS
The Villa Savoye is supported not by traditional walls, but by reinforced concrete columns, or pilotis. This allows the rest of the building to be designed far more freely, with no need to support it through other means.

THE FLOOR PLAN
Being supported by pilotis alone, it is possible to have a very open floor plan - walls can be placed with no need to consider support. This gives the villa a room layout unlike most buildings - built for appearance and comfort alone.

THE FAÇADE
What applies to the floor plan also applies to the façade itself - with no outer walls for support, the walls that are can be designed freely. Because of this, the façade of the Villa Savoye is both characteristic and functional.
VILLA SAVOYE - LE CORBUSIER
During the war years Le Corbusier focused on the study of large buildings with a series of housing served by internal streets, shops, hotels and recreation facilities. These ideas took shape in the Marseille Unité d’Habitation (1946-1952), which was organized on seventeen floors with seven covered streets functioning as common corridors.
UNITÉ D’HABITATION, MARSEILLE, 1952

- nursery, running track, pool
- everyone has a balcony!
- units
- "streets" (corridor)
- shops, eateries, galleries and a hostel
- public space
In 1950, Le Corbusier was commissioned to design in Ronchamp, not far from Belfort, a new Catholic church to replace the previous church that had been destroyed during World War II. The inability to categorize Ronchamp has made it one of the most important religious buildings of the 20th Century, as well as Corbusier’s career.
Le Corbusier wanted the space to be meditative and reflective in purpose. The effect of the light evokes expressive and emotional qualities that create heightened sensations in tune with the religious activities.