After World War I, New Objectivism (fact-like-ness, Neue Sachlichkeit)
-A new realism in the aftermath of the world war
-also a response to Expressionism, its romanticized dream in particular in architecture

Walter Gropius (1883-1969)

-In 1919, he became the director of the Academy of Fine Arts, succeeding Henry van de Velde
- He renamed the Academy Bauhaus, envisioning the transformation of the German artistic culture under the wing of architecture
-The school was based on a belief that artistic culture was threatened by the materialism of industrial capitalism and could only be saved by a spiritual revolution.
-In the Bauhaus manifesto of 1919, he wrote, in Expressionist vein, “Let us conceive a new building of the future . . . architecture, painting, and sculpture rising to Heaven out of the hands of a million craftsmen, the crystal symbol of the new in the future” (Colquhoun, p. 160)

Cover of the Bauhaus Manifesto

(1919)

Lyonel Feininger

-Expressionist representation of the cathedral of Socialism the future is projected in terms of the pre-industrial past

Between 1919 and 1923, however, the Bauhaus abandoned its expressionist ideology Started to absorb the idea of New Objectivism, De Stil and L'Espirit Nouveau

1. The initial impulse for this change came in 1921 when van Doesburg gave a series of lectures in Weimar attended by many Bauhaus students. In these lectures, he advocated an approach to design diametrically opposed to the ideology of craftsmanship and artistic intuition that still dominated the Bauhaus curriculum.
2. Contact with Russian constructivists: Moholy-Nagy (1895-1946) became a professor in 1922. Moholy-Nagi introduced into the school an 'objective' constructivist approach involving the manipulation of industrial materials such as steel and glass and mechanical techniques of assembly "from an emphasis on personal expression . . . to a more rational, economic, and structural use of material itself . . . in pictorial terms, from collage to montage." (by Josef Albers, Moholy-Nagy's fellow teacher, Colquhoun 161)

Ceiling Lights

(1927)

Wilhelm Wagenfeld and Marianne Brandt

Shift in Gropius's architectural agenda
"international architecture from a completely pre-determined point of view, namely the development of modern architecture in the dynamic functional direction, without ornament or mouldings." (1923) (Colquhoun 162)
Model house (the Haus am Horn) (see Colquhoun 162)

"The Bauhaus workshops are essentially laboratories in which prototypes of products suitable for mass production and typical of our time are carefully developed and improved," triumphantly celebrating the union of art and technology." (around 1925) (Colquhoun 162)

In contrast with Gropius's perspective that seeks to conjoin art and technology, a perspective similar to Adolf Loos's existed within the Bauhaus, "the laws of fine art and those of technical design were fundamentally different." (Colquhoun)

Bauhaus Building (1926)

Walter Gropius

Dessau, Germany

-Gropius' design in the new "dynamic functional" manner

Bauhaus Building

(1926)

Walter Gropius

Dessau, Germany

-The body of the school building was broken down into programmatic elements – the school building, the new trade school, and masters' houses – and reassembled to form an open centrifugal form
-The swastika form of the plan exemplifies the Futuristic-Constructivist centrifugal free-standing building w/the different programmatic elements articulated, as opposed to the traditional courtyard type
-In particular, the school building has certain features from Gropius' earlier work, such as the projection of the glazing slightly in front of the wall plane, so that it is not interrupted by the column

Mies van der Rohe (1886-1969)
-Man of few, but weighty, words: “Lee is more” (though this is based on Philip Johnson’s claim that he said this), “God is in detail”
-Craftsman background – “build, do not speak,” later moved into the sphere of architecture
-Retained the ability to reduce every problem to a kind of essential simplicity. formally cubic and prismatic container
-In this sense, he was neo-classical in the simplification of the heterogeneous problems of architecture into a cubic, but also something of expressionist movement in the simplification of the problems into a crystal without strict adherent to functional and programmatic requirements

Mies van der Rohe *Riehl House* (1907) Berlin, Germany

-Sited on a steep incline
-One of its gable ends is frontalized by means of a loggia and plunges unrepentantly down to connect w/a long retaining wall
-The house tends to be shown towering above the viewer

Mies van der Rohe, Office Building, 1921, East Elevation

-Office project submitted for a competition
-When all the entries were exhibited, Mies' was displayed in a nook, b/c the jury thought it was a mischief
-Experimentation on the effect of light upon the glass as the modern material
-How light & glass encounter, creating a wave of reflection & shade

Mies van der Rohe, Office Building, 1921, Montages with pencil and charcoal drawings

-On an imaginary site
-An experiment on the curtain wall construction
-Contrast with the stone, masonry historical buildings of European streets in terms of the method of construction, materials, shape and interior

Mies van der Rohe
Office Building, 1921
Pencil and charcoal drawing

Mies van der Rohe
Glass Skyscraper, 1922
View of model

-After the First World War, he resumed practice in Berlin, and joined a circle of artists and writers, which included van Doesburg and El Lissitzky.
-Fluidity of life that is represented by a series of free-standing planes and columns
-Not form, but the space of flow, putting forth a strongly anti-formalist position “We know no forms, only building problems. Form is not the goal but the result of our work.” (Colquhoun 174) “
-Simultaneously, the expression of the sensuous nature of materials
Interesting dynamic: space of flow guided by planes and columns with expressive sensuous nature. The spatial experience is put in a dynamic – whether conflictual to each other or complementary – between the material sensuous of the architectural elements and the progressive flow towards another vista that is framed by the architectural elements

Mies van der Rohe, Brick Country House, 1923, Plan

-A series of free-standing non-retaining walls
-The walls are extended beyond the property line, transition from the urban realm to the realm of residence
-the urban and the residential are continuous in terms of the adoption of the same kind of spatial elements and the way of defining the individual space
-Yet, also discontinuous because of the change of the scale from the infinitely extending to the finitely broken planes
-Corners are open

Mies van der Rohe
Brick Country House, 1923
Perspective

Mies van der Rohe
Concrete Country House, 1923
Model

Mies van der Rohe, Haus Wolf, 1925-26, Guben

-The house seen from the garden
-Stone masonry for the earthwork and garden
-Brick for the house
-Brick was a locally popular material
-But also the material Mies favored

Mies van der Rohe *Wolf House* (1925-1927) Guben (demolished)

-The house is broken up into interlocking cubes to form roughly pyramidal compositions of two to three storeys
-The bedroom floors are set back to provide roof terraces

Mies van der Rohe *Tugendhat House* (1928-1930) Brno, Czech Republic

-No longer in brick, it is rendered & painted white
-Built against a steep slope, the house consists of a monolithic cubic mass w/a set-back, fragmented upper floor
-The entrance is at the upper floor
-From the street, one enters and then descend to the living room on the floor below
-The monolithic volume of the house is wedged solidly into the slopping ground

-The living room is a big space divided by fixed but free-standing screens
-The monolithic volume of the house is wedged solidly into the slopping ground
-The south and east sides of the living area are fully glazed w/floor-to-ceiling windows
-These windows are made out of plate-glass
-in their collective form, they are horizontally proportioned, reminding one of Le Corbusier’s Strip window. (vertically proportioned windows of the Wolf House are gone)
-They open to a panoramic view
-These windows are also mechanically retractable

Tugendhat House, interior (1928-1930)

-Ornaments are removed
-But, Mies's interest in the shiny and glossy surfaces of materials such as chrome plates, marbles, glass and stainless steel is well expressed here

Mies van der Rohe, German National Pavilion, 1929, Barcelona
King Alfonso XIII and the Kolbe sculpture

-Built as the German Pavilion for the Barcelona International Exposition of 1929
-It had the honorific function of representing the cultural values of modern Germany

Mies van der Rohe, German National Pavilion, 1929, Barcelona

-After the closure of the exposition, the pavilion was disassembled in 1930
-As time went by, the pavilion became a key reference point for twentieth century architecture as a whole.
-In 1980, the urban planning Department at the Barcelona City Council launched a project to reconstruct the pavilion on its original site.
-The pavilion-A demonstration of the power of modern structural invention to create unprecedented spatial effects and the richness of modern materials

-The entire space is defined in terms of independent horizontal & vertical planes
-The thin roof slab was poised delicately on 8 slender cruciform steel supports coated in chrome
-Two rectangular pools that are carefully integrated into the spatial experience
-Spatial journey which is both free and choreographed
-This journey is characterized by the materials that exhibit their sensuous charms

-This experience is further deepened by Mies' adoption of sculptural pieces
-The adoption of sculptural pieces – naked body of the female that is framed by the floor, vertical walls, columns and the ceiling
-Is this "nakedness" representing the intent of Mies in treating materials?

-Chrome, marble, fabric, glass and so forth

Treatment of the Column
-The steel plates inside are covered with chrome plate
-The tactile presence of the steel plates are masked by the thin shininess of the chrome
-Why would Mies do this?

Mies van der Rohe in America

-came to America in 1937
-settled in Chicago in 1938
-took up an appointment as Director of the Architecture Department of Armour Institute (later in 1940 became the College of Architecture, Planning and Design at Illinois Institute of Technology)

Mies van der Rohe in America

-his practice and teaching reflected a philosophy of architecture based upon Thomas Aquinas's proposition: "reason is the first principle of all human work"
-questioned personal expression
-searched for general principles that he learnt from the buildings of the great architectural epochs of the past:

1. namely that architecture is derived from the significant forces determining the ethos of an epoch
   -Architecture becomes an expression of the epoch
   -a language of architecture gradually evolves in response to the epoch of each period and to its particular needs and means
2. architecture becomes noble through the clear understanding and expression of construction.
   -Construction as the art of building (Baukunst)

-At Illinois Institute of technology, he set up a curriculum based on these principles and the belief
-'The function of education is to lead us from irresponsible opinion to truly responsible judgment'
-'since a building is a work and not a notion (speculation), a method of work, a way of doing should be the essence of architectural education'

Illinois Institute of Technology (1939), preliminary scheme

Chicago, Illinois

Mies van der Rohe

-from 1940 to 1952 he redesigned the Illinois Institute of Technology campus
-the bold contrast bt. main buildings and open spaces
-responds to the grid system of the surrounding south side of Chicago, yet in a great contrast with its congested suburban condition through neo-classical axiality and serenity with asymmetrical variance

-the buildings were in the shape of rectangular steel-framed boxes
-the buildings were like, according to Curtis, ‘elegant factories’: with brick panel infills, tight steel detailing, sober proportion and the air of straightforward factuality

-impersonality of each building and the utilization of the high-quality steel craftsmanship in Chicago

Alumni Hall (1945-1946)
Illinois Institute of Technology

-The local fire laws required that steel be coated in a payer of fire-proofing. In order to express the structure honestly, the architect had to adopt the artifice of an extra veneer of steel around the fireproof casing
-At the corners of the building this led to a curious detail.
-The recessed core of steel structure was hinted at in a cut-away involving a steel veneer over concrete fireproofing over the actual structure within the wall
-this was praised for its structural clarity

Alumni Hall (1945-1946)
Illinois Institute of Technology

Mies van der Rohe, Crown Hall (1952-1956)

-the architecture building of the campus
-the image of factory with the elegance of neo-classicism: symmetry, proportion, the clear expression of load and support

-the elevation reflects honestly the system of construction. Abstraction of the construction logic to a composition, creating a rhythm between thin steel vertical supports and wide glass panes
-this creates the image of lightness, orderliness, and extension to infinity

Mies van der Rohe

Right, Top: Crown Hall, IIT, Chicago, 1950-56

Right, Bottom: New National Gallery, Berlin, 1962-67

Left: Interior of the Crown Hall

-vast, uninterrupted universal space (probably inspired by Albert Kahn’s Bomber Assembly Plant of 1939)
-the glass box: a space good for everything, a space that accommodate every happening

“Universal Space”
-In contrast to many of his contemporaries, Mies van der Rohe questioned the concept ‘form follows function’
-This was because he recognized that functional requirements often change
-He believed that building solutions should allow for an optimum degree of flexibility in order to accommodate economically frequent needs to revise the arrangement of living and working spaces
-In this context, he preferred a steel frame trabeated system that captures open space
-the functions not requiring daylight, such as lecture theatres and law courtrooms, and the fixed core accommodating lifts, stairs, toilets and service ducts are located within the interior spaces of the plan
-this way, he leaves the peripheral areas available for the flexible arrangement of classrooms, workshops, laboratories, offices, flats or exhibition spaces as the particular building’s function required

How can we criticize the universal space?

Mies van der Rohe

on the building site of the
Farnsworth House (1946-50)

-the house is raised above the ground against the Fox River’s spring flooding

-The building sits on eight columns running from the foundation to the roof
-The columns on the sides are put in such a way that the corner is open

-the interior area is enclosed by large sheets of plate-glass and paved with Roman Travertine marble (next slide)
-living, sleeping and kitchen spaces are subtly defined around a free-standing wood-panelled core
-This core houses bathrooms and service
-a kind of universal space applied to the particular program of dwelling

Mies van der Rohe

Farnsworth House, Plano, Illinois, 1945-50,
sliding gauze screen

-a great example to think about “Is the glass box good for a specific case like a family dwelling?”
-to a degree, idiosyncratic, impractical, or put it positively, experimental
-strong interest in transparency

-stands on Park Avenue in New York
-designed by Mies van der Rohe and Philip Johnson between 1954 and 1958
-praised for its monumental presence of in silence in Manhattan
-a building of sober and symmetrical proportion and clothed in elegant materials such as bronze-tinted auburn glass

Seagram Building (1954-1958)

New York, New York

Mies van der Rohe

-sits on a raised podium
-one approaches along a main axis between symmetrical rectangular pools (flanked by ledges of marble)
-A portico is implied by the overhanging slab
-again attached vertical mullions
-prefabricated elements of architecture adopted to construct a building of repetitive units: Mies brought this factuality and the commonplaceness of the modern urban office to a sublime order

-Mies attached I-Beams onto vertical mullions
-prefabricated elements of architecture are adopted to construct a building of repetitive units
-Mies brought this factuality and the commonplaceness of the modern urban office to a sublime order
-Why would Mies attach I beams?
-Duality of the attached beam

-Mies’s buildings and approach became appropriated for the economic production of buildings in capitalism

Lever House (1951-1952)

New York, New York

Skidmore, Owings, and Merrill

US Air Force Academy (1954-1962)

Colorado Springs, Colorado

Skidmore, Owings, and Merrill

General Motors Technical Center (1948-1956)

Warren, Michigan

Eero Saarinen

-an example of the universal space
-The universal space seems to assume a certain laboratory condition in terms of the amount of light and the degree of temperature.
-The universal space is secretively presupposed with the universal man.
-In terms of light, every corner is evenly illuminated
-The lack of the dialectic bt. darkness and light

Union Carbide Building (1957-1960)

New York, New York

Skidmore, Owings, and Merrill