De Stijl

De Stijl (Neoplasticism)

-the nomenclature is based upon the name of the title of the magazine *De Stijl* first published by the painter Theo van Doesburg (1883-1931)

-Painters: Piet Mondrian (1872-1944), van Doesburg, and others

-Architects: Gerrit Rietveld (1888-1964), J.J.P.Oud (1890-1963)

-three postulates of the movement according to Alan Colquhoun (See *Modern Architecture*)

1. Each art form must realize its own nature based on its materials and codes – only then the generative principles governing all the visual arts be revealed
2. As the spiritual awareness of society increases, so will art fulfill its historical (Hegelian) destiny and become absorbed into daily life
3. Art is not opposed to science and technology – both art and science are concerned with the discovery and demonstration of underlying laws of nature and not with nature's superficial and transient appearance

De Stijl (Neoplasticism)

-The artists of De Stijl did not see conflict bt. Art and science.

-The reason was that science was about abstracting natural phenomena to discover their essence.

-Likewise, the mission of art is also to go beyond the superficial and transient appearance of nature to discover its underlying principles.

-Abstraction was the common process between science and art.

-In fact, this famous painting is a superb example of this process of abstraction
-It is an abstraction of a real tree.
-This composition was achieved through a series of abstraction, starting from a rather realistic depiction of the tree.

Composition with

Red, Yellow, and Blue

(1921)

Piet Mondrian

Piet Mondrian
The Red Tree, c.1908

Piet Mondrian
Tree II, 1912

Piet Mondrian
The Grey Tree, 1912

Piet Mondrian
Bloeiende appelboom (Apple Tree in Blossom), 1912

Piet Mondrian
Composition V, 1913-14

-The rectangles seem to represent the gaps between tree branches.
-Different colors were adopted to fill up the gaps between the grids.
-They seem to represent the different hues hidden in the natural light.

Composition with

Red, Yellow, and Blue

(1921)

Piet Mondrian

Mondrian

-”based on a radical process of reduction in which the complex, accidental appearance of nature was refined to the variations of an irregular orthogonal grid, partly filled with rectangle of primary colors.“
-”’no element is more important than any other, and none must escape integration.’” Mondrian, as quoted in Colquhoun, *Modern Architecture*
-the dissolution of the dominant object of representation into a total field of abstract organization
-flat surface and orthogonality: opens the space for the integration between art and architecture
-however, claimed that there was limit in architecture because of its functional and utilitarian aspect: superiority of painting in merging art and life (Oud’s position was the opposite to this)

Van Doesburg

-leading architect of De Stijl Movement
-accepted Mondrian’s resistance to the pragmatics of architecture, but he believed that architecture, by the very fact that it existed in real as opposed to virtual three-dimensional space, would play a privileged role in achieving the union of life and art.

-The first work I’d like to introduce is an experimental, unrealized work.
-This work shows an asymmetrical pyramidal composition of cubic volumes. -Prismatic volumes are interlocking each other.
-The volume is generated from the configuration of the plan, but the plan is configured in the careful consideration of the volumetric distribution (interest in the external form)
-All ornamental accentuation has been eliminated

Studies for Purely

Architectural Sculpture

(1921)

Theo van Doesburg and

Hans Vogel

-This work again shows interlocking cubic volumes with a central core
-Each cubic form is further broken up by arbitrarily placed rectangles of color
-This kind of architectural compositon was a translation of Mondrain's two-dimensional painting into a three-dimensional architecture.
-One intriguing thing about this work is that there is no distinction between front / back.
-It makes every side of the house frontal (issue of this orientation)
-The work is a rather self-referential and self-generated object w/out engagement w/a given site

Axonometric Drawing of Hotel Particulier (1923)
Theo van Doesburg and Cornelius van Eesteren

-The whole composition is reduced to the hovering and intersecting colored planes
-The work is an organism of color, form and intersecting planes
-The building appears non-gravitational
-It allows spaces to flow between them
-No one point is given as the vantage spot of seeing all at once
-(The spatial experience through meandering, a succession of temporal unfoldings)
-Axonometric: the only method of representation that does not privilege one part of the building over another (perspective: frontality)

Theo van Doesburg *Counter-Construction* (1924)

-A 3 dimensional equivalent to a rectangular abstract painting
-The struts and rails of the chair were detailed to suggest that one element was floating independently of another, w/the implication that all the parts were hovering in a tangible & continuous space

Gerrit Rietveld *Red-Blue Chair* (1917-1918)

Gerrit Rietveld *Schroeder House* (1917-1918) Utrecht

-The building is formed from intersecting planar walls.
-The walls are detailed in such a way that some of them appear to hover in space, while others join to define thin volumes
-There is No single axis that governs the whole composition (or simple symmetry): rather one part is held in tenuous, dynamic and asymmetrical relationship with another.

Gerrit Rietveld *Schroeder House* (1917-1918) Utrecht

-The planes are articulated by thin lines of window mullions, balcony railings and upstanding struts, which are black, blue, red, and yellow, and stand put cleanly against the grey and white wall surfaces
-Externally the house appears as a montage of elementary forms such as horizontal or vertical line, plane, volume and color. (but its fragmentation turns out to be a purely surface effect)

-The furniture and the equipment of the house are transformed into a vibrant composition of rectilinear forms and primary colors
-Railings, high fixtures follows the same aesthetic approach as the exterior

Gerrit Rietveld *Schroeder House,* interior (1917-1918) Utrecht

Le Corbusier during the 1920s and 1930s

Le Corbusier 1920s
-original name: Charles Eduard Jeanneret (1887-1965)
-born in a French speaking Switzerland, La Chaux-de-Fonds
-watch engraving
-worked for August Perret for a few months in Paris in 1908
-between 1910 and 1911, stayed in Germany to make a report on German applied art

AEG Turbine Factory, exterior (1908-1909)

Peter Behrens

Berlin, Germany

-worked briefly for Peter Behrens
-also attended an important Deutscher Werkbund conference

Le Corbusier 1920s
-he then traveled to the Balkans, Istanbul, and Athens (next slide)
-fascinated by the Parthenon and converted to Classicism (partly an influence from Perret and Behrens)
-to reconcile architectural tradition with modern technology

Parthenon (*BC 477-438*)

-in 1917, permanently moved to Paris
-opened a firm and also started to paint in oils under the guidance of Amedee Ozenfant
-Jeanneret and Ozenfant called themselves ‘Purists’
-they wrote a book Apres le Cubism and with Paul Dermee, a poet, founded the magazine L’Esprit Nouveau in 1920
-about this time, started to use Le Corbusier

The relationship between cubism and purism

Juan Gris
The Book, 1913

Still Life (1919)

Jeanneret/Le Corbusier

Apres le Cubism (1918)
-praised Cubism for its abolition of narrative, its simplification of forms, its compression of pictorial depth, and its method of selecting certain objects as emblems of modern life
-but condemned it for its decorative deformation and fragmentation of the object and demand the object's reinstatement
"Of all the recent school of painting, only Cubism foresaw the advantages of choosing selected objects . . . But by a paradoxical error, instead of sifting out the general laws of these objects, Cubism showed their accidental aspects."
-Still Life, 1919
Shows Cubism's influence in its flattening of pictorial depth and overlapping of planes, but the object has now been reinstated in its integrity, acquiring solidity and weight, and resisting the relativistic fragmentation of reality

Towards a New Architecture (Vers une Architecture), 1923

(First English translation in 1927)

Grain Silos and elevators

In the book, LC included many images of grain silos in America.

American Grain Silos and Elevators

American Grain Silos and Elevators

-LC paid eulogy to the geometric clarity of the American grain silos.
-The geometric cubes and cylinders emerge as the ideals forms in terms of maximizing the volume of the container, while securing structural solidity.
-These were not the products of aesthetic whims, but the products of rational calculation.
-In these structures, nothing was wasted. Nothing was arbitrary.
-Every aspect was rational.
-LC in this context praised engineering, and condemned decorative arts.

-In the book *Towards a New Architecture*, LC also presented a page in which the Greek temples like the Parthenon were juxtaposed with automobiles.
-What was he thinking?

-the equation of technology and classicism

Proportional harmony of the classical architecture (based upon standardization)

The beauty of the constructions of modern technology that embody mathematical order and numbers in harmonious relationship

-the mind moved by the perception of the mathematical relationship that unify individual forms

-“the modern industrialized world implied a change from individualism to collectivism”

Pavillon de L'Espirit Nouveau (1925)

Le Corbusier

Exposition des Arts Decoratifs

Paris, France

The Pavilion de L’Esprit Nouveau
-designed with his cousin and new partner, Pierre Jeanneret, and built at the occasion of the Exposition des Arts Decoratifs in Paris in 1925
-the aim of the exposition was to reassert French dominance in the decorative arts, and most of the work was ‘modernized’ form of the French artisanal decorative tradition.
-Le Corbusier challenged this tradition
-the pavilion proposed nothing less than the abolition of the decorative arts as such
-far from being a tastefully designed middle-class home, it was an apartment for a kind of generic without qualities living in a post-war economy dominated by mass consumption and mass production
-the elements were two kinds: fixed and mobile
-the fixed elements: modular storage units integrated into the architectural background
The mobile elements were chosen from products available in the market, leather chairs from Maples and bentwood dining chairs from Thonet
-montage of found objets-type lacking any formal consistency to each other
-Adolf Loos’s idea of interior

Adolf Loos, *Scheu House,* interior view (1912)

Charles Jeanneret (Le Corbusier) *Dom-ino Frame* (1914-1915)

-LC's interest in new structural system led him to develop a simple, basic structural unit in architecture.
-This unit was called the Domino Frame.
-It was a reinforced concrete structure composed of columns and floor platforms.

Charles Jeanneret (Le Corbusier) *Dom-ino Frame* (1914-1915)

-the columns & the floor plate constituted a prefabricated system independent of walls and partitions

-the concrete frame is conceived as being independent of the spatial planning, and as a means of industrializing the building process

LC started to study practical benefits of this new structural system, innovative architectural vocabularies that may arise from the adoption of this system

Five Points of a New Architecture (1926)

Le Corbusier

The benefits were compiled into what LC called “Five Points of Architecture” (prescription of the rules of a new architectural system)
1. Pilotis, 2. the roof garden, 3. the free plan, 4. the horizontal window, 5. the free facade
Five points are the benefits of modern constructional technology
Overturning the conventions of architecture, in particular masonry construction

Pilotis: lifted the building off the ground allowing landscape or traffic to pass underneath. A basic device for both city planning and architecture
The roof garden: reintroduce nature into architecture and the city (planting also supplied ways of insulating the flat concrete roof)
The window: the vertical versus the horizontal window (debate with Perret)
The free facade: does not bear structural role any more. a thin membrane or window of any size
The free plan: allowed rooms of different sizes to be slotted into the skeleton and spaces to be orchestrated in sequence. the interior becomes a field of plastic improvisation triggered by the contingencies of domestic life and giving rise to “the architecture of promenade (*promenade architectural*),” which Le Corbusier claimed that it is equipped with “disorderly order.” plan-making

Study of the Four House Types 1929 (1. Maison La Roche 1923, 2. Villa Stein 1927, 3. Villa at Carthage 1927, 4. Villa Savoye 1929)

Le Corbusier *Maison La Roche* (1923-1924)

-Stands at the end of a cul-de-sac and Le Corbusier responds to this site condition by creating an L-shape plan.

Maison La Roche, plan (1923-1924)

-In fact, this L-shape plan combines two houses – one for la Roche, and the other for Le Corbusier’s sister-in-law.
-His sister-in-law wanted a compact house, and the collector, la Roche, wanted to use his dwelling to display his Purist and Cubist works

-The main volume of the house primarily contains dwelling spaces
-The curved volume lifted free of the ground on slender supports contain a studio

Le Corbusier

Maison La Roche (1923-1924)

Le Corbusier

Le Corbusier, Villa Stein (1927), Garches, France

Le Corbusier, Villa Stein (1927), Garches, France

-An opportunity to create a free-standing volume
-The façade is a skin that does not bear any structural weight
-Two long strip windows run from one side to the other.
-These windows are surmounted by a heavy wall punctured at its center
-But, then a series of elements in asymmetrical rhythm at the lower part: first floor – a variety of openings cut into it (a garage for to the left, a small entrance to the servants' quarters under a tiny balcony, a large area of industrial glazing, the main entrance is surmounted by a canopy)

Le Corbusier, Villa Stein, Garches, France

-There is a roof terrace.

-A storage space is set into a curved volume, recalling immediately the funnel of a liner (nautical allusion)

-In the interior, Other nautical allusions: staircase, railings, gallery
-Experience similar to walking on the deck of an ocean-liner (next slide)
-In terms of the process of construction with reinforced concrete frame and insertion of non-bearing partitions, the building was constructed like a machine.
-Simultaneously, his architecture figurative quality – like an ocean liner.
-Put differently, his architecture also looks like a machine to some degree.
-Technology as leading to a new kind of architecture at the level of principle, yet at the same time, it was the source of figurative articulation (lineament), too.
-The oscillation b/t non-figuration based upon principle and figuration

Villa Savoye (1929-31)

Le Corbusier

Villa Sovoye (1929-31)
-the best example in terms of illustrating the five points.

-The house is raised on pilotis & appears as a pure white prism hovering above the convex surface of the filed in which it is sited

Villa Savoye (1929-31)

Le Corbusier

-Pilotis for the arrival of car The arriving car drives under the house.

-Once one enters the lobby, one is welcomed by a ramp.
-To the left of the ramp is a staircase.
-The relationship between the ramp and the staircase is set in such a way that one is encouraged to take the ramp, while using the staircase is always an option.
-The gap between the two elements also operates as the passage to bedrooms at the back.
-It is a beautiful, skillful setting of a relationship among the ramp, the staircase and the rooms.

-One thing that amazes me in LC’s architecture is this kind of moment.
-He is the master of setting up wonderful relationship among architectural elements in which the user always finds right way to move forward, while he or she is not dictated upon to move this way or that way.
-There is an order, and at the same time, freedom.
-The main floor is an enclosure occupied partly by accommodation and partly by a terrace garden.
-The ramp turns into an outdoor circulation element.
-W/in the geometrical purity of the enclosing cube, the interior is free & asymmetrical. (obeying its own dynamic logic)

-This section shows the continuous journey from the entrance

-And then to the roof garden.
-This is a great example of what Le Corbusier called Architectural Promenade.

-The climax of this architectural journey is defined by an opening which represents or frames the nature outside.
-Nature is perceived through a frame of human technological construction. The frame is not simply a frame.
-It is combined with a table at its bottom, as if it were encouraging a certain offering.

-Seen from the outside, this villa marks a great contrast with the surrounding nature.
-It is a white, pure cube separated from the ground through pilottis.
-The floating, homogeneous elevation wraps around diverse geometrical volumes inside.
-The white surface that reflects the sunlight back to the air creates a great contrast with shaded depths of the house such as the ground level and the terrace.

Andrea Palladio Vicenza, Italy

Villa Rotunda (Villa Capra)

exterior (begun 1565-1566)

Villa Savoye (1929-31)