

Chapter x

Modern Trends in Architecture

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1. Introduction.

Modernism was not just another style - it presented a new way of thinking. This chapter describes the most important ideas that influenced architectural design in the twentieth century. It covers Art Nouveau, Modern Architecture, Modernism, The Bauhaus School of Architecture, Formalism, The International Style, Futurism, Constructivism, CIAM, Structuralism, Late-modernism, Postmodernism and Deconstructivism. These ideas and their inter-relationships are described with examples of representative architecture.

2. Summary

Art Nouveau.

This is described as the first novel style on the continent.

Modern Architecture.

Modern architecture was defined by the architecture of Frank Lloyd Wright, Louis Sullivan, Walter Gropius and Mies van der Rohe. The buildings were characterized by free ground floor plans,

Modernism.

Modernist architects attempted to apply scientific, analytical methods to design.

The Bauhaus School of Architecture

Flat roofs, smooth façades and cubic shapes characterize the Bauhaus style.

The International Style.

Bauhaus and the International Style.

Futurism.

The futurists mainly worked on buildings used in the service of technology and transport, i.e. new tasks created as a result of the industrial revolution and which could also be used to celebrate it.

Constructivism.

When applied to architecture, the principles of Constructivism mean that spatial design is understood as a form of design which thoroughly embraces space.

CIAM.

The Congrès Internationaux d'Architecture Moderne (CIAM). The organisation's founding declaration was signed by twenty-four architects at La Sarraz, Switzerland, in 1928.

Structuralism.

Structuralist architects view design as a process of searching for basic, underlying structures.

Late-modernism.

Late-Modernism is a pragmatic and technocratic architecture. It draws its inspirations from the highest achievements of Modernism.

Post-modernism.

Postmodernist architects use familiar shapes and details in unexpected, and sometimes amusing,

ways.

Deconstructivism.

Deconstructivist buildings may seem to have no visual logic.

Art Nouveau?

It is described as the first novel style on the continent. The beginning of this movement was marked in Brussels in 1892 by Victor Horta's House. It later developed in France and Germany. It was mostly the style of decorations with the exception of Gaudi's work at Barcelona and Charles Rennie Mackintosh in Glasgow. The forms of t Nouveau are characterized by the ubiquitous use of undulations like waves or flames or flower stalks or flowing hair. It is well illustrated in Endell's Atelier Elvira.



Art Nouveau. August Endell Atelier Elvira, Munich, 1897.

Modern Architecture.

Germany, France and America have the lion's share in the establishment of modern architecture. Frank Lloyd Wright's buildings in the 1890s in the neighbourhood of Chicago are considered as the first belonging to the "New original style" often interpreted as the Organic Movement. The buildings had freely spreading ground plans, interweaving of exteriors and interiors by means of terraces and cantilevered roofs.

The buildings of the Chicago School with Sullivan's Guaranty Building in Buffalo from 1895 are classified as belonging to early functionalism. Sullivan's grid of mullions and sills carried through all floors except the bottom and top ones is the establishment of a system valid to this day. To this new trend belong Peter Behrens' AEG Turbine Erection Hall and Fagus Works at Alfred near Hanover by Walter Gropius and Adolf Meyer. This pioneer work can be misdated by anyone as belonging to the thirties. The new style got established after 1925 and was a continuation of the work of pioneers of 1900-14. Gropius ideology is in extreme contrast to Le Corbusier, with his social conscience and pedagogic faith. Both of them continued the style before 1914. Buildings of 1925-30 were white and cubic. That applied for example to villa Garcher of 1929 by Le Corbusier and Bauhaus in Dessau of 1926 by Gropius.

Mies van der Rohe uses splendid materials and a "noble special rhythm" in the German Pavilion of Barcelona at the Barcelona Exhibition of 1929.



Chapel by Mies Van der Rohe at Illinois Institute of Technology, Chicago. Source: Author's photograph, 2005.



Robie house by Frank Lloyd Wright. Source: Author's photograph, 2005.



Fagus Works at Alfred near Hanover by Walter Gropius and Adolf Meyer, 1911-1914. Source: www.greatbuildings.com.

Modernism.

Modernist architecture emphasizes function. It attempts to provide for specific needs rather than imitate nature. The roots of Modernism may be found in the work of Berthold Luberk (1901-1990), a Russian architect who settled in London and founded a group called Tecton. The Tecton architects believed in applying scientific, analytical methods to design. Their stark buildings ran counter to expectations and often seemed to defy gravity. For examples of Modernism in architecture, look at works by Rem Koolhaas and I.M. Pei. The Maison à Bordeaux by Pritzker Prize Laureate Rem Koolhaas was designed to meet the needs of a man who was confined to a wheelchair.

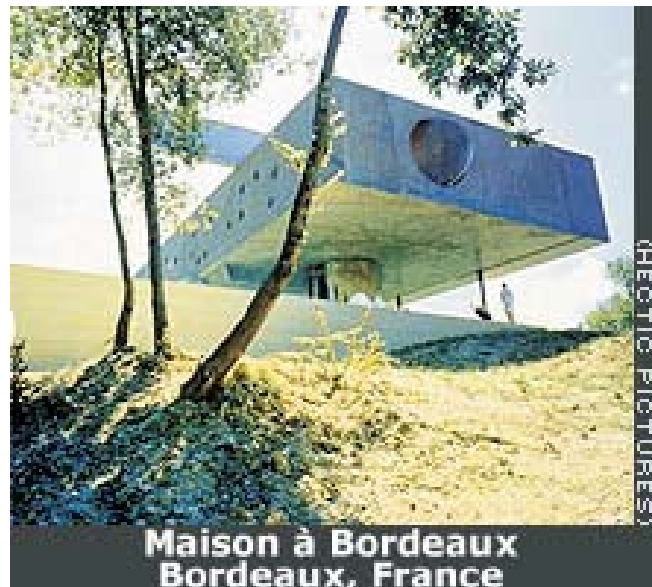


Figure 3. The Maison à Bordeaux by Rem Koolhaas

The Bauhaus School of Architecture

Bauhaus is a German expression meaning "house for building." In 1919, the economy in Germany was collapsing after a crushing war. Architect Walter Gropius was appointed to head a new institution which would help rebuild the country and form a new social order. Called the Bauhaus, the Institution called for a new "rational" social housing for the workers. Bauhaus architects rejected "bourgeois" details such as cornices, eaves and decorative details. They wanted to use principles of Classical architecture in their most pure form: without ornamentation of any kind. Bauhaus buildings have flat roofs, smooth façades and cubic shapes. Colours are white, grey, beige or black. Floor plans are open and furniture is functional.

The Bauhaus school disbanded when the Nazis rose to power. Walter Gropius, Mies van der Rohe and other Bauhaus leaders migrated to the United States. The term International Style was applied to the American form of Bauhaus architecture. The name came from the book *The International Style* by historian and critic Henry-Russell Hitchcock and architect Philip Johnson. The book was published in 1932 in conjunction with an exhibition at the Museum of Modern Art in New York. The term is again used in a later book *International Architecture* by Walter Gropius.

While Bauhaus architecture had been concerned with the social aspects of design, America's International Style became a symbolism of Capitalism: It is the favoured architecture for office buildings, and is also found in upscale homes built for the rich. One of the most famous examples of the style is the glass and bronze Seagram Building in New York, designed by Mies van der Rohe with Philip Johnson.

Formalism.

The concept of formalism can be traced as far back as Plato, who argued that 'eidos' (or shape) of a thing included our perceptions of the thing, as well as those sensory aspects of a thing which the human mind can take in. Plato argued that eidos included elements of representation and imitation, since the thing itself could not be replicated. Subsequently, Plato believed that eidos inherently was deceptive.

In 1890, the Post-impressionist painter Maurice Denis wrote in his article 'Definition of Neo-Traditionism' that a painting was 'essentially a flat surface covered in colours arranged in a certain order.' Denis argued that the painting or sculpture or drawing itself, not the subject of the artistic work, gave pleasure to the mind.

Denis' emphasis on the form of a work led the Bloomsbury writer Clive Bell to write in his 1914 book, *Art*, that there was a distinction between a thing's actual form and its 'significant form.' For Bell, recognition of a work of art as representational of a thing was less important than capturing the 'significant form', or true inner nature, of a thing. Bell's work harkened back to the Aristotelian concept of general forms and 'species.' For Aristotle, that an animal was a dog was not important; that a dog was a Dalmatian or an Irish wolfhound was. Echoing this line of thought, Bell pushed for an art that used the techniques of an artistic medium to capture the essence of a thing (its 'significant form') rather than its mere outward appearance.

Throughout the rest of the early part of the 20th Century, European structuralists continued to argue that 'real' art was expressive only of a thing's ontological, metaphysical or essential nature. But European art critics soon began using the word 'structure' to indicate a new concept of art. By the 1930s and 1940s, structuralists reasoned that the mental processes and social preconceptions an individual brings to art are more important than the essential, or 'ideal', nature of the thing. Knowledge is created only through socialization and thought, they said, and a thing can only be known as it is filtered through these mental processes. Soon, the word 'form' was used interchangeably with the word 'structure'.

The International Style

The change of conditions under which architecture was operating in this period is very significant it is the change from the personal to impersonal client. Cube and groups of cubes were characteristic of 1930. The increased internationalism style is a uniform style which spread fast because of easy travelling, and the well illustrated cheap printing and technical press. The years 1930-50 witnessed a spectacular change from a style of pioneer countries to a style succeeding with works all over the world.



Carpenter Centre, Harvard University, Boston. Architect: Le Corbusier. Source: Author's photograph, 2005.



Carpenter Centre, Harvard University, Boston. Architect: Le Corbusier. Source: Author's photograph, 2005.

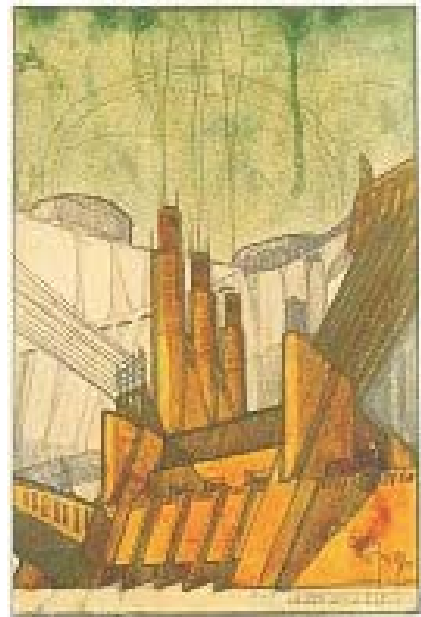
Futurism

When the 20th century began it was greeted with a sense of hope, not only by the majority of intellectualists: it was believed that further progress of technical, intellectual and social changes would lead to a completely new era with completely “new” people. Particularly noteworthy achievements in architecture bore witness to this enthusiasm in two countries whose political and industrial development had hitherto been somewhat retarded: Italy and Russia.

Futurism in Italy

The futurists, particularly Antonio Sant'Elia and Vigilio Marchi, mainly worked on buildings used in the service of technology and transport, i.e. new tasks created as a result of the industrial revolution and which could also be used to celebrate it. Power stations, railway stations, airports and, of course, entire cities consisting of powerful collections of skyscrapers and multi-storey transport system, were the focus of the Futurists' designs. They showed greater enthusiasm for the urban chaos of the metropolis than the majority of the architectural avant-garde in other countries. Few of the innumerable dynamic, upward striving and gigantic designs were realized. They were too aesthetically and financially advanced for the resources available at the time.

Despite realizing so few projects, the Futurists were prolific publishers of manifestoes. Their dramatic words and Utopian plans penetrated as far as Russia, where Constructivism was soon to become the leading style.



Constructivism.

Constructivism among other things shared with Futurism an enthusiasm for the apparently unlimited possibilities which new building technologies offered the architect. Other important influences included Cubism and Suprematism, which was founded by Kasimir Malevich. He was concerned with overcoming flat surface thinking in favour of three-dimensional spatial thinking in painting, and the development of an "art of spatial, constructive design".

El Lissitzky, the multi-faceted artist who had worked in Germany, was a key figure in the spread of Constructivism in the area of architecture. In 1922 he co-organized the first Russian art exhibition in Berlin, and made an important contribution to the influence of Constructivism on the Stijl and the Bauhaus. When applied to architecture, the principles of Constructivism mean that spatial design is understood as a form of design which thoroughly embraces space.

Buildings consist of harshly juxtaposed elements reduced to basic forms and colours, reaching obliquely or directly to the sky, their design directly derived from the structure, which is exposed by generous glazing. Famous Constructivist projects include Tatlin's Monument for the Third International of 1919, a dynamic sculptural structure which was to have provided an office and conference building for the communist world organization, El Lissitzky's Lenin Tribune, a steel framework which was to have projected at an oblique angle above the masses assembled for inspiration, and his "Wolkenbugel" skyscrapers which he designed around 1925. The few Constructivist projects to be realized include the Leningradskaja Prawda house in Moscow and the Lenin Mausoleum on Red Square in Moscow.

It is not surprising that the aesthetic Utopians with their radical design ideas were particularly strongly attracted to radical political ideologies. The attraction of Russian Constructivists to communism ultimately proved far more disastrous than the links between many Italian Futurists and the emergence of Fascism in Italy. Initially sharing the philosophy of the Bolsheviks

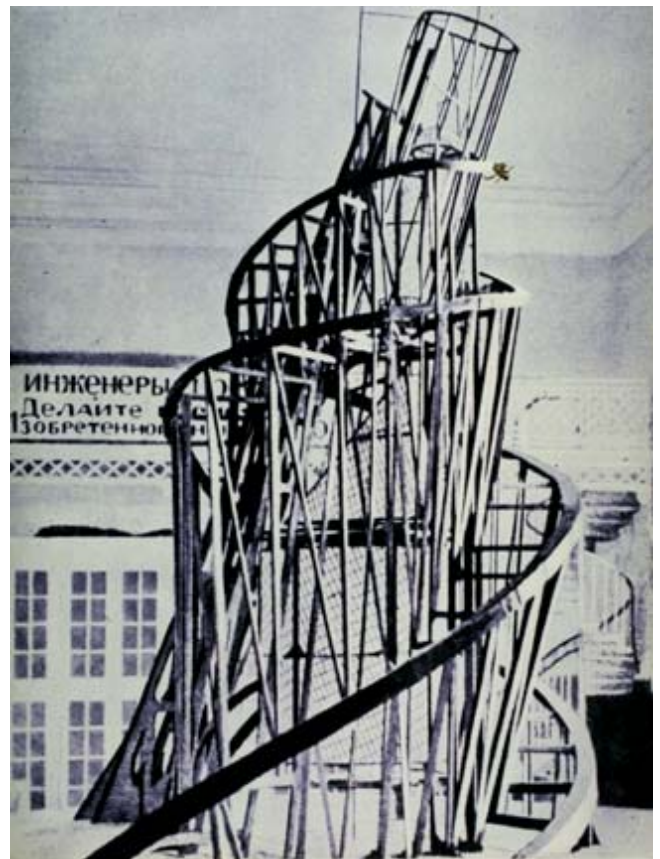


Figure 4. Vladimir Tatlin: Model for the 3rd International Tower, 1919-1920

who seized power, they were increasingly alienated by the political paralysis which occurred with the rise of Stalin in the mid-1920s, and were finally completely outlawed. The ideas of Constructivism were, however, to exert an influence on the future: Golosov' Club of Communal Workers (1927-29) in Moscow, with its contrasting glass and wall surfaces of round and clear rectangular forms, looks like something built in the 1990's.

6. CIAM (Congres Internationaux d'Architecture Moderne) (1928-1956)

CIAM was formed one year before the building of the German Pavilion in Barcelona. Its foundation marks the determination of Modernist architects to promote and refine their theories. For nearly thirty years the great questions of urban living, space, and belonging were discussed by CIAM members. The documents they produced, and the conclusions they reached, had a tremendous influence on the shape of cities and towns the world over.

The organisation's founding declaration was signed by twenty-four architects at La Sarraz, Switzerland, in 1928. The La Sarraz Declaration asserted that architecture could no longer exist in an isolated state separate from governments and politics, but that economic and social conditions would fundamentally affect the buildings of the future.

The Declaration also asserted that as society became more industrialised, it was vital that architects and the construction industry rationalise their methods, embrace new technologies and strive for greater efficiency. (Le Corbusier, one of the movement's founders, often liked to compare the standardised efficiency of the motor industry with the inefficiency of the building trade.)

CIAM's early attitudes towards town-planning were stark: "Urbanisation cannot be conditioned by the claims of a pre-existent aestheticism; its essence is of a functional order... the chaotic division of land, resulting from sales, speculations, inheritances, must be abolished by a collective and methodical land policy."

At this early stage the desire to re-shape cities and towns is clear. Out is the "chaotic" jumble of streets, shops, and houses which existed in European cities at the time; in is a zoned city, comprising of standardised dwellings and different areas for work, home, and leisure.

The Athens Charter

The fourth CIAM Congress in 1933 (theme: "The Functional City") consisted of an analysis of thirty-four cities and proposed solutions to urban

problems. The conclusions were published as "The Athens Charter" (so-called because the Congress was held on board the SS Patris en route from Marseilles to Athens). This document remains one of the most controversial ever produced by CIAM. The charter effectively committed CIAM to rigid functional cities, with citizens to be housed in high, widely-spaced apartment blocs. Green belts would separate each zone of the city. The Charter was not actually published until 1943, and its influence would be profound on public authorities in post-war Europe.

The End of CIAM

It didn't take long for architects to question the conclusions reached at Athens, and to worry publicly about the sterility of the city envisioned by CIAM. Chief among these doubters were young British architects Alison and Peter Smithson, who led a breakaway from CIAM in 1956. Three years previously they had outlined their concerns; "Man may readily identify himself with his own hearth, but not easily with the town within which it is placed. 'Belonging' is a basic emotional need- its associations are of the simplest order. From 'belonging'- identity- comes the enriching sense of neighbourliness.

The short narrow street of the slum succeeds where spacious redevelopment frequently fails."

The Smithsons worried that CIAM's ideal city would lead to isolation and community breakdown, just as European governments were preparing to build tower blocks in their ruined cities.

The last CIAM meeting was held in 1956. By the mid-1950s it was clear that the official acceptance of Modernism was stronger than ever and yet the concerns voiced by the Smithsons and their allies that the movement was in danger of creating an urban landscape which was hostile to social harmony, would rise to a crescendo in the decades to come.

CIAM succeeded in developing new architectural ideas into a coherent movement, but Modernists would spend many years defending, and often undoing, its legacy.

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Structuralism.

Structuralist architects view design as a process of searching for basic, underlying structures. Within a highly structured or ordered framework, Structuralists often attempt to instil innovation and complexity. They may view Modernist architecture as poorly defined and unliveable. The Kunsthal in Rotterdam by Rem Koolhaas has been called a Structuralist design.

The Arrival of Structuralism in Architecture

Some younger CIAM members searched for the structural principles of urban growth and for the next significant unit above the family cell. In short they established a clear position for themselves within the field based on the re-assertion of the importance of both the social and symbolic aspects of the built environment. The position was based on the assertion of the importance of vernacular values and building form.

Structuralism in the 1950's and the 1960's

In the 1950's and 1960's in both the United States and Europe the influence of structuralist thought already prevalent in linguistics and anthropology began to inflect the most adventurous architecture of the period. This led to speculation on the possible existence of deep structures linking late twentieth century western society and its built environment with those of 'traditional' African and Asian cultures.

The speculation that there might exist a corresponding language of architecture, the structure of which might be uncovered and analyzed, led to a semiotic analysis of the built environment.

The more obvious result of structuralism in architecture came from the interest of a number of architects who simply grafted onto the traditional architectural project a set of formal gestures which simply symbolized the broader shift in thought in western society which structuralism represented. The components of architectural form were generally clearly articulated - one could always tell, for example, where column became beam and load bearing became non-load bearing.



Late-modernism.

Current architecture is often classified into Late-Modern and Post-Modern architecture. Late-Modernism is a pragmatic and technocratic architecture. It draws its inspirations from the highest achievements of Modernism. It is represented by:

Sculptural Form (Brutalism, Geometric Expression)

- Extreme Articulation (Team Ten, Structuralism)
- Second Machine Aesthetics (Isozaki, Renzo Piano Pompidou Centre)
- Slick-Tech (Membrane, Shaped Skyscrapers)
- Twenties Revivalism (Eisenman, Meier)
- Late-Modern Space (Gridism, Complex simplicity)



Pompidou Centre in Paris. Competition from 1971. Renzo Piano and Richard Rogers.

Postmodernism.

Postmodern architecture evolved from the modernist movement, yet contradicts many of the modernist ideas. Combining new ideas with traditional forms, postmodernist buildings may startle, surprise, and even amuse. Familiar shapes and details are used in unexpected ways. Buildings may incorporate symbols to make a statement or simply to delight the viewer. Only a plural definition will reflect Post-Modern architecture. It takes a positive approach towards metaphorical buildings, the vernacular and a new ambiguous kind of space.

Post-Modern architecture is concerned with comfort, traditional buildings and a way of life. The distinguishing characteristics of Post-Modernism are contextualism, allusion to other designs and ornament. It grew in popularity starting from the sixties and was particularly popular in the seventies up till 1980. It is represented by:

Historicism

This is allusion to history. It can be recognized through decorative mouldings and symbolic elements in an aggressive way.

Straight-revivalism.

This alludes to the past; it is insensitive to the nuances of time and context.

Neo-vernacular architecture

This is a hybrid between modern and traditional.

Adhocism and Urbanism.

An architecture that pays tribute to contextual parameters.

Metaphor and metaphysics.

The architects have turned to metaphors at hand as the most renowned examples reflect. Such examples are Ronchamp (monk), Sydney Opera (sail boats) and TWA terminal (bird). Some have even used metaphors in the image of the human body.

Philip Johnson's AT&T Headquarters (the center building, above) is often cited as an example of postmodernism. Like many buildings in the International Style, the skyscraper has a sleek, classical facade. At the top, however, is an oversized "Chippendale" pediment.



Philip Johnson's AT&T Headquarters



This photo taken at Oberlin College shows how Robert Venturi exercised architectural wit: an exaggerated classical column is placed inside a stark, purely functional space.

The key ideas of postmodernism are set forth in two important books by Robert Venturi: *Complexity and Contradiction in Architecture* and *Learning from Las Vegas*.

Postmodern addition to the Oberlin College art museum in Ohio, 1977

Venturi, Scott Brown and Associates

Postmodern Architects

Robert Venturi and Denise Scott Brown

Michael Graves

Philip Johnson

Husband and wife team Robert Venturi and Denise Scott Brown are known for architecture steeped in popular symbolism. Kitsch becomes art in designs which exaggerate or stylize cultural icons. Mocking the austerity of modernist architecture, Venturi is famous for saying, "Less is a bore."

Vanna Venturi House

When Robert Venturi built this home for his mother, he shocked the world. Postmodern in style, the Vanna Venturi house flew in the face of modernism and changed the way we think about architecture.

The design of Vanna Venturi House appears deceptively simple. A light wood frame is divided by a rising chimney. The house has a sense of symmetry, yet the symmetry is often distorted. For example, the façade is balanced with five window squares on each side. The way the windows are arranged, however, is not symmetrical. Consequently, the viewer is momentarily startled and disoriented. Inside the house, the staircase and chimney compete for the main center space. Both unexpectedly divide to fit around each other.

The radical house Venturi built for his mother is frequently discussed in architecture and art history classes and has inspired the work of many other architects.



Sackler Museum, Harvard University, Boston. Source: Author's photograph 2005.



Vanna Venturi House



Deconstructivism.

Deconstructivism, or Deconstruction, is an approach to building design which attempts to view architecture in bits and pieces. The basic elements of architecture are dismantled. Deconstructivist buildings may seem to have no visual logic: They may appear to be made up of unrelated, disharmonious abstract forms. Deconstructivism ideas are borrowed from the French philosopher Jacques Derrida. For examples of Deconstructivism in architecture, look at works by:

- Peter Eisenman
- Frank Gehry
- Richard Meier
- Rem Koolhaas



The Seattle Public Library by Pritzker Prize Laureate Rem Koolhaas.

WORKS BY FRANK GEHRY

Guggenheim Museum Bilbao, Spain 1997

Construction System: steel frame, titanium sheathing

Notes: A free sculpture of curvaceous metal-clad forms.

The new Guggenheim Museum Bilbao by Frank Gehry was probably the most often mentioned new building of 1998 and 1999 in architecture circles. The composition continues a curvaceous, free-form sculptural style that has become a Gehry signature. The abstract, free-form components of this style were present in the early Gehry House, and a similarly sleek curvaceous cladding was



