

AT THE TURNING POINT: FROM MODERN TO POST-MODERN ARCHITECTURE

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الملخص

بالنظر الى تاريخ العمارة الماضي كانت هناك تغييرات وتحولات في العمارة. هذه التغييرات والتحويلات في العمارة كانت تحت العديد من العوامل. إن التغييرات والتحويلات الاكثر اثاره في العمارة حدثت خلال العصر الحديث واستمرت الى ما بعد العصر الحديث. هذه الورقة لا تغطي كل تاريخ العمارة، انها محاولة لدراسة تطور العمارة من بداية العمارة المعاصرة الى بعد العمارة المعاصرة وذلك لسرد انظمة الفكر والنظريات والعقائد أو الايدولوجيات التي كانت سائده.

ABSTRACT

Looking back at the history of architecture there are great transformations and changes in architecture. These transformations and changes in architecture have been under many factors. The most dramatic changes and transformations in architecture have occurred during modern era and have continued into post-modern architecture. This paper does not cover all the history of architecture, but rather attempts to study the development in architecture from early modern architecture to post-modern architecture and find what the systems of thought, theories and ideologies were.

KEYWORDS: Modern architecture; Post-modern architecture; International style

INTRODUCTION

The developments leading to modern architecture started about 1830 with the beginning of the many revival styles (Greek, Roman, Gothic, Neo-Baroque, New-Liberty or Neo-Vernacular). However modern architecture belongs to the modern age and is thus different from the architecture of all previous epochs. The 19th century was an electro dynamic age of rapid growth.

New ideas came to existence from inventors, industrialists, philosophers and artists. Architecture was in a rut (unable to do anything new) with the ever increasing knowledge of the past architectural styles. But with the demand for completely new types of building-railway stations, hospitals, universities, as well as mass housing for industry/s new settlements-architects themselves became confused over matters of style, status, rank and position in relation to others, and method.

The second stage of the birth of modernism: at the end of the 19th century, revivalism and eclecticism were identified as enemies to architecture, and they had been replaced by a new hope for the world. For example: the creative engineers such as:

- Joseph Paxton built the sensational crystal Palace (Green House) for the Great Exhibition building, of 1851, in London – with iron frame –work and prefabricated and standardized, mass produced wood and glass parts (Figure 1).
- Barlow: the engineer of the St. Pancras train shed-the longest span arch in the world – in 1864, has a span of 243 feet rising 100 feet in a slightly pointed arch, length 700 feet (Figure 2).



Figure 1: Exhibition Building



Figure 2: Pancras Train Shed

Those engineering innovators had transformed the world of solid, four-walled architecture into architecture depending on lightness, spectacular open spaces and structural adventure. The conventional techniques and materials-timber, stone brick and concrete, go back to antiquity and were replaced by the new materials as, of course, iron (cast and wrought). Without the 19th century only a new architectures saw in iron engineering real possibilities for a new architecture such as:

- Viollet – Le-Duc; A French architecture, theorist and encyclopaedist, saw ways of producing the effects of stone work more economically and, above all, more rationally with iron. (Iron covered with stone; columns in –stead of stone, to be of iron). Over a period of time, the influence of the French architect Viollet-Le-Duce, the Viennese architect Otto Wagner, the Dutchman Berlage, and the German neo-classicist Karl Friedrich schinkel, created a climate of opinion in which a "modern" architecture, or new art and architecture which was called Art Nouveau could emerge.

(Art Nouveau is the French – inspired counterpart to the "fin-de-siecle" movement which spread through Europe after 1885, in which the effects of newness and originality were not tied to any technological advance of new aesthetic idea, but were produced by a general sense of liberation from the repressive routine, of the styles and construction. Other factors such as: the developments in reinforced concrete from the 1890s onward which is the combination of steel and concrete and which have high tensile and compressive quantities, offered undreamt-of possibilities for architecture because;

- (A) It was a material as solid-looking as stone.
- (B) It was relatively elastic, flexible and economical to produce.
- (C) It was self-finishing, speedily and easily erected and fireproof.
- (D) Reinforced concrete which did not easily respond to ornamentation either carved into or added to its faces, allowed for architecture of plain wall surfaces and flat roofs.

Ornamentation, during and after the art Nouveau and the fine-de-siecle period was equated with crime. Later, the pioneer architecture, such as Walter Gropios, Le Corbusier and Mies Van Der Rohe carefully eliminated it from their work. They replaced ornament with the use of surface textures, the application of colour, the articulation of surfaces and the employment of precise geometrical shapes. The "no-ornamentation" movement was motivated by deep aesthetic desires for structural honesty and clearly defined volumes. The public and critics responded to the new "naked" architecture of Adolf Loos, D. Vienna 1933; Hoffman, D. Vienna 1956; and Le Corbusier, D. 1963). Here was the invention of a new form of architectural expression which depended on a simple building envelope, a dynamic aesthetic based on the grouping of masses, spatial interpenetration, and hard surface edges.

Ornamentation had played an important part in the great periods of the past, it was justifiable) softening of edges and obscuring the building contours). But it was not justifiable when it spoiled the "organic clarity" of an architectural solution. I believe that new architecture should be ruled by objective considerations rather than artistic or tectonic purposes. A good connection between architectural theory and practice should be established. Hal Foster (1983) mentioned that the contradiction of architecture as a science or as an art should vanish, that which is being considered is only the final look of a project, its vestige of grace and nobility, elegance and charm, but one need not to

devalue the social importance of a building, nor the technical developments implied in it, not any environmental issues that may be against it [1].

Linking or disliking a building is an instant decision based almost entirely on acceptable or non-acceptable features. The configuration of a building has an immediate impact. A well-qualified eye might be able to deduce from its exterior the organization and the use of the building. I think at present, there is a need for an open participatory architecture in which nodal points of concentrated human activity are linked, rather than as at present dispersed into separate buildings of different character and contradictory functions. However, the problems to be solved will be not only those of appearance, scale, proportion and compatibility, but also of finance, function, space, enclosure, materials, finishes, servicing and structure.

My belief is that architecture is a social art that is related to man's primitive and cultural requirements. That means that architecture is not entirely skin-and bones or materials and functions, but the aesthetic part of architecture, the creative, social and personal factors are more essential. I would like also to mention about some theories of architecture.

- 1- The rationalist "machine-conscious" View- point of 1901: let the human mind think of shapes the machine can produce" Roger Seruton (1980) stated that rationalist approach to design is to consider both an aesthetic attitude and the technological approach, that means the designer has to be concerned about space, enclosure, geometric organization, the treatment of surface (colour and texture) and the use of materials [2].
- 2- The ir-rationalist approach is to insist that one has to recognize the complexity of any artefact. It stresses the aesthetic issues which are bound up with forms and works of art while contemplating enjoying, admiring and appreciating an object. Aesthetics is concerned with problems of taste, artistic imagination, stylistic differences and variation of forms.
- 3- In the architecture of Humanism (1914), English scholar, Geoffrey Scott was thinking about whether a building should express its purpose or its structure, or expresses the ethical qualities of truth, beauty, sincerity or even the personality and emotional approach of the architects. Unfortunately, it later became the concern of many architects to rationalize architecture in terms of machine an mechanistic theory.

20th Century Modernism

The recognizable qualities that are found in the work of architects and in group of buildings are often described as style. Part of the modern movement in architecture has been named the International Style which has been classified as,

- 1: Expressionism. 2: Elementalism
- 3: Constructivism. 4: Futurism
- 5: Functionalism. 6: surrealism.
- 7: International Style.

The word style helps to clarify the difference between group of buildings, their constant form, constant elements, qualities and expression.

1. Expressionism: an endless variety of forms, in a 3-dimensiona treatment to achieve magical effects (using different textures, materials which give a feeling of unrest and instability) not related to any culture.

2. Elementarism: the cubic shape used as an elementary expression of space. Colour was no longer an element of decoration, but helped to define space.
3. Constructivism: Construction in space (steel, glass, plastic, wire, metal, ect.).
4. Futurism: plastic dynamism, simultaneity and speed.
5. Functionalism: "form follows function". It is an old building itself, columns; beams should be visible, separated from walls, expressing their function.
6. Surrealism: pure spiritual movement by which it is intended to express the pure function of superior thought which is not controlled, aesthetically or morally, by any reason. It leads to permanent destruction of all spiritual principles in order to find solution for the principle problems of life.

The International Style Evolved From the following Principles:

Function, form and spatial expression: the theorists were interested in the aesthetic qualities of space, volume, and form and their visualization, while the practising architects were interested with form, materials, technique, and function to underscore the different ideas one can mention the following:

1. Purpose and function influencing form.
2. Architects were satisfied if the purpose was functionally expressed in layout. The plan was only a natural symptom of all human activity, and then simply transferred to the facade.
3. Before World War I, the theorists were concerned with problems of the aesthetic of space and volume (inner and outer space) and their inter-relationship as well as the symbolic character of architecture.

Many functionalist architects were influenced by Frank Lloyd Wright who was concerned with "the dissolution of inner space into outer space.

Wright strove for "organic simplicity." Many German architects of 1920 considered "space" to be essence of architecture. Mies van der Rohe (after the war) was striving for simplicity in his building less more." By 1925 having absorbed the technical innovation of engineering the visionary ideas of the expressionists, architecture clearly expressed the aspirations of the functionalist formulator. The leaders of the modern movement had absorbed the concept of:

- Luter-penetration (created by modern painters).
- The De Stijl – Elementarist spatial organization.
- The Wrightian principles of outer and inner space.
- Element of cubism and futurism were to be found in architecture of housing project of the early 1920s.

Yi-Fu Tuan (1977) argued that the method of presentation spatial relationships which cubists developed has furnished the plastic principles of the present-day visual approach. Yi-Fu says that purism was the closest of all to the aim of cubism and, at the same time, to architecture. Cubism contributed to architecture by playing in illusionistic way with plane, colour and proportion which gave the building its plastic qualities [3]. Van Doesburg, a Dutch architect, conceived his well-known exploded house plan as a pattern of relationships between vertical and horizontal planes, in which space is cut, shaped and stretched through and over the planar surfaces. By 1927, the utilitarian aspect of the international functionalist movement underlined the universality of the rectangular, hard-edged system. It looked as if it was technologically correct for the age, and it supported the words of Lynch, Kevin (1982) that the need is by far the greatest incentive to inventive activity. Up to the 1950's the concept of architecture of

need prevailed and utility and austerity were enhanced after the war. Architecture only fulfils its role in enriching man's minds and a nation's culture in time and space [4].

The architecture's design responsibility is in the lost analysis, shared with the society in which he works, and is itself a reflection of that society's changing needs, values and standards.

POST-MODERN ARCHITECTURE

The history of architecture is the history of changes who discovered new and, they believed, better ways to build. In fact I had a hard time understanding what "post-modern" meant. As I understood from my reading, the term in itself is made of two parts, post and modern. The former is a prefix from Latin which means behind or after. The modern refers to the principles and practice of international style in architecture.

The beginning of postmodern architecture was discussed by English and Italians in the late fifties. Italian Neo-Liberty was attacked by Nikolaus Pevsner and his student Banham as being what they took to be a return to historicism. Also there were many articles and attacks from 1959-1962 meant to wipe out these heresies with a little critical weed killer. There were some buildings discussed, such as Franco Albini's museum and Rinascente, 1957-1962 (Figure 3).



Figure 3: Department Store

Also in 1952 Lubetkin (Figure 4), in England and Paolo Portoghesi's Casa Baldi (Figure 5), 1959-1961 was one of the most convincing historicist buildings of that time. In the same time Eero Saarinen built his neo-gothic dormitories (Figure 6) for Yale University, and Minoru Yamaski designed a Gothic office building in New York (Figure 7) in New York, U. S. A.



Figure 4: A Caryatid Porte-Cochere

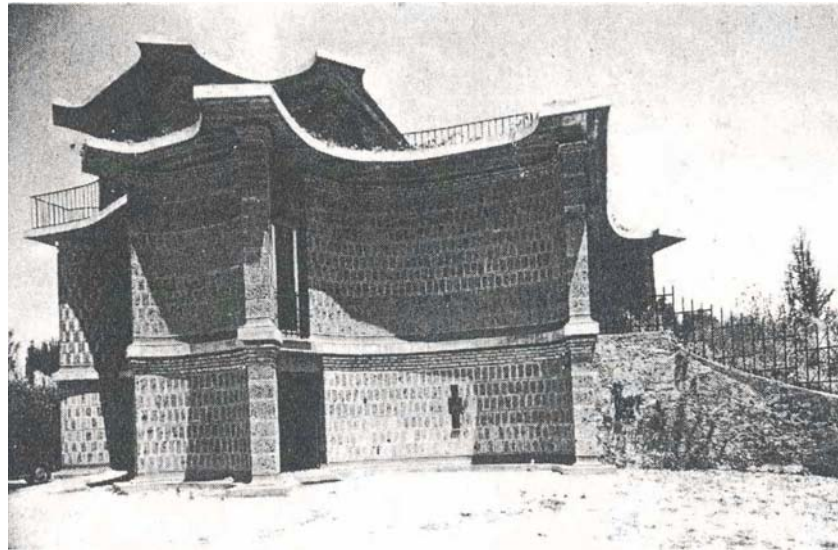


Figure 5: Casa Baldi



Figure 6: Neo Gothic Dormitories

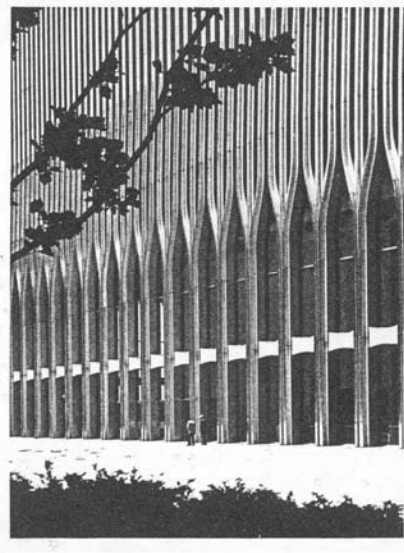


Figure 7: Gothic Office Building

Also the need of ten million homeless people for housing, in Europe after the World War II period and the growth of economy that followed the war helped the building of new towns, industries, schools, and health facilities, and all of which had efficiency in architectural production. Later, architecture began to face new problems and to enjoy exclusive relationships with their clients, and designed some buildings which include occasional post-modernist decorative fancies. However, the area of post-modernism started taking place after the decline of the international style in the seventies with the growing disenchantment with modern movement urbanism.

The post modernist movement can be characterized by infinite inclusiveness. The machine and technology ceased to be appropriate motifs for architecture, and architects turned their attention to humanism, conceived in part as the rediscovery of history or the discovery of the modern vernacular, which meant the continual creation of new forms under the impulse of social and technological development, and the symbolic representation of society through these forms. Architecture and art in general are intimately tied to a time and place which makes any work original and new in a sense. I believe that the best works which can be labelled historicist are not, however, simply copies. However, Charles Jencks (1977) asks: if we borrow architectural and stylistic principles from the Mannerist era and deliberately leave behind the name that properly represents them, are we not committing a crime similar to crimes of miss-representation which we have accused the internationalists of? Post-modernism is mannerism [5]. Philip Johnson (1965) said, there no classic orders or gothic finials, he tries to pick up what he likes throughout history [6].

Ian Mc Harg (1992) argues that the best architecture was that which was closest to nature, and that which was closest to nature could be found in the building of the ancients, although in many ways value of architecture referred to fixed laws [7]. Philip Johnson's architecture is contributing to post-modernism. His first, tentative break with

Mies was the synagogue in Port Chester, 1956, on the outside a starting simplification of the Soane museum (Figure 8). At the same time the new Japanese style is best exemplified in the work of Kunio Maekawa, Kenzo Tange, Kiyonari Kikutake and Kisho Kurokawa during the sixties (Figure 9, 10).



Figure 8: Soane Museum



Figure 9: National Children's Land Lodge



Figure 10: Tokoen Hotel

Robert Venturi used decorative moulding and traditional symbols such as the doorway arch, for example his headquarters building 1960 (Figure 11), has decorative mouldings placed as exaggerated eyebrows over the tower windows, and the thin arch bisected by diagonal struts which shouts out public entrance. Robert Venturi also designed the first "Anti-Exhibition" of post-modern architecture. Post-modernism is not all that mysterious, it is simply where one goes after modernism. It suggests a post-industrial society and a lot of currently fashionable post-other things. It is tied to a phrase, of course, as much of a catchall as an evasion. It includes a very mixed bag of ideas and styles. Michael Graves Portland building in Portland Oregon (U. S. A.) (1979-82), (Figure 12), is a painted concrete "billboard", in the populist formats of Venturi's decorative shed.

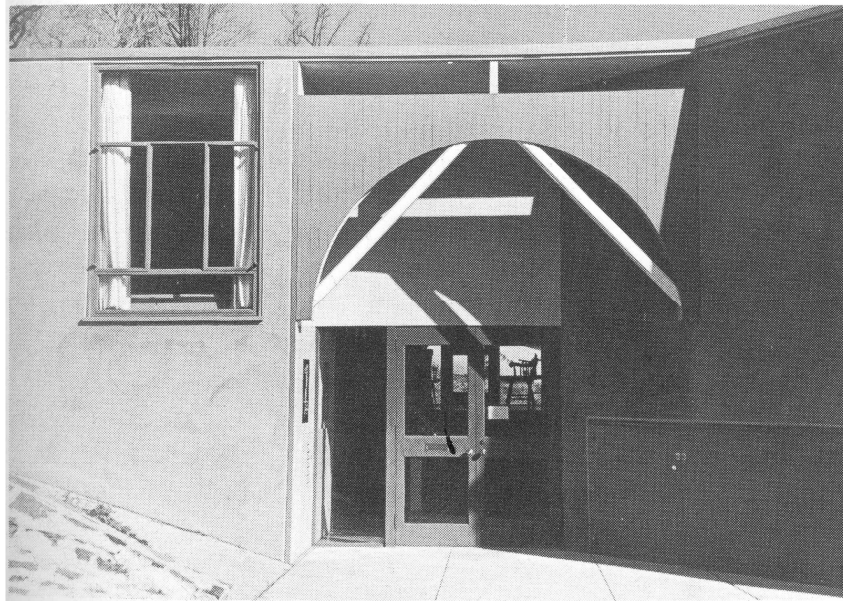


Figure 11: Headquarters Building

In architectural as well as within the other arts, the creative impulse is rarely generated from inner searches within form but develops rather from instances set by new attitudes toward the dynamics of life; attitudes which are eventually capable of fracture and re-creation. Charles Jencks (1977) argues that the expression of these evolving attitudes is often harsh and difficult to take. The nature of post-modern attitudes includes attitudes of multi-variance, symbolism, ornamentalism, picture squalor, illusionism, historicism, and imagery [5].

Post-modernism can be considered the latest stage of modernism. It came into frequent use only at the end of the seventies with new imagism and decorative pattern painting. Charles Jencks (1977) indicates that all development is new generally being called post-modern architecture which speaks on at least two levels at once, on the one hand to other architects and a concerned minority who care about specifically architectural meanings, and on the other to the public at large who care about the other

issues concerned with comfort, traditional building and a way of life [5]. Philip Johnson (1965) argued; I am a modern architect, there is absolutely no way I can get functionalism, structural clarity, simplicity, non ornament and flat surfaces out of my system. The only thing is that it does seem to me that things are changing and that we must go a bit further [6]. So architecture can be rich, architecture can use any technique and any intricacies that you want. We will put a Gothic next to a Renaissance, next to modern and we will live happily forever after. Architecture is a register of human history. Architecture is symbolic of the thinking, feeling and dreaming of our culture.

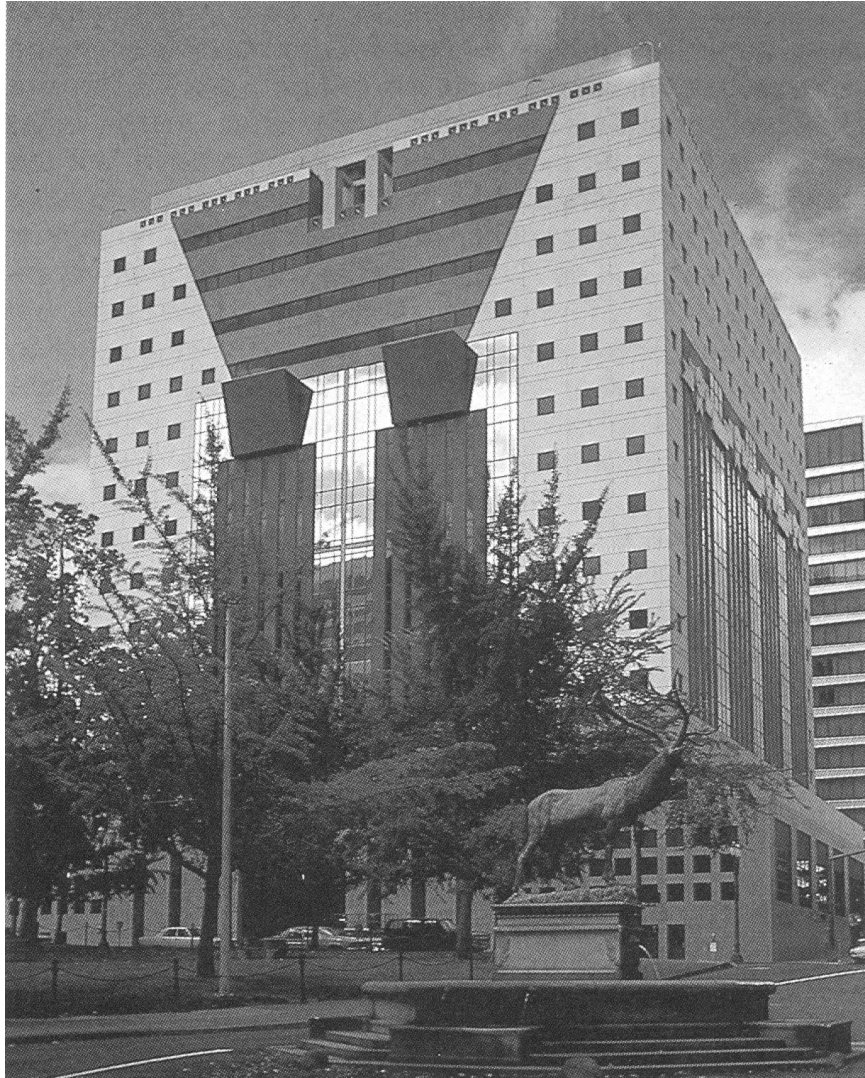


Figure 12: Portland Public Service Building

CONCLUSION

Post-modernism and modernism are both essentially modern phenomena, and are equally remote from the attitude toward history of eighteenth and nineteenth centuries, which are both the critical centuries of history. There are things and ways of doing things, all about us, but what is good and why? These become absolutely indispensable questions over and over again. Some people do not care, like most of others do, so much about the names that they are using such as post-modernism, "style", "last stage of modern architecture", or "copies", because the name does not make any difference. No one should ignore the developments in architecture, because every thing new in architecture is important in this world.

REFERENCES

- [1] Foster, Hal (1983): 'The Anti-Aesthetic', Port Townsend, Washington, Bay Press.
- [2] Seruton, Roger (1980): The Aesthetics of Architecture, Princeton University Press, Princeton.
- [3] Tuan, Yi-Fu (1977): Space and Place, the Perspective of Experience, Edward Arnold Ltd, Minneapolis.
- [4] Lynch, Kevin (1982): What Time Is This Place?, the MIT Press, Cambridge, Massachusetts.
- [5] Jencks, Charles (1977): 'The language of Post-Modern Architecture', New York, Rizzli.
- [6] Johnson, Philip (1965): The Seven Crutches of Modern Architecture, perspects III, New Haven 1955; 'whence and Whither', The processional Elements in Architecture, Perspect 9/10, New Haven.
- [7] Mc Harg, Ian L (1992): Design with Nature, John Wiley & Sons Inc., New York.