

A THEORETICAL STUDY ON MODERNITY AND TRANSFORMATION IN ARCHITECTURE

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ABSTRACT

Modernity is understood in peculiar ways by a wide range of authors and critics as a process of newness. Modernity is a period of continual transformation that distresses all aspects of experience . It's a discourse that takes change and transformation as its central principles. Accordingly, Modernity realization and its achievement mechanism in architecture can be done through the process of transformation and change. The aim of this paper is to introduce a theoretical framework for the concept of modernity in architecture in general and explains the mechanisms of transformations in particular via a process of two directions as follows:-

The first direction will focus on the modernity definitions and the sources of its motivation, While the second direction will emphases on modernity indicators through a strategy of two parts:

a) The concept of modernity will be investigated intensely in the architectural point of view, according to multiple attitudes and definitions to discover the key variables upon which the study depends.

b) Habermas's theory of modernization will be Explored in order to introduce the important account of modernity. The aim is to identify the main character of modernity in philosophical point of view.

Furthermore, this paper will clarify the degree of transformations and summarize possible values of change as modernity achievement mechanisms. All these categories and indicators will be formulated in a theoretical framework.

INTRODUCTION

Modernity has multiple points of origin and many precursors in history. It's fragmental nature on one hand and its constant search for progress and new forms on the other, would give the impression to prevent any totalizing definition. Accordingly for Whyte (2004) 'Modernity' has many meanings. It means current and actual, as opposed to past or self-intentionally new in contrast to old, whereas for Simon (2005) Modernity is the period of the new. It expresses historical transformation across the range of disciplines, periods and locations by connecting the events, people and ideas of the past to construct an account of the meaning of the present. He also explains that modernity is a

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period of constant transformation that affects all aspects of experience from science and philosophy to urbanisation and state bureaucracy life. To be modern is to be constantly confronted by the new.

1. WHAT IS MODERNITY?

" To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world – and, at the same time, that threatens to destroy everything we have, everything we know, everything we are....." Berman,1994

The central claim of Berman's argument, that to be modern is to be confronted with disruption and change as everything(Berman, 1994, Whyte, 2004, Simon, 2005). On the other hand, Berman's notion of modernity as a period of continual transformation, arguing that the "concept of modernity expresses the belief that the future has already begun: it is the epoch that lives for the future, that opens itself up to the novelty of the future"(Berman, 1994).



Figure 1 Modernity Features in guggenheim museum bilbao

Zein (2004) explains modernity in terms of challenging forces (Figure 1), by consolidating Marcel Gauche argument that, the concept of modernity characterized as the historical challenge of moving from a received order to a produced one. Zein emphases that modernity is a quest, to which there are no ready-made formulas. It's not a translation of pseudo-truths, which excerpted from other realities as a source of all disruptions, but a changing force to accept and make use of their occasional benefits. Heynen (1999) classifies the concept of modernity within three altitudes: The first refers to present as opposite of the past. Whereas the notion of new is the second as contrasting to the old. The final altitude is the transient, with its conflicting notion no longer being a clearly defined past but rather an undefined perpetuity. Hence, the current, the new, and the transient: all three of these altitudes describe the concept of modernity.

2. MODERNITY MOTIVATIONS

Modernity motivated from multiple sources, the most effective source for its manifestation is technology, which is a restless and accelerating process of transformation. For most architects technology means the fundamental tools for modernization. On the other hand, the continuous technical progress in science and technology feeds as motivators to introduce new dimensions to the social life and a regular change to the traditional cultures.

According to Berman (1982) the sources and motivation of modernity can be clarified as follows: a) Great discoveries in the physical sciences. b) The industrialisation of production, which transforms scientific knowledge into technology. c) Huge demographic upheavals and rapid urban growth. d) Systems of mass communication. e) Powerful national states. f) Mass social movements of people. g) Variable capitalist world.

3. MODERNITY FEATURES

Recently, Modernity appeared in new approach several inquiries noticed through critics, which adapted the concept of new or change (*Figure 2*). For the purpose of the study, the features of modernity will be determined through a procedure of two attitudes (the architectural point and the philosophical point of view).

3.1. MODERNITY IN ARCHITECTURAL POINT OF VIEW:

The most distinctive features of modernity according to the architectural point of view can be clarified as:

a) Capitalist Approach

Burbach (2001) argues that Globalization is a capitalist approach which refers to modernization process; it is highlighted technologically by the information age. It destroys local cultures and societies, stimulates a new type of oppositional politics. For others modernity is the opposition between a capitalist civilization and its cultural, modernist counterpart. It reflects the consequences of capitalist development.

b) New work distorts traditional rules:

Stern (1980) argues that Modernism in architecture is a term that describes the need for the production of a new exertion which distorts all the relations and formal rules of traditional knowledge. Furthermore, Heynen (1999) indicates that modernity is always in conflict with tradition, it gives the present the specific value that makes it different from the past and points the way toward the future.

c) Mode of power:

According to Berman (1994) modernity is not a continuation or modification of the past, but a new form of human self-awareness as a mode of power. Thus, the features of modernity as a phenomenon can be clarified into two aspects: an objective feature which is related to socioeconomic developments, and a subjective one that is connected with personal experiences (Heynen, 1999).

d) Establishing New Rules:

Decq (1990) explains that new modernity looking for new rules through the investment of new technologies, meanings, transformation, physics, theories of life and communication around the world. On the other hand Heynen (1999) points out that Modernity establishes change and crisis as values, in order to be the period of new ,establishing new rules and passing over any connections with past.

e) Form Phenomenon:

The modernity is a various forms phenomenon and an intellectual context full of meaning, ramping up to chase behind and looks forward to new discoveries of the worlds (Pran, 1990).

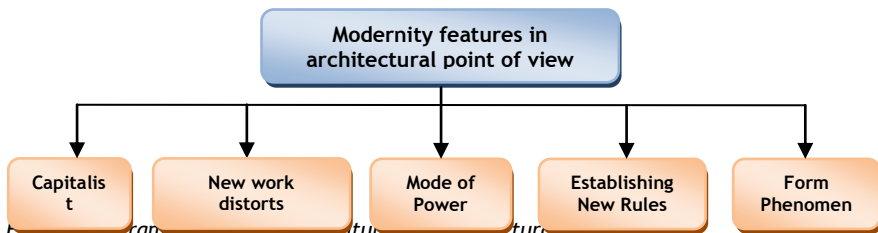


Figure 2 Diagram of modernity features in architectural point of view

3.2. PHILOSOPHICAL POINT OF VIEW (MODERNIZATION THEORY):

One of the most influence factors on the issue of architectural design is the philosophical approach. This section briefly sets out Habermas’s social theory in relation to modern movements in a critical theory. In order to introduce the important account of modernity, it is useful to explore in detail Habermas's theory of modernization.

In this regards, Bolton (2005) explains that Habermas concerns with language related to the use of language as a different model of action. In the analysis of communication, Habermas draws a fundamental distinction between different modes of action: the strategic and communicative. In this context Habermas emphases on language return to the use of modern philosophy to support the views of democracy and participation. As a conclusion the main feature of modernity according to Habermas point of view can be formulated as follow: (Figure 3)

a) Modernity is a Project:

Habermas’s title completely makes two points. First, modernity is a project rather than a historical period; and second, this project is not completed. According to Habermas’s historical analysis, modernization leads to the liberation of subjects from traditional roles and values. It aims to increase the dependence on communication and dialogue to harmonize actions and create social orders (Finlayson 2005) .

b) Modernity is a Civilized Phenomenon:

In the view of Habermas: modernity is a civilized phenomenon with various forms and intellectual context in multi-meanings, and looks forward to new discoveries of new worlds. The phenomenon of modernity does not depend

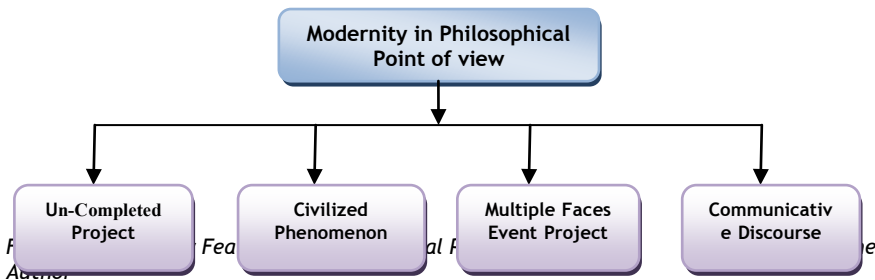
on the creation of crisis, because they contain many elements, but often lead to tensions and explosions that may contribute to the resolution and accelerate the transformation of all (Afaya1998) .

c) Modernity is an Event of Multiple Faces :

Modernity has multiple Faces, may be combining elements of traditional cultural elements with contemporary one, or re-drafting of the infrastructure of modern society .It may also mean the process of selecting elements of other civilizations or cultures. Thus, the theory of modernization, which refers to Habermas separates modernity from its assets and applying it as a model of social developments. (Afaya 1998).

d) Modernity is a communicative discourse:

Habermas’s social theory is an analysis and critique of modern forms of social life, and that discourse principles are a justification and clarification of modern morality. However, modernity is more than a period. It designates the social, political, cultural, institutional, and psychological conditions that arise from certain historical processes. Modernity in this sense is related to, but distinct from, the various aesthetic works and styles that fall under the label ‘modernism’(Finlayson 2005).



4. MODERNITY ACHIEVEMENT MECHANISMS.

Modernity realization and its achievement mechanism in architecture can be done through the process of transformation and change, for the purpose of the study these mechanisms will be clarified briefly.

4.1 TRANSFORMATION

Basically, Transformation in architecture is a process which can be defined as the generation of a target model from a source model (*Figure 4*). It is a critical tool that describing the form generation which produced within the limited time on the specific contributions of the reality. This concept has also been used to link between the Form transformation and Architectural meaning as a maximum response to external and internal forces. The word transformation in the English language is consisting of the pronunciation of Trans-form. The word Trans related to change while the word Form related to shaping. It means the act of changing in form or shape or appearance of an object (Hornby, 2005) .

In the field of linguistics, the structure theory is the first theory, which focused on the importance of the concept of transformation. According to Silveti transformation is a displacement process to create new meaning. It indicates in general a change of shape, form, or structure without loss of substance. In principle, it involves two different substances: transformations of material and transformations of content (Hays, 2000).

The concept of transformation, as revealed from the fact that any system capable of working must be integrated and balanced to carry a special feature associated with its originals and distinguished from the rest, for that Antoniadis (1999) defines the transformation in architecture through the visual analysis of the schemes on the grounds that the shift in architecture is physical and moral changes on the main sources. Hence, transformation is a set of operations on a specified system to access another one, within three strategies, which are: traditional formula, metaphor formula and deconstruction formula. On the other hand, Abel (1996) discusses Transformation in terms of a straight adaptation. It is an interaction between different culture forms one imported, and the other is traditional. Whereas For Ekomadyo (2007) Transformation is a process of exploring the origins of architectural form and reconstructing it in a new form that adjusted with related context.

In the light of the above attitudes, the process of transformation can be achieved through following values:-

Reshaping an object

- Changing inner pattern.
- Visual shifts by changing physical and moral aspects of form
- Straight adaptation and interaction between different culture forms.



Figure 4 The Process of Transformation in Architecture

4.2. CHANGE

Modernity is radicalized into change, into a continuous travelling. It gradually becomes aesthetics of change for the sake of change. Hence, the change is the human intervention to shift the mores of cultural structure. Architecture, as a culture, is one of the objectives of this change. It has two types of changes, preservation changes and destructive changes, the first leading to the stability of phenomena generation while the second trying to generate new types of phenomena. In this sequence Kobler clarifies between Ordinary Change and Purposeful change, and he illustrates the idea of Purposeful change through the shifts which is taking place on the scientific theories (Schulz, 1971).

On the other hand, Chaderchi (1999) discusses the concept of change through three poles: the Need, the Individual, and Technology. He classifies the first two factors under Ordinary change while he defines the third under Purposeful change.

Change can be classified into four levels according to the senior sociologist (Murdoch) in his study (How culture Changes), explaining four main levels of renewal and change of a culture which are:

- Variation: a continuous modification on the existing model, and a gradual change to improving the system specifications.
- Cultural borrowing: It is the embodiment of historical and heritage features and transferring it to a contemporary form.
- Invention: It is a displacement of the relations among the possible rules of the system.
- Temptation: It is a rupture of tradition laws and a challenge to the prevailing system. It aims to establish a new system with new elements. (Razuki, 1996)

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Table 1 Theoretical framework for the concept of modernity in Architecture

5	parameters	Possible values	
1	Modernity aims	To rebuilt the existing body of knowledge	
		To change elements of a system	
		To change relations of a system	
		To change orders of a system	
2	Concepts of Modernity	Present as opposite of past	
		New as contrast with old	
		Transient as opposite of perpetuity	
3	Modernity Motivations	Great discoveries in the physical sciences.	
		The industrialisation of production, which transforms scientific knowledge into technology.	
		Huge demographic upheavals and rapid urban growth.	
		Systems of mass communication.	
		Powerful national states.	
		Mass social movements of people.	
		Variable capitalist world.	
4	Modernity Features	Architectural point of view	Capitalist approach
			Form phenomenon
			Process of newness
			Anti-Traditions
			Establishing new Rules
		Philosophical point of view Modernization theory	Uncompleted project
			Civilized Phenomenon
			Multiple faces Event
		Communicative Discourse	
5	Modernity achievement mechanisms	Transformations	Reshaping an object
			Changing inner pattern
			Visual Shifts
			Adaptation of cultural
		Change	Variation
			Cultural borrowing
			Invention
			Temptation

5. APPLYING THE THEORETICAL FRAMEWORK OF MODERNITY ON ARCHITECTURAL MOVEMENTS / CASE STUDIES

Architecture passed through different epoch's .Each period has its distinctive features due to its philosophical background and historical evolutions. To discover the influence of modernity in each period, the study will illustrate to seek and find the seeds of modernity in each phase. For the purpose of the

study, these periods classified in three categories according to the most theorist classifications of architectural history and theory.

5.1 MODERN MOVEMENT

The Modern Movement of architecture was a revolution that destroyed the existing classical architecture and replaced it with a new order. Molnar (2005) defines Modern architecture as the architecture of functionalism to fashion a new sense of space supported by new technologies and modern materials. The modernist motto of "form follows function" prescribed that the form and appearance of buildings should grow out of their applied materials and structural engineering, and called for the desertion of ornamentation. It required harmony between function, technology, and artistic expression. For Vidler (2000) Modern architecture, concerned to represent space and form abstractly, avoiding the decorative and constructional codes of historical architectures.

Moreira (2006) argues that the spread of modern architecture all over the world was a complex phenomenon that cannot be reduced to a single and continuous path. Modern architecture also legalized national culture to be framed and originated in new ways since its abstraction and universality broke with main historicising styles.

Finally, Modernity in the period of Modern Movement can be crystallized in three principal themes: Memory, Expression, and Morality(Gibson,1984).

5.2 POSTMODERN ARCHITECTURE

The great expectations of modernist architecture, industrialization of construction, prefabrication and functionalism interpreted into a macabre truth and indicated the failure of modern architecture. Post modern architecture was born as a reaction of these failures. In the 1970s, a new generation of architects led by Venturi fought against featureless of modern architecture. They planned to mix between technological aspects of modernity and classical forms of the history. Postmodern architecture has also been described as "neo-eclectic", by returning the reference and ornament to the facade and substituting the forcefully unornamented modern styles. Jencks (1991) argues that post modern architecture is a hybrid language with a positive approach towards metaphorical buildings, the vernacular, and a new ambiguous kind of space. Postmodern architecture search for various styles in different periods to become eclectic, involves a return to the past as much as a movement forward by employing new materials and resisting the uniformity of the International Style. For Nesbitt (1996) postmodern architecture addresses a crisis of meaning in the discipline of architecture. It is a sensibility of addition in a period of pluralism.

5.3 POST-STRUCTURALISM AND DECONSTRUCTIVISM

Deconstructivism in architecture, is a development of postmodern architecture. It is illustrated by ideas of fragmentation, incomplete and twisted grids

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disoriented rather than organized, and dynamic forms. The physical visual appearance of deconstructivist styles is characterized by a motivating randomness and a controlled chaos. Deconstructivism in contemporary architecture rises in opposition to the well-organized rationality of Modernism.

The generation of deconstruction architecture is not based on physical matter of space, but a spiritual matter, which is been started from a space concept of architecture. Therefore, the spirit of deconstruction is to see things in a critical view and to have a worldwide thought exceeding time and space (Yoon 2003).

Deconstruction is the final phase of architecture .It's a current school of thought in architecture which represents a complex response to a variety of theoretical and philosophical movements of the 20th century.

Geometry is the subject of complication to deconstruction architecture, like the ornament to postmodern. Dematerialization in architecture is observed in deconstruction when it ultimately frees itself from reality altogether. Form does not need to call for external justifications. In this dematerialized world of concepts there is a removal of architecture from its intricate and complex element: space. This means the subtraction from reasonable and logical and ultimately declining into a hole.

CONCLUSIONS:-

a) Conclusions related to the Theory.

- Architectural Modernity can be described as a process of constant transformation. It's a course of action that creates new architectural forms which depend on the strategies of transformation and change in creating new models (Generation of new Architectural Forms).
- The search of novelty is one of the most significant concepts of modernity, which makes it different from the past and points the way toward the future.
- The literature on architectural modernity is filled with the variety of definitions due to its fragmental nature.furthermore, its constant search for progress and change will prevent any totalizing definition for the concept.
- In spite of differences between the definitions .This paper formulates a comprehensive theoretical formwork including the most effective parameters of modernity which are; Modernity aims, Modernity concepts, Modernity motivations, Modernity Features and Modernity achievement mechanisms.The collection of these properties in one framework is the first contribution of the research.

b) Conclusions related to the practice in the field of architecture.

The research findings indicate the following conclusions:-

- Modernity in the era of (Modern movement in architecture) was a passion for the new. It was a project of rejecting tradition to create new forms. It was an exploration of possibilities and a continuous search for uniqueness and its similar--individuality.
- The concept of Modernity in (postmodern architecture) can be clarified within three directions:
 - 1- Renew the significance of historical typology using imitation strategy and emphases on history as main sources for creation.
 - 2- Juxtaposition of multi layers of traditional, contemporary and newly invented forms to create pluralism in architecture.
 - 3- Utilization of advanced technologies and readdressing the crises of meaning in architecture by mixing of styles, which based on three main definitive: the context of the building, the variety of its function, and the specific taste cultures of its users.
- Modernity in deconstruction can be illuminated within the concept of displacement that aims to break down or rearrange the characterized view of a building, discovering its inside to formerly invisible aspects of its outside, rebuilding different modifications of space, forcing different means of access, changing its principles of what it contains.
- Finally, the etymology of modern suggests that it comes from the Latin *modus*, meaning measure. (King, 2004) In this sequence modernity can be explained as the degree of change which the study will depend on . Accordingly, the possible values of change can be summarised in five categories, which are:

Table 5 The degrees of change

Degrees of change	Discriptions
No change	Copying the source without any modifications
Miner changes	Partial change of system elements
Adaptations	Mixing the source with new elements
Major changes	Changing the system relations
Total changes	Altering the system rules and regulation

Consequently the first value can be classified under copy and paste procedure, while the second, third and fourth are drops under transformation procedures .whereas the latest is falls under the concept of rupture which destroys any relation with traditional sources.

REFERENCES

1. ABEL, C. (1996) "Architecture and identity", London, Architectural press and Imprint of Butler Worth.

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2. AFAYA, M. N. (1998) "Modernity and Continuity in Philosophy". (Habermas Model), Morocco, African East.
3. ANTONIADES , A. C. (1990) " Poetics of Architecture : Theory of Design ", New York, Van Nostrand Reinhold.
4. BERMAN, A. (1994) "Preface to Modernism", USA, university of Illinois press.
5. BOLTON, R. (2005)," Habermas's Theory of Communication Action and The Theory of Social Capital". Western Regional Science Association. San Diego, California.
6. BURBACH, R. (2001) "Globalization and Postmodern Politics : From Zapatistas to High-Tech Robber Barons", London, Pluto Press.
7. CHADIRJI, R. (1995) "Dialogue in the Structure of Art and Architecture", Cyruubs, Riyadh ress press Publishing Inc.
8. DECQ, O.(1990) "The New Modern Aesthetic".Architectural Design, Profile 86.
9. EKOMADYO, A. S. (2007) Design Creativity on Indonesian Traditiobal Architecture Transformation: between acadimic field and real practics. International Conference of Challenges and Experiences in Developing Architectural Education in Asia (CEDAEA). Department of Architecture Islamic University of Indonesia.
10. FINLAYSON , J. G. (2005) "Habermas a very short Introduction", New york, Oxford University Press.
11. GIBSON, G. M. (1984) "The continuity of the Modern". Perspecta, 21, 6-13.
12. HAYS, K. M. (2000) "The Beauty of Shadow". IN SILVETTI, J. (Ed.) Architecture Theory since 1968. New York, Columbia University Graduate School of Architecture, MIT Press.
13. HEYNEN, H. (1999) "Architecture and Modernity", USA, Massachusetts Institute of Technology.
14. HORNBY, A. S. (2005) "Oxford Advanced learner's," Dictionary of current English , IN WEHMEIER, S. (Ed. seventh edition ed. Oxforded, Oxford University press.
15. JENCKS , C. (1991) "The language of Post Modern Architecture", London, Academy Edition.
16. KING, A. D. (2004) "Spaces of Global Cultures : Architecture Urbanism Identity", London, Routledge.
17. MOLNAR, V. (2005) "Cultural Politics and Modernist Architecture: The Tulip Debate in Postwar Hungary". American Sociological Review, 70, 111-135.
18. MOREIRA, F. D. (2006) "Lucio Costa: Tradition in the Architecture of Modern Brazil". National Identities, 8, 259-275.
19. NESBITT, K. (1996) "Theorizing a New Agenda for Architecture; An Anthology of Architectural Theory 1965 - 1995 ", New York, Princeton Architectural press.
20. RASMUSSEN, D. M. (1990) "Reading Habermas", Cambridge, Massachusetts: Basil Blackwell.

21. RAZUKI, G. M. (1996) "Creativity Thoughts in Architecture".
Department of Architecture. Baghdad, Baghdad University.
22. SCHULZ, C. N. (1971) "Existence, space & architecture", New York,
Praeger.
23. SIMON, M. (2005) "The Postmodern", New York, Routledge Taylor &
Francis Group.
24. STERN, R. (1980) "The Doubles of Post-Modern". The Harvard
Architecture Review, 1 UK, MIT.
25. TOMLINSON, J. (2003) "Globalization and Cultural Identity".
26. VIDLER, A. (2000) "Diagrams of Diagrams: Architectural Abstraction and
Modern Representation". Representations, No. 72, pp. 1-20.
27. Whyte, Iain Boyd. (2004) "Modernity and architecture," In Tracing
Modernity, Manifestations of the modern in architecture and the city,
edited by M. Hvattum and a. C. Hermansen. New York: Routledge ,
Taylor & Francis Group.
28. YOON, J. E. (2003) "A Study on the Co-relationship between the
Endless Space of Frederick J. Kiesler and Non-territorial Space
Expression in De-constructivism Architecture". The Journal of Asian
Design International conference, 1.
29. ZEIN, R. V. (2004) "Towards an appropriate discourse on identity in
architecture". Architecture and Identity. Sponsored by Volkswagen
Stiftung and Berlin University of Technology: [//www.architecture-identity.de/Berlin](http://www.architecture-identity.de/Berlin).

