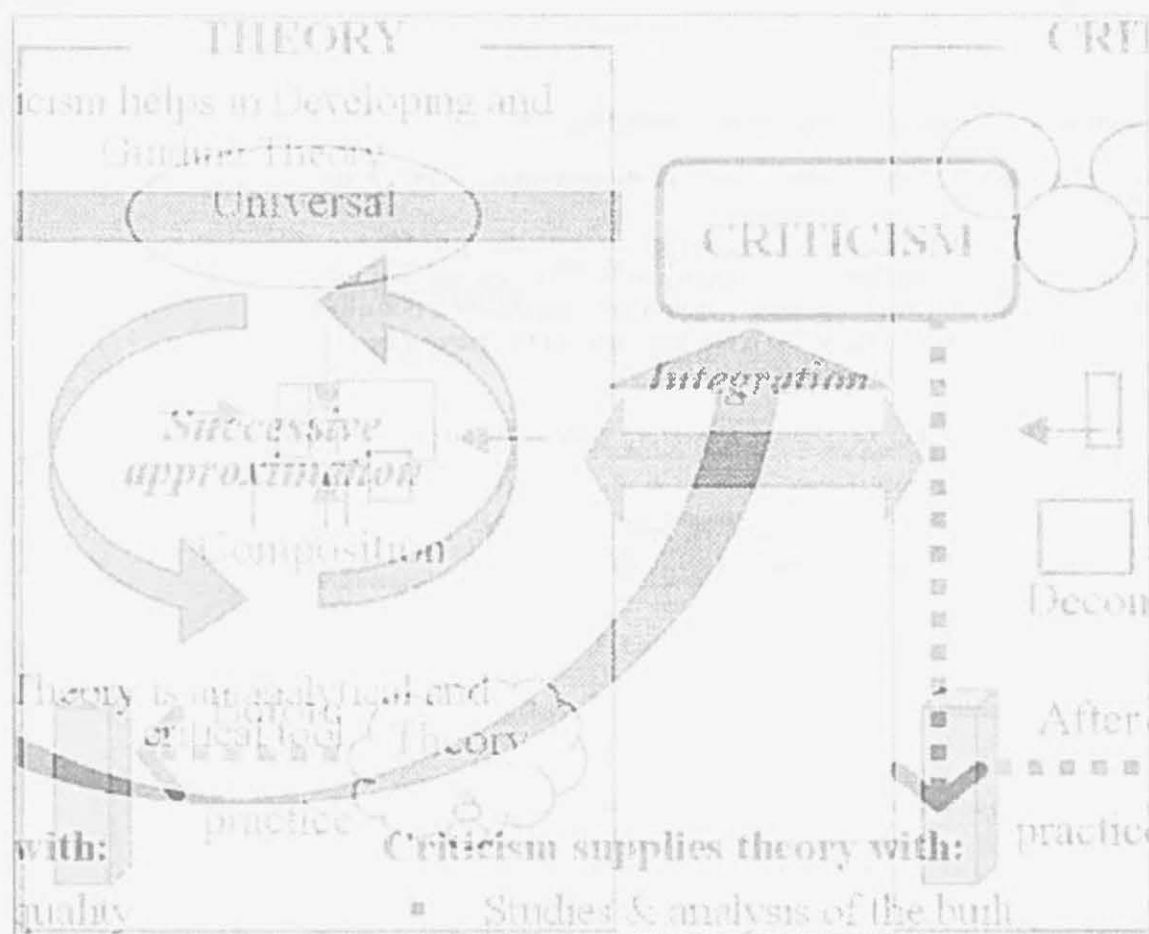# The Interrelation between Theory and Criticism in Architecture

Theoretical and analytical study

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Raghad Mofeed Mohamed graduated with a B.Sc. in 1993, a M.Sc. in 1996, and a Ph.D. in 2000, all from Cairo University faculty of engineering, Egypt. She is currently a lecturer at Department of Architecture, Cairo University.

Architectural theory and criticism are pivotal domains in architecture. As the progress of the discipline of architecture depends on both of them, this paper focuses on the relation between the two fields, seeking to answer some questions about the limits of that relation.

The objective of the paper is to define the integration and interpenetration between theory and criticism in architecture, as well as to criticize architectural theories and fiends out its main features.

The methodology of the paper depends on both theoretical and analytical studies through three major fields, the first studies concepts and interrelation between theory and criticism, the second presents a theoretical study of the aspects of criticizing architectural theories, and the third presents an analytical study of architectural theories from 1965 to 1995.

Finally the paper concludes the features of integration and interpenetration between architectural theory and criticism, outlines three main aspects in criticizing architectural theories, and shows the main features as well as problems of architectural theories at the end of the twentieth century.

1- Concepts and interrelation between theory and criticism

1-1- Architectural theory

The word 'theory' comes from the Latin *theoria* which means spectator. And its base *theasthai* means to look upon and contemplate, while the modern use of the word means a systematic statement of rules or principles to be followed.[1]

A comprehensive definition of theory states that it's an organized system of statements which include concepts, definitions, and interrelated assumptions, these statements explain, predict, and define the relation between studied phenomena through generalizations and laws.[2]

The previous definition is about theory in general, while the definition of architectural theory states that "architectural theory is the attempt to decide architectural right and wrong on purely intellectual base",[3] this concise definition points out that the objective of architectural theory is to guide practice, which means that it should be objective and depending upon a powerful knowledge base.

Architectural theory differs from scientific one; this is because of the differences between the natures of the two disciplines. As architecture includes nonphysical dimensions; humanistic, cultural, aesthetic, social, and historical, architectural theories can't be at the same degree of universality and objectivity of scientific theories.

Like any theory, architectural theory needs to be tested, but because of its special nature it requires special tools, which are analytical and critical to judge its validity and applicability.

1-2- Architectural criticism and its levels

The concept of criticism is an old expression it drives from the Greek kritikos (Latin criticus), where krites means 'judge',[4] and the word "critic" entered the English language in the middle of the sixteenth century. This early use of criticism as synonymous to judgment shows that judgment and evaluation are essential to criticism.

A succinct definition of criticism states that it's "the art of judging the qualities and values of an aesthetic object",[5] although it's a concise definition, it points out many things; first that criticism is a matter of art, Second that judgment is the core of criticism, and finally that aesthetics are the domain of practicing criticism.
The intimate concern of architectural criticism is with interpretation and judgment,[6] though the critical process includes many tasks like exposition, analysis, comparison, justification, evaluation, and guidance. This wide scope of critical tasks makes it a pivotal domain in architecture.

As architectural criticism is a comprehensive domain, it can be applied to cover one or more of these three levels[7] concept, process and end product, in each level the target, process, and method of criticism differ to suit the nature of that level. For example, the critical process at the level of concept is concerned with visions, paradigms, theories and principles, and the target of criticism is to check the appropriateness of that conceptual base implicit in the work to both the traditional and contemporary vision of the community, so in that level the critic should be aware of all traditions, values, culture as well as the new visions and features of the era with its new discoveries, so as to be both traditional and contemporary in his judgment.

The majority of critical works focus on the level of end product or buildings, this is because it is more tangible and it concludes all ex-levels, at the opposite, there is lake of critical works in the conceptual level, and this is because it requires a highly qualified critic.

1-3- The relation between theory and criticism

There is a strong relation between architecture and criticism; this relation can be described as integrated and interpenetrated relation, and there is many elements linking the two fields, the most obvious one is the building product which is always affected by both theory and criticism.[8]
That interrelation between theory and criticism in architecture is not a one way relation it is a cyclic relation, where each field affects and is effected by the other through what Schulz[9] called a Successive approximation, this cyclic relation will be discussed as followed.

1-3-1- Objective criticism uses theory

Objective criticism as opposite to subjective one - always uses normative tools for analysis. At the other hand, theory is considered a normative and powerful base, this is because of its objectivity, testability, and universality characteristics, so theory can be used as normative base needed for criticism.
Schulz illustrated how theory is important to criticism in its analytical dimension, he said: "We have shown that any analysis is impossible without theoretically determined dimensions of comparison…[these] dimensions should have the character of empirical generalizations. This means that the analysis uses the theory…"[10]
So theory is the main analytical tool that objective critic uses, as it represents an intellectual and powerful tested bases, in other words *theory is the tool for objective criticism*
Additional to that, theory gives the critic the criteria of goodness, criteria of architectural quality as well as the terminology and concepts, which he uses to judge and evaluate the value of the work, also these terminologies and concepts help the critic to understand the latest trends and movements in architecture as well as the development in the discipline of architecture, in other words, *theory helps critic to be conceptually updated.*

1-3-2- Theory develops through critical analysis

Here is the feed back that criticism offers to theory, it happens

through the critical process which includes analysing the architectural work, in a specific place and time, pointing out the theoretical base which formulate that product, and finally refereeing that product to both the traditional and contemporary values, so at the end, the critic can present his judgment supported by previous analysis and values.

Through that critical process the critic reviews the theoretical base of the work, and test the validity of it to both place and time, the critic also examine many things in the theory such as; degree of objectivity, degree of universality, and truthfulness of the theory, finally he states his judgment about the theory and its appropriateness, this judgment includes the defects of the theory as well as the guiding lines to improve and develop that theory.

The comprehensive critical process should go through two main steps, first; the critic *analyse the building* so as to examine the ability of the building to express the theoretical base intended by the architect and the acceptance of that building by people, Where the second step is concerned with *analysing the theory* to examine the appropriateness of that theoretical base to both place, time, and subject. These two steps are essential to get an objective judgment, because in many cases the failure of theory leads to the refusal of the building product, this is as in modern thoughts and its applications, where buildings were expression of inappropriate and invalid theories.

Through that analytical process, the critic can fiend out the applicability and validity of theory which in tern help in improving and developing theories in architecture.

1-3-3- Successive approximation:

As we discussed before there is a two way relation between theory and criticism in architecture, that cyclic relation guarantees the improvement and development of both fields through what Schulz called *'Successive approximation'* between analysis or (analytical criticism) and theory:

> "… the analysis uses the theory, while the theory , in turn, is developed through analytical insight [criticism]. Theory and analysis therefore, reciprocally correct each other, applying the method of *'Successive approximation'*. The type of analysis which contributes to the theoretical formation is mainly the study of existing works of architecture [criticism]."[11]

Because of the differences and integration between the two fields, the reciprocally correction can be achieved, so each field can offer guiding tools helping in the development of the other field, fig (1). The differences between theory and criticism are in the nature of each field, and are due to the differences in the objectives of both. Those differences will be discussed through opposite pairs featuring the integration between theory and criticism as followed: fig (2).

Locality vs. Universality

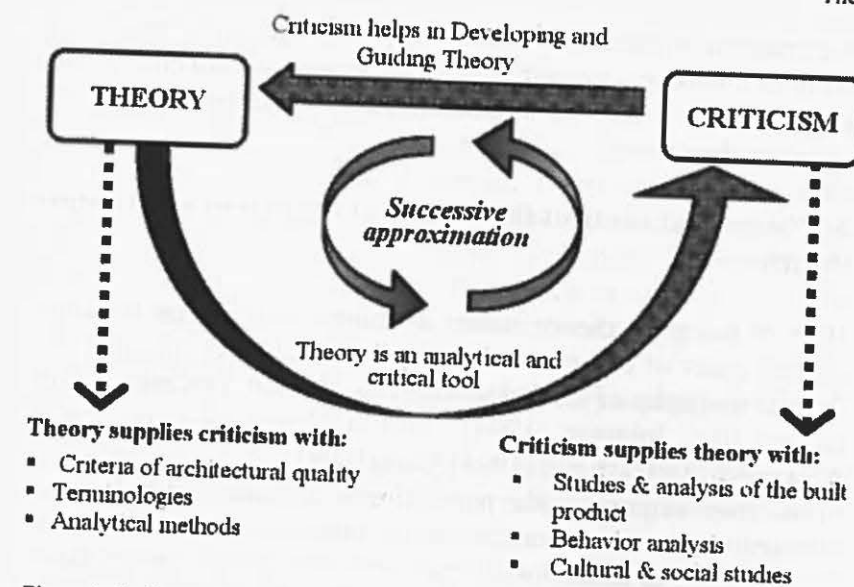Locality is the nature of criticism as it is concerned with analysing

Figure 1: Cyclic relation between architectural theory and criticism

Theory supplies criticism with:
- Criteria of architectural quality
- Terminologies
- Analytical methods

Criticism supplies theory with:
- Studies & analysis of the built product
- Behavior analysis
- Cultural & social studies

Appropriateness of that work to the local conditions.[12] At the opposite, comes the theory with its generalizations and abstraction to be or it should be universal or general statement.[13]
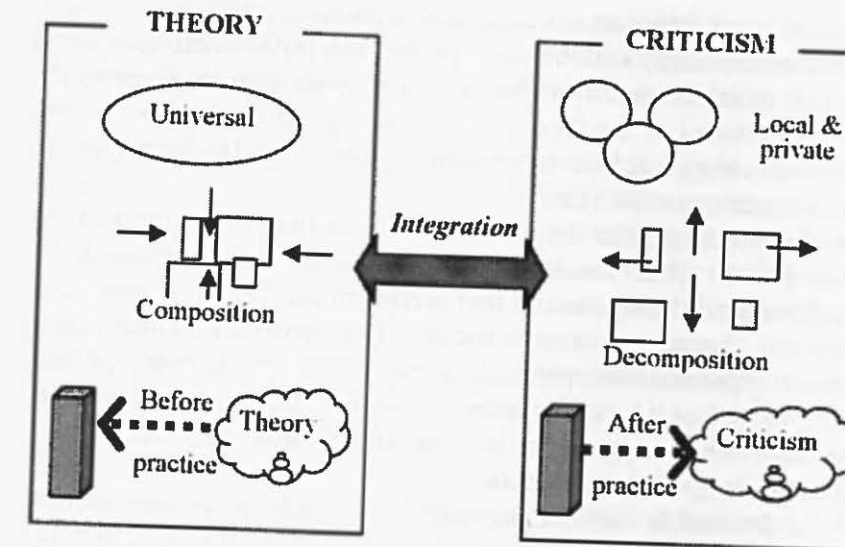

Figure 2: The integration between architectural theory and criticism

Analytical vs. compositional attitude

The attitude of criticism is analytical seeking to decompose the architectural work to its primary elements,[14] so as to get better understanding in addition to the comprehensive view of the work. At the opposite the architectural theory seeks to compose facts, principles, assumptions, and axioms to formulate a new statement.[15]

The relation with practice

As criticism is concerned with exposition, interpretation, evaluation and judgment of the architectural work, so criticism always comes after practice,[16] as opposite theory comes before practice to give the architect a set of principles, rules, criteria, and guidance he needs for creativity.[17]

From these wide differences between theory and criticism, comes

the integration between the two fields, so criticism can't stand without theoretical insight as well as theory can't develop without critical analysis, also no architecture can come true without both theory and criticism.

2- Theoretical study of the aspects of criticizing architectural theories

Here in this part, theory comes as matter of criticism through a critical study of theory in architecture. To achieve this study, we depend on group of critical writings concerned with architectural theory, like: Johnson (1994), Nesbitt (1996), Scruton (1979), Alexander (1991), Kruft (1994), Lang (1987).

From those references the paper fiends out three main levels or dimensions to criticize architectural theory: the first is the form and structure of theory, while the second is the content of theory, and the third dimension discusses the relation between theory and practice.

2-1- Criticizing Form and structure of theory:

In this level criticism is concerned with testing the structure and form of the theory which means finding out if it is a real theory or it is just opinions and hypothesis, so the critic should examine the characteristics of the theory such as universality, objectivity, and corroboration, because these characteristics are the prerequisites for a statement to be a theory.

In the practical life there is a strong criticism to architectural theories in that level; Johnson presents such criticism to architectural theory stating that architectural theory is rhetoric or just talk, because most of what is called theory in architecture is either hypothesis incapable of being tested, or is a model of such simplicity that it lacks explanatory power, [18] Johnson also criticizes architectural theory in its lack of universality considering it as local and regional statements. [19]

As a defensible view, Lang refers this problem of architectural theory to the lack of *positive* theories in architecture, which are more universal, objective, and testable, while the majority of theories in architecture are *normative* statements, which are value laden, so it is not universal enough or objective. [20]

Lang also points out that architectural theory suffers from *low external validity of concepts*, [21] which means that theory can not stand corroborated for a long time, as it is built upon subjective experience of the theorist not objective based knowledge.

2-2- Criticizing content of the theory

In this level criticism is concerned with clarifying the issues, themes, and subjects that theory studies, as well as testing the degree of comprehensiveness of the theory, in addition, criticism is concerned with testing the relation between theory and reality, society, context, and user.

Johnson presents his criticism to architectural theory stating that, architecture has never had a single, comprehensive, and totalizing theoretical prescription about design. [22]

Scruton has the same point of view in his wide critical study to

architectural theory, he mention that all architectural theories are limited and narrow in dealing with architectural issues. [23]

Another aspect was presented by Alexander, who criticized architectural theories in the 20th century, he focuses on the break or separation between theory and people, referring that to the lack of architectural theories that study the effect of the built environment on people, as well as the neglecting of studying human feelings, finally, Alexander concluded that there is always a conflict between the point of view of each theorist and people. [24]

2-3- Criticizing the relation between theory and practice

In this level criticism is concerned with studying the relation between theory and practice, to clarify the guiding role of theory to practice. Most critics focus on the separation between theory and practice, for example, Lang stats that architectural theories are concerned mainly with ideologies held by architects or schools of architectural thought instead of the physical and practical issues of application and practice. [25]

Alexander also focuses on the failure of theory to deal with and solve many problems, such as: the moral dimension of practice, housing problems of poor people, architecture and the ecological balance, the conflict of defining architectural quality, and other pivotal issues which architectural theory failed to fiend a definite solution to it. [26]

In spite of that harsh criticism to architectural theory, it stands as a pivotal domain in the discipline of architecture, because no discipline can progress without theoretical insight. But we should understand that the nature of architectural theory differs from scientific one because of the artistic, contextual, and functional nature of architecture. So when applying the criteria of scientific theory on architectural one, we discover that the later is not a theory, it is rhetoric or talk as Johnson said.

To avoid this conflict, we need to fiend out appropriate criteria to judge the validity of architectural theory, wide the scope of theorizing, and seek for comprehensive theories in architecture, as well as accepting the locality of architectural theory especially in the cultural dimension.

3- Analytical study of architectural theories from 1965 to 1995

In this third part, the paper presents a critical analysis to architectural theories at the end of the twentieth century; this study comes to support the previous theoretical study and to give example for the use of criticism in analysing theory.

The purpose of this critical study is to point out the main features, trends, and problems of architectural theories at the end of the twentieth century. This period was selected because of the plurality and variety of its theoretical insights and architectural schools, as well as the scientific revolution which affects architecture in its both materialistic and intellectual dimensions.

3-1- Limitations of the study

- The study includes theories, manifestos, avant-gardes, and theoretical works in architecture.

- The resources of the theoretical work are: (Tafuri, 1976),[27] (Frampton, 1980),[28] (Kruft, 1994),[29] (Nesbitt, 1996)[30], (Jencks, 1997),[31] and (Hays, 1998).[32]
- The study focuses on the western theoretical works.

3-2- Methodology of the study

From the resources mentioned before, we selected the most powerful theoretical insights, and each theory was analysed through two main processes; exposition and interpretation, table (I).

Table I: exposition and interpretation of the critical study

- The exposition process includes; a brief about the theory, the intellectual base of the theory, theme of the theory, and finally the type of theory.
  - The interpretation process includes explaining the following:
    - *Totality*: degree of comprehensiveness of theory
    - *Flexibility:* degree of universality and applicability in different contexts.
    - The relation with practice: *intellectual* is not related with practice, *analytical* comes after practice, and *guiding* comes before practice.

3-3- Sample of analysis

Here is a sample of the tables used in analysing theories, table (II).

3-4- Main Results

Along the thirty years chosen for the critical study (from 1965 to 1995), we analyse one hundred and sixty five theoretical works, and the main results are concluded in table (III)

- The intellectual bases or paradigms of theories were; rationalism, Marxism, phenomenology, feminism, semiology, ecology, and new sciences.

Table II: Sample of the analytical study

Table III: Concluding result table

-Semiology was the most effective paradigm on theoretical work, and this is compatible with the post modern thoughts, which asserts on meaning and code in architecture, fig (3).
-The ecological paradigm was integrated in the eighties.
-The main themes of theories were; historicism, meaning, place, urban issues, political and ethical issues, fig (4).
-The majority of theories (about 75%) were normative statements, while positive statements were minority, fig (5).
-The majority of theories were limited and focussing on one aspect of architecture.
-Half of theories were guiding (before practice), while third of them were pure intellectual, philosophical & separated from practice, fig (6).

Intellectual basis of theories

Figure 3: Theoretical bases of architectural theories from 1965 to 1995

Main themes of theories

Figure 4: Main themes of architectural theories from 1965 to 1995

Types of theory

Figure 5: Types of architectural theories from 1965 to 1995
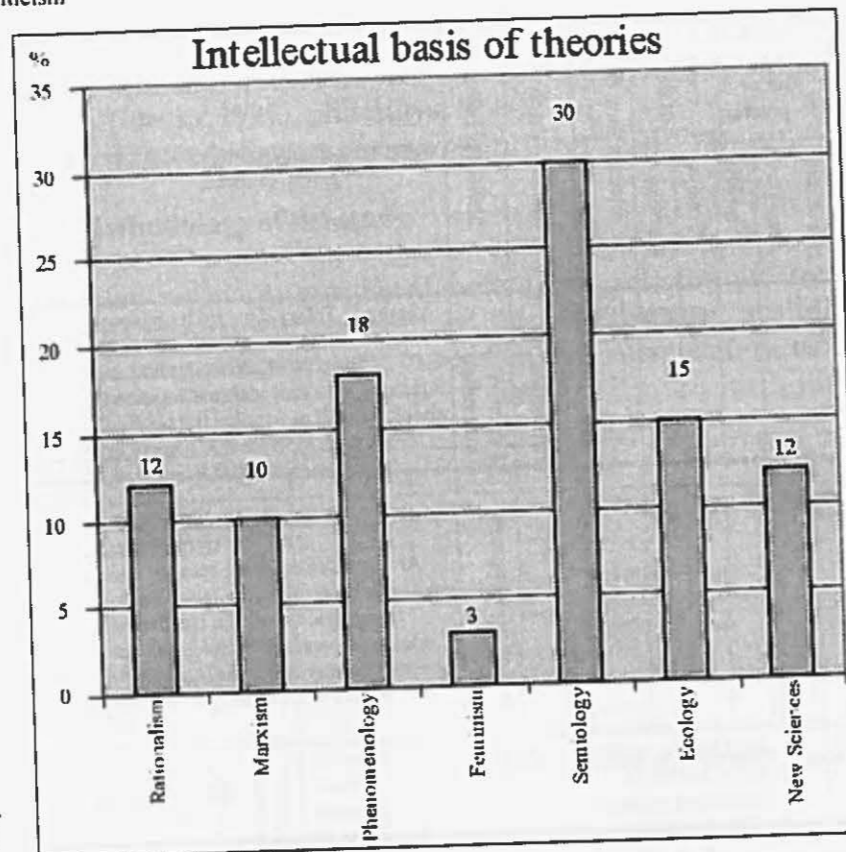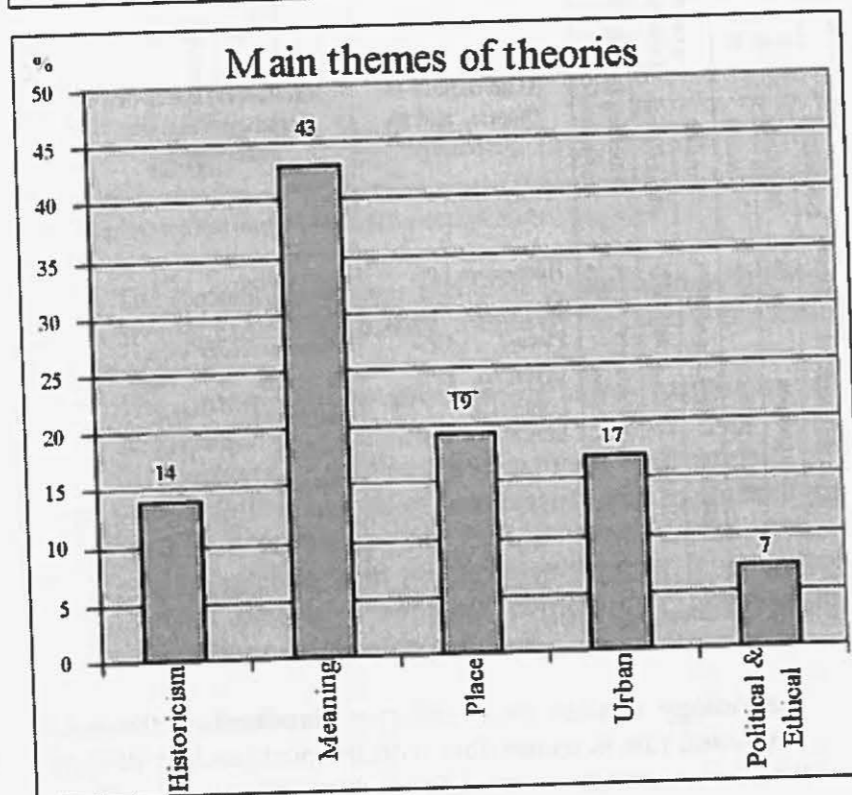
Relation between theory and practice

Figure 6: Relation between theory and practice from 1965 to 1995

From the previous findings of the critical study, the paper concludes some problems of architectural theories at the end of the twentieth century:

1-The lack of positive statements, which leads to shortage in objectivity and universality in these theories.

2-The limited scope of theories, and the lack of comprehensive insights.

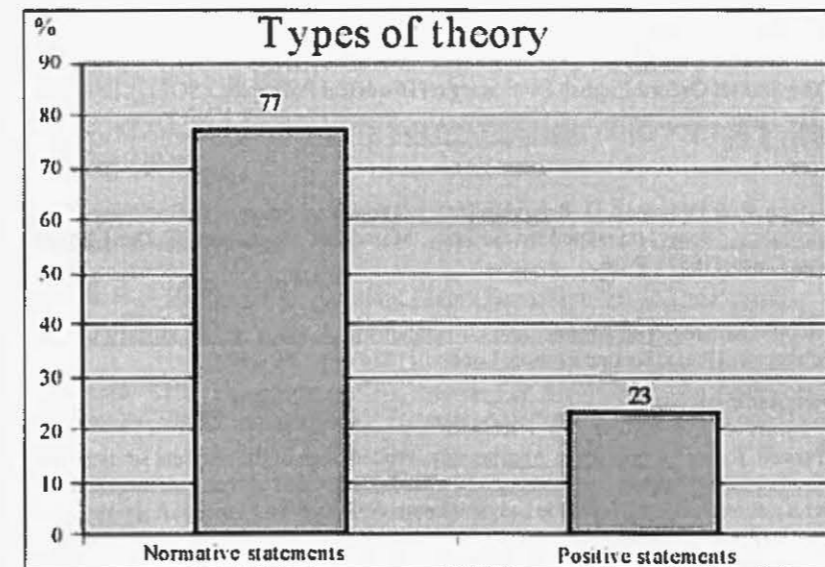3-The separation between theory and practice, as many theories are pure philosophical away from reality.

Conclusion

From our previous study, we can conclude that both theory and criticism are pivotal domains in architecture, and they are interrelated together through a cyclic relation or successive approximation. So criticism can be applied to theory, and this could be done through three levels covering the form, content, and application of theory.

Both theoretical and analytical study presented in this paper, show some problems in architectural theories, which are, first; the weakness of architectural theory compared to scientific one, second; the lack of comprehensive insights covering the multi dimensions of architecture, and finally the separation between theory and practice as many theories are pure philosophical.

NOTES

1 The Shorter Oxford English Dictionary on Historical Principles, (SOED), in Johnson, P. The Theory of Architecture: Concepts, Themes and Practices, VNR Press, New York, (1994), P. 31.

2 Logan, F. & Olmstead, D. Behavior Theory And Social Science, in Bu Shamp, Gorge, Curriculum Theory, translated by, Soliman, Mamdouh, and Others, El Dar El Aradia, Press, Cairo, (1987), P. 26.

3 Scott, Geoffrey, The Architecture Of Humanism: A Study In The History Of Taste, Architectural Press, Second Edition, London, (1924), Pp. 259-260.

4 Johnson, P. op. Cit. P. 39.

5 Powell, Robert, Criticism in Architecture, Proceedings of the regional seminar in the series Exploring Architecture in Islamic Cultures, sponsored by the Aga Khan Award for Architecture, Concept Media Pte Ltd, Singapore, (1989), P. 9.

6 Stolnitz, Jerome, Aesthetics and Philosophy of Art Criticism, Houghton Mifflin Company, Boston, (1960), P. 441.

7 Any creative work like architecture - goes through these levels of creation, it first begins as a *concept* or vision, then through some *process* of thinking and inspiration it transforms to be an *end product* or physical object

8 Geddo, Yanar, El Mathaheb El Fekriaa El Haditha Wa El Emaraa, Dar El Taliaa, Byrute, (1993), p. 10.

9 Norberg-Schulz, Christian, Intentions in Architecture, MIT press, Cambridge, (1965), Pp. 214-215.

10 Ibid, p. 209.

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12 Huxtable, Ada Louis, Architecture, Anyone? University of California Press, Berkeley, (1986), Pp. Xvi-xvii.

13 Popper K. The Logic of Scientific Discovery, Hutchinson & Co, London, (1972), P. 59.

14 Geddo, Yanar, op. Cit. Pp. 20-21.

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18 Johnson, P. op. Cit. p. 17.

19 Ibid, P. (1994), p. 13.

20 Lang, Jon, op. Cit. p.16.

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22 Johnson, P. op. Cit. p. 12.

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24 Alexander, Christopher, Perspectives: Manifesto 1991, Progressive Architecture 7/91, (1991), p. 108

25 Lang, op. Cit. p. 12.

26 Alexander, op. Cit. p. 108.

27 Tafuri, Manfredo, Theories And History Of Architecture, Harper And Row Publisher, New York, (1976).

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29 Kruft, H. A History Of Architectural Theory From Vitruvius To The Present, Princeton, New York, (1994).

30 Nesbitt, Kate, Theorizing A New Agenda For Architecture: An Anthology Of Architectural Theory 1965-1995, Ed.; Princeton Architectural Press, New York, (1996).

31 Jencks, Charles, & Karl, Kropf, Theories and Manifestos of Contemporary Architecture, Academy Edition, London, (1997).

32 Hays, K. Michael, Architectural Theory Since 1968, MIT Press Cambridge, (1998).