A CRITICAL EXAMINATION OF NEW MATERIALS AND TECHNOLOGY ON ARCHITECTURAL EXPRESSION

A Dissertation submitted to the University of Moratuwa
As a partial fulfillment of the Requirements for the Degree of
Master of science in Architecture

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ABSTRACT

- ABSTRACT -

" To believe that one can attain beauty by untruth is heresy in the practice of art ....."(1)

" In architecture , the question of truth and untruth refers to the relationships between form and construction or between form and content" (2)

"The fusion of these two elements is the absolute aim of all great art . The simplest example is offered by poetry which cannot exist without the close association or the magic symbiosis of sound and meaning". (3)

The above statements strengthened the fact that a built form and a choice of materials & construction systems should have a close relationship ,as such an arrangement will facilitate the full realisation of the meaning of such a built form . This meaning attribute has to be regarded as the dominant element of the built form and one that breathes vigour and vitality into it and helps to ensure its survival .

The role of materials and technology is to provides the physical entity for this meaning. Since the expression is visible aspect of this meaning, materials & technology act as a media of architectural expression .Therefore in the creation process of architecture there are two distinct ends come in to play harmonizing with each other .

Materials and technology : Architectural Expression

An important point to note is that Industrial Revolution in Europe in the 15th century , has actually served as a strong stimulus to the growth and expansion of building industry . This situation has in a sense created a great change in this relationship , and therefore it impacts on architectural expression .

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New technical innovations gave designers a new opportunity of designing buildings , using new materials which in turn generated better conditions , for ensuring that the built form carried the appropriate meaning and expression .Not with standing the above the , principle point to note is that this situation has also created new trends on the score of as to whether these new technical innovations would really meet a successful architectural entities .

" The sources of the visual vocabulary of structural technology which is used in high-tech architecture are various and for the most part , not architectural . They occur in the world of 'pure' structural engineering –principally in long –span bridge building -and also in the vehicle technology and aeronautical engineering fields" (4)

"The dual investigation has brought me to the conclusion that a technically perfect work can be aesthetically inexpressive . Good technology seems to be a necessary though not sufficient condition for good architecture". (5)

Therefore in this situation it can be said that new materials and technology has created a dual impact on architectural expression . The following study is a detail examination of this impact .In this situation I regard this subject I have under In this situation I regard this subject I have under taken as an exciting challenge to probe into a field that is both complex and rich and from which certain valuable impressions and conclusions , could be drawn. It is important to note that If I had more time I could have gone into more detail in this examination .

TABLE OF CONTENTS

ACKNOWLEDGEMENTS			PAGE NO
ABSTRACT			
CONTENTS			
LIFE OF PLATES			
LIST OF FIGURES			
INTRODUCTION			(1000)
CHAPTER ONE	:	EXPRESSION ITS ROLE IN MEANINGFUL ARCHITECTURE (1500)	1
	1.1	Expression a definition .	1
	1.2	Relation ship between Meaning and Expression	2
	1.3	Expression in meaningful Architecture .	3
	1.4	The Generators of Architectural Expression	4
		1.4.1 Generators a Definition .	6
		1.4.1.1 Primary Generators	7
		1.4.1.2 Secondary Generators (Modifiers)	19
	1.5	Categorization of architectural expression .	22
		1.5.1 Primary expression	22
		1.5.2 Secondary expression	22
CHAPTER TWO	:	MODE AND MEDIA OF ARCHITECTURAL EXPRESSION (2000)	25
	2.1	Mode of the architectural expression -an introduction	25
		2.1.1 Form a definition	25
		2.1.1.1 Components of Form	25
		2.1.2 Shape a definition	31
		2.1.2.1 Components of Shape	31
	2.2	Media of Architectural Expression an introduction	36
		2.2.1 Nature of the Technology in Building	38
		2.2.1.1 Non structural nature	39
		2.2.1.2 Structural nature	43
		a. Structural elements	44
		b. Complete structural arrangements	45

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CHAPTER THREE : MATERIALS AND TECHNOLOGY AS MEDIA OF ARCHITECTURAL EXPRESSION AN EVOLUTION (2500) 50

3.1 An Introduction 50
3.2 A Periodical evolution 51
3.2.1 Egyptian Architecture 51
3.2.2 Greek Architecture 58
3.2.3 Roman Architecture 60
3.2.4 Gothic Architecture 63
3.2.5 Evolution of modern Architecture 65

CHAPTER FOUR : THE IMPACT OF NEW MATERIALS AND TECHNOLOGY ON ARCHITECTURAL EXPRESSION IN MODERN BUILDINGS : CRITICAL EXAMINATION (4500) 69

4.1 An Introduction 69
4.2 Part One 69
4.3 Part Two 88

CONCLUSION : (1000) 97

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LIST OF PLATES

CHAPTER - 01

Plate (1-1) Expression again an identify & uniqueness to a thing.
Plate (1-2) Expression again an identify & uniqueness to a thing.
Plate (1-3) Expression is always intensified towards a single idea.
Plate (1-4) Expression is always intensified towards a single idea.
Plate (1-5) Expression meaning, So strong & inseparable.
Plate (1-6) Architecture is silent. But its impact on user is enormous.
Plate (1-7) Meaning full place continues to dialogue with its user.
Plate (1-8) Places with 'Spirit'.
Plate (1-9) The different types of massive built forms achieve different 'higher objectives'.
Plate (1-10) User generates architecture.
Plate (1-11) Street space is used as neighborhood gathering space.
Plate (1-12) An environment of suitable quality is a prerequisite for purpose of catering a activity.
Plate (1-13) Activity pattern generates architecture.
Plate (1-14) Context generates architecture.
Plate (1-15) Built forms created to responding the water front.
Plate (1-16) Forms created to blend with the general environment.
Plate (1-17) Secondary expressions make more strengthened the primary expressions.

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CHAPTER - 02

Plate (2-1) Different roofs express different qualities.
Plate (2-2) A Hindu Temple Madras - rectangular, triangular forms articulated to express divihity.
Plate (2-3) Stability is well expressed due to the massive form colonnade and the podium.
Old parliament - Colombo.
Plate (2-4) Void > Solid ration on the skin of the building achieve lightness & openness.
Plate (2-5) Void < Solid ration on the skin achieve soliding - Ronchamp chapel.
Plate (2-6) Different textures give different expressions.
Plate (2-7) Different colors create different expressive qualities.
Plate (2-8) Ornamentation contribute to achieve different expressions.
Plate (2-9) Non structural nature of the different materials gives different textures to the built forms.
Plate (2-10) Structural nature of the materials gives different qualities to the built form.

CHAPTER - 03

Plate (3-1) Man's earliest attempts at building.
Plate (3-2) Reed construction.
Plate (3-3) Detail of a shelter at later times.
Plate (3-4) Masonry construction.
Plate (3-5) Temple of Karnak - Egypt.
Plate (3-6) Temple of Kamesses III Thebes.
Plate (3-7) Chephran Valley Temple, Giza
Plate (3-8) Rock cut tomb.
Plate (3-9) Great Pyramids of Egypt.
Plate (3-10) Step Pyramid saqura.
Plate (3-11) North entrance, Pyarmid of Cheops Giza.
Plate (3-12) materials & Technology has been used to respoing the environment.
Plate (3-13) The parthenon Athens.
Plate (3-14) Lion Gate Mycenae.
Plate (3-15) Pantheon Aoropolis in Rome.
Plate (3-16) Roman Collosium.
Plate (3-17) Roman bath of Caracalla.
Plate (3-18) Gothic Cathedral.
Plate (3-19) Chapel at Kings Collage - Cambridge.

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CHAPTER - 04

Plate (4-1) Crystal palace, Joseph parxton, London - 1851.
Plate (4-2) Eiffel tower, Gustar Eiffel; Parris - 1889.
Plate (4-3) Hopkinshouse, Michel Hopkins; London.
Plate (4-4) Millenneium tower - Tokyo.
Plate (4-5) Railway Station & Post Office by Santiage Calatrava.
Plate (4-6) House, Richard Horden, Wood Qreen Hamp shire, Parris - 1984.
Plate (4-7) The centre pompidou, Renzon Piano & Richard Rogers Parris - 1976.
Plate (4-8) Buck minster fullers American Pavillion dome for the montreal expo - 1967.
Plate (4-9) The Renault head quarters building, by Ove Arup & partners - 1983.
Plate (4-10) Olympic stadium by architect Frei Otto - Munich 1968-72.
Plate (4-11) Inmos microprocessor factory, by Rchard rogers New Port South Wales - 1982.
Plate (4-12) The Lloyds building by, Richard Rogers, London - 1986.
Plate (4-13) The schlumberger research laboratory - Cambridge.
Hong Kong Bank head quarters, Hong Kong - 1979-86.
Plate (4-14) Medical Faculty by weber brand & partness, West Germany.
Plate (4-15) Crystal house, George fred KOCK in Chicago - 1984.
Plate (4-16) Steel & Glass house in Germany.
Plate (4-17) Expo 70 Toshiba ISI Pavilion - Kisho Kurakawa.

Plate (4-18) Expo 70 Takara ISI Pavilion - Kisho Kurakawa.
Plate (4-19) Nagakin Capsule tower - Kisho Kurakawa.
Plate (4-20x) Expo 70 Capusle house - Kisho Kurakawa.
Plate (4-20) Bieneke Library Museum in Washington - 1973.
Plate (4-21) Gordon Bushafts Museum in Washington - 1973.
Plate (4-22) Cathedral / Boiler house Mies Vander Rohe Chicago - 1947.
Plate (4-23x) Stanelty tigerman private residence, Lake Michigan - 1972.
Plate (4-23) Seagram building - Mies Vander Rohe, New York - 1954.
Plate (4-24) Lake shore drive apartments in Chicago.
Plate (4-25) John Hancock building in Chicago.
Plate (4-26) The sears tower Chicago.
Plate (4-27) World trade Centre, Minour Yamasaki, New York - 1973.
Plate (4-28) Sydeney Opera house - Jorn Utzon, Australia - 1957.
Plate (4-29) Restaurant xochimilco in Mexico City be Felix Candella.
Plate (4-30) Falling Water House by Franic Lloyd Weight.
Plate (4-31) Norte Dame, du Hsut, Ronchamp by, Le Corbusier 1950-54.
Plate (4-32) Marine country civic Centre.
Plate (4-33) Guggenhein Museum New York.
Plate (4-34) The house in Oslo, Norway.
Plate (4-35) Webler Geisslers Wurzburg office building.
Plate (4-36) Behai house worship - New Delhi.
Plate (4-37) Wills, Faber and Dumas office building.
Plate (4-38) Terminal building, International Air Port Minnea Opolis.
Plate (4-39) The Municipal Sradium, Florence by, Pior Luigi Nervi.
Plate (4-40) Olympic Stadia, Munich West Germany - 1972.
Plate (4-41) Euro sarrinen, Trans world Air Line terminal, New York - 1956.
Plate (4-42) Glass House, Phillip Johnson, New Canagn - 1949.
Plate (4-43) Tadao Ando - Water Church Hokido.

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LIST OF FIGURES

CHAPTER - 01

Fig (1-1) Traditional house forms reflecting the life style of people.
Fig (1-2) Traditional house forms reflecting the life style of people.
Fig (1-3) Modern examples generated in response to activity pattern.
Fig (1-4) Certain settlement pattern responding to their activity pattern.
Fig (1-4) Certain settement pattern responding to their activity pattern.
Fig (1-5) Various Climatic conditions modify the forms of buildings.
Fig (1-6) Materials and technology modifies the idea of home.

CHAPTER - 02

Fig (2-1) Form is defined by the space.
Fig (2-2) Centralized form - expressing centrality and dominance.
Fig (2-3) Linear form - expressing procession and movement.
Fig (2-4) Radial form - "extrovetness"
Fig (2-5) Clustered form - flexibility & freeness.
Fig (2-6) Grid form - formality & requlrity.
Fig (2-7) Modified version of form is shape.
Fig (2-8) Nature of materials
Fig (2-9) Structural elements.
Fig (2-10) Complete structural arrangements.

CHAPTER - 03

Fig (3-1) Forms with unintended meaning

CHAPTER - 04

Technical image making in 20th century architecture.

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