

**CITY IMAGEABILITY THROUGH ARCHITECTURE:
AN EXAMINATION OF THE CONTRIBUTION OF ARCHITECTURE
IN ACHIEVING CITY IMAGEABILITY**

**A DISSERTATION PRESENTED TO THE FACULTY OF ARCHITECTURE
UNIVERSITY OF MORATUWA, SRILANKA.
AS A PART OF THE FINAL EXAMINATION IN M.SC. (ARCHITECTURE) AND TO
THE ROYAL INSTITUTE OF ARCHITECTS, FOR THE RIBA PART - II
EXAMINATION**

**LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA**

85432

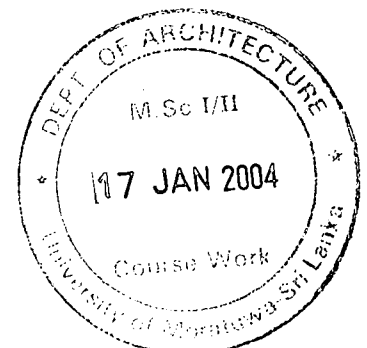


University of Moratuwa

**KARUNARTHNA N.P.
DEPARTMENT OF ARCHITECTURE
UNIVERSITY OF MORATUWA
SRI LANKA
JANUARY 2004**

85432

72"04"
72(043)



85432

DECLARATION

I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.

Signed :...
UOM Verified Signature Colombo, Sri Lanka
theses & Dissertations

(Name of the student: N.P.Karunaratna)

Abstract

The city is not a recent evolution, and created by human organisms as an expression of themselves, contains and tries to conserve the essence of the people who built it as well as lived in it.

Man builds cities for his living. Therefore the city can consider as the largest place of visual manifestation of man as an individual as well as a communal being and essentially contains expresses, and tries to conserve the people who live in it.

Thus each city contains an image of its own, (as K.Lynch. 1980) was explained. It's mean that any city, has its own attributes which facilitate to create image to the city. To establishing the image to a city, there are determinant factors were influence to create certain environmental factors are determinant.

There has been influenced, some factors to strength the imageability to the city. Which are varying form city to city. To strength a high imageability to the city there has to be sensibly well composition in the city architecture. It should be different according to their relationship between the surrounding environment, and the history should contribute to express the relationship between the past present and future of the city.

In this study, recognizing of the city form and its Architecture. And its centrifugation of achieving the city imageability.

Presently within these cities has been polluting the city architecture and its own image due to rapid development, so it is needed to mitigate the disordered and disturbing architecture within a city. Therefore the designers and the planners have to be aware of these factors to have real work of architecture under any context.

Acknowledgement

I wish to dedicate my sincere appreciation to each and everyone who encouraged me in the preparation of this essay.

Prof. Nimal De Silva, Dean, Faculty of Architecture, University of Moratuwa.

Also I dedicate my special thanks for, Archt. Vidura Sri Nammuni, Head of the Department of Architecture, University of Moratuwa., for his commence and advice in making this study to meaningful exercise.

I also offer my gratitude to Archt. Prassana Kulathilake, Senior Lecturer, Department of Architecture, University of Moratuwa, Archt. Neluka Senanayake, Lecturer, Department of Architecture, University of Moratuwa, for their invaluable guidance and supervision for the completion of this task.

I am also grateful to Sampath Malli for his great support to get photographs, and to my dear batch friends for their joyful company and the help gave to me.

I dedicate my lovely thanks to Dhanunshka for his kind support in many ways and for encouraging me throughout the preparation of this essay, and also I offer my thank to Hashan for his valuable time and the support

Finally I dedicate my sincere gratitude to my dear parents, sisters (Nisanka & Nilmini), who helped me throughout this study and encouraged me to overcome difficulties faced where preparation of this essay.

City Imageability through Architecture:
An examination of the contribution of Architecture in achieving City Imageability

C O N T E N T S

	<i>Page no</i>
Abstract	i
Acknowledgement	ii
Declaration	iii
Contents	iv
List of illustrations	
 INTRODUCTION:	
The Study Premise	01
Need of the Study	04
Intention of the study	05
Method of study	06
Scope and Limitations	07
 CHAPTER ONE: Architecture as a Medium of Expression	
1.1 What is expression?	09
1.2 Architecture as an Expressive Art	10
1.2.1 Architecture as an Expressive Language	10
1.2.2 Need of expression	11
1.2.3 Need of expression in Architecture	12
1.2.4 Means of Expression in Architecture	13
1.3 Architecture as a medium of Communication	13
1.3.1 Relationship between	13
1.3.2 Communication and expression	13
1.3.3 Communication in Architecture	14
1.4 Signs and Symbols as means of expression	15
1.5 Concluding Remarks	16
 CHAPTER TWO: Architecture as a Medium of City Imageability	
2.1 City as a work of Architecture	17
2.2 Architectural fabric and Imageable organization of the city	19
2.2.1 Physical form of the city	19
2.2.2 City fabric and the composition of the city	
Architecture	20
2.2.2.1 Composition	21
2.2.2.2 Texture	21
2.2.2.3 Stance	22
2.2.3 Imageable Elements of the city	22

	2.2.3.1	Paths	22
	2.2.3.2	Landmarks	23
	2.2.3.3	Nodes	24
	2.2.3.3	Districts	25
	2.2.3.5	Edges	25
2.4	Relative influences of Imageability		26
	2.4.1	Historical background of the city	26
	2.4.2	Geographical Location of the city	27
	2.4.2.1	Environmental aspects	28
	2.4.3	Cultural aspect of the city	28
	2.4.3.1	Social Organization	28
	2.4.3.2	Religious aspect	28
	2.4.3.3	Political aspects	29
	2.4.3.4	Economic aspect	30
	2.4.4	Likeable features	30
2.5	Imageability of the city		30
2.6	Concluding Remarks		32

CHAPTER THREE: Case Study: Examination of the Imageability of three selected Cities in local context

Case Study 01:



Kandy
 University of Moratuwa, Sri Lanka
 Electronic Theses & Dissertations
www.lib.mrt.ac.lk

1.1	Introduction		32
1.2	Architectural fabric and Imageable organization of the city of Kandy		35
	1.2.1	City form of Kandy	35
	1.2.2	City fabric and the axial planning	36
	a)	North South orientation	36
	b)	Axial Focus and Symmetry	37
	1.2.2	Layout pattern and composition of the citadel of Kandy	38
	1.2.2.1	Composition	39
	1.2.2.2	Texture	39
	1.2.2.3	Stance	40
	1.2.3	Imageable Elements of the Kandy city	40
	1.2.3.1	Paths	40
	1.2.3.2	Landmarks	42
	1.2.3.3	Districts	43
	1.2.3.4	Nodes	43
	1.2.3.5	Edges	43

1.3	Relative Influences	Relative Influences of Imageability	45
1.3.1	Historical background of city of Kandy		45
1.3.2	Geographical setting of the city		46
1.3.3	Cultural background of the city		47
	1.3.3.1	Social aspects	47
	1.3.3.2	Religious aspects	48
	1.3.3.3	Economic aspects	48
1.3.4	Likeable features of the city		49
1.4	Imageability of the city of Kandy		50
Case study 02 :		Galle	
2.1	Introduction		53
2.2	Architectural fabric and Imageable organization of the city of Galle		54
2.2.1	City form of Galle		55
2.2.2	Layout pattern and composition of fort city of Galle		55
2.2.2.1	Composition		56
2.2.2.2	Texture		56
2.2.2.3	Stance		57
2.2.3	Imageable Elements of the city of Galle		57
2.2.3.1	Paths		57
2.2.3.2	Landmarks		58
2.2.3.3	Districts		59
2.2.3.4	Nodes		59
2.2.3.5	Edges		60
2.3	Relative Influences evoke Imageability		61
2.3.1	Historical background of city of Galle		61
2.3.2	Geographical setting of the city		62
2.3.3	Cultural background of the city		63
2.3.3.1	Social aspects		63
2.3.3.2	Religious aspects		63
2.3.3.3	Economic aspects		64
2.3.4	Likeable features of the city		64
2.4	Imageability of the Galle city		65
Case Study 03:		Nuwara Eliya	
3.1	Introduction		66
3.2	Architectural fabric and Imageable Of organization of the city of Nuwara eliya		67

		<i>PG</i>
3.2.1	City form of Nuwara Eliya	67
3.2.2	Layout pattern and composition of the city	68
	3.2.2.1	Composition 68
	3.2.2.2	Texture 69
	3.2.2.3	Stance 69
3.2.3	Imageable Elements of the city	70
	3.2.3.1	Paths 70
	3.2.3.2	Landmarks 71
	3.2.3.3	Districts 72
	3.2.3.4	Nodes 72
	3.2.3.5	Edges 73
3.4	Relative Influences	
	3.3.1	Historical background of city Kandy 73
	3.3.2	Geographical setting of the city 76
		3.3.2.1
		Climate 77
		3.3.2.2
		environmental 77
	3.3.3	Cltural background of the city 78
		3.3.3.1
		Socio aspects 78
		3.3.3.2
		Religious aspects 78
		3.3.3.3
		Economic aspects 78
	3.3.4	Likeable features of the city 79
3.5	Imageability of the city	81
	CONCLUSION	85
	BIBLIOGRAPHY	89



LIST OF ILLUSTRATION


		Page No
Fig 01 , 02	Expressions	09
Fig 03	Opera House	11
Fig 04	Meaningful Expression	12
Fig 05	City is a product of, many buildings	17
Fig 06	The City, the most complex Artifact on the earth	18
Fig 07	A City blend with its environment	19
Fig 08	The built fabrication of the city	19
Fig 09	The City form which has created as its natural setting.	20
Fig 10	 The city form and its composition of the building	21
Fig 11	Street	22
Fig 12	A street where activities along the road	23
Fig 13	The Piazza San Marco, Venice	23
Fig 14	Domo Florence, Italy	24
Fig 15	St. Peter's Vatican City	24
Fig 16	Arc de triomphe, the hub of the Parice	24
Fig 17	Natural setting edges	25
Fig 18	The Rome City which communicate its history	26
Fig 19	Natural setting city form	27
Fig 20	Different group of society	28
Fig 21	Islamic city	29

Fig 23	Daladha Maligawa	33
Fig 24	Ancient Layout of the City Layout plan of Kandy	34
Fig 25	Axial planning and the orientation	36
Fig 26	Axial focus from the Bahirawakande	36
Fig 27	Map of Kandy City	38
Fig 28	Daladha Viidiya	39
Fig 29	Facade detail	39
Fig 30	Daladha Mawatha	40
Fig 31	Road, which connecting to the Daladha Mawatha	41
Fig 32	Axial planning	41
Fig 33	Activities in the street	42
Fig 34	Daladha Maligawa view from Vales Park & Dissertations www.lib.mrt.ac.lk	42
Fig 35	Bank of Ceylon New Building	42
Fig 36	Clock Tower	43
Fig 37	Ulpangeya	43
Fig 38	The parapet wall which feel as a edge to the city	44
Fig 39	Early Kandy Maligawa	45
Fig 40	Early Kandy Lake from the Udawaththakale	45
Fig 41	The Palace from the Lake view	46
Fig 42	Udawaththakale and the Kandy Lake from Bahirawakande	47
Fig 43	Shape of the triangular basin	47
Fig 44	Lake and the Rampart	49
Fig 45	Interesting Path way	49

Fig 46	Maligawa	50
Fig 47	Relax Path way	51
Fig 48	Daladha Perehara	52
Fig 49	location map	53
Fig 50	Map of Galle	54
Fig 51	Map of the city	55
Fig 52	Panoramic View	56
Fig 53	Galle Main Road	57
Fig 54	Road inside the Fort	57
Fig 55	facade inside the Fort	58
Fig 56	Architectural fabric in the street Facade	58
Fig 57	Main Road	59
Fig 58	Railway Station	59
Fig 59	Fortress	59
Fig 60	Statue at the Main Road	60
Fig 61	The Clock Tower in the Fort	60
Fig 62	Sea View	61
Fig 63	Dutch Fort	61
Fig 64	Geographical setting in Galle	61
Fig 65	Narrow facade Street	62
Fig 66	Natural setting of Sea	63
Fig 67	Bird eye View	63
Fig 68	The rampart and the open area	65
Fig 69	A Fortress Gate	65
Fig 70	The open area in front of the Fort	65

Fig 71	Light House in the Fort	66
Fig 72	Location Plan	67
Fig 73	Lay out map	68
Fig 74	Junction near the Police Station	70
Fig 75	The Main Road	70
Fig 76	Relaxing Path ways	70
Fig 77	Open commercial corridors	70
Fig 78	Post Office Building	71
Fig 79	Church Building at the Town	71
Fig 80	Recreational Area	72
Fig 81	Node at the Junction	72
Fig 82	Race course in the City	73
Fig 83	Mountain setting as edge	73
Fig 84	Early N' Eliya City	74
Fig 85	British establish N' Eliya	74
Fig 86	The Early Race Course	75
Fig 87	A building which shows the Little England character	76
Fig 88	Lake Gregory	79
Fig 89	The Golf link of N' Eliya	80
Fig 90	The Race Course & the Pavilion	80
Fig 91	The buildings which blend with Natural setting	80
Fig 92	The Victoria Park	81
Fig 93	Roads which provide Favourable Character to the City	81
Fig 94	Entrance to the Race course	82
Fig 95	The recreational area in the city	82



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

INTRODUCTION

INTRODUCTION

0.1 Study Premises

All arts are expressive - either to an idea or the temperament of the artist or the spirit of the epoch in which the artist operate.

Since Architecture is an art, its role is to create expression through its built form. These expressions will evoke feelings and emotions in the beholder, and thereby conveying messages to others. These messages then give raise the beholder to perceive the specific environmental quality inherent in the built form. Therefore the quality of architecture is the implied message in the built form.

Thus, Architecture communicates through symbolic means, such as signs, and symbols by the physical stimulus in the environment. These physical stimuli are know as the "Expressive Qualities" or "Expressive Language" in the built environment. Thus, signs and symbols are not abstract. They express and communicate directly. And it is most direct and subs the ways to communicate the architectural imagery. Each building may require it own expressive language to communicate and to reinforce a total image within its fabric.

Architecture as a work of art is bent upon expression. Therefore, Language is essential for effective communication, which is known as the "Expressive Language". So it needs to establish a particular image or identity to the city.

And also these factors are involved to establish an Identity to a city, such as background, historical background, and economical, social, political, geographical aspects.

The city is not a recent evolution, since the beginning of the civilization, the existence of a city has been a great need of a man, and the city has been and is being given a wide range of definitions.

A City

"It is the grip of man upon nature. It is a human aspiration directed against nature, a human organism both for protection and work. It is a creation."

(Le Corbusier, 1927, Pg 02)

"A City is necessarily a collective product and one that can never be regarded as completed. It is the medium for man's artistic endeavors and the visual frame work within which the lives."

(Rolf Jensen, 1974, Pg: 27.)

Cities are places where we live and experience its identity. Dialogue creates within the city and its built fabric, which strongly bounded to social rhythms and cultural structures.

Whichever, the city is describe and introduce, the essence is that the city is one, which is created by human organisms as an expression of themselves, contains and tries to conserve the essence of the people who built it as well as lived in it.

A city is the largest place of visual manifestation of man as an individual as well as a communal being and essentially contains expresses, and tries to conserve the essence of the people who built it as well as lived in it. Thus, each city is unique in character, the removal, destruction or alteration of which would result in a subsequent diminution of quality of lives of its people. In city every social groups have an image on the city.

Each city contains an imageability of its own, as Lynch (1960) explained its meaning that any city has its own attributes which facilitate to create an image or identity to the city.

And also it has been identified by some particular elements, which create an image to a city. Lynch (1960) identified five kinds of elements that give identity to a city, such as Landmarks, Paths, Districts, Edges and Nodes.

To establish the identity to a city, certain environmental features are used. These are based on social, cultural, economical, historical and geographical factors. And according to these features it provides some particular expressive language to express that individual character to a place or building, which may be change in place to place.

In this study considering about the way of establishing the city identity and what are the factors that were influenced to create a particular character or identity to the city. And also how it has used expressive language or communicates with its built fabric by using the architectural language. In a built environment every individual building has provided its own expressions to create some particular identity within its built fabric. This creates some kinds of communications within its built environment. By grouping of these individual expressions it creates some particular language, or identity to a place or a city.

To establish a particular identity to a city it will affect certain environmental features that I mentioned above as well as the inhabitation of a city. And also the way of cities are evaluated differ from one place to the other. As well as it varied that use of expressive language as medium of communication. Taking selected cities in Sri Lankan context study there established frame of the city identity due to specific characteristics and the different environmental features of a city.

0.2 Need of the Study

When considering the ancient periods of the country having recognized in needs of city dwellers, planned sustainable cities in multidisciplinary, approach in physical,



social and economical aspects. But in modern built fabric the situations deferent, which has got a completely a single based.

According to this growing complexities of the world, today cities are no exception for being not properly designed to continue their liveliness and becoming dull, the haphazard arrangement of buildings due to the rapid development does not have any meaning, or an identity. Due to this situation it has destroyed all the rich values of that built fabric and the cities identity.

There might be several causes. The lack of knowledge about city architecture, and also the developers don't consider value of architectural language as a creation of city identity. Sometimes, they haven't enough knowledge about the mechanism of application, the architectural language to crate particular expression to a city or the place.

And also most of the architects however at present, they use expression only for aesthetic satisfaction. So it doesn't link with the city identity. And it is disturb the quality of that particular language can be mislead. And the experience of their identity is disturbing and losing.



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

It is happening at present, since most of the buildings are very individualistic and each gives a deferent meaning to the city environment. This will cause failure in understanding the common theme. This has affected in establishing building language, which not gives proper meaning or identity to the city. And not generating any communication values within its built fabric. And it breaks the identity of the city.

And also it will lead to create a human unfavourable built environment. This needs to be researched.

Nowadays Architects use expression only for esthetic satisfaction and as a result, the identity is affected and caused misleading quality of imagery language. Eg: New York based designs and plans in the heart of Kandy.

0.3 Intention of Study

Due to the elevation of growth in a city (for many reasons.), rapid and haphazard developments do take place. These developments have to be mitigated to maintain a sustainable and habitable townscape.

But the relevant authorities, such as UDA, Cultural Triangle, and etc, has agreed that haphazard developments causes unlivable damages to existing built fabric in these towns.

As a result of this situation, the fabric of the built environment will be in a disordered or it breaks the aesthetic appearance of that particular character or architectural language. Then it tends to destroy the aesthetic appearance.

It is primarily important that at Architects, Urban designers, Town planners, people who are actively involved in development or designs of cities should necessarily be aware of the determinant factors that creates characters (composition , texture and imageable elements) other than creating chaos in approving or developing certain plans.

“Analyzing the town form and its major generators is one of the initial steps in the town design for every new built form every new space created should fit into the existing characteristic form of that particular city.”

(As Lynch, k. 1979. pg 46)

Therefore the study exceptionally assist the people concerned in gaining in depth experience of a city or about a city in order to maintain its built language for the benefit of the future generations of designers, residents and visitors as well.

0.4 Method of the Study

This case is being administered to understand a City as work of Architecture. Therefore to elaborate the study, I have investigated three main cities that have a heritage value in the history of Sri Lanka. Kandy, Galle and Nuwara Eliya being the key locations it have been investigated.

Researching the key elements to determine the architectural fabric and imageable organization of the city is one of the criteria to administer the assigned study.

Thereby, to determine the physical form of the city, city fabric and the composition of the city architecture by studying the fundamental elements (composition, texture and stance) that contributes to the image.

Illustration through maps, lay out patterns, building facades, architectural details, building fabric, proportion texture and environmental features are also being used to search the overall contribution to the city image.

Imagable elements such as Paths, Landmarks, Districts, Nodes and Edges being used to understand key drivers and the factors that contributes to the each element that creates the imagability

Further the natural users (humans) of the city and their likable features have (Eg. Open area in front of the Kandy Dalada Maligawa), been considered to determine the above study.

Finally, the relative influences of imageability being elaborated by highlighting the Historical background, Geographical location and the Cultural aspect of the city (which has its trigger factors like Social Organization, Religious, Political, Economic aspect) being study before the conclusion.

0.5 Scope and limitations

Sri Lanka is enriched with city's that contains, rich expressive architecture, and comprehensive study can be done with a number of examples in each case.

Due to the momentum of this which surrounded by a tight time ring the study is limited to three examples in local context.

The study considered about the Architecture, as contribution of city Architecture to achieve imageability of the city. It is difficult to simply define the imageability of a city. Because of the city are not a resent evolution and its complex nature and also it's having several factors of imageability. There by observe the existing city architecture it will limit to the city architecture within core of the city, and that has use only to the city character or image. Therefore it is limited to the sensible organization of architecture in city.

The Study is considered about how far the city architecture has been contributed to achieve the imageability of city. Therefore it is not considered about individual buildings and their form or expressive language. In the study is focus to the entire built fabric of the city core.



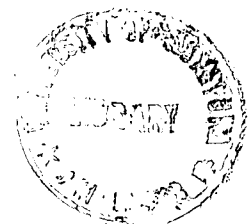
University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

Therefore the study try to define the sensible organisation in its built fabric, it's only focused to the form of the city, layout pattern, composition, texture and stance of the city.

And it go through the consider the application of these components in the built environment; how far it has contributes to achieved the imagebilty of the city.

Ex. The street facades and specially reference in main objects within its fabric. And also the imageable elements within a city. (As Lynch K, 1960). in addition to here I consider about the likeable features (and its user responsibility) in the city.

The study is defined at a core area of the city premises but not considering the entire city premise. Ex - Citadel of Kandy being therefore here the town is used in discussed ""



The study is defined at a core area of the city premises but not considering the entire city premise. Ex - Citadel of Kandy being therefore here the town is used in discussed ""

Regionally, as well as locally there have been relatively influenced several inherent factors that can be used in evaluating an image of a city.

Mainly the Historical background, Geographical setting, environmental effects, the user and cultural aspects etc...

By considering the city as not a recent evaluation, it is difficult to simply define the inherent factors that had effected to evaluate the city imageability

