

THE STREETScape DESIGN :

**AN EXAMINATION OF THE RELATIONSHIP BETWEEN THE
ARCHITECTURAL COMPOSITION OF STREETScape AND LEGIBILITY
OF URBAN SPACE**

A Dissertation

Submitted to the Department of Architecture of the
University of Moratuwa in partial fulfillment of the

Requirements for the degree of
Master of Science



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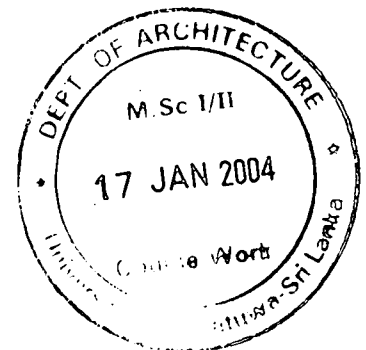
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**The Streetscape Design :
Examination of the Relationship Between the Architectural Composition of
Streetscape and Legibility of Urban Space**

CONTENTS

Title	Pg.No
LIST OF ILLUSTRATIONS	v
ABSTRACT	xii
ACKNOWLEDGEMENTS	xiii
INTRODUCTION	
0.1 The Study	xiv
0.2 Importance of the Study	xv
0.3 Intention of Study	xvii
0.4 Scope and Limitations	xvii
0.5 Methodology	xviii
 University of Moratuwa, Sri Lanka Electronic Theses & Dissertations www.lib.mrt.ac.lk	
CHAPTER ONE – <u>Identification - Architectural Composition</u> <u>of the Streetscape.</u>	
1.1 Constituents of Architectural Composition of Streetscape	01
1.1.1 Streetscape as a Work of Architecture	01
1.1.2 The Principles of Architectural Composition in an Urban Streetscape	02
1.1.2.1 Unity	02
1.1.2.2 Elements of Contrast	07

1.2 The Determinant Factors of a Streetscape.	15
1.2.1 A Streetscape Determined by the Usage.	15
1.2.1.1 A Cultural Usage	15
1.2.1.2 A Residential Usage	16
1.2.1.3 Commercial Usage	17
1.2.1.4 An Executive Usage	18
1.2.1.5 An Institutional Usage	18
1.2.2 A Streetscape determined by the Context	19
1.2.2.1 Physical Setting and the Features of the Context	19
a)Topography	19
b)Views	19
c)Vegetation	20
d)Climate	20
1.3 The Expressive Quality According to the Determinant Factors	20
1.3.1 The Dominant Character	21
1.3.2 The Dynamic Character	21
1.3.3 The Sophisticated Character	21
1.3.4 The Grand Character	21
1.3.5 The Calm Character	22
1.3.6 The Festive Character	22
1.4 Concluding Remarks	22
CHAPTER TWO – <u>Responsiveness of Urban Space</u>	
2.1 Definition of Urban Space	23



2.1.1 Architectural Space	23
2.1.2 Space	24
2.1.2.1 Center	24
2.1.2.2 Enclosure	24
2.1.2.3 Depth	25
2.1.2.4 Density	27
2.1.2.5 Continuity	29
2.2 Responsiveness	30
2.2.1 Permeability	31
2.2.2 Variety	32
2.2.3 Legibility	32
2.2.4 Robustness	32
2.2.5 Visual Appropriateness	33
2.2.6 Richness	33
2.2.7 Personalization	33
2.3 Legibility as the Key Factor of Responsiveness	33
2.4 Concluding Remarks	37

CHAPTER THREE – Towards a Framework for a Legible Urban Streetscape

3.1 Basis for selection of case studies	38
3.2 Considering the Activity Pattern of the Streetscape	40
3.2.1 Galle Road at Kollupitita	41
3.2.2 Galle Face Central Road – Colombo 3	45
3.2.3 York Street	49

3.2.4 Cross Streets, Pettah	53
3.3 Considering the Physical Layout of the Streetscape	57
3.3.1 Galle Road at Kollupitiya	58
3.3.2 Galle Face Central Road – Colombo3	61
3.3.3 York Street	65
3.3.4 Cross Streets, Pettah	70
Conclusion	74
Bibliography	76



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List of Illustrations

	Pg.No
Fig.1 Unity achieved by resolved duality.	03
Fig.2 The Selimiyo Mosque at Edrine (formally Adrianople). Unity can be one single unit or one visible unit.	03
Fig. 3 Illustrates the destruction of unity by competing duality.	04
Fig.4 Unresolved duality.	04
Fig. 5 and 6 Effect of duality lessened where shapes are less strongly marked.	05
Fig. 7 and 8 Duality lessened by differences of tone and texture.	05
Fig.9 Duality lessened by colour and tone. Given below shows two equal buildings which has a balance and have a center of interest producing unity in composition.	05
Fig.10 Unity in symmetrical composition	06
Fig.11 Achieving unity by correct proportions and interest of focal point.	06
Fig.12 Resolved duality by introducing trinity.	07
Fig. 13 Church of the Miracoli, Venice.	08
Fig. 14 Contrast in elementary form, the dome.	08
Fig.15 The Chiesa del santo, Padua. Contrast in proportion between forms of the same type and general contrast of geometrical shapes	09

Fig.16 Contrast in proportions of same forms.	09
Fig. 17 Contrast of line in the contour of form exemplified in a candelabrum.	10
Fig. 18 The main line of elevation of building is horizontal.	11
Fig.19 Contrast in colour.	11
Fig. 20 Contrast in texture.	
Fig.21 Solids clearly dominating overvoids.	13
Fig.22 Church in Stolkholm, Contrast in shapes both in the main mass and in the form of the tower, dominating verticality.	14
Fig.23 Contrast in shapes both in the main mass and in the form of tower.	14
Fig.24 Streetscape with cultural use – Dalada Veediya, Kandy.	16
Fig.25 Streetscapes with Residential Use.	16
Fig.26 Streetscapes with Commercial Use.	17
Fig.27 Streetscape with Executive Use – Raj Rath, India	18
Fig.28 Streetscape with Institutional Use.	18
Fig.29 From implicit to explicit space	23


Fig.30		
The effect of depth		25
Fig.31		
Attempt spatial decomposition of a painting by Le Corbusier		26
Fig.32		
Perspective and texture - as gradients of depth.		27
Fig.33		
Dense space Interior of the Mosque at Cordoba		27
Fig.34		
Absence of density, Universal space, Deep and empty		28
Fig.35		
The modulation of the floor and walls increases the density of space by subdividing its depth.		28
Fig.36		
Continuity of the ground and the wall creates tension between the observer's viewpoint, the end of the terrace and the framed landscape in the distance.		29
Fig.37		
The opening of a space is obtained by the reduction of its degree of definition		29
Fig 38		
To exist man too has to continue and make relationship with space		30
Fig.39		
Fundamental Layout Implications of Permeability		31
Fig.40		
The biggest open spaces were related to the most important public facilities		34



Fig.41	
The buildings which stood out from the rest were those of greatest public relevance.	35
Fig.42	
Where privacy and security permitted, many buildings allowed the passer-by to see the activities inside.	35
Fig.43	
Philadelphia, USA. Achieving Greater Legibility	36
Fig. 44	
Key to Maps	38
Fig 45	
Layout Plan Kollupitiya	41
Fig.46	
Pizza Hut - By the side of the Galle Road	42
Fig.47	
The Bus Halts are also Associated with Some Other Prominent Place and Have Become Part and Parcel of a Specific Place.	43
Fig.48	
People Rush to the Bus-Halt after the Office	43
Fig.49	
Galle Road at Kollupitiya, in the Festive Season.	44
Fig.50	
Lay-out Plan- Slave Island	45
Fig.51	
Vast Boundless Space with a Dynamic Sensation	46
Fig.52	
In the Evening, It creates a Festive Quality with different kind of users.	47
Fig.53	
The Line of trees provide Shade for the Users	47

Fig.54		
Lay out Plan – Fort		49
Fig.55		
York street, Colombo, at the beginning of the Century.		50
Fig.56		
Vehicles are parked blocking the Pedestrian's way.		51
Fig.57		
Arcades are created from the building itself to avoid Congestion.		51
Fig.58		
Security Barriers Blocking the Way		52
Fig.59		
Layout Plan - Pettah.		53
Fig.60		
Pettah in the late 19 th Centaury		54
Fig.61		
Towards Cross Streets from Olcott Mawatha		54
Fig.62		
The cross streets are known as a center for buying and selling goods and for whole sale goods for venders who come from outstation and wide range of consumer goods to customers.		55
Fig.63		
The streets are chocked by vehicles and people with various activities.		56
Fig.64		
Low scaled, Closely packed Shops along the Street.		56
Fig.65		
Low scaled Commercial activities happening in the Day time.		57
Fig.66		
The Patterns of the Places.		58
Fig.67		
The Built Pattern of Galle Road towards Kollupitiya		58

Fig.68	The Landmark tower is indeed actually a Landmark for Kollupitiya.	59
Fig.69	A Stretch of Buildings in a Larger Scale.	60
Fig.70	Map of the Area	61
Fig.71	Framed view of Fort from Kollupitiya.	62
Fig.72	Galle Road corridor opens out to the Spacious Galle Face Green.	62
Fig.73	Galle Face Court and Galle face hotel give correct punctuation and enclosure to the transition.	62
Fig.74	The Massive Esplanade and Panoramic View of the Sea gives a Festive Character to the Street.	63
Fig.75	The Old Parliament Building gives a Dominant Quality.	63
Fig.76	Hotel Taj-Samudra – Stands up with its Grandness.	64
Fig.77	Galle Face Hotel- High Recreational use.	64
Fig.78	Map of Area	65
Fig.79	View of York Street from Southern End	66
Fig.80	The York Street towards the end with the View of Ports Authority Building.	66
Fig.81	York Street as a Good Path.	67

Fig.82		
The Colonial Building Facades of the West Elevation		67
Fig.83		
Stands with the Monotonous Building Façade		68
Fig.84		
Section A – A (First Segment of York Street)		
The trees of Eastern Side of the Street, contribute to provide the enclosure.		69
Fig.85		
Section B – B (First Segment of York Street)		
High-rise building on Echelon Square on Southern side Contribute to provide enclosure.		69
Fig.86		
The Map of Area		70
Fig.87		
The statue at Col. Henry Olcott, is a meaning full landmark to Pettah, which is located in front of the Colombo Fort Railway Station.		71
Fig.88		
The Dutch Museum with the colonnaded front.		72
Fig.89		
The Mosque at Upper  Second Cross Street.		72
Fig.90		
Narrowness and Enclosure bring a feeling of intimacy.		72
Fig.91		
A section across a cross streets showings the relationship between height of the buildings and width of the street.		73

Abstract

Architecture is not mere enclosure and shelter. It is neither the details nor materials and technology used. It is primarily a spatial experience. It is experiencing of space, which gives such a quality to a particular created space; in this study it is the urban streetscape. It needs to achieve, protect and enhance quality of space. The built environment has a profound influence on man and his behavior, in terms of modifying the physical world to accommodate his physical, psychological and social needs. Man is an emotional as well as an intelligent being. Therefore he is affected psychologically by the sociocultural and physical context as much as he is affected in terms of physical comfort. Thus, particular environment has a definite and definable influence on man and his behavior.

This has resulted in the evolution of different types of Architectural products such as; houses, churches, markets, offices and specially the urban streetscapes. The quality of the environment within such space has to encourage and propagate the activity within, in order to be success. This has been a major responsibility of Architecture through the ages.



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Urban spaces are always closely associated with functions. These spaces can be formal or informal and be large or small depending on their scale. Formal urban spaces usually have regular arrangements with strong, supporting elements and a strong sense of enclosure.

Every city consists of urban spaces, in the form of street space. The buildings should be designed with a correct understanding of the character of existing urban spaces and a clean conception of how to create meaningful 'places' with in a given context. At this point the principles of Architectural composition and legibility in an urban streetscape becomes more important.

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INTRODUCTION

Introduction

0.1 The Study –

Examining the theories and opinions concerning streetscapes, various misconceptions can be observed. The Traffic Engineer views the street as a vehicular locomotion and traffic space, while the town planner views it in terms of economic and general infrastructure allocation. These contradicting and controversial opinions have resulted in turning streetscapes into spaces, which only make provisions for vehicular movement, thus eliminating the qualities of public space, which facilitate certain human behavioral patterns.

Streetscapes in urban context are such places where the creation, preservation and maintenance of strong characters have become a crucial need, because the urban environments have become disordered and meaningless places due to many adhoc developments that has taken place.

The space become rather a manifestation of non – physical, qualitative attributes than what is generally considered as a physically and visually experienced component. One such qualitative attribute is 'spirit' which brings beyond – utilitarian meaning to urban spaces. Which uplift the emotions of the user.

The elements which demarcate the space of the street and which accentuate the movement along the street can be called streetscape. A streetscape is therefore experienced as a series of three-dimensional space segments, with the street elevations acting as vertical planes on sides, the street itself as the ground and the sky, as a perceptual ceiling, acting as horizontal planes. In fact this streetscape is the one that people experience and one that should bear a unique spatial quality.

In this connection what is most essential is the identification of the urban streetscape in an Architectural point of view and identify the principles of Architectural composition. The determinant factors of urban streetscape

characters such as; usage, context, symbols and meanings give a particular expressive quality to the streetscape. A responsive place, should provide its users with an essentially democratic setting. The design of the streetscape, effects the choices people can make at many levels. Those are permeability, verity, robustness, visual appropriateness, richness and personalization. Out of these levels, this study is mainly focused on the legibility of an urban streetscape.

0.2 The Importance of the Study –

Space in Architecture can generally be categorized into two. That is interior and exterior enclosed space. In an interior space there is the complete sense of enclosure.

The sense of enclosure felt in an external enclosed space, differ from an interior space. Most of the people think that exterior enclosed space cannot be an Architectural space, since space is enclosed here by external masses. There is a general consensus among Architectural critics that any perceptible space is an Architectural space. Hence it could be noted that Architectural space exists not only in an interior space but also in any given enclosed space. The demarcated space defined by its arranging masses is referred to as Physical space.

Architectural space appear to give different kinds of emotional reactions. Some may have kinds of intimation given by its ornaments and decorations, color and textural patterns and interplay of light and shadow. Thus Architectural space is always enriched by a multitude of expressions.

Marcel Proust (1970, p : 288) ;

expresses with nostalgia, the insignificance of place for modern man,

“No more is there a sense of continuity with place.’ What do we mean then when we say “loss of place” . Primarily loss of place means a loss of identity of a space. This results in a monotonous experience of “sameness”, where every space not only looks alike.

The urban streetscape can be experienced as an Architectural space (building) consisting of streets (corridors) flanked by buildings on either side (rooms), entry spaces that overlap with street intersections (lobbies), foci (major spaces) and points of termination (ends of buildings).

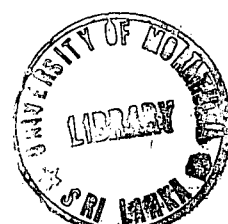
The street becomes a main artery like a main corridor in a building. Buildings in street fabric are joined to each other with streets, lanes, squares etc. Similar to a building where spaces join to each other with corridors, passages and lobbies.

Urban street is a built space perceived as a three dimensional canyon, an elongated duct formed by buildings and the ground. Since the urban street is a channel it has the perspective distortion. The vertical planes of buildings are significant in the articulation of the exterior space in an urban street. These will give the impression where to go and what to do.

Now it is becoming no longer the public urban space between buildings which we used to have until recent past. This results in progressive movement at this "public urban space" into the interior of the structures of solids on both sides. No longer it will take time to be considered the street as a secondary component with our urban structure. Hence today streets are becoming less an integral part of our urban lives. Therefore Architect's duty is to create more legible urban streetscapes which facilitate the user. And this particular study will help in achieving this target.

In an urban street with lesser avenues, crossings would lessen the directionality and the sense of enclosure. Different plan configuration or the building line within a given enclosed urban street space leads to create different degree of enclosure. A view of an enclosed street space is terminated with a building at a right angle to the axis of the enclosure where the enclosed space assume a complete sense of enclosure. Here the degree and the nature of the enclosure varies with the height and the angle of the terminating building.

Similarly when the street is curving the view out is closed and a perceptible enclosure affected. Like windows in a room, avenues along a highly enclosed street provides views out and visual shock.



0.3 The Intention of the Study –

This study intends to demonstrate the Architectural principles of a well composed urban streetscape. Then it has achieved some expressive qualities through the determinant factors; like usage and context.

Then it is to be considered the related urban space and the importance of the legibility of a streetscape. Therefore this particular study is towards a framework for a legible urban streetscape. The study intends to examine the relationship between the Architectural composition of streetscape and legibility of urban space.

0.4 The Scope and Limitations –

The Architectural language which creates the streetscapes and their characters can be numerous and demands a separate study of its own, which outside the intention and the scope of the present study.

Therefore it is generally discussed and illustrated with lesser emphasis., and the discussion has been limited to some selected examples as necessitated by the scope of the study.

In this framework of study the main principles of Architectural Composition in an Urban Streetscape; that is unity and element of contrast are taken in to account. As well as the determinant factors of a streetscape which are also limited into two, the usage and the context. Then the expressive qualities according to the determinant factors also limited to a few main characters.

Considering the responsiveness of urban space, the main focus is to the legibility. The responsiveness is mainly towards a legible urban streetscape. Finally when considering a well-composed, legible urban streetscape; the emphasis is on the socio- cultural factor and the physical factor of a streetscape.

0.5 Method of Study –

The relationship between the Architectural composition of the streetscape and the legibility of urban space is analyzed and identified through a theoretical approach. First the principles of Architectural composition of the urban streetscape and the streetscape characters are identified. Secondly the responsiveness of urban space and the main constituents of urban space are identified. Finally this established relationship is studied with a theoretical framework by selected actual examples.

Therefore the methodology is three fold;

That is;

- 1) To identify the urban streetscape.
- 2) Then the responsiveness of urban space, considering the constituents of urban space.
- 3) Thirdly to examine the relationship between Architecturally well composed urban streetscape and the legibility of the related urban space.



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CHAPTER ONE

IDENTIFICATION – ARCHITECTURAL COMPOSITION OF THE STREETScape

CHAPTER ONE –

IDENTIFICATION – ARCHITECTURAL COMPOSITION OF THE STREETScape

1.1 Constituents of Architectural Composition of Streetscape.

Composition as a putting together of parts or elements to form a whole; a combination. According to Howard Robertson, "Composition is the key stone of Architecture." The ideal composition will lead to significant Architecture or any work of art. The elements put together in a work of Architecture (or any form of art) may be completely unrelated, totally contrasting yet, if they are to become Architecture. Unity and contrast are the principles of Architectural composition. Unity is an essential element in a composition. Contrast in composition is of secondary importance only to unity of design.

Nature is the best example where unity and the contrast are shown in, as same as man made customs. Built environment is one of the man made customs. Sculpture, paintings, music etc. are some of the examples for it. Heat and cold, sun and moon, light and dark, hills and valleys are some of the natures contrasting elements, which it has achieved unity by handling and controlling them in the best possible way.



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In the same manner nature is composed its other creations such as animals, trees and human beings. Every single component that nature has created is therefore well composed and fulfills the necessities of unity and contrast.

The urban streetscape is not a mere man made product. It is also a part of nature, which has been developed by man. Therefore a well-composed urban streetscape also fulfills the necessities of unity and contrast.

1.1.1. Streetscape as a work of Architecture.

Architecture simply defined as "Built Environment" is so closely related with nature that, it needs to reflect the very same quality of being "well composed" or unity and contrast in Architectural product, for it to be in harmony with nature and has no monotony and creates interests, which is closely created aesthetic in buildings. When considering a group of buildings, the best example is streetscape.

Man walking along the street admires the buildings in groups. So that the unity and the contrast in the correct pattern introduce a certain rhythm to streetscape.

1.1.2 The Principles of Architectural Composition in an Urban Streetscape

The principles of composition could be applied as essential to gain knowledge about streetscape, and ultimately of the city. Other than that, it can be used to analyze the unity and contrast between building to building, element to element, element to building. Unity and contrast, the main principles of Architectural composition are interrelated and interdependent in achieving aesthetic success in built environment.

“Like language, Architecture has its vocabulary and grammar, but while it has several distinct vocabularies all covering the same field of expression it has only one grammar.”

(Edwards, A.T. 1926 : 17)

Therefore building and streetscape to be beautiful should necessarily fulfill a certain number of requirements and one such requirement is that it should be composed well. A well-composed building is a creation, which comes as a result of integration of several other aspects; such as unity and contrasting elements, contrasting form and masses.



1.1.2.1 Unity

Unity can mean state of being one single unit or one visible unit. Unity is some central or focal idea in the composition. Also unity is the first and most important of the basic design concept in the grammar of Architectural composition. But when there is duality in building, it may not have unity. So that one way of achieving unity in a composition is through ‘resolved duality’ by introducing a third element with correct proportions, to each other. And also it is necessary that some central or focal idea should be clearly apparent and should dominate the conception. The dominating element namely “dominant” may consist of a plurality of elements of varying sizes which form a dominating group.



Fig.1
Unity achieved by resolved duality.



Fig.2
The Selimiye Mosque at Edirne (formally Adrianople).
Unity can be one single unit or one visible unit.

Considering an element or, unit or form is subdivided by a line of division, which will divide it into two equal parts, have "equality" of proportions and a tendency for the unit to be split in twain, thus weakening the impression of the original proportions of the unity.

For example a rectangle with the division into two equal parts gives a resultant figure of two squares in juxta position.

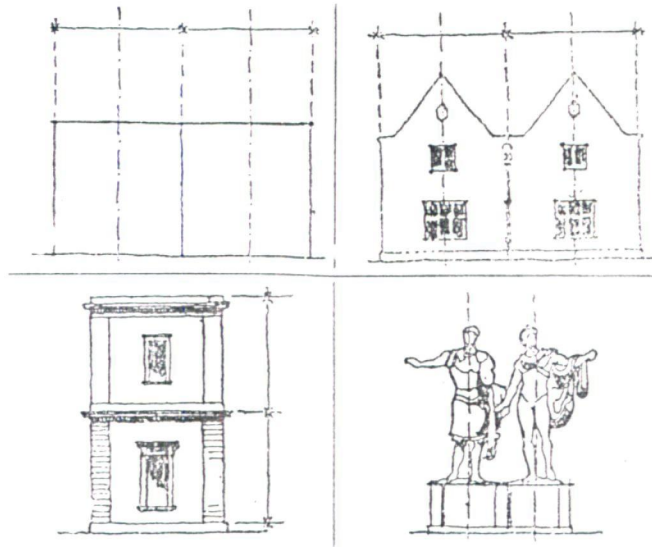
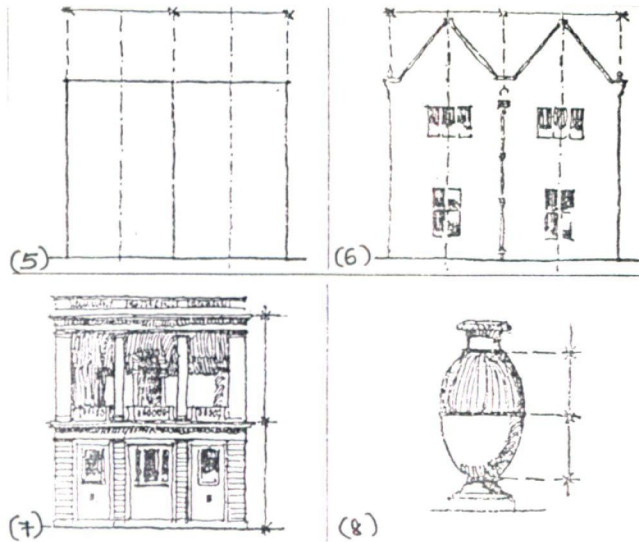


Fig. 3
Illustrates the destruction of unity by competing duality.



Fig.4
Unresolved duality.

The eye being readily used to grasp simple, definite shape hence can be visualized that two squares become each of a definite unit as a result of that "unity" the rectangle disappeared, and as "duality" each member competes with the others. Competing units should not be symmetrical and a weakening "unity" may create units that are symmetrical and equal unless some variations introduced to competing masses, either in forms, colour, texture.



No.5 and 6 – Effect of duality lessened where shapes are less strongly marked.

No.7 and 8 – Duality lessened by differences of tone and texture.

(Sources: Robertson, H. 1924 : p.8)

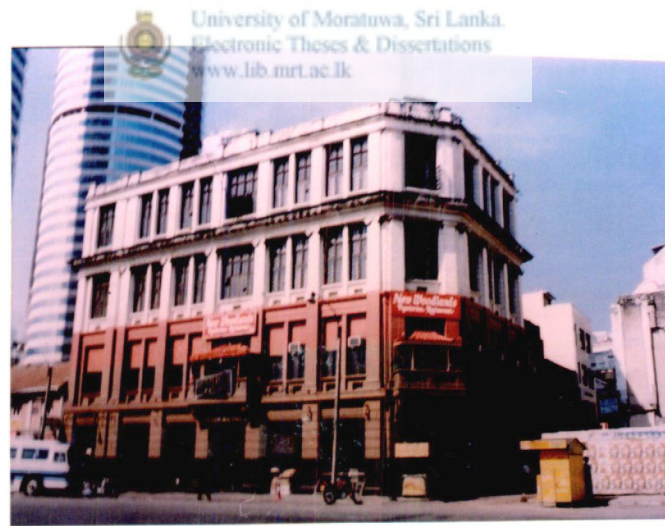


Fig.9

Duality lessened by colour and tone.

Given below shows two equal buildings which has a balance and have a center of interest producing unity in composition.

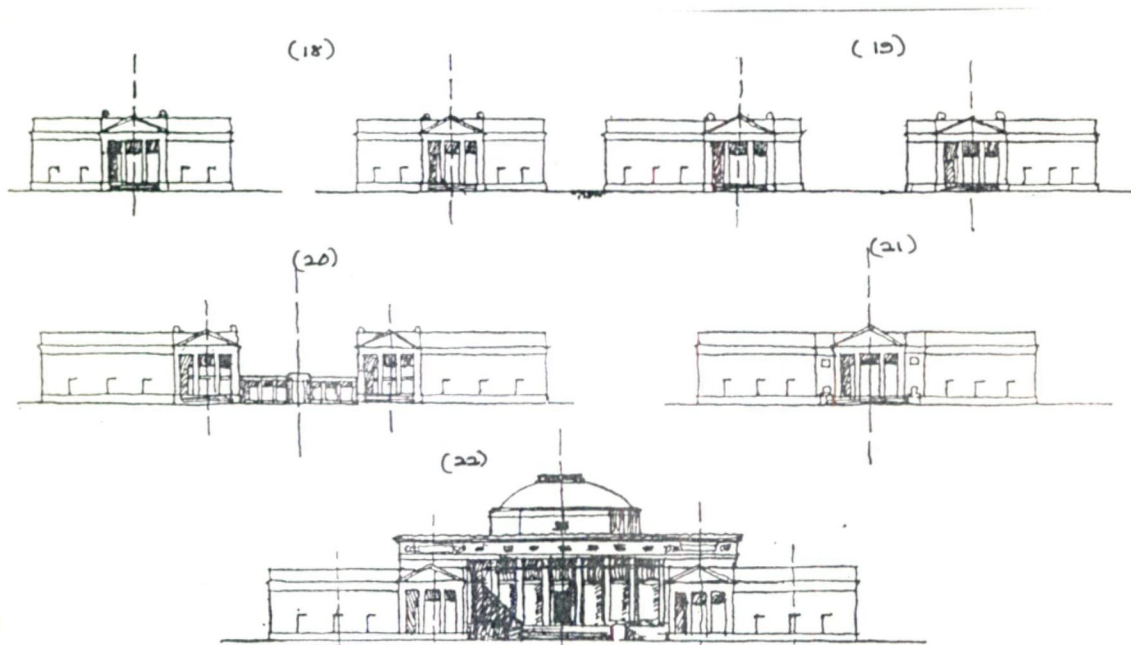


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 Unity in symmetrical composition
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- No.18 – Duality
 - No.19 – Duality lessened by focusing interest towards center.
 - No.20 – Unity suggested by “link” element.
 - No.21 – Complete unity.
 - No.22 – The two elements are unified by introducing third element.
- (Sources : Robertson, H. 1924 : p. 14)

Introducing the third element is also a focal point or the point of interest of the dominant; correct proportions of which play and important role in achieving unity.

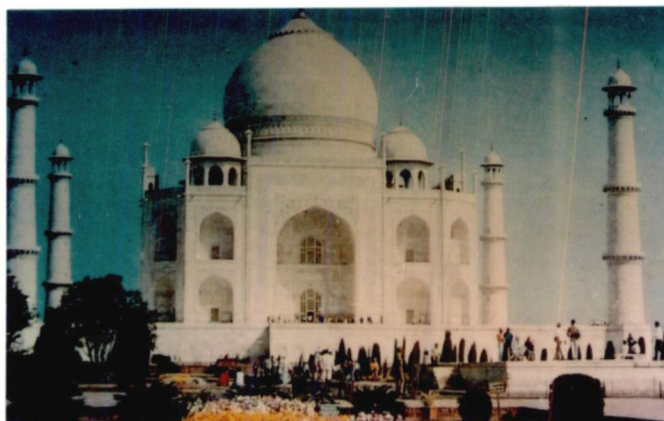


Fig.11
 Achieving unity by correct proportions and interest of focal point.

Another way of unifying the composition is a building split down the center by a narrow vertical dividing member in to two parts, called “wings” so that the duality of two parts could be easily resolved by introducing “trinity” a dominating feature in between two parts of wings.



Fig.12
Resolved duality by introducing trinity.



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1.1.2.2 Elements of Contrast.

“Contrast in Architectural composition is of secondary importance only to unity of design and a feeling for it’s perception and proper employment is bound up with the cultivation of the sense of proportion with which it is indissolubly connected.”

(Robertson, H. 1924 : 31)

By experience and the development of aesthetic sense can only being learnt by the use of contrast.

Contrast applied to Architectural composition is found in various aspects. Among them the contrast in the form and contrast in the mass is considered.
Eg. Sphere and the cube.



Fig. 13
Church of the Miracoli, Venice.
Contrast of elementary form; the cube, cylinder, hemisphere and octagon.



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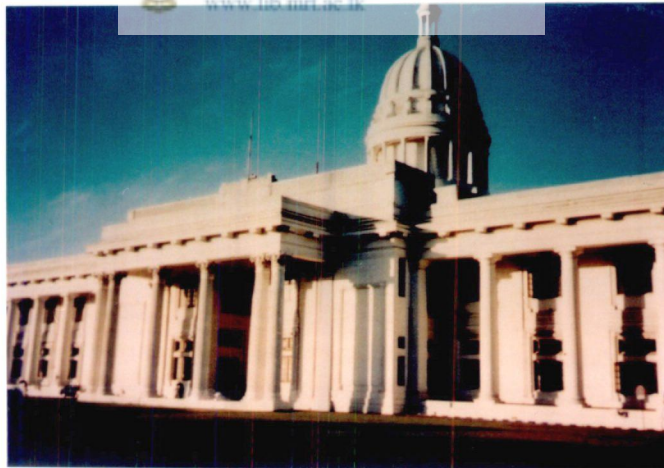


Fig. 14
Contrast in elementary form, the dome.
Contrast in bulk between figures of identical type.



Fig.15
The Chiesa del santo, Padua.

Contrast in proportion between forms of the same type and general contrast of geometrical shapes.

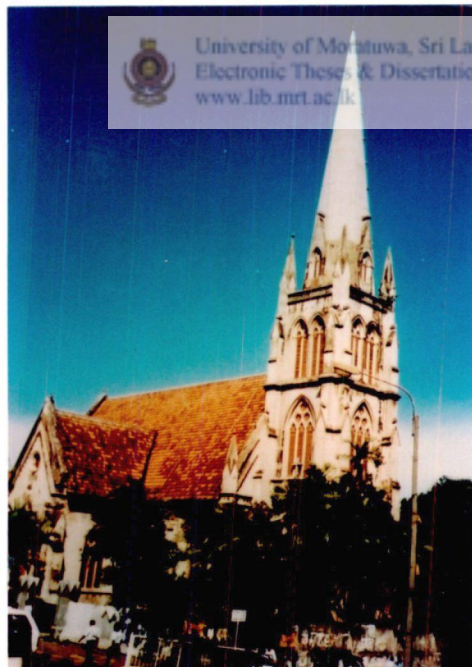


Fig.16
Contrast in proportions of same forms.

Considering the contrast of line; line is being considered either as the contour of objects, as the silhouette of pattern or by extension as “direction” such as vertically, horizontally and obliqueness.



Fig. 17
Contrast of line in the contour of form exemplified in a candelabrum.

The main lines of building should produce an effect of and decision all it's sub divisions, elements should be inspired with similar quality.

The main line of elevation of buildings are horizontal. Horizontal should produce a sense of horizontality. Tall buildings should not be continually sub – divided by horizontal lines giving an impression of continuous striving after an effect of horizontality.





Fig.18
The main line of elevation of building is horizontal.

Contrast again apply to colour.
Eg. Black and white, Red and green or light and dark.
As well as some buildings have contrast in texture.
Eg. Rough and smooth, weight – light and heavy.

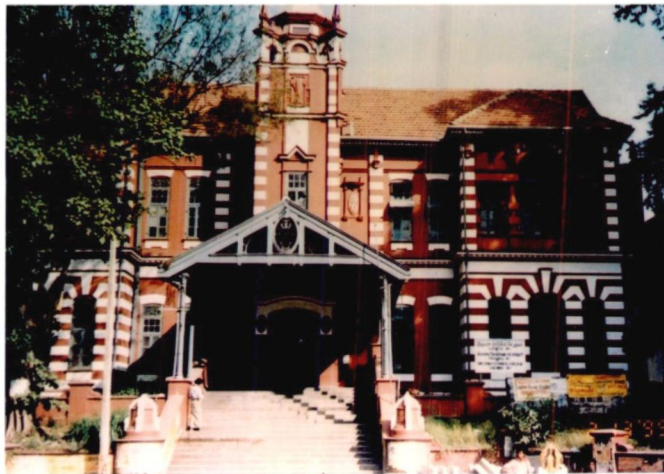


Fig.19
Contrast in colour.



Fig. 20
Contrast in texture.

One of the most general applications of contrast in the design of the Architectural elevation is solid and void, which is termed the problem of penetration. Void should be in good proportions in themselves and should provide contrast with their opposites namely the solids of the wall surface.



To provide the contrast between two, should avoid competing equality by making voids dominate over solids or vice – versa.

In addition to such contrasts as that of solid and void there will be the contrast of light and shade. Also the actual shadow cast by projections on the wall surfaces, creates contrast of light and shade.



Fig.21
Solids clearly dominating overvoids.

Texture of the building material is provided also by the actual shadow cast by the projection on the wall surface. Materials of different kind of brick and stone, rough – cast and tile hanging should not be found in exactly equal masses. One or the other should dominate. There is a danger in the excessive use of contrast, as in the opposite defect of monotony.

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“The necessity for unity for a dominant in the composition, will have dilated the relative bulk of the masses under consideration, but there still remains the question of the influence of form on these masses and the effect which may be obtained by contrast of forms.”

(Robertson, H. 1924 : 58)

The contrasts which have been discussed in earlier paragraphs such as solid and void, are perhaps the simplest and the form and mass little bit simple because form and mass is difficult to grasp at once. This is as same as the other types of contrasts, merely to avoid monotony and to emphasize interest of a composition. A single building more frequently still, and a group of buildings will almost certainly present possibilities in the use of contrast in treating its main masses.

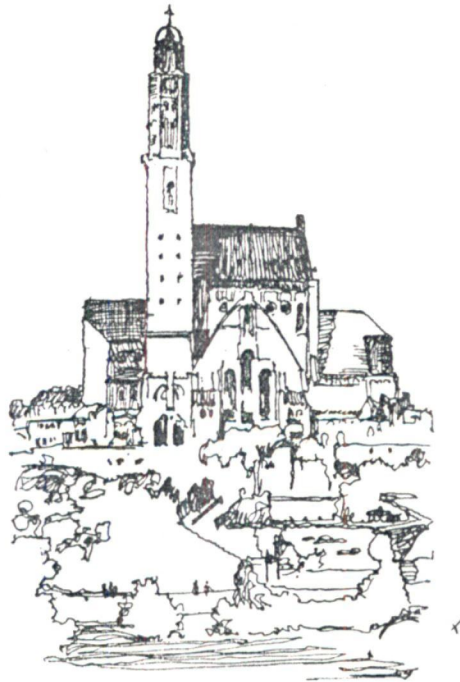


Fig.22
Church in Stockholm, Contrast in shapes both in the main mass and in the form of the tower, dominating verticality.

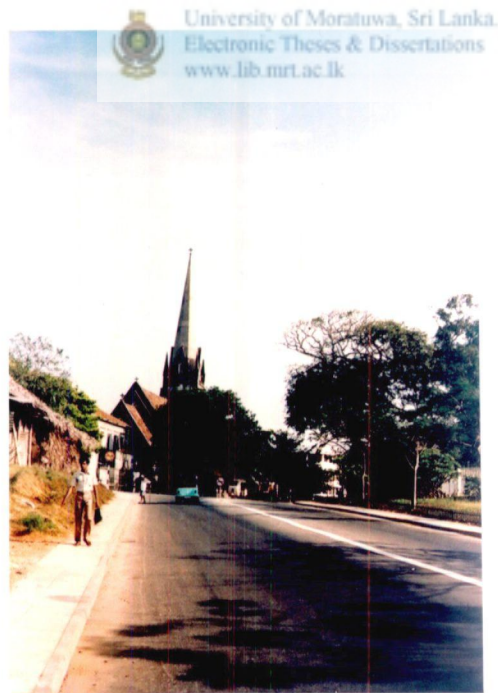


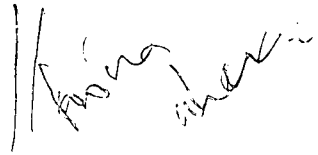
Fig.23
Contrast in shapes both in the main mass and in the form of tower.

1.2 The Determinant Factors of the Streetscape

The major determinants of Architecture and Architectural expression are four fold; Context, Activity, Higher purposes and People. A parallel system has been drawn as the determinants of character of a place.

The determinants of the character of Urban streetscapes can be summed up as follows,

- 1) Usage of the street
- 2) Context
- 3) Symbols and meanings



1.2.1 A Streetscape Determined by the Usage

Usage and activities along the street are perhaps the most active determinant of the streetscape characters. Activities go beyond "Land Use" and include myriads of interconnected happenings that provide life and excitement within the streetscape. Activities determine the mode of behavior of people within a street and the Architectural character of buildings along the street with in which the activities occur. Therefore these two means collectively generate the streetscape character Expressing the nature of the activities. There are several categories of activities, which can be seen mostly along the urban streets.

1.2.1.1A Cultural Usage

These are religious, social and recreational usage of a street. Some streets have unity in character being devoted to one particular activity type and this becomes more distinctive when the whole street has been given to only one specific use of the common activity group, for example the character of a commercial street becomes strengthened when it is devoted to a particular commercial use, may be jewellery trade only. But the common fact is the diversified street usage. If the activity categories are harmonious to each other, a distinctive overriding character can be sensed in the streetscape. In contrast, a contradictory activity combination may weaken the sensory quality of the streetscape.



Fig.24
Streetscape with cultural use – Dalada Veediya, Kandy.

1.1.1.2A Residential Usage

Residential usage of streets for both upper and lower strata of social order comes under this and a difference in the characters of these two types is an obvious fact.



a) High Residential Use – Horton Place, Colombo.



b) Low Residential Use.
Fig.25
Streetscapes with Residential Use.



1.1.1.3A Commercial Usage

Here also the subdivision of 'High' and 'Low' categories exist with the necessary character difference.



a) High Commercial Use.
Chatham Street, Colombo.



b) Low Commercial Use.
Second Cross Street, Colombo.
Fig.26
Streetscapes with Commercial Use.

1.2.1.4 An Executive Usage

administrative, diplomatic and other stately functions and the related character of a grandeur and dignity comes under this category.



Fig.27
Streetscape with Executive Use – Raj Rath, India (Photo Credit : Ananda Samarasinghe)

1.2.1.5 An Institutional Usage

Educational, official, medical and military activities come under this category with the required character difference.



Fig.28
Streetscape with Institutional Use.

1.2.1 A Streetscape Determined by the Context.

Unique streetscape character can be created by the individual characteristics of the context; that is to say its geographical position, its townscape role with in a particular location, and the value of its fabric. Generally the term context means both the natural and man made setting of a place and it greatly determines the physical space of the street and rarely changes its characteristics. Therefore it is a prime determinant of the character of streetscape.

Context of a street can be seen in two different levels;

1) The Local Context

This is the immediate surroundings of a streetscape including the street itself. The local context really counts the whole area that can visually be perceived while moving along the street.

2) The Wider Context

This is the district, town, city or any other larger setting through which the street runs. The local context can only be properly understood if it is considered in relation to the wider context.

1.2.1.1 Physical Setting and the Features of the Context



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"The natural condition of a region are an obvious ground and limit to its sensory form; its geology and topography, its climate, its ecologies."

(Lynch, K. 1978 :38)

a) Topography

Topography is concerned with the natural and artificial features of a locality and means the geological and geographical surface characteristics of the context.

b) Views

Wider context can be incorporated into the streetscape by having views and they contribute largely to the quality of the streetscape. Such visual links also accentuate the movement along the street.

Views to outside could be vistas, panoramas, glimpses or framed views. A vista is a long, narrow view framed three dimensionally by some elements in the foreground and terminating at a particular object at the distance. What lies at the end of the vista is of extreme importance.

(c) Vegetation

“The landscape architect can create numerous types of spatial character using only plant materials as the space defining elements.”

(Booth, N. 1983 :2)

A streetscape character may be greatly determined by the vegetation the context, especially of the local context. Vegetation appears in several layers; from a soft natural carpet covering the ground surface, bushes and plants to the spreading foliage of large trees. Out of those, trees play the most prominent part in determining the spatial qualities of streetscapes.

d) Climate

“Much of the sensed quality of a place resides in its climate, particularly in its micro climates.”



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(Lynch, K. 1978 :107)

Climate modifies the character of a place. The rainfall, temperature, air movement, the quality and quantity of light, and seasonal changes in climate of wider context mostly enhance or provide dramatic modifications of the streetscape character. Climatic conditions of wider context may modify the Architectural qualities of the local context of a streetscape and, thus, it modifies the character of the streetscape.

1.2 The Expressive Quality According to the Determinant Factors.

Urban streetscapes are composed of enclosure planes and the spaces contained. There are three enclosure planes; the ground plane (the street itself), the overhead plane (canopies or the sky as a perceptual ceiling) and the wall planes (buildings on either sides of the street).

Character of a streetscape can be defined as the expressive quality or the spatial quality of the streetscape which gives and identity and distinctiveness to the streetscape and makes it different from that of all other streetscapes in the wider context.

1.3.1 The Dominant Character

The dominant character of a streetscape commands a respect to itself. It may express a sense of power and dignity leaving the observer some what stressed and implies that it will give a feeling of domination over the observer. This quality is closely interlinked with the sense of stability, majestic and power. 'Soaring', 'majestic', 'pompous', 'decorous', 'dignified', 'prestige', 'luxurious', 'grand', etc. are some adjectives which may be used to describe different intensities of this quality. Continuous, unified wall forms and spine like stance of the street generate this character.

1.3.2 The Dynamic Character

A strained, restless emotional condition created through complicated and confusing motion of the textures of the surroundings can be experienced in some streetscapes. This is the character of tension. 'Tense', 'Tight', 'Dynamic', etc., can be used to describe the varied intensity of this sensation.

1.3.3 The Sophisticated Character

In this sophisticated quality one may feel a painfully developed or artificially created elaborate atmosphere in the texture of the streetscape. It renders the space a festive quality but mostly an exaggeration of the real essence of the space. 'Fanciful', 'Sophisticated', 'Capricious', 'Whimsical', 'Decorative' are some terms which express this quality.

1.3.4 The Grand Character

The grand character or the dominant character of a streetscape commands a respect to itself. It may express a sense of power and dignity leaving the observer

somewhat stressed and implies that it will give a feeling of domination over the observer. This quality is closely interlinked with the sense of stability, majesty and power. "Soaring", "Majestic", "Pompous", "Decorous", "Dignified", "Prestige", "Luxurious", "Dominant" etc. are some adjectives which may be used to describe different intensities of this quality. Continuous, unified wall forms and spine like stance of the street generate this character.

1.3.5 The Calm Character

The calm character of a streetscape creates a restful, quiet quality in the street space and keeps the observer in a relaxed mood and in a low pace movement. This spatial quality can be sensed as a synthesis of simplicity, loneliness, seclusion, peacefulness and quietude. "Quiet", "Tranquil", "Serene", "Contemplative", "Restful" are some terms used to describe this quality.

Streetscapes as a series of pavilions and uncomplicated textures create this character.

1.3.6 The Festive Character

The streetscape may be experienced as a festive, delightful and stimulating environment when this spatial quality exists. It makes the observer feel excited and happy and let him move freely and enjoy the surroundings and people. 'Exuberant', 'gay', 'festive', etc. can be used to describe the quality. Rhythmically ordered textures create the festive character.

1.4 Concluding Remarks

Unity and Contrast play the main role in Architectural composition in an Urban Streetscape.

A Streetscape can be determined by the Usage and the Context. Usage can be categorized as Cultural, Ceremonial, Residential, Commercial, Executive and institutional. Context can also be categorized by Topography, Views, Vegetation and the Climate.

According to those determinant factors a streetscape gets a specific Character, such as Dominant, Dynamic, Sophisticated, Grand, Calm and Festive.



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CHAPTER TWO

RESPONSIVENESS OF URBAN SPACE

Chapter Two – Responsiveness of Urban Space

2.1 Definition of Urban Space

Architecture manipulates space. It plays with space and elevates one's experience on space. Architecture creates space between ground, walls and ceiling enclosing the hollowness. But the space enclosed with – in it means more than the hollowness to the beholder. The creator of the space; second to the nature or the 'God'; the Architect must be very conscious of this space. Then, what is space? Aristotle defines space as a container of things. It contains the quality captured from surrounding. It contains tangible, intangible, visible and invisible things within the hollowness. Therefore Architecture too contains all those things in it. In tangible context, one's conceptions and the resultant quality together create a spatial quality – spirit of place –, which is intangible, invisible and is enshrined in Architecture.

2.1.1 Architectural Space

Architectural space born from the relationship between objects or boundaries and from plan, which do not, them selves have to character of object, but which define limits. These limits may be more or less explicit, constitute continuous surfaces forming an uninterrupted boundary, or on the contrary, constitute only a few cues (for example four columns) between which the observer establishes the genesis of a space define by cues which at first leave it implicit and then gradually make it more and explicit. This shows the potential of more or less apparent planes and edges, which the observer re-establishes between the concrete cues.

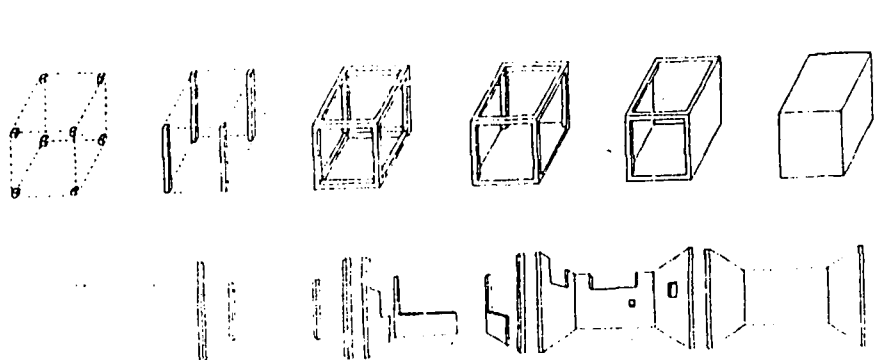



Fig.29 From implicit to explicit space

In fact, for the Architect the space for the gap between ground walls and ceiling is not nothingness, quite the contrary: the very reason for his activity is to create the hollow in orders to contain. He will give it a concrete form to offer that hospitality and relative freedom of movement, which people require.

2.1.2 Space

However be the space in any kind, there are fundamental attributes associated with it. They form the very existence of any space. Thus helps to concentize, the qualities exist in space on to built form. They are center, enclosure, depth (volume), density and continuity.

2.1.2.1 Center

Since ancient times man has thought that the whole world has been centralized. On the other hand man's world has its own center. Reaching to a center is considered as the most difficult task of man's life; center therefore, is so sacred. The ancient Greeks located the 'navel' of the world in Delhi. "Ka'aba" is the center of the world of Muslims. Center represent to man is known in contrast to unknown. It is the point where he "lingers" and "Lives" in space. It is the point where he refers to himself in relation to other spaces.  Electronic Theses & Dissertations
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2.1.2.2 Enclosure

"The center exists in the relative field of the volume, and enclosure is the container of this volume; enclosure can either be a tangible physical entity or intangible sense of enclosure. In pragmatic, perceptual and existential spatial experiences, enclosure becomes primarily a spontaneous happening and intangible phenomenon."

(Brown,G.Z. 1985 :74)

But in Architectural space enclosure is purposefully created to enhance the desired spatial meaning and most often visible physical entity. The walls, floor, ceiling etc. are the major elements of any physical enclosure and they form variety of built structures, as meaningful spatial entities. Landscape, water, level changes, colour, light and shade etc. too are used increasing enclosure.

2.1.2.3 Depth



Fg 30

Shows the two phenomena on the same picture torn in two. The effect of depth in the lower part is the result of the texture gradient caused by the waves of the lake, whilst in the upper part there is no longer any perspective, but a simple superimposition of planes one in front of other; clouds, the mountain on the right, those on the left and finally those in the distance, there is hardly any "real" depth.

The most common and effective indicators of the perception of depth are, on the one hand, the effect of perspective, with notably, a gradient of texture and on the other, the phenomenon which tells us that an object which partially hides another, should be in front of it.

In painting, one or other of these two phenomena is used as a method thus producing the illusion of deep space or, on the contrary of shallow space.

“Painters from the Renaissance to the nineteenth century do not conceal their preference for perspective and deep space. Painters of middle age and, in another manner, painters like Juan Gris, Braque, Le Cobusier and more recently Robert Slutzky are masters of this shallow space in which superimposed planes appear compressed, very close to each other and often ambiguous”

(Sherban, C. 1984 :65)

It is not, therefore, surprising that modern Architects have also attempted to compose space and objects by using these methods.



Fig.31
Attempt spatial decomposition of a painting by Le Corbusier.

Working with frontal planes whose respective distance is small and ambiguous, certain Architects of the modern movement exploit not only the effects of shallow space, but also the phenomenon of transparency which results from the disappearance and fragmentary reappearance of one plane behind the other.

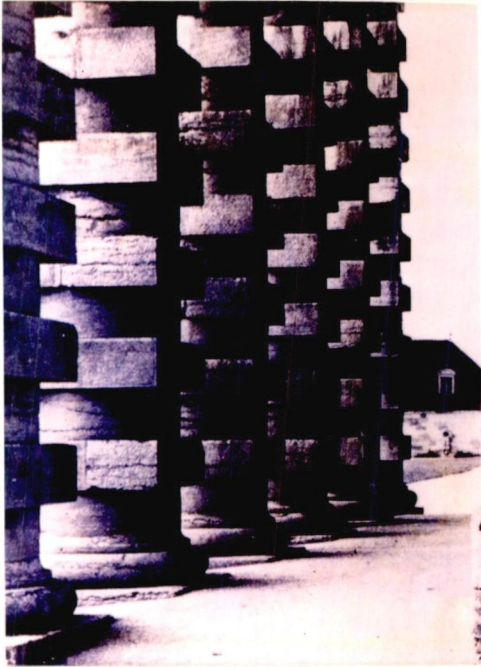


Fig.32
Perspective and texture - as gradients of depth.

2.1.2.4 Density

"For the Architect space does not only have depth; it is also more or less dense. When a greater density appears appropriate, he seeks to modulate distance by intermediary and closer 'stages' of depth'. This is generally the case when we work with shallow space, but also create density with a deep space."

(Ching, F.D.K. 1979:172)

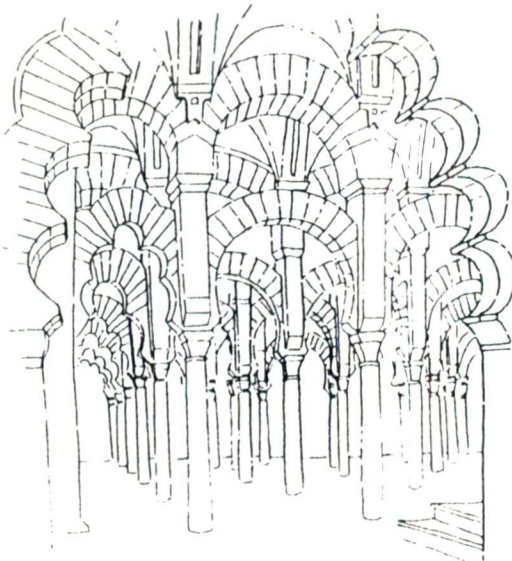


Fig.33
dense space Interior of the Mosque at Cordoba

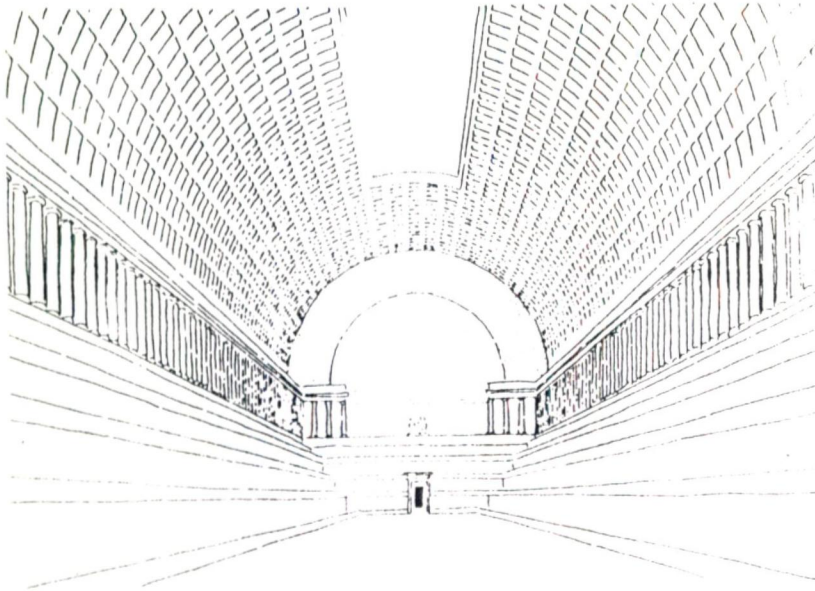


Fig.34
Absence of density, Universal space, Deep and empty

Spatial density is due not only to the physical staging of depth, as at Cordoba. It can be sufficient to suggest subdivisions implicitly by the modulation of floors, walls or ceiling so that the same unitary space appears relatively "full" or, on the contrary, relatively "empty".

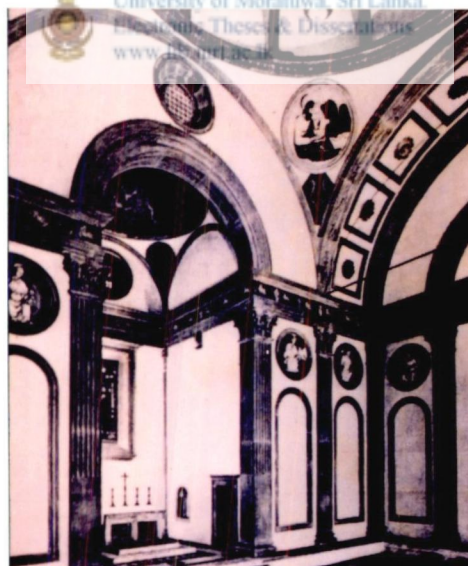


Fig.35
The modulation of the floor and walls increases the density of space by subdividing its depth.





Fig.36
Continuity of the ground and the wall creates tension between the observer's viewpoint, the end of the terrace and the framed landscape in the distance.

2.1.2.5 Continuity

One of the fundamental oppositions which makes it possible to distinguish type of Architectural space is that they can either be closed, introverted, concentrated up on themselves, or open, extrovert, centrifugal. Where as mass is more or less concentrated, space is more or less closed. The degree of enclosure does not only depend on the quantity and the size of the openings. When it is wished to create a space which tends to open to the exterior, we are trying to make it less explicit. There is therefore a direct relationship between notions of explicit and implicit space and the degree of opening or closure.

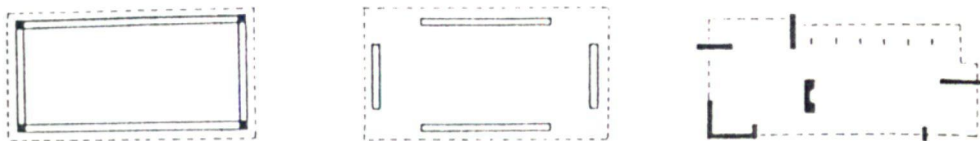


Fig.37
The opening of a space is obtained by the reduction of its degree of definition (for example elimination of a corner) and by the presence of elements belonging to both the interior and the exterior (for example, extension of a wall towards the exterior)

Continuity, suggests a path. This is the beginning of a direction, an inclination to move along, facing of many upheavals and at the end a destination along this path. This is common to all forms of man's spatial experiences. For a space to exist, it has to be continued. To exist, man too, has to continue and make relationship with space. Either it is man made or natural, the spatial qualities exist, and also continue with the same capacity or even in a strengthened form.

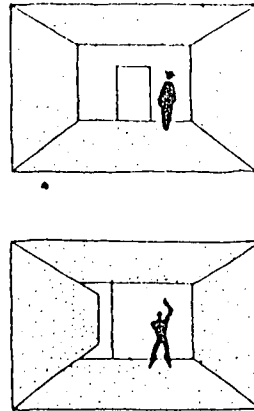


Fig.38



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The intact corner is 'introvert'; the missing corner is 'extrovert'; the element – wall, ground or ceiling – which belong to the two spaces, achieves continuity.

The door and the window are the two classic methods of handling an opening in a structure of load – bearing walls; a pace of passing through, a "picture" framing an exterior view, and a source of light and air.

2.2 Responsiveness

The built environment should provide its users with an essentially democratic setting, enriching their opportunities by maximizing the degree of choice available to them. Such places are called as responsive places.

The design of a place affects the choices people can make, at many levels :

- * It affects where people can go, and where they cannot : the quality is called as permeability.
- * It affects the range of uses available to people : the quality is called as variety.

- * It affects how easily people can understand what opportunities it offers : the quality is called as legibility.
- * It affects the degree to which people can use a given place for different purposes : the quality is called as robustness.
- * It affects whether the detailed appearance of the place makes people aware of the choices available: the quality is called as visual appropriateness.
- * It affects people's choice of sensory experiences: the quality is called as richness.
- * It affects the extent to which people can put their own stamp on a place: the quality is called as personalization.

2.2.1 Permeability

Permeability can offer a choice to the people for the places, which are accessible to them. The quality of permeability can be considered as the number of alternative ways through an environment, is therefore central to making responsive places.

Permeability has fundamental layout implications. In the diagram below, the upper layout offers a greater choice of routes than the lower one : it is therefore more permeable.

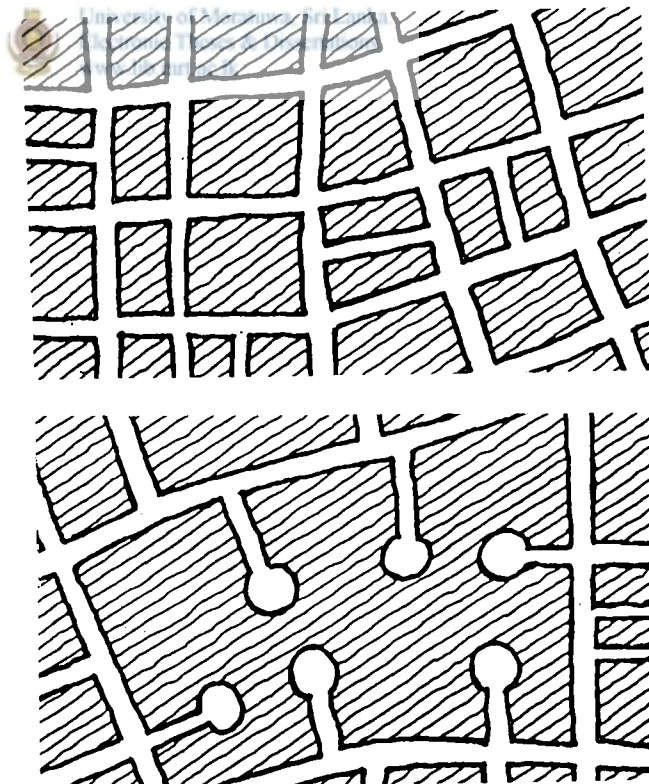


Fig.39
Fundamental Layout Implications of Permeability

The permeability of any system of public space depends on the number of alternative routes it offers from one point to another. But these alternatives must be visible otherwise only people who already know the area, can take advantage of them. So visual permeability is also important.

2.2.2 Variety

This is a key quality to maximize the variety of uses. First it should assess the levels of demand for different types of uses on the particular streetscapes including the related urban spaces, and establish how wide a mix of uses is economically and functionally feasible to have.

Accessible places are only valuable if they offer an experiential choice. Variety in use, is therefore the second key quality to be considered after permeability.

2.2.3 Legibility

In an urban streetscape, legibility is described as, how easily people can understand the layout.

The tentative network of links and uses already established now takes on three – dimensional form, as the elements which give perceptual structure to the place are brought into the process of design. As part of this process, routes and their junctions are differentiated from one another by designing them with differing qualities of spatial enclosure. Therefore in the stage of legibility it is involved in making tentative decisions about the volumes of the buildings which enclose the public space.

2.2.4 Robustness

Places which can be used for many different purposes offer their users more choice than places whose design limits them to a single fixed use. Streetscapes which offer this choice have a quality, which is called as robustness.

From robustness, it is to focus on individual buildings and outdoor places. The objective is to make the spatial and constructional organization, suitable for the widest possible range of likely activities and future uses, both in the short and the long term.

2.2.5 Visual Appropriateness

A place, which has visual appropriateness, makes people aware of the choices offered by the qualities of permeability, variety, legibility, and robustness.

2.2.6 Richness

In this stage it should be decided whereabouts in the scheme to provide richness, both visual and non – visual, and select appropriate materials and constructional techniques for achieving it.

2.2.7 Personalization

The above stages, which are already covered, have been directed at achieving the qualities, which support the responsiveness of the environment it self, as distinct from the political, and economic processes, by which it is produced. Considering public participation most people will have to live and work in places designed by others. It is therefore especially important that it is made possible for users to personalize places ; this is the only way most people can put their own stamp on the environment.

2.3 Legibility as the Key Factor of Responsiveness.

Legibility in the urban space so arranged that a normal observer can mentally relate them to one another, and understand their pattern in time and space. In the general framework of a streetscape and the linkages between its public places; must be legible in the street and in memory. Legible structure has an obvious value in facilitating the practical tasks of way – finding and cognition, but it has other values as well.



It can be a source of emotional security and one basis for a sense of self – identity and of relation to society. It can support civic pride and social cohesion, and be a means of extending one's knowledge of the world.

Legible structure will have to be simple and adaptable to maintain itself in a constantly changing city. It must also be flexible enough to facilitate different ways of organizing the environment.

When it applies to the Urban streetscapes a legible streetscape is one which can be easily graspable. Legibility is important at two levels. That is,

- * the activity patterns.
- * the physical form

A place can be read at either physical form or activity pattern. For example it is possible to develop a clear sense of a physical form of a place, perhaps enjoying it only at an aesthetic level. Equally patterns of use may be understood without much concern with form. When it is used to the place's potential to the full, awareness of physical form and patterns of use must complement one another. This would be particularly important to the outsider, who needs to understand the place quickly. In some cases legibility is a problem because the legibility of both form and use is, reduced in modern environments; compared to a traditional city.

Legibility and the Traditional City –

The cities were more legible before the twentieth century. Places that looked important were important, and places of public relevance could easily be identified.



Fig.40

The biggest open spaces were related to the most important public facilities.



Fig.41

The buildings which stood out from the rest were those of greatest public relevance.



Fig.42

Where privacy and security permitted, many buildings allowed the passer-by to see the activities inside.

The Modern City –

In the modern city, the visually overwhelm publicly – relevant places and facilities, confusing important activity patterns. The large office blocks and shopping arcades, and all the other buildings all look alike as solid masses. The confusion is made worse because important public buildings and publicly irrelevant private ones often look alike.

Achieving Greater Legibility –

Achieving greater legibility is affecting the design of both physical layouts and patterns of use. Considering the physical layout when it becomes legible, people are able to form clear, accurate images of it.

Considering these images, certain sorts of physical features play a key role in the context. Kevin Lynch – the American planner who pioneered studies of this topic in the 1960s has suggested that these features can be grouped into five key elements. They are nodes, edges, paths, districts and landmarks. Achieving a greater legibility in an urban streetscape, paths are more significant. Because paths are the channels of movement including streets and motorways. As well as many people include streetscape as the most important feature in their images of the city.



Fg.43
Philadelphia, USA.

Reinforcing Streetscape with Legibility –

There are two objectives to be achieved in reinforcing streetscape legibility.

- 1) To give each streetscape a strong character, easily distinguished by users.
- 2) To bring out the relative functional importance of each streetscape.

Legibility of a streetscape is crucially affected by its enclosure in plan form and section. Strong enclosure is most easily achieved with buildings. When there are gaps it consequently reduces street enclosure. There for that street is less legible. These gaps can be closed by walls, trellises or trees. But these contribute no activity to the street, which becomes correspondingly less memorable.

Considering the new and existing elements of an urban streetscape, legibility depends on the relationship between those elements. The forms and positions of the existing elements are important. When developing the legibility of the streetscape it should relate the layout of the new element to the existing ones.

2.4 Concluding Remarks



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Legibility, which is the most prominent key factor in creation of responsiveness, indicates a clear structure that is recognizable in terms of distinctiveness. It projects the ease with which it's parts can be organized into a coherent pattern, thus giving a clear understanding of the street in terms of its congruence between physical form, patterns of activity and so on. Legibility of a street largely depends on the position of proper cues, gradients of intensity, focal points, regularity of environmental symbols etc.

Clear legible structuring of a street is of concern at all scales, from a whole town to the interior of buildings. It is related to an integrated system of signs, advertising information, lighting and form, so that all cues and information systems reinforce each other.



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CHAPTER THREE

TOWARDS A FRAMEWORK FOR LEGIBLE URBAN STREETScape

Chapter Three

Towards a Framework for an Architecturally Well Composed Urban Streetscape.

3.1 Basis for Selection of Case Studies

In the first chapter, a theoretical literature review, provides the basis for identifying the expressive quality of a particular urban streetscape. In the second chapter the responsiveness of related urban space is discussed. Thereby the achievement of legibility in the urban streetscape is considered.

The case study would be looked at, as an attempt to identify the existence of these qualities within the urban context of Sri Lanka. In this particular study all the qualities may not be identified to the same intensity, in any given streetscape. In the case of selecting examples the most overriding characteristics may be observable. The most evident characteristic would be highlighted, within the particular urban situation. The achievement of legibility is mainly in two levels.

- * Considering the Activity Pattern of the Streetscape
- * Considering the Physical form of the Streetscape



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The selected examples would thus be focused on above two levels, to examine how far the legibility.

The examples are selected at a stretch along Galle road from Kollupitiya to Pettah, considering the changes of the physical layout or activity pattern. As well the selected examples are limited to several urban situations, where a large segment of people are concentrated with, diverse and common urban experiences. The day to day experiences are also considered in the streetscapes.



Key to Maps

01

Modara

02

Mattakkuliya

03

Kotahena

04

Bloemendhal

05

Grandpass

06

Fort

07

Pettah

08

Maligawatta

09

Baseline

10

Slave Island

11

Union Place

12

Marsdena

13

Borella

14

Welikada

15

Kollupitiya

16

Cinnamon
Gardens

17

Narahenpita

18

Rajagiriya

19

Kotte

20

Bambalapitiya

21

Havelock
Town

22

Kirillapone

23

Nawala

24

Wellawatta

25

Kalubowila

26

Kohuwala

27

Nugegoda

Sea

Harbour




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3.2 Consideration of the Activity Pattern of the Streetscape

From Kollupitiya to Pettah the activity pattern has clearly changed, according to its user. At Kollupitiya it is more luxurious comparing to the other parts of the Galle Road and is used by a certain social group of people. When it comes to the central road at Galle Face Green, it is more relax and open. Encourages its use as a place for leisure activities. York street is more grand. Mostly the office crowd gather here. As well the place is mostly influenced by the colonial period. Pettah, it is a busy place. From the morning to night it is more dynamic with different activities and as the main commercial hub of Colombo.

Some times urban streets have been assigned with special uses additional to the existing activity. These assignments can be permanent or seasonal varieties. It can be used for ceremonial, processional and public gathering functions. Or it can be used for state functions. Streetscapes are sometimes, especially designed for such special uses and other deliberate creation of desirable character can be obviously felt. The assigned usage can, sometimes dominate the other uses of the street.

At this stage following factors are considered.

- 
- Whether the activity pattern of the street would get confused by the physical layout.
 - Is there a strong character easily distinguished by users.
 - Has the particular streetscape succeeded to bring out the relative functional importance.
 - Whether the streetscape has an assign use other than to its existing activity pattern.



3.2.1 Galle Road at Kollupitiya

KOLLUPITIYA



The study area is located along the Galle road at Kollupitiya, which is one of the main roads accessing Colombo from Southern Sri Lanka. The study area starts at the turning point of Alfred House Avenue and ends up at the Liberty cinema roundabout.

In early times during the British period when population was increasing the elite moved to the suburbs of Fort. Later Kollupitiya emerged as one of the famous elite residential areas within Colombo.

But with the emergence of Colombo as the main city center, Galle road became the main artery in accessing Southern Sri Lanka. Since then it slowly converted as a commercial belt especially along the road. Now it is one of the main popular shopping areas, in and around Colombo.

Consideration of the Activity Pattern of the Streetscape.

In Galle road Kollupitiya, the pavement is provided and is 'accepted to walk' along the street. Therefore the pavement is a walking place for the pedestrian in Galle road Kollupitiya. There are allowed parking areas along the pavement for the vehicles. The relevant parking signs are used to indicate these areas. Through experience and knowledge the street user know the indication and the meaning of signs. These make the allowed parking areas to become 'parking places' for the vehicle users.

Then the pavement in Galle road is an "accepted place" for,

- The pedestrians as a walking place.
- The vehicle users as a parking place.

Other than that there are other gathering places by the side of the street. They are according to the particular activity. As an example in front of the 'Pizza Hut' they have their own activities. Customers come and park their vehicles and inside.



Fig.46
Pizza Hut - By the side of the Galle Road

At the same time people gather to the bus halt which is in front of the 'Pizza Hut'.



Fig.47

The Bus Halts are also Associated with Some Other Prominent Place and Have Become Part and Parcel of a Specific Place.

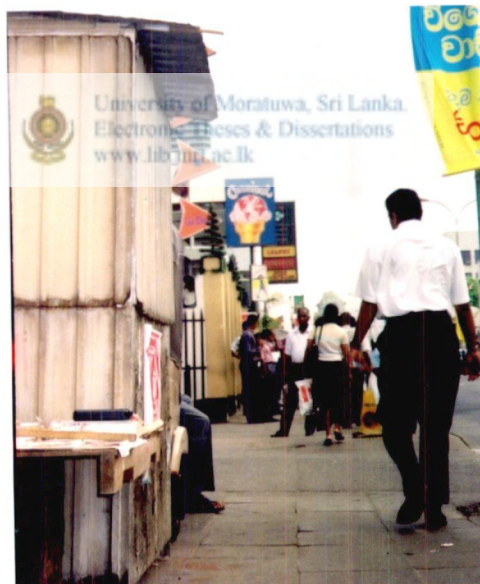


Fig.48

People Rush to the Bus-Halt after the Office

Where there is a shade along the street it is virtually a parking place for the three wheelers. The area under tree shade becomes their boundary and the location

of the place. They park orientating towards the street or the pavement. The drivers use to make the tree shade to park their 'three wheeler' or to sit and chat.

Other than the above mentioned activities; the street along Kollupitiya, has assignments. The activities and decorations of festive season, specially in the New Year and Christmas season create a ' festive' sub character and thus weaken the restful characters.



Fig.49
Galle Road at Kollupitiya, in the Festive Season.



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3.2.2 Galle Face Central Road – Colombo 3

SLAVE ISLAND

Adjoining page 6

A

B

C

1

2

3



The Galle Face Central road acts as the link between the Galle road and the Janadhipathi Mawatha and thus, plays the role of the entry to the Fort area.

Galle face central road differ from other streets because of its location. From one side it gets the natural setting of the context and from the other side the street is demarcated by a line of huge buildings, which brings a prestigious character to the street.

Consideration of the Activity Pattern of the Streetscape –

The Galle Face Central road, is entitled to , two main sociological characteristics.

From one side the Galle Face Central road is evoked by the aesthetically dominating element of Galle Face Green. Therefore the dramatic view of the sea , the cool breeze and its vast and boundless space with the dynamic environmental quality, evokes an emotional upliftment, a dynamic sensation within the person. This contrasting beauty of natural elements within a dense urban setting, creates diverse experiences in the day to day life of the urbanite



Fig.51
Vast Boundless Space with a Dynamic Sensation

The Galle Face Green, take different looks in different times of the day. In the dawn it gets a dynamic characteristic. People come there for fresh air, exercises like jogging and so forth. When the sun sets the place is getting romantic and the sky is

getting red with warm breeze. This is the time of the day various types of people flock there. Lovers, parents with kids , venders can be seen. Venders sell various types of sweets and spicy fast food. Ice cream and mobile fast food vehicles are parked along the Galle face Central road. These things create a festive type scenery along the sea side of the road.



Fig.52
In the Evening, It creates a Festive Quality with different kind of users.



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Fig.53
The Line of trees provide Shade for the Users

As aforesaid the Galle Face Central road is entitled to a festive, dynamic character from one side. From the other side the buildings like Taj Samudra hotel , Old Parliament building creates a dominant prestigious character to the street.

Therefore there are two distinct characters on either side of the street. These are two contrasting social conditions on either side.



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York street stretches in North South direction, beginning from the Echelon Square end. Canal row, Hospital Street, Chatham Street, Mudalige Mawatha and Sir Baron Jayathilake Mawatha meet the York street consecutively from its beginning. It ends up at the junction made with Church street focusing the Ports Authority building on Northern end. Therefore York street is a major public way, which open at both ends.

York Street is one such a street which has a large influence by the history. The architectural quality and the character of buildings in York street are greatly determined by the history. That is the history of the Colonial occupation on the country.

During the Colonial era, the York street is highly used for commercial activities. Presently also the Departmental stores, Bank buildings, Hotels are confirming the high commercial usage in the street.

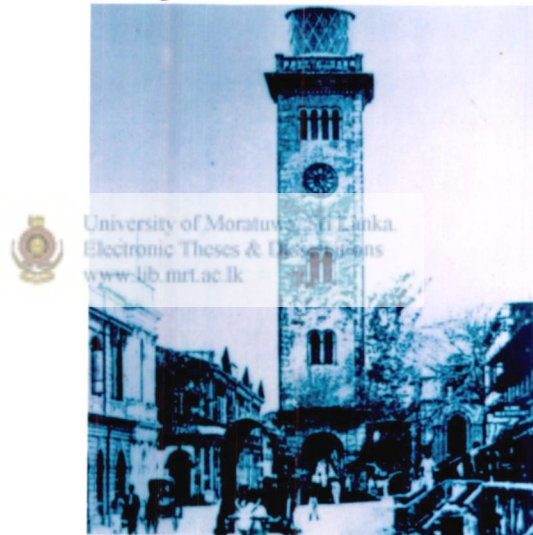


Fig.55
York street, Colombo, at the beginning of the Century.

Consideration of the Activity Pattern of the Streetscape.

As mentioned above York street is a commercialized streetscape. As many offices including banks are situated along the street, it gets crowded during the day – specially at the beginning and end of office hours and also during lunch time. During lunch time the office workers use to rush to Chatham street, where they can shop mainly from shops on the pavements. Banks too draw heavy crowd during banking hours.

The York street is isolated in the evening after office hours. Therefore if it gets pedestrianised in the evening it would create a more relaxed and lively urban place, that would further enhance greatly the existing grand character.

People who come from their work, park their vehicles along the roadside and this has become a major problem in this street. This blocks the flow of vehicles along the street and makes a traffic congestion. And also these parking vehicles cover the pavement, blocking the pedestrians way. In this particular situation, in some places the pedestrians are forced to use the arcaded walks along the York street.

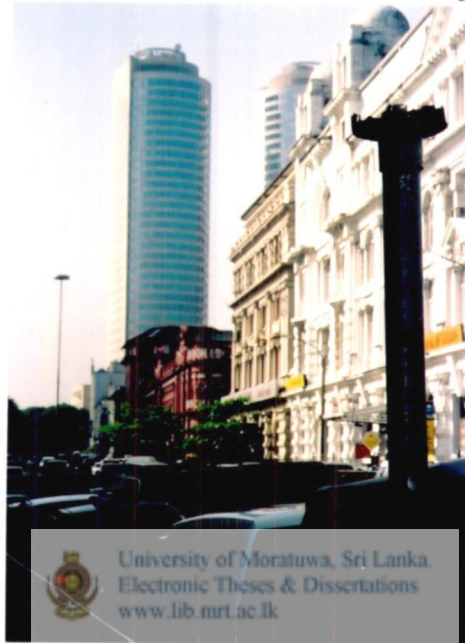


Fig.56
Vehicles are parked blocking the Pedestrian's way.



Fig.57
Arcades are created from the building itself to avoid Congestion.

York street has two intersections with Chatham street and Sir Baron Jayatilake Mawatha, which provides connections to Janadhipathi mawatha that leads to Janadhipathi mandiraya. Therefore there are two security zones at the two intersections.



Fig.58
Security Barriers Blocking the Way

York street in front of Cargills and millers building, has the strongest manifestation of the grand character. In this particular segment the detailed and colorful facades at the buildings render more cheerfulness to the existing grand, prestigious character of the streetscape.

Historically the Pettah area was used as the commercial and the transportation centre of the Colombo city and of the country. The streets in Pettah were not designed for automobiles, so there were narrow. Since the commercial activities of that time were not of more developed as of today, the plots given to shops and residential units were much narrow and closely packed. Over the past years the low commercial activities of Pettah area have grown in to a massive scale and still remain as the commercial centre of the country. But street were not widened, plot still remain in the same sizes and building have gone up higher and automobiles have invaded the streets.



Fig.60
Pettah in the late 19th Century

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The space concern for the study, is the street of main street. The perpendicular roads from the Main street, to Olcott Mawatha. These narrow streets are not long streets, less than 1200' (400m) and a width of 20'(6m).



Fig.61
Towards Cross Streets from Olcott Mawatha

This could be recognized as a place which is extremely socially vibrant. This sketch of streets function not only as a transport link, but mainly as a service area to the city. It accommodates a certain type of shopping activities. It is the market for wholesale as well as retail goods.



Fig.62

The cross streets are known as a center for buying and selling goods and for whole sale goods for vendors who come from outstation and wide range of consumer goods to customers.

Consideration of the Activity Pattern of the Streetscape.



Every day there is the rhythm on this street.

In the dawn the sounds and activities are generated by the market. The opening noises are from the stalls that are setup every morning. Loading and unloading goods from lorries carts are carried out here and there. Vendors who come at the mid night, from out stations, leave the place with loaded lorries.

Begging with the day time, diverse groups get together for their needs. It is flow of people, no half can be seen any time at the day. Most of the people who come here are middle class and low income group. They come in search of quality goods for low prices comparing to the real market prices.

At noon heat and congestion are oppressive.



Fig.63
The streets are chocked by vehicles and people with various activities.

Temporarily venders who sell candies, toys, electric gadgets etc. blocking the way of pedestrians.

The vehicles blaze with smoke and dust. There are blockers who act as transit persons between venders and customers, as well they make aware customers about the selling goods considering layout of these cross streets, it facilitate the user entering each street easily. Because the five cross streets are connected to the Main street as well as to the Olcott Mawatha and there are Keyzer streets; provide the user easy accessibility. Therefore the physical layout of the streets, make easy for the activity pattern. The cross streets serve for the low commercial usage with low scale, closely packed buildings. Consequently the “tense” “dynamic” character has manifested within the streetscape.



Fig.64
Low scaled, Closely packed Shops along the Street.



Fig.65

Low scaled Commercial activities happening in the Day time.

3.3 Consider action of the Physical Layout of the Streetscape

Selected streetscapes would be considered under following factors,

- Whether the important places which related to the streetscape have actively treated as important.
- Whether the public places can easily be identified.
- Whether the important public buildings could be distinguish as against irrelevant private ones.
- Whether the buildings on either side of streetscape look alike or whether they are merely solid masses.
- The relationship of the elements of new buildings to the existing ones.
- Whether it is enclosed in plan form and the section.
- Can people form an accurate and clear image of the streetscape.

3.3.1 Galle Road at Kollupitiya

The understanding of the physical form might be based on the aesthetic level of the buildings on either side of the road. Physical environment of the street can be understood as 'Patterns of Places', in which 'Patterns of Events' happen connecting the physical and social component of the street into one concept.



Fig.66
The Patterns of the Places.

Considering the pattern of buildings along the Galle road from Katubedda the height of the buildings increase towards Kollupitiya.

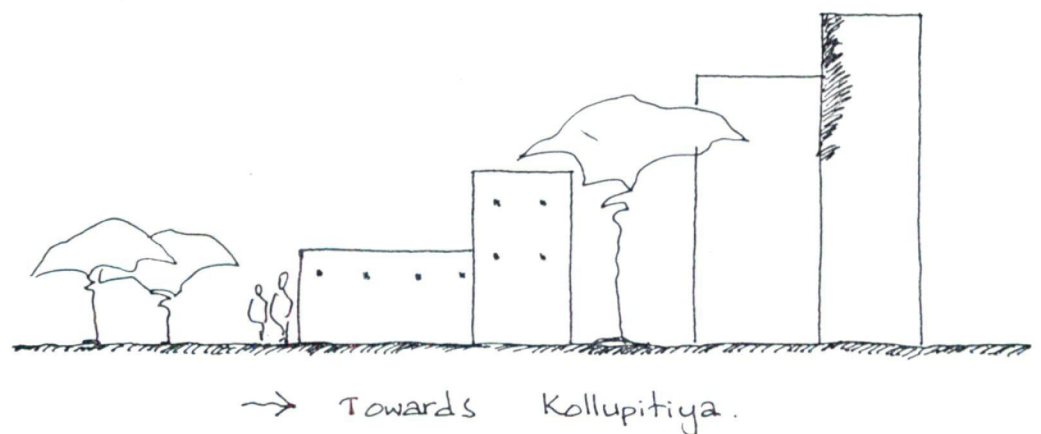


Fig.67
The Built Pattern of Galle Road towards Kollupitiya.



Fig.68

The Landmark tower is indeed actually a Landmark for Kollupitiya.

And so is the McDonalds building, which is more colorful and attractive. The shops along the pavement allow the pedestrian to poke the nose inside. In some places shops are located to the inner side from the street edge. Therefore it creates a gathering or parking place for the customers. At Kollupitiya most of the shops/buildings are opened and the related activities are happening inside them. These shops/buildings orientate the products for sale towards the pavement. Once these are located in one stretch with a variety of products and service, that stretch provide a unity, continuity, balance and therefore a harmony to the street. Some shops/buildings possess steps at the entrances, because the levels differ. When compared to shops/buildings at ground level, these provide less significant places along them.



Fig.69
A Stretch of Buildings in a Larger Scale.

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Like wise not only shops, a stretch of buildings in larger scale with similarities sometimes generate related 'events' or 'patterns of events'.

In some places they do not generate patterns along the street. In these instances the similar scale, similar physical appearance provide difficulties in identifying separate buildings, that even the routine user mention them as a stretch of large buildings.

The straight laid Galle road at Kollupitiya sector has a sophisticated character manifested through corridor like enclosure and with the mass of buildings as determined by the high commercial and diplomatic uses along the street. One will see the framed view of the mass of buildings of Fort at a distance but will not see the Galle Face Green.

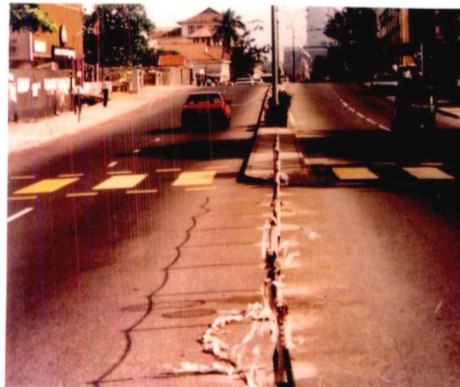


Fig.71

Framed view of Fort from Kollupitiya.

Along the Galle road towards Fort the street starts at the meeting point of Galle Face Hotel. The street suddenly enters and opens out into the massive pool of space of the Galle face Green Forecourt.



Fig.72

Galle Road corridor opens out to the Spacious Galle Face Green.



Fig.73

Galle Face Court and Galle face hotel give correct punctuation and enclosure to the transition.



Fig.74
The Massive Esplanade and Panoramic View of the Sea gives a Festive Character to the Street.



Fig.75
The Old Parliament Building gives a Dominant Quality.



Fig.76
Hotel Taj-Samudra – Stands up with its Grandness.



Fig.77
Galle Face Hotel- High Recreational use

3.3.3 York Street

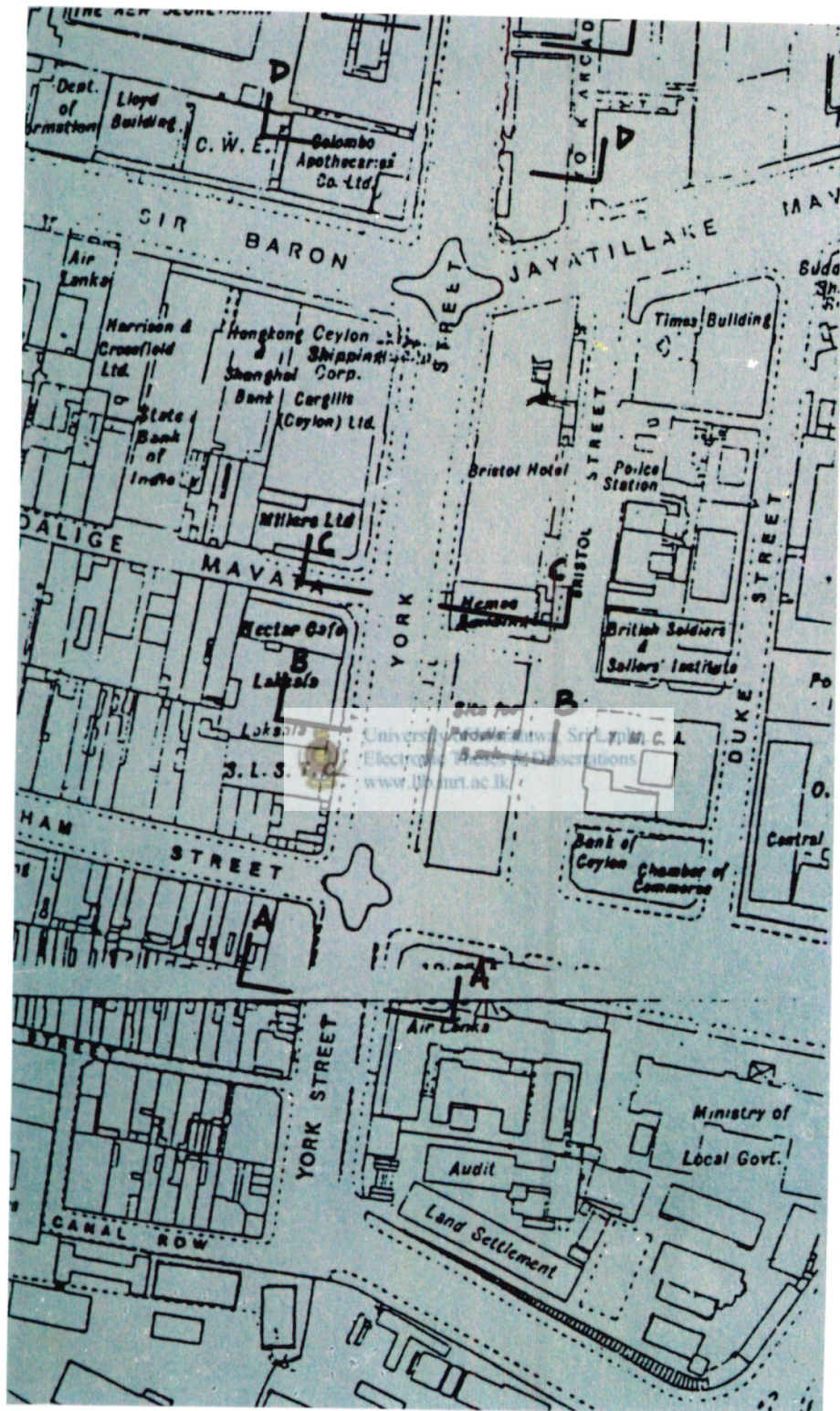


Fig.78
Map of Area

York street has two intersections with Chatham street and Sir Baron Jayatillake Mawatha. Therefore the street has three major segments. At the beginning it experiences an enclosed feeling. When going along at the second segment it feels free and open. Again the enclosed and protected feeling is strongly felt when going along the third segment. The feeling of continuous movement towards the end with the view of Ports Authority building can be experienced through out the street from the building.



Fig.79
View of York Street from Southern End



Fig.80
The York Street towards the end with the View of
Ports Authority Building.

Beginning from the Echelon square on South, it Stretches Towards the Ports Authority Building on Opposite End.

Continuity, proper sense of enclosure in some parts and directional quality with a definite beginning and end has created the York street as a good path. Large forms with arcades, the straight building line rhythmic details of facades generates this continuity. The long arcaded buildings and the continuous fenestration pattern create balance of vertical and horizontal rhythms. Coherence and a meaningful pattern to the street.



Fig.81
York Street as a Good Path.



Fig.82
The Colonial Building Facades of the West Elevation.

The buildings of Eastern elevation of the street mostly belong to the modern period or to the last two decades and do not contribute to the continuity of the street.

The Grindlays Bank building at the road insertion of the York street and Sir Baron Jayathilake Mawatha, expresses vertically from its monotonous building facade; although the building has horizontal proportions.



Fig.83
Stands with the Monotonous Building Façade

The slight variation of the building heights, corner treatments and some details as cornices break the monotony of the street. The Cargills and Millers building is the landmark building of the street. Fine details and color, enhances this quality.

Buildings on Western side which are linear in form, and bound to each other creating a continuous boundary thus providing enclosure to the street. Heights of these buildings are of two storied to four storied. That is proportionately appropriate when compared with the width of the road.

The second segment has lost the sense of enclosure because of the absence of buildings to form a boundary on Eastern side, while the width of the street also increases. Although the height of the buildings on the Western side are appropriate to provide enclosure to the street with the continuous sky line they form, openness on the opposite side weakens the degree of enclosure.

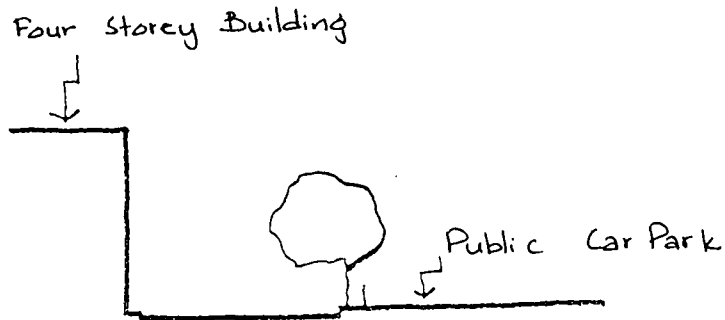


Fig.84
 Section A – A (First Segment of York Street)
 The trees of Eastern Side of the Street, contribute to provide the enclosure.

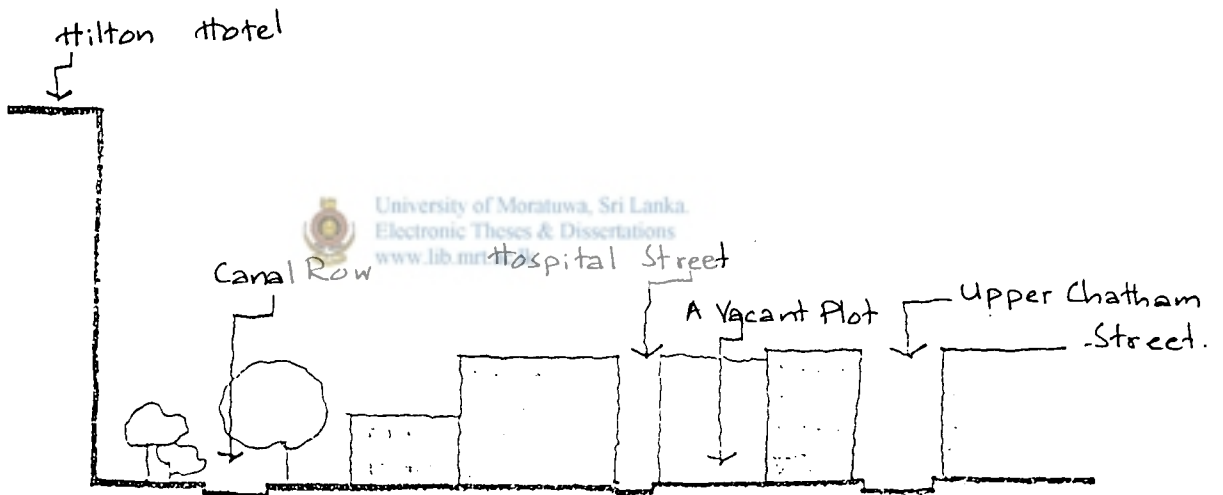


Fig.85
 Section B – B (First Segment of York Street)
 High-rise building on Echelon Square on Southern side contribute to provide enclosure.



3.3.4. The Cross Streets – Pettah

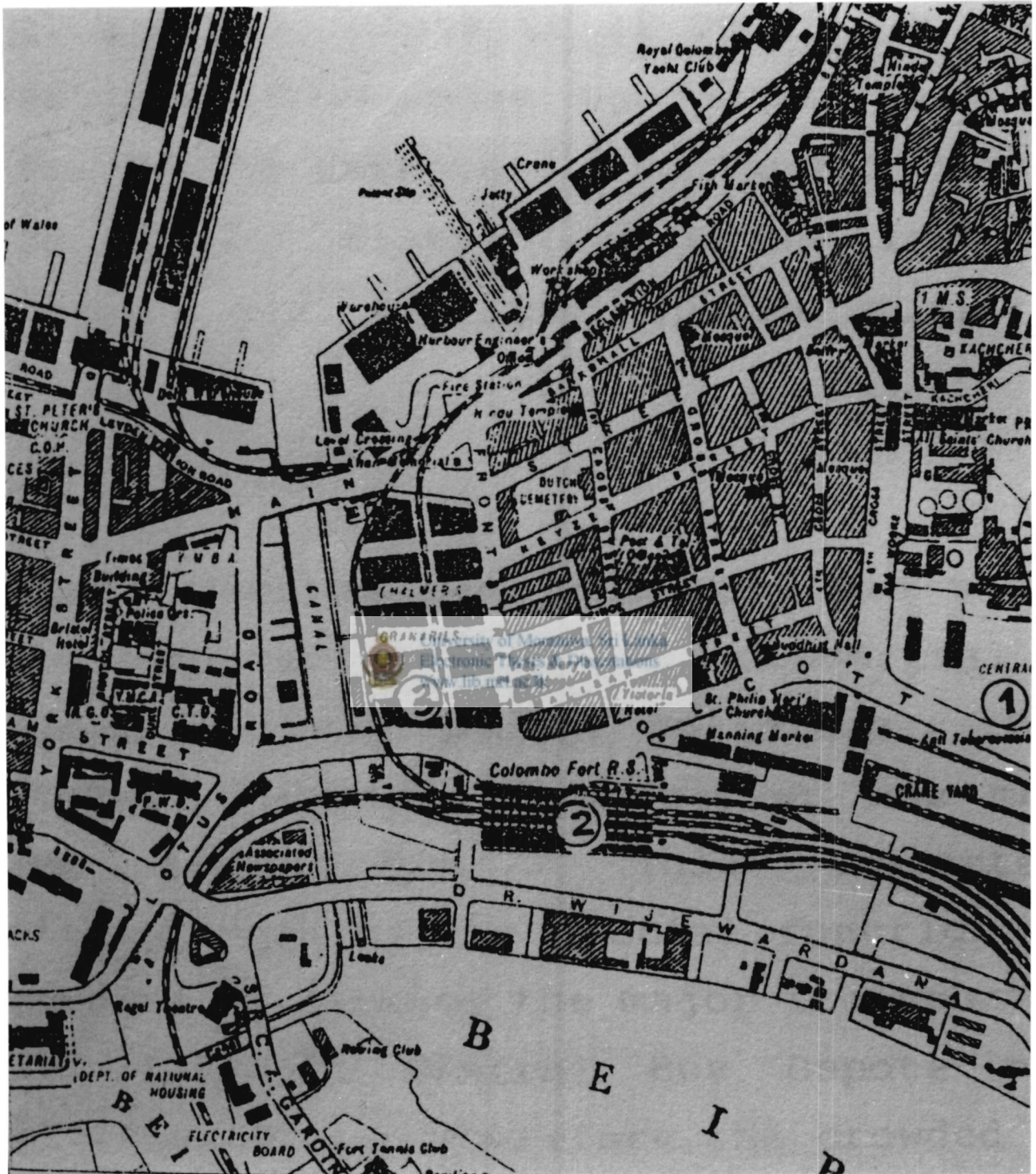


Fig.86
The Map of Area

When a person comes from Fort area along the Olcott Mawatha' he find his way to pettah cross streets, on to his left. First, second, third, fourth and fifth cross streets are linked between Olcott Mawatha and the main street, while Maliban street, and prince street and Keyzer street connecting those cross streets together. The first and second cross streets go beyond the Main street and meet N.H.M. Abdul Cader road and the third one, ends up at Prince street. There for all those streets get together and create a grid pattern.

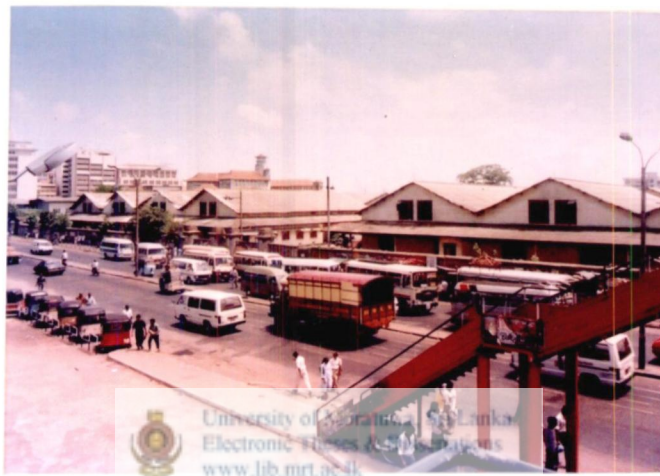


Fig.87

The statue at Col. Henry Olcott, is a meaning full landmark to Pettah, which is located in front of the Colombo Fort Railway Station

The Olcott Mawatha which mark the start or end of the five cross street. The Dutch museum is much outstanding with its Dutch influenced features. The church also shows the historical influences in Pettah. Since Pettah is highly commercialized from each day, it has used by Muslim traders. The two mosques; one is by the side of the upper 2nd cross street and the one by the side of the 3rd cross street, show this Muslim influence in Pettah.



Fig.88
The Dutch Museum with the colonnaded front.



Fig.89
The Mosque at Upper Second Cross Street

The streets are relatively narrow, and has about it a certain sense of crowded, determined largely as a result of its tightness, its relatively tall buildings and an inability to see from one end to another.



Fig.90
Narrowness and Enclosure bring a feeling of intimacy.

The buildings on either side are unremarkable, but they make their presence felt: Solid structures at mostly two to three stories define the pathway at each street.

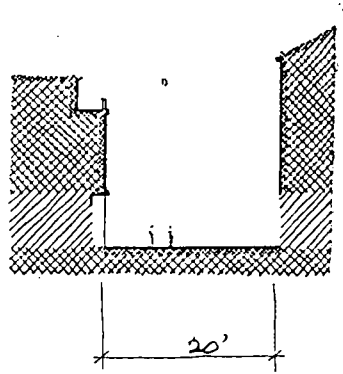


Fig.91

A section across a cross streets showings the relationship between height of the buildings and width of the street.



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CONCLUSION



Conclusion

This study has been done to examine how the Architectural composition of the streetscape relate with its legibility of the urban space.

“Urban space” has been defined in different ways by various academics, one definition is “Urban space is the result of a process carried out space and time molded by topography, form, function, memory and history coagulated into a whole which is greater than some of its parts, and which is unequivocally characterized by a collective dimension.”

(Ponis, A. 1985: 223)

The essence of all the definitions state that, urban space consists mainly of a physical setting which facilitates a large segment of people and their activities conjuring different meanings.

The street is a part of an urban texture and a space lined with buildings, on either side. Due to the high density and height of the built environment and inter relationship of the flanking buildings the street can be perceived as an enclosed space, where the sky acts as a perceptual ceiling to the street. The skyline and the building line are important factors that determine the sense of enclosure of a street. Since urban streetscape is also a perceptible enclosed space, it would be an Architectural space could be studied by studying urban streetscape. Thus an urban streetscape is determined by the masses and the volume of flanking building.

Streets are more than linear physical spaces that permit people and goods to move from here and there. Streets moderate the form and structure and comfort of urban communities. Streets are what constitute the outside for many urbanites places to be when they are not indoors. Streets are also places of social and commercial encounter and exchange.

There is a particular rhythm for the street, which is based on the uses of that street. Other than the usage, a streetscape can be determined by its context. Therefore the people of cities understand the symbolic, ceremonial, social and political roles of streets, not just those at movement and access.

A well composed street with more legible urban spaces; is the final, highest target. There for building and streetscape to be beautiful should necessarily fulfill a certain number of requirements. One such requirement is that it should be composed well. A well-composed streetscape is a creation, which comes as a result of integration of several other aspects; such as unity and contrasting elements, contrasting form and masses. When it comes to legible urban spaces, that is the quality which makes the urban space, graspable. Legibility is important at two levels; physical form and the activity pattern. Urban spaces, which relate the streetscape, may be read at either level separately. For example, it is possible to develop to clear sense of the physical form, perhaps enjoying it only at an aesthetic level. Equally, patterns of use may be grasped without much concern with form. But to use a place's potential to the full, awareness of physical form and patterns of use must complement one another.

Therefore a well-composed, more legible urban streetscape should be a most desirable place to be; to spend time that it markedly contributes as settings for activities that bring people together.

The street might be cooler, shadier and therefore more pleasant to be at. It should not provoke a sense of confinement.



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Therefore the best streets encourage participation. People stop to talk or may be they sit and watch. Also the best streets those that can be remembered and easily graspable. In this study streets are selected on a certain basis within the Colombo Metropolitan Region.

While giving much concern on the above factors, the city of Colombo as well as other main cities in urban areas in the country can be brought up to be a better urban place with a better physical, social and psychological images in urban streets.

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