



**DISCOURSES OF
LIVING ARCHITECTURAL SPACE:
CASE STUDY : TRINCOMALEE**

A Dissertation Presented
to the Dept. of Architecture
University of Moratuwa
For the Final Examination
In M.Sc. (Architecture)

A.M.S:P. Athauda
Dept. of Architecture
University of Moratuwa

2007

89492



Abstract


The study focuses on the existing physical context of the Trincomalee city. The historical background and the strategies that can be used in its conservation process is discussed. Being a living city reuse of buildings is a common fact, yet with lack of knowledge on its significance no proper conservation strategy can be followed.

The authorities and institutions which are responsible for formulating of development plans for the urban settings should identify the values assigned for age old public built structures and their environments in doing so.

City of Trincomalee as a historic city formed by the coloniels is losing its significance due to many reasons. Study reveals the importance of its physical context and suggests methods to protect it as a heritage.

ACKNOWLEDGMENT

Many people helped me to make this Dissertation a reality. I humbly pay my tribute to.

- Prof. Samitha Manawadu, Head of the Department of Architecture, University of Moratuwa for the inspiration and valuable guidance.
- Dr. Harsha Munasinghe, Senior Lecturer, Department of Architecture University of Moratuwa as a supervisor for his valuable assistance and guidance in the preparation of this dissertation.
- Dr. Upendra Rajapakse, senior Lecturer, Dept. of Architecture, university of Moratuwa for his advice, comments and constant encouragement.
- Archt. Prasanna Silva Additional Director General, UDA for the interest taken and the valuable comments.
- Leut.  Commander H.C.L. Caldera providing valuable information regarding Trincoamlee and the Navy Base.
- Capt. Millavana for, allowing me to collect information and to photographs within the high security zone in Fort Frederick and providing an army Assistant to escort me with in the Fort Frederick.
- Mr. K.G. Leelanda G.A. Trincomalee for giving me permission to collect information and to take photographs where necessary in Trincomalee study area.
- Archt. L.T. Kiringoda, of UDA his invaluable advice rendered at the preparatory stages.
- Mr. L.H. Indrasiri, Director (GIS) in magnanimous help in electronic media.
- My friends Mr. Nishantha (Q.S.) Ekanayake (Soori), Ranga, Suresh.
- My friend Ms. Lakma for editing the research documents.

- My friends Ms. Chandrika of National Archives, Mr. Kumara, Mr. Puwanasinham of UDA Trincomalee Office for helping me in various manner.
- My office mates Pramila, Supuli, Menuka for providing valuable assistance in typing.
- Mr. W.M.Upali Somasiri provided stupendous job in finalizing and composing in the electronic media.
- My gratitude goes to my employer, the former chairman of the Urban Development Authority, Mr. D. S. Jayaweera for granting me study leave so as to complete this study.
- My special thanks goes to my Father, Mother, Sister and Brother, my wife Rathnamalee and my children Dhanodya and Dhananja, for being patient, understanding and supportive, and allowing me to work consistently to complete my studies. I also convey my thanks to my in laws for their continuous encouragement and support.



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

List of Maps

	Page No.
Map (1) Plan of the fort and situation of Trincomalee (Prepared by the Dutch in 1770)	25
Map (2) Trincomalee Bay (COTTIAR BAY)	27
Map (3) Trincomalee District	36

List of Plans

	Page No.
Plan (1) Fort Frederick, Dutch plan in 1787	37
Plan (2) Plan of Fort at Pagoda Hill-Trincomalee (Now Fort Frederick)	38
Plan (3) French proposal plan of Fort Frederick in 1787	44
Plan (4) Plan of Fort Ostenburg at Ostenburg point.	67



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

List of Annexures

(End Pages)

Annexure (1) Map of the town of Trincomalee prepared in 1914

Source: National Archives

Annexure (2) City Guide map

Source: Dept. of survey

Annexure (3) Location Map of Trincomalee District

Source: U.D.A.

Annexure (4) Identified Developing City Centres of present Trincomalee Town

Annexure (5) City of Trincomalee (Town Area) Satellite image in 2005.

List of Figures

CHAPTER ONE

Page No.

Fig: (01)	Architecture – a medium through which the awareness of both space and time.....	4
Fig: (02)	Part of Plan of Mohenjo-daro 3000 B.C.	6
Fig: (03)	Location of some ancient cities	8
Fig: (04 a), (04 b)	The old stores converted into town houses in a Conservation Programme of city in New York	17
Fig: (05)	A new addition while Preserving the historic monumental building for its reuse	17
Fig: (06)	Warsaw	18
Fig: (07)	Bologna	19
Fig: (08)	Types of conservation (Townscape rehabilitation)	19
Fig: (09)	Restored interior of the South East tower of Diocletian's palace	20
Fig: (10)	Plaka, an old sector of the city of Athens	20

CHAPTER TWO

Fig: (11)	The Tamarind tree, where Robert Knox (Senior) was resting	23
Fig: (12)	Clock Tower of Trincomalee	28
Fig: (13)	Bus Terminal, Trincomalee	28
Fig: (14)	Guest House close to the Trincomalee Clock Tower	28
Fig: (15)	Back Bay sailing ship Harbour	29
Fig: (16)	Naval Commissioner's House in 2006	31
Fig: (17)	Naval Commissioner's House in 1906	31
Fig: (18)	Renovated old House at Hospital road, Trincomalee, in 2006	32
Fig: (19)	Same House in 1980	32
Fig: (20)	Renovated building as a House at Hospital road, Trincomalee, in 2006	32

Fig: (21)	Same Building in 1980's	32
Fig: (22)	Old House at Identified Historical Residential zone, Trincomalee	33
Fig: (23)	Another Old House at Identified Historical Residential zone, Trincomalee	33
Fig: (24)	Deteriorating Old House at Identified Residential zone, Trincomalee	33

CHAPTER THREE

Fig: (25)	Fort Frederick from the Back Bay Beach	38
Fig: (26)	Fort Frederick from the North West side	38
Fig: (27)	Perspective view of Fort Frederick	39
Fig: (28)	Ground Plan of Fort Frederick	39
Fig: (29)	Zeeburg Bastion	40
Fig: (30)	Photo taken from top of the Zeeburg Bastion towards the rear of the Fort	40
Fig: (31)	Amsterdam Bastion	41
Fig: (32)	Enkhuizen Bastion	41
Fig: (33)	Amsterdam and Enkhuizen Bastions, facing Dutch Bay	41
Fig: (34)	Holland Bastions, extending down to the water	42
Fig: (35)	Enkhuizen Bastions extending down to the water	42
Fig: (36)	Bell Arch on Fort Frederick, in 1984	42
Fig: (37)	Gateway, Fort Frederick in 1984	42
Fig: (38)	Old Mortars in the fore ground of the Fort Frederick	43
Fig: (39)	East end of the South front of the Fort Frederick, in 1984	43
Fig: (40)	Gateway, Fort Frederick	45
Fig: (41)	Stone carved crest of "Double Pandyan Fish" in the Gateway door jamb	45
Fig: (42)	The right door jamb of the Gateway with the stone carved crest	45

Fig: (43)	The road towards the Fort Frederick	46
Fig: (44)	The road running through the Fort Frederick	46
Fig: (45)	Wooden Plaque inside the Gateway	46
Fig: (46)	Thick double wooden shash in the rear of the Gateway	46
Fig: (47)	Bell Arch on rear of the Gateway showing the year 1676	47
Fig: (48)	The road inside the Fort Frederick	47
Fig: (49)	Shady road running towards the rocky promontory "Sami Rock"	47
Fig: (50)	Rooms in the Fort Frederick Bastions of the Fort which were use for military purposes in dilapidated condition	48
Fig: (51)	Old building which belongs to colonial period, now using for soldiers mess	48
Fig: (52)	The Buddhist Temple at the Fort Frederick	48
Fig: (53)	A closer view of the Buddhist Temple	49
Fig: (54)	Renovated building used for military office	49
Fig: (55)	Old building used for military purposes which dilapidated	49
Fig: (56)	Old colonial building, now occupied by the military officers	50
Fig: (57)	Same building in another angle	50
Fig: (58)	Details of the column in the above building	50
Fig: (59)	Wellington House, The Residence of Colonel Wellesley	51
Fig: (60)	Garden at the edge of the sea waters: And Enkhuizen Bastion at the rear, providing security	51
Fig: (61)	Wellington Garden, At present used by the military officers of the Fort Frederick	52
Fig: (62)	Eastern sea through the Wellington Garden	52
Fig: (63)	Present day parking space for Wellington House, left to the tree the Enkhuizen Bastion	52

Fig: (64)	Greenery which provides shades to the open spaces of the Fort Frederick	53
Fig: (65)	Open spaces which are not maintained	53
Fig: (66)	A Long Hospital Building having two middle courtyards	54
Fig: (67)	Special ventilation detail at the same Hospital Building	54
Fig: (68)	Separate building which catered Hospital purposes, now it is occupied by the Army	54
Fig: (69)	Government Agent's Office	55
Fig: (70)	District Ministry Building	55
Fig: (71)	An Alien new Building, in front of G.A.'s office within the Administrative Centre	55
Fig: (72)	A small Burial Ground of Fort Frederick	56
Fig: (73)	Logos of Grave Stones	56
Fig: (74)	Gun Emplacement for Eastern sea and Dutch Bay	57
Fig: (75)	Vents of same Gun Emplacement	57
Fig: (76)	The clay tube of the vent which run down to the underground room	57
Fig: (77)	A Residential Building of Fort Frederick which belongs to British period	58
Fig: (78)	Another Colonial Residential Building	58
Fig: (79)	Trincomalee District Elections Office at Fort Frederick	58
Fig: (80)	Colonial Period Residential Building Located closed to the present day Elections Office:	59
Fig: (81)	Verandah of above said Building	59
Fig: (82)	Former Army Barracks of Fort Frederick	59
Fig: (83)	Another Army Barracks Building at the same line	60
Fig: (84)	Renovated Building in 2005 by Dept. of Archaeology. (The Renovation finished as a Church)	60
Fig: (85)	A large cannon emplacement at Fort Frederick	60

Fig: (86)	Former Artillery Barracks	61
Fig: (87)	The largest Gun Emplacement in the highest elevation in the Fort Frederick	61
Fig: (88)	British Period security point Located in the highest elevation of Pagoda Hill in the Fort Frederick	61
Fig: (89)	Present Telecommunication towers of Fort Frederick	62
Fig: (90)	Carved stone pillar which belongs to "Pallawa Tradition" on the rock summit of Konezer Kovil	62
Fig: (91)	Konezer Kovil at Fort Frederick	62
Fig: (92)	Closer view of the Koneswaram (Konezer) Kovil	63
Fig: (93)	Koneswaram Kovil located in a rock promontory called "Sami Rock"	63
Fig: (94)	Unsuitable construction, as per the Architectural point of view, and unauthorized construction despite the antiquities ordinance	63
Fig: (95)	The fisherman smash coconut upon this rock before they go out fishing	64
Fig: (96)	The devotees make vows for their day to day life in this precipitous spot	64
Fig: (97)	Fishing boats too come to smash coconuts	64
Fig: (98)	Childless mothers making vows, hanging small cradles above the Koneswaram precipice	64
Fig: (99)	Steps running down to the last British Gun point at the end of the "Sami Rock" precipice	65
Fig: (100)	The compiler at the last British Gun point	65
Fig: (101)	Uncommon shaped rocks situated at the end of "Sami Rock" precipice	65
Fig: (102)	Location of the Fort Ostenburg	67
Fig: (103)	A painting of Fort Ostenburg, in 1800 A.D.	68
Fig: (104)	A painting of Fort Ostenburg	70
Fig: (105)	Trincomalee bus terminal	72
Fig:(105/1)	Trincomalee urban council	72

Fig: (106)	Oil storage tanks of Trincomalee	75
Fig: (107)	Large Maidan	77
Fig: (108)	Large Maidan- a closer view	77
Fig: (109)	Small Maidan	78
Fig: (110)	Fort Frederick at the North end of the Dutch Bay Beach	79
Fig: (111)	G.A.'s Bungalow which is situated on the Dutch point can be seen far end at the sea	79
Fig: (112)	Fort Frederick road at the West side of the Dutch Bay Beach	80
Fig: (113)	Dutch Bay Beach and the ground in the evening	80
Fig: (114)	Dutch Bay Beach in the evening	80
Fig: (115)	Dutch Bay Beach and the ground in the noon	81
Fig: (116)	Bus terminal at Trincomalee	82
Fig: (117)	Trincomalee clock tower	83
Fig: (118)	Old Rest House	83
Fig: (119)	Old House at Dyke street Trincomalee	85
Fig: (120)	Shop House at Bylane of Trincomalee	85
Fig: (121)	Old House at Identified Residential zone at Trincomalee	86
Fig: (122)	Recently constructed House at Trincomalee	86
Fig: (123)	House at Trincomalee, Hindu characteristics can be observed	86
Fig: (124)	Old House at Trincomalee	87
Fig: (125)	Closer view of the same House	87
Fig: (126)	Front verandah of the same House	87
Fig: (127)	G.A's Office	88
Fig: (128)	The Bell, captured in the siege of Rangoon in 1852	91
Fig: (129)	Admiralty House southern side	92
Fig: (130)	Admiralty House, ground floor, main entrance	92
Fig: (131)	Entrance to Admiralty House	93
Fig: (132)	Admiralty House at Navy Base, Trincomalee, in 1980's	94

Fig: (133)	Admiralty House (back view) in 1916	95
Fig: (134)	Admiralty House in 1827	95
Fig: (135)	Naval Commissioner's House in 1906	103
Fig: (136)	Naval Commissioner's House in 1990, showing the damaged part	103
Fig: (137)	Naval Commissioner's House in 1990, showing another angle	104
Fig: (138)	Naval Commissioner's House in 2006	105
Fig: (139)	Unusual Technology	106
Fig: (140)	Another unusual Technology	106
Fig: (141)	Deteriorating Naval Commissioner's House	106
Fig: (142)	Trees had grown within the Naval Commissioner's House	107
Fig: (143)	Naval Commissioner's House, from another angle	107
Fig: (144)	Naval Commissioner's House severely deteriorating	107
Fig: (145)	Connecting Timber and Concrete Beams	109
Fig: (146)	Museum Building located at inner harbour road	114
Fig: (147)	Museum Building in another angle	114
Fig: (148)	Museum Building is thatched with calicut tiles and half round tiles	115
Fig: (149)	The long Hospital Building having two middle courtyards	124
Fig: (150)	The same Building from another angle	124
Fig: (151)	Special ventilation detail at roof of the same Hospital Building	124
Fig: (152)	Special ventilation detail, view from the bottom	125
Fig: (153)	Details of the column Head	125
Fig: (154)	Separated Building which catered for Hospital purposes	125
Fig: (155)	The Garrison church after restoring	132
Fig: (156)	Same Building from the sea side	132

The study

Although apparently detached from the way of life, people in every modern nation continue to associate themselves with their past. Among the very many methods and attributes which enable us to understand the past, perhaps the single most important attribute of a civilization is its built heritage. It was the monuments of Indus Maya and Inca civilizations that moved the world first and enabled the understanding of the different characteristics of those societies long after their dealing.

In this sense, the contribution of a city to the growth of civilization both as a social and physical entity is particularly significant. The cities which display various facets of this significance is quite important that diverse method and approaches have taken to safeguard and conserve its authenticity. Urban conservation as a built environment management strategy is able to facilitate a desirable symbiosis between man and environment and also capable of managing the changes of the urban setting

The age old buildings and settings are monuments which speaks about a countries history and some are assets being marvelous architectural edifices. Thus are protection worthy for the generations to come. Countries have evolved their own methods and also there are universal charters and guidelines for conserving and preserving the protection worthy old buildings and settings.

In Sri Lanka several cities have recognized as conserved areas and some are listed as heritage cities. Sri Lankans posses a glories historical past and a rich culture transforming from the past and evidently presented through the built environment of many a cities and towns. Also there are regions which are developed by colonials using the unique natural setting of the country.

Trincomalee is one such city developed basically for the military purposes specially on navigation using its natural bay as a harbor.

Civilization developed on the river banks as a water based settlement and later as a sea town with forts and ports.

The study deals with this significant city – Trincomalee presently affected by war and social unrest yet comprises of age old built spaces, many still in its original condition, some undergoing changes and others being reused for diverse activities. The study focuses its attention to the historical back ground, the physical context, the vitality of the existing built environment and the issues affecting on it.

Importance of the study

Buildings in a living city always tend to get used for some purpose. With the changing needs spatial needs also differ and reusing occurs. More often it is visible that on this process the built structures get mutilated by the user or it getting alienated by the people.

In the city of Trincomalee this situation is more aggravated as it is affected by war, military functions and security problems. Hence the age old physical context under going mutilation and destruction rapidly while its significance partly hidden from the rest of the nation.

It is high time to identify the values and importance of the built environment and formulate measures to preserve it in the city of Trincomalee.

Intention of the study

Physical setting of Trincomalee city has under gone changes from the days of early settlements up to date along with time and is further

facing changes due to the threat of war, the governing system and the city life accordingly.

The intention of the study is to discuss about the significance of the physical context, the architectural impact and it's value as a heritage site and also the present condition of them.

The study will reveal the causes which affects the architectural discourse and provides suggestions for its protection with the use of scholarly measures on conservation point of view.

In finding information it revealed that no systematic study has carried out during the recent past and only a few documented information are available on the physical context of the Trincomalee city.

This study intends to present the contemporary situation of the built fabric of Trincomalee city along with it's historical background. Also it is to be a description as well as an analysis of the city with photographic presentations highlighting its potentials and the threats. .

Method of study



University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations

www.lib.mrt.ac.lk

In order to achieve the above intention this study follows a case study method.

In the first chapter it discusses the phenomena of change and the spatial needs on changing demands. The architectural implications of change and the strategies of using the existing physical context specially those which proclaim some significance.

The second chapter is to describe the history of the Trincomalee city and to highlight it as a city which speaks its significance through the existing physical context. The changing form of the city is discussed from the early settlements up to the situation prevailing there today.

The third chapter is an attempt to describe the architectural discourse -the major elements in the urban landscape of the city and its present atmosphere .

Chapter four presents a description and an analytical study of five major significant buildings in the existing built fabric of the Trincomalee city. It also contains the impacts of existing heritage protection acts and conservation strategies on these buildings which are protection worthy under heritage acts.

The case study was carried out in the "Fort Frederic" and Trincomalee city centre where the city life has drastically changed due to the threat of war. The affected built fabric and the need for special consideration to upkeep the age old historic monuments and its landscape is further pointed out.

Research was carried out by referring the documents available. The back ground knowledge gained and the information collected on literary data were further studied by visiting the Trincomalee city, the 'Fort Fredric' and the outer region obtaining special permission from the relevant authorities and military officials. Data collected from the Urban Development authority and the interviews and discussions held with city people and naval officers were incorporated in examining the theme of the study.

CONTENTS

ACKNOWLEDGEMENT	i
LIST OF MAPS	iii
LIST OF PLANS	iii
LIST OF ANNEXURES	iii
LIST OF FIGURES	iv
ABSTRACT	xi
INTRODUCTION	xii
CHAPTER ONE	
1. CONTNUITY AND CHAGES IN THE DEVELOPMENT	1
1.1. Change as a natural phenomena	2
1.2. The Architectural implication of change & the need for continuity	3
1.3. Change & the need for conservation	6
1.3.1. Conserving symbolic remains of past as a heritage	6
1.3.2. Awareness of Urban heritage	7
1.4. Approaches on developing urban heritage	9
1.4.1. Views & definitions	9
1.4.2. Urban Conservation approaches	13
1.5. Reuse of monuments buildings and settings	14
CHAPTER TWO	
2. TRANSFORMATION OF THE HISTORIC CITY OF TRINCOMALEE	21
2.1. Changing form of the city of Trincomalee	22
2.1.1. Early settlements in Kottiar	22
2.1.2. Early settlements in Trincomalee city	24
2.1.3. Colonial settlements in Trincomalee city	27

CHAPTER THREE

3. MAJOUR ELEMENTS IN URBAN LANDSCAPE	34
3.1. Forts of Trincomalee	35
3.1.1. Fort Frederick	36
3.1.1.1. Exterior of the fort	36
3.1.1.2. Interior of the fort	45
3.1.2. Fort Ostenburg	66
3.2. Trincomalee Ports and Harbour	71
3.2.1. Ancient Ports	71
3.2.2. Present Harbour	73
3.3. Open Spaces of Trincomalee	76
3.3.1. Large Maidan	76
3.3.2. Small Maidan	78
3.3.3. Dutch bay beach	79
3.4. Identified Developing City Centres	82
3.4.1. Commercial Centre	82
3.4.2. Residential Centre	84
3.4.3. Administrative and Security Centre	88



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

CHAPTER FOUR

4. EXAMINATION OF ARCHITECTURAL HERITAGE OF TRINCOMALEE AND THEIR PREVALENT CONDITION	89
4.1 Admiralty House	90
4.1.1. History of the building	90
4.1.2. History of conservation of the building	97
4.1.3. Probable potentials of the building, SWOT Analysis	99
4.1.4. Impacts from existing heritage protection acts and conservation approaches on the building	101
4.2. Naval Commissioner's House	
4.2.1. History of the building	102
4.2.2. History of conservation of the building	105

4.2.3. Probable potentials of the building, SWOT Analysis	110
4.2.4. Impacts from existing heritage protection acts and conservation approaches on the building	112
4.3. Museum Building	
4.3.1. History of the building	113
4.3.2. History of conservation of the building	117
4.3.3. Probable potentials of the building, SWOT Analysis	119
4.3.4. Impacts from existing heritage protection acts and conservation approaches on the building	121
4.4. Former Hospital at Fort Frederick	
4.4.1. History of the building	122
4.4.2. History of conservation of the building	126
4.4.3. Probable potentials of the building, SWOT Analysis	127
4.4.4. Impacts from existing heritage protection acts and conservation approaches on the building	129
4.5. Former Church at Fort Frederick	
4.5.1. History of the building	130
4.5.2. History of conservation of the building	133
4.5.3. Probable potentials of the building, SWOT Analysis	134
4.5.4. Impacts from existing heritage protection acts and conservation approaches on the building	136
CONCLUSION	137
SOURCES AND BIBIOGRAPHY	140