

**UNDERUTILIZATION OF ARCHITECTURAL AMBIENCE
IN PLANNED TOWNSHIPS**
CRITICAL EXAMINATION OF CONTEMPORARY PLANNED TOWNS
OF SRI LANKA

A Dissertation

Submitted to the Department of Architecture of the
University of Moratuwa in partial fulfillment of the
Requirements for the degree of



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

Architecture

LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

72"04"
72(043)

By

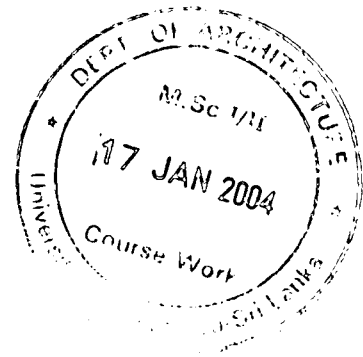
R. N. S. WICKREMARATNE

17TH JANUARY 2004

85454



University of Moratuwa



85454

85434

DECLARATION

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

UOM Verified Signature

.....

Student's Signature

(Name of student : R.N.S. Wickremaratne)



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

ACKNOWLEDGEMNT

During months spent on this study, many extended their unlimited support and corporation, which finally made this endeavor success. Hence, I would like to take this opportunity to thank those, whose contribution meant a great deal in presenting this dissertation.

I wish to express my gratitude to Architect Vidura Sri Nammuni, Head of the Department, Faculty of Architecture, for the kindness and guidance extended at the crucial stages of the study.

Architect Prasanna Kulathilake, Year Master and the Co-ordinator of the Study, and the Senior Lecturer, Dept. of Architecture, for his guidance, comments and encouragement.

Dr. Harsh Munasinghe, Senior Lecturer, Dept of Architecture, my supervisor, for his unlimited and invaluable patience, kindness, guidance, and also criticism extended throughout the study.

Director and the staff of Mahaweli Authority, for providing me the necessary information. Architect Karuna Thenuwara, and Architect Pranith for their guidance.

Architect Wasana Wijesinghe, Architect Thamal Udumulla, Architect Ananda Samarasignhe to whom I express my honor and gratitude for their incisive and invaluable comments and for supporting me giving the relevant particulars.

My colleagues and friends, Arunika, Hemal for spontaneous co-operation.

Finally to my family and Champika for all the support, courage, understanding and most of all the, love extended in my journey so far.

UNDERUTILIZATION OF ARCHITECTURAL AMBIENCE IN PLANNED TOWNSHIPS :
CRITICAL EXAMINATION OF CONTEMPORARY PLANNED TOWNS OF SRI LANKA

CONTENTS

	Page No.
Declaration	i
Acknowledgement	ii
List of Contents	iii
List of Illustrations	vii
Abstract	xi

INTRODUCTION



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

• Background to the Study - Observation	01
• Importance of the Study – Criticality	04
• Intention of the Study	05
• Objectives of the Study	06
• Scope and Limitations	07
• Methodology	08

CHAPTER ONE

1.0 ARCHITECTURAL AMBIENCE IN TOWNS	10
1.1 Architectural Ambience	10
1.2 Origin of Architectural Ambience	10
1.2.1 Constituents of Ambience	11
1.2.1.1 Spatial Form	11

1.2.1.2 Activity	16
1.2.2 Attributes of Ambience	18
1.2.2.1 Imagiability	18
1.2.2.2 Legibility	19
1.2.2.3 Permeability	24
1.3 Architectural Ambience as Character in Towns	28

CHAPTER TWO

2.0 TOWNS AND THEIR CONTRIBUTIONS TO ARCHITECTURAL AMBIENCE THROUGH PROCESS OF HUMAN HABITATION AND THE POTENTIAL OF THE TOWN CENTRE	29
2.1 Emergence of Towns	29
2.2 Essence of Town	30
2.3 Components of the Town	31
2.4 Originations of Town	32
2.4.1 Spontaneously Developed Towns	33
2.4.2 Planned Towns	34
2.5 Utilization of Townships and its Human Habitation	36
2.5.1 utilization of Townships	37
2.5.1.1 Locational Factor	37
2.5.1.2.Socio-Cultural Factor	39
2.5.1.3 Time Factor	40
2.5.2 Failure of Chandigarh and Brasilia	41
2.6 Town Centre and its Contribution to Architectural Ambience	44
2.6.1 Town Centre – Definition and its Importance	44

2.6.2	Town Centre as a Generator of Imaginability and Architectural Ambience	46
2.7	Settlements in Sri Lanka	47
2.7.1	Agro-based Rural Settlements	47
2.7.2	Village Centre	48

CHAPTER THREE

3.0 CONTEMPORARY PLANNED TOWNS IN SRI LANKA: CASE STUDY BASED ON SPATIAL ORGANIZATION AND USAGE

3.1	Contemporary Towns in Sri Lanka – Mahaweli Towns	50
3.1.1	Concept of Mahaweli Towns	52
3.1.2	The Town and the Town Centre	63
3.1.3	The Town Scale and Identity	63
3.2	Case studies based on Spatial Organization and usage	65
3.2.1	Dehiattakandiya	65
3.2.1.1	Spatial form of Dehiattakandiya Township	67
3.2.1.2	Approach to the Town Centre	67
3.2.1.3	The Town Centre	68
3.2.1.4	The Analysis	70
3.2.2	Girandurukotte	72
3.2.2.1	Spatial Form of Girandurukotte Township	73
3.2.2.2	Approach to the Town Centre	74
3.2.2.3	The Town Centre	75
3.2.2.4	The Analysis	75
3.2.3	Digana	79
3.2.3.1	Spatial Form of Digana Township	80
3.2.3.2	Approach to the Town Centre	81
3.2.3.3	The Town Centre	84

3.2.3.4 The Analysis	85
3.3 Analysis of Architectural Ambience in Selected Townships	87
CONCLUSION	92
BIBLIOGRAPHY	95



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

LIST OF ILLUSTRATIONS

Fig. No.		Page No.
1.	Configuration of Physical elements	12
2.	Vertical and Horizontal planes	14
3.	Vertical dimensions of a space	14
4.	Kansai International Airport	15
4.a	Changing scale and proportions	16
5.	Esala Perahara, Kandy	16
6.	A village Festival, Germany	17
7.	Legibility of the environment	19
8.	Public buildings	20
9.	-Do-	20
10.	The decreasing Legibility	21
11.	Map drawn by memory	22
12.	Elements of imagiability	22
13.	Legibility of environment	23
14.	Legibility of junctions	23
15.	A Radial Town	24
16.	Arc de Triomphe, Paris	24
17.	Permeability of the environment	25
18.	Lack of permeability	26
19.	Layouts and permeability	27
20.	-Do-	27
21.	Spontaneous development of a town	33
22.	Milton Keynes, England	35
23.	Topography as a determinant factor of settlements	38
24.	An Islamic settlement	39
25.	Hillside valley town, Germany	39

26.	Modern city	41
27.	Plan of Chandigarh	42
28.	Ministry building Chandigarh	42
29.	Plan of Brasilia	43
30.	Landscape of Brasilia	43
31.	Agro-based settlement patterns in Sri Lanka	47
32.	-Do-	47
33.	-Do-	47
34.	Mahaweli Urban Centres	51
34.a	Entrance to DigananTown	52
35.	Location plan, Dehiattakandiya	53
36.	Location plan, Digana	53
37.	Main Street, Dehiattakandiya	54
38.	Layout plan, Karaliyadda	55
39.	Main Street, Karaliyadda	56
40.	Cross Street, Karaliyadda	56
41.	Pedestrian path, Dehiattakandiya	57
42.	Pedestrian pat, Girandurukotte	57
43.	Haphazard growth of built fabric, Digana	59
44.	Central Bus Station, Digana	60
45.	Central Bus Station, Girandurukotte	60
46.	Central Bus Station, Dehiattakandiya	60
47.	Commercial buildings, Kundasala	62
48.	Commercial buildings, Karaliyadda	62
49.	Spatial organization, Dehiatakandiya	66
50.	Entrance to Dehiattakandiya	67
51.	Boulevard, Dehiattakandiya	68
52.	Shopping clusters, Dehiattakandiya	68
53.	Commercial cluster, Dehiattakandiya	69

54.	Central Square, Dehiattakandiya	69
55.	Clock tower, Dehiattakandiya	69
56.	Layout Plan, Girandurukotte	72
57.	Beginning of the boulevard	73
58.	Boulevard towards the end	73
59.	Market and central bus station	74
60.	Girandurukotte, town entrance	74
61.	The narrow town front, Girandurukotte	74
62.	The deserted Market, Girandurukotte	75
63.	Town Square, Girandurukotte	76
64.	The by-road and cross connections, Girandurukotte	77
65.	Plan of Girandurukotte and its neglected water bodies	78
66.	Layout plan, Digana	79
67.	Central bus station, Digana	80
68.	Section through the central bus station	81
69.	Entrance road to Digana	81
70.	-Do-	81
71.	Entrance roundabout, Digana	82
72.	Commercial buildings, Digana	82
73.	Intersection at Madawala Road	83
74.	Layout of roads, Digana	83
75.	Commercial buildings, Digana	83
76.	Commercial strip facing bus station	84
77.	The road intersection before bus station	84
78.	Mahiyangana Main road	85
79.	The new town Centre	86
80.	Commercial Buildings Digana	87
81.	Commercial buildings Girandurukotte	87
82.	Central bus station and the temple	88



83.	Central bus station, Dehiattakandiya	89
84.	Central bus station, Girandurukotte	89
85.	The roundabout of the south Square	90



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

ABSTRACT

Man's need to relate himself to familiar significant environments is deep rooted. It is with the familiarization that he gets attached to the physical environments that could be identified with the physical objects. Town represents man as a communal being while the home represents him as an individual. Thus, the town, as well as home should essentially possess the ability to initiate belongingness within its people.

But when towns are planned, a great tendency for the deep rooted psychological need of man for emotional attachment, sense of belonging are over looked, due to the more concentration been given on qualitative and practical issues of a town.

The Mahaweli planned towns came into being with the succession of the Mahaweli accelerated programme setting up examples for contemporary planned towns in Sri Lanka. These towns, which were expected to thrive and to reach its peak, are being depopulated day by day. The lack of presence of character and emotional attachment would be the possible cause for this phenomenon, which has resulted a great anxiety.

Incomplete