

LB/D.011/20/02

**AN EXAMINATION OF THE LIVABILITY IN HIGH-DENSITY
MULTI-STORY HOUSING, WITH SPECIAL REFERENCE TO
LUXURY APARTMENTS COMPLEXES.**



**A Dissertation Presented to the Faculty of Architecture
University of Moratuwa, Sri Lanka,
As a Part of the Final Examination in
M.Sc. (Architecture) and to the
Royal Institute of British Architects, for the
RIBA Part-11 Examination.**

**PWAH Wickramarathna
Faculty of Architecture
University of Moratuwa
Sri Lanka.
March 2002.**

University of Moratuwa



78192

78192

78192

ABSTRACT

With the technological advancement of mankind the world over, the severe constraints on the ever-depleting resources have contributed to man changing his lifestyle. His adaptation to this changing pattern of the environment requires an insight to reveal to what extent he can endure these constraints. In this context it is necessary to explore the most vulnerable group of the society, the upper income group, who has the means to obtain anything at any cost, compromise on this issue of luxurious living style.

Density is defined as mass over volume. Applying this formula to make life livable can lead to innumerable theories, which in actual terms can be extremely complicated. Deriving a conclusion is almost impossible. What are the parameters that can be formulated to comprehend a yardstick and finally say it as the ultimate? In order to come to a compromising conclusion we require to analyse some of the attributing factors such as the orientation, identity, individuality, privacy, territoriality, and sociability for an acceptable livability.

Work is completed



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

ACKNOWLEDGEMENT

I am extremely grateful to Dr. Samitha Manawadu, Senior Lecturer, Faculty of Architecture, University of Moratuwa, for instructions, guiding and encouragement given to me through out the course of study.

I owe a deep debt of gratitude to Lecturer Raween Gunawardana and Lecturer Waruna De Silva, for their resourceful discussion, advice and comments that aided both in the organizing and the structure of this study.

I am gratefully indebted to Architect Jayantha Domingo, Deputy General Manager, Special Projects, National Housing Development Authority, for continuous guidance and incisive comments directed many aspects of this study.

I am grateful to Mr. Cassierer and Architect Damayanthi Jagoda, Special Projects, National Housing Development Authority, for their valuable help in various ways and guided me from the very beginning and criticisms and observations.

Especially with heart felt gratitude to my Amma and Aiya, for their valuable guidance and encouragements in this effort.

Finally my thanks to Chandana (Kalu), for always there to carry the burden of my troubles and irritations in most of times and encouragements.

Hemamali Wickramarathna.

March 2002.

CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENT	iii
LIST OF ILLUSTRATIONS	iv
INTRODUCTIONS	1
▪ Background.	1
▪ Aims and Objectives.	2
▪ Limitations.	2
▪ Method of study.	3
CHAPTER ONE	
MAN, ENVIRONMENT AND LIVABILITY	4
1.1 The idea of livability.	4
1.2 Living in the environment.	5
1.3 Parameters of livability.	7
1.3.1 Space or location.	7
1.3.2 Culture and society.	8
1.3.3 Time.	8
1.4 Components of livability.	9
1.4.1 Quantitative attributes.	10
1.4.2 Qualitative attributes.	10
1.5 Livability and space.	11



CHAPTER TWO

DENSITY AS A PROBLEM	13
2.1 Density.	13
2.2 Density as a problem of livability.	13
2.3 Problems of high-rise and high-density living.	14
2.4 Factors leading to density.	15
2.4.1 Problem of land.	16
2.4.2 Increase of population.	16
2.4.3 Density and socio cultural background.	18
2.4.4 Political & economic background.	19
2.4.5 Technology and density	20
2.5 Types of density.	21
2.6 Density and crowding	22
2.7 Consequences of density	23
2.7.1 Psychological consequence.	24
2.7.2 Physiological consequence.	24
2.7.3 Sociological consequence.	25

CHAPTER THREE

HIGH DENSITY MULTI STOREY LIVING	26
3.1 Emergence of the multi storey living.	26
3.2. The apartment concept in global context.	26
3.3 Emergence of the apartment concept in Sri Lanka with reference to the city of Colombo	27
3.4 manifestation of the livability of home in multi- storey housing.	29
3.4.1 Orientation.	30
3.4.2 Identity.	33

3.4.3 Privacy.	36
3.4.4 Territoriality.	38
3.4.5 Sociability.	40

CHAPTER FOUR

CASE STUDIES 45

Case study one: Royal Park Condominium, Lake drive,
Rajagiriya. 46

Case study two: Queens Court Apartment, Queens road,
Colombo 03. 56

Case study three: Kanchajunga Apartment, Bombay 64

CONCLUSION. 70

BIBLIOGRAPHY. 71

LIST OF ILLUSTRATIONS

1. Housing as a landmark.	30
2. Difference in height contributes to identity.	31
3. A view from within gives orientation.	32
4. Directional views give sense of orientation.	32
5. Composition of the layout gives orientation to the complex.	33
6. Housing block similar to an office block.	34
7. Identifiable housing block.	34
8. Individuality expressed through the built form.	35
9. Lack of individuality.	35
10. Each projection proportioned as a golden rectangle.	35
11. Lack of privacy.	35
12. Lack of privacy.	36
13. Lack of privacy due to party walls.	37
14. Lack of privacy due to poor organization of spaces.	37
15. Privacy achieved through organization of adjacent spaces.	38
16. Territory defined by a building – within gap.	38
17. Territory defined by an entrance arch.	38
18. Territory defined by the composition of buildings.	39
19. Territory defined by a change in level; recessing the doorway, change in direction.	40
20. Roof terraces overlooking each other.	40
21. Balconies facing the common street encourages interaction.	40
22. Private balcony overlooking each other – reduces privacy.	41
23. A layout of housing blocks creating a no man's land.	42
24. Habitat in Montreal by moshe safdie.	42
25. MBF luxury housing tower Malaysia.	43
26. Basic principles of the design of the MBF tower.	43
27. Location map of royal park condominium.	46
28. Royal park apartment complex.	47
29. Layout plan – Royal Park.	48

30. Identifiable roof from of a traditional villa.	49
31. Proportion of a single unit	49
32. Part plan of a cluster of units.	50
33. Entrance gate to Royal Park.	50
34. View of entrance to the building.	51
35. Recreational spaces at ground level.	52
36. Part plan.	53
37. Recessed bay of corridor.	54
38. Recessed entrance of two units.	54
39. Floor plans.	55
40. Floor plans of penthouse suite.	55
41. Location map.	56
42. Layout of queens court complex.	57
43. Part plan of access corridor.	57
44. View of stairs with opening at the end.	58
45. View from the entrance hallway.	58
46. queens court residential complex, Moratuwa, Sri Lanka.	59
47. View of the bedroom window of the unit beyond.	60
48. Plan of individual unit.	60
49. Entrance to the complex.	61
50. Entrance territory of a unit.	62
51. Entrance of a unit.	62
52. View from the living area.	63
53. Kanchanjunga apartments.	64
54. Verandah to protect living areas.	65
55. Roof terrace with a magnificent view.	66
56. Enclosure suggests individual units.	66
57. Plan of the single floor.	67
58. Part plan of typical floor.	68
59. Typical section of an apartment.	68
60. An outdoor space.	69