PROCESS OF USER ADAPTATIONS OF ARCHITECT - DESIGNED HOUSES IN LARGE - SCALE HOUSING SITUATIONS

A DISSERTATION
PRESENTED TO THE FACULTY OF ARCHITECTURE,
UNIVERSITY OF MORATUWA, SRI LANKA
FOR THE FINAL EXAMINATION IN
M.Sc IN ARCHITECTURE & TO THE
ROYAL INSTITUTE OF BRITISH ARCHITECTURE

R. I. B. A. (PART II) EXAMINATION.



M. G. THUSHARI KARIYAWASAM
FACULTY OF ARCHITECTURE
UNIVERSITY OF MORATUWA, SRI LANKA.
MAY 2000.

72 "00"

74109



TH

ACKNOWLEDGEMENT

I greatly acknowledge all the individuals who have rendered their help to me, throughout my effort in preparation of this dissertation. My special thanks rendered to the following personal for the dedication of their time and energy to formulate this study.

Dr, Ranjith Dayarathne, Senior Lecturer, Dept. of Architecture, for the invaluable advice and comments made, for directing me towards the path, to discover the light at the end.

Dr. L.S.R. Perera, Lecturer, Dept. of Architecture for the valuable advice given at the preliminary stages.

I also thank Arch. Renuka Wejesundara and Arch. Jagath Bogahawatta for guidance and valuable advice, concern and interest shown throughout this effort.

Thanks are also due to the residence of Raddologama, Maththegoda, Keels and Ceylinco Housing Schemes.

University of Moralium, Sri Lanka.

Electronic Theses & Dissertations

I also thank Chamila, Saliya and Shashi for the great help rendered to me in printing this book.

To all my friends who helped me in numerous other ways, who argued, criticized, commented, joked...... yet encouraged me in all good fun.

Finally I am ever grateful to my dear parents, brother and my husband Sugeewa for the assistance given in producing this Dissertation, for their persistent encouragement and constant guidance from the very beginning to the end.

ABSTRACT

"Home is the most important segment of the entire built environment. It is man's little corner of the world. Even though family is the smallest unit of the society, it is the most powerful element that governs it. Hence, home is the center of administration, in a particular society"

According to Dayarathne;

"Housing is the process enabling the act of dwelling, establishing one's existence as appropriate for his living on earth, in the form of making- home."

(Dayarathe, 1995)

In the home -making process the architect's task is immeasurable, as the sole responsibility of providing a good built form comes under his vision.

In a design for a single-family dwelling, the identification of different interests and values may not be difficult. But in large scale housing projects, a number of groups of people with different and conflicting objectives exist. So the essential personal qualities of a single family have been suppressed due to standardization, a prevalent attitude towards planning and designing.

Accordingly, the architect has only a limited number of options in this regard. The people do their own adaptations in order to suit their needs. While creating some adaptations they try to achieve the lacking physical and psychological needs and desires. Thus, user adaptation is part of the process of home making, the transformation of house into home.

The home-making process along with user adaptations is not static. It's a constant process. It exists and inter-plays with social, cultural ritual and economic factors.

These factors also change gradually in the same place with the passage of time with changing attitudes, values, and life --style of people.



So architects as professionals face a conflict between his professional involvement and presenting a built-form for an unknown imaginary user. In this task the qualitative need of the future occupant is not wholly fulfilled. Hence after dwelling for sometime he starts transforming his house according to his needs and aspirations, in making it his own "sweet home". Thus, the process of user adaptations becomes the bond between house and home.

According to Dayarathna,

"Housing is not the responsibility of either the state or the professional alone. It is the responsibility of the individual, the society, the state and the professionals. These responsibilities are tied with the controls and a balance of the two are needed. When the state takes control of the entire issue, it is also vested with the responsibility. The professional cannot have the full control of the decision regarding the house, its location, design or building. The dweller has to have a control over its private domains. The dweller cannot have control over the public domain. It involves the shared responsibility of the state, and the community at large."



Here, the study deals with large-scale housing situations in which the architect was involved, and the user adaptations in the process of home making.

CONTENTS

	Page No
ABSTRACT	1
ACKNOWLEDGEMENT	III
LIST OF FIGURES	IV
LIST OF PLATES	VI
INTRODUCTION	1
0.1 Background to the study	1
0.2 Intention of the study	3
0.3 Scope and Limitation of the study	4
0.4 Method and organization of the study	4
1.0.CHAPTER ONE	
1.1. The issue of large – scale housing	5
1.1.1. Urbanization and migration	6
1.1.2. Housing as a need	7
1.1.3. Housing as a problem	7
1.1.4. Housing State and private sector	8
1.2. Housing and its related factors	13
1.2.1. House, Home, and dwelling . The definitions	14
used in process of housing	
1. 2. 1. (a). Concept of house	14
1. 2. 2. (b). Concept of home	15
1. 2.3. (c) Dwelling	17
1. 2. 2. Transformation of house into home	17
1. 2. 3. Sustainable development of housing	21
1.3. Concluding remarks	23

23 LAURA CO

2.0. CHAPTER TWO

The process of home – making and its related factors .	24
1.2.1. Psychological variables	26
2 .1 .1 .(a) Orientation	26
2. 1. 1. (b) Identity and Personality	27
2 .1 .1 (c) Territoriality	29
2. 1. 1. (d)Privacy	32
2 .1 .2. Physical variables	33
2 .1 .2 (a) . Enclosure	34
2 . 1 .2 (b) . Centre	37
2 . 1 .2 .(c) Continuity	39
University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations	
2 .1. 3 Sociological variables	40
2 .1 .3 (a) Sociobility	40
2 .1 .3 .(b) Social class , status and power	41
2 .1 .4 Cultural variables	41
2 .1. 5 Economic variables	42
2.2 Architects contribution in large-scale housing	43
2 .2 .1. Large –scale housing and architects involvement	43
2 .2 .2. Large- scale housing as the failure of human	
existence	45



2 .2 .3. Changing attitudes of the user and types	
of adaptations	46
2 .2 .3.(1) Internal adaptations	47
2 .2.3.(11) External adaptations	47
2 .2 .3.(111) Adaptation done in the immediate	48
surrounding of the house	
2 .2 . 4.User participation as a need for housing	48
2 .2 . 5. The practice of transactionism and its theoretical	49
background	
2. 2 . 5. (1) Participatory design theory	50
2 .2 . 5. (11) Loose-fit design	54
2. 2 .5 .(111) Incremental design	55
2 .3 . Concluding remarks	57
University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk	
CHAPTER THREE	
1.3. Selected architect –designed housing schemes	58
in Government sector and their user adaptations	
Case – study (1); Mattegoda housing scheme	
3 .1 .1 . Background	59
3 .1 .2 . Location	59
3 .1 .3 . Housing layout and plan form	59
3 .1 .4 . 3D Composition	65
3 .1 .5 . User adaptations	65
3 .1 .5 .(1) . Internal adaptations	65
3 .1 .5 .(11) .External adaptations	69
3 .1 .5 .(111) Adaptations done in immediate	75
surrounding of the house	

3.0.

C LAUTINE

Case -study (2); Raddolugama housing schemes

3. 1. 6. Background	77
3 .1 .7. Location	77
3 .1 .8 . Housing layout and plan form	77
3 1.9.3D Composition	83
3 .1 .10. User adaptations	83
3 .1 .10 . (1) . Internal adaptations	83
3 .1 . 10 .(11) External adaptations	89
3 .1 . 10 . (111) Adaptations done in immediate	90
surrounding of the house	
3.2 . Selected architect – designed housing schemes	93
in private sector and their user adaptations	
Case – study (3); - Keels housing scheme in Katubadda	
3 .2 1 Background	95
3 2 2 Location	95
3 .2 .3 Housing layout and plan form	95
3 .2 4 3D Composition	97
3 .2 .5 User adaptation	100
3 .2 . 5 (1) . Internal adaptation	101
3 .2 . 5 (11) External adaptations	103
3 .2 .6 (111)Adaptations done in immediate	108
surrounding of the house	
Case – study (4) ; Keels housing scheme in Thalawatugoda .	
("Crest Wood")	
3 .2 .6 . Background	109
3 .2 .7 . Location	109
	125

3 .2 .8 . Housing layout and plan form	110
3 .2 .9 . 3D Composition	112
3. 2 .10 User adaptations	113
3 .2.10 (1) .Internal adaptations	113
3 .2 10 (11) External adaptations	115
3 .2. 10. (111) Adaptations done in immediate	116
surrounding of the house	
Case – study (5);- Ceylinco housing scheme in Dehiwala ,	
("Lotus -Grove")	
3 .2 .11 . Background	119
3 .2 .12 . Location	120
3 .2 .13 . Housing layout and plan form	121
3 .2 14 .3D Composition	125
3 .2 .15 . User adaptations	125
3 .2 15, (1). Internal adaptations	126
3.2.15. (11) External adaptations	130
3 .2 15. (111) .Adaptations done in immediate	131
surrounding of the house	
3 .3 . Concluding – remarks	133
4.00 CHAPTER FOUR	
4.1 Conclusion	135



LIST OF FIGURES

Figure no	Page n
(1). A home at Lethlakana, Botswana.	16
(2). Haida Houses with Heraldic Poles.	16
(3). Housing scheme, Costa- Rica.	18
(4). Scheme by Chirstoper Alexander	20
(5). Ropata village, ground houses	20
(6). A cluster with an identity	29
(7). Territory defined by an entrance arch	30
(8). An effective territorial maker changes in levels	31
(9). A recessed entrance defining the immediate territory	31
(10) Design for privacy	32
(11) Conflict between public and private spaces	33
(12) Solid enclosure gives high degree of privacy	36
(13) Privacy reduced the transparent enclosure	36
(14) Serious of columns defining an enclosure	36
(15) Living room indicates it is a place for family movement	66
(16) Dining area is a part of a living area	66
(17) View of the dining area when looking from the living	67
(18) View of the kitchen when looking from the dining room	67
(19) The changed façade in Mathtegoda scheme	70
(20) User adapted house, House type F	70
(21) The row houses with different adaptations	71
(22) Different types of adaptations	71
(23) One has used French windows	72
(24) Solid boundary wall is decorated by concrete balustrades	73
(25) The half boundary walls are the common character	74
(26) The entrance gate in black colour well contrast with the wall	74
(27) The half boundary wall is the common character	74
(28) Occupants try to express their needs through the garden	75
(29) Occupants try to express their needs through the garden	76
(31) Short wall is to demarcate the territory	76
(32) The entrance is also get adaptation	76
(33) The living and the dining areas are both together	83
(34) Front façade have been changed, House type B	84
(38) Modified house	85
(39) Modified house	85
(40) The windows are opening to the enclosed area	86
(41) The occupants have removed the original side wall	86
(42) The front wall has been shifted forward to the living space	87
(43)No proper light and ventilation due to the unplanned adaptation	87
(44) New dining and pantry area created by combined store	88
(45) New pantry created by extending front wall	88
(46)Extended toilet and wash room	89
(47) Personalized toilet	89
(48) Adaptation with an arch type façade	90
(49) Wire cut bricks have been introduced	91
(50) A picture with a solid boundary wall	92

(54) Covered up court-yard converted into dining area (57) House type B - Paved garden (59) Personalized and extended front façade (60) Individual houses are same size and placement (61) Internal arrangement to seek the social status of the occupant (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls	9	2
(57) House type B - Paved garden (59) Personalized and extended front façade (60) Individual houses are same size and placement (61) Internal arrangement to seek the social status of the occupant (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls	10	04
(59) Personalized and extended front façade (60) Individual houses are same size and placement (61) Internal arrangement to seek the social status of the occupant (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls	1	05
 (60) Individual houses are same size and placement (61) Internal arrangement to seek the social status of the occupant (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	10	08
 (61) Internal arrangement to seek the social status of the occupant (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	.08
 (62) Personalised living area (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	12
 (63) Some elements used to defined territory (64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	14
(64) The bed room were highly personalized (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls	1	14
 (65) Level different to make privacy (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor,type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	14
 (66) Windows with louvers help to achieve privacy (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	15
 (67) The different of houses with the identity in one housing scheme (68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	1.5
(68) The immediate surrounding of the house (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls	1.	16
 (69) Raised boundary wall to achieve privacy (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	ne 1	16
 (70) Occupants use to different landscaping patterns to the identity (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	11	17
 (71) Landscaping help to recognize own hoe; individuality (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	17
 (72) Front elevation of a typical house (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	17	18
 (74) Extended bed room in house type - A (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	1	18
 (75) Extended living room for visitors in the Ground floor, type B (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	20
 (76) Family living in the upper floor to achieve high privacy (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	27
 (77) Furnishing helps to express personality (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	27
 (78) Normally balconies are not provided (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	28
 (79) Highly personalized living room (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	28
 (80) The original type house, no external adaptations (81) The front façade open out to the out door garden (82) In some houses privacy is achieved by using boundary walls 	12	29
(81) The front façade open out to the out door garden(82) In some houses privacy is achieved by using boundary walls	12	29
(82) In some houses privacy is achieved by using boundary walls	13	30
	13	30
(82) Some plants have been group even outside the boundary well	13	31
(65) Some plants have been grown even outside the boundary wan	13	32

LIST OF PLATES

Figure no	Page No
(1) Contemporary settlement in Sri Lanka	12
(2) Victorian façades fronting a San Fransisco housing environment become du	11 18
(3) A boundary wall may be an indication of territory privacy and even idenditi	ty19
(4) Holistic framework of housing	21
(5) Concept of sustainable housing development	21
(6) The dwelling as calender and zodiac; plan of the Sakalawa	27
(7) Dwelling of the Kalaba tribe, New Guinea	28
(8) Primary terriotories	30
(9) A large space tend to create a grandiose feeling	35
(10) Typical layout of Navajo Hahans house.	37
(11) Rathnavibuseana house, Agulana, Ground floor and upper floor	38
(12) "Falling water" Pennsylvania, by Frank Lloyd Wright	39
(13) Diagram of the interrelation-ship between seven sets of variables	44
(14) Housing reflecting a technological brilliance	45
(15)Participatory planningThe public and planners participatory process in loca	
(16) Loose Fit Design - CHATBARI	52
(17) Comprihensive Design Project by Varuna DE Silva,	53
(18) Layout Map - Maththegoda,	61
(19) Original plans and elevations, type B (Maththegoda Scheme)	62
(20) Original plans and elevations, type C (Maththegoda scheme)	63
(21) Original plans and elevations, type F (Maththegoda scheme)	64
(22) A kitchen has been converted to a dining area (Maththegoda scheme)	67
(23) The bed room have been converted to the rear verendah	68
(24) Original front elevation, House type B and its alterations	69
(25) Original front elevation, rear elevation, its user adaptationHouse type F	70
(26) Layout plan, Raddolugama scheme	79
(27) Original plans, sections and elevations, House type B	80
(28) Original plans, sections and elevations, House type D	81
(29) Original plans, sections and elevations, House type F	82
(30) The living area and dining areas both together in the original plan	83
(31) Type of adaptation to the original plan	85
(32) Type of adaptation to the original plan	85
(33) The house has been extended up to boundary walls from front and sides	86
(34) The adaptations done up to the boundary wall	86
(35) The front wall has been shifted forward to extend the living space	87
(37) Layout plan, Keels housing scheme in Katubadda	96
(38) Original plan form, Ground floor, House type A, and its adaptations	97
(39) Original plan form, Ground floor -House type B, and its adaptations	98
(40) Original plan form, Upper floor type -House type B, and its adaptations	98
(41) Original front elevation and its adaptation, House type B	98
(42) Original Ground floor plan and its adaptation, House type C	99
(43) Original front elevation and its adaptation, House type C	99
(44) Original upper floor plan, House type C	100
(45) Court- yard converted into dining, - Altered plan, House type A	101
(46) Original plan and altered plan, House type B	102

(47) Altered plan, Type B	102
(48) Altered plan, Type B	103
(49) Altered plan, Type A	103
(50) Original plan form, type A and its user adaptations	104
(51) Altered plan form ,House type A	104
(52) Original House plans ,type A and its user adaptation	111
(53) Original House plan type B and its user adaptation	111
(54) The upper floor lobby is extended towards the front side	113
(55) Location Map	120
(56) Lay out plan, "Lotus Grove" Dehiwala	121
(57) Original upper floor plan and its user adaptation	122
(58) Original upper floor plan and its user adaptation	123
(59) Original and altered plan, House type C	124
(60) Original and altered plan, House type D	124
(61) Original plan and altered plan, type A	126
(62) Original plan and altered plan, type B	126

