

Accommodating the Informal Sector Street Activities in Urban Design.
An Examination Of The Relationship Between Street Spaces And Street Operated Informal Sector Activities Within The Urban Built Environment In Sri Lanka.



LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

A Dissertation presented to the
Faculty of Architecture
University of Moratuwa, Sri Lanka
For the M. Sc. (Architecture) Examination

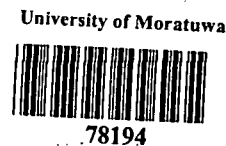


77 " 02"
711.4 (548.7)

S. K. Wijetunge
Faculty of Architecture
University of Moratuwa
Sri Lanka

78194

2002



78194

I

ACKNOWLEDGEMENTS

This study owes much to the assistance and guidance given by all the following to whom I wish to extend my heartfelt gratitude.

Dr. Samitha Manawadu, Senior Lecturer, Faculty of Architecture, for his guidance in directing me towards the importance of studying a realistic issue in the accommodating the informal sector in Urban Design.

Arct. Ravin Gunarathna, Lecturer, Faculty of Architecture, for providing me with his inspiring ideas through out the study.

Arct. Arosh Gamage, Lecturer, Faculty of Architecture, for leading the chapters I have written and guided me on the path to make this a reality.

Dr. Rohinton Emmanuel, Lecturer, Faculty of Architecture, for providing his valuable time to discuss the problems I have faced and help me in synopsis writing.

Mr. K. D. Fernando, Senior Lecturer, Town and Country planning, for providing additional information, which help me a lot to make a success of this.

Specially Mr. Ranasinghe for helping me on writing and correcting me when ever there is wrong in the dissertation.

I also thank to my colleagues, Lasith, Sunil, Attanayake, Malinda, Hemantha, Sithumina, Anuradha, Musadik, Niroshan, Rasika, Ajantha, Peris, Roshini, Upuli and my all colleagues for helping me when ever the help is needed and putting there valiant effort to make this dissertation a success.

And finally my family for showing me the write way to make this dream come true. And for there unfailing patience and understanding throughout this endeavor.

ABSTRACT

Up to recent times the street operated in formal sector enterprises are mostly regarded as a nuisance to a city. At present a positive attitude towards their presence in the street tend to grow, viewing their contribution to the economy as well as to the character of the street.

In the case of urban design the main actors in the play are the square, the street and the buildings that make up the public face of our towns and cities. The meaning and the role, these elements play in urban design. The street operated informal sector trading activities are come under street architecture that part of the urban design.

In the designing and development of streets or their fragments, the designer has to bear in mind a street becomes a comfortable built environment, when the user senses and perceives it appropriately and in turn orientates himself within it.

A street, which can be identified as a series of integrated spaces, is an attraction to informal sector activities, specially in some of its spaces. Out of observation it is found walkways, transitional spaces and squares as the most attractive spaces for street operated informal sector for many reasons.

Selected examples shows how will be the informal sector incorporated to the built environment in successful way. Also what aspects should be considered? Some of the examples over come the problems they face in the site while some have to rethink and arrange to make a meaningful one.

Informal sector activities in street and how they accommodate to the Urban design will be the study are of this dissertation and it may pave the way for creating a new outlook to the Urban built fabric.

In the organization of these spaces the users perceiveability is a more appropriate approach. In this manner, the physical elements of a space can be organized to form relations to a center, enclosure and continuity as illustrated by many scholars. Within an organization of this nature the informal sector activities too has a place. They can be comfortably accommodated within this following the proper guidelines as discussed in this study.

**Accommodating the Informal Sector Street Activities in Urban Design.
An Examination Of The Relationship Between Street Spaces And Street
Operated Informal Sector Activities Within The Urban Built Environment In
Sri Lanka**

Contents	page
Acknowledgement	ii
Abstract	iii
Contents	iv
List of illustration	viii
Introduction	
Topic explanation	1
Intention of the study	3
Importance of the study	4
Methodology	5
Scope and limitation	6
CHAPTER ONE	
Urban Design as Architecture	7
1.1 Architecture and Urban Design	7
1.1.1 Urban design and urban planning.	8
1.1.2 Objectives of the urban design	8
1.2 Need of the meaning in the urban designing	11
1.2.1 Importance of meaning in the urban design.	12
1.2.2 Urban design and people.	14
1.3 Urban design and space.	16
1.3.1 The concept of urban space.	17
1.3.2 Public squares in urban space.	18

1.3.3	Streets in urban space.	18
1.3.4	Typical functions of urban space	19
1.3.5	Spatial relations in urban design: Street and square	19
1.3.6	Circulation elements in urban design: street and square	20
1.3.7	Spatial composition in urban design: street and square	21
1.4	The effect of the activities in informal sector to the urban design	22

CHAPTER TWO

	Relationship between Urban Context and Informal Sector	25
2.1	Nature and the Characteristics of Urban Informal Sector	25
2.1.1	Definition	25
2.1.2	Evolution of urban informal sector	27
2.1.3	Characteristics of urban informal sector	28
2.2	Attitudes and interventions towards the presence of street operated Urban informal sector	29
2.2.1	Attitudes in relation to urban development	29
2.2.2	Intervention towards the street operated informal sectors in developing countries	30
2.2.3	Existing Policies and Strategies	32
2.3	Factors that effect to the street operated informal sector trading activities in Sri Lanka an urban context	34
	Economic Base	35
	Religious Base	36
	Social Activities	37
	Time Base (seasonal / with in day)	38
	Other special reasons	40
2.4	Street operated informal sector as reflection and extension of the urban built environment	41
2.4.1	Place and Application in physical terms	41
2.4.2	Materiel and Constructions	44
2.4.3	Architectural elements to urban streetscape	47


CHAPTER THREE

Spatial and functional aspects of the street operated informal sector in relation to physical form of the street.	49
3.1 Walkways	51
3.1.1 Open side walks –pavements	51
3.1.2 Enclosed sidewalks: Colonnades and Arcades	51
3.1.3 Informal sector in a walkway	52
3.2 Transitional points	52
3.2.1 Nodes	52
3.2.2 Junction	53
3.2.3 The Informal sector in Transitional Points	53
3.3 Squares	54
3.3.1 Periodic Market Square	55
3.3.2 Permanent market square	55
3.3.3 The Informal Sector in Squares	56



CHAPTER FOUR

Perception of space and its organizations in a street to accommodate the street operated informal sector activities.	57
4.1 The Concept of Space in Architectural Theory	57
4.1.1 Different perceptions of architectural space.	57
4.1.1.1 Architectural Space and Existential Space.	58
4.1.1.2 Architectural Space and Planning Space.	58
4.2 Street as a collection spaces.	59
4.3 Element of space.	59
4.3.1 Elements of a Walkway	62
4.3.1.1 Centre of Walkway	62
4.3.1.2 Enclosure of Walkway	63
4.3.1.3 Continuity of Walkway	64

4.3.1.4	The Place for Informal Sector	65
4.3.1.5	Ways of Incorporation – Walkways	67
4.3.2	Elements of a Transitional Space – Nodes / Junctions	74
4.3.2.1	Centre Of A Transitional Space- Node / Junction	74
4.3.2.2	Enclosure of The Transitional Space- Node / Junction	75
4.3.2.3	Continuity Of Transitional Space – Node / Junction	76
4.3.2.4	The Place For Informal Sector (Within a Node /Junction)	76
4.3.2.5	Ways of Incorporation (Nodes/Junction)	77
4.3.3	Elements of a Square	86
4.3.3.1	Centre of a Square	86
4.3.3.2	Enclosure of a Square	87
4.3.3.3	Continuity of Square	87
4.3.3.4	The Place for Informal Sector (within a square)	88
4.3.3.5	Ways of Incorporation	89
	 University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk	
	CONCLUSION	99
	BIBLIOGRAPHY	101

LIST OF ILLUSTRATIONS

Figure	Page	
1	Composition of built and un-built components within a city	7
2	Visual objects of urbanscape, height, density, depth and solid and void ratio.	9
3	Loss of liability, Chandigarh, India	9
4	Serial vision of experiencing of city	10
5	Natural environment as main objective of designing. Civitas convenarum in 12 th century.	10
6	Lay out of Sri Rangam- spiritual needs as main objective of city designing	11
7	City as livable place	13
8	Liveliness given by human activities, Open-air laundry in Mumbai	13
9	Memory of city through the character of a city, in a medieval town	13
10	Energy efficient city	14
11	Social gathering and celebration in a piazza at Siena	15
12	Spaces link by external reference point: the Amalienborg, Copenhongon	17
13	Urban design and spatial relations: Spaces linked by common space	19
14	Urban design and spatial relations: adjacent space	20
15	Circulation elements in urban design: Configuration of path	21
16	Urban design and spatial relations: Radial organization/Centralized organization	22
17	Informal sector activities create livable place to the city.	23
18	chart Size of informal sector in terms of its share in total urban employment & habitat in Asian cities (In 1980 s)	26
19	Street encroachment by the informal sector create congestion	31
20	The lack of space, they use the public electricity pole as the place for their trading	32

21	Trade on every thing or any thing congested in the street pavement	35
22	Self employment performed by migratory population (Ex: Cart pullers)	35
23	One of flower seller - near Wellawatta church	36
24	Recreation is necessary to get rid of the monotony	37
25	Some of informal sector trading activities in Gall face	37
26	Some of seasonal fruit sellers in Gas Works Street	38
27	A mobile food vehicle in Nugegoda	39
28	One of gram seller catering the need of beer palours and hot drink serving restaurant	40
29	A fancy item vendor - Near the Majestic City at Bambalapitiya	40
30	Foods, Fruits and other necessity items - near the general hospital	41
31	Linear development of informal sector activities along pavements	42
32	Informal sector activities along walkways	42
33	Nodes / Junctions where high in intensity circulation takes place encouraged development of informal sector activities	43
34/35	Temporary kind of structures give the shelter for vending	45
36	The more sophisticated shelters have metal frames which,are easy to erect	45
37	The canopies fixed to buildings given shade to create a sense of place	46
38	Various structural forms of shelters create a sense of place for the informal sector	46
39	Pavement hawking being a popular way of life made way for Temporary structures to emerge along the streets to get closer to the movement of pedestrian	47
40	The extended attachment from the built areas increase consumer attraction	48
41	Pavements as the paved space, which is defined by fence or built areas for, people on foot	51
42	The arcades and colonnades act as the extended street spaces for pedestrians	51
43	The nodes act as the conceptual anchor point in cities	52

44	Junction as another conceptual anchor point (City of Paris)	53
45	Enclosed square in "Macca"	54
46	The center of a walkway sense in longitudinal axis	62
47	The built facade gives the enclosure to the walkway from one side	63
48	The trees along the walkway strengthens the enclosure	64
49	Continuity that forms the direction of a walkway is the factor that straighten the center and the enclosure of it	65
50	The functions along the central space change the direction of movement	65
51	Stationed activities are more encountered towards the enclosure of a walkway	66
52	The peripheral organization has to done in a proper manner recognize the sense of place	66
53	The peripheral organization along the built enclosure to be spacious creating niches, bays etc.	67
54	Location map of Olcott Mawatha	
55	Congestion along the Olcott Mawatha due to street operated informal sector	68
56	Proposed UDA plan for accommodating informal sector in between Gas Works Street and Saunder's Place, where the informal sector already located in Bodhi Raja Mawatha and its North-Node.	70
57	Perspective view of proposed UDA informal sector accommodating proposal	70
58	Location Map of York Street – Fort	72
59	Informal sector activities to located as recessed area along the walkway to encourage the free directional movement	72
60	The spontaneous development of temporary structures blocked the passage of the arcade	73
61	The unorganized nature of informal sector within the arcade, weaken the center of the walkway	73
62	One of the stable ways of organization within the arcade	74

63	The geometry of intersection of the transitional space can be easily grasp the center of node	74
64	(a) A path continues visually but the sense of enclosure is reduced at the node.	75
	(b) Path continues visually and sense of enclosure of the path is lost.	75
	(c) Visually and physically the continuation of the path is interrupted	75
65	Location map of the Borella junction	77
66	The five major paths come and open outs at the center giving sense of arrival to user	78
67	The disorganize nature of activities weaken its sense of place	78
68	Under ground sub ways help to reduce the informal sector activities around the center	79
69	Kandy sub way is clearly cut down the most of negative points.	79
70	Section thorough the Kandy sub way	79
71	Borella as junction can be strengthen as a place in the informal sector in the enclosure	80
72	Location of the node by the central bus stand	81
73	Lay out of the node - central bus terminal, Pettah	82
74	Informal sector development along the Gas Works Street	83
75	One of the ways of incorporation the informal sector in the node at central bus terminal, Pettah	83
76	The plan of the accommodating informal sector in Borella (UDA proposal)	84
77	The allocated small spaces for informal sector trading activities	84
78	Some Functional problems create the UDA project	85
79	St. Peters square at Roam – “Sense of place of enclosure”	86
80	The centers of squares highlighted by land marks - land mark emphasis the center	86
81	The well defined solid enclosed boundaries of a square increase its sense of enclosure	87

82	(a) It is suitable to place the informal sector in the centre of a square	89
	(b) It is suitable to place the informal sector even at the periphery	89
83	Location map of World Market	90
84	Congested structural layout of World Market	90
85	The inside canopies of the shelter and trees improves the sense of enclosure	91
86	Informal sector activities to be at the periphery of the square - World Market Fort	91
87	Informal sector activities to be placed in the centre of the square - World Market Fort	91
88	Ground floor and Upper floor plans of proposed New World Market- Fort	93
89	Section of the World Market – Fort	94
90	Delkanda Sunday fair	94
91	The use of colours and sound attract the customers	95
92	The spread of informal sector activities on the high level road create pollution and congestion	95
93	Informal sector activities to be placed at the periphery of the Market Square Market Square – Delkanda	96
94	Informal sector activities to be in the center of square	97
95	Allocated spaces for informal sector trading activities in pavement park	98
96	The UDA plan of Saunder's place pavement park	98