OPPORTUNISTIC CRIME AND BUILT ENVIRONMENT

AN EXPLORATORY STUDY OF INHERENT SECURITY IN HOUSE AND HOUSING DESIGN

පුස්තකාලය මොරටුව විශ්ර විදහාලය. ශ්‍රී ල•කෘම්



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

8 4 3 6 8

72"96"
721.051.8:728.3

66688

A DISSERTATION PRESENTED

TO THE UNIVERSITY OF MORATUWA

FOR M.Sc. IN ARCHITECTURE

um Theris



SENAKA DHARMATILLEKE

1996

ACKNOWLEDGEMENT

I am profoundly grateful and deeply indebted to the many who assisted and guided in making this study a success.

I hereby take this opportunity to express my sincere thanks to

Archt. Dr. L.S.R. Perera

Archt.Dr. Ranjith Dayaratne

Archt. Prof. Nimal Silva

Archt. Vidura Sri Nammuni

Archt. Kapila Dharmasena

for their guidance and co-operation extended to me throughout this study.

Further wish to specially thank Dr. Dharmadasa Silva (Senior D.I.G.) for the guidance and suggestions given and S.S.P. Premananda for making available the crime records at the Colombo Crime Detection Bureau (C.D.B.), research data as well as literature in the field of criminology.

I also wish to thank the officers in charge of Police stations in areas where the case studies were carried-out (Borella, Modara, Mattakkuliya, Narahenpita, Maligawatte, Mt. Lavinia) and the Police Officers who accompanied me in my field research.

Then I would extend my gratitude to my friends Sampath and Nihantha for the help rendered during the preparation of the docu ment.

Finally I offer my gratitude to my parents with whose support I was able to successfully complete this study.

CONTENTS

Acknowledgement

Abstract

CHAPTER - 1	INTRODUCTION	
	1. 1) Security and sense of security in the built environment	ţ
	 2) The issue of real security, sense of security and their lapse. 	2
	1. 3) Desaign and sense of security	3
	1. 4) Introduction to the study Electronic Theses & Dissertations	4
	1. 5) Crime and opportunistic crime	5
	1. 6) Methodology	6
	1. 7) Scope and limitations.	8
CHAPTER - 2	THEORITICAL ORIENTATION	AD.
	2.1 Security as a Generator in Architecture	40
* ************************************	2.2 Nature of Defence and Defensibility	13
	2.2.1 Enhanciang of Defensibility	16
	2.2.2 Enhancing of Surveillability2.2.3 Supplimenting of Defencibility	20
	and Surveillability: Neighbourhood	22
	Cohesion.	
	2.3 SPACE AND SENSE OF SECURITY	25

CHAAPI	'ER - 3	HOUSING SETTLEMENTS AND	31
		CRIME	
	3.1	PROBLEMS OF CONTEMPORARY LIVING	31
	3.1.1	Economic disparities and the geographic aspect of crime.	31
•	3.1.2	Juxtaposition of activities, zones and land uses.	34
	3.1.3	Behavioural patterns detrimental to Security	39
	3.1.4	Problem of vehicular traffic and the Automobile.	42
	3.1.5	High-rise/High-density living Anonymity and the problems of	
		<pre>sharing facilities and responsibilities.</pre>	Ab
3.2	Univ Elect www	COUNTER PRODUCTIVITY OF	
		SECURITY MECHANISMS	53

CHAPTER - 4		CRIME AND ENVIRONMENT -	
		CASE STUDIES	59
	4.1	CASE STUDY-(1): BORELLA	61
	4.1.1	Issues discovered	63
	4.1.2	Correlation between the issues	
		discovered and the built	
		environment.	164
	4.2	CASE STUDY -(2):URBAN AND SUBURBAN HOUSING	117
	4.2.1	MALIGAWATTE HOUSING SCHEME	IIB
			119
	4.2.1.1	Issues discovered	11-5
	4.2.1.2	Correlation between the	
		issues and the built	119
	(Q) Electr	ersienvironment _{ka}	
		SOYSA PURA HOUSING SCHEME	143
	4.2.2.1	Issues discovered	145
<u>.</u>	4.2.2.2	Correlation between the issues	1.95
		and the built environment.	145

4.3	CASE ST	CASE STUDY -(3): MODARA		
	4.3.1	Issues discovered	187	
	4.3.2	Correlation between the issues and the built environment.	188	
4.4	GENERAL	OBSERVATIONS OF THE CASE STUDIES	223	
	4.4.1	Lack of dialogue across the street.	223	
	4.4.2	Block-plan affecting surveillability.	225	
	4.4.3	Layout and defensibility	228	
	4.4.4	Non demarcation of semi-private		
		areas on ground.	230	
	4.4.5	summing - up.	280	
* CONCLUS	TON (Q) Elec	versity of Moratuwa, Sri Lanka. stronic Theses & Dissertations w.lib.mrt.ac.lk	232	

ABSTRACT

The problem of urban crime is being focussed upon very strongly as rapid urbanization in Sri Lanka has escalated this aspect into alarming proportions. Proded by the almost historic, security conciousness of the clients the designers of house and housing seem to adopt various strategies to combat this menace, perusing solutions which more often than not worsen the existing situation.

In the light of the above the study aims at exploring the aspects which enhance the "inherent security" of the built environment which may contribute to curtail the escalating problems of urban crime which is prevalent in contemporary times the section of Moratuwa Sri Lanka.

Electronic Theses & Dissertations

In order to achieve this objective the study explores through academic research the possible aspects of the built environment which facilitate or retard crime in the context of contemporary living and functional patterns.

www.lib.mrt.ac.lk

In a field research based on three selected case studies which incorporate various other examples, the above theories, formulated on the design aspects are tested as to how they would apply to the local context.

The academic grounding is based on the research done in this field by various authors of infernational repute. The field research is based on data provided by the records maintained by the police department as well as field surveys, interviews, questionaires on victims and observations made by the author.

In the course of this research it has been found how certain aspects in the contemporary built environment

encourages crime by destroying certain key elements that ensure the "natural security" of communities and house units. These observations have been backed by hard data such as annual crime records and victims accounts that proves contemporary house and housing design guilty of facilitating urban crime "beyond reasonable doubt". Symultaneously the study discovers through the examination of 'low-crime' areas and academic modals how the elements, surveillability and defensibility can be achieved in the built space at the inception of design, thus enhancing its inherent security, creating safe and secure environments for peaceful human habitation.



