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# DEVELOPMENT OF AN ENVIRONMENTAL SUITABILITY INDEX FOR WALL ELEMENTS USED IN SRI LANKA



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A Dissertation

presented to the University of Moratuwa  
for the Final Examination in M. Sc. (Architecture)

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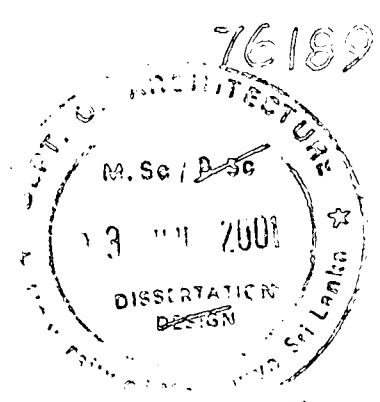
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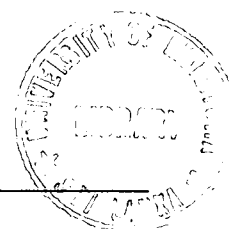
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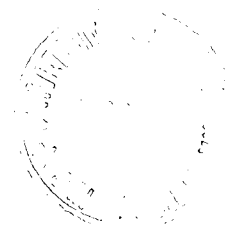
# CONTENTS

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	Page
Acknowledgement	i
List of illustrations	vi
Abstract	vii
CHAPTER ONE : INTRODUCTION	1
1.1 Back Ground	2
1.2 Justification	2
1.3 Scope of the Study	3
1.4 Method of the Study	3
CHAPTER TWO :  LITERATURE REVIEW	4
2.1 Embodied Energy	5
2.1.1 Back Ground	5
2.1.2 Methods of Energy Analysis	6
2.1.3 Human Energy	8
2.1.4 Environmental Effects	9
2.1.5 TOE values	9
2.2 Life Cycle Cost	11
2.2.1 Back Ground	11
2.2.2 Life cycle cost and the RIBA plan of work	12
2.2.3 Techniques Using For Ranking Alternatives in consideration of Life Cycle Cost	13

2.2.4	Graphical Formation of Life Cycle Cost Profile for an element in a Building:	16
2.2.5	Life Cycle Costs and the Designer's Liability	18
2.3	Reusability	18
2.3.1	Back Ground	18
2.3.2	Defining recycling	20
2.3.3	The Why's of Recycling	21
2.3.4	Materials and Waste Streams	22
2.3.5	Recycling of Materials	23
2.4	Previous attempts in developing Environmental Suitability	24
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<b>CHAPTER THREE : METHODS AND LIMITS</b>		<b>27</b>
3.1	Description of Cases	28
3.2	Methods of Data Collection	30
3.2.1	General	30
3.2.2	Embodied Energy	30
3.2.3	Life Cycle Cost	31
3.2.4	Reusability	31
3.3	Method of Analysis	32
3.3.1	Embodied Energy	32
3.3.2	Life Cycle Cost	33
3.3.3	Reusability	34

3.3.4	Environmental Suitability Index	34
<b>CHAPTER FOUR : RESULTS AND ANALYSIS</b>		<b>35</b>
4.1	Results	36
4.1.1	Embodied Energy	36
4.1.2	Life Cycle Cost	42
4.1.3	Reusability	44
4.2	Analysis	45
4.2.1	Plastering	45
4.2.2	Painting	46
4.2.3	Brick Wall	47
4.2.4	Cement Block Wall	49
4.2.5	Cabook Wall	50
4.2.6	Random Rubble Wall	51
4.2.7	Wattle and daub Wall	53
4.3	Index	55
4.3.1	Embodied Energy	55
4.3.2	Life Cycle Cost	55
4.3.3	Reusability	56
4.3.4	Environmental Suitability Index	56
<b>CHAPTER FIVE : CONCLUSION</b>		<b>57</b>
5.1	Summary of Findings	58



5.2	Limitations	59
5.3	Directions for Farther Study	59
	REFERENCES	61



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## LIST OF ILLUSTRATION

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Fig. no	Description	Page
2.1	Conversion Factors for TOE values	10
2.2	Life Cycle Cost and the RIBA plan of work	12
2.3	Break even point	16
2.4	Life Cycle Cost for alternative wall finishes of the school kitchen walls.	17
2.5	Typical Construction Site Materials Targeted for Reuse or Resale	21
2.6	Scheme 1 - Material and waste streams	22
2.7	Process Diagram for the recycling of bricks and mortar by reburning	24
2.8	Environmental Profile for 1000 km of transport by a 33 Tonne articulator lorry	26
3.1	Brick wall	28
3.2	Cabook wall	29
3.3	Random rubble wall	29
3.4	Wattle and daub wall	30
4.1	Excavation and loading of clay by dozer	36
4.2	Processing of greenness in bricks	39
4.3	Sequence in firing of bricks in kiln	39
4.4	Processing of cement blocks	40
4.5	Extraction of cabook	41
4.6	Sledging of rock to form rubble	41
4.7	Loading of bricks	47
4.8	Construction of brick wall	48
4.9	Construction of cement block wall	49
4.10	Loading of rubble	52
4.11	Construction of rubble wall	52
4.12	Construction of wattle and daub wall	54

## ABSTRACT

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This study seeks to develop an index which estimates the environmental suitability of selected wall elements. The wall elements in consideration are brick work with both side plastering, cement block work without plastering, cabook work with one side plastering, rubble work with one side plastering and a wattle and daub wall. The environmental suitability is estimated in terms of Embodied energy, Life cycle cost, Reusability. Calculations of these three parameters help rank the elements according to their environmental suitability. Such an index will help professionals like Architects to carry out their work with best consideration for environmental suitability in the selection of building materials. More research along these lines on other building materials and other parameters are necessary to develop a comprehensive system of evaluating the environmental suitability of building products.

Key Words : Building materials, Embodied Energy,  
Environmental Suitability Index, Life Cycle Cost,  
Reusability, Wall Elements



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