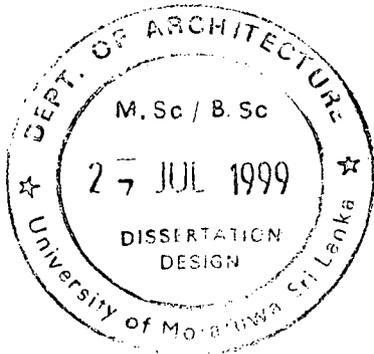


LB/2002/29/00

**AN EXAMINATION OF THE PRINCIPLES OF  
VASTHUSHASHTRA AND THEIR APPLICATION IN  
SRI LANKAN CONTEMPORARY ARCHITECTURE**

**A Dissertation Submitted to the University of Moratuwa  
As a Partial Fulfilment of the Requirements for the Degree of  
Master of Science in Architecture**



71720

72 "99"

72

**H. P. SUMITHRA NANDANI  
Department of Architecture  
University of Moratuwa  
July 1999**

71720

TH

## **ABSTRACT**

Vasthushashtra is an ancient science in architecture. But it has been largely rejected due to social changes, in favour of other new principles in architecture. Lack of land facilities and the increasing population is another factor. But people try to apply and use vasthushashtra in building designs, specially, in dwelling designs. This shows that the vasthu principles and its values are still present in today's society. However, they use these principles with only an understanding of its spiritual aspects and not its real validity and spirit. It is the scientific value of the vasthushashtra that is important. The science in vasthu implies the reality and truths behind its superstitions and beliefs. Therefore one has to clearly understand that the use of vasthushashtra in today's architecture is very important if one is to construct better living space for human beings.



University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

## ACKNOWLEDGEMENTS

I express my deep gratitude and thanks to,

For the encouragement given for the selection of this subject at the inception, to Archt. Vidura Sri Nammuni, Senior Lecturer, Department of Architecture.

For the guidance, encouragement and valuable comments given throughout the study to Dr. Samitha Manawadu, Senior Lecturer, Department of Architecture.

For the guidance and the valuable discussions which led the study to its purpose, to Archt. Ravin Gunerathne and Archt. Jeewake De Soyza.

For the interest shown towards this study to, Mr. Sunil Gamlath.

For made several corrections of the draft to Mrs. Ferdinand, Visiting Lecturer, Department of English Studies.



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

For producing this document by word processing to my brother priyantha.

For love, guidance and understanding and encouragement given me throughout the study to my parents, brothers and to my loving friend Thushantha.

Finally, I sincerely offer my thanks to everyone who assisted me to present this dissertation.

Sumithra Nandani

July 1999

# CONTENTS

	Page
• Abstract	ii
• Acknowledgements	iii
• Table of Contents	iv
• List of Figures	vii
• <b>INTRODUCTION</b>	1
-Topic Explanation	
-Objectives of the study	
-Scope and limitations	
-Methodology	
• <b>CHAPTER ONE</b>	
<b>Impact of Vastushashtra on built environment</b>	8
1.1 Historic background	8
1.2 Influences of Vastushashtra on architecture	11
1.2.1 Site utilization / Selection of the site	11
1.2.1.1 Vasthu purusha mandala	11
1.2.1.2 Understanding the directions of the site	13
1.2.1.3 Selection of the site	14
1.2.2 Principles in layouts and planning	20
1.2.2.1 Veedi shoolas and layouts	20
1.2.2.2 Orientation	21
1.2.2.3 Offering to the plot deity	23
1.2.2.4 Systems of measurements	24

1.2.3 Principles in building design	26
1.2.3.1 Positioning the spaces	28
1.2.3.2 Setting out the building	29
1.2.3.3 Zoning the building	30
1.2.3.4 Brahmasthana	30
1.2.3.5 The positioning of the main door	31
1.2.4 Procedures during construction of the building.	34
1.2.4.1 Ayadi shadvarga	34
1.2.4.2 Digging the well in the site	35
1.2.4.3 Compound walls	36

• **CHAPTER TWO**

<b>The degree of influences of Vastushashtra on Sri Lankan contemporary architecture.</b>	40
---	----

2.1 Case studies	40
2.2.1 Example 1	42
2.2.2 Example 2	47
2.2.3 Example 3	53
2.2.4 Example 4	57

• **CHAPTER THREE**

<b>Examination of the relationship between concepts of modern architecture and Vastushashtra.</b>	63
3.1 Vastushashtra as an ordering principle in architecture.	63
3.1.1 Site utilization as an ordering principle in Architecture.	64
3.1.2 Impact on layout and planning as an ordering principle in Architecture.	67
3.1.3 Impact on building design as an ordering principle in Architecture.	68
3.1.4 Procedures during construction of the building as an ordering principle in architecture.	72
3.2 Vastushashtra as a science of architecture.	73
3.2.1 Examination of the five factors that govern the dictates of Vastushashtra	74
3.2.1.1 Solar science	74
3.2.1.2 Magnetic field of earth	78
3.2.1.3 Gravitational force	79
3.2.1.4 Wind	80
3.2.1.5 Cosmic rays	81
3.2.2 Examination of the scientific value of superstitions and believes in architecture	81
3.2.2.1 Site selection according to topography	81
3.2.2.2 Cross walls	84
• <b>CONCLUSION</b>	86
• <b>REFERENCES</b>	89

## LIST OF FIGURES

	<b>Page</b>
<b>CHAPTER ONE</b>	
Fig.1.1 Vasthu purusha mandala	12
Fig.1.2 The house in the centre of the land	13
Fig.1.3 Directions of the site	14
Fig.1.4 Sectors of the site	14
Fig.1.5 Gajaprushta buhumi	15
Fig.1.6 Kuruma prushta buhumi	16
Fig.1.7 Dhathya prushta buhumi	16
Fig.1.8 Naga prushta buhumi	17
Fig.1.9 Rectangle and square site	17
Fig.1.10 Triangle	18
Fig.1.11 Circle or oval site	18
Fig.1.12 Other irregular shaped sites	18
Fig.1.13 Tortoise shell shaped site	19
Fig.1.14 Veedi shoolas	21
Fig.1.15 Uttama sanku	22
Fig.1.16 Sanku test diagram	22
Fig.1.17 Compass diagram	23
Fig.1.18 East facing house plan and section	23
Fig.1.19 Places of the various deities represented in the site	24
Fig.1.20 Angula and yava	25
Fig.1.21 Two main building house	26
Fig.1.22 Two main building house	26
Fig.1.23 Three main building house	26
Fig.1.24 Three main building house	27
Fig.1.25 Four main building house	27
Fig.1.26 Four main building house	27
Fig.1.27 Four main building house	27
Fig.1.28 Four main building house	28
Fig.1.29 Seven main building house	28
Fig.1.30 Ten main building house	28

Fig.1.31 General overview of the various rooms	29
Fig.1.32 Setting out the building in the site	29
Fig.1.33 Zones of the plot	30
Fig.1.34 Vashu purusha in the plot	30
Fig.1.35 Brahmasthana and energy lines	31
Fig.1.36 Suitable positions of the main door	32
Fig.1.37 Locating the well	35
Fig.1.38 The compound walls	36

## CHAPTER TWO

Fig.2.1 Original plan of the house (Ground floor plan)	43
Fig.2.2 Amended design (Ground floor plan)	44
Fig.2.3 Positions of the doors	45
Fig.2.4 Ground floor plan (marma rekha)	45
Fig.2.5 Upper floor plan (marma rekha)	46
Fig.2.6 Ground floor plan	47
Fig.2.7 Upper floor plan	48
Fig.2.8 Positioning of the doors (Original plan)	48
Fig.2.9 Positioning of the doors (Amended plan)	49
Fig.2.10 Furniture arrangement plan	59
Fig.2.11 Ground floor plan (marma rekha)	50
Fig.2.12 Positioning of the doors in bed room	50
Fig.2.13 Positioning of the doors in kitchen	51
Fig.2.14 Positioning of the doors in office room	51
Fig.2.15 Circulation pattern of the kitchen	52
Fig.2.16 Ground floor plan	54
Fig.2.17 Positioning of the main door	54
Fig.2.18 Positioning of the outer doors	55
Fig.2.19 Ground floor plan (marma rekha)	56
Fig.2.20 Ground floor plan	57
Fig.2.21 Positioning of the doors	58
Fig.2.22 Ground floor plan (marma rekha)	59
Fig.2.23 Upper floor plan (marma rekha)	59

## CHAPTER THREE

Fig.3.1 Housing near water bodies	64
Fig.3.2 Suitable land for religious space	65
Fig.3.3 Religious site	66
Fig.3.4 West facing house	68
Fig.3.5 Zoning a house in the site	69
Fig.3.6 Positioning the main door	69
Fig.3.7 The column positions in front of the main door	70
Fig.3.8 Living room	71
Fig.3.9 Lay out of the spaces in the house	71
Fig.3.10 Solar gain in the morning	74
Fig.3.11 Fresh air gain in to the house	75
Fig.3.12 Positioning the spaces in west direction	75
Fig.3.13 Buffer zone in front of the house	76
Fig.3.14 Protection from the negative sunrays	76
Fig.3.15 Kitchen in the west direction	77
Fig.3.16 Exterior protections for the negative sunrays	77
Fig.3.17 Interior protections for the negative sunrays	78
Fig.3.18 Bed positioning with the magnetic field of earth	78
Fig.3.19 Gravitational force	79
Fig.3.20 Courtyard houses in different situations	79
Fig.3.21 Courtyard adjoining family room	80
Fig.3.22 Three door positions in one line	80
Fig.3.23 Wind direction and the openings	80
Fig.3.24 Samakuruma prushta buhumi	82
Fig.3.25 Vishama kuruma prushta buhumi	82
Fig.3.26 Gaja prushta buhumi	82
Fig.3.27 Daithya prushta buhumi	82
Fig.3.28 Naga prushta buhumi	82

## REFERENCES

1. Babu, B. Niranjan - Hand book of vastu.  
UBS Publishers' Distributors Ltd.  
New Delhi  
1997  
P.3
2. Dagens, Bruno - Mayamata  
Published by, Sitaram Bharatia institute of  
scientific research  
New Delhi, 1985  
P.iii
3. Babu, B. Niranjan - Hand book of vastu.  
P.7
4. Jayasuriya M.H.F. - Manjusri Vasthuvidyashashtra  
Prematilleke, Leelanada Silva The Archaeological Survey of  
Silva, Roland Sri Lanka and The Central Cultural Fund  
1995.
5. Dagens, Bruno - Mayamata  
P.9
6. Fonseka ,S - Superstitions and Beliefs in architecture:  
Examination of their impact on layout and  
Site utilization.  
M. Sc. Dissertation  
1997