

LB/2012/24/00

**AN EXAMINATION OF THE PRINCIPLES  
ADOPTED  
IN THE DESIGN OF  
ROYAL ASSEMBLY BUILDINGS**

ප්‍රසන්නාලය  
මොරටුව විශ්ව විද්‍යාලය, ශ්‍රී ලංකාව  
මොරටුව.

A DISSERTATION  
PRESENTED TO THE  
FACULTY OF ARCHITECTURE  
UNIVERSITY OF MORATUWA  
SRI LANKA  
FOR THE FINAL EXAMINATION IN  
M.Sc ARCHITECTURE  
AND  
PART II EXAMINATION OF  
ROYAL INSTITUTE OF BRITISH ARCHITECTS




71604  
72 "97"  
725.83

**PRASANNA B. RATNAYAKE  
1997 JUNE**

71604

TH

## CONTENTS

<b>Acknowledgements</b> .....	iv
<b>List of figures</b> .....	viii
<b>List of Plates</b> .....	xiii
<b>Abstract</b> .....	1
<b>Introduction</b> .....	3
<b>Chapter One</b> .....	7
<b>Historical and sociological background of Royal Assembly Buildings</b> .....	8
1.1 Changing Political System in Sri Lanka	
1.2 Changing socio cultural system in Sri Lanka	
 University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk	
<b>Chapter Two</b> .....	23
<b>Examination of representative Assembly buildings during different political periods</b>	
2.1 Assembly Hall Sigiriya .....	24
2.1.1 Access .....	25
2.1.2 Entrance .....	25
2.1.3 Height .....	26
2.1.4 Roof .....	26
2.1.5 Plan Form .....	26
2.2 Council Chamber of Parakramabahu .....	26
2.2.1 Access .....	28
2.2.2 Entrance .....	28
2.2.3 Height .....	29
2.2.4 Roof .....	29
2.2.5 Plan Form .....	29

2.3 Council Chamber of Nissanka Malla .....	30
2.3.1 Access .....	30
2.3.2 Entrance .....	31
2.3.3 Height .....	31
2.3.4 Roof .....	31
2.3.5 Plan Form .....	32
2.4 Assembly hall Yapahuwa .....	32
2.4.1 Access .....	33
2.4.2 Entrance .....	33
2.4.3 Height .....	33
2.4.4 Plan Form .....	34
2.5 Council Chamber at Panduwasnuwara .....	34
2.5.1 Access .....	35
2.5.2 Entrance.....	35
2.5.3 Height .....	35
2.5.4 Roof .....	36
2.6 Assembly Hall Kandy.....	36
2.6.1 Access .....	36
2.6.2 Entrance.....	37
2.6.3 Height .....	37
2.6.4 Roof .....	37
2.7 Parliament at Kotte .....	39
2.7.1 Access .....	39
2.7.2 Entrance.....	39
2.7.3 Height .....	40
2.7.4 Roof .....	40
2.7.5 Plan Form .....	40
2.7.6.Details .....	41



## Chapter Three

<b>Analytical study for identification of principles adopted .....</b>	<b>43</b>
<b>3.1 Access to the building .....</b>	<b>44</b>
3.1.1 Analytical study of the access .....	44
3.1.1.1 Assembly hall - Sigiriya .....	44
3.1.1.2 Council Chamber - Parakramabahu .....	44
3.1.1.3 Council Chamber - Nissankamalla .....	45
3.1.1.4 Assembly Building - Yapahuwa .....	45
3.1.1.5 Assembly Building - Kandy .....	45
3.1.1.6 Parliament - Kotte .....	46
3.1.2 Analysis of the Principles adopted .....	46
<b>3.2 Entrance to the building .....</b>	<b>49</b>
3.2.1. Analytical study of the entrance .....	49
3.2.1.1 Assembly hall - Sigiriya .....	49
3.2.1.2 Council Chamber - Parakramabahu .....	49
3.2.1.3 Council Chamber - Nissankamalla .....	50
3.2.1.4 Assembly Building - Yapahuwa .....	51
3.2.1.5 Assembly Building - Kandy .....	51
3.2.1.6 Parliament - Kotte .....	52
3.2.2. Analysis of the principles adopted .....	52
<b>3.3. Planning Arrangement .....</b>	<b>55</b>
3.3.1 Analytical study of the principles adopted .....	55
3.3.1.1 Assembly hall - Sigiriya .....	55
3.3.1.2 Council Chamber - Parakramabahu .....	56
3.3.1.3 Council Chamber - Nissankamalla .....	56
3.3.1.4 Assembly Building - Yapahuwa .....	57
3.3.1.5 Assembly Building - Kandy .....	57
3.3.1.6 Parliament - Kotte .....	57
3.3.2. Analysis of the principles adopted .....	58

3.4. Placing with other buildings .....	60
3.4.1 Analytical study of placing with other buildings .....	60
3.4.1.1 Assembly hall - Sigiriya .....	60
3.4.1.2 Council Chamber - Parakramabahu .....	60
3.4.1.3 Council Chamber - Nissankamalla .....	61
3.4.1.4 Assembly Building - Yapahuwa .....	61
3.4.1.5 Assembly Building - Kandy .....	61
3.4.1.6 Parliament - Kotte .....	62
3.4.2. Analysis of the principles adopted .....	62
3.5. Height of the building .....	64
3.5.1. Analytical study of the principles adopted in height of the building. ....	64
3.5.1.1 Assembly hall - Sigiriya .....	64
3.5.1.2 Council Chamber - Parakramabahu .....	65
3.5.1.3 Council Chamber - Nissankamalla .....	65
3.5.1.4 Assembly Building - Yapahuwa .....	65
3.5.1.5 Assembly Building - Kandy .....	66
3.5.1.6 Parliament - Kotte .....	66
3.5.2. Analysis of the principles adopted .....	67
3.6. Elements and Detailing .....	69
3.6.1. Analytical study of Element and detailing .....	69
3.6.1.1 Assembly hall - Sigiriya .....	69
3.6.1.2 Council Chamber - Parakramabahu .....	69
3.6.1.3 Council Chamber - Nissankamalla .....	70
3.6.1.4 Assembly Building - Yapahuwa .....	70
3.6.1.5 Assembly Building - Kandy .....	71
3.6.1.6 Parliament - Kotte .....	71
3.6.2. Analysis of the principles adopted .....	72

3.7. Surrounding landscape of the building .....	74
3.7.1. Analytical study of surrounding Landscape .....	74
3.7.1.1 Assembly hall - Sigiriya .....	74
3.7.1.2 Council Chamber - Parakramabahu .....	74
3.7.1.3 Council Chamber - Nissankamalla .....	74
3.7.1.4 Assembly Building - Yapahuwa .....	75
3.7.1.5 Assembly Building - Kandy .....	75
3.7.1.6 Parliament - Kotte .....	75
3.7.2. Analysis of the principles adopted .....	76
<b>Conclusion</b> .....	<b>78</b>
<b>Bibliography</b> .....	<b>82</b>





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

## ACKNOWLEDGEMENTS

I wish to express my sincere gratitude to each and every one for their help and guidance, extended to me in numerous ways during this study.

My sincere thanks to .

1. Archt. Prof. Nimal De Silva,  
Head, Dept. Of Architecture,  
For valuable discussions.
2. Archt. Vidura Sri Nammuni,  
Senior Lecturer,  
Dept. Of Architecture,  
For guidance and discussions
3. Archt. Dr. Samitha Manawadu,  
Senior Lecturer,  
Dept Of Architecture,  
For guidance, discussions and encouragement,
4. Archt. D.P. Chandrasekara, University of Moratuwa, Sri Lanka  
Senior Lecturer,  Electronic Theses & Dissertations  
Dept Of Architecture www.lib.mrt.ac.lk  
For guidance, warnings and criticism
5. Prof. Senaka Bandaranayake, and  
Mr. Raj Somadeva, Senior Lecturer,  
Post Graduate Institute Of Archaeology,  
For guidance, advises and comments and  
for allowing to use the library at PGIAR.
6. Archt. S.P.G.Chandraratne.  
Project Manager, CCF project, Sigiriya  
For advises on his experiences
7. Mr. S.G. Weerasooriya,  
Senior Staff Technical Officer,  
Dept. Of Architecture,  
For invaluable support given,

8. Mr. Jayantha Kithsiri, and  
Mr. Ruwan Attanayake,  
Technical Officers,  
Dept. Of Architecture  
For all their support given
9. Mr. Sarath Vithana,  
Technical officer,  
And My friend, Mohan.  
For taking Photographs,
10. My Batchmates.  
T.S.P. Kumara, Nishan Nawaratne, Anjana Premaratne, Zeena Marikkar,  
Sohani Fonseka and Tilak Ratnayake  
For holding valuable discussions, encouragement given and books  
provided
11. My friends,  
Padmasiri & Ruchira Bogahawatte, Nimal . Indika, Chinthana Tilak and Asha,  
For the valuable help given in final Presentation
12. Finally my parents,  University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)  
For all their support and continuous encouragement



## LIST OF FIGURES

01. Map of Sri Lanka
02. Arrival of Mahinda
03. Arrival of Sangamitta
04. Stupa
05. Sigiriya frescoes
06. Arrival of Danta & Hemamala
07. Parakramabahu the great
08. Lankathilake, Polonnaruwa
09. Yapahuwa
10. Lankathilake, Udunuwara  University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)
11. Map of Kotte
12. Map of Sri Lanka
13. Map of Sri Lanka
14. Arrival Of Europeans
15. Old Parliament
16. New Parliament, Kotte.
17. Map of Sigiriya
18. Plan, Assembly Hall, Sigiriya.
19. Plan, Citadel Parakramabahu.
20. Plan, Council Chamber, Parakramabahu

21. Elevation, Council Chamber, Parakramabahu
22. Plan, Citadel, Nissankamalla
23. Plan, Council Chamber, Nissankamalla
24. Elevation, Council Chamber, Nissankamalla
25. Site plan, Yapahuwa.
26. Plan, Council Chamber, Panduwasnuwara
27. Site Plan, Palace complex, Kandy
28. Plan, Assembly Hall, Kandy.
29. Elevation, Assembly hall, Kandy.
30. Dutch Plan of Kandy, 1765
31. Plan, Parliament, Kotte. 
32. Section, Parliament, Kotte.
33. Access Assembly Hall, Sigiriya
34. Access Council Chamber, Parakramabahu
35. Access Council Chamber, Nissankamalla
36. Access Assembly Hall, Yapahuwa
37. Access Assembly Hall, Kandy
38. Access Parliament, Kotte
39. Approaches
40. Town Hall, Sayatsalo
41. Entrance Assembly Hall, Sigiriya

42. Entrance Council Chamber, Parakramabahu
43. Entrance Council Chamber, Nissankamalla
44. Entrance Assembly Hall, Yapahuwa
45. Entrance Assembly Hall, Kandy
46. Entrance Parliament, Kotte
47. Placing an entrance
48. Making an entrance
49. St. Giorgio Maggiore, Venice
50. Axis
51. Planning Assembly Hall, Sigiriya
52. Planning Council Chamber, Parakramabahu
53. Planning Council Chamber, Nissankamalla
54. Planning Assembly Hall, Yapahuwa
55. Planning Assembly Hall, Kandy
56. Planning Parliament, Kotte
57. Forms
58. Nathaniel Russell House, Carolina
59. Symmetry
60. Placing Assembly Hall, Sigiriya
61. Placing Council Chamber, Parakramabahu
62. Placing Council Chamber, Nissankamalla



63. Placing Assembly Hall, Yapahuwa
64. Placing Assembly Hall, Kandy
65. Placing Parliament, Kotte
66. Organizations
67. De Vore House, Montegomery
68. Datum
69. Height Assembly Hall, Sigiriya
70. Height Council Chamber, Parakramabahu
- 71 Height Council Chamber, Nissankamalla
72. Height Assembly Hall, Yapahuwa
73. Height Assembly Hall, Kandy
74. Height Parliament, Kotte
75. Size, Shape & Placement
- 76.Elements & Detailing Assembly Hall, Sigiriya
77. Elements & Detailing Council Chamber, Parakramabahu
- 78 Elements & Detailing Council Chamber, Nissankamalla
79. Elements & Detailing Assembly Hall, Yapahuwa
80. Elements & Detailing Assembly Hall, Kandy
81. Elements & Detailing Parliament, Kotte
82. Rhythm / Repetition
83. Landscape Assembly Hall, Sigiriya



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

84. Landscape Council Chamber, Parakramabahu

85. Landscape Council Chamber, Nissankamalla

86. Landscape Assembly Hall, Yapahuwa

87. Landscape Assembly Hall, Kandy

88. Landscape Parliament, Kotte



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

## LIST OF PLATES

1. Embekke Devala
2. Inscription - Nissankamalla
3. Assembly Hall - Sigiriya
4. Assembly Hall - Sigiriya seat
5. Council chamber - Parakramabahu
6. Council chamber - Nissankamalla
7. Assembly Hall - Yapahuwa
8. Great stairway - Yapahuwa
9. Council chamber - Panduwasnuwara Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
www.lib.mrt.ac.lk
10. Dalada Maligawa - Kandy
11. Assembly Hall - Kandy
12. Parliament - Kotte
13. Parliament - Kotte
14. Abayagiriya - Museum
15. Council chamber - Parakramabahu
16. Council chamber - Nissankamalla
17. Entrance - Parliament - Kotte
18. Church Interior
19. St. peters Piazza

20. Pyramids Egypt.
21. Assembly Hall - Sigiriya
22. Council chamber - Parakramabahu
23. Council chamber - Nissankamalla
24. Assembly Hall - Yapahuwa
25. Parliament Kotte
26. Parliament - Kotte
27. Tajmahal - Agra



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



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

**Abstract**

---



## ABSTRACT

Art is considered as a medium of expression for human thoughts, desires, emotions and ideas. The sign and symbolic act as the vehicle for the communication of the different expressions. In architecture too, various signs and symbols are used to communicate ideas through architectural expressions of the spaces and forms.

In art or architecture, these symbolic expressions are carried to perceptive minds through a language. Like any other language, architectural language too, has certain linguistic principles of grammar and vocabulary to convey a message.

Various qualitative environments often manifest in various regional architecture and their achievement in different cultures are according to respective philosophies. The main function of a Royal Assembly building is providing facilities to the chief executive and his officers, to hold the official activities and make relationships with the citizens. The majesty and the power of the king should be reflected by the royal assembly and the citizens should feel the structured, secured and strengthened power of the king.

The formal majestic and dominant environment provides the background necessary to the way of governing a nation, as well as to behave before a supreme executive.

These environmental qualities have been traditionally achieved by in royal Assembly places by the interplay of architectural principles such as axis, symmetry, hierarchical order, rhythm etc., and determinant factors such as proportions, scale, colour, texture, ornaments and mouldings etc.

Hence architecture is a process of concretising suitable built environments to accommodate the human pattern and is a process of concretising the human patterns by the built forms, once built.