

UNIVERSITI TEKNOLOGI MARA

**THE PHYSICAL ATTRIBUTES OF
DECORATIVE ARCHITECTURAL
COMPONENTS OF
RUMAH LIMAS BUMBUNG PERAK
(RLBP) IN CENTRAL PERAK**

**IRYANI BINTI ABDUL HALIM
CHOO**

Dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Design and Built Environment)

Faculty of Architecture, Planning and Surveying

July 2022

ABSTRACT

The decorative architectural component is one of the Malay traditional architectural components commonly used to incorporate the sense of traditional architecture elements into contemporary modern building design. The characteristic of the decorative architectural components formed part of the traditional Malay house identity. However, the insensitive usage of the decorative architectural component that ignores its' original characteristic and meaning may contribute to confusion and misconception issues on the Malay traditional architectural identity. Previous research conducted on decorative architectural components focused mostly on the visual aspects from the perspective of symbolism, mathematical pattern, placement, influence, principal form, design motifs, design pattern, configuration, and composition, where most of these studies were conducted on the decorative architectural components of the Kelantan, Terengganu, Johor, Malacca, Negeri Sembilan, Penang and Kedah traditional Malay house. There is a gap in research that discusses the physical attributes of the decorative architectural component, including its physical dimension and ratio. In addition, there has been a gap in the study of the decorative architectural components of the traditional Malay house of Perak, particularly on the *Rumah Limas Bumbung Perak* (RLBP). In line with the thrust outlined in the National Identity Architecture 2017 and National Cultural Policy 2021 that aims to form a successful nation with identity and national personality, this research aims to seek a deeper understanding on the physical attributes of the decorative architectural component of RLBP. The research was approached using the qualitative method with three research questions. A pilot study was conducted to achieve RO 1 involving research processes such as document review and on-site observation. From the pilot study, fourteen decorative architectural components are found in RLBP. Multiple case studies were conducted to achieve RO 2. A few research processes were involved, including developing an observation checklist, conducting pilot test, expert validation, inventory study and fieldwork observation. Six samples of RLBP houses were shortlisted from 250 RLBP houses identified from all over the state. The observation was conducted on the six sample houses of RLBP, and the data collection is using the observation checklist and measured drawing of details. The research findings have established the physical attributes of the decorative architectural components of RLBP. The findings show that the attributes of the decorative architectural components adhere to a set of principles closely related to the Malay culture, values, practises, the Malay belief system, and the environmental and climatic aspects. The establishment of knowledge on the physical attributes of decorative architectural components of RLBP contribute to filling the knowledge gap on the decorative architectural components of traditional Malay house and particularly on the overall physical attributes of the decorative architectural components of RLBP. The findings also strengthen and enhance the Malay architectural principles and knowledge of traditional art and architecture, thus preserving its heritage and identity. This research finding is expected to become a reference for the conservator, architects, and designer's in comprehensively understanding the decorative architectural components, thus enabling a meaningful incorporation and application in of decorative architectural components in contemporary building design and conservation practice.

ACKNOWLEDGEMENT

Alhamdulillah, all praise is due to Allah S.W.T the Almighty for giving me the strength, endurance, and opportunity to embark on my PhD study, thus completing this long and challenging journey. Without His blessings, help, and guidance, all of this cannot be possible to achieve.

My gratitude and heartfelt thanks go to my main supervisor, Assoc. Prof. Dr Mohd Sabrizaa Abdul Rashid and my second supervisor, Sr. Dr Kartina Alauddin, for giving constant guidance and confidence, positive support, and feedback throughout my study. I am dearly thankful for all the endless discussions, critical comments, and critiques that have cleared my thought and vision and thus contributed immensely to the completion of this thesis and the maturity of my thought and insight as a scholar. In addition to this, I also wanted to extend my heartfelt gratitude to my supportive husband, Nazrul Helmy Jamaludin, and my lovely daughter, Nada Hazira, for their remarkable support, understanding, patience, and encouragement; that I believe without them, I would not be able to complete my thesis.

My appreciation also goes to all the house owners and caretakers of the case studies houses of *Rumah Limas Bumbung Perak (RLBP)*, and I have benefitted from this study. My sincere thanks go to all of them and their families for allowing me to study in the house. In addition to this, I would like to thank all the experts involved in this study for their willingness to cooperate and provide a bountiful information over the interview and discussions conducted about the decorative wood carving element of traditional Malay house and conservation practice. Special thanks go to the Centre of Research for the Study of Built Environment in the Malay World – KALAM, UTM, and School of Housing, Building, and Planning, USM for permitting me to review the measured drawing collection. My thanks also go to all my friends for their endless support and inspiration and the individuals who have helped me in various, unexpected ways.

Finally, this thesis is dedicated to my husband, daughter, mothers, and fathers – my *mak, mama, abah* and the loving memory of my very dear father (*arwah*) for their vision, encouragement, determination to educate me, and make prayers (*doa*) for me. This piece of victory is dedicated to all of you.

Allahuakbar, Alhamdulillah.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xii
LIST OF FIGURES	xiv
LIST OF SYMBOLS	xxv
LIST OF ABBREVIATIONS	xxvi
CHAPTER ONE INTRODUCTION	1
1.1 Introduction	1
1.2 Research Background	1
1.2.1 National Identity and Cultural Heritage	1
1.2.2 Dasar Senibina Identiti Kebangsaan (DASIK)	3
1.2.3 Dasar Kebudayaan Negara (DAKEN)	5
1.2.4 The Application of the Traditional Architectural Elements in the Contemporary Building Design	7
1.3 Problem Statement	10
1.4 Research Question	11
1.5 Research Aim and Objectives	11
1.6 Scope and Limitation of Study	12
1.6.1 Decorative Architectural Component as the Unit of Analysis	12
1.6.2 Rumah Limas Bumbung Perak of Perak (RLBP) as the Area of Research	14
1.6.3 Physical Attributes as the Parameter of Study	14
1.7 Research Significance	15

1.7.1	Significance Towards the Body of Knowledge	15
1.7.2	Significance Towards the Architectural Contemporary and Conservation Industry	15
1.8	Definition of Term	16
1.8.1	The Physical Attributes	16
1.8.2	Decorative Architectural Component	16
1.8.3	Rumah Limas Bumbung Perak (RLBP)	18
1.8.4	Malay	18
1.9	The organization of the thesis	19
CHAPTER TWO LITERATURE REVIEW		21
2.1	Introduction	21
2.2	Summary of Past Research	21
2.2.1	Decorative Architectural Components of Traditional Malay House	24
2.2.2	Traditional Malay House of Perak	33
2.3	Design Principles in Architecture	37
2.3.1	Order and Principle	37
2.3.2	The Beauty and Aesthetic in Architecture	38
2.3.3	Design Principle and Decorative Architectural Components in Different Culture	40
2.4	The Malay Design Principles	43
2.4.1	Malay Aesthetic Principles	43
2.4.2	The Principle of Malay Architecture	49
2.5	Form Generation	59
2.5.1	Form Generation Process	60
2.5.2	The Visual and Physical Attributes of Form	61
2.6	Decorative Architectural Component of Rumah Limas Bumbung Perak (RLBP)	66
2.6.1	The Attributes of Decorative Architectural Components of RLBP	67
2.7	Rumah Limas Bumbung Perak (RLBP)	69
2.8	Decorative Architectural Components of Traditional Malay House	73