

UNIVERSITI TEKNOLOGI MARA

CONSERVABLE SPATIAL AND
BUILDING ELEMENTS OF
TRADITIONAL LONGHOUSE FOR
CONSERVATION

JANET VICTORIA ANAK STIA

Thesis submitted in fulfillment
of the requirements for the degree of
Master of Science
(Built Environment)

Faculty of Architecture, Planning and Surveying

March 2020

ABSTRACT

Traditional longhouse is one of the unique communal dwellings that can be found across the globe from the Austronesia-Maritime South East Asian region to North America and ancient Ireland. Nowadays some of the longhouses abandoned and demolished to give way to modern dwellings. Some is being modernized to adapt to the latest trend of living. Traditional longhouse in Sarawak, Malaysia is no exclusion. The Dayak people which consist of three main ethnic groups namely the Iban, Bidayuh and Orang Ulu are known to be longhouse dwellers and some still strongly practicing the longhouse lifestyle. Even though the traditional way of living is still maintained, but the design, materials, and method of construction of the longhouse have been modernized from day to day. The phenomenon of abandoning, demolishing and modernizing of the traditional longhouse become a major concern which leads to this study. Objective of the study is to ascertain spatial elements of the traditional longhouse that still survived against modernization. Second objective is to identify building elements, materials, and method of construction of the existing spatial elements that has the potential to be conserved. Last objective is to develop guidelines for traditional longhouse conservation. Preliminary studies had been done to select the traditional longhouse based on the selection criteria. 15 • traditional longhouses in Sarawak were selected, which 8 longhouses in Kuching and Serian area, 2 longhouses in Saratok area and 5 longhouses in Bintulu and Kapit area. This study used qualitative data obtained from observation, drawings and photos analysis and informal non-structured interview during fieldworks. These data were recorded in Inspection Checklists to ascertain surviving spatial elements and Record Card to identify conservable building elements. Analysis was done on the percentages of traditional longhouses that still maintained the traditional spatial and building elements. Basically, longhouse has four main spatial elements that are the open veranda, long gallery, apartment, and loft. It was found that the long gallery and apartment had the highest potential to be conserved. Meanwhile, the stilts, beam-column and floor are the most conservable building elements in term of materials and method of construction. Guidelines are developed on the conservable spatial and building elements as a solution for longhouse conservation. As a conclusion, the proposed guidelines can be used by all relevant stakeholders for the conservation of traditional longhouse.

ACKNOWLEDGEMENT

Firstly, I wish to thank God for giving me the opportunity to embark on my Master Degree and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor Dr Siti Akhtar Mahayuddin.

My appreciation goes to the headmen and longhouse dwellers of Kpg Mujat, Kpg Paon Gahat, Kpg Rasau, Kpg Annah Rais, Kpg Benuk, Kpg Sebemban, Kpg Mongkos, Kpg Paon Rimu, Rumah Jimmy, Rumah Medol, Uma Kulit, Uma Belor, Rumah Ahsoon, Rumah Manja and Rumah Ruma who provided the permissions and assistance during data collection. Special thanks to my parents, sister, brother, relatives and friends for helping me especially during searching the right selected longhouses.

Finally, this thesis is dedicated to my mom and dad for the vision and determination to educate me. This piece of victory is dedicated to both of you. Thanks God for the blessings.

TABLE OF CONTENT

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENT	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF PLATES	xiv
CHAPTER ONE: INTRODUCTION	1
1.1 Introduction	1
1.2 Research Background	1
1.3 Problem Statement	3
1.4 Research Objectives	5
1.5 Scope and Limitation of Research	6
1.5.1 Scope of Research	6
1.5.2 Limitation of Research	6
1.6 Significance of Research	7
1.7 Research Structure	7
1.8 Summary	9
CHAPTER TWO: TRADITIONAL LONGHOUSE	11
2.1 Introduction	11
2.2 Introduction to Traditional Longhouse	
2.2.1 Communal Dwelling	13
2.2.2 Vernacular House and Traditional House	14
2.2.3 Austronesian House	15
2.2.4 Traditional Longhouse	15
2.3 Traditional Longhouse as a Cultural Heritage	17

2.4	Typology of Traditional Longhouse	18
2.4.1	Iban Traditional Longhouse	19
2.4.2	Bidayuh Traditional Longhouse	22
2.4.3	Orang Ulu Traditional Longhouse	28
2.4.3.1	Kayan, Kenyah and Kajang Longhouse	28
2.4.3.2	Lahanan Longhouse	30
2.4.3.3	Kelabit Longhouse	31
2.4.3.4	Lun Bawang Longhouse	33
2.4.4	Melanau Longhouse	35
2.5	Traditional Longhouse Materials and Method of Construction	37
2.6	Threat to Traditional Longhouse	39
2.6.1	Modernization	39
2.6.2	Abandonment	40
2.6.3	Fire Threats	41
2.7	Traditional Longhouse Conservation	42
2.7.1	Approach to Conserve Traditional Longhouse	42
2.7.2	Guidelines in Traditional Longhouse Conservation	44
2.7.3	Challenges in Traditional Longhouse Conservation	44
2.8	Summary	45
CHAPTER THREE: RESEARCH METHODOLOGY		47
3.1	Introduction	47
3.2	Research Process	47
3.3	Research Instruments	49
3.3.1	Inspection Checklist	49
3.3.2	Record Card	52
3.4	Traditional Longhouse Selection for Sampling	53
3.4.1	Criteria of Traditional Longhouse Selection	53
3.4.2	Number of Traditional Longhouse Selected	55
3.5	Data Collection for Conservable Spatial and Building Elements of Traditional Longhouse	59
3.5.1	Method of Data Collection	59
3.5.2	The Data Collection Process	61