

MASTER'S THESIS

Human thermal comfort in open space in Tin Shui Wai, Hong Kong

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Human Thermal Comfort in Open Space in Tin Shui Wai, Hong Kong

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for the degree of

Master of Philosophy

Principal Supervisor: Prof. YAN Yuk Yee

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Abstract

This study attempted to understand the microclimate developed and the human thermal sensation resulted in the open spaces in Hong Kong. Open spaces in both rural and urban areas in Tin Shui Wai, a newly developed town in Hong Kong, were selected for the study of thermal environment. It was found that differences in microclimate existed between rural area and urban area, and even among different urban area. The design of urban setting in the surrounding environment of the open spaces was highly suspected for the resulting differences. In addition, questionnaire interviews with open space users (in urban open spaces) were carried out, simultaneously with the weather measurement, to examine the human thermal sensation. The results revealed that thermal sensations were different between the respondents in different open spaces, too. It illustrated that the design of open spaces influenced the thermal comfort conditions to its users. Besides, changing in amount of clothing in different seasons, as an adaptation to achieve thermal satisfaction, was also observed. Findings of this study provide better understanding of microclimate developed in Hong Kong and they are also useful information for urban planners to design better quality of open spaces.

Table of Contents

	Page
Declaration	i
Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Plates	vii
List of Tables	viii
Chapter One: Introduction	
1.1 Background	1
1.2 Aims/ Objectives	4
1.3 Research Question & Hypothesis	5
1.4 Significance	6
1.5 Background Information	6
1.5.1 Open Spaces	6
1.5.2 Thermal Comfort	10
1.5.3 Clothing	12
1.5.4 Summary	14
1.6 Literature Review	14
1.6.1 Thermal Comfort in Open Spaces in Temperate region	15
1.6.2 Thermal Comfort in Open Spaces in Tropics/ Subtropics	21
1.6.3 Thermal Comfort in Open Spaces in Hong Kong	24
1.6.4 Summary	25

Chapter Two:	Methodology	
2.1	Study Area	26
2.1.1	Tin Shui Wai New Town	26
2.1.2	Tin Shui Wai Park	30
2.1.3	Tin Heng Estate	31
2.1.4	Hong Kong Wetland Park	32
2.1.5	Summary	33
2.2	Data Collection	34
2.3	Data Analysis	38
Chapter Three:	Results	
3.1	Thermal Environment	40
3.2	Thermal Sensation (Overall Thermal Comfort)	47
3.3	Thermal Perception on Weather Parameters	50
3.3.1	Temperature	50
3.3.2	Humidity	52
3.3.3	Wind Speed	53
3.3.4	Solar Radiation	54
3.4	Thermal Preference on Weather Parameters	55
3.4.1	Temperature	55
3.4.2	Humidity	57
3.4.3	Wind Speed	58
3.4.4	Solar Radiation	59
3.5	Relationship between Thermal Perception and Thermal Sensation	60
3.6	Relationship between Thermal Preference and Overall Thermal Comfort	62
3.7	Clothing	64
Chapter Four:	Discussion	
4.1	Thermal Environment	67
4.2	Thermal Sensation	76
4.3	Relationship between responses to thermal sensation, perception & preference	82
4.4	Clothing	89

Chapter Five:	Conclusion and Recommendation	
5.1	Conclusion	91
5.2	Recommendation	93
Appendix		95
Bibliography		96
Curriculum Vitae		103