

## 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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**A thesis submitted in partial fulfillment of the requirements**

**for the degree of**

**Master of Philosophy**

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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.

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