Visitors’ Perceptions of the Hong Kong Global Geopark of China

CHAN Po Yu

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Philosophy

Principal Supervisor: Prof. OWEN Richard Bernhart

Hong Kong Baptist University

March 2013
The establishment of the Hong Kong Geopark and its inclusion as one of the members of the Global Geopark Network was of considerable significance in terms of the geological heritage of Hong Kong, with implications for conservation, education, and sustainable development. This study has examined visitor perceptions and the opinions of experts and scholars, in order to assist with the development of the management strategies directed towards preventing the Geopark suffering from cumulative visitor impacts and an excessive management footprint.

The study utilizes the New Environmental Paradigm (NEP) and a set of geopark statements developed after reviewing relevant literature and newspaper articles, combined with personal observations in the Hong Kong Global Geopark of China, and other Geoparks in China. On-site questionnaire surveys were conducted on Sharp Island and Tung Ping Chau, and a series of statistical analyses, were performed. Findings include demographic results, visitor characteristics, pro-environmental orientation as represented by the NEP, visitor and expert perceptions of issues affecting the Geopark, and face-to-face interviews.

The findings reveal that most respondents have a medium to high pro-environmental attitude, which positively correlates with the conservation orientation in terms of the Geopark Statement (GS) scores. Respondents who have higher NEP scores would have stronger negative opinions on issues like litter pollution, vandalism, and larger-scale development projects and positive stands with regards to Geopark conservation.

Age, gender, knowledge of the issues, cultural identity, to all affect respondent perceptions of the issues of “recreational facility excessiveness”, “crowding expectation”, and “seeing wind turbines from the Geopark”.

Expert interviews suggest that the establishment of the Geopark is of considerable significance in terms of geoheritage in Hong Kong, and that there is a need for efficient and effective management strategies to conserve the Geopark. This study of visitor perceptions should provide a preliminary reference point for the development of future management strategies.

To successfully achieve the three-pronged responsibilities (conservation,
education, sustainable development) of being a Global Geopark, the Hong Kong Global Geopark of China needs to refer to international Geopark management strategies and to integrate applicable measures to the local situation. Education is the main justification for allowing limited visitor impacts, such as trampling. A critical element is that the Geopark should broaden its education and conservation scope from geology to an environment-as-a-whole-system approach to increase empathy for the park environments. The message of geo-education and environmental conservation would be usefully improved if combined with more intriguing learning experiences that enhance visitor interest.
Table of Content

DECLARATION ............................................................................................ I
ABSTRACT ..................................................................................................II
ACKNOWLEDGEMENTS .......................................................................... IV
TABLE OF CONTENT ............................................................................... V
LIST OF TABLES .................................................................................... IX
LIST OF FIGURES .................................................................................. X
LIST OF ABBREVIATIONS ...................................................................... XI

CHAPTER 1  INTRODUCTION TO THE STUDY .................................. 1
1.1 Introduction .......................................................................................... 1
1.2 History of the Hong Kong Geopark and its Current Status and
Challenges ................................................................................................. 2
1.3 The Protected Areas in Hong Kong ...................................................... 6
  1.3.1 Country Parks, Special Areas and Sites of Special Scientific
      Interest (SSSI) .................................................................................. 6
  1.3.2 Marine Parks and Marine Reserves ............................................. 8
  1.3.3 Restricted Areas ........................................................................ 8
  1.3.4 Hong Kong Global Geopark of China ........................................ 9
1.4 Goal and Objectives of the study......................................................... 10
  1.4.1 Overall Goal ............................................................................... 10
  1.4.2 Objectives ............................................................................... 11
1.5 Significance of the study..................................................................... 11
1.6 Literature review: geotourism, geoconservation and
  visitors’ perception............................................................................... 12
  1.6.1 Global Geopark Network (GGN) .............................................. 12
  1.6.2 The geo-concepts behind Geoparks .......................................... 13
  1.6.3 Ecotourism and Geotourism .................................................. 16
    1.6.3.1 Definitions ...................................................................... 16
CHAPTER 2  METHODOLOGY AND STUDY SITES  .......................31

2.1  Introduction .............................................................................31

2.2  Study areas .............................................................................32

  2.2.1  General characteristics of the HKGP ..................................32

  2.2.2  General description of Sharp Island and Tung Ping Chau ..........34

2.3  Sampling and data collection ..................................................36

2.4  Questionnaire Design ...............................................................37

2.5  Data analyses ...........................................................................39

  2.5.1  Hypotheses .........................................................................40

  2.5.2  Descriptive statistical analyses ...........................................41

  2.5.3  Nonparametric tests on examining relationships ..................41

  2.5.4  Principle Components Analysis (PCA) of Geopark Statements scores .........................................................42

  2.5.5  Testing the difference between groups of respondents with different environmental attitudes (One-Way ANOVA) ........43

2.6  Face-to-face interview ..............................................................43

2.7  Chapter conclusion ..................................................................46
CHAPTER 3  QUESTIONNAIRE SURVEY RESULTS ......................48
3.1 Introduction............................................................................................................48
3.2 Demographic information of the respondents .................................................49
    3.2.1 Age and gender .................................................................................................49
    3.2.2 Place of residence ..............................................................................................53
    3.2.3 Education level .................................................................................................55
3.3 Visit characteristics..............................................................................................56
    3.3.1 Tour participation and types of tour .................................................................56
    3.3.2 Visit experience .................................................................................................59
3.4 Reason for the HKGP establishment, satisfaction level, and likelihood of a revisit..................................................................................................................62
3.5 Pro-environmental orientation (by NEP) of the HKGP visitors .....................63
3.6 Statistical comparison of the NEP groups (Cross tabulation and One-way ANOVA) ......................................................................................................................64
3.7 Geopark Statement score and the level of support for maintaining the status quo of the HKGP ........................................................................................................66
3.8 Comparison of different concern groups (Cross tabulation and One-way ANOVA) ......................................................................................................................67
3.9 Principal component analysis of Geopark statement scores..........................69
3.10 Comparison of NEP groups and Geopark Statement scores ......................73
3.11 Comments given by the respondents ...............................................................79
3.12 Chapter conclusion ............................................................................................83

CHAPTER 4  FACE-TO-FACE INTERVIEW RESULTS......................84
4.1 Introduction............................................................................................................84
4.2 Benefits and drawbacks of the HKGP ...............................................................84
    4.2.1 Benefits .............................................................................................................84
    4.2.2 Drawbacks .......................................................................................................87
4.3 Planning and management ................................................................................89
    4.3.1 Country Park enclaves ...................................................................................89
    4.3.2 Facilities ...........................................................................................................93
### CHAPTER 5 DISCUSSION AND CONCLUSION ................................................. 104

- **5.1 Introduction** .................................................................................. 104
- **5.2 Summary of the study** .................................................................... 104
- **5.3 Hypotheses discussion** .................................................................. 107
  - 5.3.1 Why females are more pro-environmental than males? .......... 107
  - 5.3.2 Disparity between visitors’ standard on NEP and GS .......... 108
  - 5.3.3 Attitude tendencies on GS factors and items ..................... 109
    - 5.3.3.1 “Litter pollution acceptability” and “poor behaviour of visitors” ........................................... 109
    - 5.3.3.2 “Facility excessiveness”, “development”, and “viewscape”. 110
    - 5.3.3.3 “Crowding expectation”, “conservationist orientation”, and “proposed management” ..................... 114
- **5.4 The Hong Kong Global Geopark of China in a broader context” ....... 117
  - 5.4.1 Fragile areas need more protection by reinforcing enforcement .... 118
  - 5.4.2 Engaging learning experiences .................................................. 119
  - 5.4.3 Pilot scheme to enhance cultural and social sustainability ........ 123
- **5.5 Shortcomings of the study** ............................................................ 125
- **5.6 Future research** ............................................................................ 126
- **5.7 General research conclusion** ......................................................... 127

### APPENDIX I ......................................................................................... 129

### BIBLIOGRAPHY .................................................................................. 132

### CURRICULUM VITAE .......................................................................... 147