



UNIVERSITI  
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# Poster Book

**IIIDBEE X 2023**  
20 JANUARY 2023  
*International Invention, Innovation & Design Exposition  
for Built Environment and Engineering 2023*

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**Unleashing Potentials  
Shaping the Future**

# CONTENTS

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**01 Contents**

**02 Preface**

**03 Welcome remarks**

**04 Exhibition layout**

**05 Event programme**

**06 List of entries**

**07 Poster category: Academician &  
Professionals**

**08 Poster category: Postgraduate**

**09 Poster category: Undergraduate**

**10 Appreciation**

# SUSTAINABLE GEO TOURISM BRIDGING GEO HERITAGE AND CULTURE THROUGH NATURAL AND LANDSCAPE CONSERVATION

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### INTRODUCTION

- Gunung Lang development collaboration by Ipoh City Council and National Landscape Department in 1999 is only for eco-tourism, research and education.
- Have a natural landscape of limestone hills in the center of Lembah Kinta which is declared as a National Geopark.

### PROBLEM STATEMENT

Gunung Lang was already known by Ipoh folk and foreigners as the park itself has potential more than that. Unfortunately, the uniqueness of Gunung Lang was not outstanding among the community of Ipoh. Limestone hills are seen to be very difficult to maintain and restore due to the damage.

### DESIGN GOAL

To sustain geo tourism of Gunung Lang by bridging the geo heritage and culture through natural and landscape conservation.

### SWOT

- STRENGTH:** Geology features and strategic location make it unique from another geopark areas in Kinta.
- WEAKNESS:** Improper facilities and amenities cause lost spaces and bad visual quality for visitors.
- OPPORTUNITY:** As a main attraction for foreigners and accessible by road and public transport.
- THREAT:** Surrounding rapid development cause the degradation of limestone hills and the ecosystem.

### ISSUES

- Unintegrated landscape with user interaction and managing space for social activities, it is risky as there is limestone collapse.
- Neglecting the uniqueness of limestone features and the geological formation of Gunung Lang leads to partial loss of physical damage.
- The natural disturbances in parks are wildlife disturbances and soil erosion makes the place unsafe for visitors and other wildlife sanctuaries.

### OBJECTIVES

- GEOLOGY TOURISM:** To preserve the geological potential and its cultural at limestone hill and cave area with geo heritage trail towards sustainable geo tourism.
- KARST APPRECIATION:** To maintain the limestone hills and its natural karst landscape for the appreciation of its own beauty and uniqueness.
- BIODIVERSITY CONSERVATION:** To conserve the existing biodiversity, include the natural forest and wildlife thus integrate its landscape through geo-ecological approach.

### DESIGN PRINCIPLES



### METHODOLOGY- Ian McHarg (Overlay map)

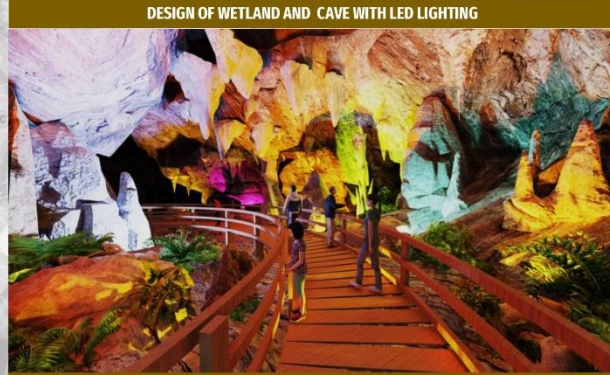
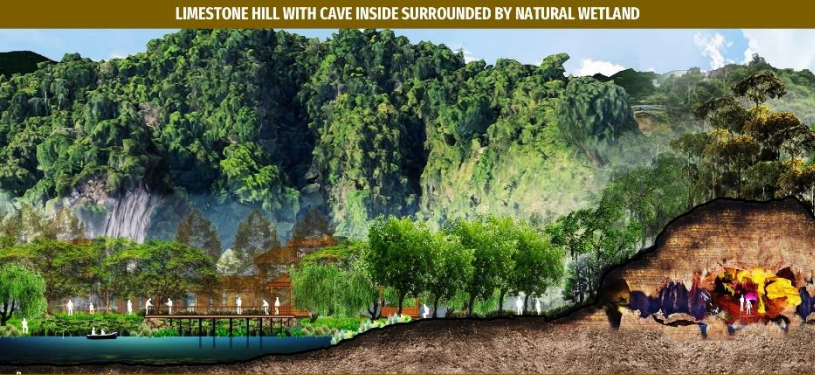
### SYNTHESIS MAP

### NOVELTY DESIGN AND INNOVATION

UNESCO Global Geoparks promote sustainable local economic development mainly through geo tourism. The geopark's approximately 480 million years of geological heritage provides a resource for developing geo tourism and for educational activities.

**Cave light** is a show cave, mainly to ensure the safety of the visitors as well as to provide an amazing vibrant light and maximum aesthetic effect. They are low cost and low maintenance as they are practical by the solar energy system.

Next, **rockfall barrier** structures also known as fences placed at 20 meters and 3 meters above boardwalks. When there is a rockfall occurred, the flexible net will catch and hold the rocks strongly. Cliffside will safe from sudden rockfalls and proposed signage for awareness.



### CONCLUSION & RECOMMENDATION

In conclusion, Gunung Lang geological significance has been proven can be used to develop as a geo tourism site. This will ease the Geo Park Lembah Kinta to entitle as a national geopark and will lift the tourism sector in Perak. Meanwhile, the uniqueness of geological features in Gunung Lang will be exposed to the community which help awareness on overcoming the degradation of limestone hills due to unplanned urban development. From the geological approach, Gunung Lang is truly a geo park with a serene nature of limestone hills. Thus, the tropical rainforest itself is a living habitat that will continue to live for our future generations to make use of it. As landscape architecture, this opportunity should be taken to distinguish us from geoparks because it is rare and is a difference for landscape design in the area. Finally, the geopark initiative is to preserve and conserve geo sites that have geo-heritage, geo-formation, and geo-culture as wonders of the world. I would highly recommend National Geopark look forward to improving identity and design methods in the form of landscape conservation on Gunung Lang more for geo-tourism.

### REFERENCES

- Dowling, R. K. (2009). Geotourism's contribution to local and regional development. In: De Car-valho, C., & Rodrigues, J. (Eds.), Geotourism and Local Development (pp. 35-37).
- ICOM (2005). Guidelines and Criteria for National Geopark seeking UNESCO's assistance to join the Global Geopark Network. UNESCO, Division of Ecological and Earth Sciences, 115-118.
- Mutiara Kamal, N. M. F. (2018). Geo Tourism: Transforming Gunung Lang Recreational Park as Geo Park Through Geological and Ecological Approach. World Development, 113, 1-15.
- Pralong, J. P. (2006). Geotourism: A new form of tourism utilising natural landscapes and based on imagination and emotion. Tourism Review, 61(3), 20-25.