

# STEWARDSHIP

THE QUEST FOR A SUSTAINABLE  
LANDSCAPE

Ismawi bin Zen  
Izawati Tukiman

IIUM PRESS  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA



# **STEWARDSHIP**

## **THE QUEST FOR A SUSTAINABLE LANDSCAPE**

*Edited by*  
**ISMAWI ZEN**  
**IZAWATI TUKIMAN**



**IIUM Press**

Published by:  
IIUM Press  
International Islamic University Malaysia

First Edition, 2011  
©IIUM Press, IIUM

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without any prior written permission of the publisher.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

ISBN: 978-967-0225-66-1

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM  
(Malaysian Scholarly Publishing Council)

Printed by :  
**IIUM PRINTING SDN. BHD.**  
No. 1, Jalan Industri Batu Caves 1/3  
Taman Perindustrian Batu Caves  
Batu Caves Centre Point  
68100 Batu Caves  
Selangor Darul Ehsan

# CONTENT

---

Preface x

Chapter 1:  
**FROM DILMUN TO PUTRAJAYA: A JOURNEY IN SEARCH OF PARADISE ON EARTH** 1-54

**Ismawi bin Zen**

- 1.1 Introduction
- 1.2 Paradise as a Garden
- 1.3 Indigenous Gardens of The Malay World
- 1.4 Landscape and Development Planning in Malaysia
  - 1.4.1 The Colonial Heritage: Towns Planning and Development Control
  - 1.4.2 Bridging the Gap: Rural and Regional Development
  - 1.4.3 Industrialization and the Transformation of Urban Landscape
  - 1.4.4 Malaysian Landscape and New Urbanism
- 1.5 Landscape and the Malaysian Planning System
  - 1.5.1 The National Physical Plan
  - 1.5.2 The State Structure Plan
- 1.6 Conclusion: Way Forward

Chapter 2:  
**PERSONAL BONDING WITH NATURE IN A CITY** 55-70

**Mazlina Mansor**

- 2.1 Introduction
- 2.2 Theories on Human-Nature Bonding
- 2.3 Studies on Human-Nature Bonding
- 2.4 Nature Benefits and Residents' Bonding in a City
- 2.5 Conclusion

Chapter 3:

**THINKING ABOUT ENVIRONMENT: URBAN MORPHOLOGY**

**AND MICROCLIMATE CONDITIONS**

**71-107**

**Aniza Abu Bakar**

- 3.1 Introduction
- 3.2 Urban Heat Island (UHI)
- 3.3 Urban Microclimate of Tropical Regions
- 3.4 Urban Wind and Ventilation in Hot-Humid Cities
- 3.5 Malaysian Sky Condition
- 3.6 Urban Form – Canyon Height and Street Width (H/W) Ratio and Aspect Ratio
- 3.7 Vegetation in Urban Setting
- 3.8 Water Elements in Urban Settings
- 3.9 Conclusion

Chapter 4:

**ENVIRONMENTAL PARADOX: URBAN DRAINAGE ISSUES**

**108-126**

**Izawati Tukiman**

- 4.1 Introduction
- 4.2 Drainage Issues in Urban Landscape
- 4.3 Focusing on Sustainable Landscape Directions
  - 4.3.1 Reduction of Reliance on Water as the Medium of Transport for Waste
  - 4.3.2 Elimination of the Mixing of Industrial Wastewater with Domestic Wastewater
  - 4.3.3 Separation of Stormwater Runoff from Flows of Polluted Water
- 4.4 Conclusion – It’s Time to Act

Chapter 5:

**VALUES OF RIVER TOWARDS SUSTAINABLE URBAN LANDSCAPE DEVELOPMENT**

**127-151**

**Mohd Ramzi Mohd Hussain**

- 5.1 Introduction
- 5.2 Rivers and Approaches to Ecological Knowledge and Urban Natural Resources Management

- 5.3 Rivers as an Urban Greenways Corridor and Green Patches
- 5.4 Rivers as an Urban Heritage Conservation
- 5.5 Rivers and Riverfront Development
- 5.6 Islamic Perspectives on Sustainable River Development
- 5.7 Conclusion

Chapter 6:

**Neighbourhood Green Open Spaces:  
Modelling the Quality Criteria  
Nurhayati Abdul Malek**

**152-177**

- 6.1 Introduction
  - 6.1.1 Issues in Quality Green Open Spaces Study
  - 6.1.2 Research Directions and Objectives
  - 6.1.3 Theoretical Framework for Developing Quality Neighbourhood Parks
  - 6.1.4 Proposed Path Model on Quality Neighbourhood Parks
- 6.2 Defining 'Quality Neighbourhood Park'
  - 6.2.1 Neighbourhood Parks as Community Integration Venues
- 6.3 Method - Structural Equation Modelling (SEM)
- 6.4 Findings derived from the Path Analysis Model
- 6.5 Conclusion

Chapter 7:

**HIGHLAND CLOSE UP: LINKING HIGHLAND  
LANDSCAPE TO MANAGEMENT PRACTICES 178-205  
Jamilah Othman**

- 7.1 Introduction
- 7.2 Implication of Excessive Development
- 7.3 Scenic Beauty Under Attack
- 7.4 Theoretical Assessment of Scenic Beauty Preference
- 7.5 Implications of Scenic Beauty Assessment

## 7.6 Conclusion

...

Chapter 8:

**EXPANSION OF MASJIDAL HARAM,  
MAKKAH AL-MUKARRAMAH: TRANSLATING  
CUSTODIANSHIP  
INTO ENVIRONMENTAL STEWARDSHIP 206-251**  
**Ismawi bin Zen**

8.1 Background: Masjidal Haram and the Performance of *Hajj*

8.2 Kaabah and the *Hajj*

8.3 Visioning the Expansion of the Haram

8.3.1 Increase in Number of Pilgrims

8.3.2 Custodianship of al-Haram

8.3.3 The Moment

8.3.4 The Context

8.4 Problematiques and Challenges

8.4.1 Encroachment and Integration

8.4.2 High Values and Aggressive Development

8.4.3 Seasonal Peaks

8.4.4 Formal Configuration of the Haram Mosque

8.4.5 Excessive Stylization

8.5 Issues

8.5.1 The Issues of Scalability needs to be addressed  
on a number of levels

8.5.2 *Khilafah* vs. Ownership

8.5.3 Materiality

8.5.4 Spirituality

8.6 Conclusion: Where do we go from here?

8.6.1 Plausible Solution

8.6.2 Total Solution

Chapter 9:

**PRE-EMPTING THE FUTURE: TRAINING OF A  
LANDSCAPE ARCHITECT AT THE INTERNATIONAL  
ISLAMIC UNIVERSITY MALAYSIA 252-279**  
**Ismawi bin Zen**

9.1	Introduction	
9.2	The Training of Landscape Architects at the International Islamic University Malaysia (IIUM)	
9.3	The Making of a Landscape Architect	
9.3.1	Knowledge	
9.3.2	Creativity	
9.3.3	Skill	
9.3.4	Awareness	
9.3.5	Adaptability	
9.4	Step-Ladder of Quality in Knowledge Acquisition for a Landscape Architect	
9.4.1	Knowledge Delivery Model	
9.4.2	Knowledge Discovery Model	
9.4.3	Knowledge Construction Model	
9.4.4	Knowledge Innovation and Diffusion Model	
9.5	Conclusion	

<b>BIBLIOGRAPHY</b>	<b>280</b>
---------------------	------------

<b>GLOSSARY</b>	<b>314</b>
-----------------	------------



## Chapter 5

# VALUES OF RIVER TOWARDS SUSTAINABLE URBAN LANDSCAPE DEVELOPMENT

**Mohd Ramzi Mohd Hussain**

### **5.1 Introduction**

River is the primary historical sources for the water, transportation artery, economic transaction and a recreational amenity. Recreational activities occurred along the rivers which providing opportunities for activities such as eco-tourism, sport fishing and other outdoor activities (Figure 1 and Figure 2). Rivers are longitudinally, laterally, vertically and temporarily connected with their environment (Rohde et al., 2006). However, with the rapid growth of urbanization, the river was lost to public consciousness, particularly after embankments were built on both its banks in a bid to protect the city from the flooding river (Nagpal and Sinha, 2009). According to Baschak and Brown (1995), urbanization involves large transformations of land, air, energy resources, water bodies and human populations. These transformations are having major ecological consequences for urban habitats. More specifically they add that urban landscapes are progressively becoming deficient of areas with significant ecological values<sup>1</sup>.