Rebuilding identity of historical area through the use of urban morphology

PhD Thesis Defense, Universiti Teknologi Malaysia
Widya Fransiska Febriati Anwar (PB093004)
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Supervisor(s):
Assoc. Prof. Dr. Ismail Said
Dr. Dilshan Remaz Ossen
Dr. Moh. Hisyam bin Rasidi
Overview

• Background
• Research Gap
• Theoretical Review
• Research Aim
• Research Objectives
• Research Question
• Research Method
• Result
• Findings
• Implication, Contribution and Recommendation
Background

The urban change threatens the old areas which have historical and social cultural values of riverine culture.

The historical areas try to reconcile with the nature of the modern city.

New physical development at the historical riverside area  Change on urban morphology  Change on appreciation towards historical elements

Palembang identity is threatened by the lost of its historical elements
In urban morphology study, the discussion on urban character is dominated by the studies on the inland city where the character of historical area is obviously persistent in modern context.

There is limited discussion on

- The river as the elements that form the urban character of a city
- The urban character at historical riverside area
The previous studies on Palembang riverside area are dominated by the discussion on the **structure of the settlement** such as the change and the typology.

There is a **lack** discussion on the **morphology** of riverside settlement and its relation of the **identity of Palembang as a river city**
• Some studies have underlined the use of physical urban elements to create, rebuild and maintain identity for **urban sustainability**
  – Using physical identity characteristic and hidden feature of **traditional pattern** (Tavakoli, 2010)
  – Using **architecture** for understanding the forming of city identity (Doucet, 2007; Makas, 2007)
  – Using the **urban morphology** to investigate the architecture and urban character (Elsheshtawy, 2008)
  – Using the **people-place relationship** (Gospodini, 2004, 2006; Lewicka, 2008)
Theoretical Review

Urban Morphology

Urban Element

Urban Setting

Urban Structure Change

Urban Reminder

Rebuilding City Identity

Place Identity

Identity of Place

Place Character

City's Identity

Image of the city

City Marketing Culture

Conservation Preservation

Environmental Psychology

Place Attachment

Place Identity

Identity of Place

Place Familiarity

Sense of Place

Place Character

City's Identity

Image of the city

City Marketing Culture

Conservation Preservation

Theoretical Review


Tuan, 1974; Steele, 1981; Altman and Low, 1992; Hummon, 1992; Jackson, 1994; Cross, 2001; Guiliandi, 2003; Willian and Vaske, 2003; Smaldone, 2006; Handal. 2006; Beidler, 2007; Hernandez, 2007; Brown and raymond, 2007; Watson and Bentley, 2007; White et.al, 2008; Liu, 2009; Raymod et.al, 2010; Najafi and Kamal, 2011

Schuller, 1898; Geisler, 1918; Whitby, 1951; Conzen, 1960; Muratori, 1960; Hillier and Hanson, 1984; Forties; 1989; Kropt, 1996; Hall, 1997; Levy, 1999; Canigia, 2001; Jiang and Claramunt, 2002; Chapman, 2006; James and Bound, 2009; Tian et et.al, 2010; Topcu and Kubat, 2012


Whitehand and Morton, 2004; Rapoport, 2004; Samant, 2004; Tweed and Sutherland, 2007; Smith, 2008; Rabady, 2010; Ragab, 2011, Kim, 2011

Rodwel, 2007; Kolzowski and Bowen, 1997; Sevink, 2009; Wei and Kiang, 2009; Whitehand and Gu, 2010; Albert and Hanzen, 2010; Hillier, 2001
To identify the use of morphology of riverside settlement for the rebuilding of the city identity as a historical river city
Research Objectives

1. To identify the **physical and spatial structure** of riverside settlement along Musi river that characterized the character of the river city,

2. To investigate how **place character** of historical riverside area can establish the identity of river city, and

3. To identify the **interdependency between the urban morphology and identity** of the city to determine the appropriate physical development at historical riverside area.
## Research Questions

| RQ#1: What is the **morphology** at the historical riverside area? | • What are the **types of urban structure and form** are found at Musi historical riverside area based on **physical properties and social value** of riverside community?  
• What are the **changes** of building form and urban structure at Musi historical riverside settlement?  
• What are the **key elements** of old urban structure and how do they influence the current urban structure of Musi historical riverside settlement after the changes happens? |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>RQ#2: How is the <strong>people - place relationship</strong> at historical riverside area?</td>
<td>• What do <strong>people perceive</strong> about the physical and spatial environment at the historical riverside settlement and the city?</td>
</tr>
</tbody>
</table>
| RQ#3: How does the urban morphology can be used to **rebuild city's identity**? | • How do the remaining key elements such as building, walls, square of old urban fabric **promote the character** of riverside urban development and rebuilding the city’s identity?  
• How to rebuild the city’s character by **using the remaining key elements** of historical urban area?  
• What is the **interdependency between urban morphology and city’s identity**? |
### The Parameters of Study

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Parameters</th>
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</thead>
<tbody>
<tr>
<td>Morphology</td>
<td>• Morphological component</td>
</tr>
<tr>
<td></td>
<td>• Morphological region</td>
</tr>
<tr>
<td></td>
<td>• Morphological development</td>
</tr>
<tr>
<td>Properties</td>
<td>• Physical and spatial elements (Building and space)</td>
</tr>
<tr>
<td></td>
<td>• Key element</td>
</tr>
<tr>
<td></td>
<td>• Place character</td>
</tr>
<tr>
<td></td>
<td>• City’s form (vista)</td>
</tr>
<tr>
<td>Perception toward the place</td>
<td>• Collective memory</td>
</tr>
<tr>
<td></td>
<td>• Cultural expression</td>
</tr>
<tr>
<td>Psychological effect</td>
<td>• Place attachment</td>
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<td></td>
<td>• Sense of Place</td>
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<td></td>
<td>• Special place</td>
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<td></td>
<td>• Responses on development plan</td>
</tr>
</tbody>
</table>
The Study Sites

- There are six villages used as study sites in this research.
  - The Malay settlements are Sekanak and Suro Village.
  - The Chinese settlements are Kapiten and Klinteng Village.
  - The Arabian settlements are Bahrak and Al Munawar Village.
The Research Method

Stage 1
RO#1. The physical and spatial pattern

Urban Morphology
The persistent and new urban element
The physical-spatial pattern changes, street line and river line.
Superimposed the maps

Stage 2
RO#2 Place character that can establish the identity

Identity with the Place
People's appreciation in the past (1890-1935)
People appreciation in the present (2000s)
Old paintings/photos
Archival studies
Interview
Questionnaire

Stage 3
RO#3 The interdependency between the urban morphology and identity

Place Identity
The current bonding between people and riverside area
Interview
Questionnaire

Stage 4
The new/remaining/disappeared urban elements or setting
The forgotten and memorized elements
Social Character
Physical Character
High vs. low appreciation towards place

IDENTITY OF RIVER CITY
### Result: RO#1. Urban Morphology

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical and spatial structure</td>
<td>The Palembang urban structure 1875-2004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Space Syntax Analysis</th>
<th>1875</th>
<th>1920</th>
<th>1945</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connectivity</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>River axial</td>
<td><img src="image1" alt="Image" /></td>
<td><img src="image2" alt="Image" /></td>
<td><img src="image3" alt="Image" /></td>
<td><img src="image4" alt="Image" /></td>
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<tr>
<td>River -street</td>
<td><img src="image5" alt="Image" /></td>
<td><img src="image6" alt="Image" /></td>
<td><img src="image7" alt="Image" /></td>
<td><img src="image8" alt="Image" /></td>
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<tr>
<td><strong>Integration</strong></td>
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<tr>
<td>River</td>
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<td><img src="image10" alt="Image" /></td>
<td><img src="image11" alt="Image" /></td>
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<tr>
<td>River-Street</td>
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<td><img src="image14" alt="Image" /></td>
<td><img src="image15" alt="Image" /></td>
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Result: RO#1. Urban Morphology

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td>Morphological region</td>
<td>The physical and spatial structure of riverside settlement</td>
</tr>
<tr>
<td>Key elements</td>
<td>Remained, disappeared, new urban elements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yr</th>
<th>Kapiten</th>
<th>Klenteng</th>
<th>Al Munawar</th>
<th>Bah rak</th>
<th>Sekanak</th>
<th>Suro</th>
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<tbody>
<tr>
<td>1920</td>
<td><img src="image1.png" alt="Map" /></td>
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<tr>
<td>1945</td>
<td><img src="image7.png" alt="Map" /></td>
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<td><img src="image9.png" alt="Map" /></td>
<td><img src="image10.png" alt="Map" /></td>
<td><img src="image11.png" alt="Map" /></td>
<td><img src="image12.png" alt="Map" /></td>
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<tr>
<td>2004</td>
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<td><img src="image17.png" alt="Map" /></td>
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</table>
### Parameters

<table>
<thead>
<tr>
<th>Place character</th>
<th>City’s form (vista)</th>
<th>Collective memory</th>
<th>Cultural expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tributaries (past); Musi River, pillar and floating houses, boat (Past and Present); Ampera Bridge, Kuto Besak, Masjid Agung (Present); Riverine (past); Cultural Activities (Present); Old Buildings, Spaces, Alleys and Jetty</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Urban elements

<table>
<thead>
<tr>
<th>Urban elements</th>
<th>Location/village</th>
<th>Level of memorability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benteng Kuto Besak</td>
<td>City center</td>
<td>High</td>
</tr>
<tr>
<td>Ampera Bridge</td>
<td>City center</td>
<td>High</td>
</tr>
<tr>
<td>Great Mosque</td>
<td>City center</td>
<td>High</td>
</tr>
<tr>
<td>Kapiten Cina's House</td>
<td>Kapiten</td>
<td>Moderate</td>
</tr>
<tr>
<td>Al Munawar Complex</td>
<td>Al Munawar</td>
<td>Moderate</td>
</tr>
<tr>
<td>Klenteng 9Ulu</td>
<td>Klenteng</td>
<td>Moderate</td>
</tr>
<tr>
<td>Bahrak Old Houses</td>
<td>Bahrak</td>
<td>Moderate</td>
</tr>
<tr>
<td>Limas House At Suro</td>
<td>Suro</td>
<td>Moderate</td>
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</tbody>
</table>
## Result: RO#3. Place Identity

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place Familiarity</td>
<td>Be able to define riverside area</td>
</tr>
<tr>
<td>Place attachment</td>
<td>High attachment in village and city scale</td>
</tr>
<tr>
<td>Sense of Place</td>
<td>Memory and meaningful place for residents</td>
</tr>
<tr>
<td>Special place</td>
<td>Able to mention and describe the special place</td>
</tr>
<tr>
<td>Responses on development plan</td>
<td>Aware and care on the development</td>
</tr>
</tbody>
</table>

![Graph showing parameters and results](image-url)
Research Findings

Things that are reduced in present

• The reducing function of the river and tributaries

  Past  
  Living place, water supply, mobilization, socialization, economy and politic

  Present:  
  Decreased in terms of types and scale of activities

• The reducing role of the tributaries in determining urban structure

  Past  
  Highly used tributaries  
  Accommodative for transportation network

  Present  
  Frequency of use is decreased  
  Not accommodative, scale dimension and water level

• The reducing of riverine culture at riverside area

  Past  
  Riverine culture  
  Ethnic/society culture

  Present  
  Ethnic culture  
  Modern culture
Research Findings

Things remain in the present

- Cultural activities
  - Daily or routine
  - Occasionally
- Urban elements
  - Old buildings
  - Spaces
  - Alleys
- Setting
  - Settlement structure
  - City structure

Cultural expression

- Memorable
- Recognized
- Noticeable

Distinctiveness of riverside area

Identity of river city
Research Findings

The recognition of identity and the level of protection of the historical riverside settlement

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Cultural activity sustainability</th>
<th>Physical and cognitive orientation</th>
<th>Identity recognition</th>
<th>Assessment as protected area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sekanak</td>
<td>Low</td>
<td>Noticeable</td>
<td>Noticeable</td>
<td>Medium</td>
</tr>
<tr>
<td>Suro</td>
<td>High</td>
<td>Unnoticeable</td>
<td>Unnoticeable</td>
<td>High</td>
</tr>
<tr>
<td>Kapiten</td>
<td>Medium</td>
<td>Noticeable</td>
<td>Noticeable</td>
<td>High</td>
</tr>
<tr>
<td>Klenteng</td>
<td>High</td>
<td>Noticeable</td>
<td>Noticeable</td>
<td>High</td>
</tr>
<tr>
<td>Bahrak</td>
<td>Low</td>
<td>Noticeable</td>
<td>Noticeable</td>
<td>Medium</td>
</tr>
<tr>
<td>Al Munawar</td>
<td>High</td>
<td>Unnoticeable</td>
<td>Unnoticeable</td>
<td>High</td>
</tr>
</tbody>
</table>
Theoretical Implication

CHARACTER
Categorization

Social Character
Socio-Cultural Activities

Physical Character
Physical elements

IDENTITY
Distinctiveness
Uniqueness

Intangible Identity

Tangible Identity

Sustained
Theoretical Implication

IDENTITY FORMING

People

Macro urban setting
CITY’S STRUCTURE
Micro urban setting

Place

Activities
Social-cultural
Economy-politics
Place value
Economy
Aesthetic
Historical
Political

Experience
Memory
Social Ties
Physical and cognitive orientation

Population
Socio demography
Cultural activities

Urban Transformation

Experience
Memory
Social Ties
Physical and cognitive orientation

Place Familiarity
Place Attachment
Sense of Place
Special Place
Identity
Recognition

New activities
Building usage and existence
Memorable element

Responses

Physical-spatial system
Access system
Physical existence

Loss of activities
Ruined building
Forgotten element

Future Identity

Persistent
SOLID
IDENTITY

Remaining and adaptive urban setting
NEW CITY’S STRUCTURE
Different urban setting

DISAPPEARED
IDENTITY
Forgotten
• Promote the intangible identity and accommodate the local context
• Initial assessment for determination of preservation and conservation area in certain historical urban environment
• Promote the use of place attachment as part of people participatory in preservation and conservation effort
• The study fills the knowledge gap on the study on urban morphology of Indonesia river city which have specific riverine culture and river character.

• The research expands the study on urban morphology and people place relationship in relation to the conservation study
Recommendation

• Further exploration on place attachment study in relation to the people-place based conservation at historical area.
• Future research on the conservation and preservation of riverside area, including how to determine the level of protection of the historical area and its surroundings.
The Ministry of National Education, Republic of Indonesia
Faculty of Built Environment, Universiti Teknologi Malaysia
Faculty of Engineering, Universitas Sriwijaya
Badan Perencanaan Pembangunan Daerah Kota Palembang
Dinas Tata Kota Palembang
Balai Arkeologi Kota Palembang
Sekolah Tinggi Teknik Musi
Theoretical Review

Urban Morphology
- Schuller, 1898; Geisler, 1918; Whitby, 1951; Conzen, 1960; Muratori, 1960; Hillier and Hanson, 1984; Forties, 1989; Kropt, 1996; Hall, 1997; Levy, 1999; Canigia, 2001; Jiang and Claramunt, 2002; Chapman, 2006; James and Bound, 2009; Tian et al., 2010; Topcu and Kubat, 2012

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Urban Structure Change

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Place Sense of Place
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Image of the City
- Tuan, 1974; Steele, 1981; Altman and Low, 1992; Hummon, 1992; Jackson, 1994; Cross, 2001; Guillani, 2003; Willian and Vaske, 2003; Smaldone, 2006; Handal, 2006; Beidler, 2007; Hernandez, 2007; Brown and Raymond, 2007; Watson and Bentley, 2007; White et al., 2008; Liu, 2009; Raymod et al., 2010; Najafi and Kamal, 2011

Conservation Preservation


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