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Evaluation the Influence of Urban Landscape Practice in The Past, Present and Future on Urban Design in Indonesia

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Abstract:

In urban area in cities in Indonesia, the development of its built environment has been emerged and continue to be unsustainable city. Street as connector and major part as well as other public open space in urban area, has been constructed and designed with less consideration to the natural environment and pedestrian. From the previous researches on street including how to create a great street and facility on street, this paper shows the important of urban landscape in urban design in Indonesia through selected cities. This research is also continued to focus on the important to identify street trees as one of many elements of urban landscape to create a sustainable urban area. The methodology of this research is including review on previous research paper on recent urban landscape and observation on field area in particular major street in selected cities in Indonesia. History of urban landscape in the city and proposed for future urban landscape is also considered in the evaluation. This paper concludes that there is a need to collaborate urban landscape and urban design in creating a sustainable city and it is crucial for cities in Indonesia to provide urban landscape and design guideline for the authority and other stakeholder in designed and constructed street and other public open space areas.

Evaluation the influence of urban landscape practice in the past, present and future on urban design in Indonesia.

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OUTLINE PRESENTATION

- INTRODUCTION
- OBJECTIVES AND METHODOLOGY
- RESULT AND FINDING
- CONCLUSION

Introduction: Urban landscape and Urban Design

Urban landscape types Moughin et al (2005)

Landscape characteristic - unique aesthetic features - in certain time and space ranges - shape, color, volume, materials used (Wang et al 2012)

Urban landscapes - shaping the relationships user, expression of power buildings, street layouts and monumental structures (Hall 2007)

Urban design - inherent complexities and the diversity of the issues - led by design (Karim 2012)

Objectives and Methodology of research

- OBJECTIVES:** to evaluate the urban landscape practices in street, pedestrian and public area in the past and present in Indonesia based on sustainable and urban design concept and to offer options for the future landscape concept for urban design in Indonesia cities.
- EVALUATION:**
 - Based on Sustainable concept: Environment, Social, Economic
 - Based on Urban design concept for street design: accessibility, availability, safety, etc
- METHODOLOGY:**
 - Research method: survey, observation, literature study
 - Research method for previous research: interview, evaluation based on standard

RESEARCH ROAD MAP

OPTIMIZED PEDESTRIAN FLOW MODEL IN PUBLIC TRANSPORT AREA FOR SUSTAINABLE TRANSPORT SYSTEM, CONSIDERING INFLUENCE OF URBAN DESIGN. CASE STUDY: MANADO

2013-2014	2015	2016	2017	2018
PRELIMINARY RESEARCH	PRELIMINARY RESEARCH	MAIN RESEARCH	FINDING	FINAL
• SUSTAINABLE URBAN SETTLEMENT	• STREET TREES IDENTIFICATION	• COLLECTING DATA	• PEDESTRIAN MODEL ?	
• GREAT STREET	• URBAN LANDSCAPE PRACTICES IN INDONESIA	• DESIGN QUESTION LIST FOR RESPONDEN	• OTHERS ?	
• STREET FACILITY IDENTIFICATION	• NEED TO STUDY PUBLIC TRANSPORT ACCESS I	• MODELING	• VERIFICATION	
	• FINDING RESEARCH GAP			
	• RESEARCH PROPOSAL			

Introduction: Focus of research INDONESIA

Population in Indonesia cities

over 18,000 counted islands, population of 248,214,193

shares land borders with 3 countries: Malaysia, Timor-Leste and Papua New Guinea

RAPID URBAN EXPANSION AND POPULATION GROWTH

From SUSTAINABLE CONCEPT to urban street

NEW DEVELOPMENT THAT DOES NOT CREATE PROBLEMS FOR FUTURE GENERATION

Sustainable Development: Economic, Community, Ecological

Sustainable street

ASPECT OF SUSTAINABLE	ACTIVITIES THAT MOST AFFECT IN AREA
SOCIAL	COMMUNITY ACTIVITIES AVAILABLE
ECONOMIC	SUPPORT INDIVIDUAL ECONOMY SUPPORT COMMUNITY ECONOMY
ENVIRONMENT	PROTECT ENVIRONMENT DO NOT DAMAGE ENVIRONMENT

URBAN STREET urban design concept

- PEDESTRIAN FRIENDLY - PRINSIP 3 C
- CONNECTIONS - access to many places
- CONVENIENCE - right route, easy to cross
- CONVIVAL - attractive and safe
- COMFORTABLE - adequate quality and width
- CONSPICUOUSNESS - easy to find, good surface and sign available

SOURCE: SC Urban Design Compendium

LITERATURE REVIEW :URBAN LANDSCAPE

DESCRIPTION	REFERENCE
Landscape characteristics: the unique aesthetic features (LCA) is to analyze ideologically, the interactive relationships among urban construction, cities, and aesthetic subjects.	Wang et al (2012)
The effects of urban landscapes on land prices under uncertainty, represented by fuzzy numbers and consider factors such as greenery of open pedestrian spaces and favorable pedestrian space.	Jahantehaslou et al (2011)
The landscape identity and character have a double dimension which is personal and social.	Ibansuddin et al (2012)
The knowledge of the city through the reading of the urban landscape to define urban connection	Ferri et al (2012)
The ideology of ecologized landscape design must be maintained through the design of urban infrastructure, arouse the innate connection between human and nature.	Tuan et al (2012)
Heritage Streets - Malaysia, Physical Attributes: Facade, Transport, Streetscape, Landscapes, Safety, Accessibility, Activity, Advertisement and Density, The Spillway Attributes are: Sensory, Connectivity, Vitality, Vibrancy, Livability, Aura, Magnetivity, User-Friendly and Usability attributes	Samad et al (2012)
Pedestrian Way on Riau Street, Bandung and factory Outlet, key features of the experiential urban space are not the physical and environmental factors but the cultural expression of the informal economic practices	Hanan, Himsari (2012)
Environmental design and urban design, Paying attention to psychological safety: behavioral safety, welcome for safety and safety against disaster in the design and planning of a neighborhood spaces, alleys, roads, districts and landmarks can improve disaster preparedness	Navitas, Prananda (2014)
Component of built environment, Path, Edges, Nodes, District, Landmark	Lynch (1960)
The Pasopati flower (Pateur-Surpa) connecting Bandung to Jakarta, Urban park Community	Prasetyo et al (2013)
Preserving cultural heritage of Denpasar: local community perspectives, 601 unique landscape and cultural practices attract large number of tourists from all over the world.	Prasowati et al (2015)

RESULT AND FINDING

OLD JAKARTA CILIWUNG 1885 MONAS FLOOD PROBLEMS OF FLOOD DUTCH BUILDING DESIGN

<h3>Old North Sumatera</h3> <p>INFLUENCED BY DUTCH ARCHITECTURE (FAÇADE) AND STREET DESIGNATED FOR CARS (WIDE NO LANE FOR BICYCLE), NO STREET TREES</p>  <p>PEMATANG SIANTAR</p>  <p>MEDAN</p>	<h3>Old Surabaya</h3> <ul style="list-style-type: none"> Street design WIDE STREET FOR CARS PEDESTRIAN PATHWAY AVAILABLE TREES AVAILABLE UTILITY ON STREET 	<h3>RESULT AND FINDING RECENT LANDSCAPE: BOGOR</h3> <ul style="list-style-type: none"> PEDESTRIAN PATHWAY FOR STREET VENDORS, LARGE TREE ON FOOTPATH AREA NEAR NATIONAL PARK BOGOR SUPPORT PEDESTRIAN COMFORT WITH TREES AND CLEAR PATHWAY 
<h3>JAKARTA</h3> <p>Business Area: WIDE STREET, WIDE OPEN DRAINAGE, PEDESTRIAN PATHWAY VARY: WELL PLACES TREES AND BED TREE IN THE MIDDLE (NARROW WAY), TEXTURE PATH VARY, STREET FOOD STALL, PEDESTRIAN FOR PARKING.</p> <p>(Centre of culinary-Pecenangan Street)</p>  <p>Housing area: NOT CLEAR PEDESTRIAN PATHWAY, PRIORITY FOR PARKING WITH TREES AND LOW PLANTS</p>	<h3>JOGJAKARTA 2013</h3> <p>CAMPUS UGM: PEDESTRIAN PATHWAY VARY, WELL PLACES TREES AND TREES IN THE MIDDLE, WIDE TREE COVERED, COLOURFUL BIN FOR DIFFERENT TYPES OF WASTES, YET UNCLEAR SIGN</p>  <p>CODE RIVER AREA: PEDESTRIAN PATHWAY VARY: CLEAR WAY, PLANTS IN MEDIAN, PEDESTRIAN WAY AT FRONT SHOPS</p>  <p>Out town: UNEVEN PEDESTRIAN PATHWAY, NO PEDESTRIAN WAY ON OTHER PART, TRADITIONAL OBJECT IN FRONT OF SHOP, LESS TREE</p> 	
<h3>BALI DENPASAR 2012</h3> <ul style="list-style-type: none"> CLEAR PEDESTRIAN PATHWAY, NO BUILDING SETBACK BRING CLOSER SERVICE TO PEDESTRIAN SHARING STREET WITH BENDI (HORSE RIDER), LIVABLE STREET 	<h3>SARANGAN EAST JAVA 2015</h3> <ul style="list-style-type: none"> TOURISM AREA PEDESTRIAN PATHWAY FOR STREET VENDOR AND SELLING GOODS, TREE IN LAKE SIDE, SOME PLACES WELL COVER BY TREES, SHARE STREET FOR CARS, PEDESTRIAN AND HORSE 	
<h3>MAKASSAR</h3> <ul style="list-style-type: none"> LOSARI BEACH: STREET: PEDESTRIAN PATHWAY FOR PARKING AND COMMERCIAL PANEL, CIVIC CENTRE: COMMUNITY ACTIVITIES, TRADITIONAL OBJECT STATUE, PLANTS, TREES IN THE EDGE BUSSINESS AND SHOPPING AREA: PEDESTRIAN PATHWAY FOR PARKING CARS, UNCLEAR PEDESTRIAN CROSSING, MIX USE AREA, LIMITED TREES IN PEDESTRIAN AREA, DAMAGE FOOTPATH 	<h3>AMPANA, TOMEANG, LUWUK – CENTRAL SULAWESI</h3> <ul style="list-style-type: none"> NO PEDESTRIAN PATHWAY, AREA FOR PEDESTRIAN IS FOR OPEN DRAINAGE, STONES AND COMMERCIAL SIGN, NO TREES OR PLANTS NO PEDESTRIAN PATHWAY, AREA FOR PEDESTRIAN IS FOR OPEN DRAINAGE, BUILDING MATERIAL, NO TREES IN SOME PLACES 	

MANADO

WOLTER MONGINSIDI PARK: CLEAR PEDESTRIAN PATHWAY. BIN AND STREET UTILITY IN THE MIDDLE OF PEDESTRIAN WAY, BED TREE IN BOULEVARD STREET IN THE MIDDLE OF PATHWAY, SOME PLACES WILL COVER BY TREES. UNCLEAR BOLLARD FUNCTION

AHMAD YANI STREET: PEDESTRIAN PATHWAY RECONSTRUCTION, NO PEDESTRIAN ACCESS, NO



INTERSECTION KLABAT STADIUM AND SAMRATULANGI STREET: ROOTS OF LARGE BERINGIN TREES ON FOOTPATH, PAINT ON TREMBESI TREES, UNEVEN PEDESTRIAN PATHWAY



WOLTER MONGINSIDI STREET: COLORFUL BOUVENILE FLOWER, BRANCHES NARROWING STREET, OTHER PARTS WITH DRY PLANTS



LANDSCAPE IN Manado - PAST VS RECENT

PAST: GOVERNMENT OFFICE - TKB (ONE NATION PARK) - WENANG HOSPITAL



PRESENT: SILOAM HOSPITAL - TKB (ONE NATION PARK) - PENINSULA HOTEL



Urban landscape IN URBAN DESIGN FUTURE OPTION

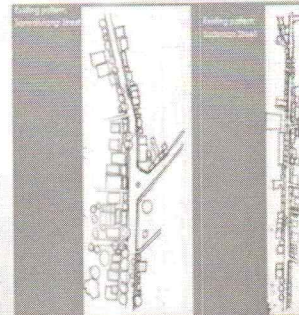
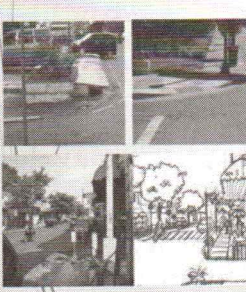
- Option 1: Keep the character.**
This is not a realistic option but is an exploration of what will be required to freeze the street as its character.
- Option 2: No Intervention**
This option assumes keeping the same zonings and heights controls and allows the market to dictate. It is a build-out option.
- Option 3: Pedestrianization**
This option involves the possibility of pedestrianizing the street in the whole or in part.
- Option 4: Piece-by-piece plug in changes**
This option involves phrasing of many small incremental changes in a coordinated manner.
- Option 5: Total gentrification**
This option assumes total transformation of the street. This option is a high cost one socially and economically.

Assumptions behind all the options:
 - All these schemes are based on a number of assumptions:
 - Changes is inevitable
 - Market forces is important
 - Source of funding has to be identified

Research finding: GREAT STREET research

Typical pattern of street: vary building setback, not continuous trees lined, public space in the area of cafe sidewalks, and small shops, less pedestrian crossway.

PROBLEMS AND ALTERNATIVES SOLUTION



Summary research on Pedestrian Facility

WOLTER MONGINSIDI STREET | MARADO BOULEVARD STREET

PROBLEMS AND ALTERNATIVE SOLUTION

TREE

SUMMARY RESEARCH ON STREET TREES

RESULT AND FINDING: PROBLEM AND ALTERNATIVES SOLUTION

PROBLEMS: NOT STREET TREE TYPES BASED ON STANDARD, ROOT DAMAGE FOOTPATH, UNWELL TREAT TREE, OLD TREE BRANCHES FALLING

TYPES OF TREES AND THE PRESENTAGE OF CRITERIA BASED ON STANDARD STREET VEGETATION IN MANADO

ANGSANA	7.7%
AKASIA DAUN BESAR	5.2%
KELAPA	1.8%
BERINGIN	7.7%
TREMBESI	5.2%
KELUAPANG	5.2%
PALEM RAJA	1.9%
KETAPANG	1.9%

ALTERNATIVES SOLUTION

TREATMENT

TREE SELECTION

Purple flower tree (bushina) purposed according to standard street tree

Evaluation summary: URBAN LANDSCAPE PRACTICE IN INDONESIA

MANADO	HIGHLIGHT	NOTES
	<ul style="list-style-type: none"> DUTCH BUILDING FAÇADE STREET FOR CARS LACK OF PEDESTRIAN PATHWAY CIVIC CENTRE AVAILABLE ECONOMIC WITH LESS SOCIAL AND ENVIRONMENT - UNSUSTAINABLE 	LESS CARS - WIDE STREET
	<ul style="list-style-type: none"> IN THE CITY AND OUT OF TOWN THERE IS STREET STANDARD DESIGN WITH PEDESTRIAN PATHWAY VARY IMPLEMENTATION AND DESIGN PRACTICE ON PEDESTRIAN PATHWAY LESS CONSIDERATION IN URBAN LANDSCAPE ON URBAN STREET CIVIC CENTRE VS FUNCTION AND PEDESTRIAN FACILITIES ECONOMIC AND SOCIAL WITH LESS ENVIRONMENT - UNSUSTAINABLE 	MORE CARS, MORE PEDESTRIAN, WIDE STREET, NARROW PEDESTRIAN
	OPTIONS - HAVE TO BE SUSTAINABLE	RE-EVALUATE
CONCLUSION	WHERE ARE WE HEADING? WHAT'S WENT WRONG	GUIDELINE NEED

CONCLUSION

- URBAN LANDSCAPE
- URBAN DESIGN
- PEDESTRIAN ON INDOONESIAN CITIES STREET AND PUBLIC AREA
- PAST, PRESENT, FUTURE OPTIONS
- OBSERVE! COMMUNICATE! PLANNING! DESIGN! FEEDBACK!
- PEDESTRIAN AREA: URBAN DESIGN WITH URBAN LANDSCAPE DESIGN ...
- GUIDELINE IS IMPORTANT...

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