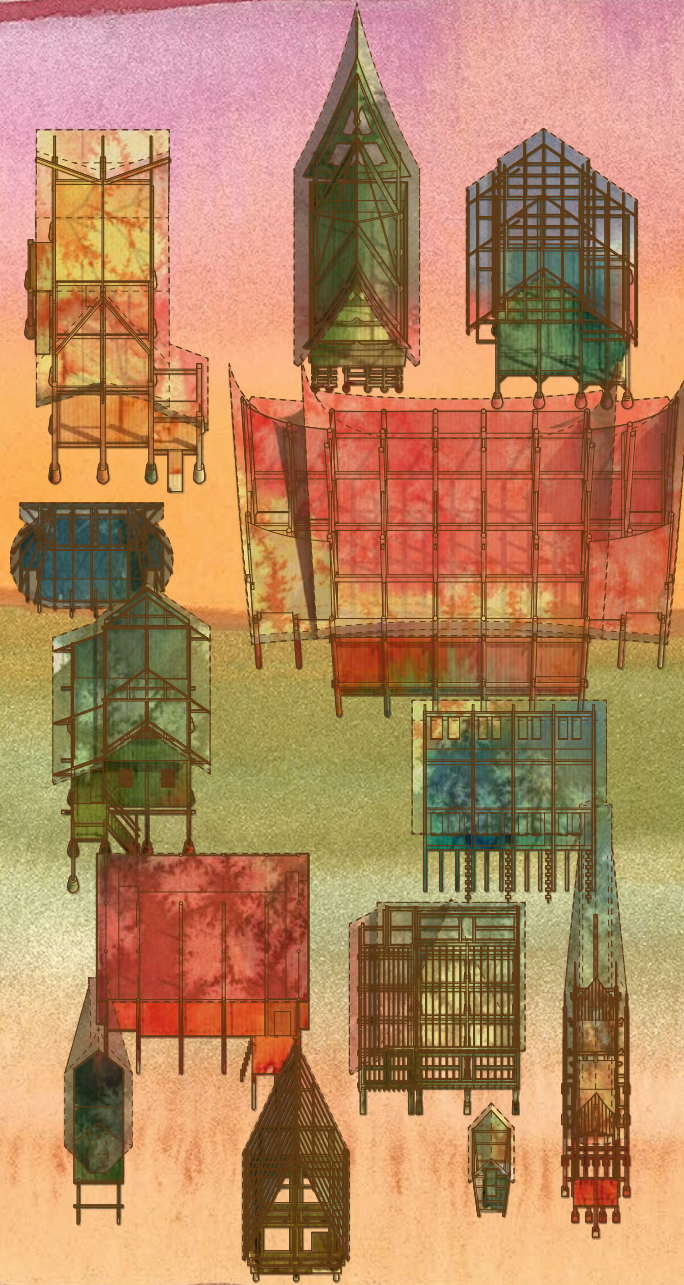


Archipelagic Assemblages

Intersectional Imaginings of the Lands In-between



Indra Prasasto

Advisor: Brian Lonsway

May 2021
Syracuse School of Architecture

Abstract

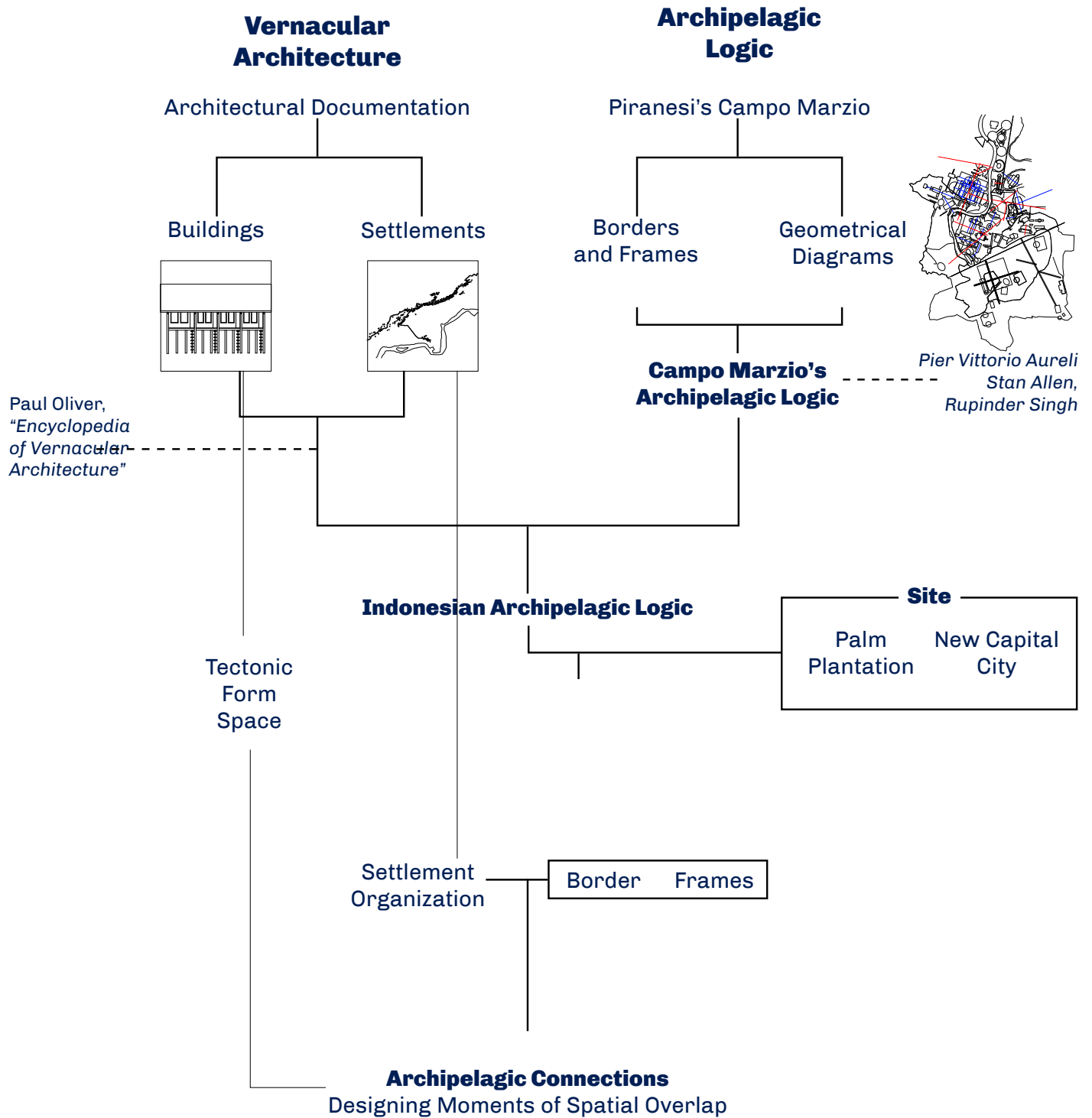
'Archipelagic Assemblages' is a design research project that analyzes Indonesia's *Building Research Institute* books in the 1980s. Using Paul Oliver's framework in 'Encyclopedia of Vernacular Architecture', to uncover which elements of the traditional settlements were privileged and documented, and which elements were scarcely documented.

This design thesis imagines the possibilities of vernacular Indonesian villages to inter-connect with each other to form an assemblage that celebrates each individual village particularities and create intersections of public space that will be a hybrid between different villages. Taking inspiration from Campo Marzio, an 18th century etching by Piranesi, the design thesis will employ an 'archipelagic' metaphor to create connections between vernacular villages to create meaningful spaces that allow multi-cultural life settings to merge and intersect.

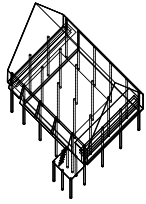
This process will lead to a more comprehensive and visual data about the diverse villages as **total setting for life**.

Bhinneka Tunggal Ika (Unity in Diversity) is touted as Indonesia's national motto, it promotes the unity of diverse ethnic and cultural identities, but vernacular Indonesian architecture has mostly become source of inspiration as singular building forms and not as complex of buildings that make up the **vernacular settlements**, hence supplanting the particular 'setting for life' of these villages.

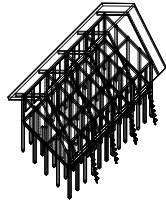
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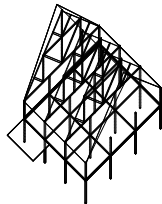
Vernacular Architecture Documentations



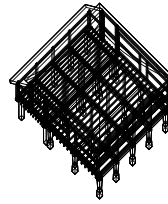
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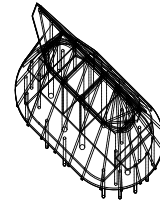
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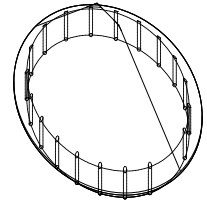
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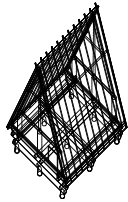
Lampung



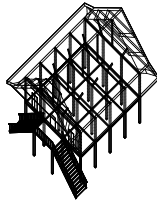
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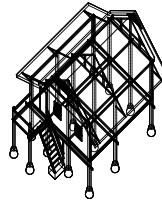
Dawan / Atoni



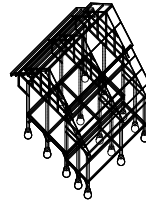
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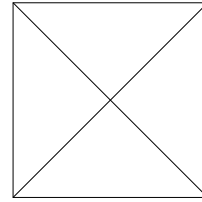
Kaili



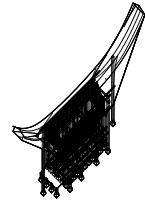
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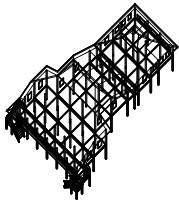
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Tolaki



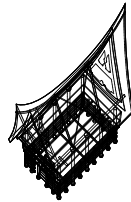
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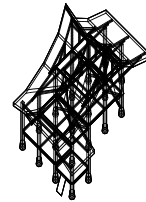
Palembang



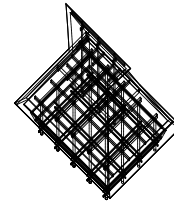
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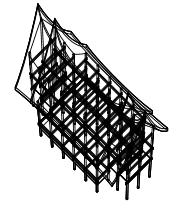
Batak Toba



Melayu



Batak Karo



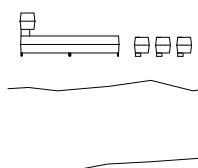
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Batin



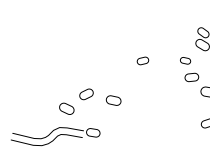
Kerinci



Dayak Ngaju



Lampung



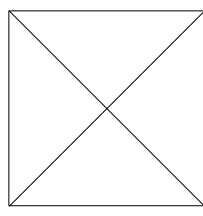
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Dawan / Atoni



Lore



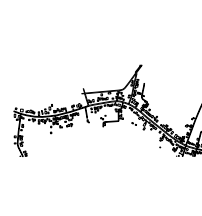
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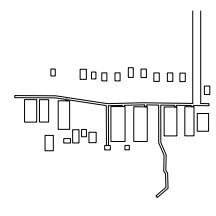
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Melai



Tolaki



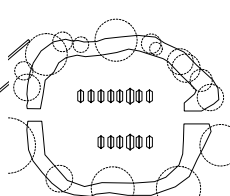
Toraja



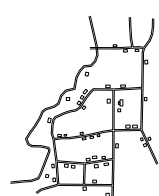
Palembang



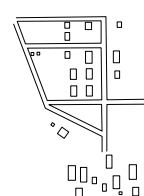
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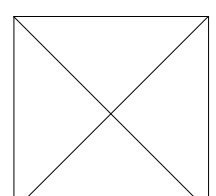
Batak Toba



Melayu



Batak Karo



Minangkabau

Book / Province	Settlement / Village / Ethnic Affiliation																																		
		Domestic Routine	Types of Economy	Family Type and Cycle	Food	Gender Roles	Concept of Homes	Kinship and Forms of Residence	Language	Meaning	Nonadism	Play	Politics	Religion and Beliefs	Rite and Ceremonial	Social Structure	Spatial Organization	Symbolism	Tradition and Transmission	Values and Norms	Cultural Interaction	Location and Site	Natural Disasters	Population	Migration	Urbanization	Settlements and its Form	Territory	Material and Building Resources	Production Services	Symbolism and Decoration	Typologies	Uses and Functions		
Jambi	Batin	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	✖	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿		
	Kerinci	✖	⦿	✖	✖	✖	⦿	⦿	✖	✖	✖	✖	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿		
Kalimantan Tengah	Dayak Ngaju	✖	⦿	✖	✖	⦿	⦿	⦿	✖	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	✖	⦿	⦿	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿		
Lampung	Lampung	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	✖	⦿	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿		
Nusa Tenggara Timur	Sabu	✖	⦿	⦿	✖	⦿	⦿	⦿	✖	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿		
	Dawan	✖	⦿	✖	✖	⦿	⦿	⦿	✖	✖	✖	✖	⦿	⦿	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿			
Sulawesi Tengah	Lore (Bada)	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
	Kaili	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
Sulawesi Tenggara	Muna	✖	⦿	⦿	✖	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
	Desa Malai (Walio)	⦿	⦿	⦿	✖	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
	Tolaki	✖	⦿	⦿	✖	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
Sumatra Selatan	Palembang	✖	⦿	⦿	✖	⦿	⦿	✖	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
	Pasemah	✖	⦿	⦿	✖	⦿	⦿	✖	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
Sumatra Utara	Batak Toba	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿	⦿	
	Melayu	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
	Batak Karo	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
Sumatra Barat	Minangkabau	✖	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		
Tana Toraja	Tana Toraja	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	✖	✖	⦿	⦿	✖	⦿	⦿	✖	⦿	⦿	⦿	⦿	⦿		

⦿ : Textually and Graphically Documented; ⦿ : Only Textually Documented; ✖ : Not Documented

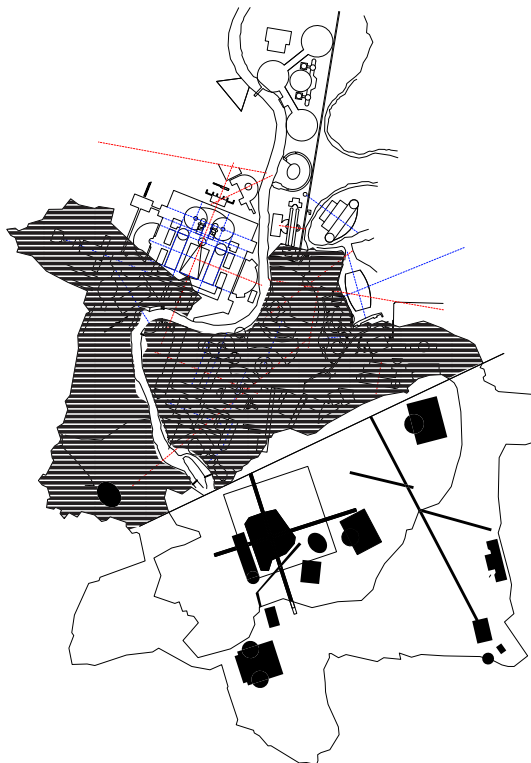
○ : Textually and Graphically Documented; ○ : Only Textually Documented; ✗ : Not Documented

This design research starts with a set of Indonesian architectural documentations in the 1980s. Looking into how these researches were structured, it is apparent that most of them follow a strict and regulated book structure. On the one hand, it pushed some of the researches to be more extensive. On the other hand, it also shows how for some villages, the chapters may be written in even though some of them were not pertinent to a village. What was starting to be clear was how architecture, sole buildings, were the main focus, and settlements were mostly relegated to an introductory blurb.

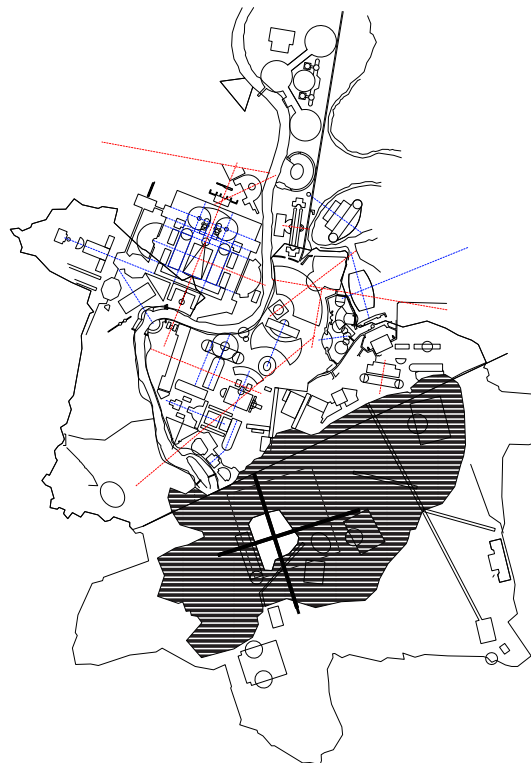
Out of these 10 books, we can find 18 ethnic identities documented throughout Indonesia. By modeling the dwellings, I was able to understand more about the amount of information researched and documented. For many of them, I had to find secondary resources to confidently model the buildings. Similarly, in modeling the settlements of these ethnic groups, I was able to find more discrepancies between the books and secondary online sources. With the Kaili and Minangkabau missing clear locations. In addition, with some of these villages, discrepancies between the documented settlement and architecture was also present.

I analyzed these documentations through Paul Oliver's framework in 'The Encyclopedia of Vernacular Architecture' where he identified different ways to analyze vernacular settlements through their cultural traits, environment, material resources, production, services, symbolism, typologies, and functions. By analyzing the villages through Oliver's framework, I was able to see the similarities and differences of the villages and how do these books differ in levels of research rigor. It is apparent that buildings were the main focus for all of the documentations as most of them had both textual and graphical documentations in regards to material, production, decoration, typologies and functions. Whereas ideas of settlements as total life setting were scarce.

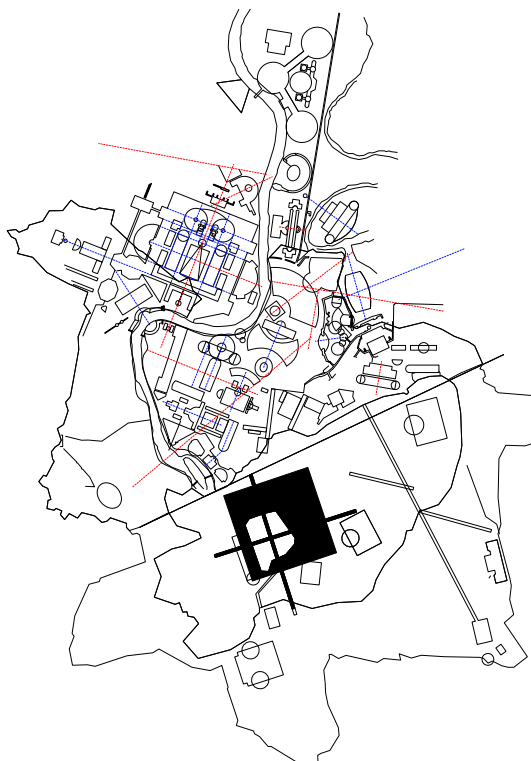
Analyzing Campo Marzio



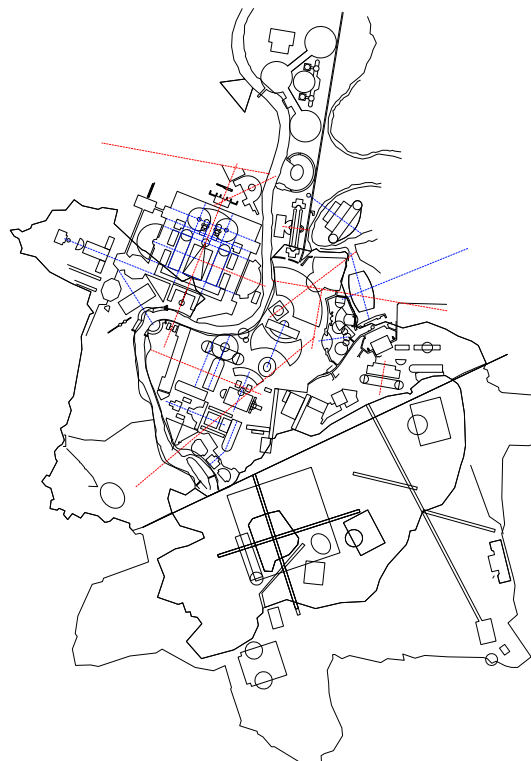
Aurelian Wall and Roman Quadrata*



Servian Wall*



Borders and Frames*



Geometrical Diagrams

* Based from Allen, Stanley. "Piranesi's 'Campo Marzio': An Experimental Design" in *Assemblage*, No. 10 (Dec., 1989), pp. 70-109

Stan Allen's "Campo Marzio: An experimental Design" identified the relationship between Piranesi's Campo Marzio, to the Roman Quadrata or Rome city proper. Allen identified Borders, Frames and Monuments that were the design nucleus of Campo Marzio. Further analysis of Campo Marzio shows how geometrical transformation and interconnection between borders, frames and monuments. Analyzing Campo Marzio resulted in several points of archipelagic logic that Piranesi employed.

Campo Marzio's Archipelagic Logic

- Planimetric Geometries
- Existing Landmarks as Border and Design Nucleus
- Building Follows Topography
- Axial Relationships between Buildings
- Merges Architecture and Urban Space

How can we use archipelagic logic to assemble vernacular Indonesian villages that celebrates particular indigenous identities?

As opposed to the parcelization of national theme parks. Highlighting and representing both settlements and buildings as Total Setting for Life.

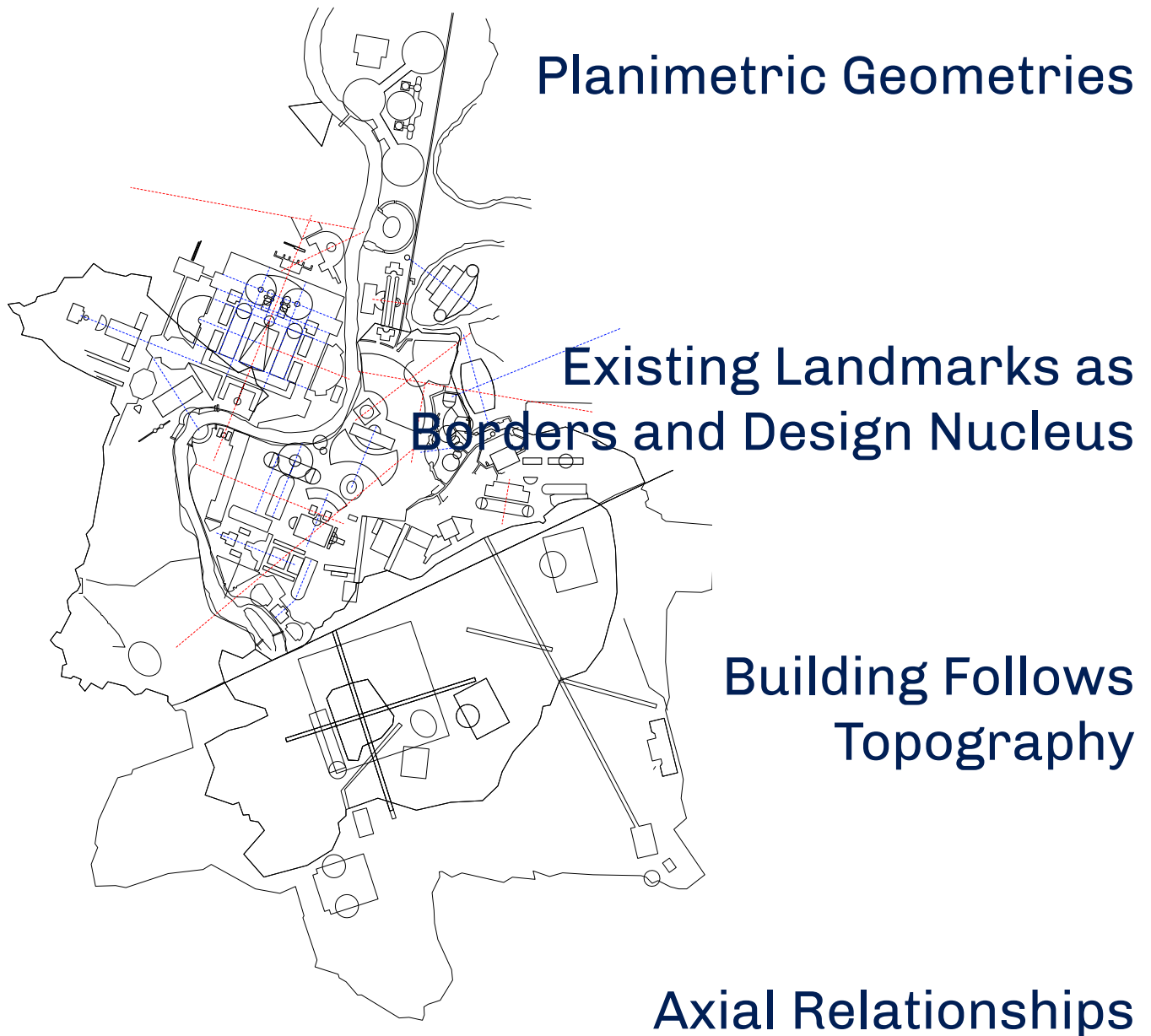
Design Objectives

- Synthesize an Indonesian Archipelagic Logic that emerges from Vernacular Settlements
- Assemble Indonesian Vernacular Villages through an Archipelagic Logic
- Represent Vernacular Architecture and Settlement as Design Nucleus through Design of Public Space and/or Landmark

Design Criteria

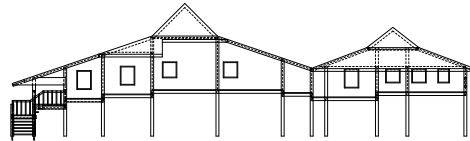
- Represent Diverse Villages and Highlight Particular / Identities
- Indigenous Recognition through Spatial and Tectonic Qualities of Space
- Blending of Spatial Edges between Diverse Villages

Campo Marzio

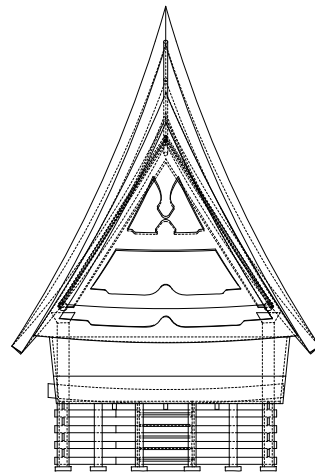


Vernacular Villages

Sectional Spaces



Dwellings are Landmarks



Settlements Follows
Topography



Axis Moves with the Land

Design Method

Identify Site that Shares
Qualities with Campo Marzio
(periphery of a city proper)

Identify Patterns between
Site's Latent Borders with
Vernacular Settlements

Identify Adjacencies and
Design Overlapping Public
Spaces

Design Public Spaces through
the Spatial and Tectonic Logic
of Vernacular Architecture

Periphery of City Proper



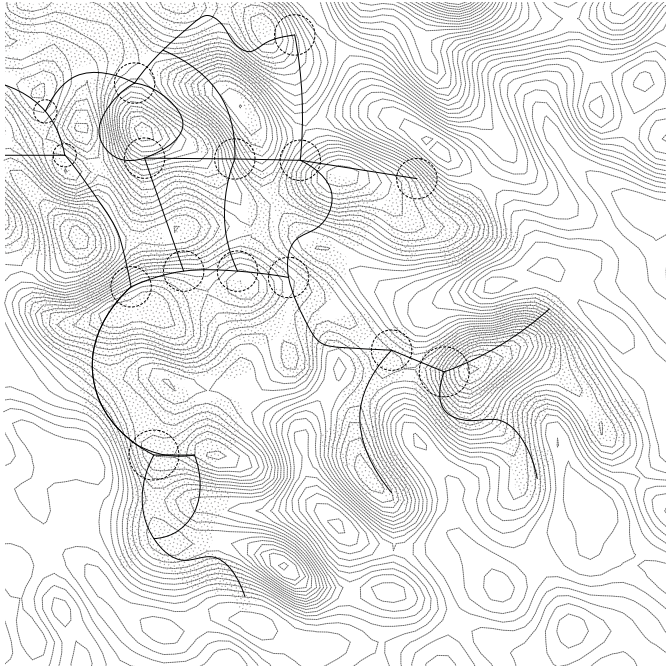
Winning Design for the New Capital, as City Proper



Serendipitously, in the end of 2019, the government unveiled the winning design for a new capital city in East Kalimantan, a top down designed city that took advantage of existing palm plantations to minimize deforestation in the area. As a possible city proper, this new capital city – or rather, its periphery – is a perfect site to speculate on a possible archipelagic assemblage where diverse indigenous identities would situate themselves. Like Campo marzio, I chose an adjacent palm plantation as the peripheral site of the new capital city.

The organization of monocultural palm plantations have similarities on how vernacular villages are organized. The topography dictates accessibility, and forms borders and frames.

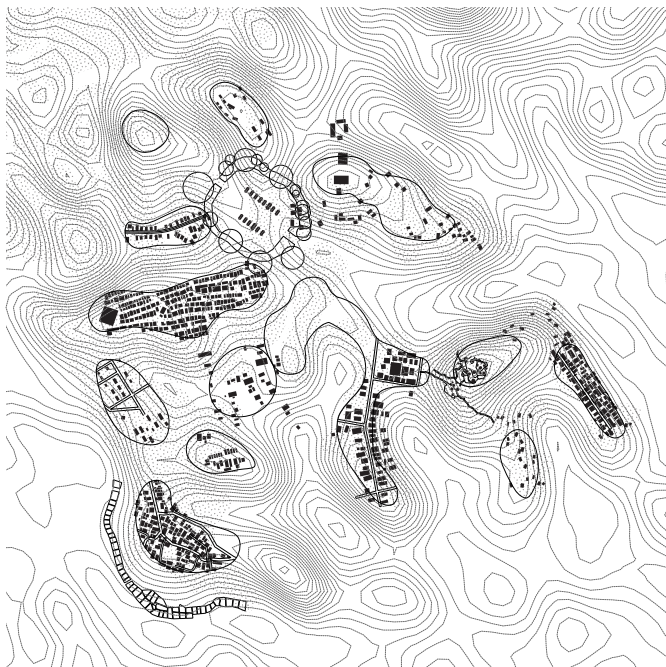
Archipelagic Assemblage



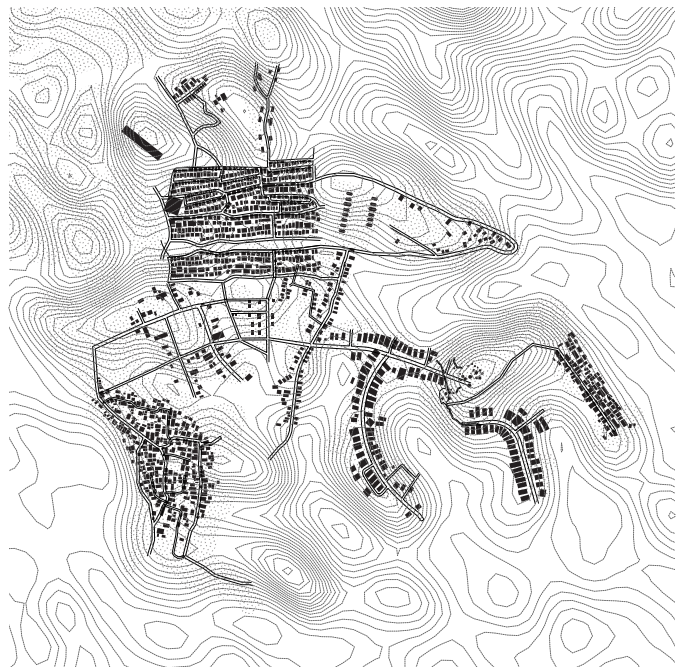
Palm Plantation Edges as Latent Borders



Superimposition of Villages in Borders



Superimposition of Villages and Topography



Hybrid

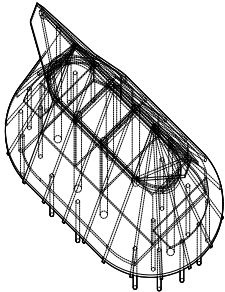
The palm plantation edges are drawn as latent borders. Vernacular villages are then superimposed in these districts of borders where patterns of flatness, linearity, and areas are a match. In another iteration, vernacular villages were superimposed on flat areas. A hybrid iteration between superimposed villages to the edges and superimposed villages to the flat areas produced an archipelagic assemblage of vernacular settlements where particular identities are still present but diverse intersections are also possible.



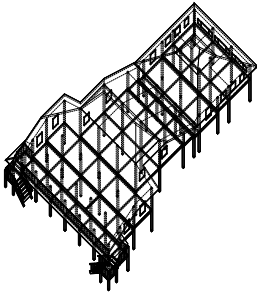
Assemblage of Vernacular Villages with Intersecting Landmarks and Public Spaces



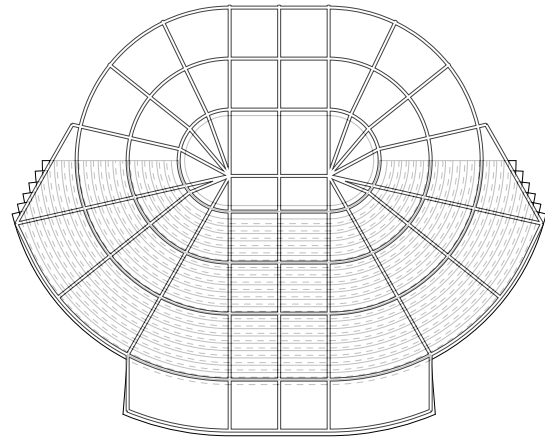
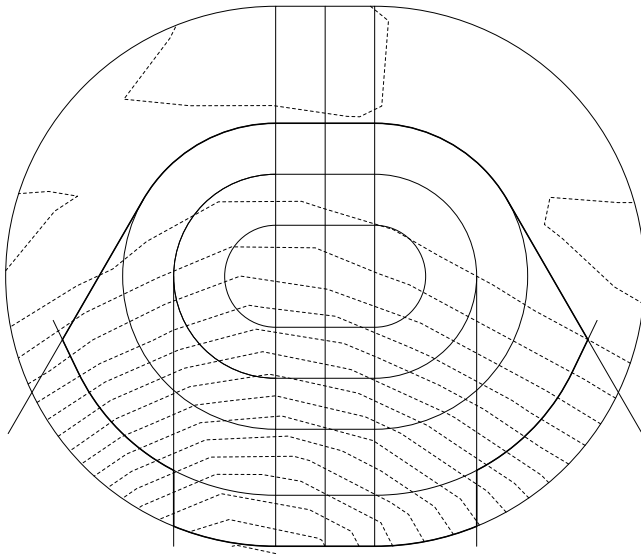
Sabu - Palembang



Sabu



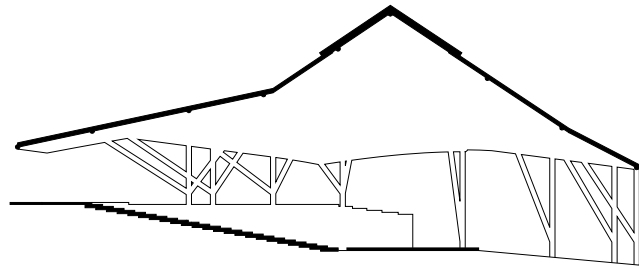
Palembang



From Topography to Tectonics

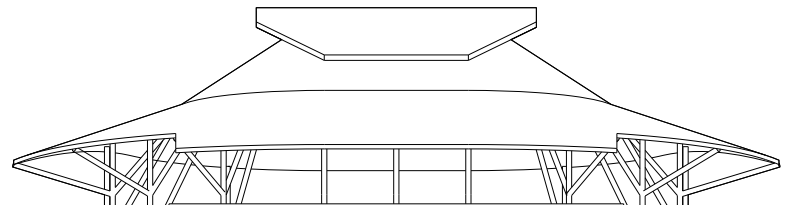
Sabu Dwellings

Tectonic construction also used in Lopo pavillions where locals gather under the shade.



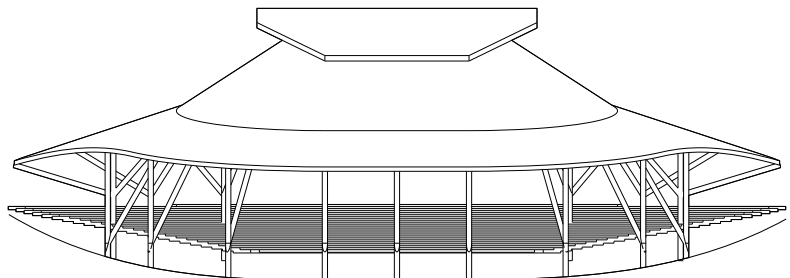
Palembang Dwellings

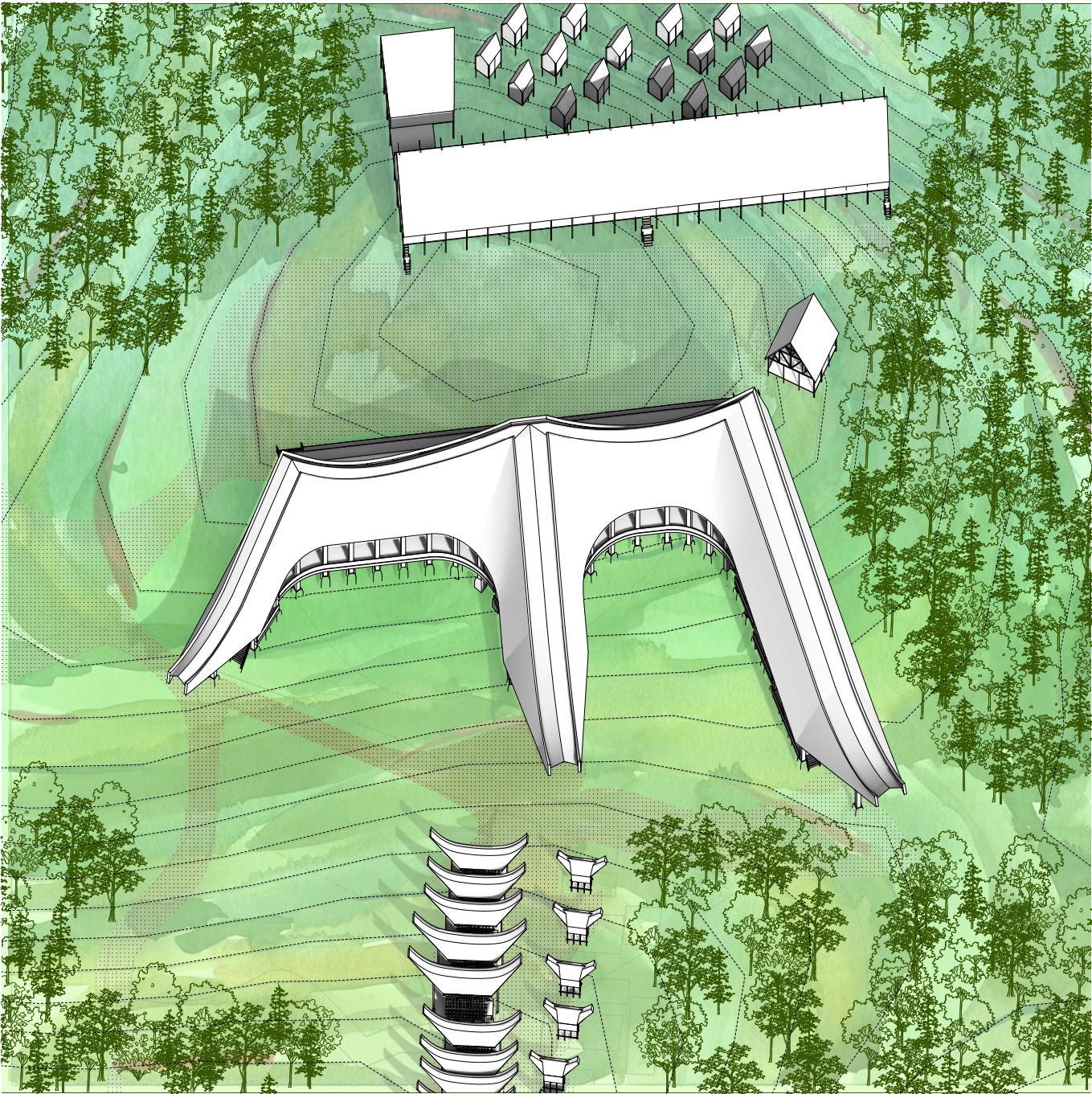
Terraces have degrees of publicness that allow for watching street-level events and festivities.



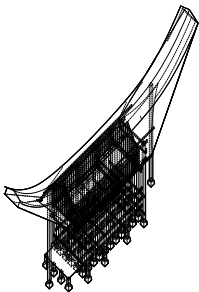
Intersecting Public Spaces

Employing the topography for amphitheater. Circular structural organization of Sabu dwellings and Palembang sectional moments.

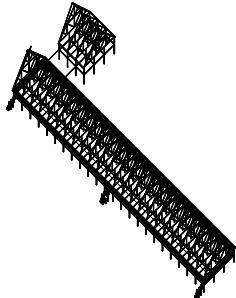




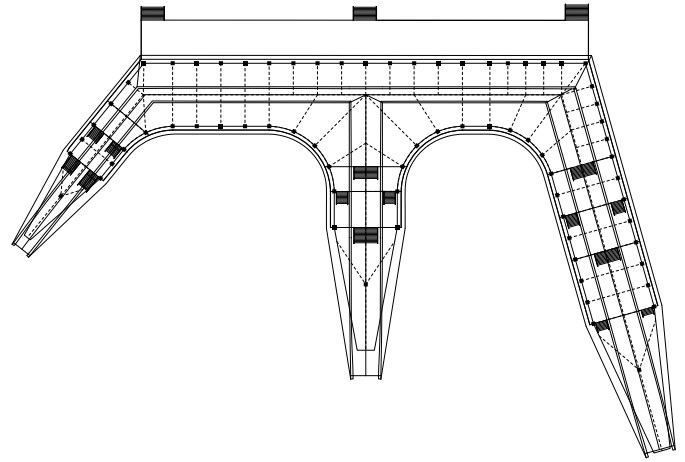
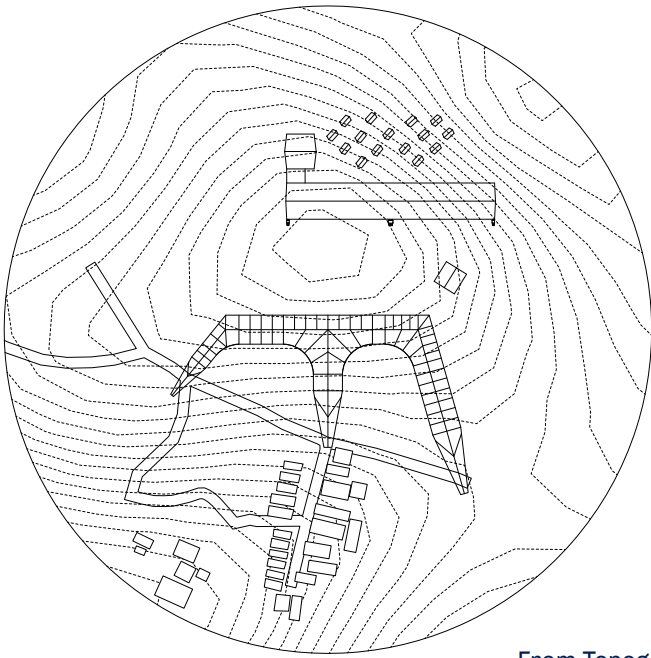
Dayak - Toraja



Toraja



Dayak Ngaju



From Topography to Tectonics

Toraja Dwellings

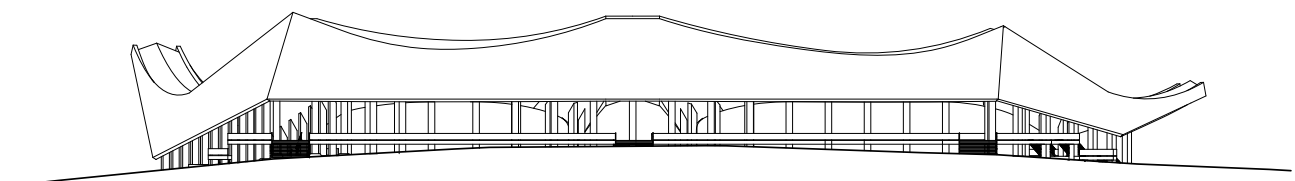
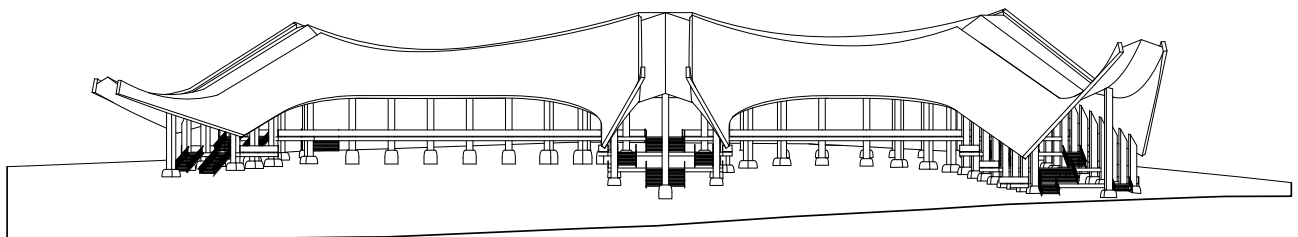
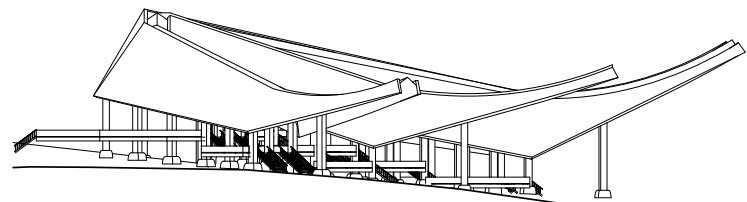
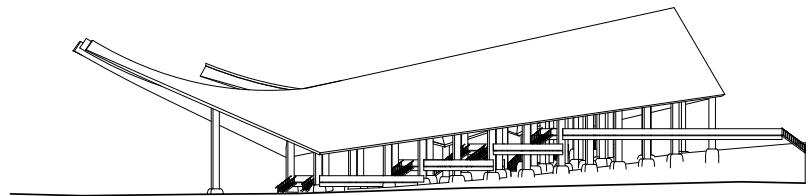
Main pillar as entrance and formal roof as guiding

Dayak Ngaju Dwellings

Linear and horizontal. Wide open terraces as public space.

Intersecting Public Spaces

Employing the topography to house in-between spaces that connect the villages.



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