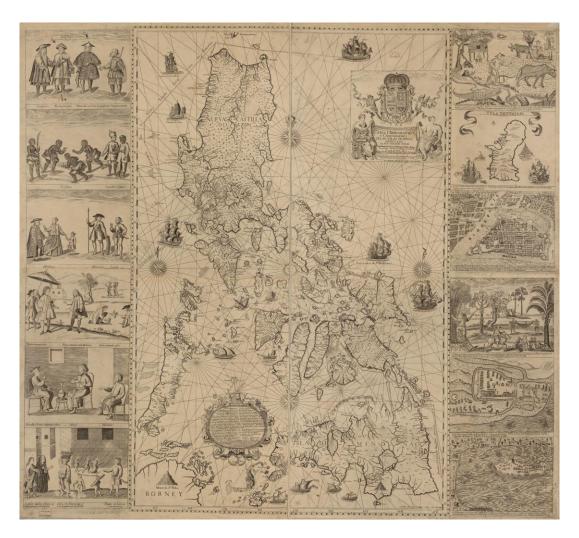
"We forget it was a brutal anti-imperialist war because we see it through the eyes, in some ways, of the colonizer, who naturally wishes this forgetting. Like the colonizer, we judge ourselves by the effects of colonization, instead of by the actual violence of its presence. In this way, we erase the colonizer's actions — this erasure of course being very helpful for him. We retain the imperialist's structuring imagination. So we judge ourselves by this weak, oligarchic state greased by corruption — the state produced by history, symptom of imperialism's effects."

⁻ Gina Apostol (2018)

a picture

Who are we?

The Philippines

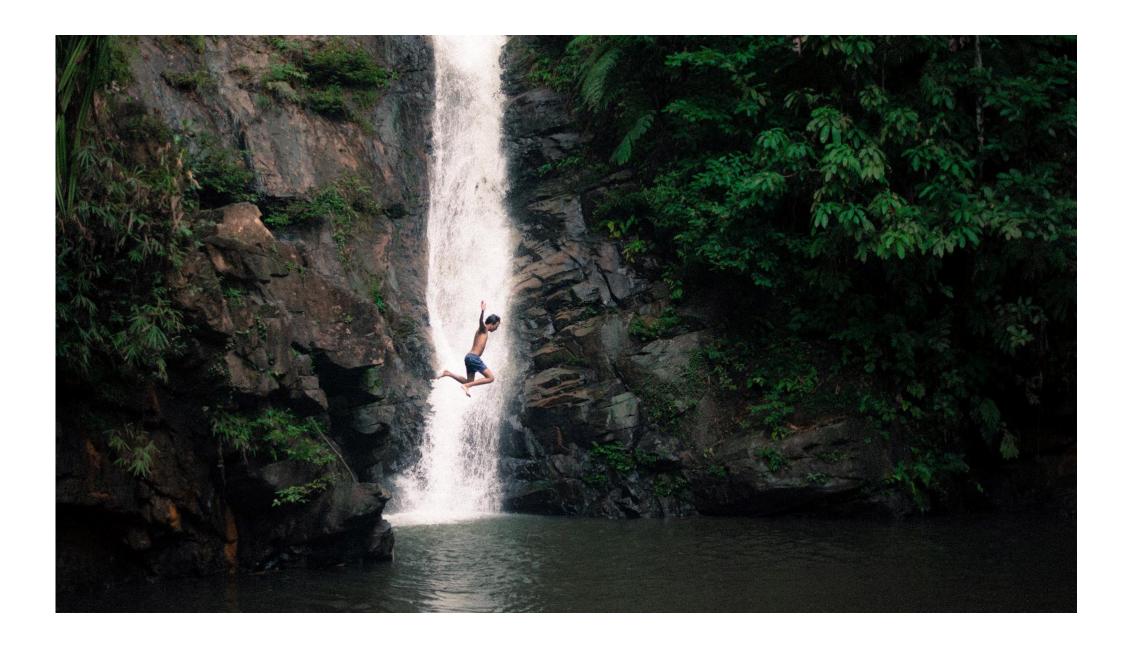


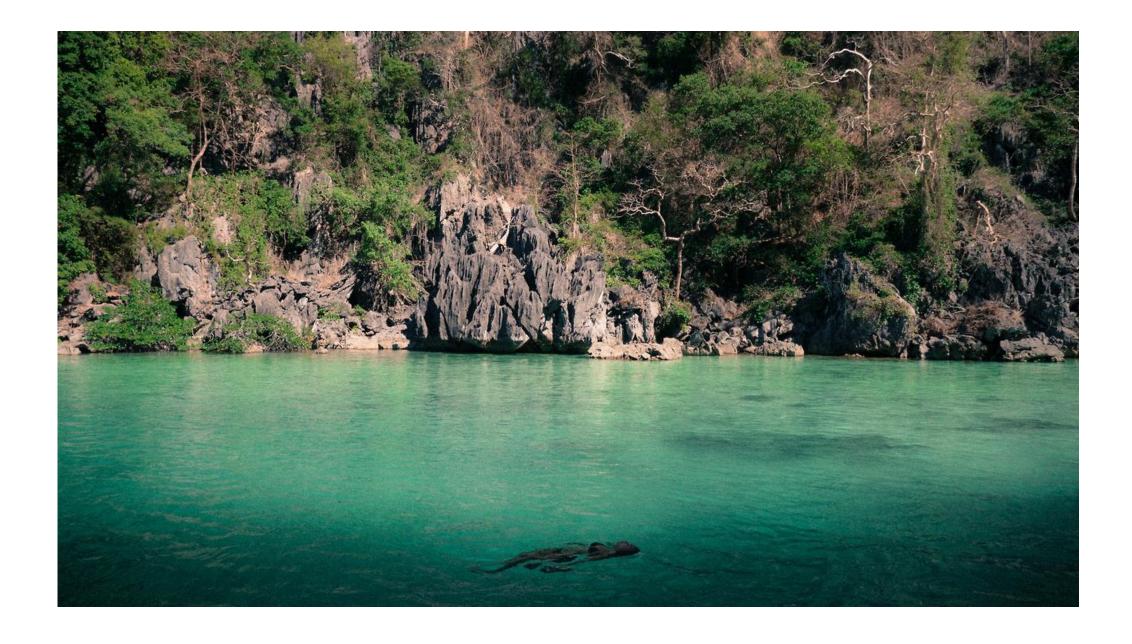
Carta Hydrographica y Chorographica de las Islas Filipinas The Murillo Velarde Map (1734)















The Social-Ecological Continuum Guardians of the Philippine Ecosphere

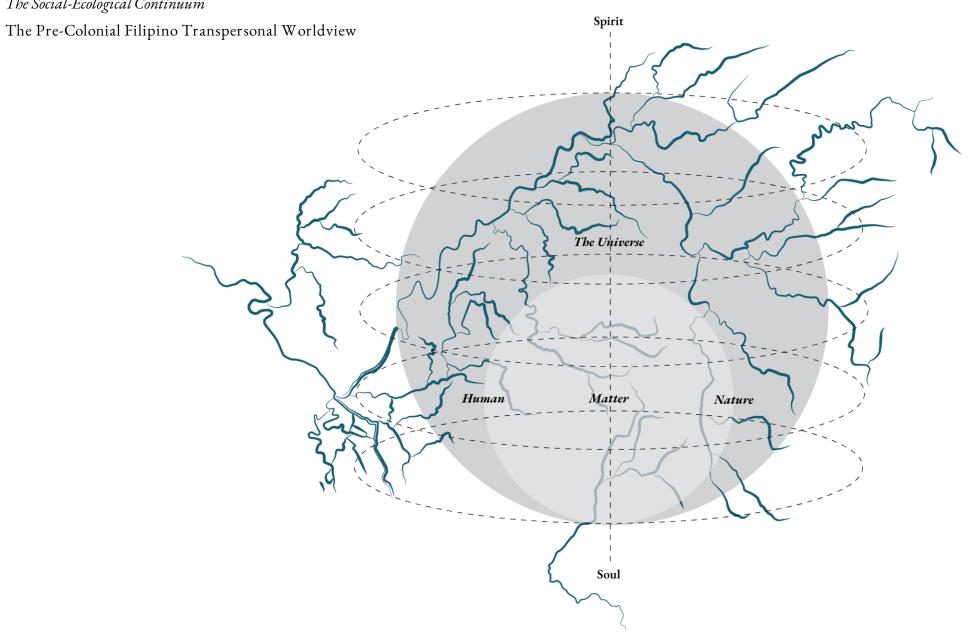


The Guardians (2020) © Gab Mejia, with permission

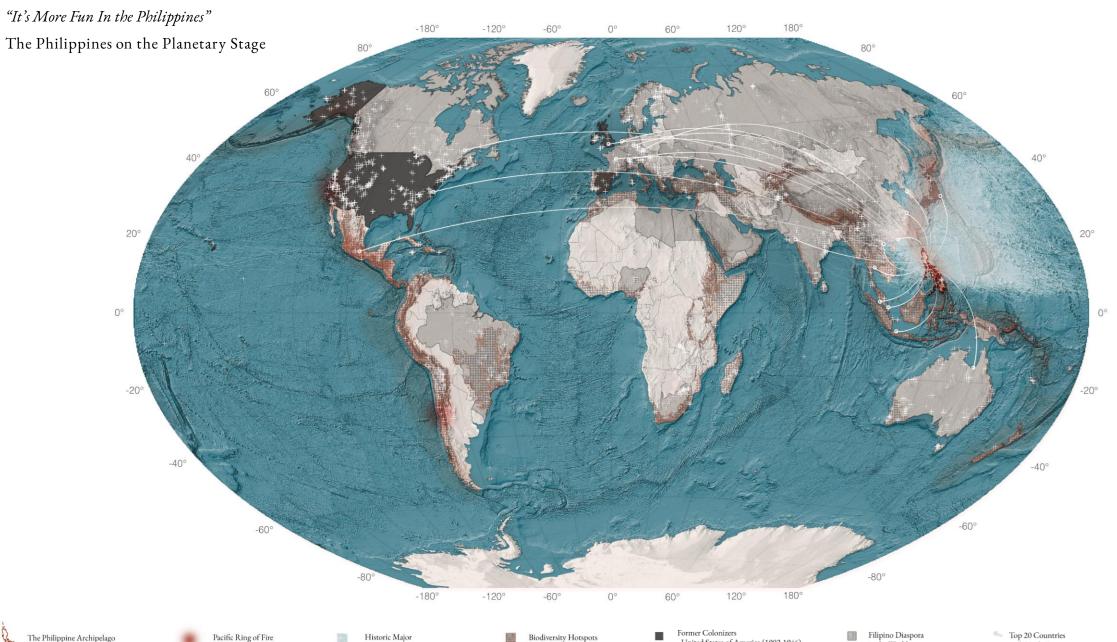
Pre-Colonial Filipino Cosmology

Filipinos acknowledge that visible and invisible forces surround them in nature and on whom they depend for their well-being or misfortune. They belong to an endless maintenance of balance through a process of give and take.

(Debelke, 1928; Vicerra and Javier, 2013)



a reality







Historic Major Cyclone Tracks (1842-2021) along Typhoon Belt

of WWF's Identified Ecoregions (includes entire PH)

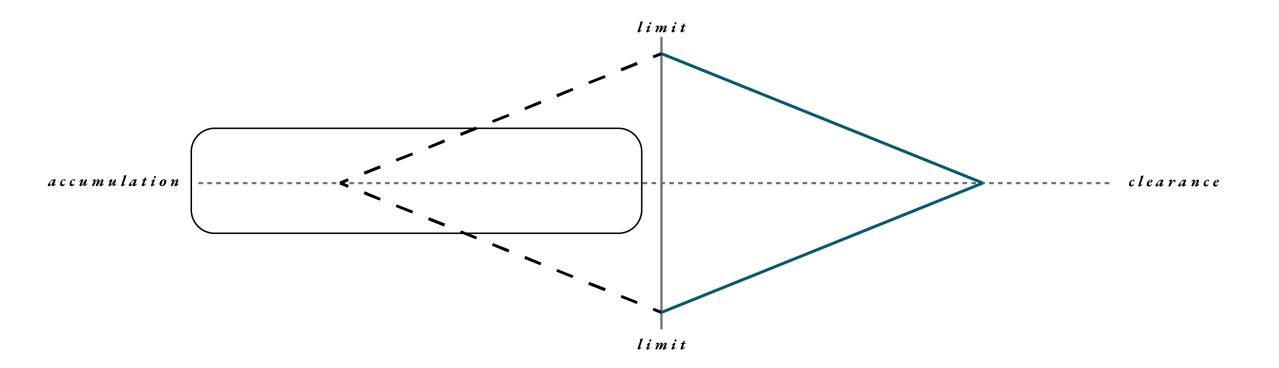
- United States of America (1902-1946)

- Spain (1565-1898) - Japan (1942-1945) - United Kingdom (1762-1764)

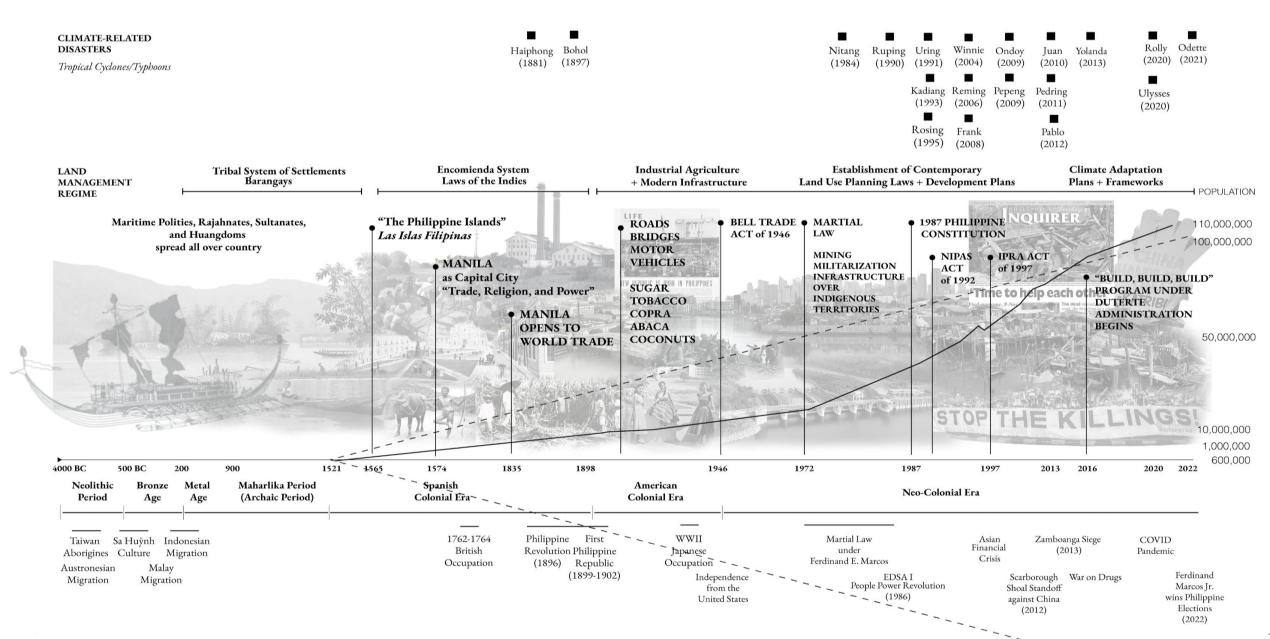
Filipino Diaspora in the World (1965 - 2019)

Top 20 Countries with Trade Exports from Philippine Market (2021)

Critical Minerals



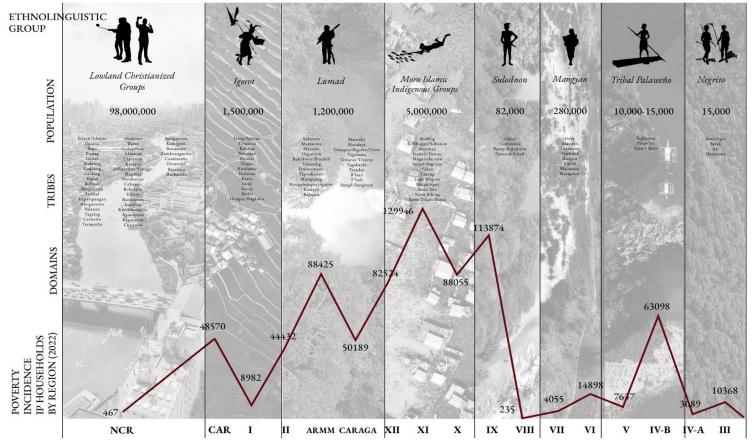
Accumulation

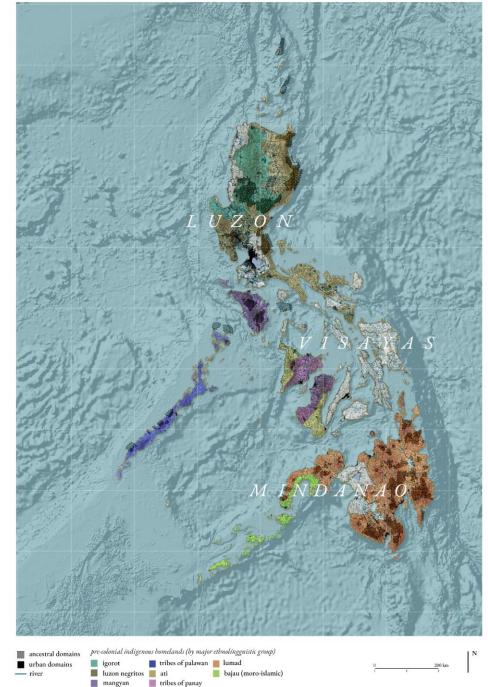


What shall become of us?

Identities

Major Ethnolinguistic Groups in the Philippines





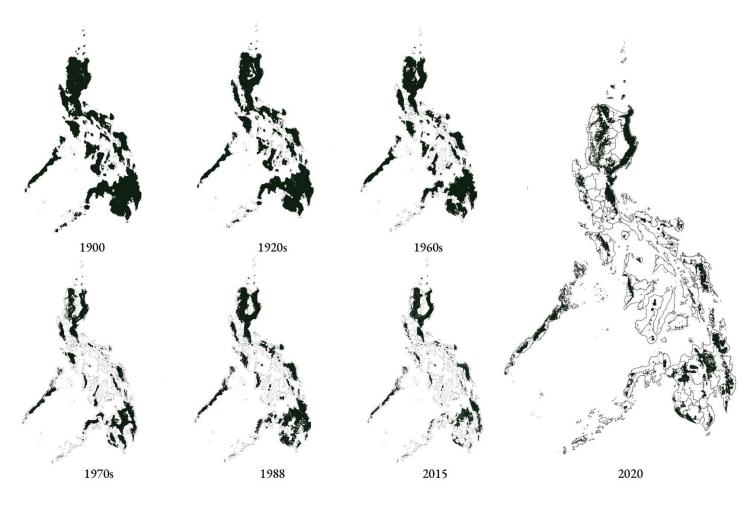
Identities



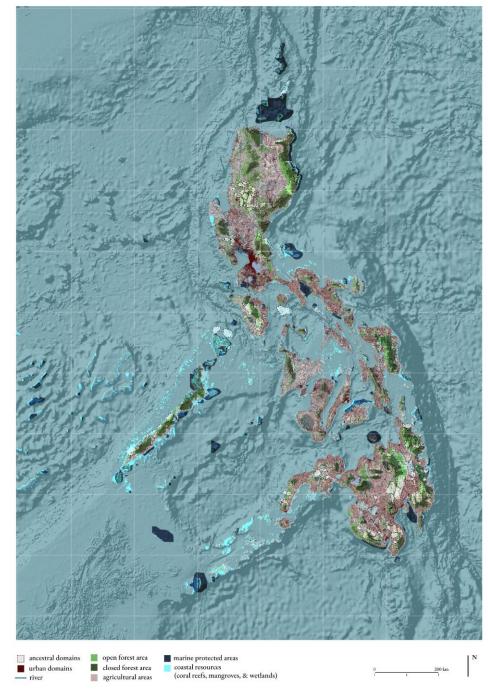
Kalinga Tribal Leader and Oldest Tattoo Artist, Whang-Od, Inking a Tourist in Tinglayen, Kalinga, Luzon, Philippines by the author (2015)

What shall become of us?

Resources



Forest Cover Decline in the Philippines (1900-2020)



Resources

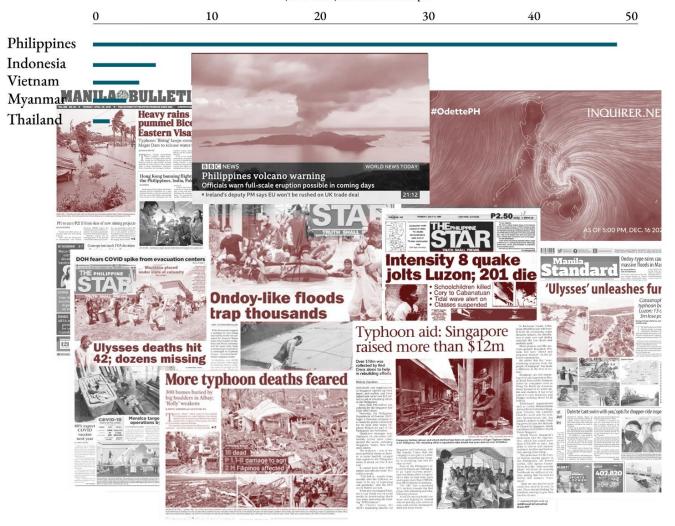


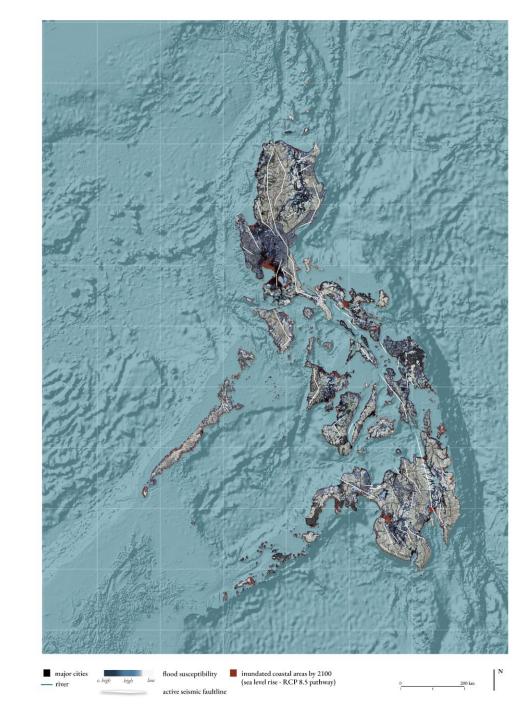
Agusanon-Manobo Sitio Leader Unloading Catch for the Day, Sitio Panlabuhan, Agusan Marsh, Agusan del Sur, Mindanao, Philippines by Gab Mejia (2019)

What shall become of us?

Risks

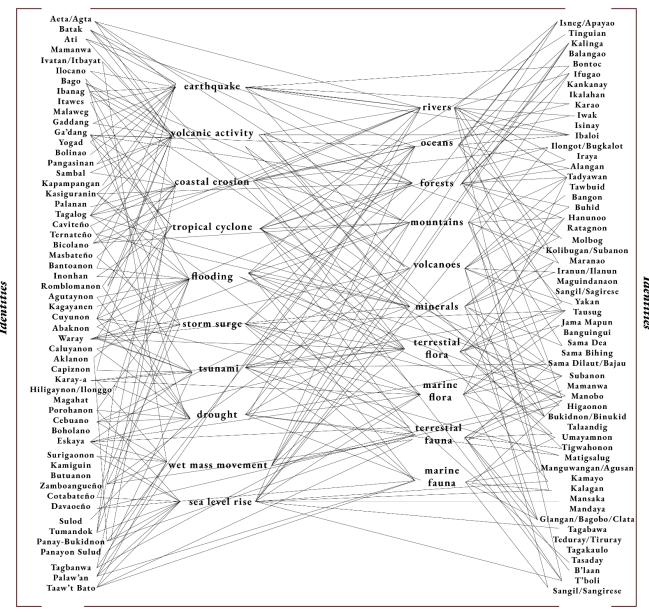
Five Countries/Territories with Most Disaster Displacements in Southeast Asia (2010-2021) in Millions of People







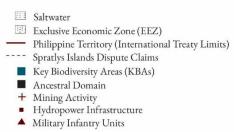
Havoc Wreaked by Typhoon Yolanda in Tacloban City, Leyte, Visayas, Philippines by Erik de Castro (2013) via Reuters

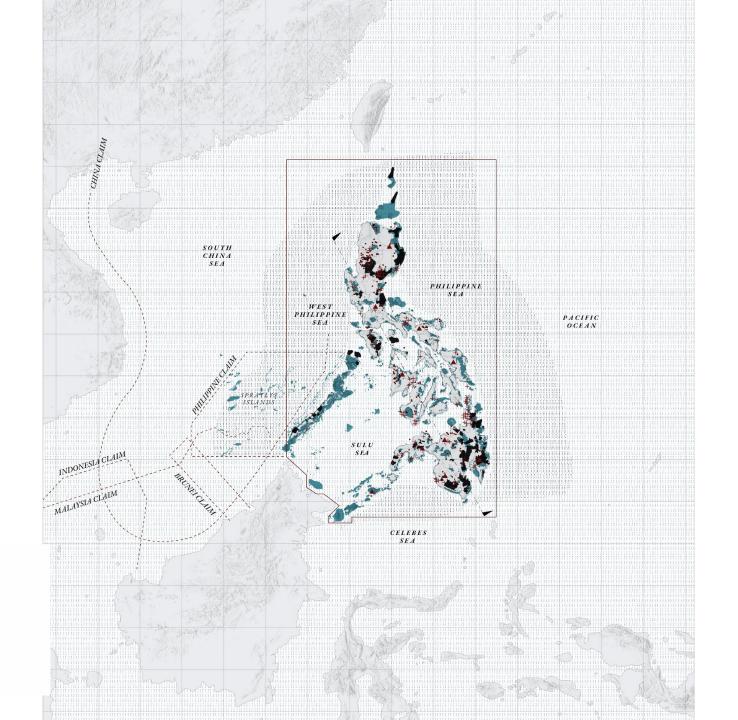


Resources

GEOPOLITICS

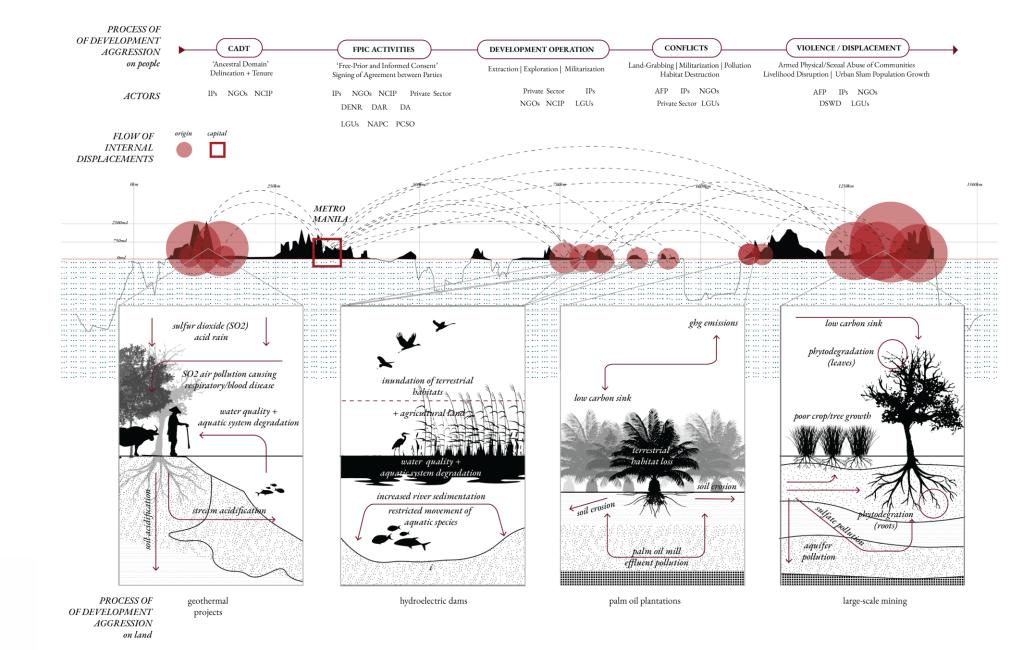
composition





GEOPOLITICS

alteration



--- Flow of Displacement

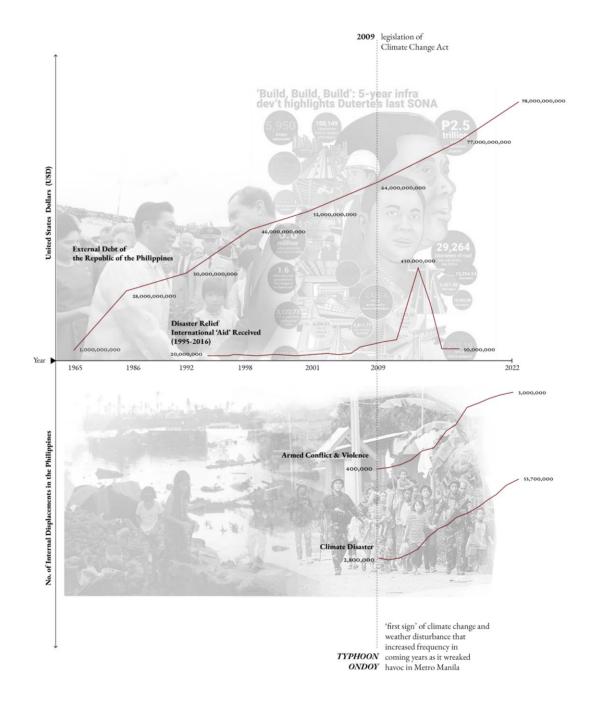
Origin

☐ National Capital Region (NCR)

Saltwater

GEOPOLITICS

limit



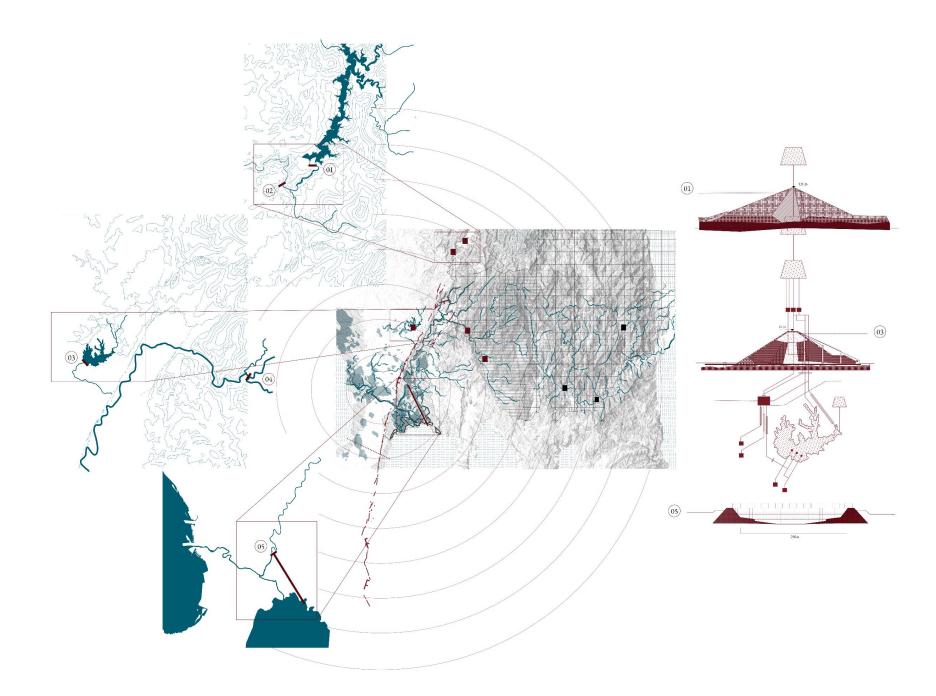
TOPOS

composition



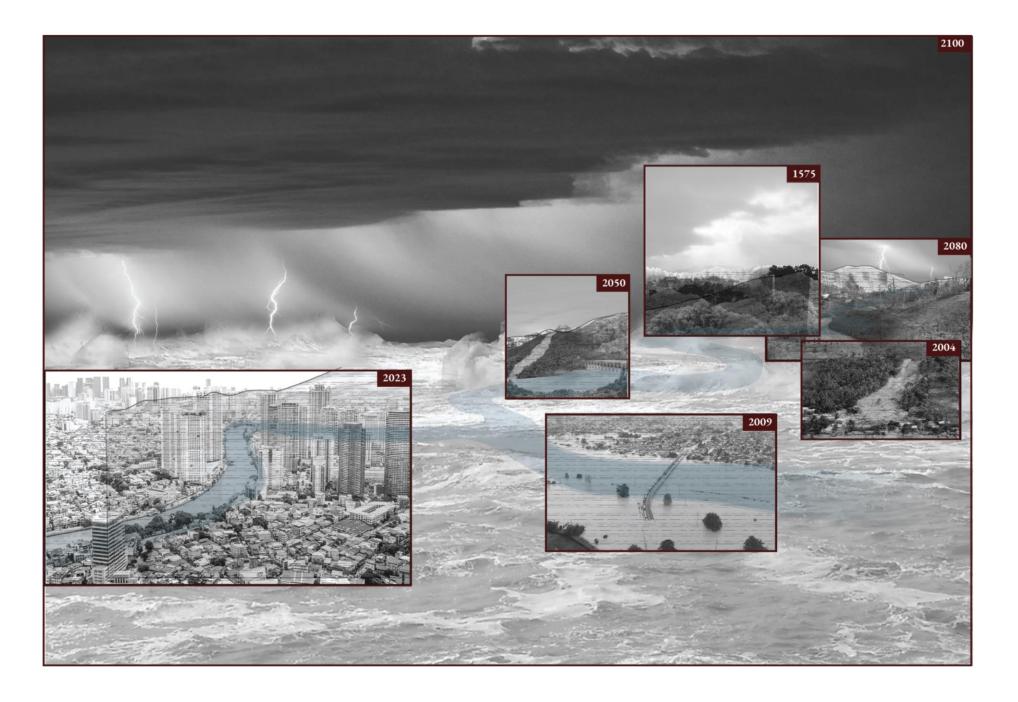






TOPOS alteration

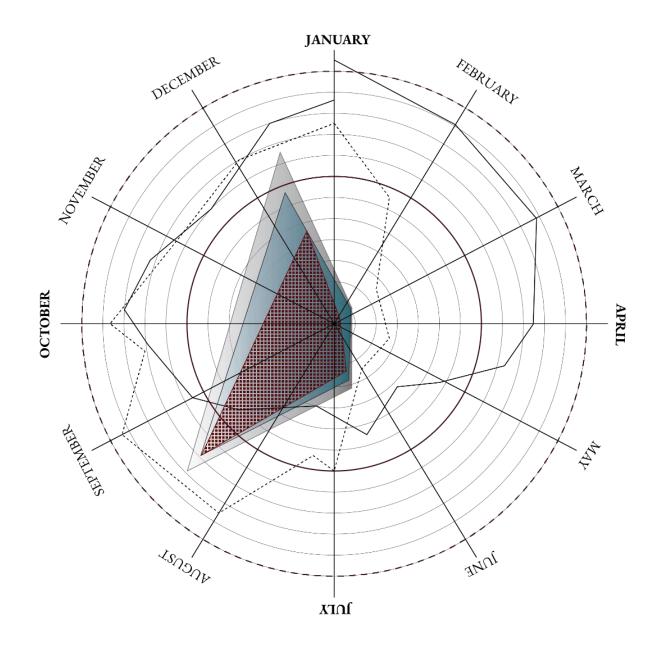




TOPOS

limit

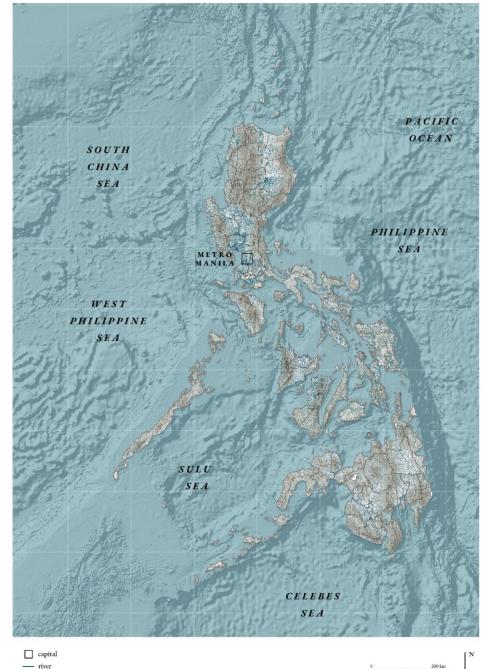




Annual Mean Number of Tropical Cyclones during Normal, El Niño and La Niña Conditions in the Philippines

			year	ly total
	Normal Y	ear	2	20.96
	La Niña		1	9.76
	El Niño		1	6.17
2 Main Water Supply Reservoirs of Metro Manila Water Levels in 2019, marking historic lows				
High	Water Level		_	Angat Dam
Drou	ght Level			La Mesa Dam

The Center of the Philippine Ecosphere
The Capital

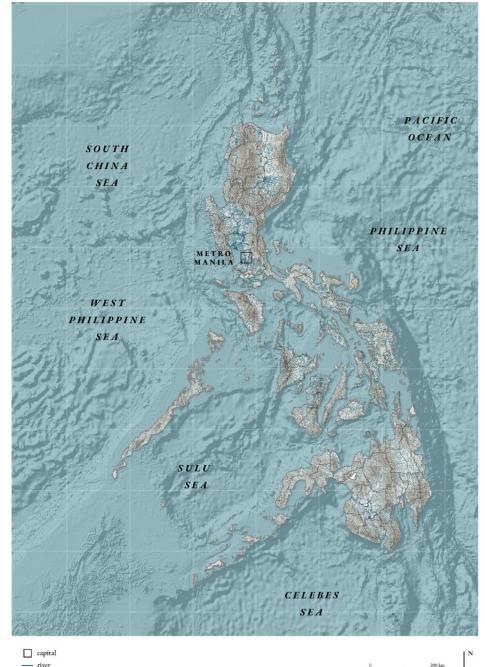


— provincial boundary

The Neo-Colonial Image
The New Climate Regime



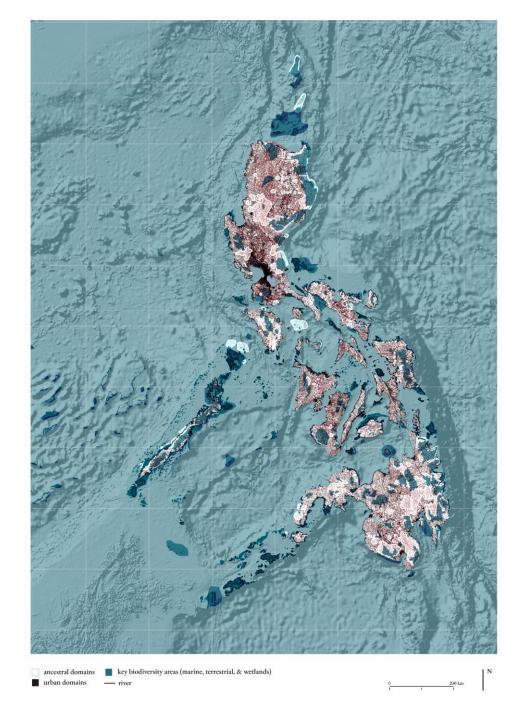
"Exotic. Exhausted. Helpless." The Center of the Philippine Ecosphere
A Neo-Colonial State in the New Climate Regime

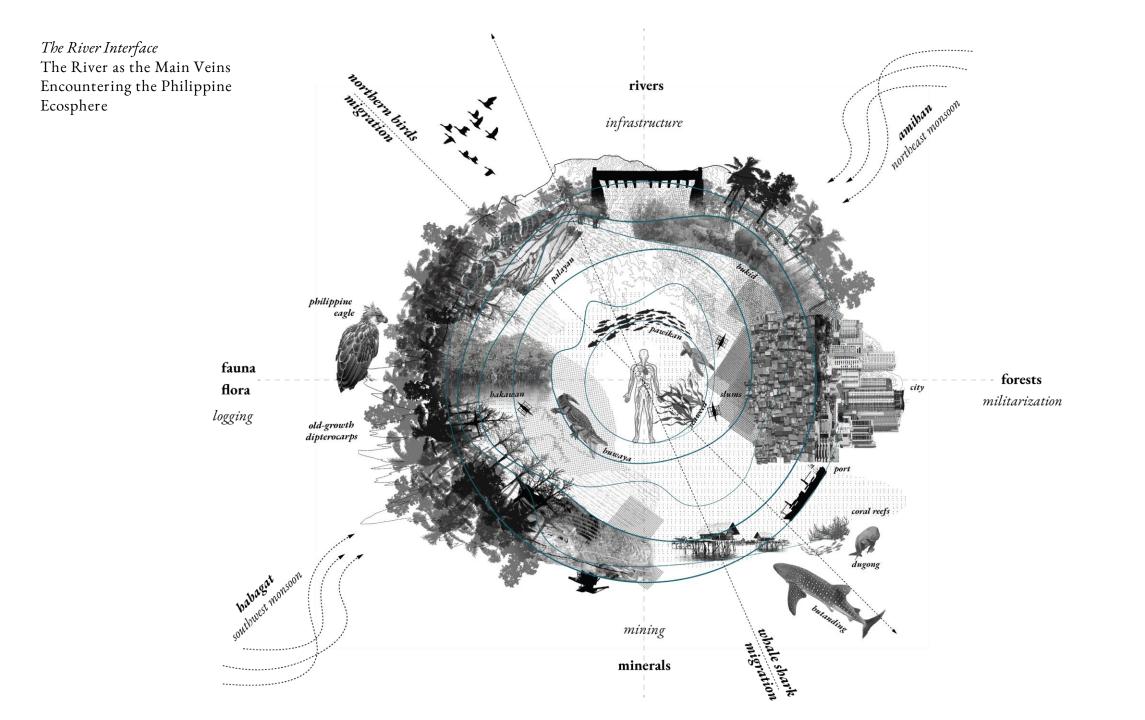


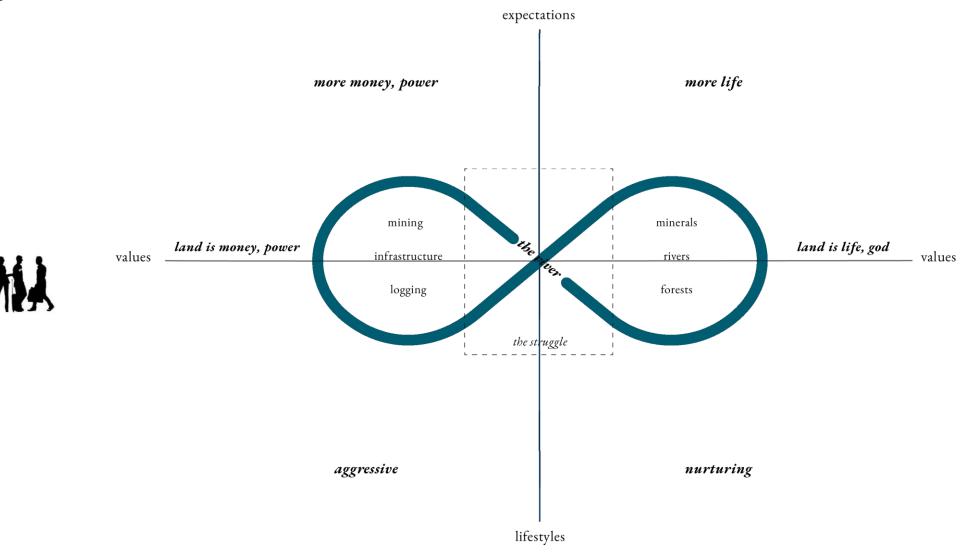


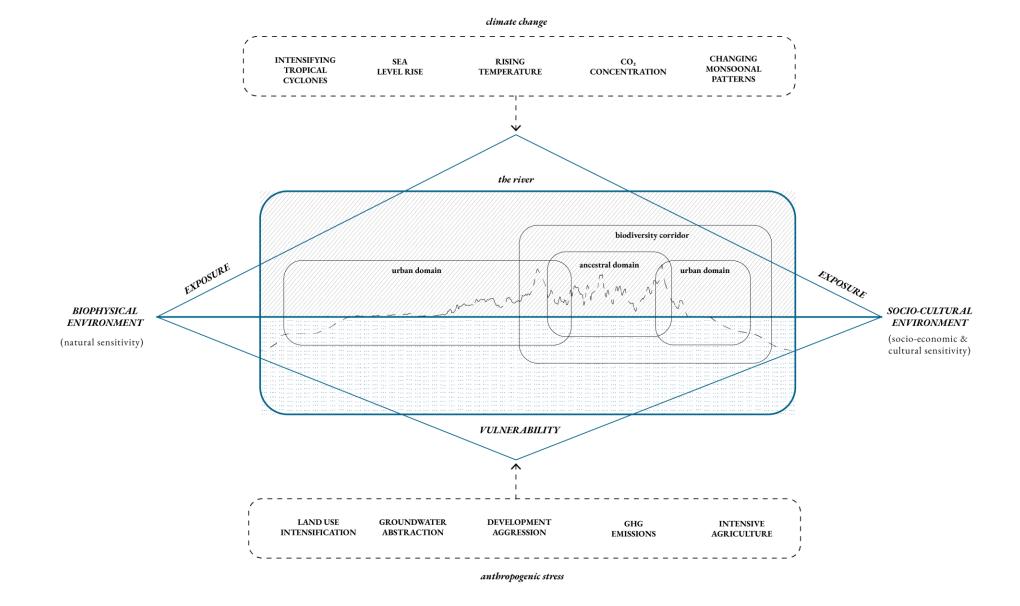


Spine of the Philippine Ecosphere
The River as the Main Veins
of a Scattered Nation

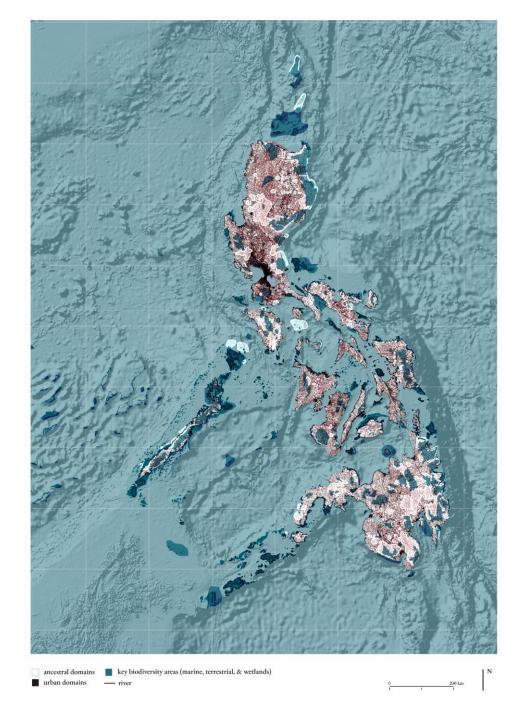




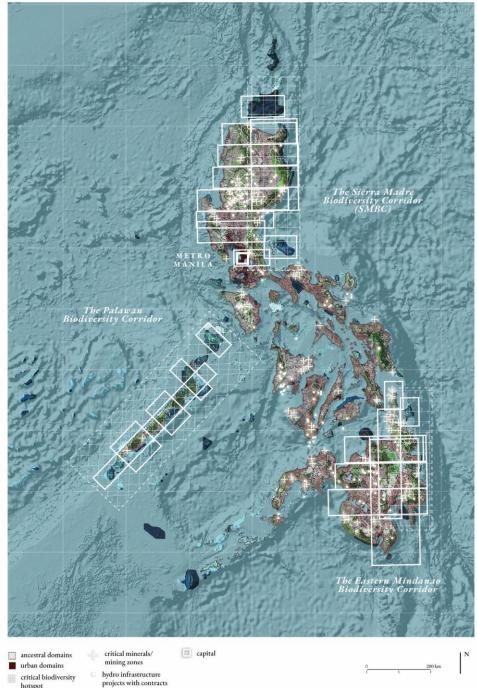




Spine of the Philippine Ecosphere
The River as the Main Veins
of a Scattered Nation

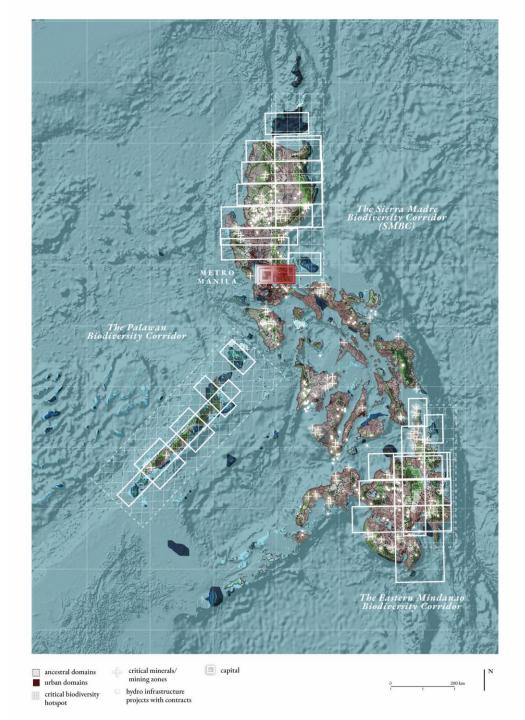


Spine of the Philippine Ecosphere
Potential River Interfaces



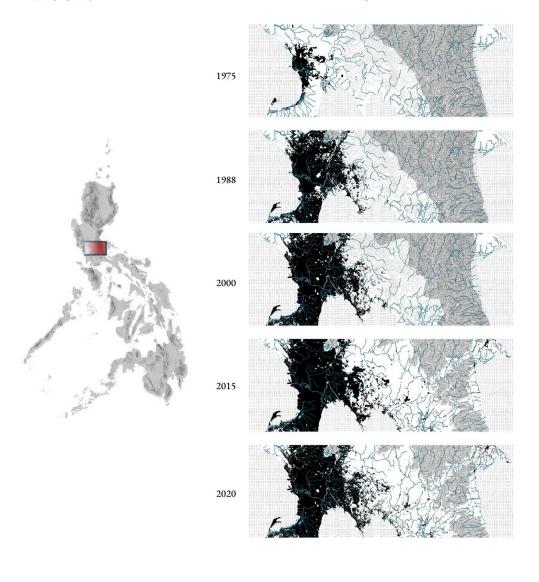


Spine of the Philippine Ecosphere
Potential River Interfaces



The River Interface The Unit

Metro Manila Growth vs. Sierra Madre Foreset Cover Decline by author

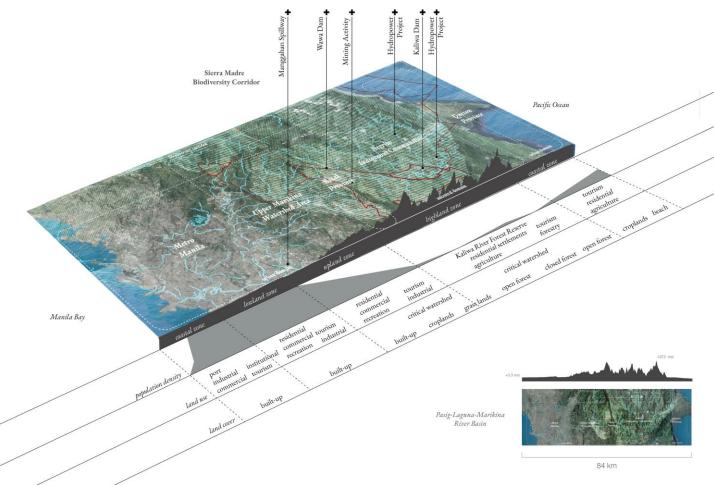


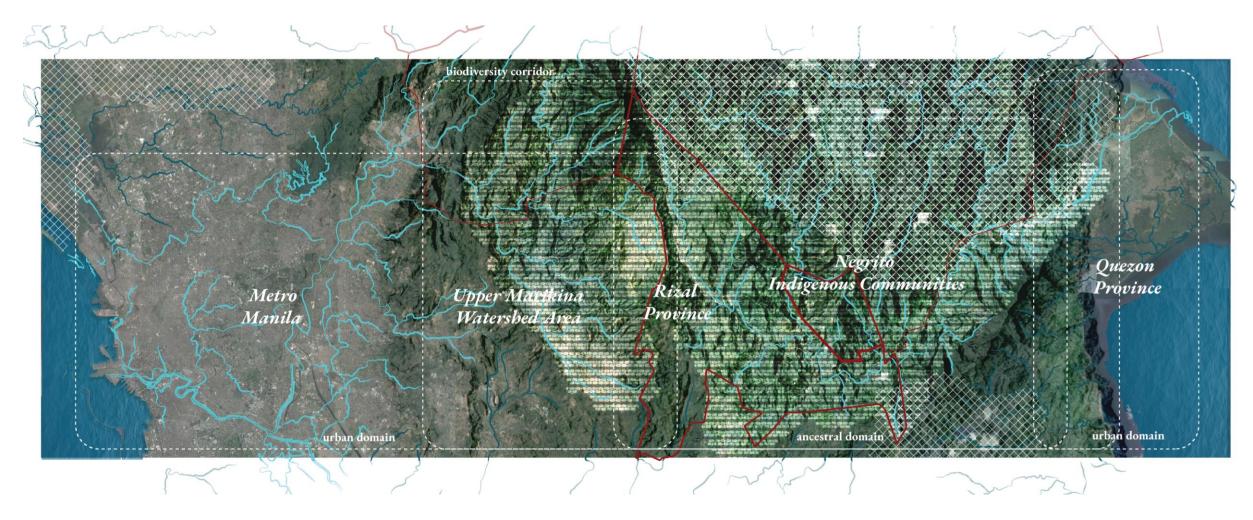
River Basin Area: 4,678 sqkm.

Location: LUZON, Philippines

RB: Pasig-Marikina-Laguna River Basin
BC: Sierra Madre Biodiversity Corridor
- Old-Growth Forests, Kaliwa River Forest Reserve,
Critical Watersheds, Upper Marikina Protected
Landscape
UD: Metro Manila + Rizal/Quezon Province Urban
Settlements
AD: Neartis Indigenous Community Settlements

AD: Negrito Indigenous Community Settlements (Agta, Dinagat, and Remontado)

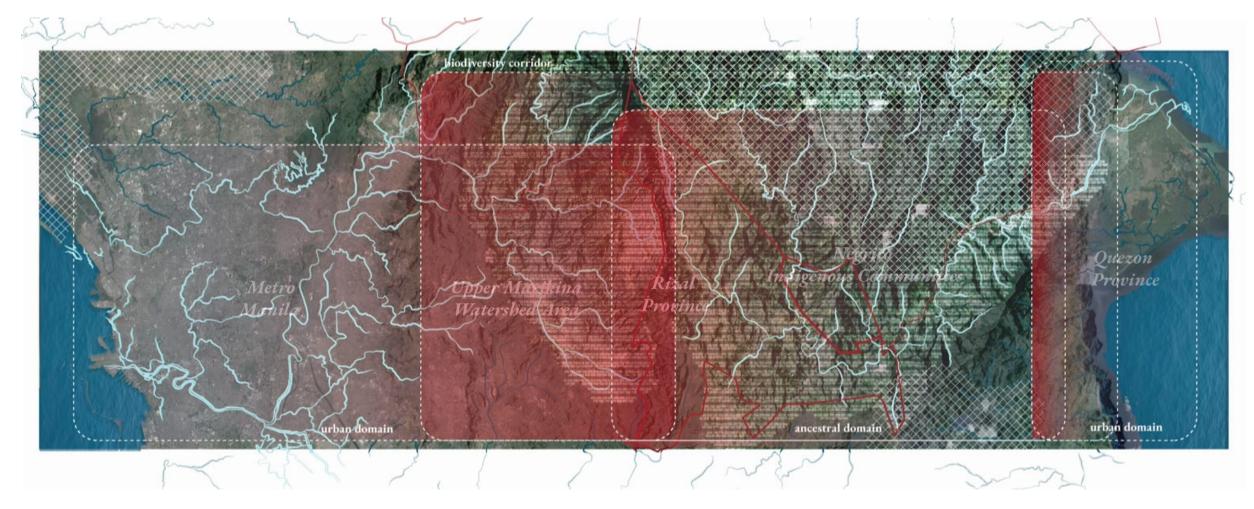




river basin tributaries

ancestral domain delineation

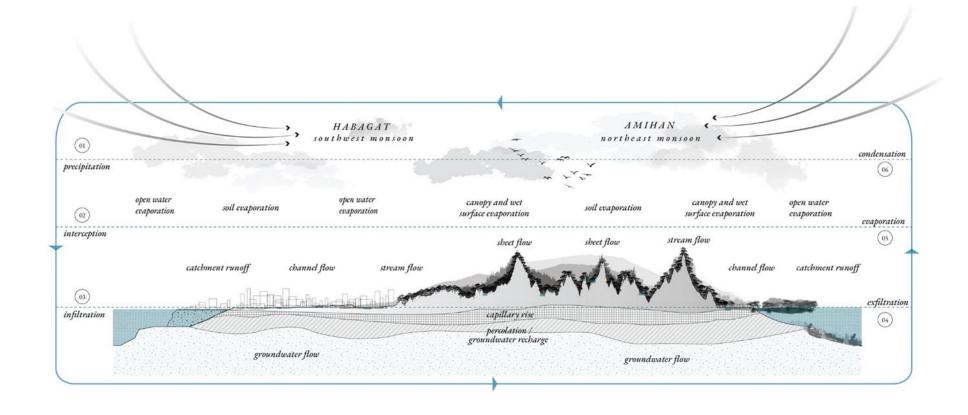
critical watershed

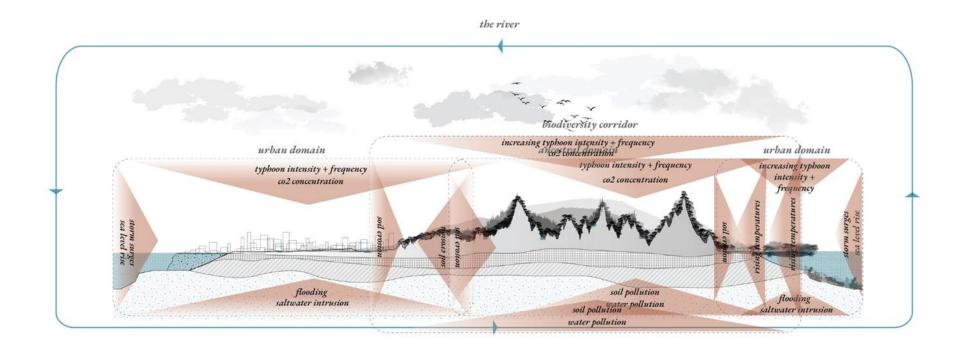


river basin tributaries

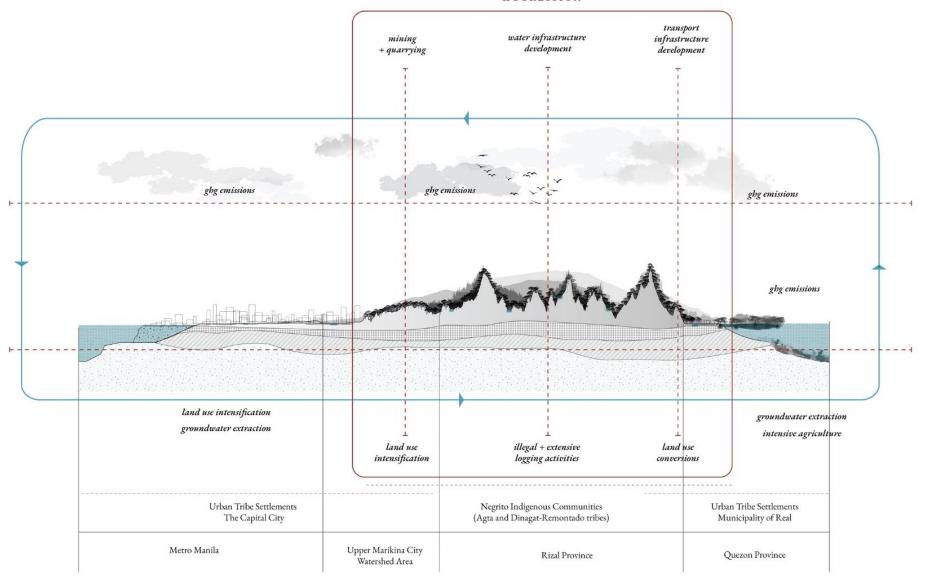
ancestral domain delineation

critical watershed

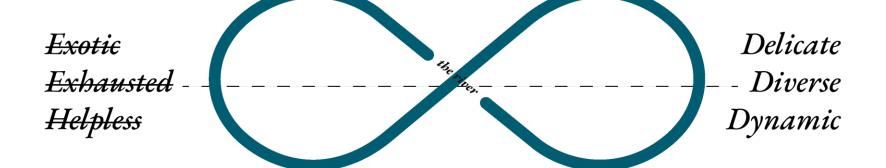


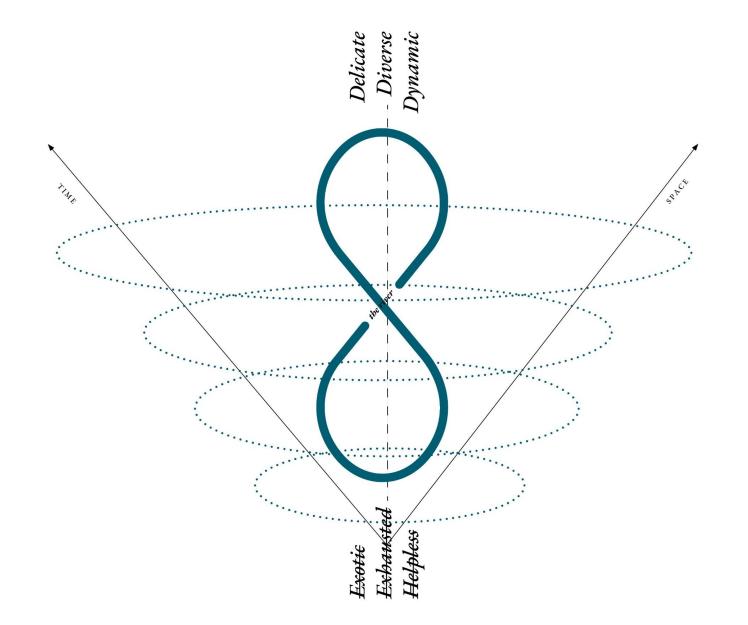


DEVELOPMENT AGGRESSION



The River Interface
The Counterposition

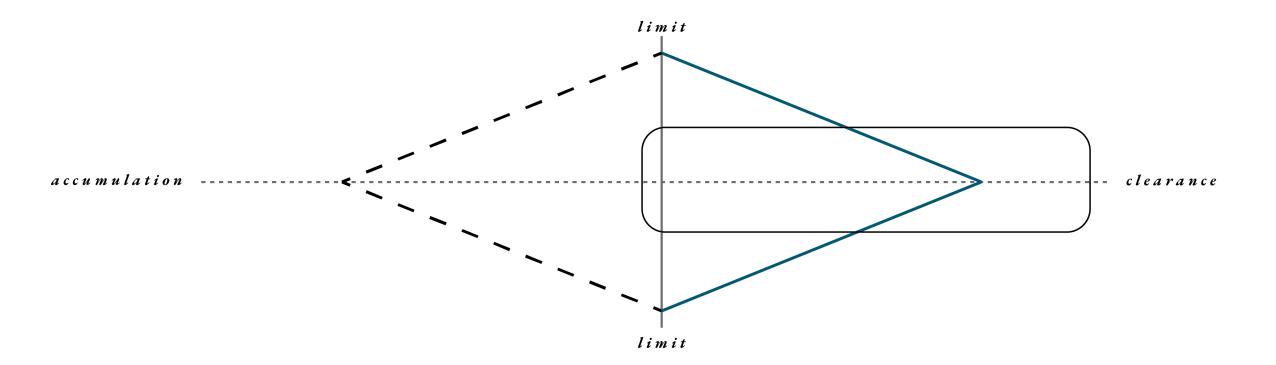


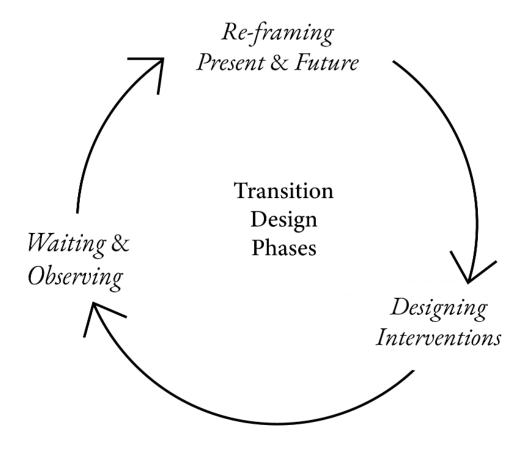


As an archipelagic territory composed of <u>multiplicities</u> — identities, resources, and risks — pressured by <u>a homogenizing and centralized development paradigm</u>, how can the Philippines prevail from the effects of the climate crisis through <u>a transitional and renewed comanagement regime of the river</u>, restoring the spiritual continuum between human and nature?

a future

The Path to Clearance

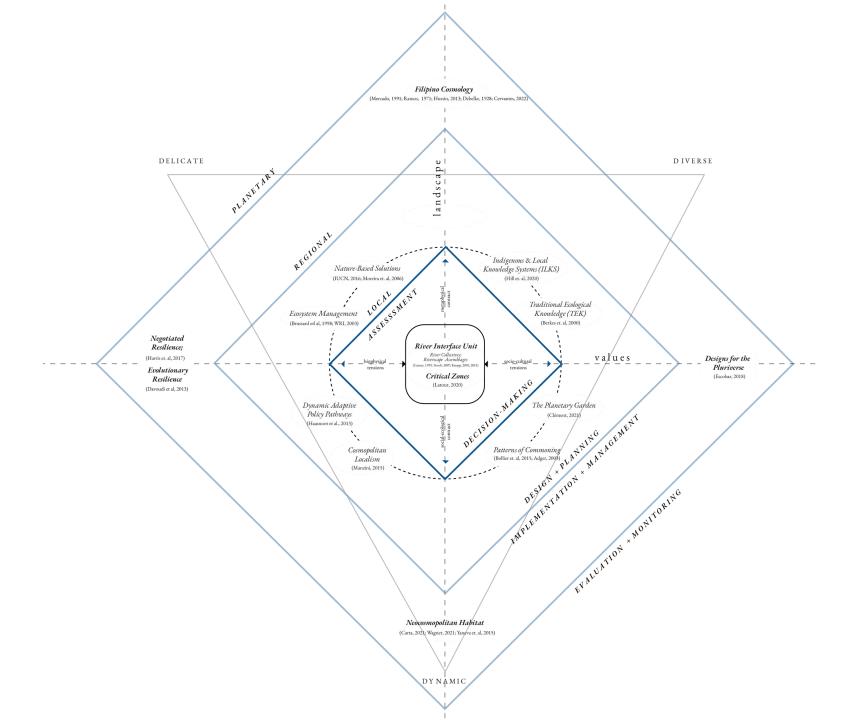


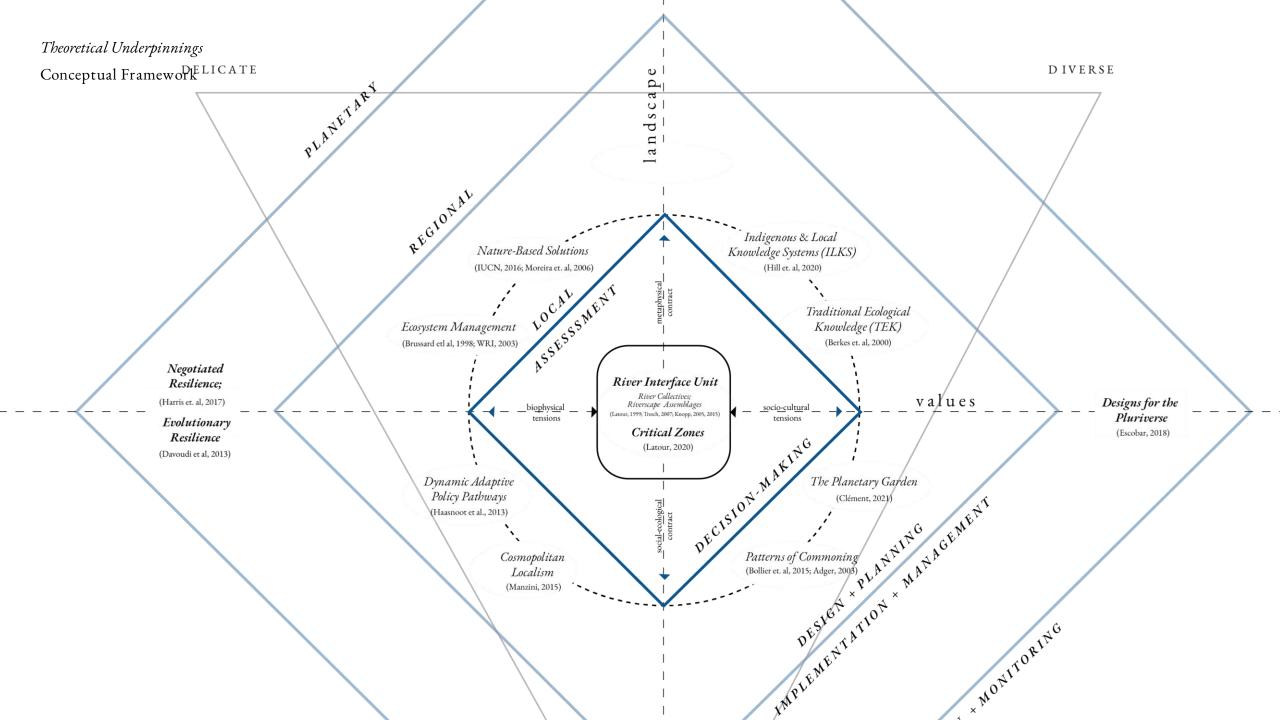


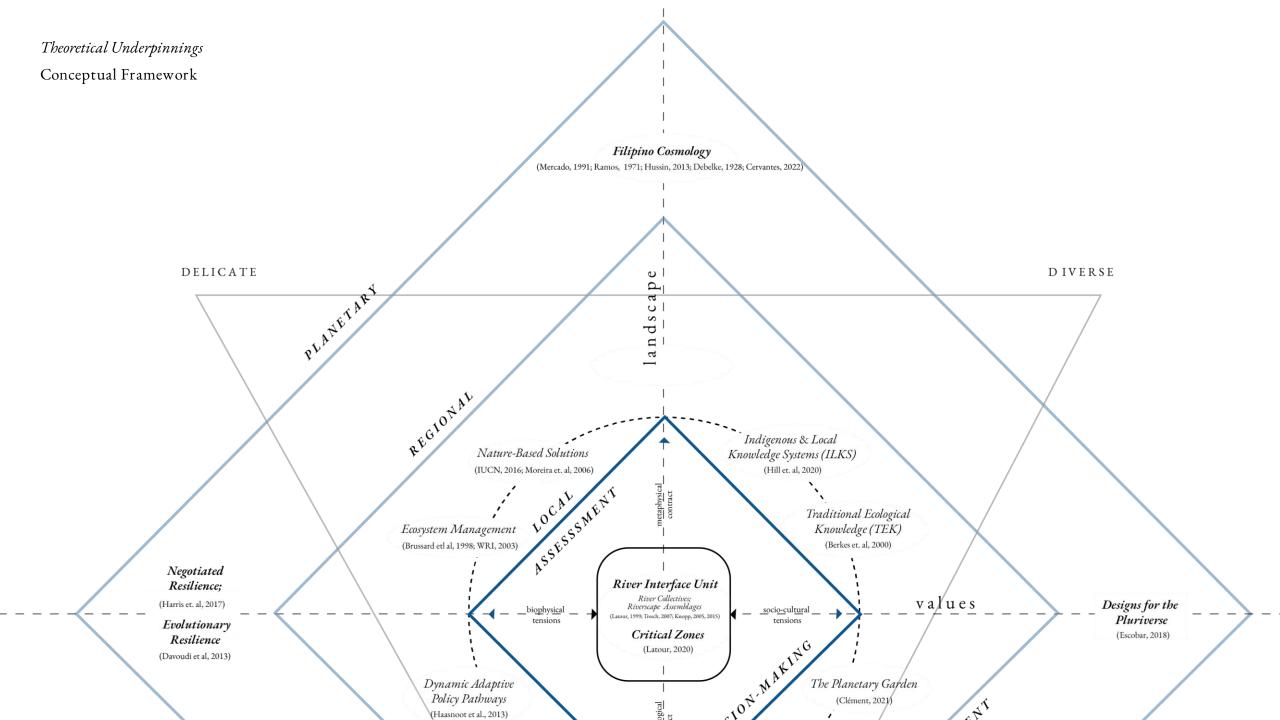
The Three Phases of Transitional Design Process

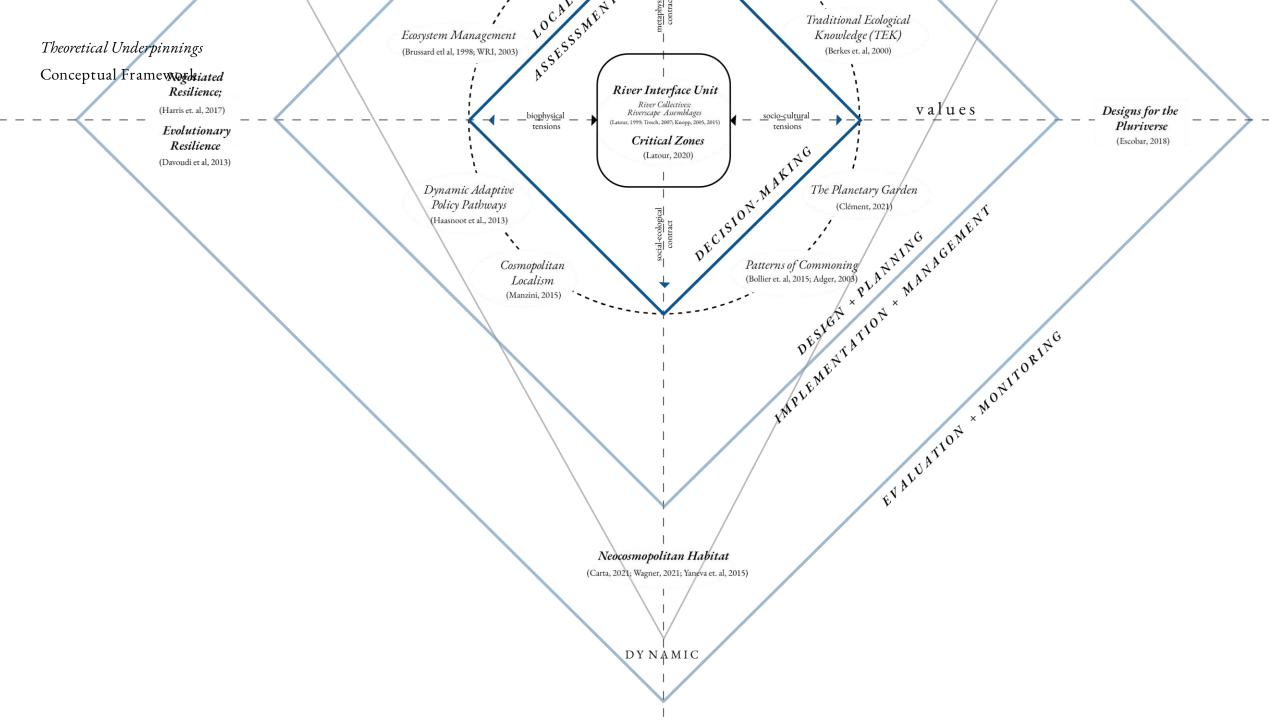
Theoretical Underpinnings

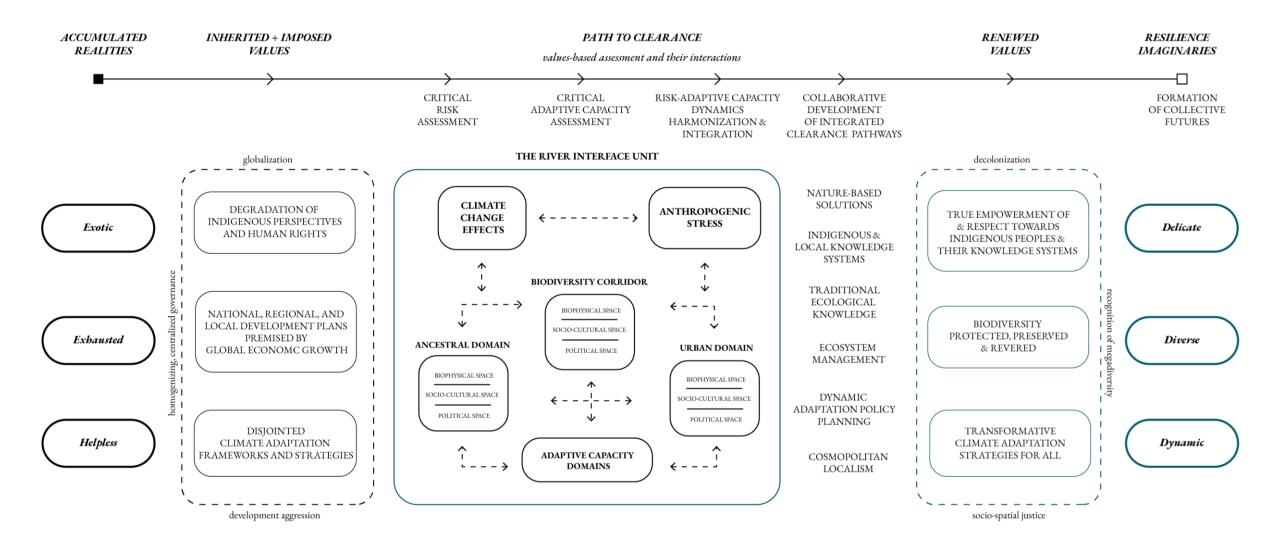
Conceptual Framework











Conceptual Design Approach Framework

ADAPTIVE CAPACITIES IDENTIFICATION OF MULTISCALAR RISK ASSESSMENT OVER SOCIO-SPATIAL DOMAINS ASSESSMENT DOMAINS INTERFACE OPPORTUNITIES COLLABORATIVE DEVELOPMENT MULTIPLICITIES OF INTERVENTIONS Exhaustee Helpless RISKS* External and Internal Stressors BIOPHYSICAL SPACE AGENCY Climate Change Effects Tropical Cyclones Rights and Land Tenure Sea Level Rise River Basin System Functionality SOCIO-SPATIAL JUSTICE Power and Freedom to Mobilize CO2 Concentration (Ecosystem Services) Empowerment through Participation Flooding ADAPTIVE CAPACITY ILKS/TEK Recognition + Implementation Rising Temperature Water Resource Quality ENHANCEMENT OR Removal of Inequality Barriers SYSTEM ALTERATION Antropogenic Stress Soil Quality Development Aggression INDIGENOUS AND LOCAL Land Use Intensifcation KNOWLEDGE SYSTEMS (ILKS) Biodiversty Conditions ASSETS RECOGNITION + Groundwater Extraction Intensive Agriculture REVISION OF SYSTEM Financial Capacity GHG Emissions LIMITATIONS AND BARRIERS TRADITIONAL ECOLOGICAL KNOWLEDGE Basic Social Services Sustainable Infrastructure (TEK) SOCIO-CULTURAL SPACE Technological Capacity TRANSITIONAL CO-MANAGEMENT REGIME IDENTITIES Livelihood Practices DYNAMIC ADAPTIVE POLICY FLEXIBILITY Social -Cultural Capital PLANNING Relationship with the Riverscape Resource + Livelihood Adaptability NEO-COSMOPOLITAN HABITAT Urban Tribes Diversity Potentials Land Use of Riverscape COSMOPOLITAN LOCALISM (All Non-Indigenous Communities) Switching Adaptation Strategies FILIPINO COSMOLOGY Indigenous Tribes ECOSYSTEM MANAGEMENT SOCIAL ORGANIZATION POLITICAL SPACE PLURIVERSALITY Administrative Borders Bonding / Networking Capital Level of Trust and Soscial Cohesion NEGOTIATED / RESOURCES Governance/Decision-Making Bodies Cooperative, Collective Action, + Natural Capital **EVOLUTIONARY** over the River Basin Knowledge Sharing Capacities RESILIENCE Rivers (Surface + Subsurface) Influence of Local and Indigenous Communities DynamicLEARNING Diverse Delicate on Managementand Decision-Making over Soil River Basin System Use and Planning Capacity to Absorb and Generate New Knowledge (Decision-Making Process) Forests Supporting Processes for Critial Education Information Dissemination Endemic Flora + Fauna (Marine/Coastal/Terrestrial) Mineral Reserves

Planetary

To create and propose a renewed transitional model for integrative 'planning' with the River Interface Unit (RIU) as the fundamental scale of inquiry that can allow for a new form of evolutionary resilience to emerge as negotiated in a participatory and collaborative process that would reveal Clearance Pathways towards a decolonized and collective future for the Philippine Archipelago, potentially restoring the social-ecological continuum between human and nature, and with it, the values of socio-spatial justice and the engaged recognition of pluriversality.

Hypothesis

Multi-scalar River Interface Integration

MICRO SCALE

RIVER INTERFACE UNITS (RIUs) within CRITICAL BIODIVERSITY HOTSPOTS

Urban Domain - Ancestral Domain - Biodiversity Corridor Interfaces

To identify opportunities for Adaptive Capacity integration and dynamics analysis for pathway development

MESO SCALE

REGIONAL INTEGRATION ALONG ENTIRE BIODIVERSITY CORRIDORS IN PLACE

EXPANSION TO OTHER KEY BIODIVERSITY AREAS THROUGHOUT ENTIRE ARCHIPELAGO

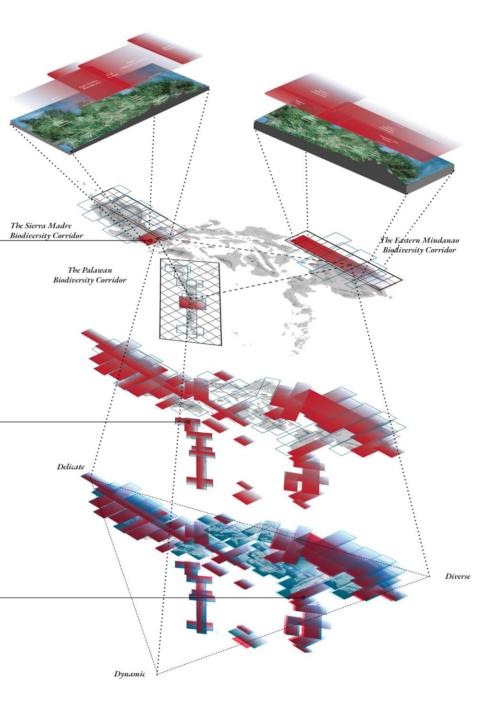
Interfaces between RIUs

Clearance pathways towards the development of a backbone

MACRO SCALE

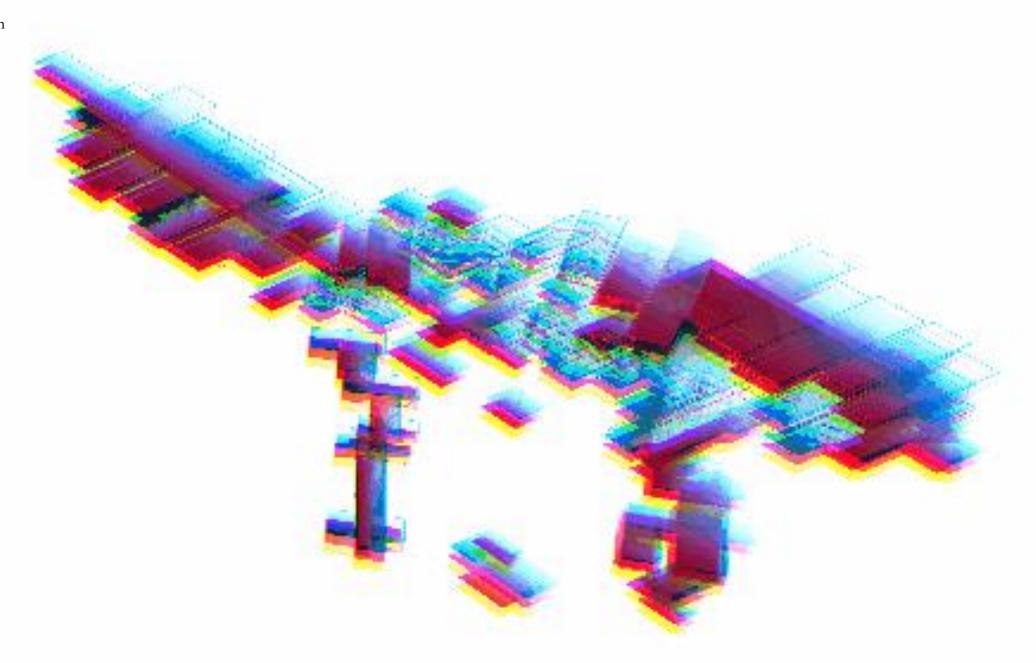
Monitoring and Evaluation Frameworks for Interface Dynamics can be established for a holistic Neocosmopolitan Habitats in the archipelago

Interfaces between Regional RIUs



Hypothesis

Continuum Restoration



We must imagine the future together.

a river interface narrative

A River Interface Narrative An Intimate Analytical Tool

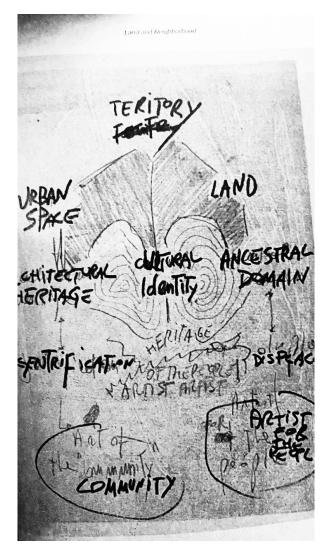
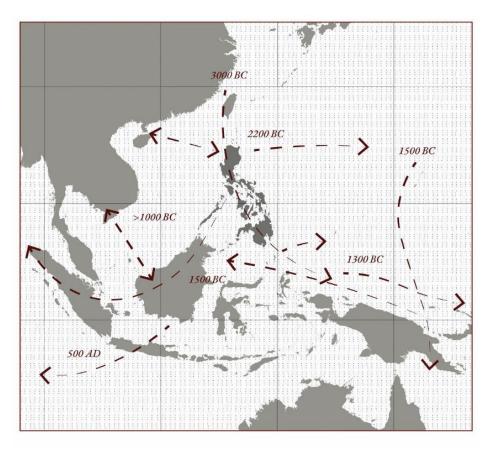


Diagram of Art-Urban Space-Ancestral Domain-Territory

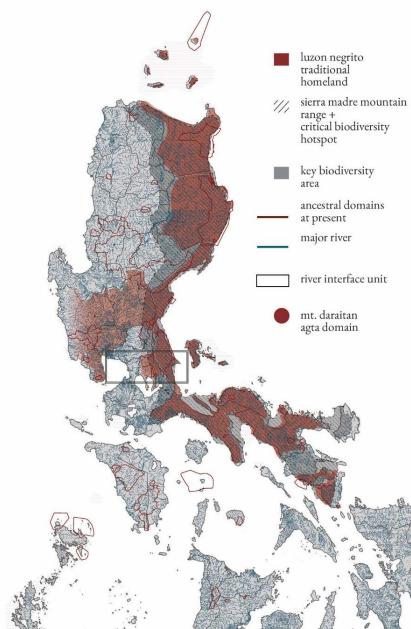
© Land and Neighborhood Zine (2023)



Australoid Migration in Southeast Asia

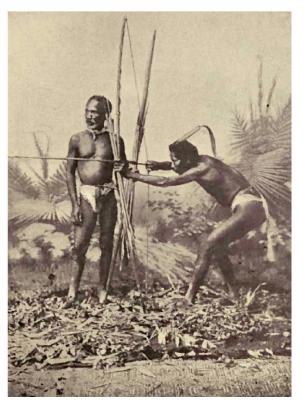






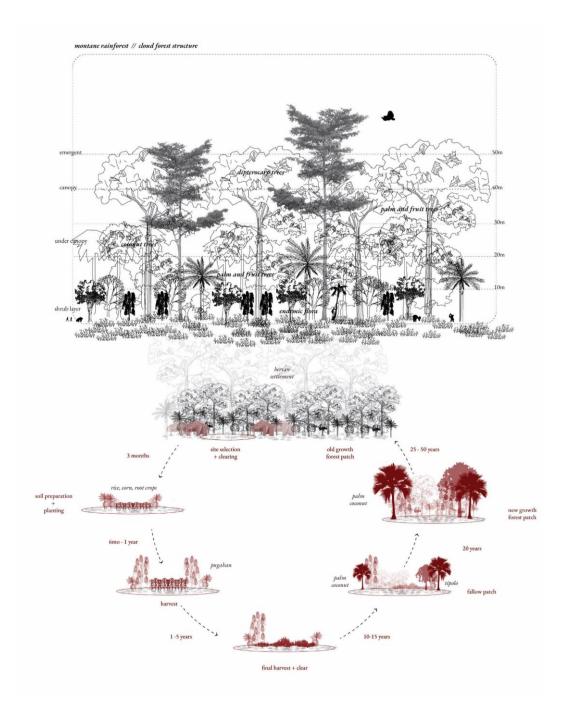
A River Interface Narrative
The Agta (Dumagat-Remontado)





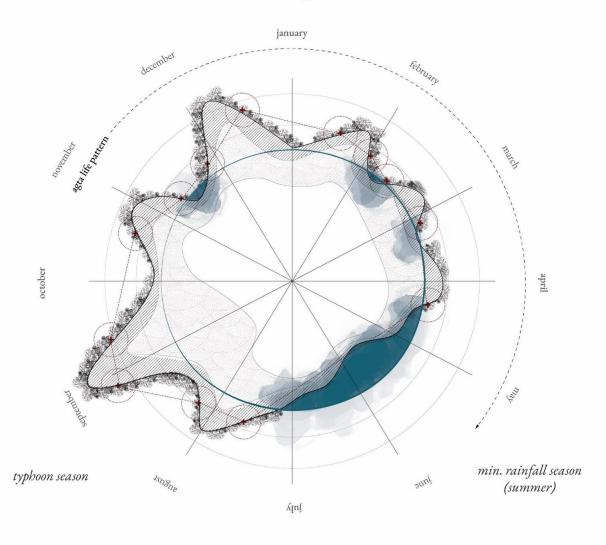


A River Interface Narrative
The Agta (Dumagat-Remontado)



final harvest + clear

climate type II



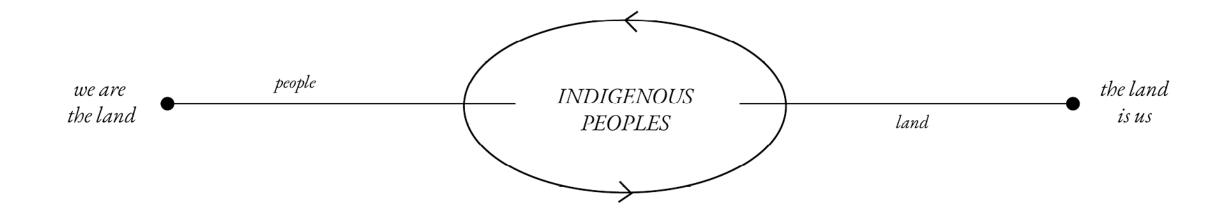
Agta (Dumagat Remontado) Life Pattern following Nature's Yearly Climatic Cycles



A River Interface Narrative
The Agta (Dumagat-Remontado)



They are the land. They are the river. They are nature.



TO ENRICH

local customs aesthetic value spiritual value

The Rainforest

VALUES IN THE RIVERSCAPE
physical manisfestations

RIVER + FOREST TOPOGRAPHY
BIODIVERSITY
CLIMATE PATTERNS

SACRED SITES
SUSTAINABLE LIVELIHOOD PRACTICES

SETTLEMENTS BY RIVER
CHILDHOOD/EDUCATION DEFINED BY FOREST

POSTERITY OF LAND + SELF

THE LAND'S INTENTIONS*

ecosystem services

TO PROVIDE

main source of food medicinal plants main source of clean water materials for shelter materials for tools

materials for tools energy source / fuel

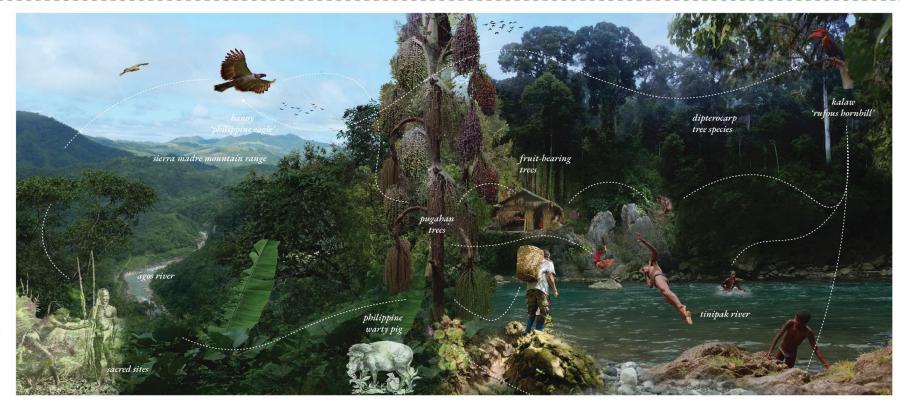
air quality

TO REGULATE

water distribution / quality seed dispersal soil fertility

TO SUPPORT

biodiversity / wildlife preservation typhoon protection soil erosion prevention



knowledge spirituality community well-being

MIDSTREAM

recharge area

UPSTREAM

DOWNSTREAM

A River Interface Narrative
The Agta (Dumagat-Remontado)



development aggression in the ancestral domain A River Interface Narrative key biodiversity area The Agta (Dumagat-Remontado) sacred grounds urban settlements ||||| intensive agriculture zones |||| flood risk kaliwa dam reservoir extent SIERRA 5-km Diameter Agta Settlement - - hunting grounds BIODIVERSHTY Distance CORRIDOR ancestral domain agos river PHILIPPINESEAMap of Extent of Kaliwa Dam Construction Damages within the Protected Area of Kaliwa Watershed Forest Reserve and the Agta's Ancestral Domain

A River Interface Narrative The Agta (Dumagat-Remontado)



Pamana ni Bobong Laki ki Bobo a Gupad

Ι

Pagsiket nun hari a adow
Binogbog ko mangapo ko
Gumiyos kamo de ta lalaweg tam
Un buko patun tages a tinudo nun bobo ko

II

Apon apon nun dumatung kami
De beloy a untik de gitna ne bukod
Dumen masayein a eyen ti problima at sagina

III

Nun lumipes e adow hinanap ko Pangumeden ko un pamana ni bobo ko ay ankod pikita

IV

Kaye sabi ni puso ino kayye lapestangen ino kayye anti kalbi namugtos nun kew ede pati umid a pamana ni bobo. Ţ

At sunrise

I woke up my grandchildren.

We will look for the tree where honey is kept

As instructed by my grandfather.

II

It was sunset when we arrived
At the humble shack nestled amid the mountains,
Where, once, we lived in joy and bounty.

III

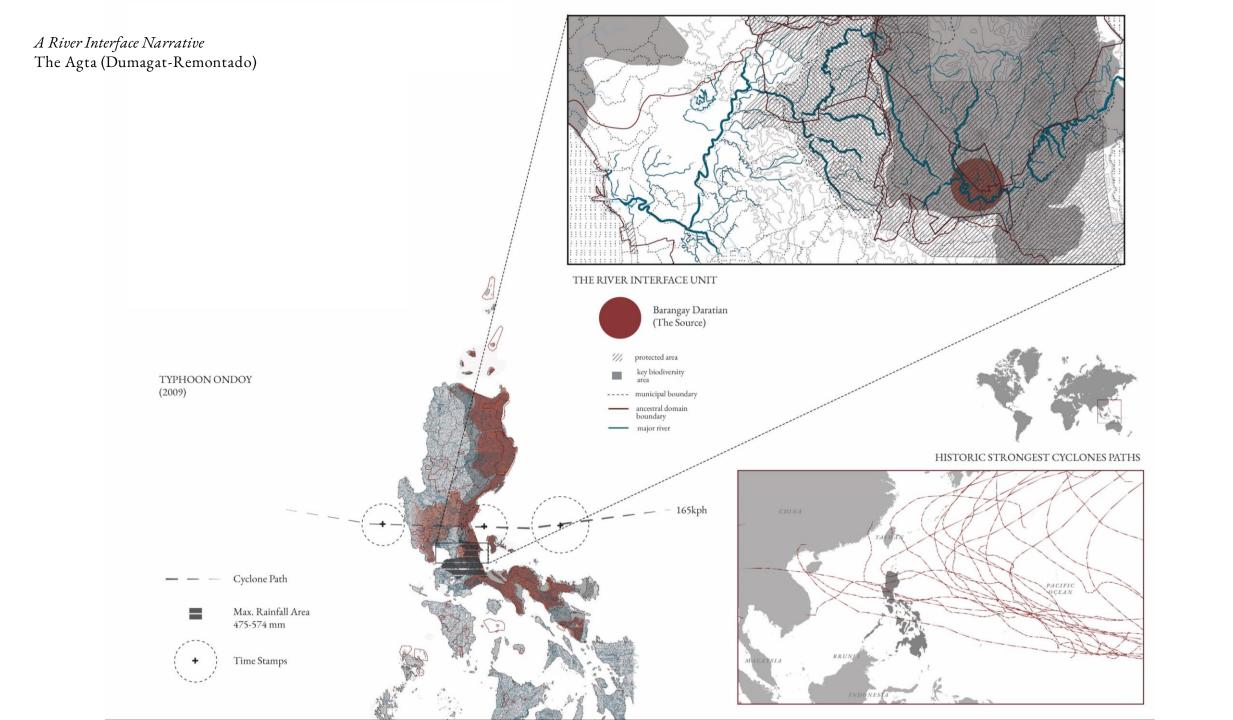
Days passed and I looked for my pugahan. The gift from grandfather is gone.

IV

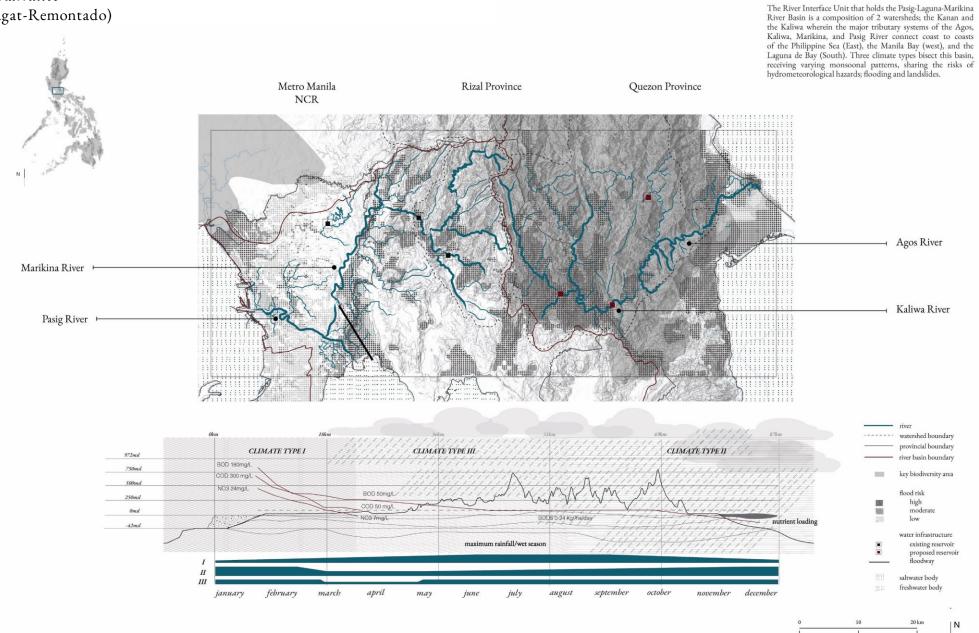
My heart cried out in pain, they have no respect or mercy. They cut the trees and the pugahan, the heritage from my grandfather.



Agta (Dumagat-Remontando) Tribal Leaders in Protest of Kaliwa Dam Proceeding Metro Manila, Philippines © STOP Kaliwa Dam Organization (2023)



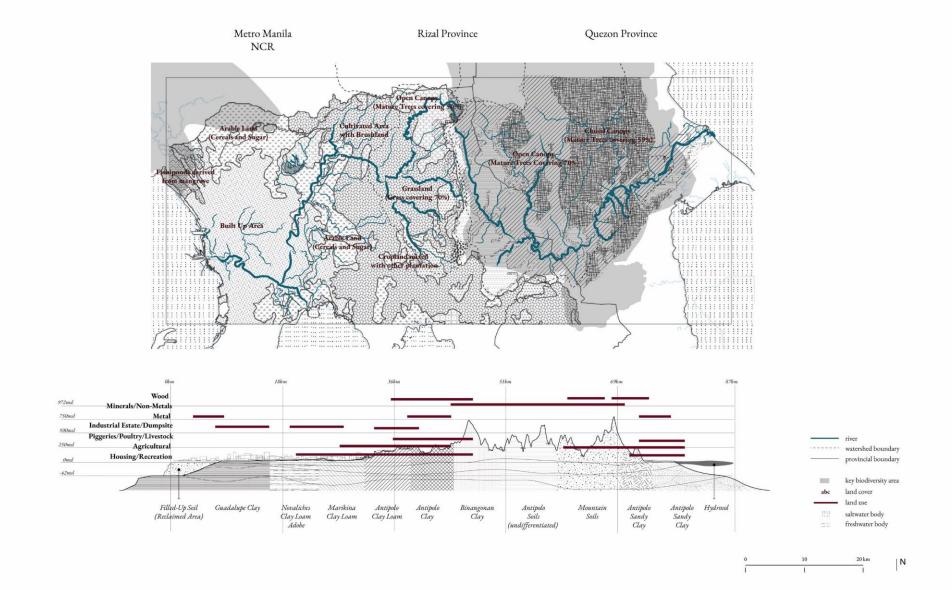
A River Interface Narrative The Agta (Dumagat-Remontado)



The Water

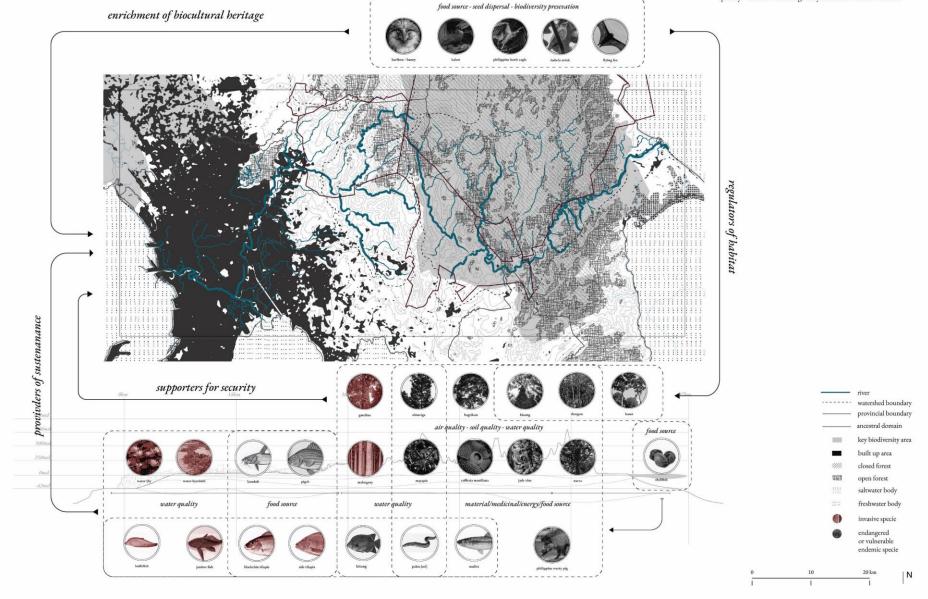
The Soil

The soils of the River Interface vary as much as the land cover and their uses, defining the different resources planted, grown, mined, and pumped out and the livelihoods and cultures surrounding them.



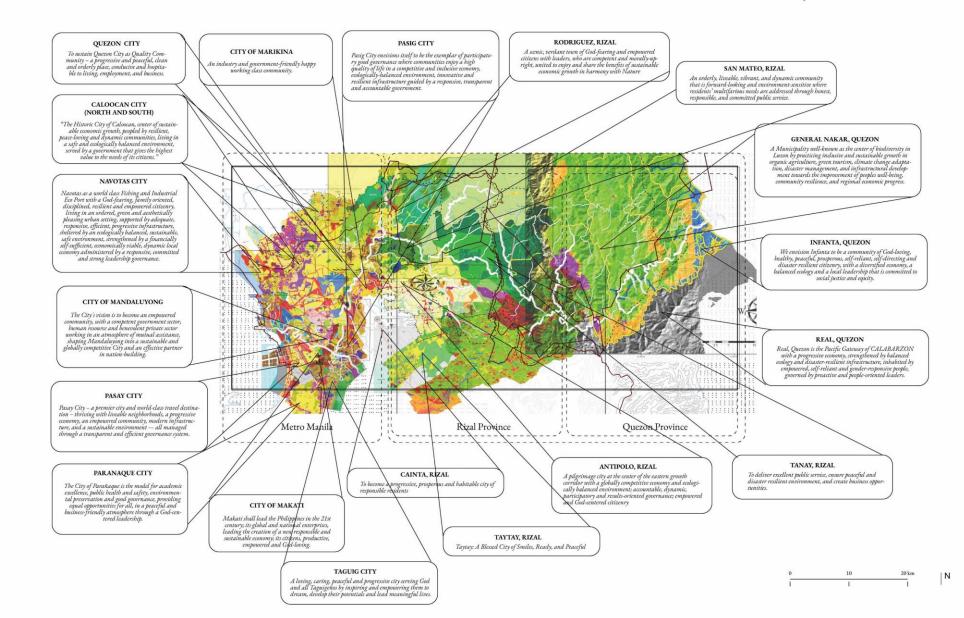
The Life Forms Non-human actors from the endemic t

Non-human actors that play a role within the River Interface, from the endemic to the invasive that are all interconnected, perform to ensure the functionality of the land's intentions - water quality, food/shelter/medicinal source, seed dispersals, air quality - and the meanings they hold rhat enrich culture.



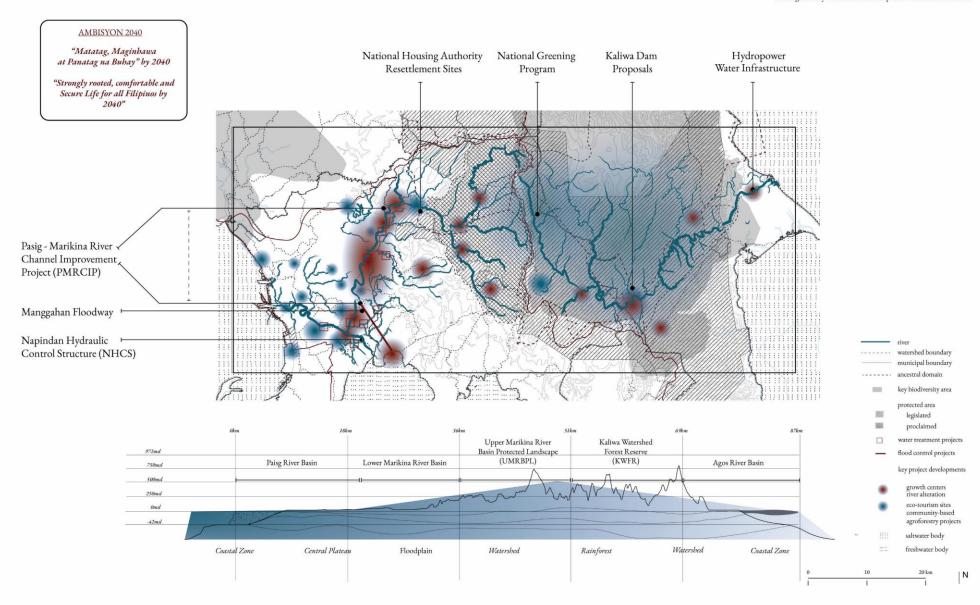
The Aspirations and Shared Values

Local governmental plans in the River Interface, wherein land use is categorized and determine how a portion of each can be utilized and come together, forming a socio-cultural mosaic of public aspirations with the river seemingly expected to to receive and be part of it all.

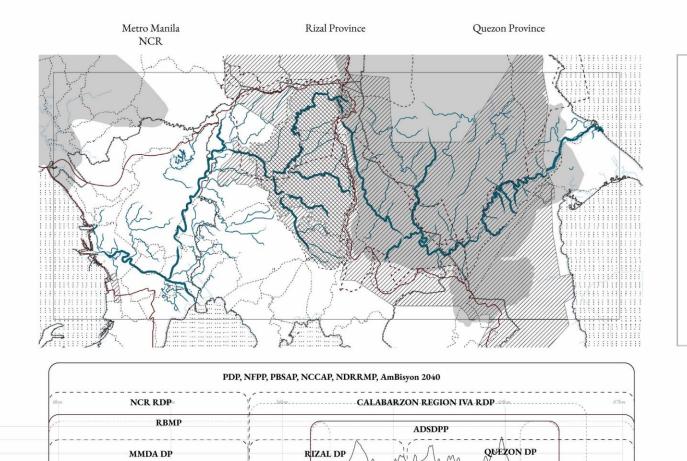


The Projects and Ambitions

As these visions are carried out by missions, projects, programs and activities are planned and are pursued across the entire River Interface that exhibit the values that either pressure or support the rivers that witness these distinguished areas attempted to be tied togehter by a National Development ambition for 2040.



The Agta (Dumagat-Remontado)



CDP / CLUPs / LCCAPs

urban domain

ancestral domain

biodiversity corridor

urban domain

The Government Plans

The boundaries defined by the 'managers' of the River Interface follow different jurisdictions, directives, and roles; from the national to the local scales, many masterplans, development plans, and action plans are heralded by different agencies and communities that divide the river ideologically and fragment its socio-spatial interconnections.

List of Abbreviations

PDP Philippine Development Plan

NFPP National Framework for Physical Planning

PBSAP Phlippine Biodiversity Strategic Action Plan

NCCAP National Climate Change Action Plan

NDRRMP National Disaster Reduction and Risk Management Plan

RDP Regional Development Plan

RBMP River Basin Master Plan

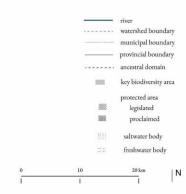
DP Development Plan

CDP Comprehensive Development Plan

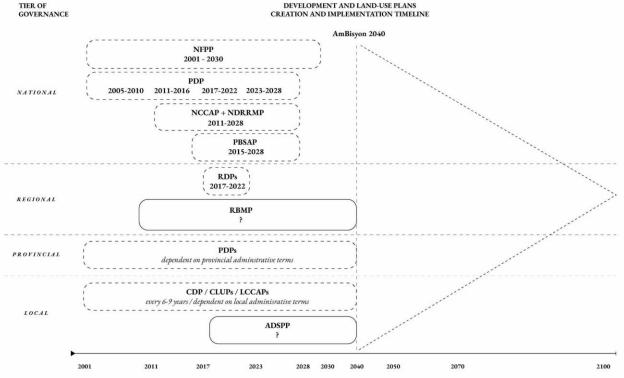
CLUP Comprehensive Land Use Plan

LCCAP Local Climate Change Action Plan

ADSPP Ancestral Domain Sustainable Development and Protection Plan

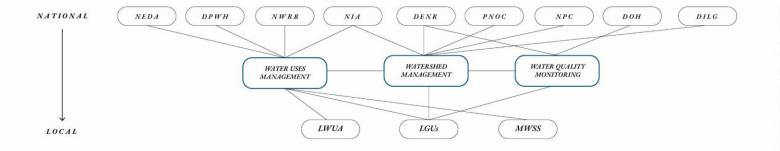


A River Interface Narrative The Agta (Dumagat-Remontado)



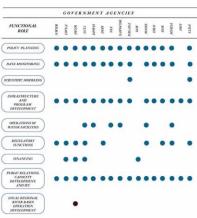
National Water Resources Board (NWRB) Structure

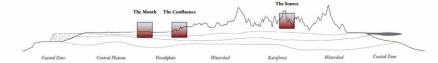
implementing agencies + functions



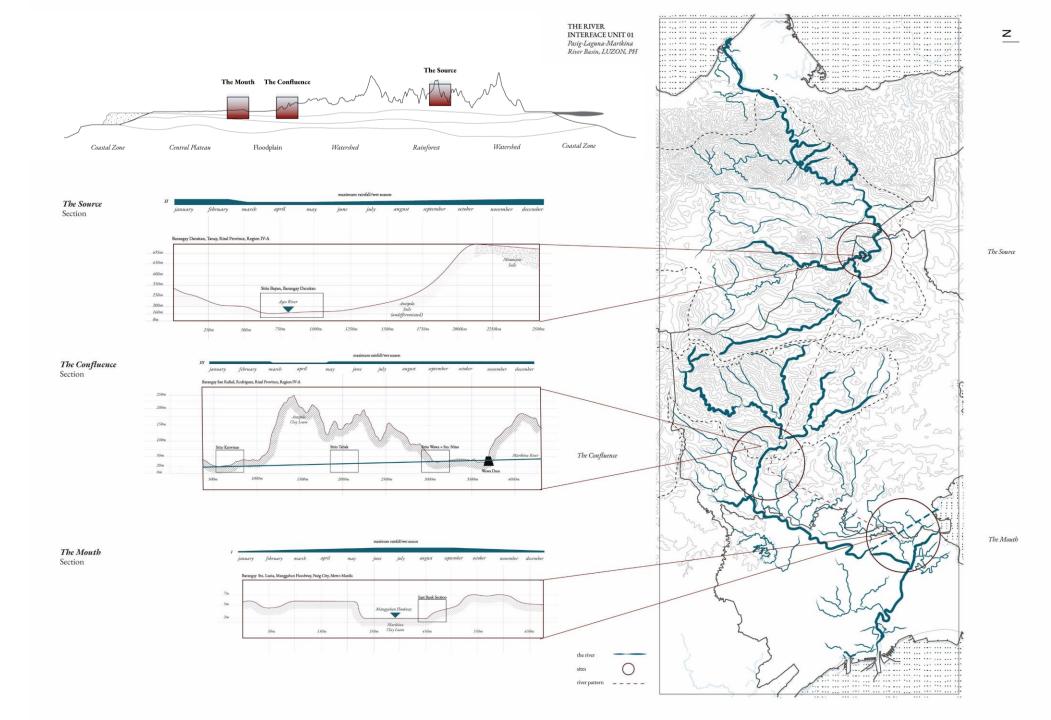
The River Interface Management System

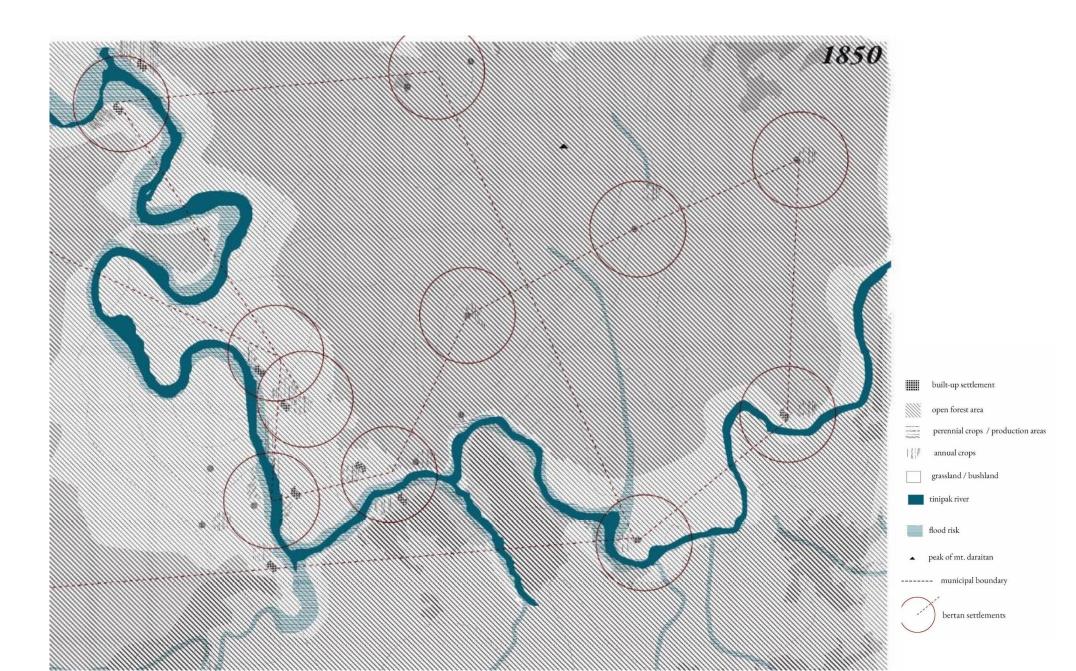
Managers follow a centralized, top-down system that also, once uncovered how Natural Resources are indeed shared, but are segmented into different agencies that might be least concerned with them, particularly in the management of Water, where the river is most concerned. The River Basin Management Office takes a backseat in the decision-making and the indigenous whose territories sustain these resources are completely out of the picture, when they must be at the center.

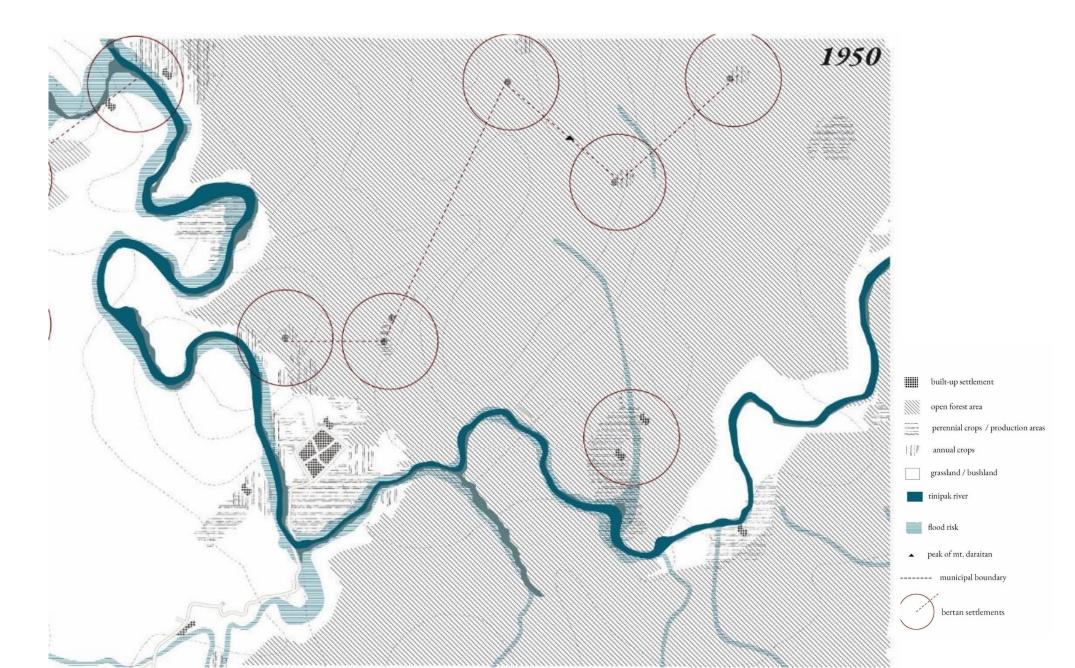


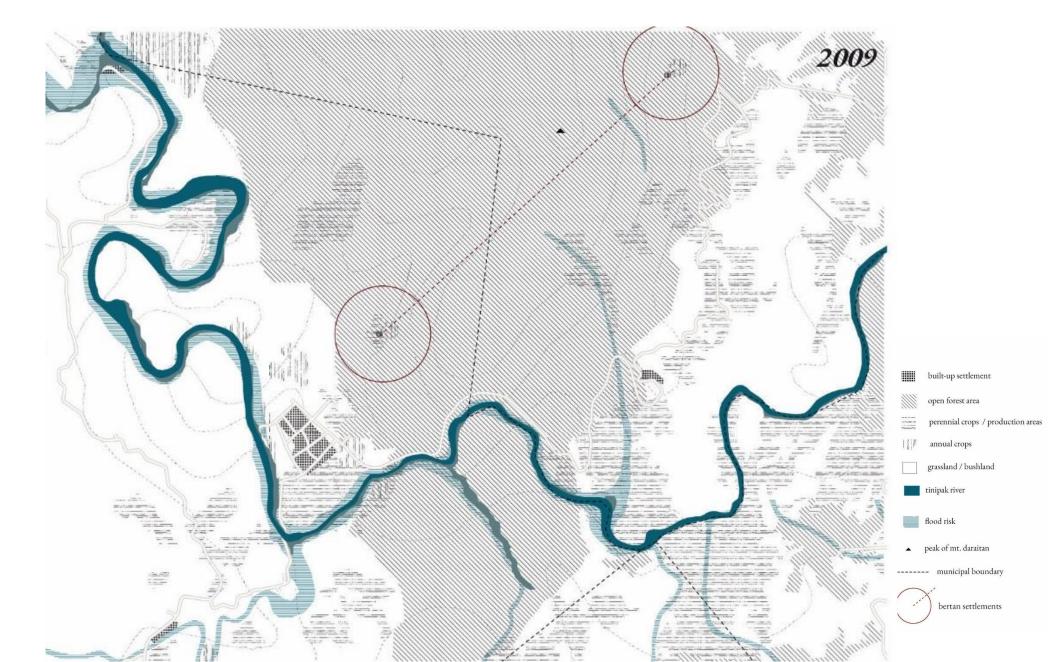


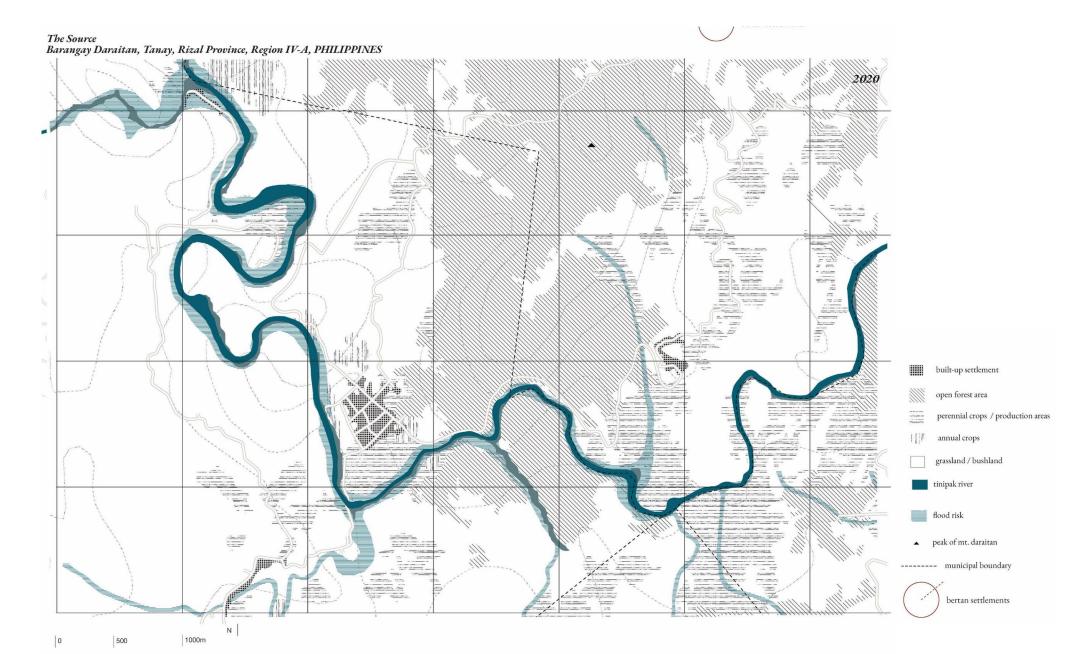




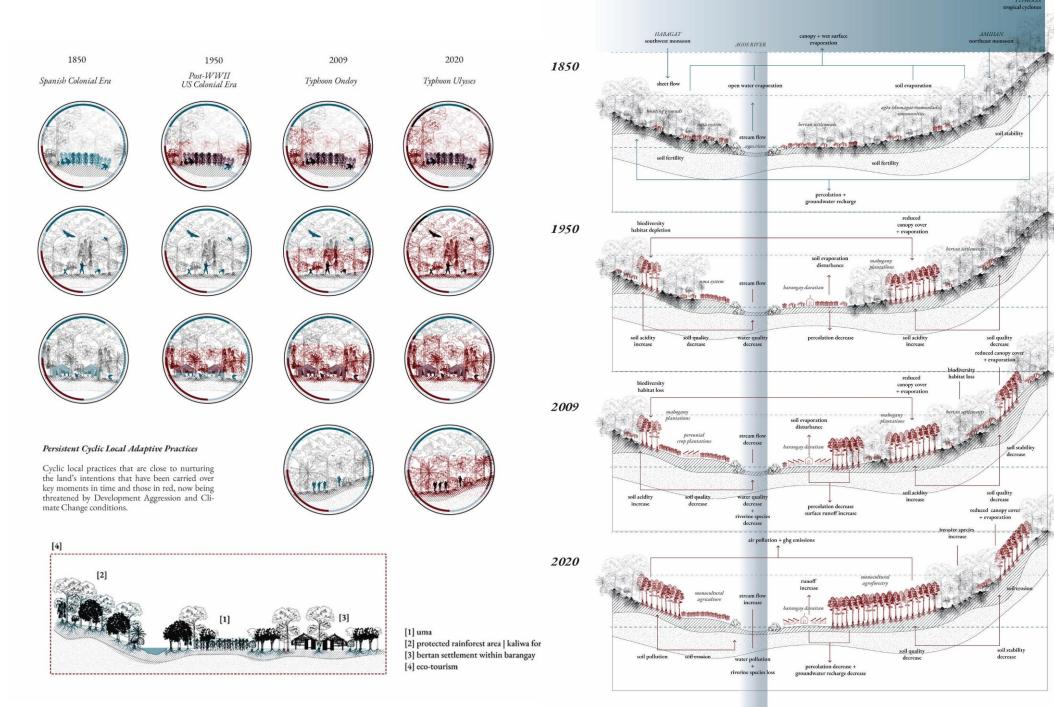




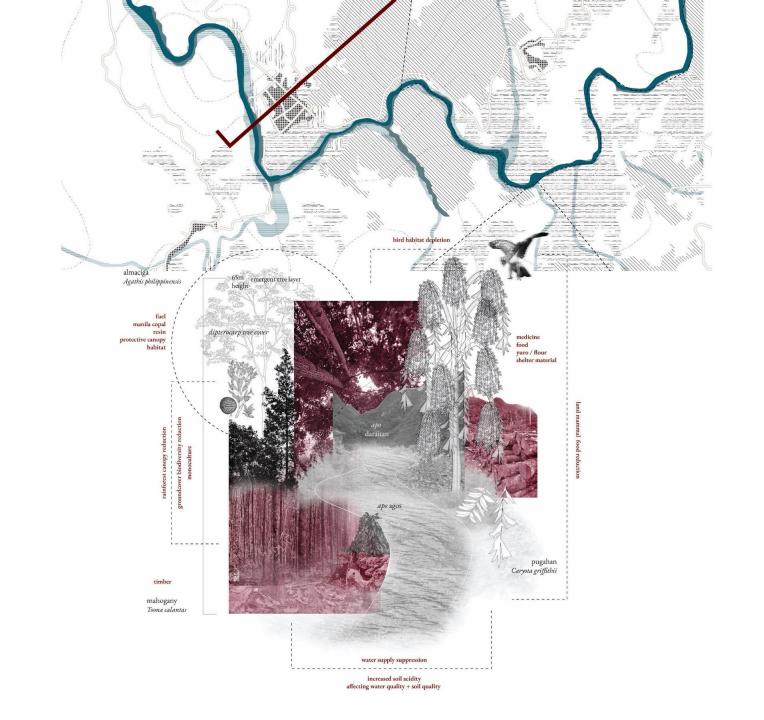


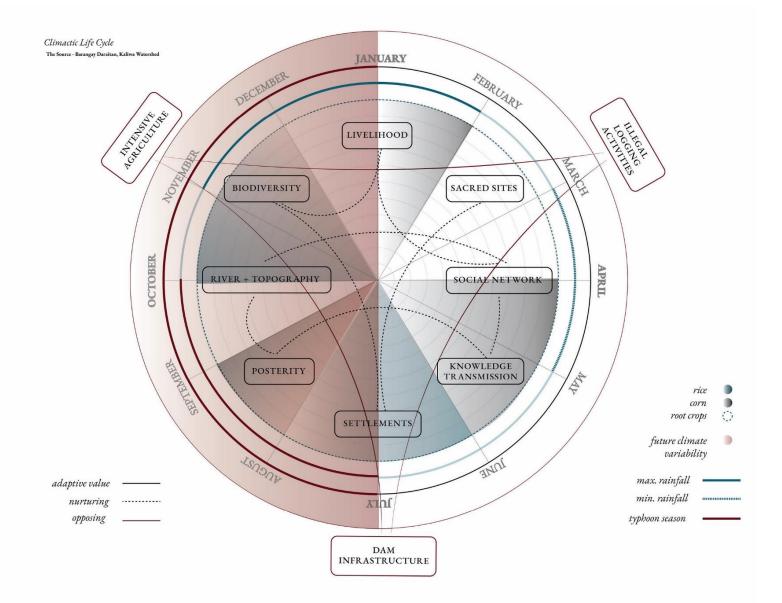


A River Interface Narrative The Source

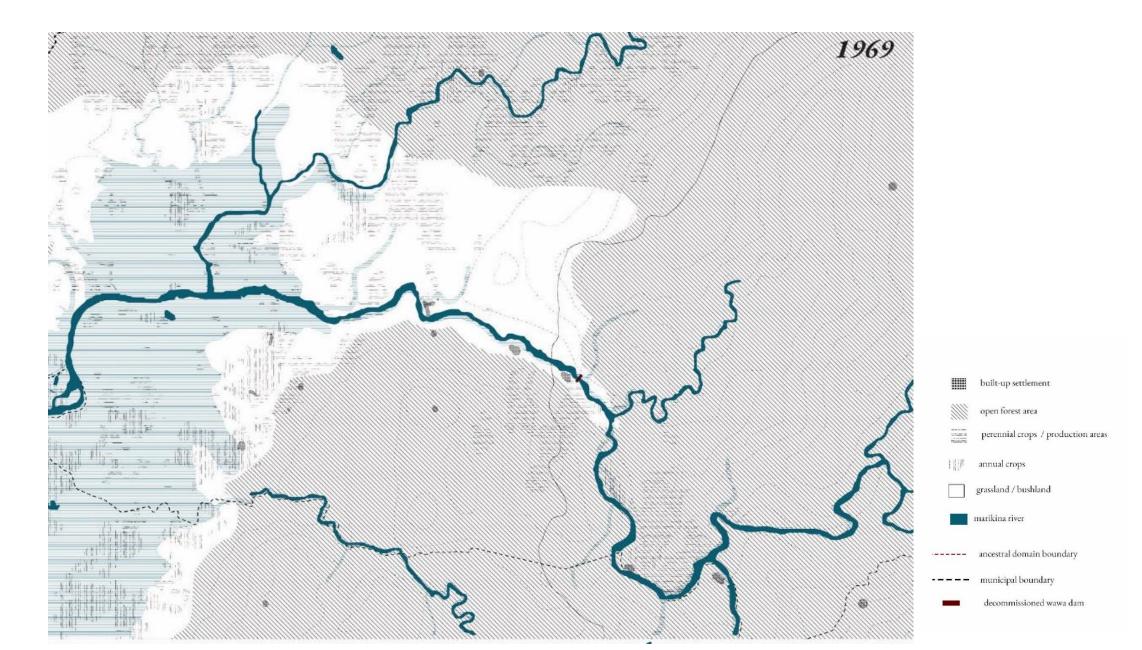


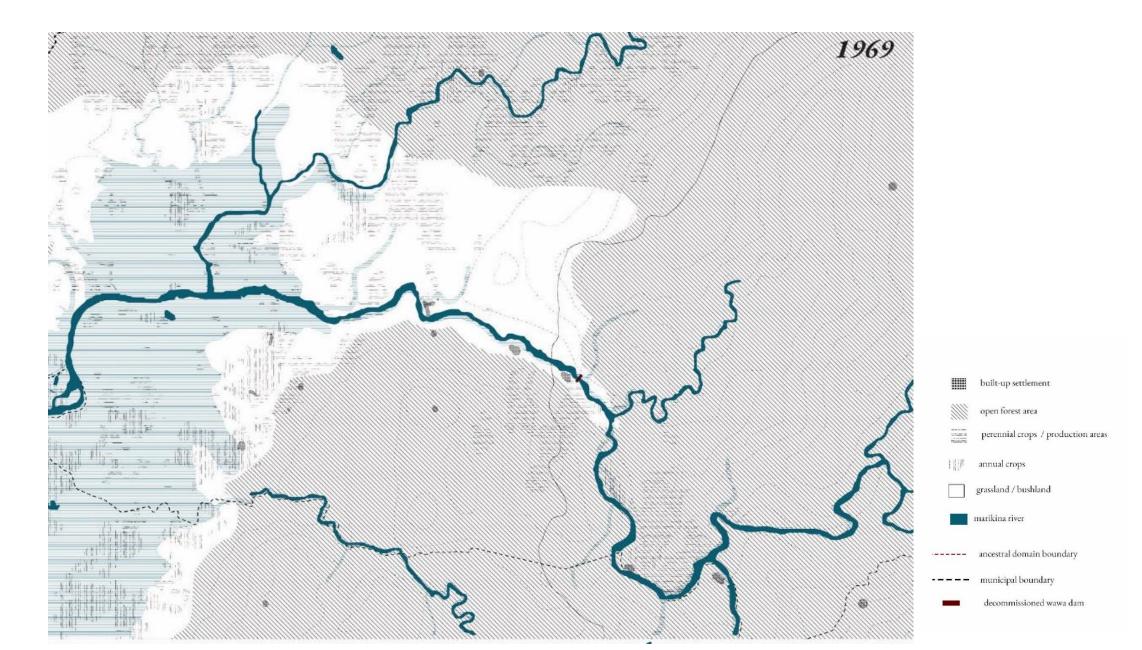
A River Interface Narrative
The Source

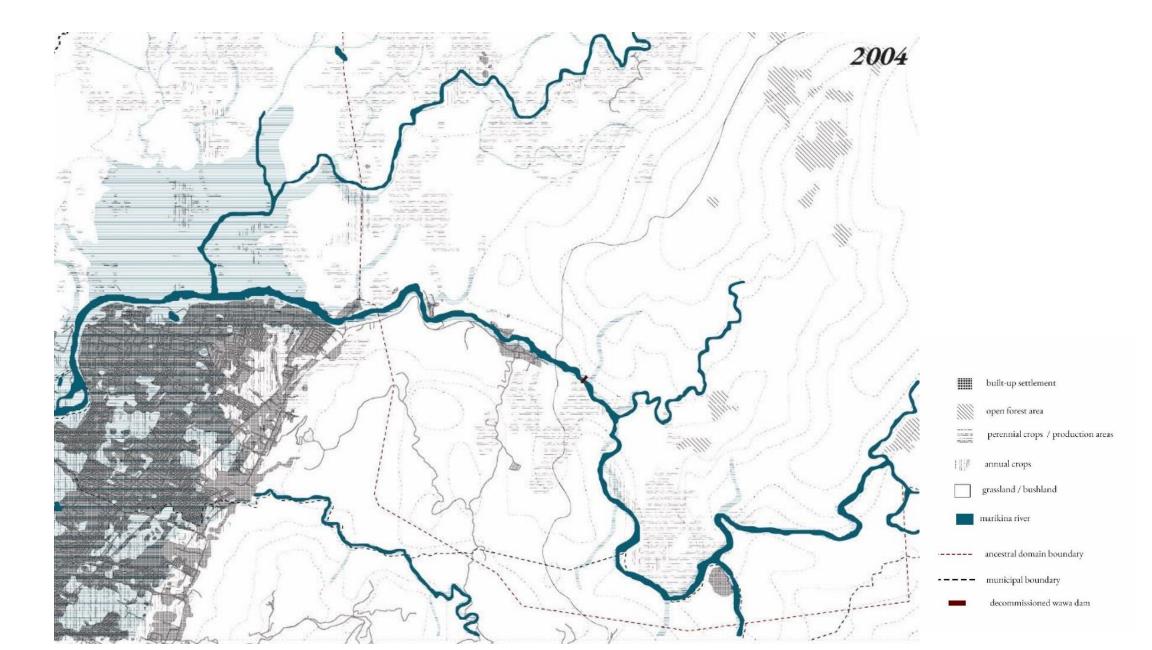


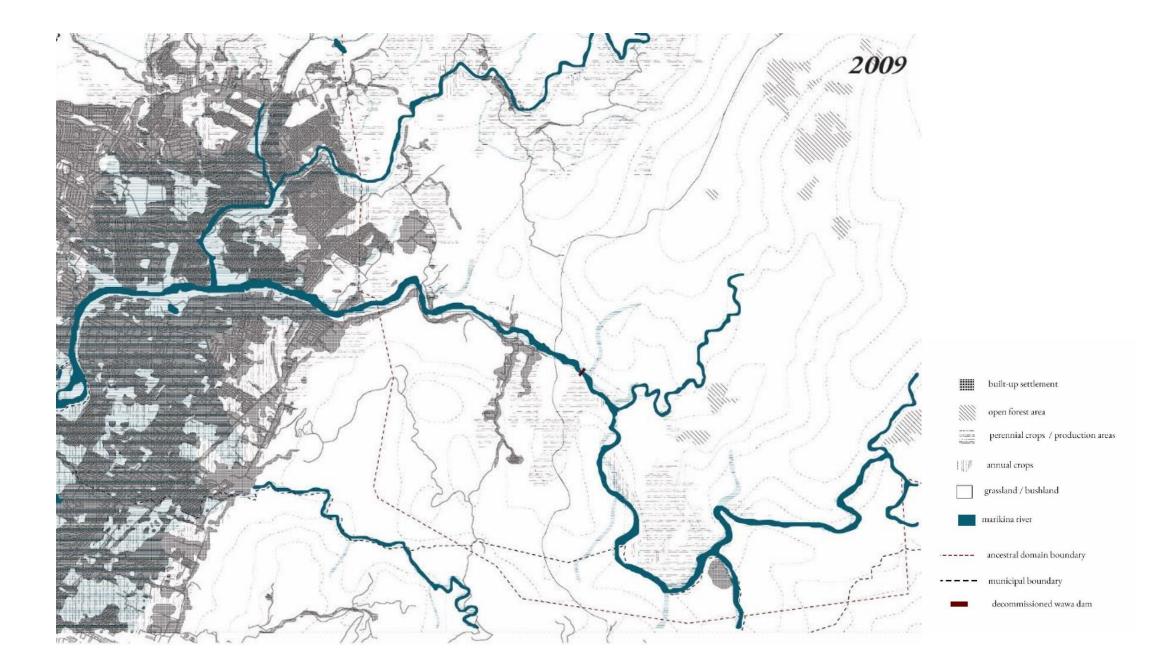


The Interactions Diagram of Climate-Development Aggression-Values of the Riversapce and Agricultural Productivity at the Source



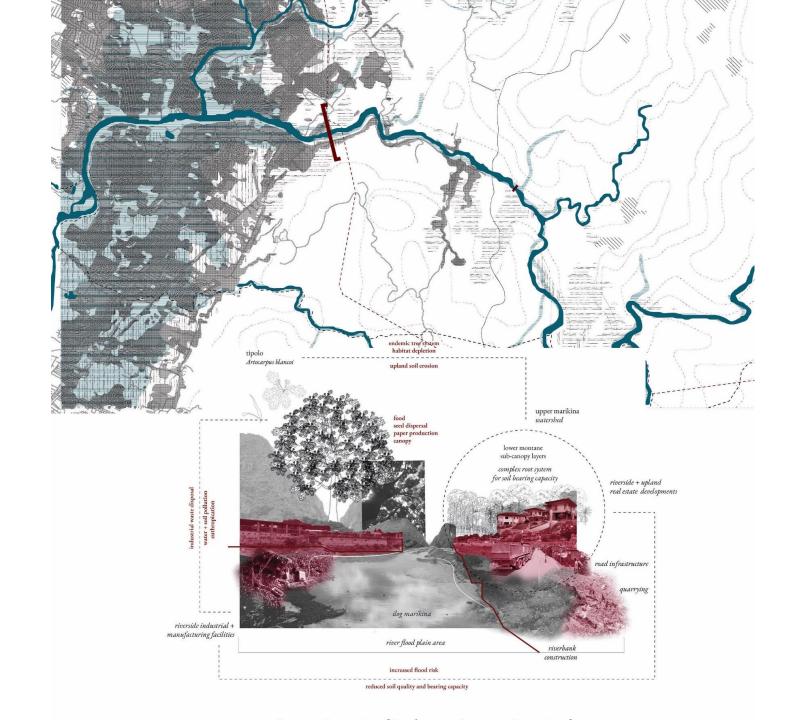


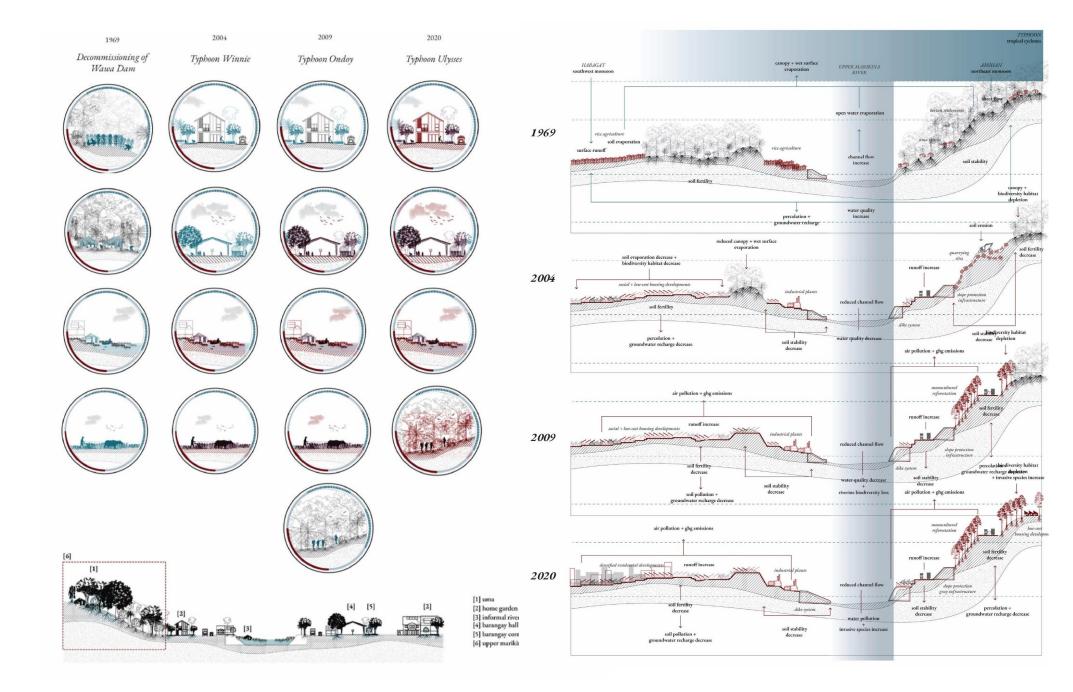


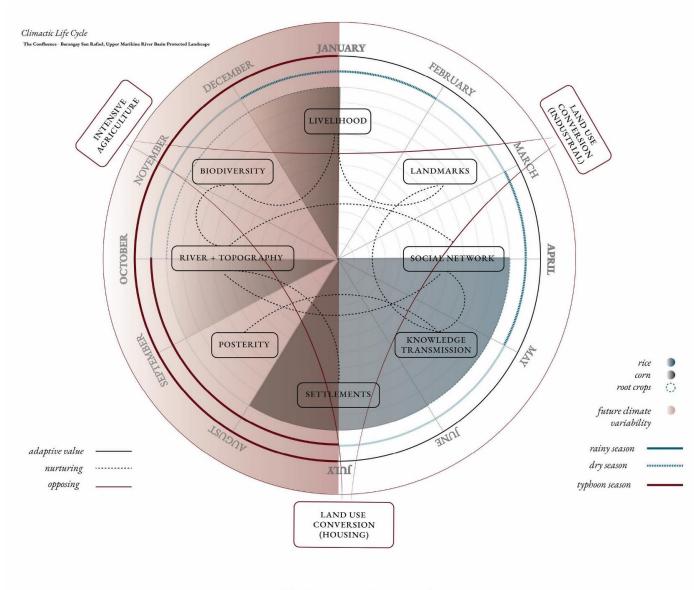


2000m

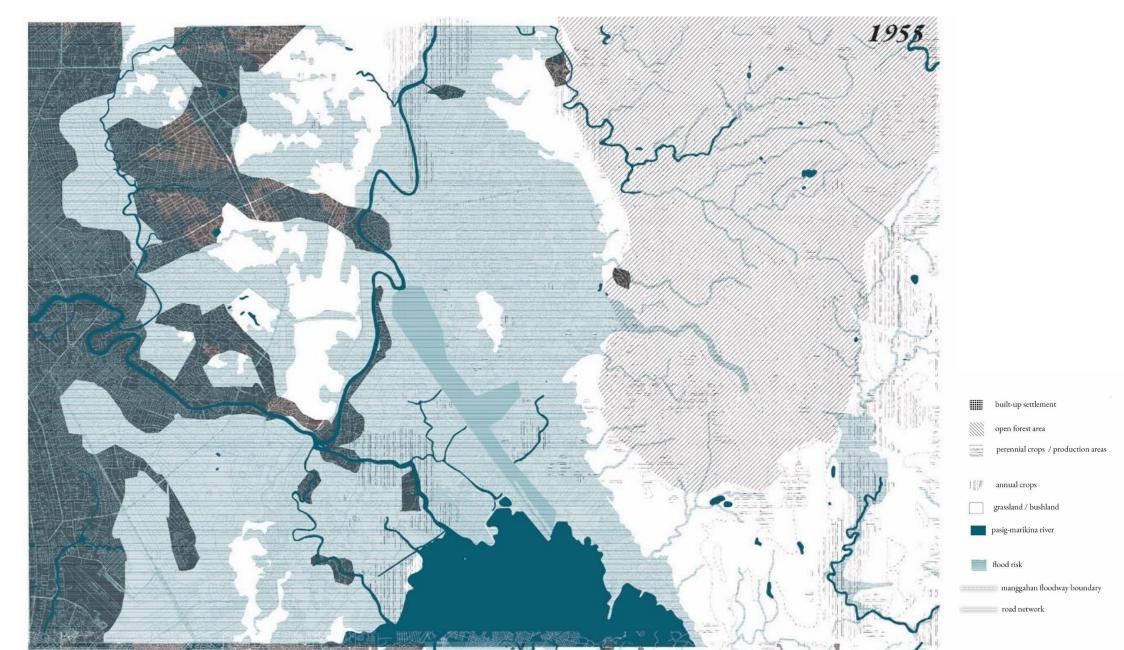
The Confluence Barangay San Rafael, Rodriguez, Rizal Province, Region IV-A, PHILIPPINES 2020 built-up settlement open forest area perennial crops / production areas annual crops grassland / bushland marikina river ---- ancestral domain boundary municipal boundary decommissioned wawa dam

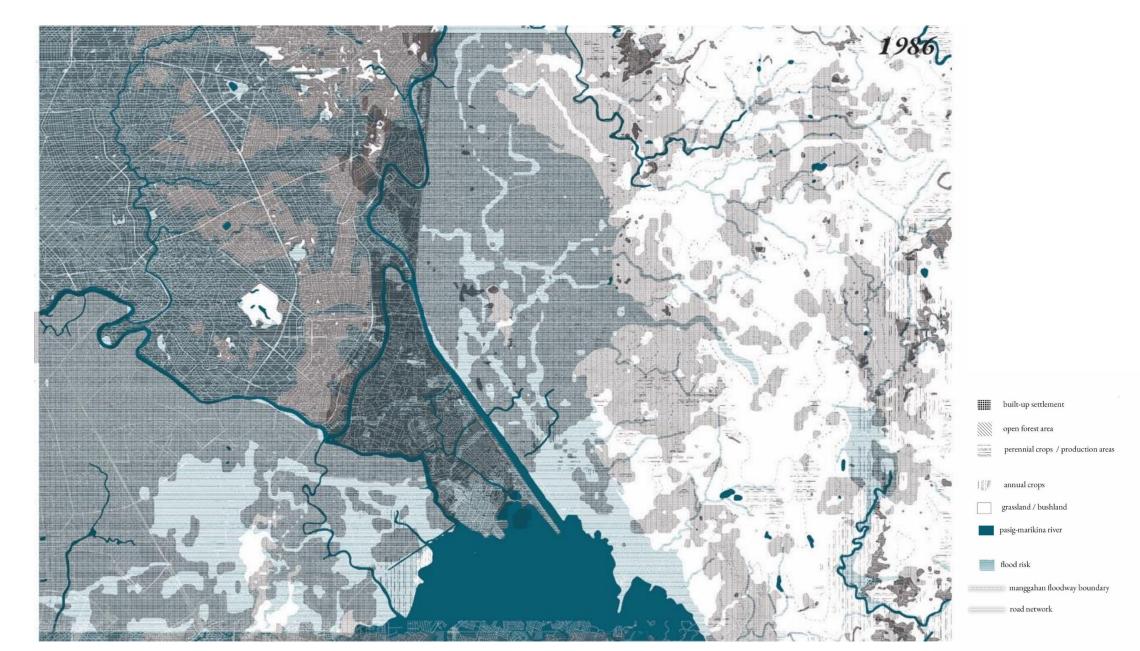


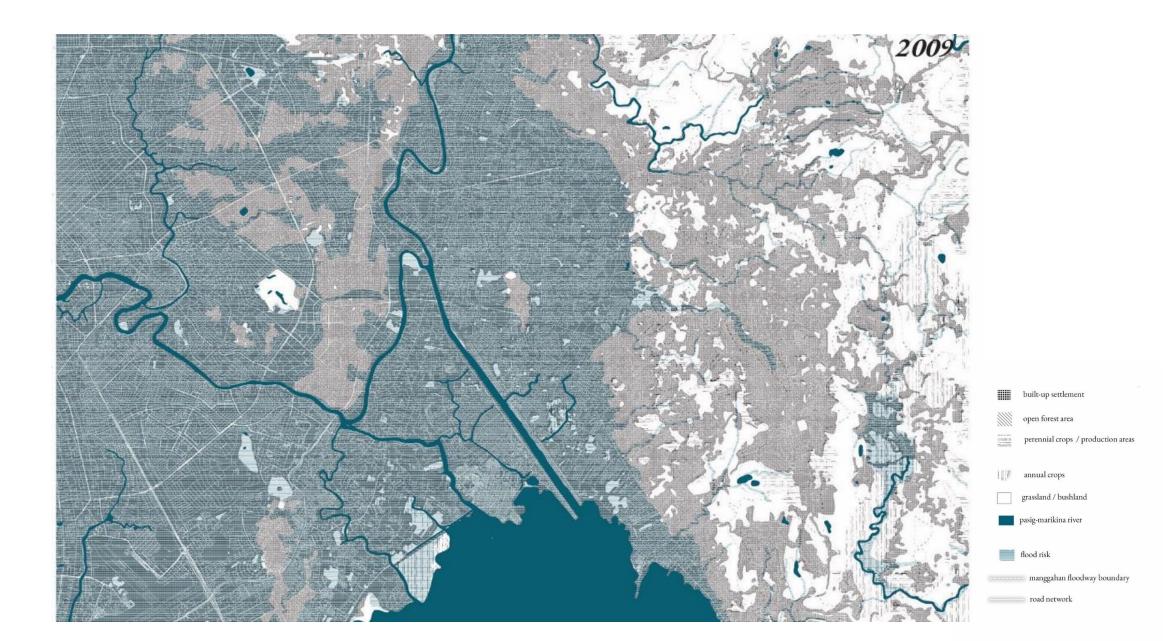




The Interactions Diagram of Climate-Development Aggression-Values of the Riversapce and Agricultural Productivity at the Confluence.

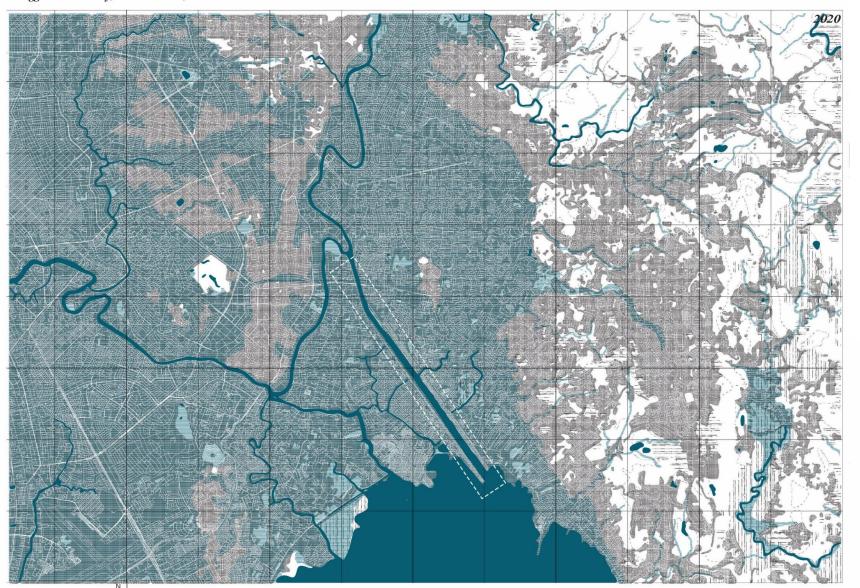






The Mouth Manggahan Floodway, Metro Manila, PHILIPPINES

5000m



built-up settlement

open forest area

annual crops
grassland / bushland
pasig-marikina river

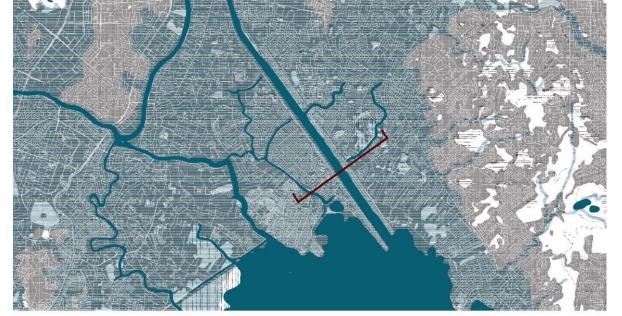
flood risk

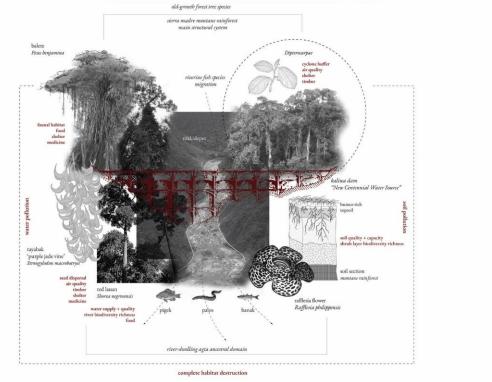
road network

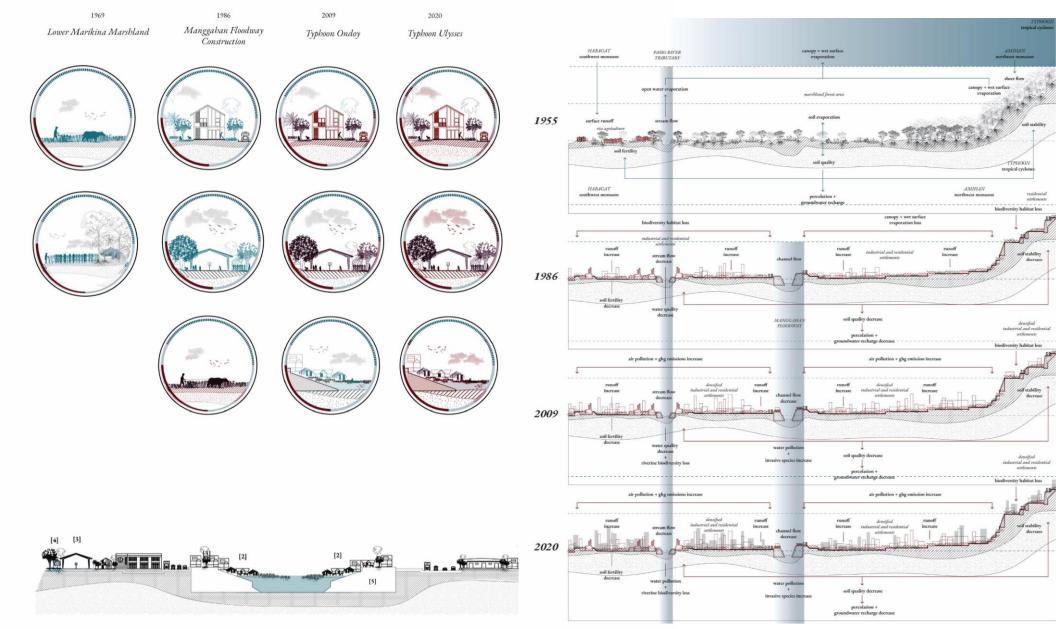
manggahan floodway boundary

perennial crops / production areas

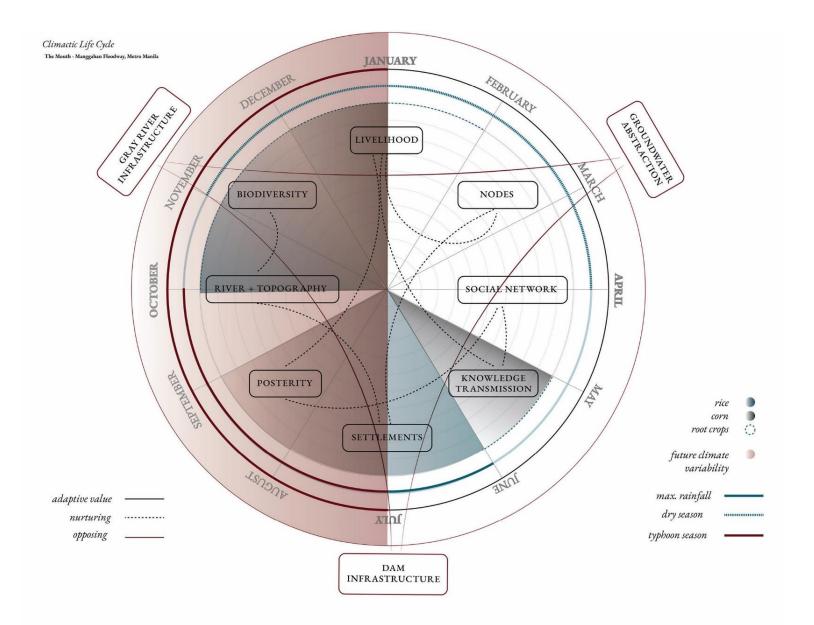
A River Interface Narrative
The Mouth







A River Interface Narrative
The Mouth



The Interactions Diagram of Climate-Development Aggression-Values of the Riversapce and Agricultural Productivity at the Mouth



the key

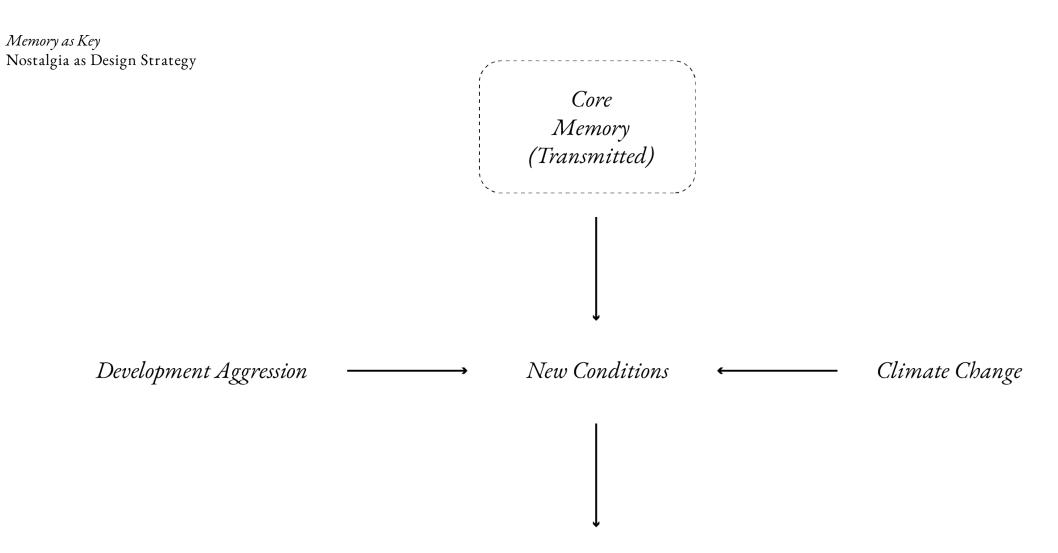
"Culture is our most important instrument of adaptation."

Culture

"Nostalgia is a response to self-discontinuity and a source of self-continuity."

Core Memory (Transmitted)

Struggle is needed to reinforce self-identity, and through memory, its resilience or continuity is reinforced, even evolved.



The River's Adaptive Structure Nostalgia in the Envisioning and Development of Space

The River's Adaptive Structure Nostalgia in the Envisioning and Development of Space

Memory

Consciousness

Organization



AGENCY

Rights and Land Tenure
Power and Freedom to Mobilize
Empowerment through Participation
ILKS/TEK Recognition + Implementation
Removal of Inequality Barriers



ASSETS

Financial Capacity Basic Social Services Sustainable Infrastructure Technological Capacity



FLEXIBILITY

Resource + Livelihood Adaptability Diversity Potentials Switching Adaptation Strategies



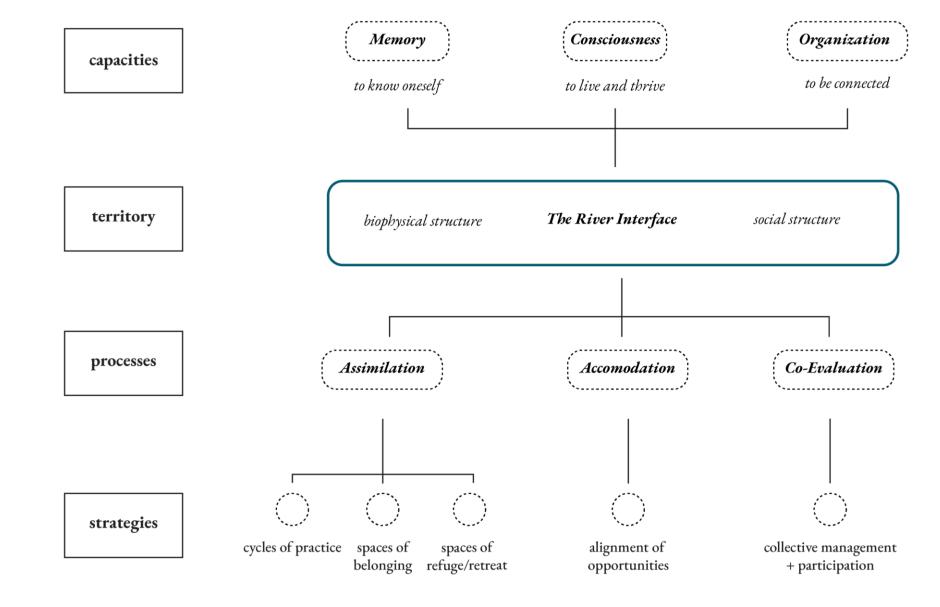
LEARNING

Capacity to Absorb and Generate New Knowledge Supporting Processes for Critial Education Information Dissemination

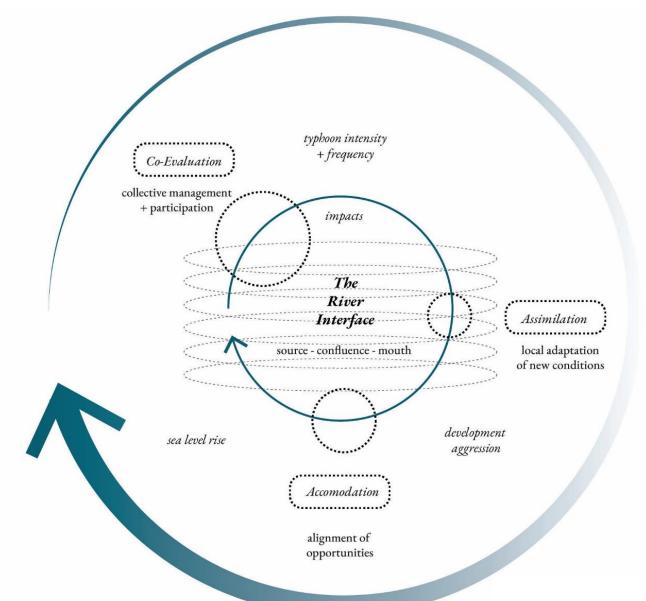


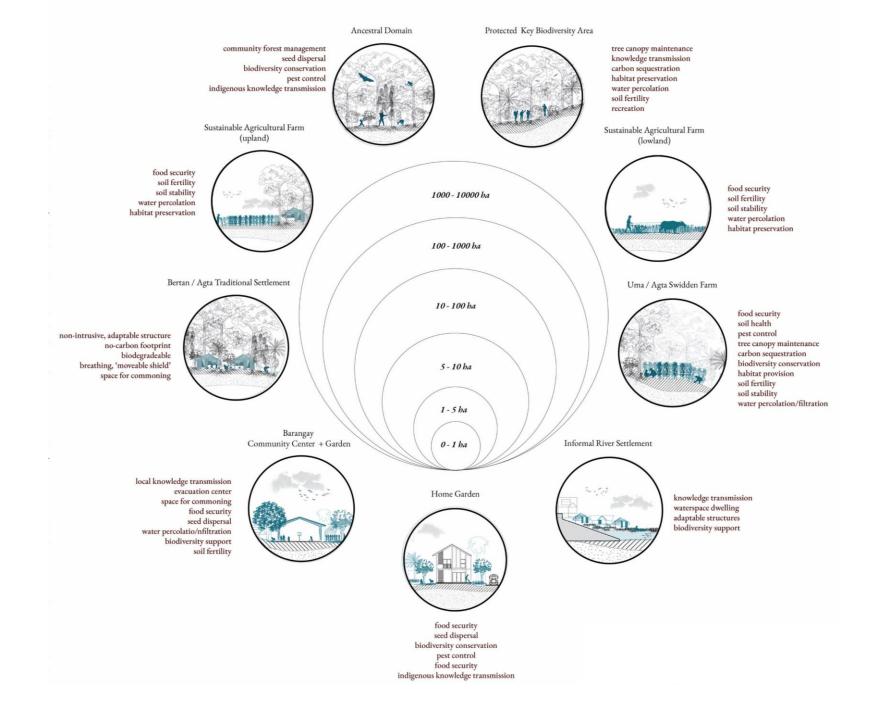
SOCIAL ORGANIZATION

Bonding / Networking Capital Level of Trust and Soscial Cohesion Cooperative, Collective Action, + Knowledge Sharing Capacities

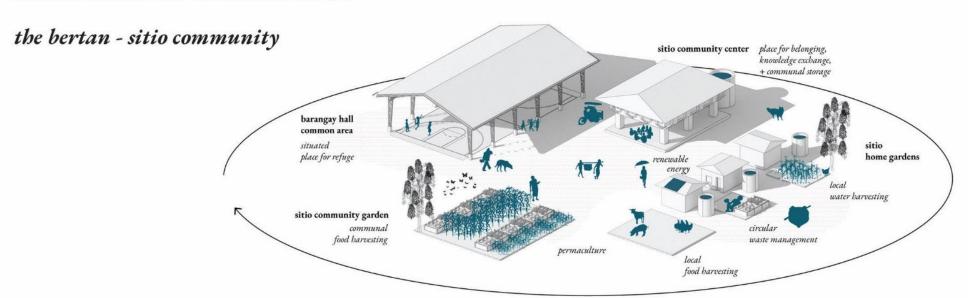


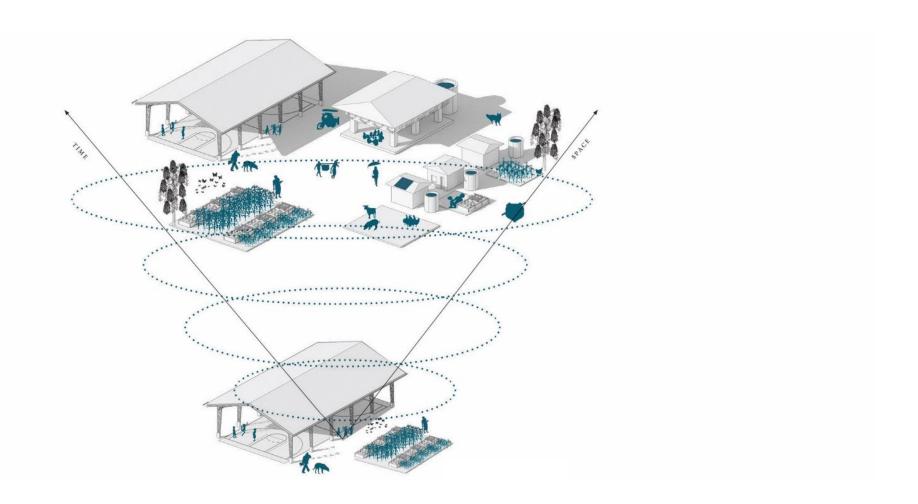
cycles of practice space for belonging space for refuge/retreat co-management + participation

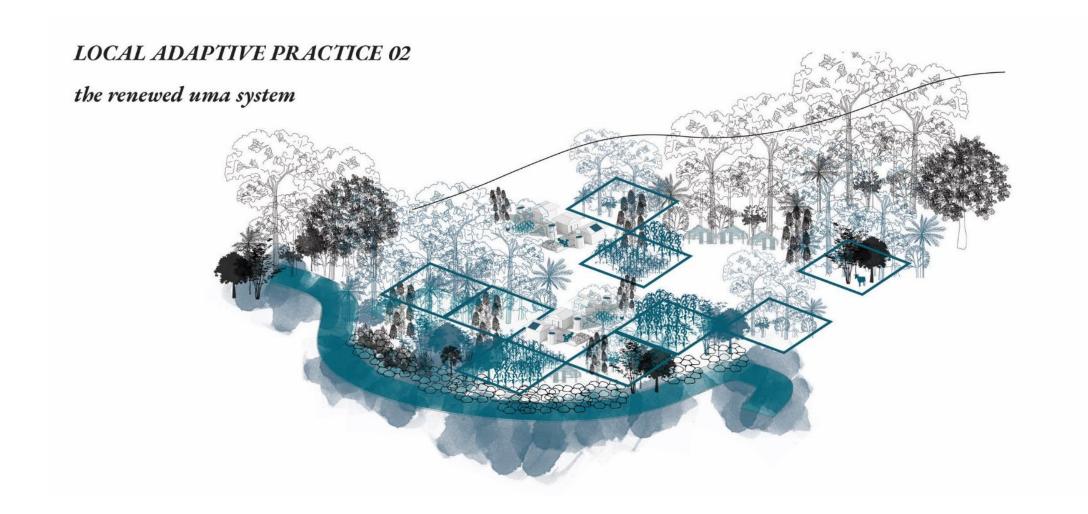


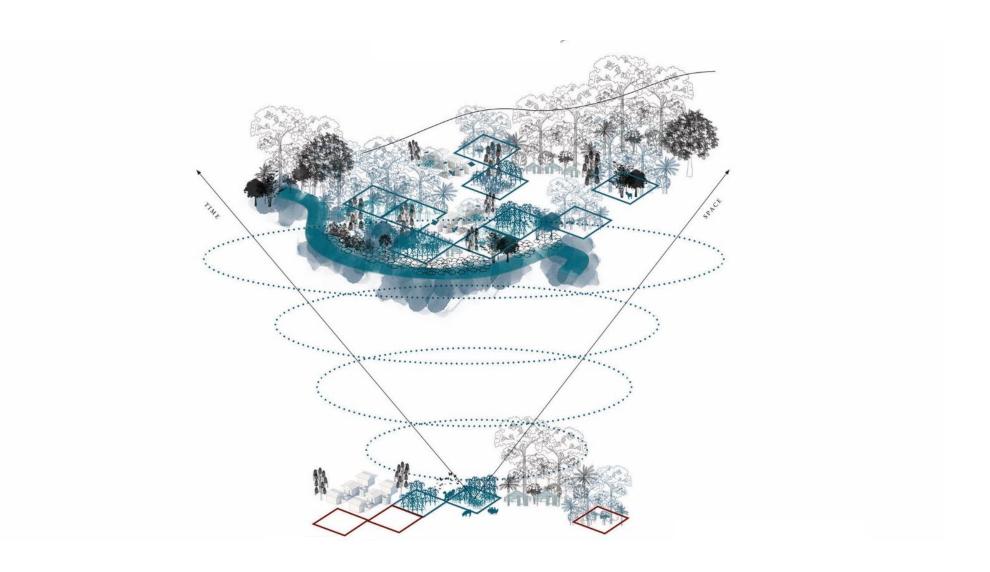


LOCAL ADAPTIVE PRACTICE 01

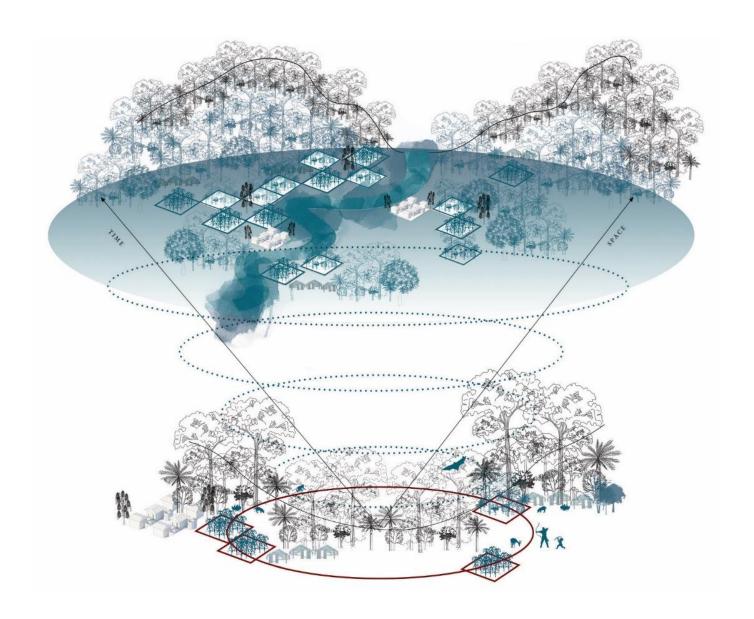


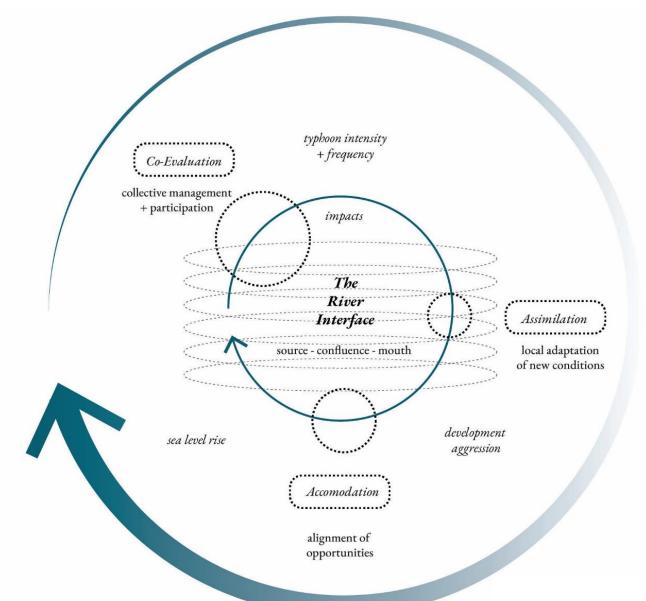


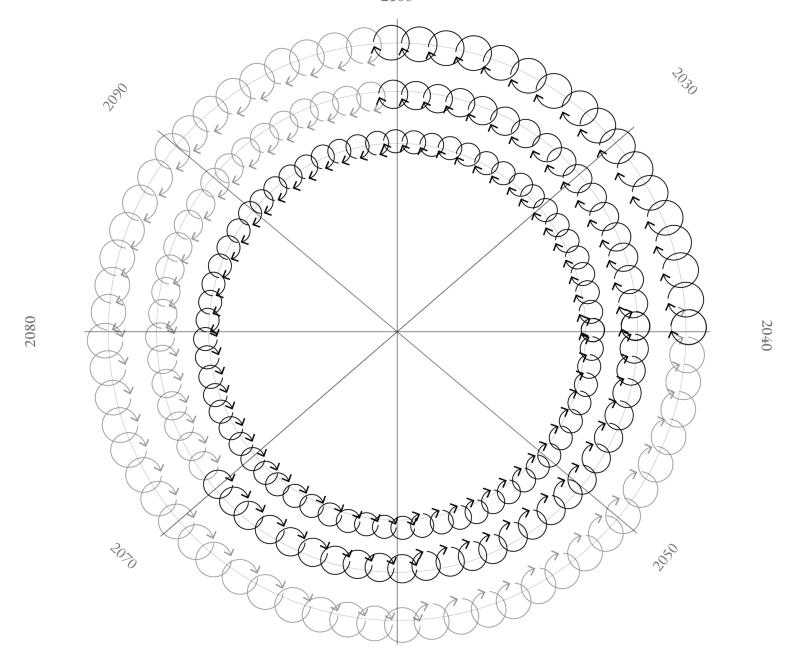




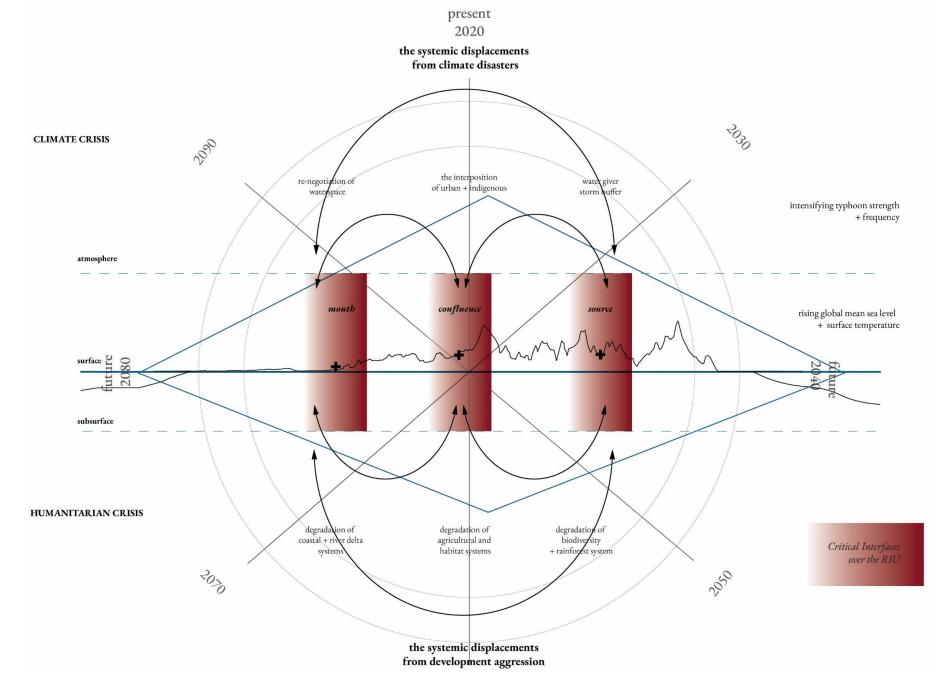
LOCAL ADAPTIVE PRACTICE 03 community rainforest management

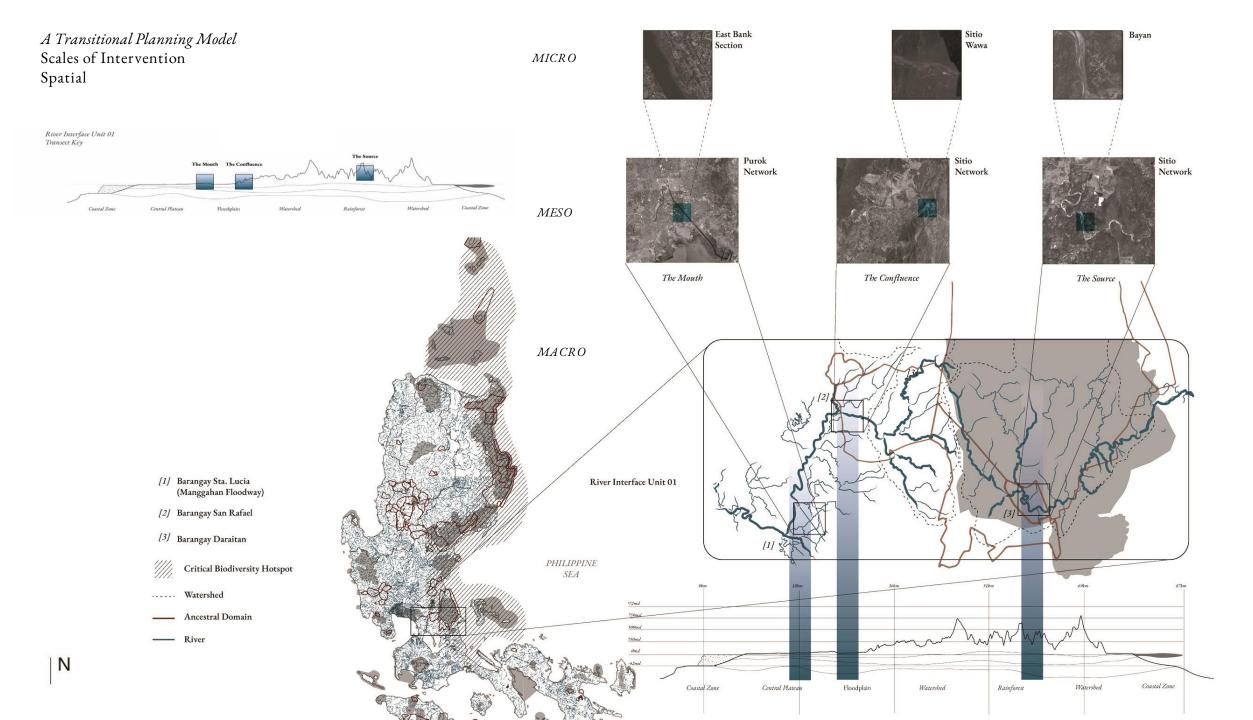






freedom





Future 2100: 2.70 deg Increase in Annual Temperature; 3.0m RSL

Future 2070: 1.8 deg Increase in Annual Temperature; 2.0m RSL

indigenous resurgence

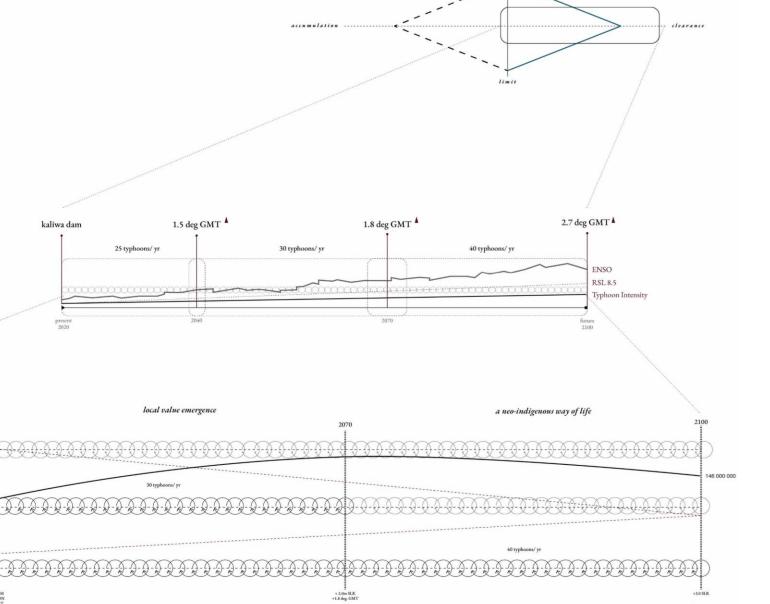
Future 2040: 1.5 deg Increase in Global Mean Temperature

THE TEMPORAL SCALE FOR COLLECTIVE FUTURES OVER THE RIVER INTERFACE

The Source

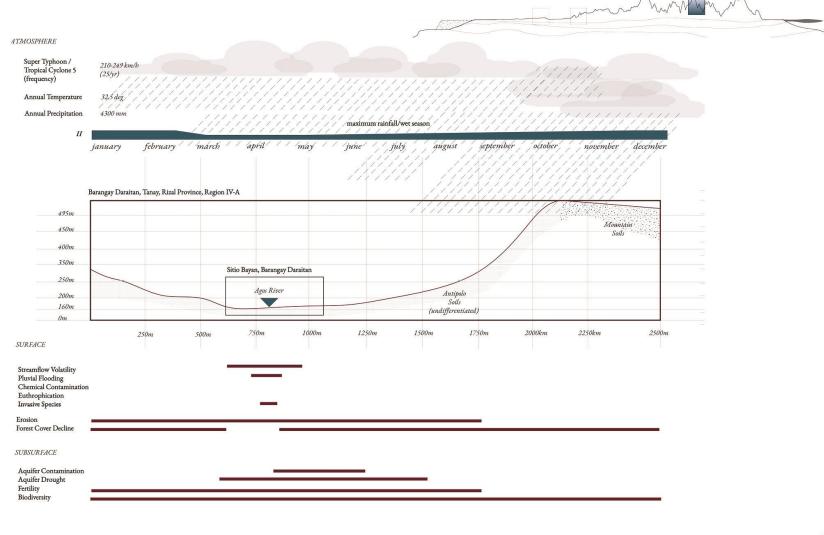
The Confluence

The Mouth 110 000 000



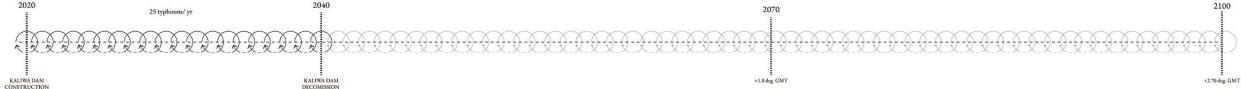
Path to Clearance.

CONSEQUENCES OVER SYSTEMIC SECTION OF THE SOURCE - 2040

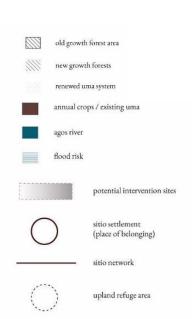


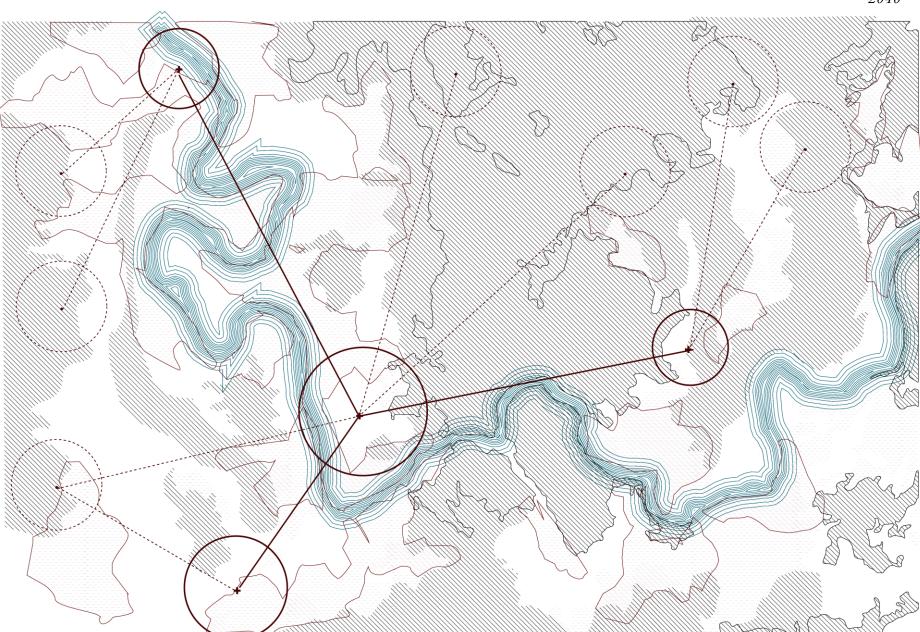
River Interface Unit 01 Transect Key

Projected Future Timeline (linear scale)

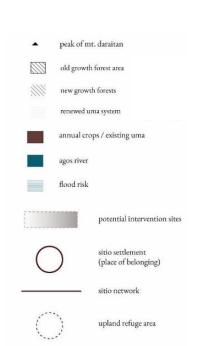


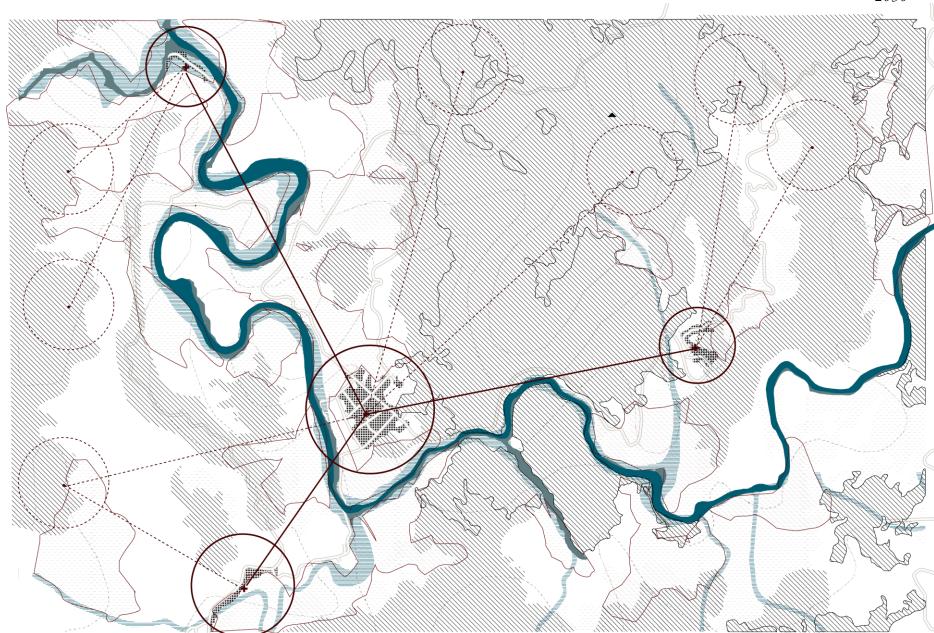
FROM DEPLETION + STATICS
TO ABUNDANCE + MOVEMENT



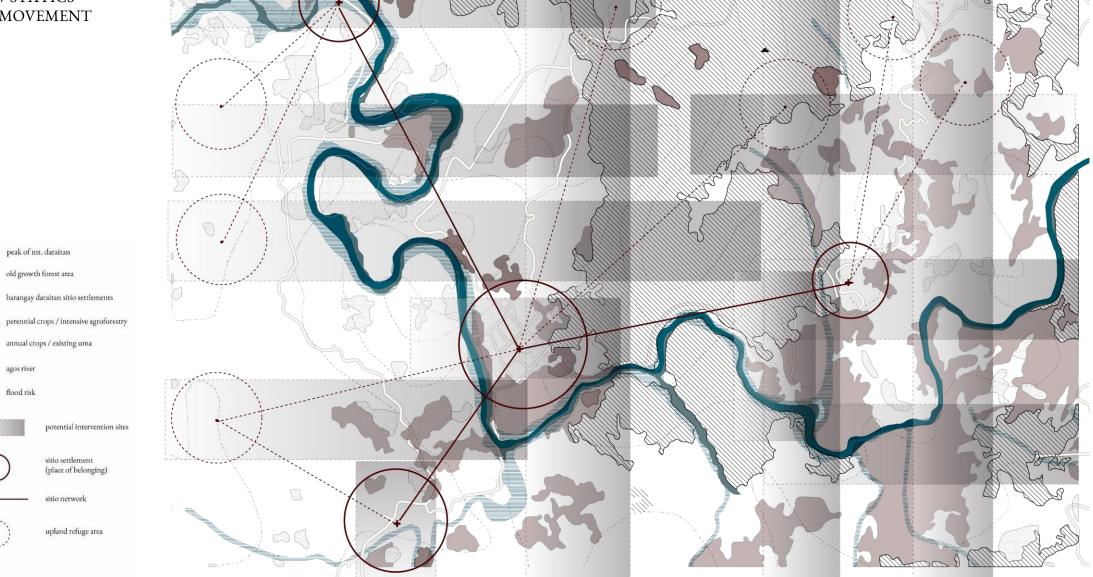


FROM DEPLETION + STATICS
TO ABUNDANCE + MOVEMENT





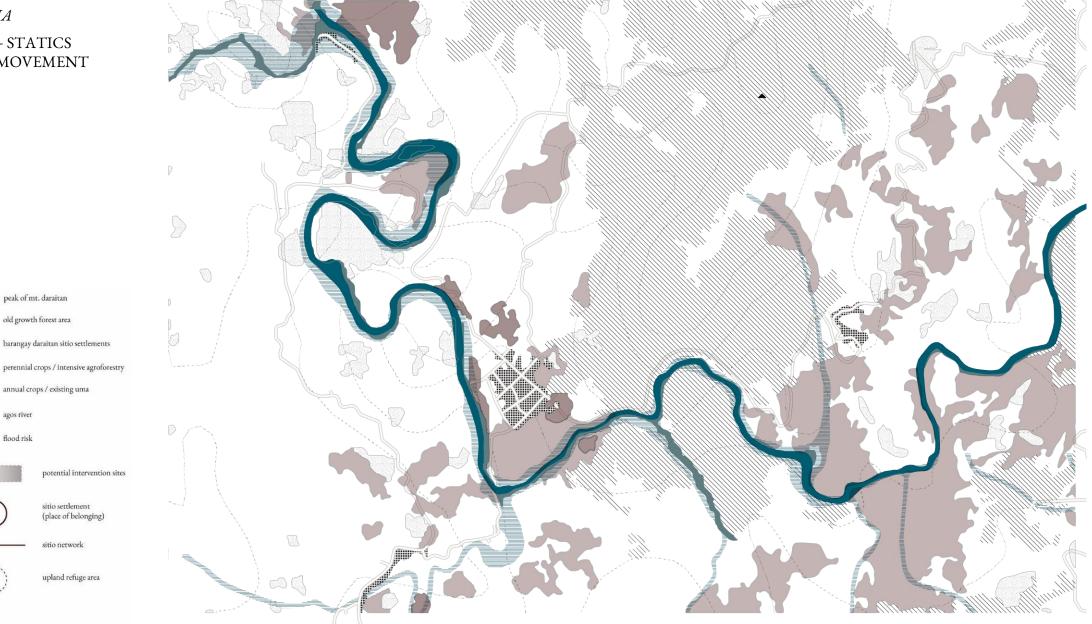
FROM DEPLETION + STATICS
TO ABUNDANCE + MOVEMENT



FROM DEPLETION + STATICS TO ABUNDANCE + MOVEMENT

> peak of mt. daraitan old growth forest area

> > sitio network



2020

River Interface Unit 01 Transect Key

FUTURE NOSTALGIA

MEMORY SYSTEM OBJECTIVES

Memory

Organization

Consciousness

SES RESTORATION

COMMUNTIY

TRANSMISSION KNOWLEDGE

Protection of Old Growth Forests + Hunting Grounds / Sacred Sites

Recognition of ILKS in Sustainable Agroforestry Practices and the Expansion of Uma System

Management of Streamflow + New Uma System as Buffer

Establishment of Sitio Community Center Network

Sitio and Barangay Community Forest + Biodiversity Management

Designation of Refuge/Retreat Areas

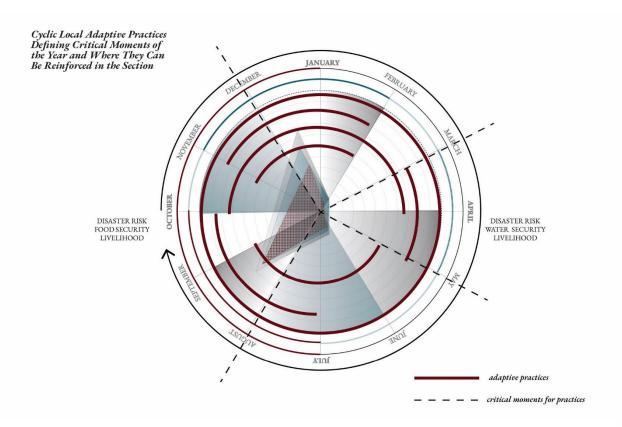
Development of Alternative Livelihood Streams - Basket-Weaving, Bow/Arrows, Yuro Flour

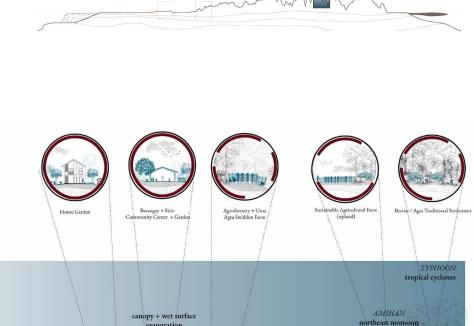
Improvement of Eco-Tourism Programs - Mt. Daraitan, Tinipak River, Community

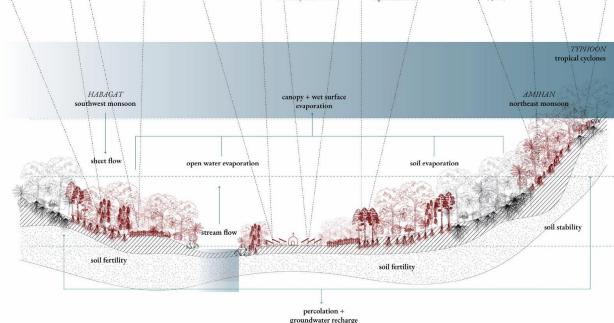
Knowledge Exchange and Capacity-Building in Collaboraton with LGU, R&D, Academia, NGOs, CSO etc.

FUTURE NOSTALGIA

LOCAL ADAPTIVE PRACTICES OVER THE SITIO SCALE







River Interface Unit 01

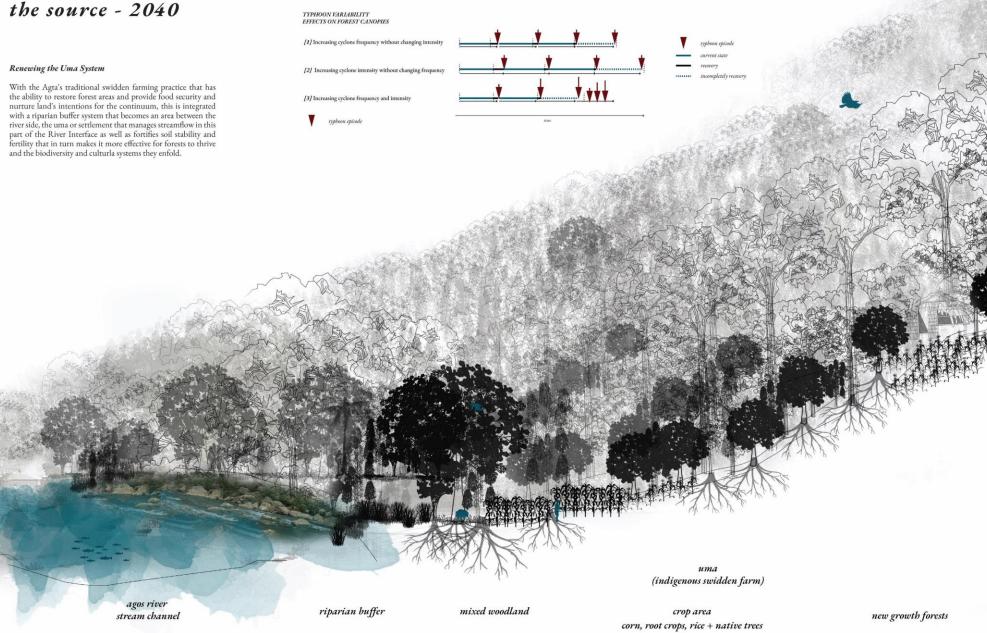
Transect Key

Protected Key Biodiversity Area

Ancestral Domain

FUTURE NOSTALGIA **ASSIMILATION**

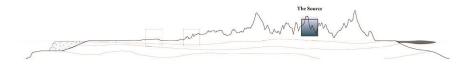
the source - 2040

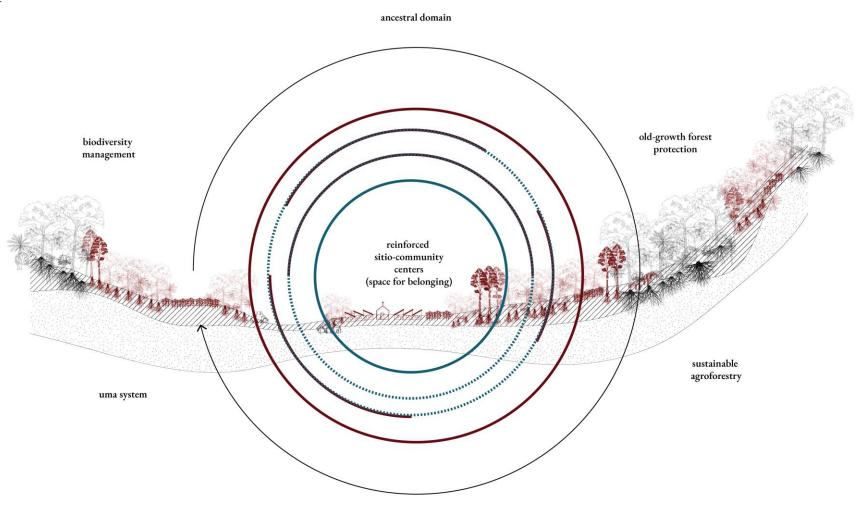


FUTURE NOSTALGIA
ASSIMILATION



CYCLIC CHOREOGRAPHY



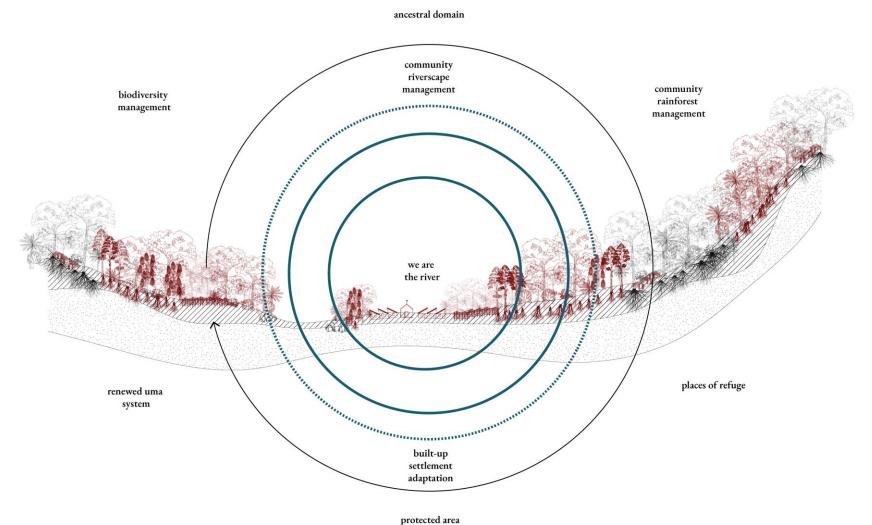


River Interface Unit 01 Transect Key

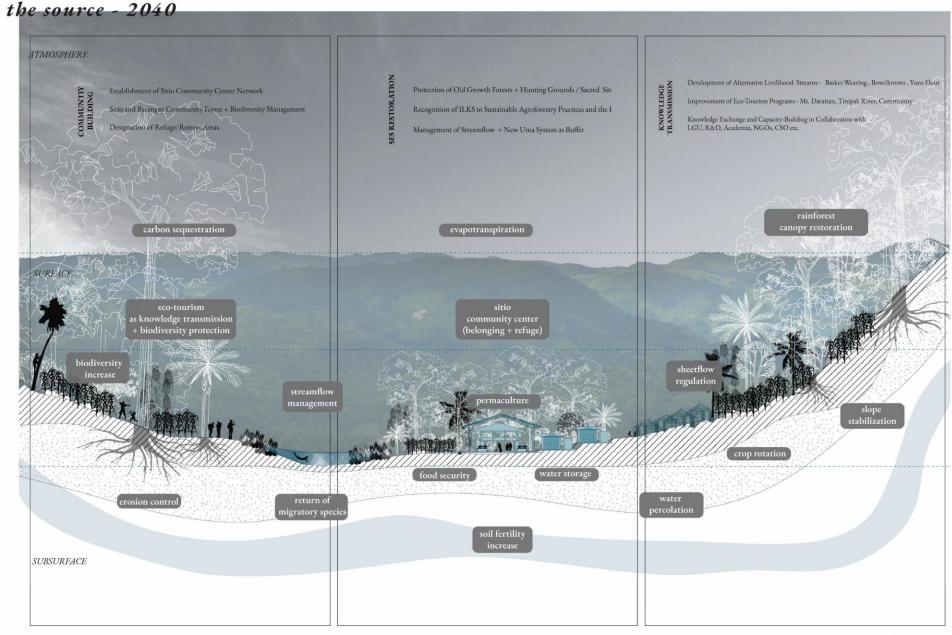
FUTURE NOSTALGIA

CYCLIC CHOREOGRAPHY



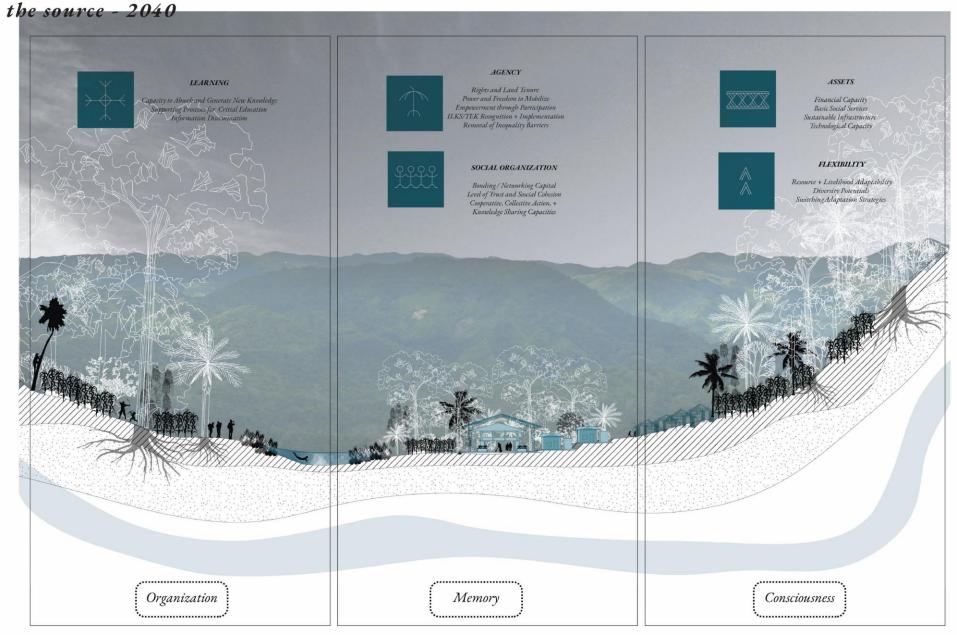


FUTURE NOSTALGIA
ACCOMMODATION



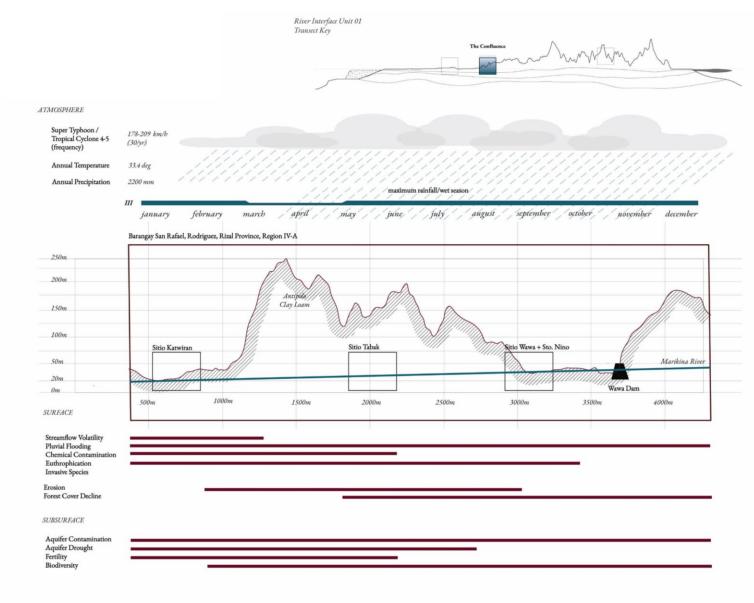
The Source's Renewed Core Memory System for Adaptation Starting with Sitio Bayan, Barangay Daraitan

FUTURE NOSTALGIA
ACCOMMODATION

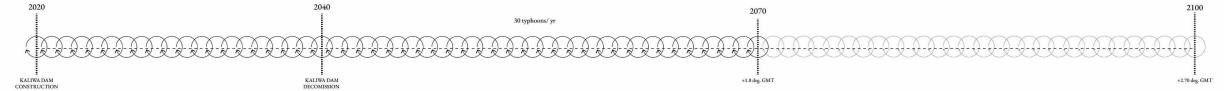


A Transitional Planning Model
The Confluence at 2070

CONSEQUENCES OVER SYSTEMIC SECTION OF THE CONFLUENCE - 2070

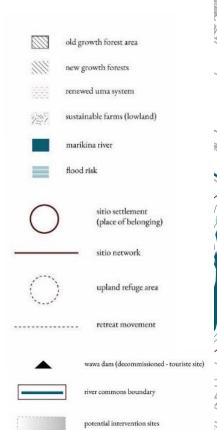


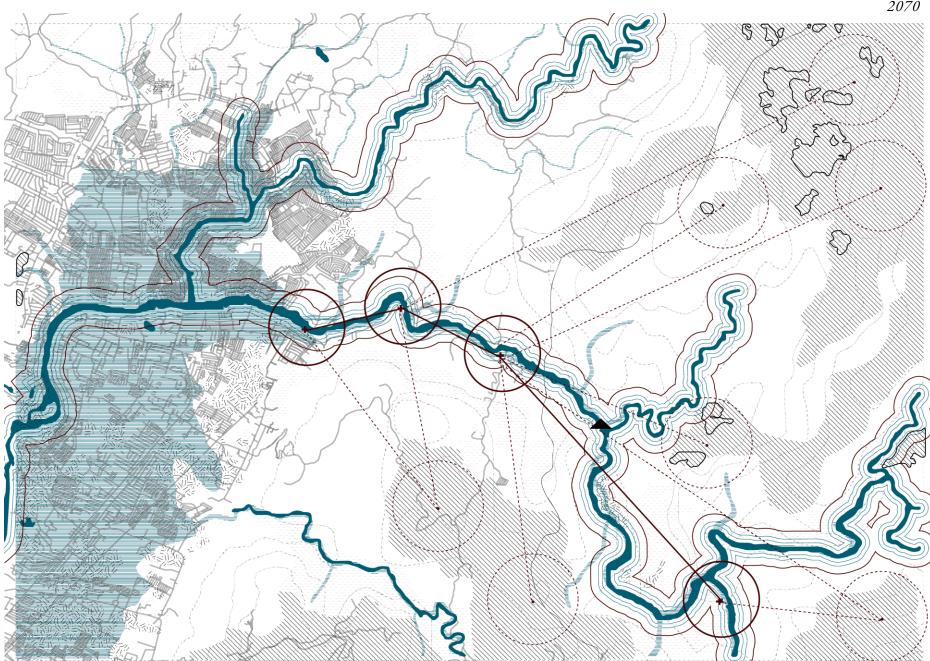
Projected Future Timeline (linear scale)

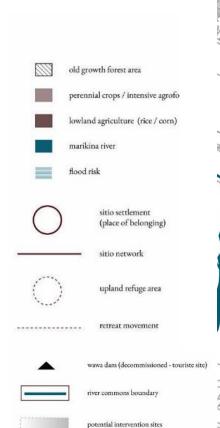


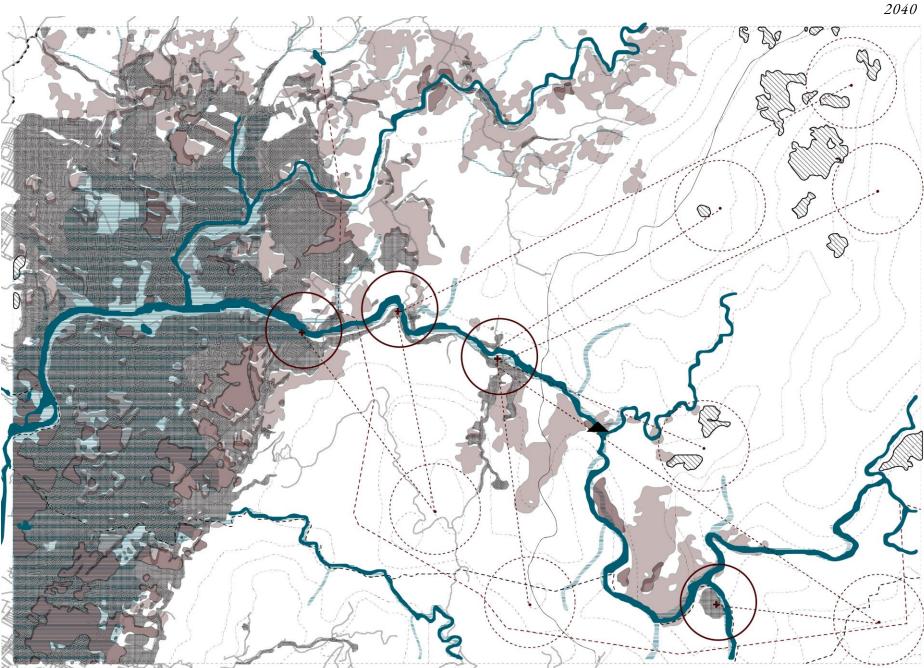
A Transitional Planning Model The Confluence at 2070

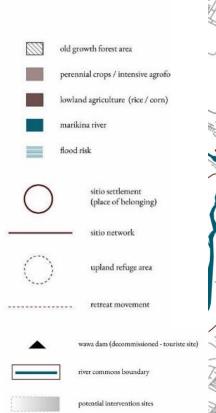
FUTURE NOSTALGIA

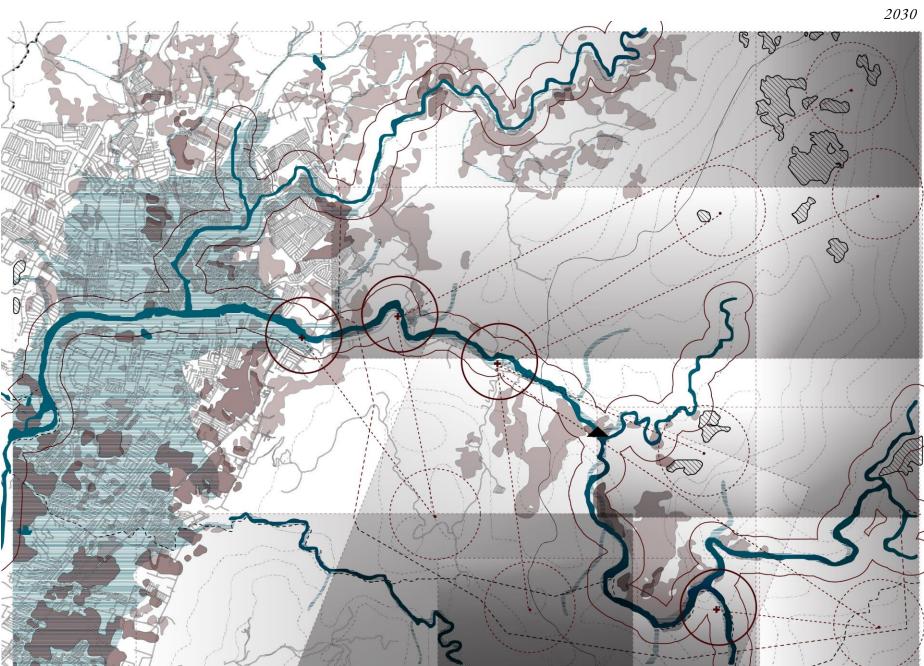






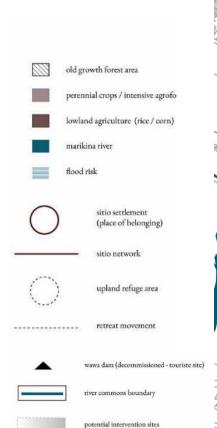


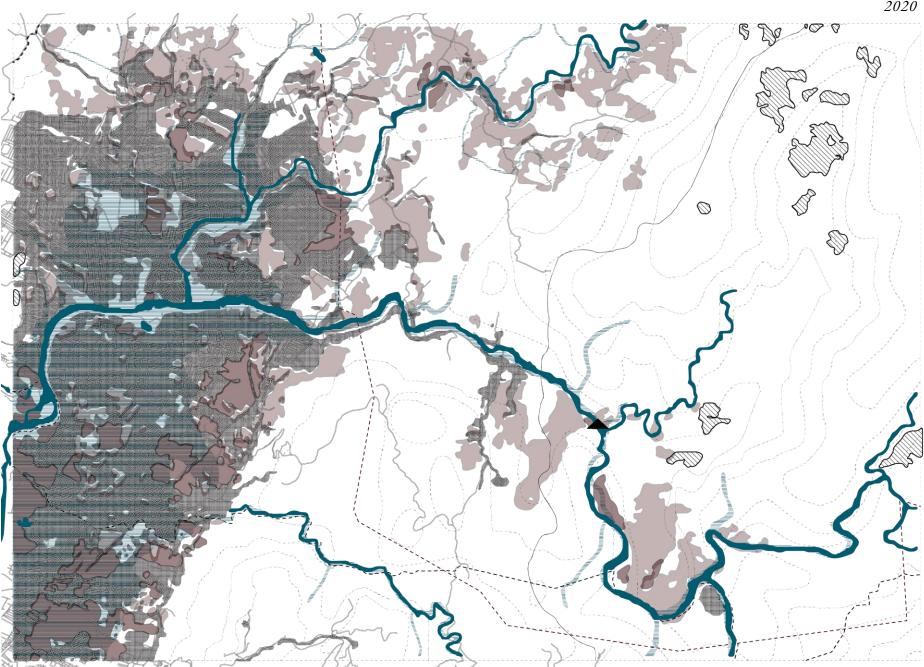




A Transitional Planning Model The Confluence at 2070

FUTURE NOSTALGIA





A Transitional Planning Model
The Confluence at 2070

FUTURE NOSTALGIA

MEMORY SYSTEM OBJECTIVES

Memory

Organization

Consciousness

River Interface Unit 01 Transect Key



SES RESTORATION

Reforestation and Afforestation of Open Forests + Protection of Hunting Grounds / Sacred Sites

Expansion of Uma + Sustainable Agroforestry Plantations + Sustainable Lowland Agriculture

Wastewater Management, River Renaturation, and Slope Stabilization

COMMUNTIY BUILDING

Establishment of Sitio Community Center Network with the River as Commons

Development of Barangay Collaboration Platform - Focused on Industrial Sector, Farmers, IPs, and Developers

Designation of Refuge/Retreat Areas

KNOWLEDGE TRANSMISSION Alternative Livelihood Streams - Local Cooperative Goods and Local Crafts

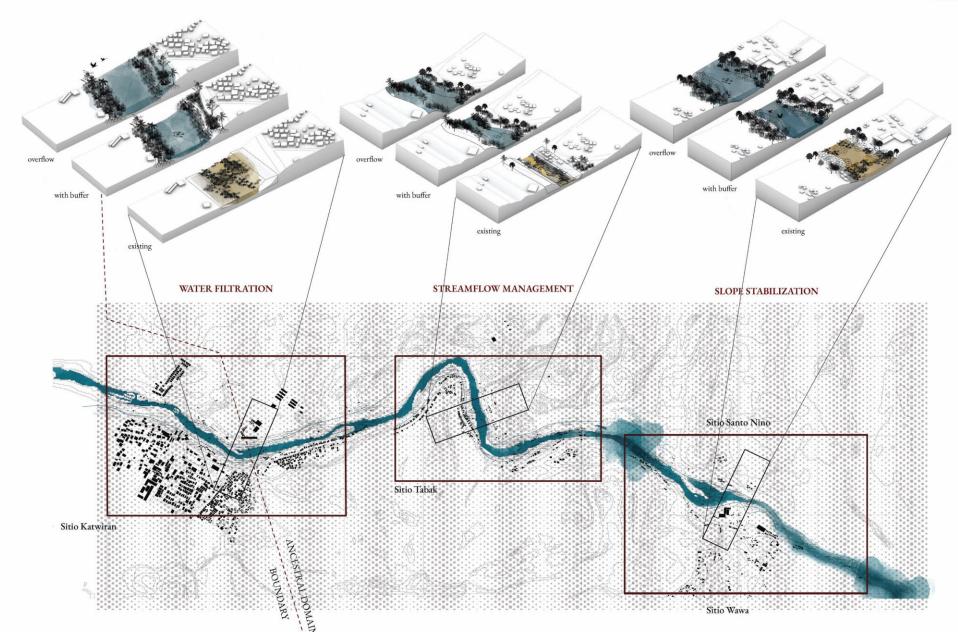
Improvement of Eco-Tourism Programs for Wawa Dam and UMRPL

Knowledge Exchange and Capacity-Building in Collaboraton with LGU, R&D, Academia, NGOs, CSO etc.

FUTURE NOSTALGIA
ASSIMILATION

the confluence - 2070

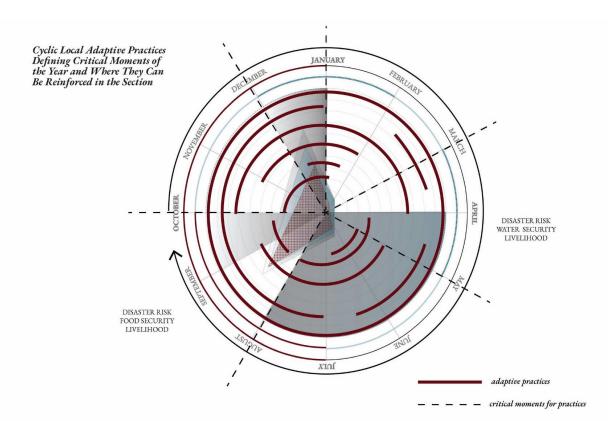
Core River Renaturation Nature-Based Solutions for Each Part of the River at the Confluence Spanning Four Sitios



A Transitional Planning Model The Confluence at 2070

FUTURE NOSTALGIA

LOCAL ADAPTIVE PRACTICES OVER THE SITIO SCALE













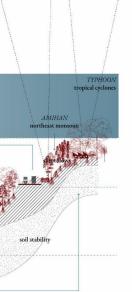


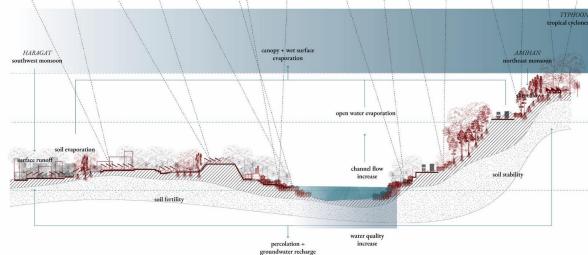


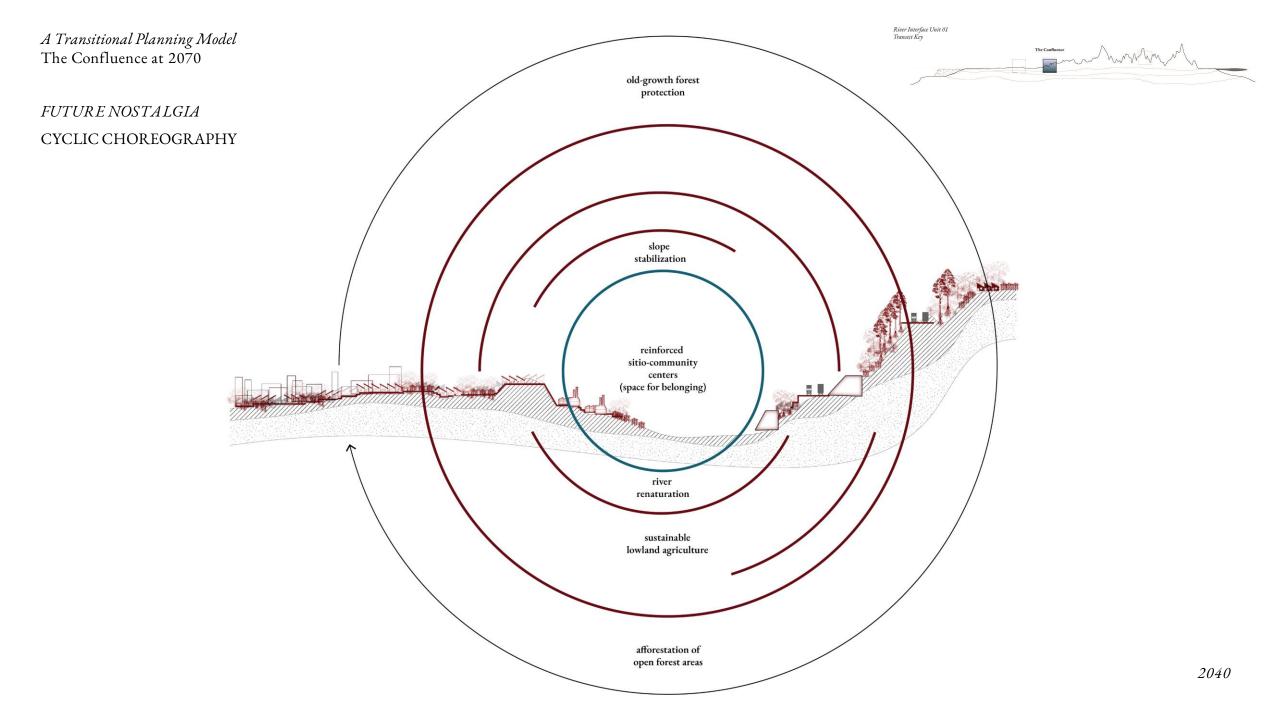


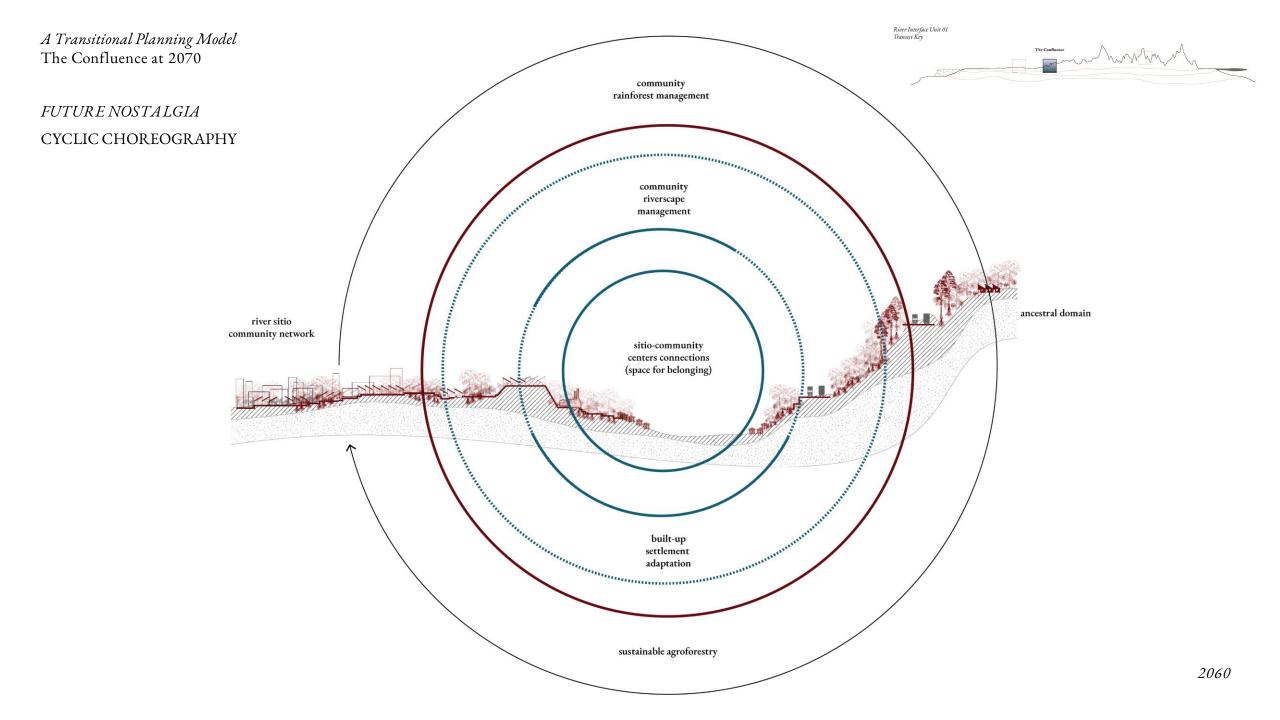


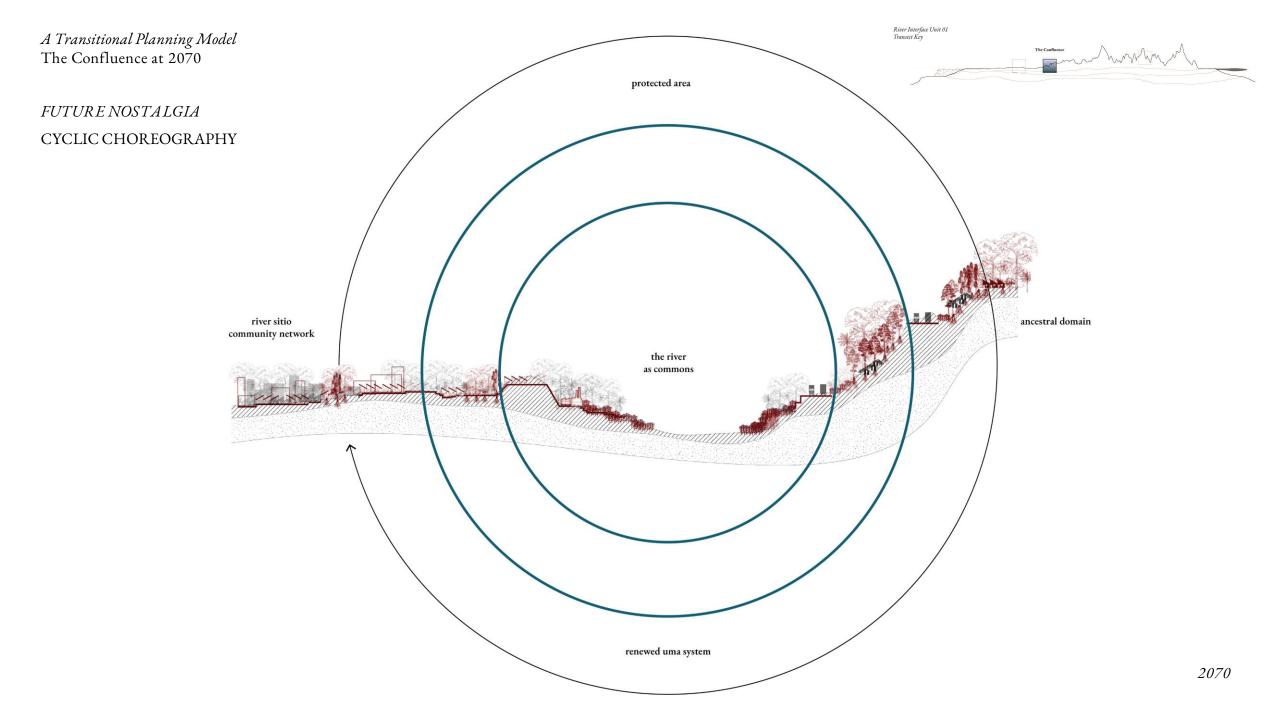
Agroforestry + Uma Agta Swidden Farm







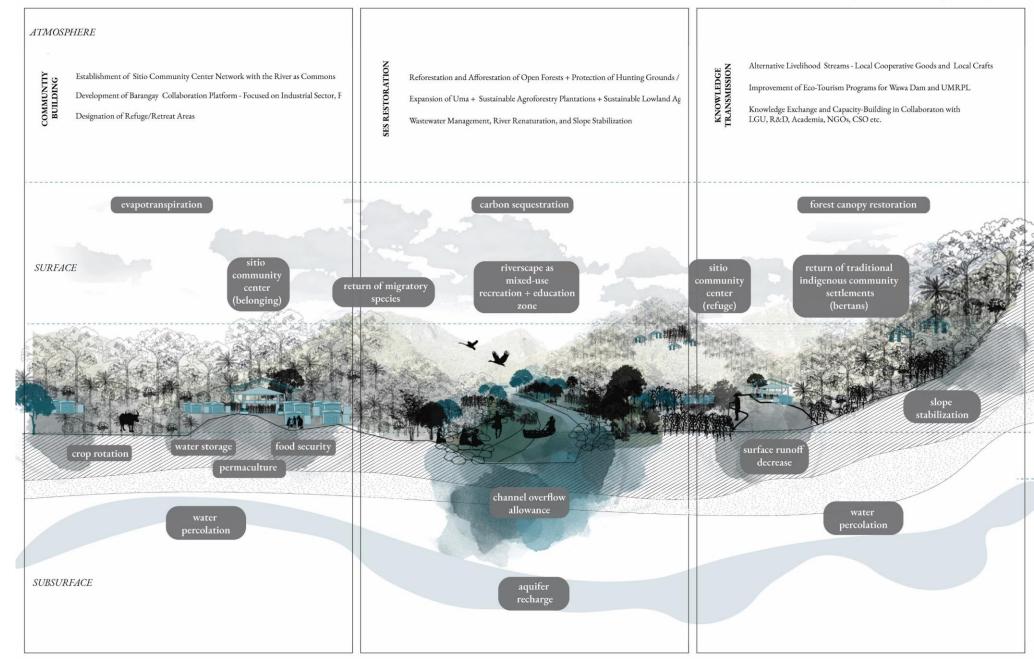




FUTURE NOSTALGIA
ACCOMMODATION

the confluence - 2070

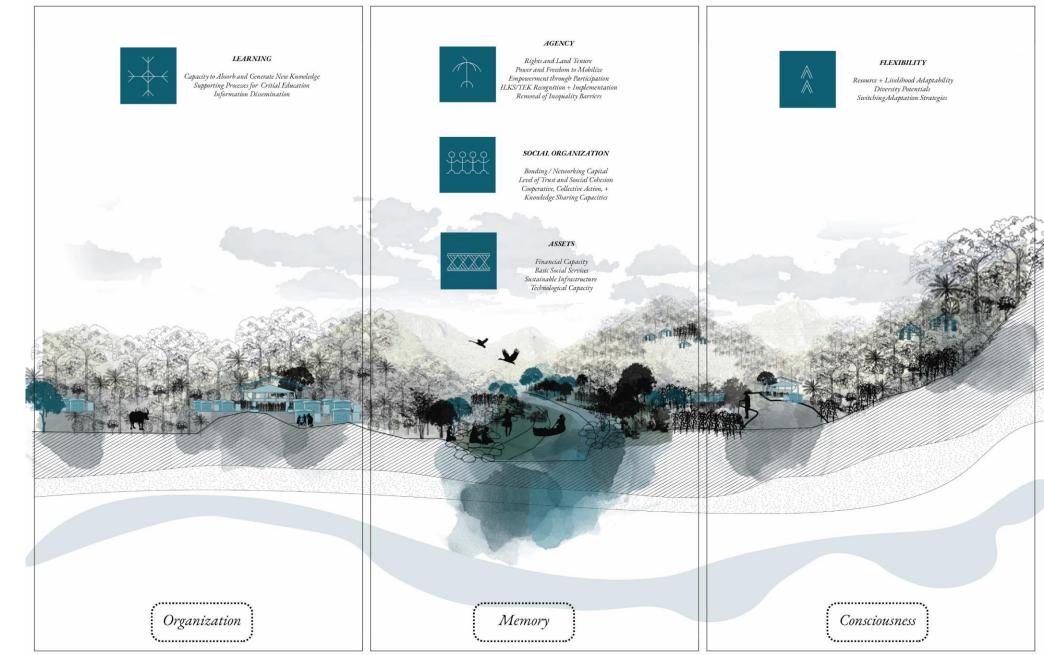
The Confluences's Renewed Core Memory System for Adaptation Starting with 4 Sitios, Barangay San Rafael



FUTURE NOSTALGIA
ACCOMMODATION

the confluence - 2070

The Confluence's Renewed Core Memory System for Adaptation Starting with 4 Sitios, Barangay San Rafael



FUTURE NOSTALGIA

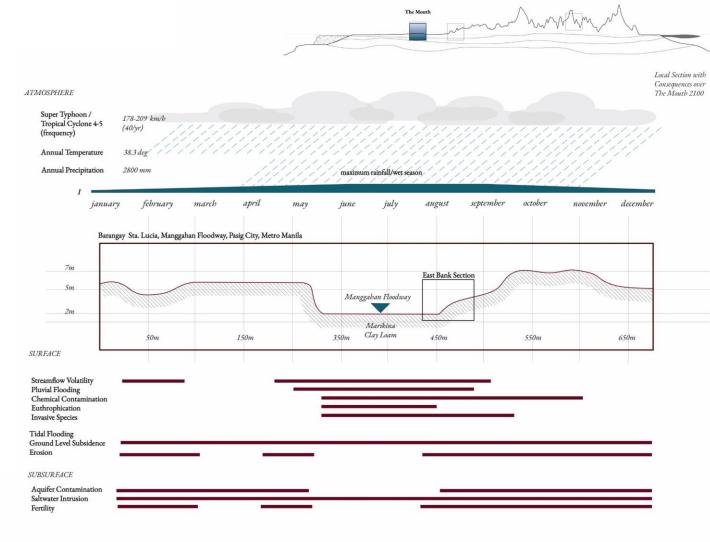
A NEO-INDIGENOUS COASTAL METROPOLIS

Projected

KALIWA DAM

CONSTRUCTION

Future Timeline



+1.8 deg. GMT

+2.70 deg. GMT

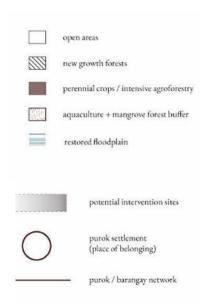
River Interface Unit 01 Transect Key

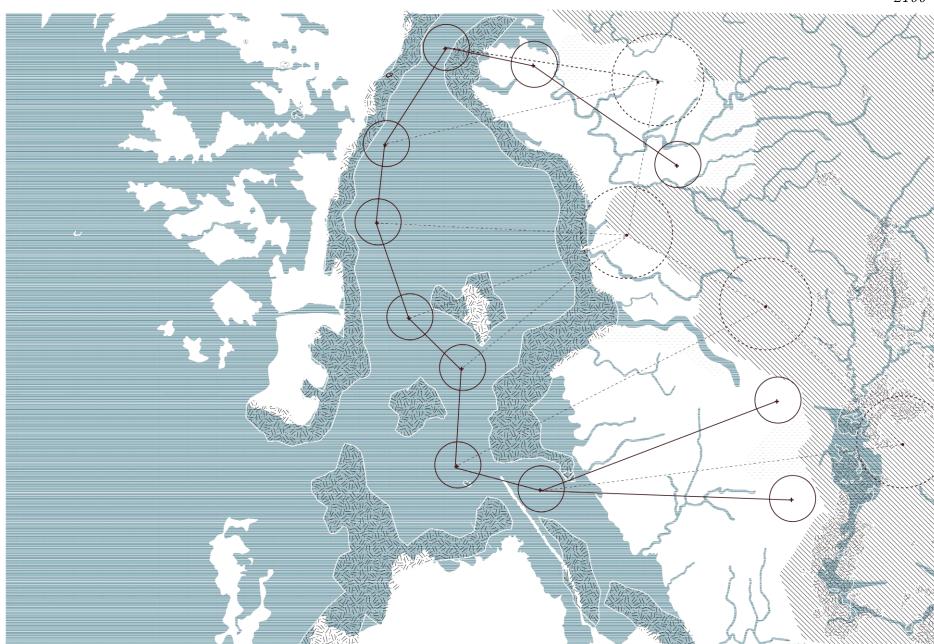
(linear scale)

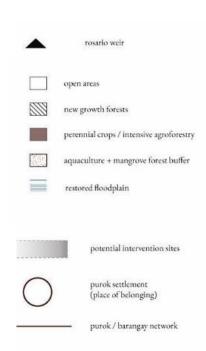
2020
2040
40 typhoons/yr

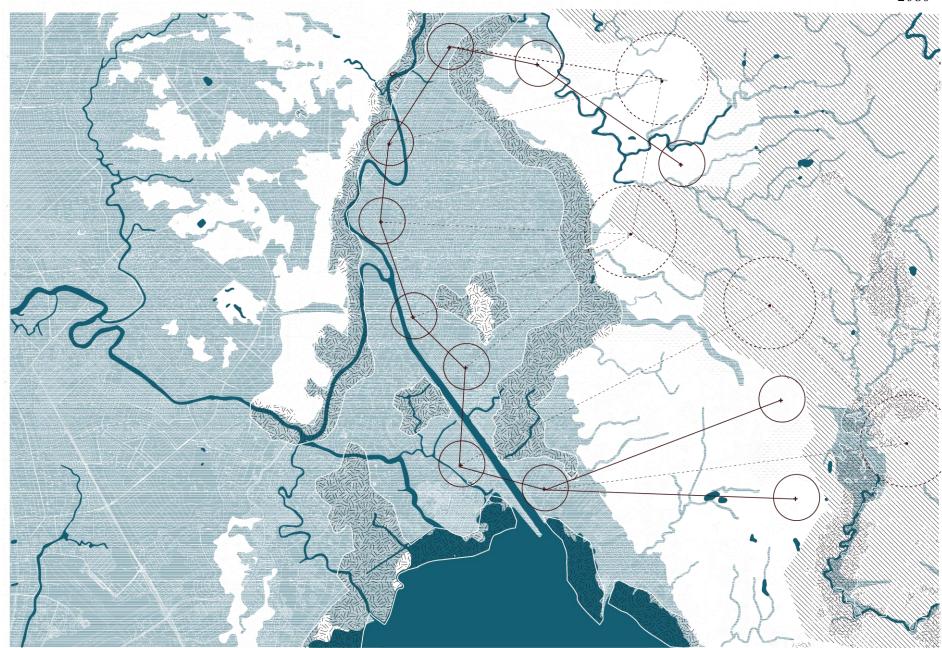
KALIWA DAM

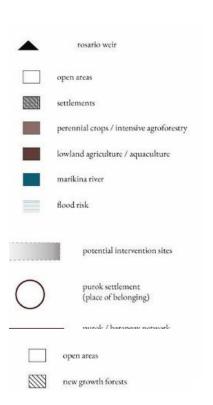
DECOMISSION

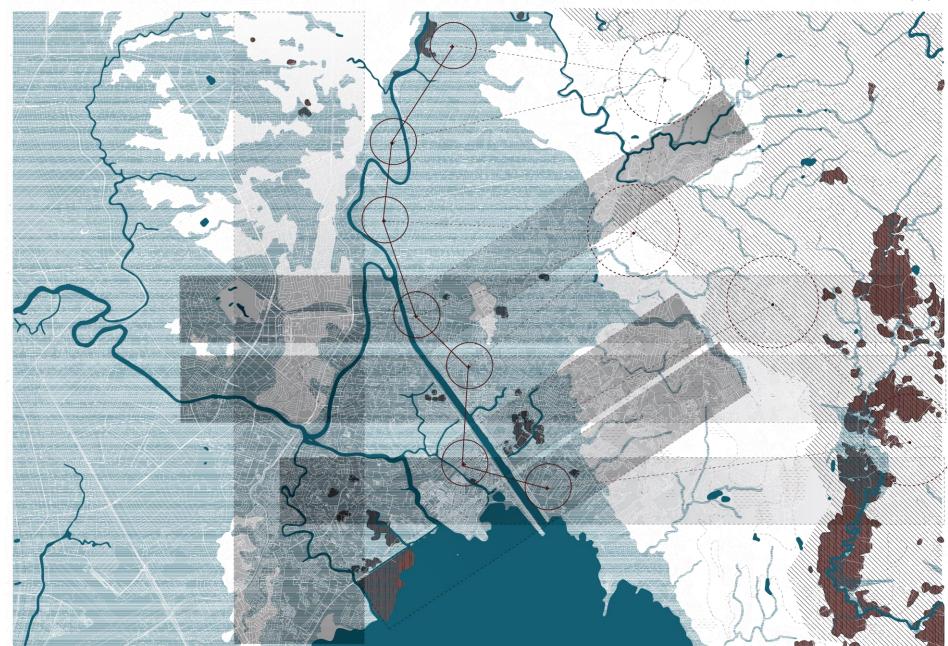


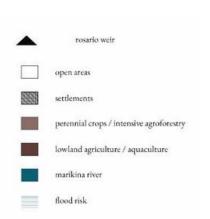


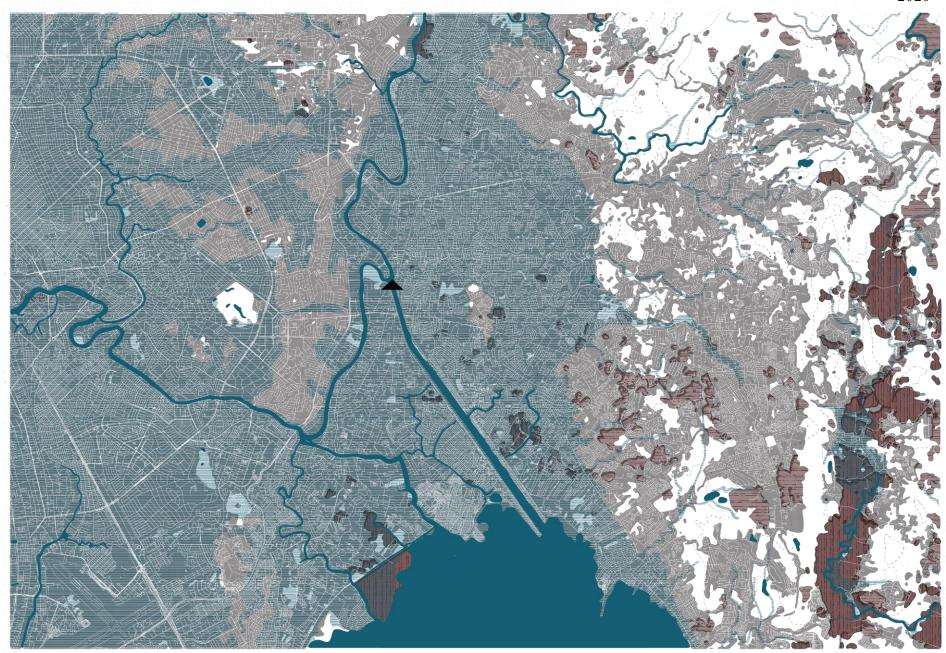












FUTURE NOSTALGIA

MEMORY SYSTEM OBJECTIVES

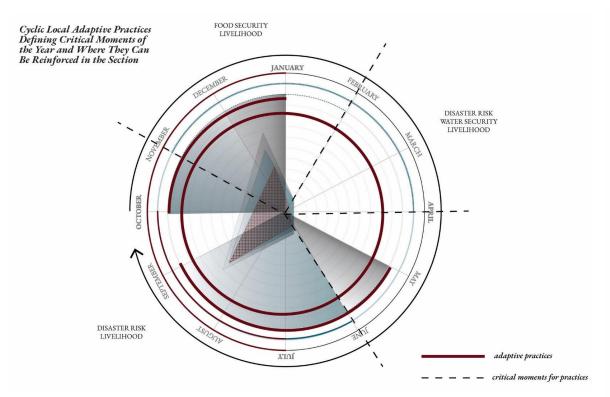
SES RESTORATION Marshland and Floodplain Restoration Recognition of Local Cooperatives for Sustainable Adaptive Practices (River Settlements, Agriculture) Memory Flood Risk Reduction (Tidal and Overflow during Typhoons) COMMUNTIY BUILDING Establishment of Purok/Sitio Community Center Network Organization Sitio and Barangay Community Riverscape Management Designation of Refuge/Retreat Areas with Open Green Areas Expansions KNOWLEDGE TRANSMISSION Development of Equitable Adaptive Retreat or Relocation Programs Consciousness Improvement of Informal Settlement Tenure Programs and Alternative Livelihood Streams Capacity-Building in Collaboraton with Local Cooperatives, LGUs, R&D, Academia, NGOs, CSO etc.

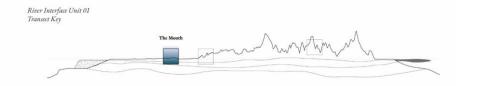
River Interface Unit 01 Transect Key

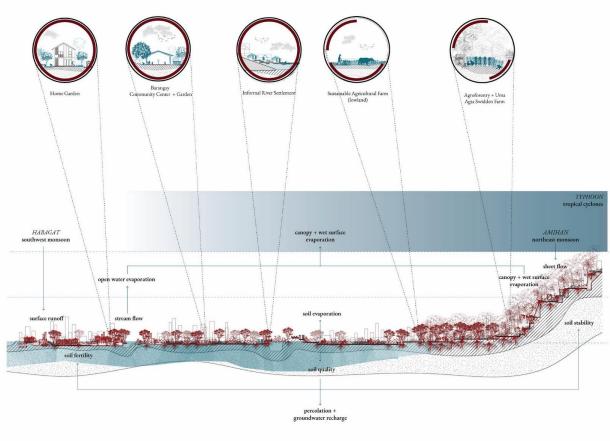
The Mooth

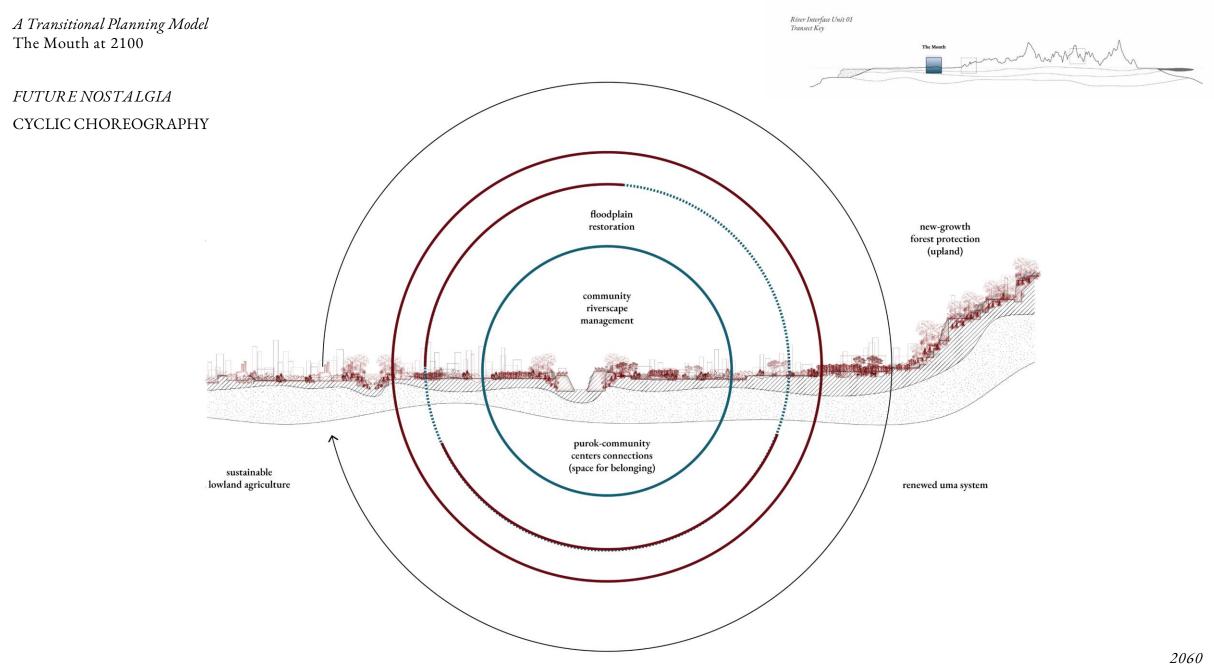
FUTURE NOSTALGIA

LOCAL ADAPTIVE PRACTICES OVER THE SITIO/PUROK SCALE



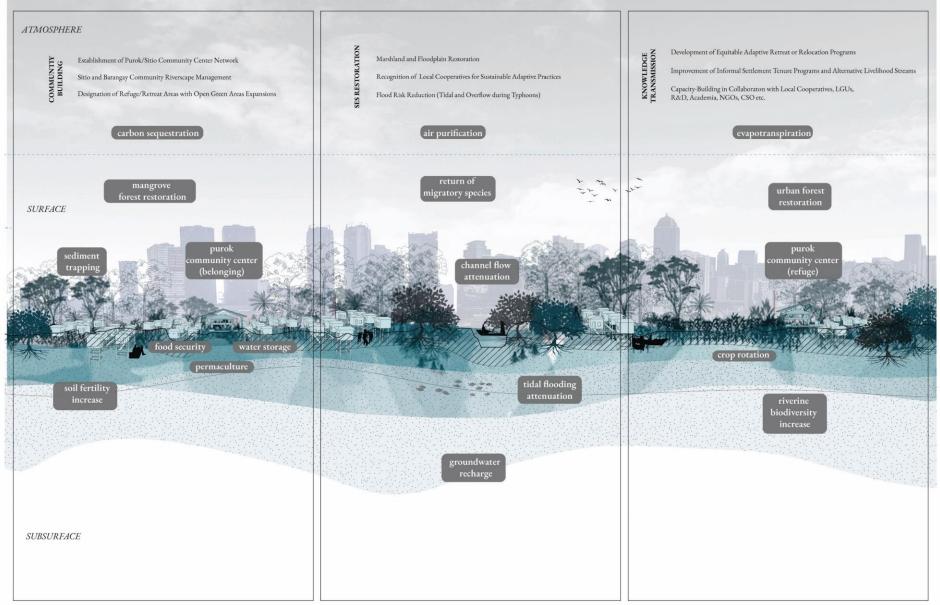






FUTURE NOSTALGIA
ACCOMMODATION

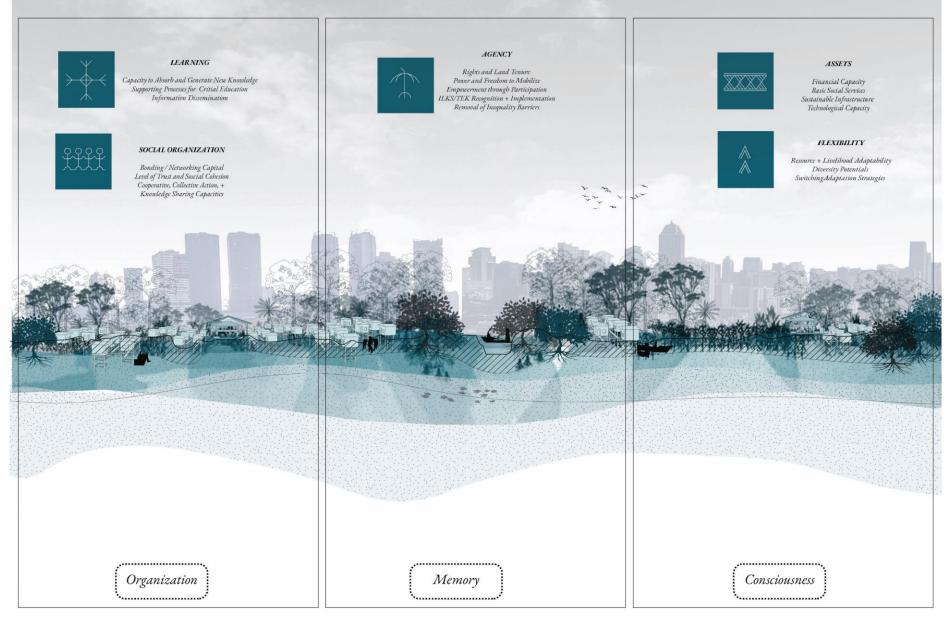
the mouth - 2100



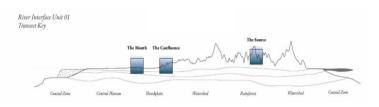
The Mouth's Renewed Core Memory System for Adaptation Starting with Purok in the East Bank of the Manggaban Floodway, Barangay Sta. Lucia, Metro Manila

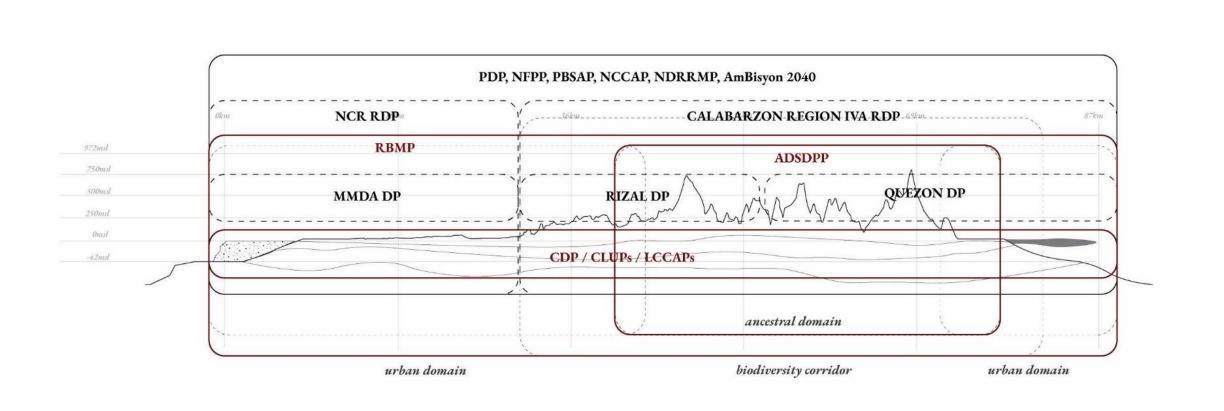
FUTURE NOSTALGIA
ACCOMMODATION

the mouth - 2100

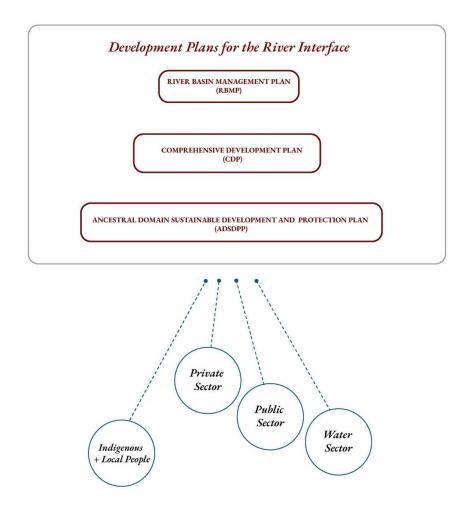


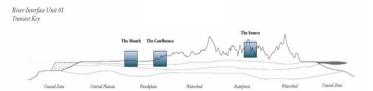
The Mouth's Renewed Core Memory System for Adaptation Starting with Purok in the East Bank of the Manggahan Floodway, Barangay Sta. Lucia, Metro Manila A Transitional Planning Model
Towards a Pluriversal,
Collaborative, and Adaptive
Governance of the River

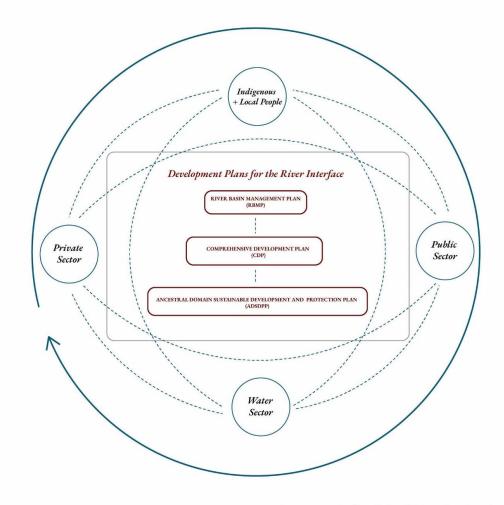




A Transitional Planning Model
Towards a Pluriversal,
Collaborative, and Adaptive
Governance of the River







From a centralized, traditional sectoral planning approach to a contemporary and emergent approach to planning

A Transitional Planning Model
Stakeholders within
The River Interface

stakeholders within the River Interface

			v	○ Water Sector	Private Sector Acade	emia 🔲	International Mandate Aş	
SCALE OF GOVERNANCE	SOCIAL ECOLOGICAL (RESOURCES + ENVIRONMENT + CULTURE)			SPATIAL DEVELOPA	MENT	ECONOMIC		
PLANETARY	UN SDG ILO 169	○ AIPP ○ IUCE		UNDP Paris Agreement	CBD	Asian Development Bank World Bank UN	External ODA International NGC CEPF WWF	
NATIONAL	IPRA Act Mining Act Climate Change Act Local Government Code	○●○ NIA	NCIP O DOE DOT LWUA CCC PAGASA	NEDA O D HLURB NEDA DOH				
REGIONAL	■ ○ NCCA ○ ○ NWRB ■ ○ Kaliwa Watershed Forest Reserve ■ ○ Ancestral Domain		○ NWRB NOAA	● Universities ● NEDA - REGION ○ RBMO ○ MWSS	NOAA IV-A	O DENR O DOT		
PROVINCIAL	Rizal Province DENR-FMB LGU - Tanay DENR-BMB		Local Water Dis	Tourism Industry	npanies	● LGU - Tanay ○ ● DOT		
LOCAL	Agta (Dumagat-Remontado) Communities Environ		Social Dev't NGOs Environmental NGOs Universities			○		
REGIONAL	■ ● Upper Marikina River Protected Landscape ■ ● Ancestral Domain		с ○ ● квмо	● NEDA - REGION IV-A ○ ● RBMO ○ MWSS		O DENR O DOT O DTI		
PROVINCIAL	Rizal Province But the control of t			Real Estate / Housing Developers Industrial / Manufacturing Companies Tourism Industry		● LGU - Rodriguez		
LOCAL	Barangay San Farmer/Local Agta (Dumagat		O Social Dev't NGOs Environmental NGOs				○ ● LWUA ● NCIP	
REGIONAL	LLDA MMDA PRCMO	○ ● DENR-BM	в ○ ● квмо		○ ● RBMO		• LLDA • DTI	
CITY GOVERNMENT	LGU - Pasig C	• Universiti	es Social Dev't NGOs Environmental NGOs	Commercial Develope	 Real Estate / Housing Developers Commercial Developers Industrial / Manufacturing Companies 		LGU - Pasig City	
LOCAL	Barangay Sta.	Lucia (Puroks) ssociates (UPA)	O Social Dev't NGOs Environmental NGOs	Manggahan FloodwayLGU - NHA	Manggahan Floodway Management (DPWH)LGU - NHA		О● рршн	

STAKEHOLDERS

● Indigenous / Local People ● Public Sector ● Research

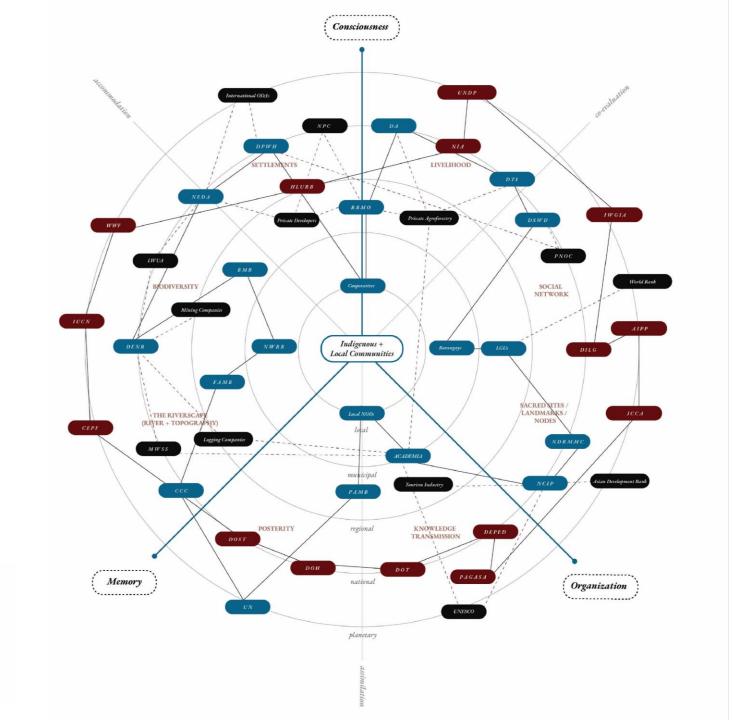
DIRECTIVE

■ Law ☐ Development Plan/Framework

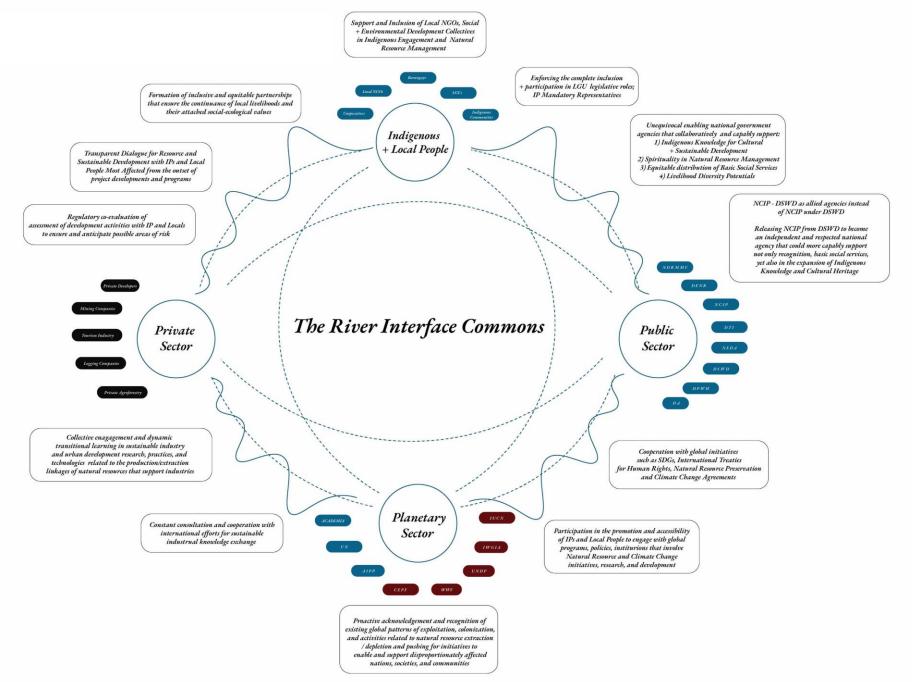
A Transitional Planning Model
Constellation of Stakeholders,
Values, and Dynamics Processes
In the River Interface

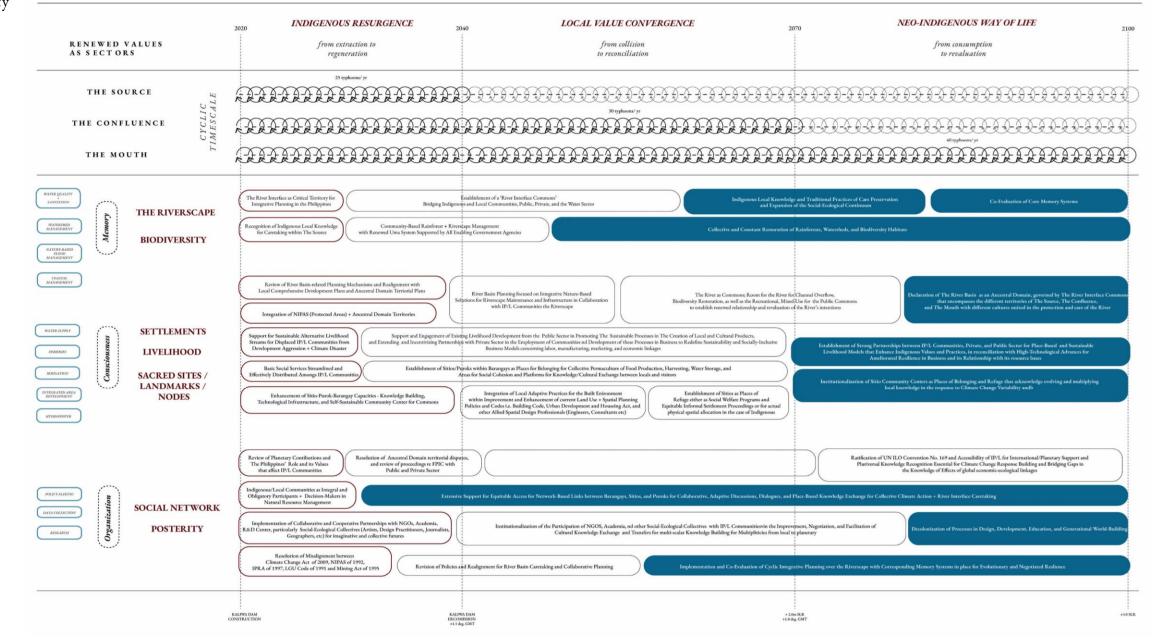
enabling

negotiating (potential barriers) re-foundational links mediating links



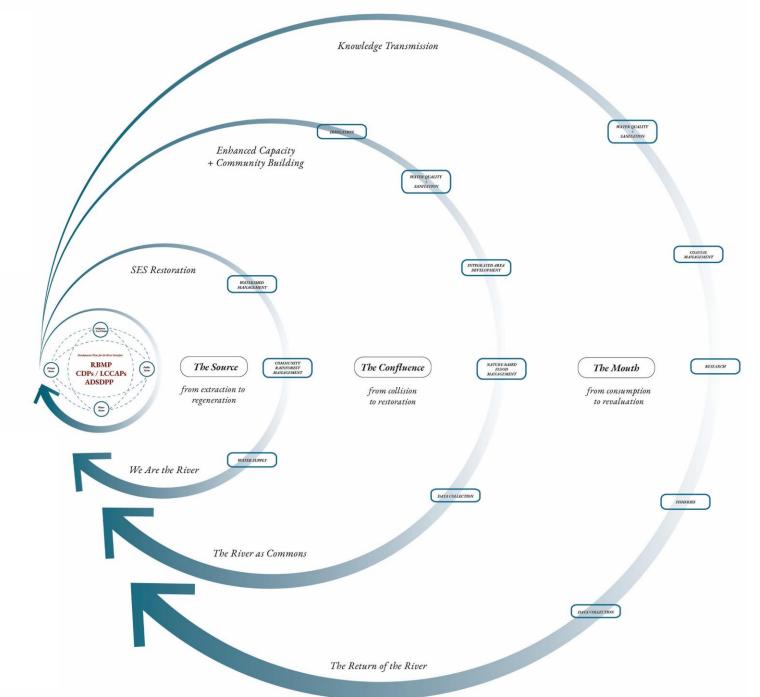
A Transitional Planning Model
A Transitional Co-Management
Regime with the
River Interface Commons





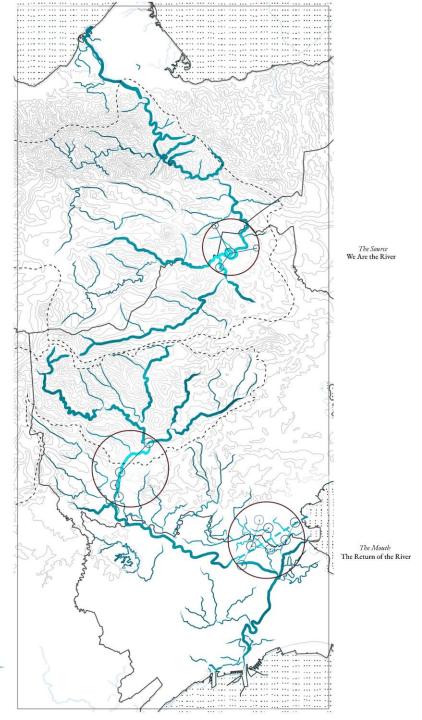
A Transitional Planning Model
The Evolutionary Roles of
Caretaking in the
River Interface

Old Roles, Structure, and River Basin Management Sectors POLICY MAKING NEDACOORDINATION REGULATION NWRBWATER QUALITY INTEGRATED AREA DEVELOPMENT FLOOD MANAGEMENT WATERSHED MANAGEMENT DATA COLLECTION SANITATION MGB MGB PAGASA DPWH-PMO PAGASA DOH LGUs NPC PAWB NWRB BRS LWUA NIA MWSS FMB BSWM NIA MMDA OCD-NDCC LWU-WDs IRRIGATION WATER SUPPLY RESEARCH DA NIA BSWM DOE PSALM DOST-PCAFNRRD NAPC-WASCO NPC PEMC DOF-CDA DBP-DAR DPWH MWSS LWUA-WDs DILG-PMO PEZA LGUs



A Transitional Planning Model
Pathway Convergence
Over the River Interface

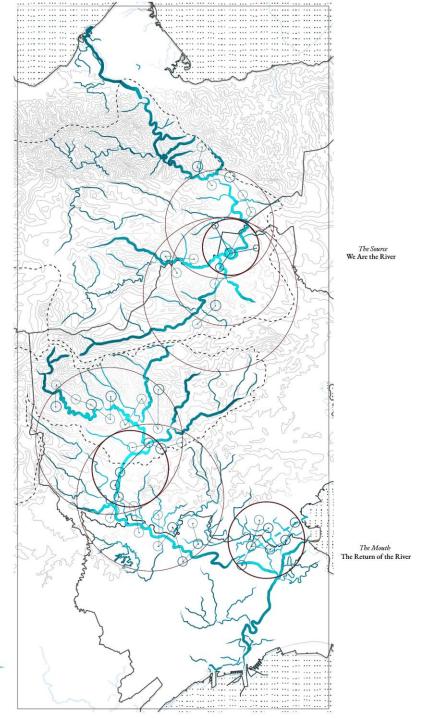
THE RIVER INTERFACE UNIT 01 Pasig-Laguna-Marikina River Basin, LUZON, PH





The Confluence
The River as Commons

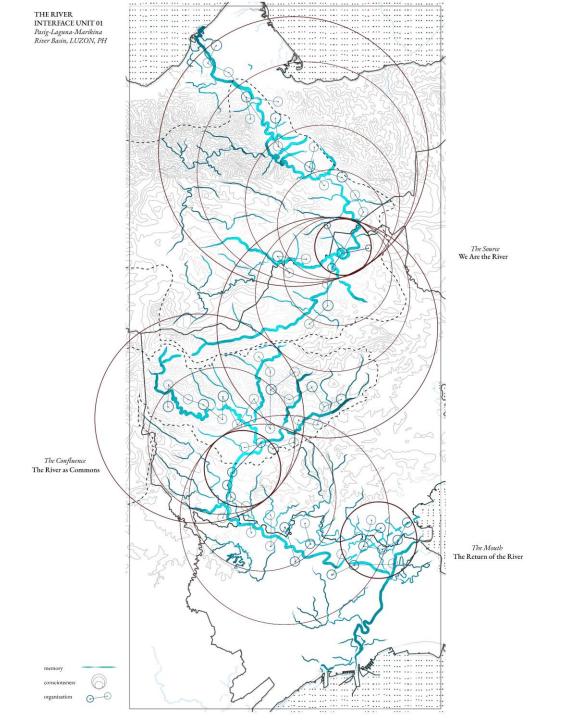
THE RIVER INTERFACE UNIT 01 Pasig-Laguna-Marikina River Basin, LUZON, PH

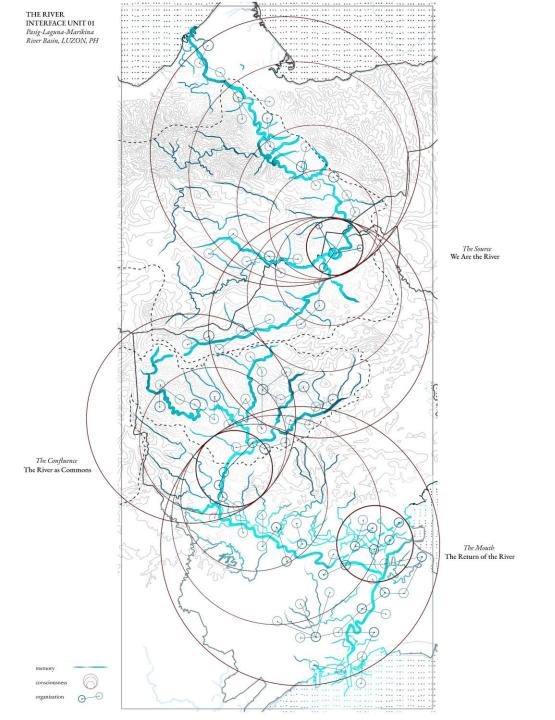


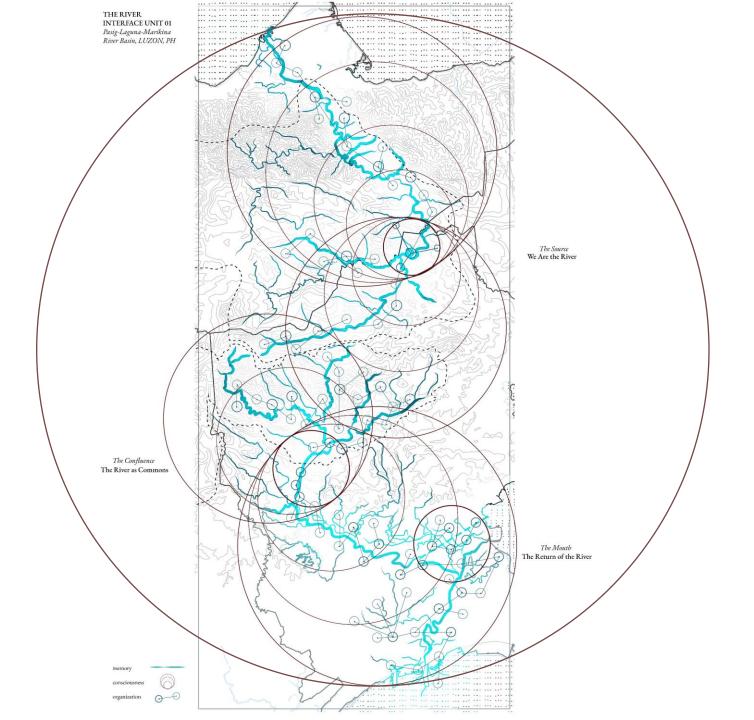
The Confluence
The River as Commons

consciousnes

iousness ization

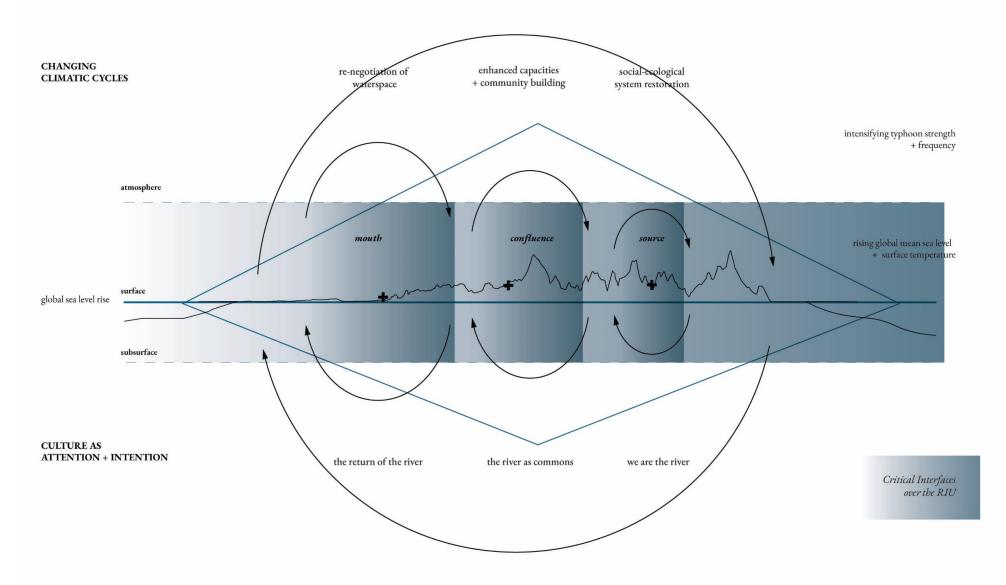




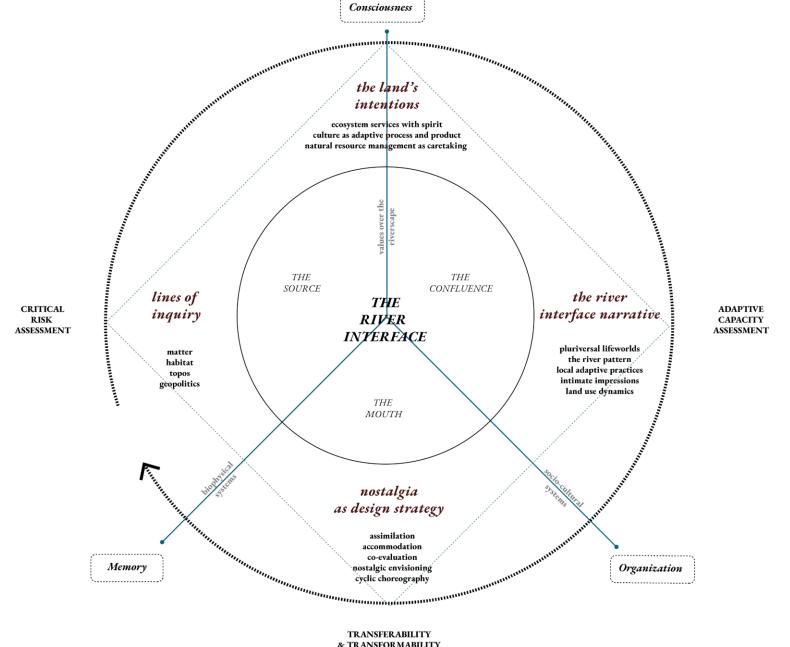


A Transitional Planning Model Renewed Memory Systems at The River Interface 01

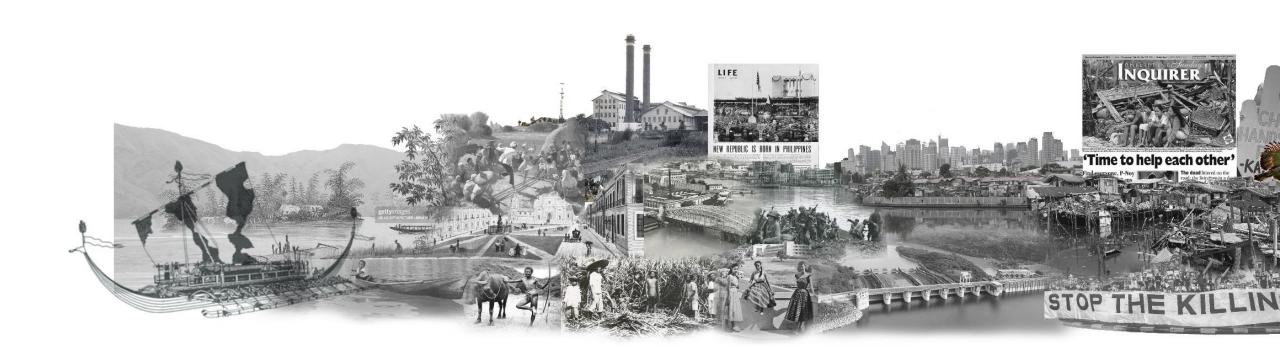
the cyclic choreography of the river with the sea and the sky



the cyclic choreography over the riverscape - of land and people



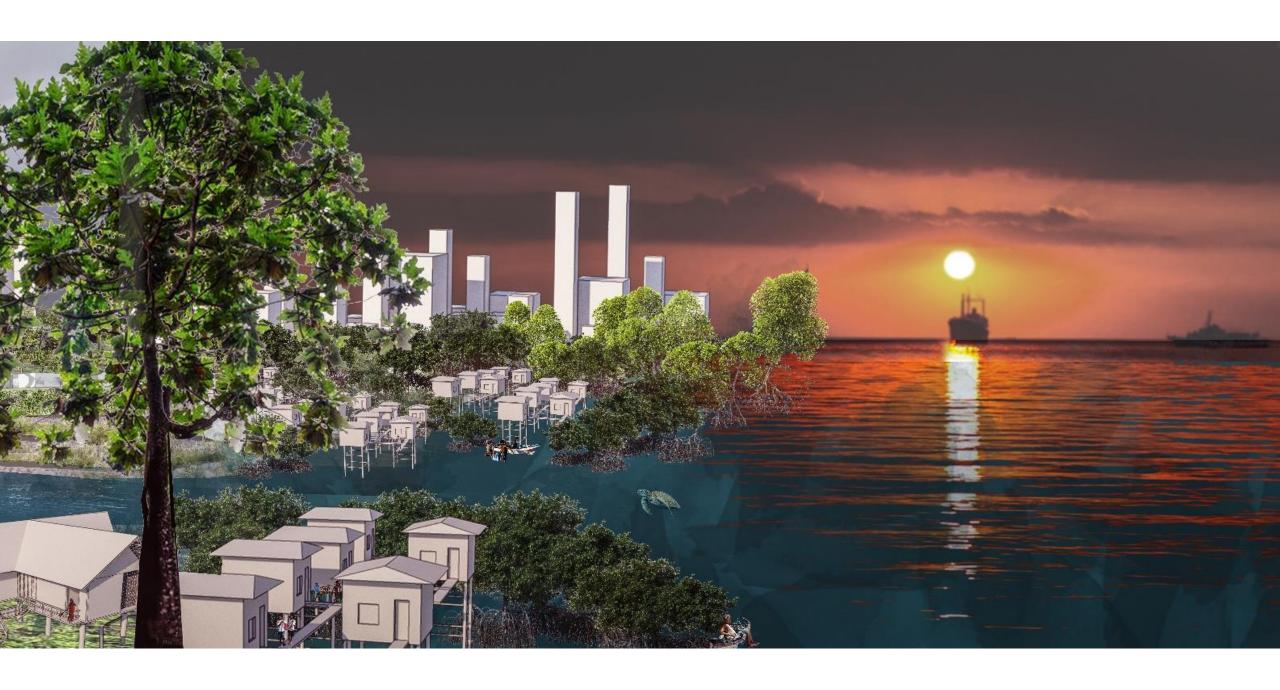
& TRANSFORMABILITY OF DESIGN RESULTS











the river as endless territory

restoring the social-ecological continuum in the Philippine Archipelago

##