COUNTRYSIDE DILLEMAS
The Renovation and Preservation of Rural Heritage

Location : Wengding, CHINA

A.Y : 2022

WENGDING : A VILLAGE

[What is the Village Wengding made of]

[LOCATION]
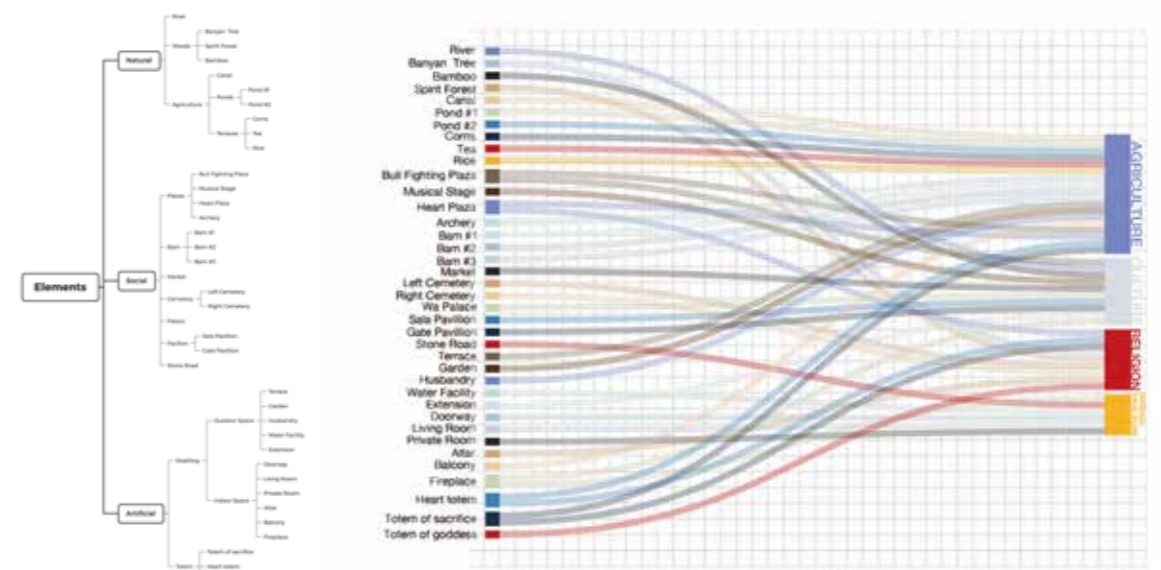
Wengding Village, which is where the National Geographic Magazine calls "the last tribe in China", had kept its primitive way of life with the "slash-and-burn" farming method until liberation v of primitive society was inherited. It is said that Wengding preserves the most intact architecture style and traditional customs of primitive Va society

Wengding, Yunnan, CHINA

[ELEMETS]

NATURAL ELEMENTS

BANYAN TREE — RICE FIELDS — SPRIT FOREST

SOCIAL ELEMENTS

PLAZZA — PAVILLION — STONE ROAD

ARTIFICIAL ELEMENTS

DEWLLING — ALTAR — TOTEM

3 ELEMENTS
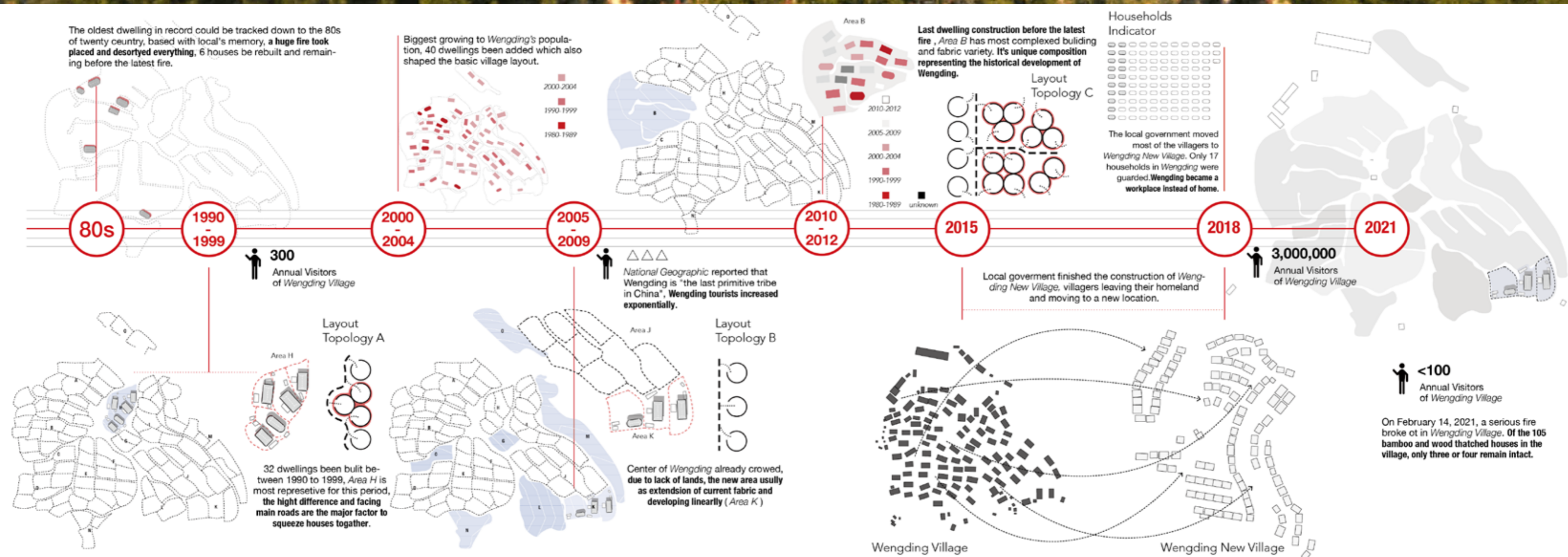*Natural，Social & Artificial*

[CLASSIFICATION]

Agriculture
Culture
Religion
Infrastructure

WENGDING : A History

[A Constant Trial to Self-destruction and Self-Restoration]

The oldest dwelling in record could be tracked down to the 80s of twenty century, based with local's memory, **a huge fire took placed and desortyed everything**, 6 houses be rebuilt and remaining before the latest fire.

Biggest growing to *Wengding's* population, 40 dwellings been added which also shaped the basic village layout.

2000-2004
1990-1999
1980-1989

Last dwelling construction before the latest fire, *Area B* has most complexed buliding and fabric variety. **It's unique composition representing the historical development of Wengding.**

Area B

2010-2012
2005-2009
2000-2004
1990-1999
1980-1989 unknown

Layout Topology C

Households Indicator

The local government moved most of the villagers to *Wengding New Village*. Only 17 households in *Wengding* were guarded. **Wengding became a workplace instead of home.**

| 80s | 1990–1999 | 2000–2004 | 2005–2009 | 2010–2012 | 2015 | 2018 | 2021 |

300 Annual Visitors of *Wengding Village*

National Geographic reported that Wengding is "the last primitive tribe in China", **Wengding tourists increased exponentially.**

3,000,000 Annual Visitors of *Wengding Village*

Local goverment finished the construction of *Wengding New Village*, villagers leaving their homeland and moving to a new location.

Layout Topology A

Area H

Layout Topology B

Area J

Area K

32 dwellings been bulit between 1990 to 1999, Area H is most represetive for this period, the hight difference and facing main roads are the major factor to squeeze houses togather.

Center of *Wengding* already crowed, due to lack of lands, the new area usully as extension of current fabric and developing linearlly (*Area K*)

<100 Annual Visitors of *Wengding Village*

On February 14, 2021, a serious fire broke ot in *Wengding Village*. Of the 105 bamboo and wood thatched houses in the village, only three or four remain intact.

Wengding Village

Wengding New Village

XL

XXL

MENGJIAO

CANGYUAN

Myanmar

Water system   Forest   Shurb   Grass   Farmland   City

XL

Where Are the Boundaries ?

Fig.1 Boundaries Illustration

[LEGEND]

- Urban
- Settlements
- Settlement Property
- Mountain Range
- Ecological Corridor
- Nature Reserve

| COUNTRYSIDE DILLEMAS *The Renovation and Preservation of Rural Heritage* | *year. 2022* | SUSTAINABLE ARCHITECTURE AND LANDSCAPE DESIGN

PROFESSOR | CONTIN ANTONELLA TUTORS | Valentina Galiulo | Federico Misto | Andrea Ardizzi

[1]
[Hierarchy]

Wengding:
A XL MAP

[2]
[Relationships]

Wengding:
A XL MAP

[Wengding: A XL MAP]
Beyond the Region: Location, Hierarchy and Relationships
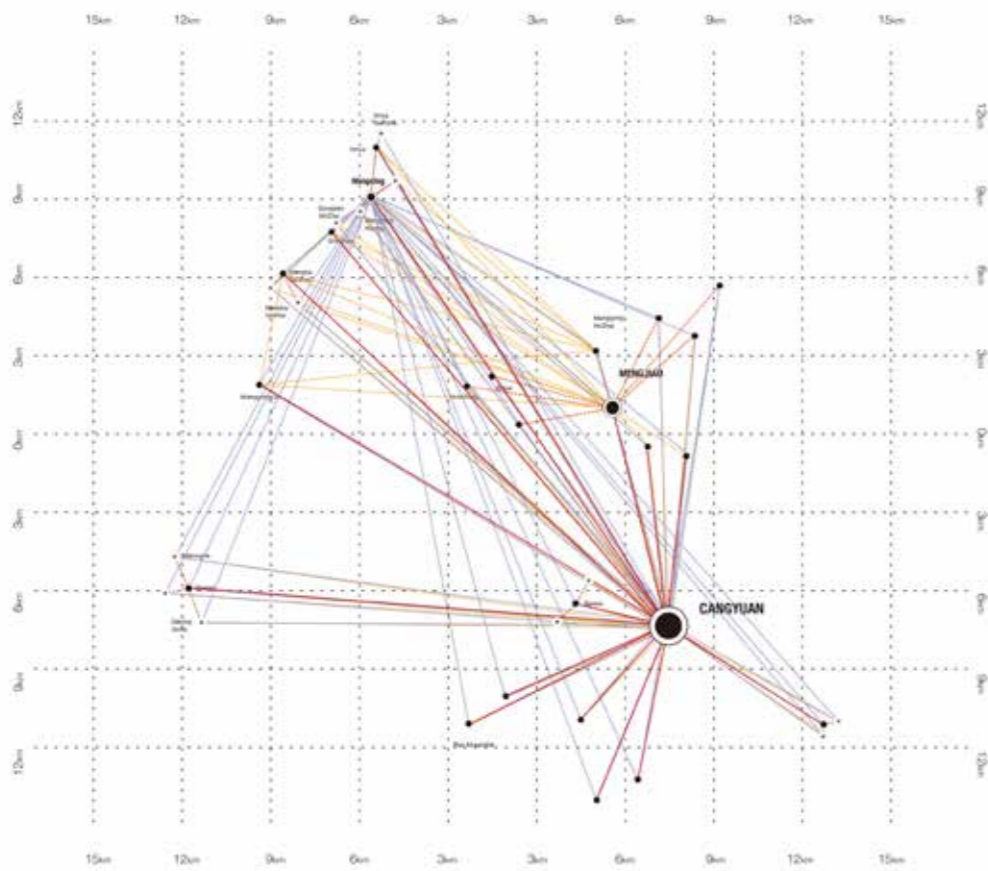
Fig.1
Political Hierarchy
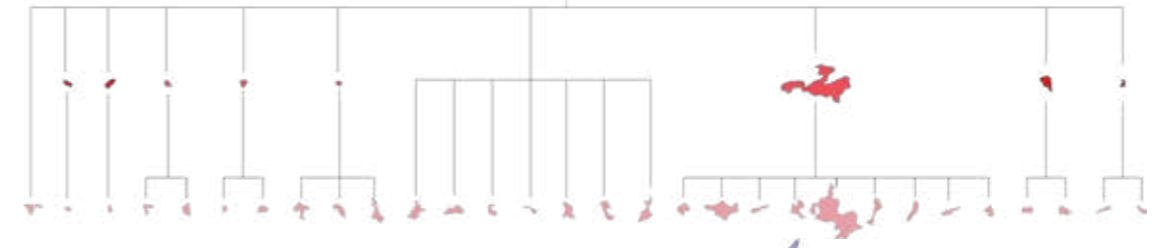
Fig.2
Cultural Hierarchy
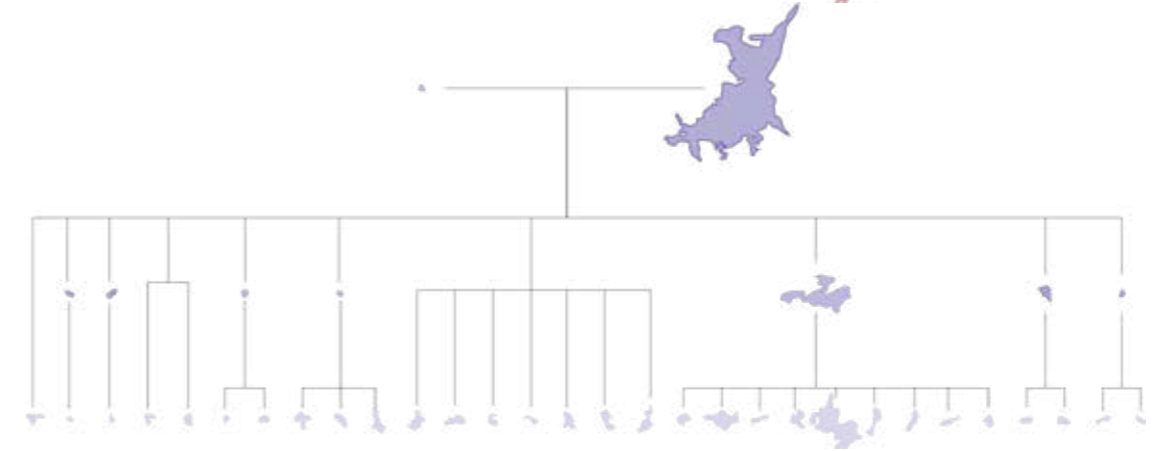
[LEGEND]

Wengding Village

Cangyuan Municipality

Fig.3
Political Structure:**[One-Point]**
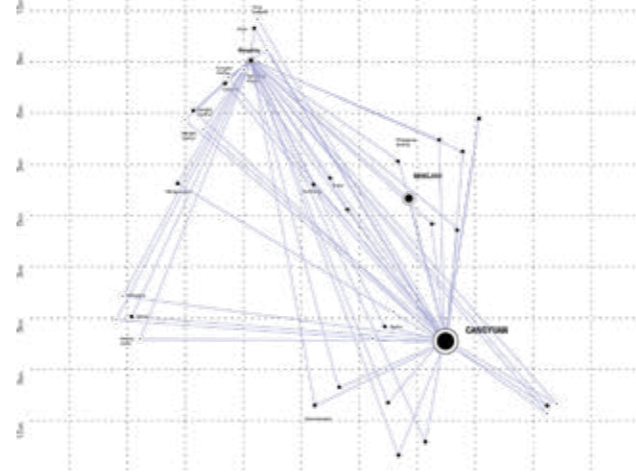
Fig.4
Cultural Structure:**[Two-Point]**
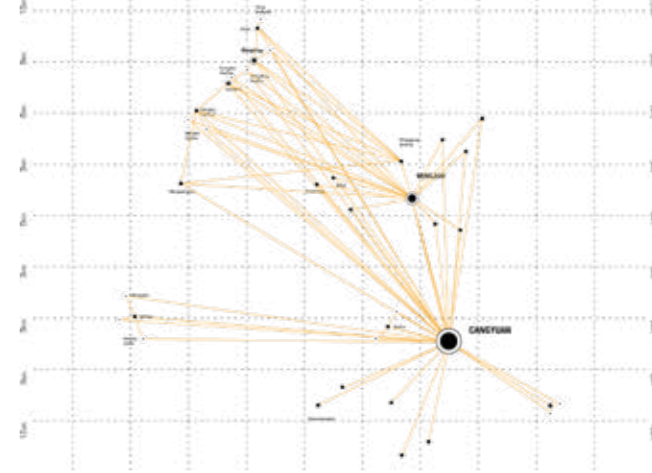
Fig.5
Economic Structure:**[Linear Passage]**

[LEGEND]

● City

◉ Suburb Town

● Village

· New Settlement

— Political Flow

— Economic Flow

— Cultural Flow

[LEGEND]

● City

◉ Suburb Town

● Village

· New Settlement

— Political Flow

— Economic Flow

— Cultural Flow

Rural & Urban:
Countryside Dillemas

Boundary II
Nature Reserve

Boundary I
Mountian Range

Xiaya
Xiaozhai

Xinya

Wengding

Gongken
XinZhai

Wengding
Xiazhai

Gongken

Ecological Corridor

Mengka
Laozhai

Mengka
Xinzhai

Manggong
XinZhai

MENGJIAO

Administrative Boundary

Manggongcún

Nuozhang

Bakai

L

Administrative Boundary

Banke

CANGYUAN

Myanmar

Boundary II
Nature Reserve

Boundary I
Mountian Range

XL

Water system   Forest   Shurb   Grass   Farmland   City

Where is the Countryside? Is Countryside just Farmlands ?

URBAN / NonUrban

SETTLEMENT / Nature

PRESERVATION / Development

[1]
[Zoning]

5 Zones Based on Various Principles

EASY ACCESS / Hard to Reach

VALLEY / Mountain
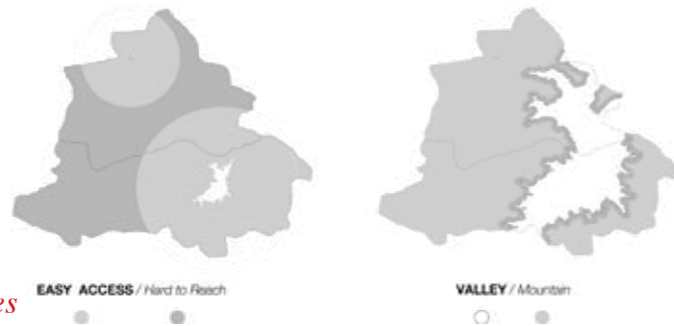
[2]
[Boundaries Mix]

Mixing Different Zones from Step_1

[3]
[Calculation]

Formula :
COUNTRYSIDE =
Nonurban - (Easy Access + Urban Development) - Preservation

Defining the Countryside Zones

Boundary II
Nature Reserve

COUNTRYSIDE
Zone II

Boundary I
Mountian Range

Xinya Xiaozhai

Xinya

Wengding

Gongken XinZhai

Wengding Xiazhai

Gongken

Ecological Corridor

Mengka Laozhai

Mengka Xinzhai

Administrative Boundary

Manggong XinZhai

MENGJIAO

Manggongcun

Nuozhang

Bakai

Administrative Boundary

COUNTRYSIDE
Zone I

COUNTRYSIDE
Zone III

Bianke

CANGYUAN

Boundary II
Nature Reserve

Boundary I
Mountian Range

Rural-Urban Focus Area

Settlements

[Wengding: A L MAP]
Rural & Urban:
Countryside Dillemas

WHAT IS THE TERRAIN LIKE?

COUNTRYSIDE Zone II

Boundary II **Nature Reserve**

Boundary I **Mountian Range**

COUNTRYSIDE Zone I

Administrative Boundary

COUNTRYSIDE Zone III

Boundary II **Nature Reserve**

Boundary I **Mountian Range**

Fig.1 Rural-Urban Special Focus Area

[LEGEND]

- Rural-Urban Focus Area
- Mountains
- Valley
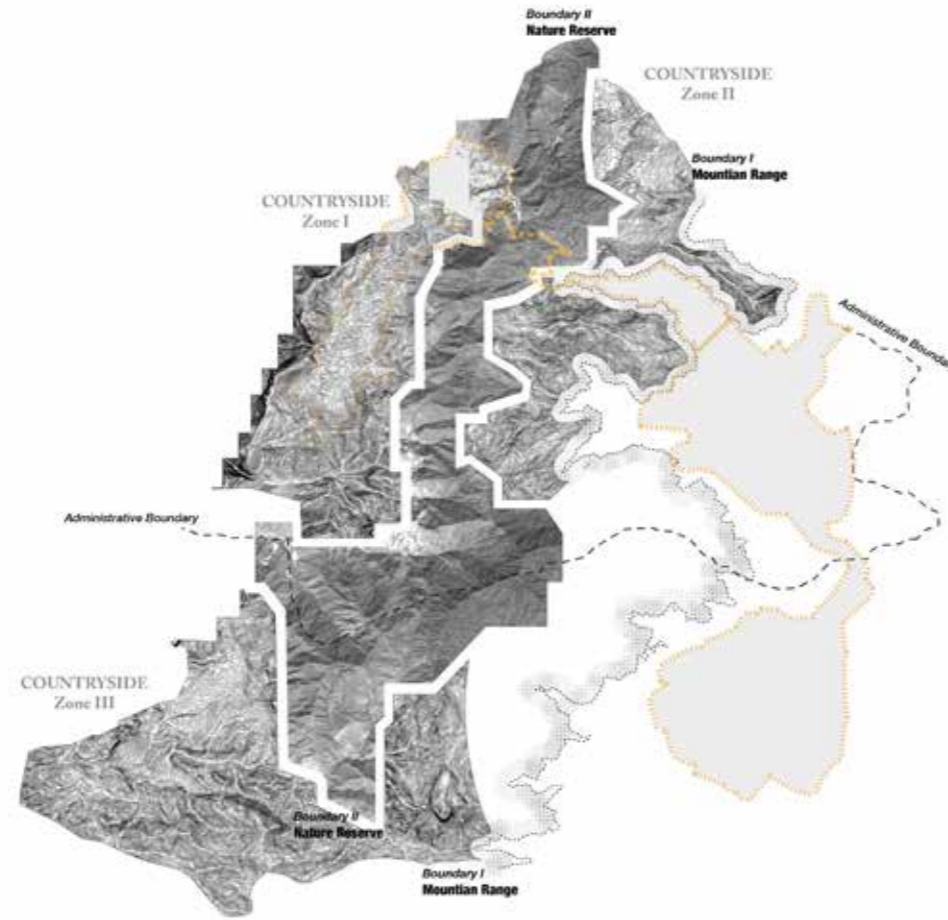
WHAT ABOUT THE VEGETATION?

Boundary II **Nature Reserve**

COUNTRYSIDE Zone II

Boundary I **Mountian Range**

Ecological Corridor

COUNTRYSIDE Zone I

Administrative Boundary

COUNTRYSIDE Zone III

Boundary II **Nature Reserve**

Boundary I **Mountian Range**

Fig.1 Rural-Urban Special Focus Area

[LEGEND]

- Rural-Urban Focus Area
- Settlements
- Farmland (Rice Paddies)
- Farmland (Arid Lands)
- Forest
- Shrubs
- Grass
- Others
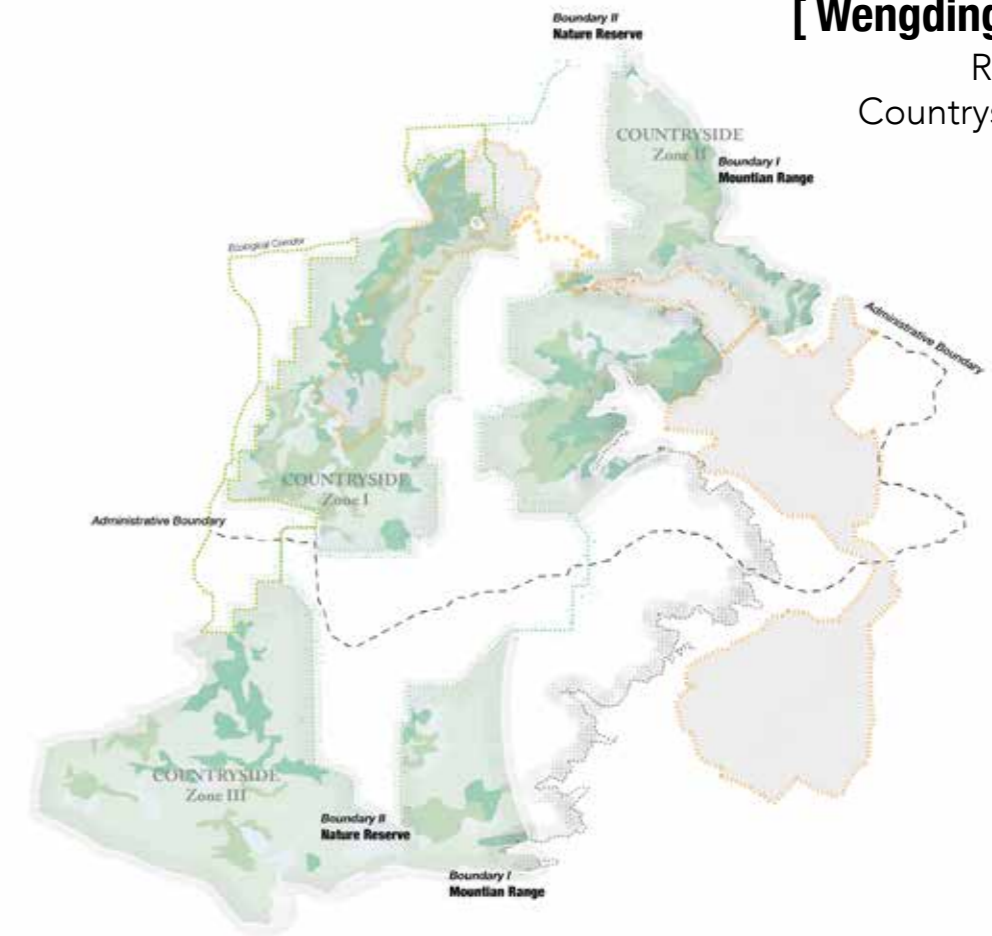
HOW IS WEALTH DISTRIBUTED ?

Boundary II **Nature Reserve**

COUNTRYSIDE Zone II

Boundary I **Mountian Range**

Ecological Corridor

COUNTRYSIDE Zone I

Administrative Boundary

MENGJIAO

CANGYUAN

COUNTRYSIDE Zone III

Boundary II **Nature Reserve**

Boundary I **Mountian Range**

Fig.1 Rural-Urban Special Focus Area

[LEGEND]

INCOME
− +

WHERE DOES PEOPLE GO ?

TO MAJOR CHINESE CTIES

Boundary II **Nature Reserve**

COUNTRYSIDE Zone II

Boundary I **Mountian Range**

TO MAJOR CHINESE CTIES

Wengding' population: **497**

Ecological Corridor

COUNTRYSIDE Zone I

Administrative Boundary

MENGJIAO

Mengjiao's population: **2192**

TO MYANMAR

CANGYUAN

Cangyuan's population: **160262**

COUNTRYSIDE Zone III

Boundary II **Nature Reserve**

Boundary I **Mountian Range**

Fig.1 Rural-Urban Special Focus Area

[LEGEND]

- 10 Population
- Leaving Wengding Migration Route
- Joining Wengding Migration Route

[Wengding: A L MAP]

Rural & Urban: Countryside Dillemas

Fig.1 DILLEMA I : Fragmented Expanding
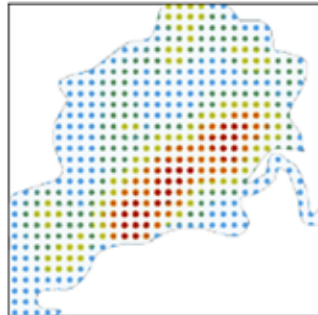
Fig.2 DILLEMA II : Countryside Disparity
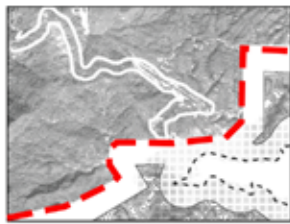
Fig.3 DILLEMA III : Weak Connection

Fig.4 DILLEMA IV :
Weak Developed in Mountain Area
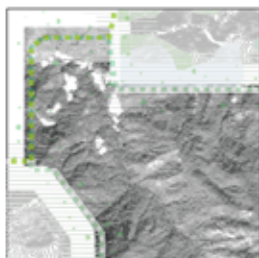
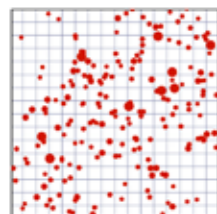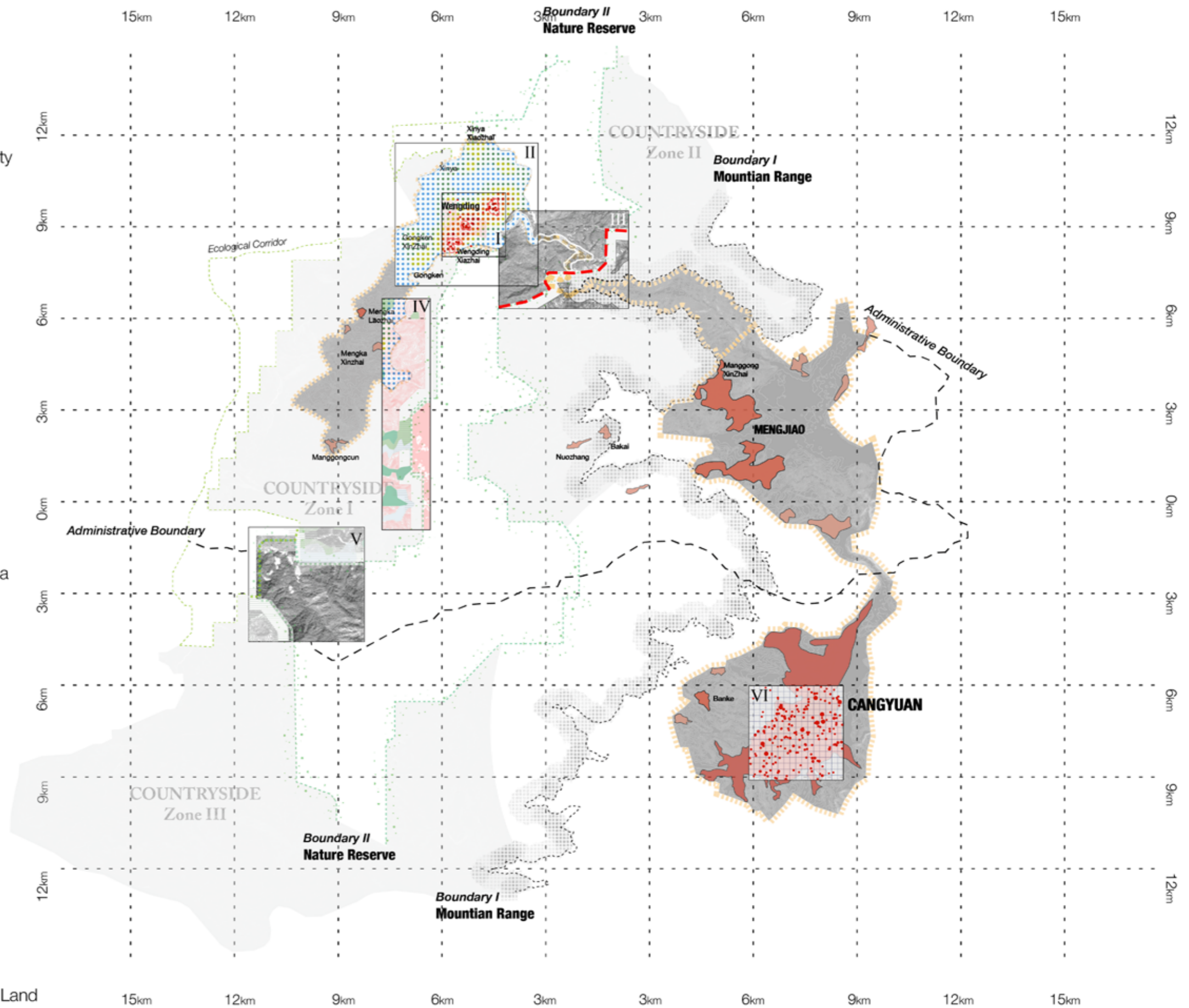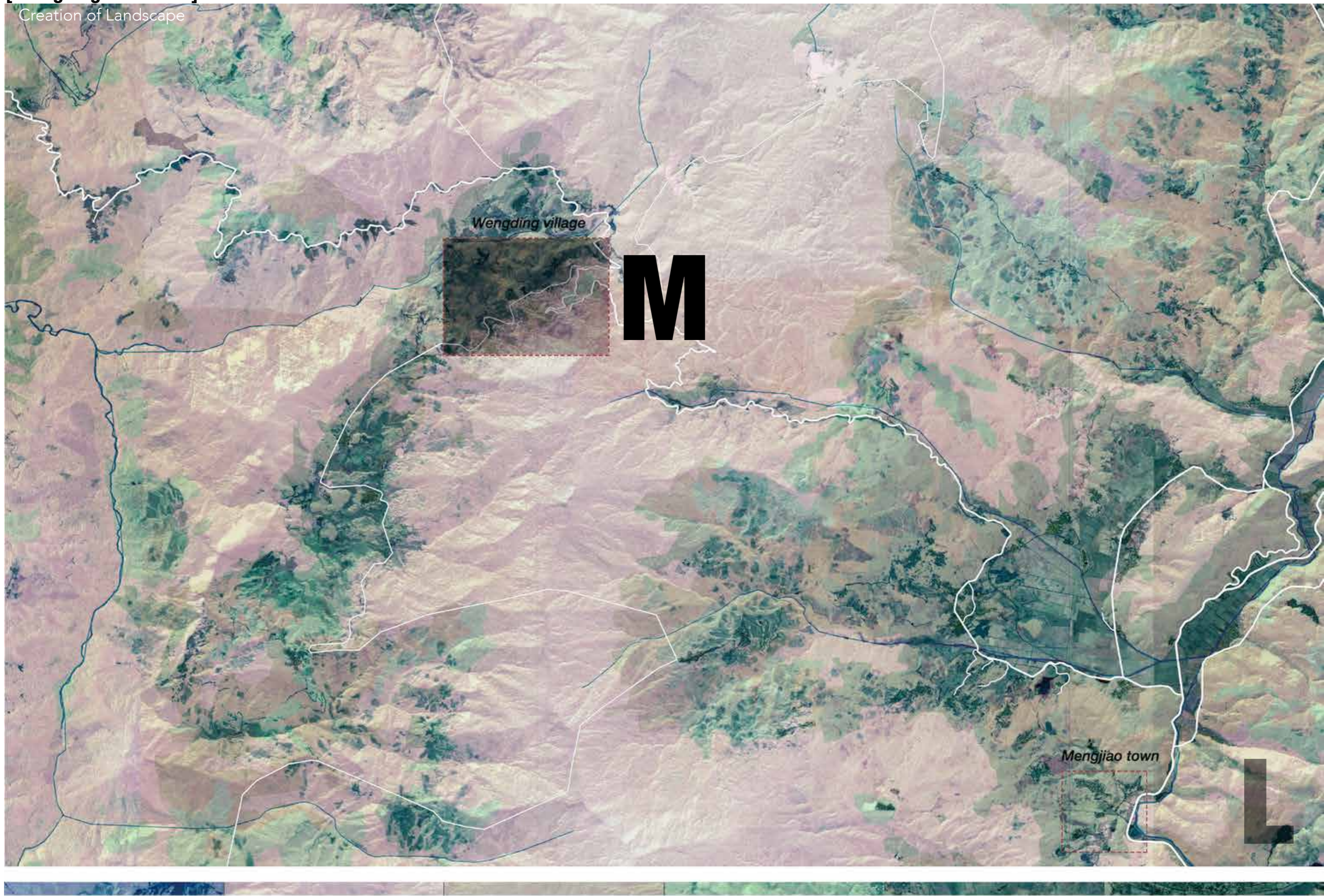**Fig.5** DILLEMA V :
Nature Reserve
Blocking Countryside Linkages

Fig.6 DILLEMA VI :
High-density Urbanization
Cause the Shortage of Food and Land

Map labels:

- Boundary II — Nature Reserve
- COUNTRYSIDE Zone II
- Boundary I — Mountian Range
- Xinya Xiaozhai
- Xinya
- Wengding
- Wengding Xiazhai
- Gongken
- Ecological Corridor
- Administrative Boundary
- Mengka Laozhai
- Mengka Xinzhai
- Manggong XinZhai
- MENGJIAO
- Manggongcun
- Nuozhang
- Bakai
- COUNTRYSIDE Zone I
- Administrative Boundary
- Blanke
- CANGYUAN
- COUNTRYSIDE Zone III
- Boundary II — Nature Reserve
- Boundary I — Mountian Range

Wengding village

M

Mengjiao town

L

Water system   Forest   Shurb   Grass   Farmland   City

[Landscape FRAMEWORKING]

isolation, abstraction, deletion of elements through tangible reading

[LAND AXIS]

Line 1
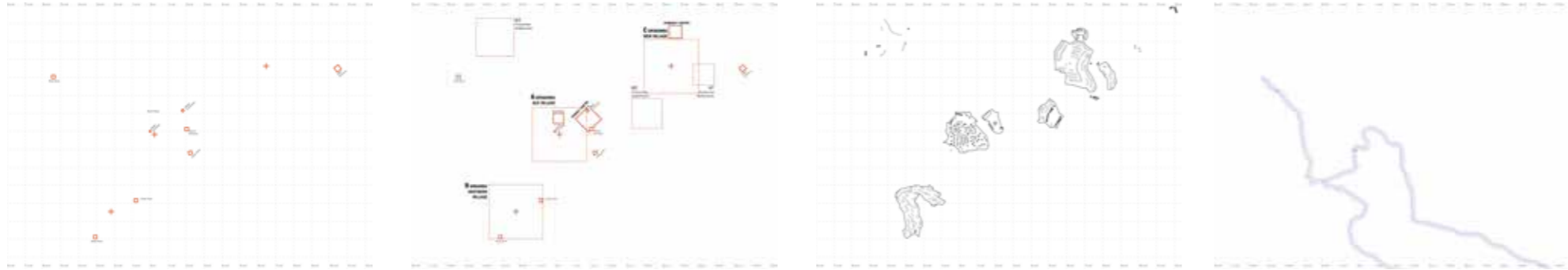
[isolation]

Line 2

[isolation]

Line 3

[abstraction]
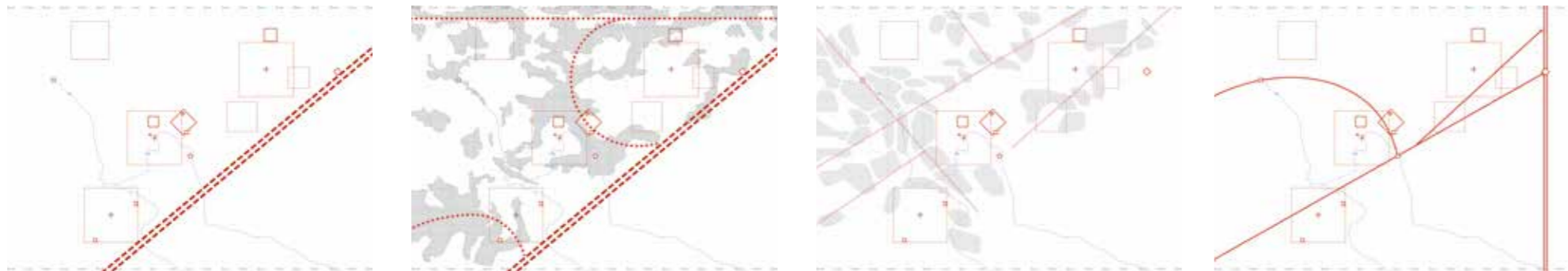
Line 4

[deletion]

Line 5

[deletion]

MOUNTIAN AXIS

GONGHAN MOUNTIAN

FORESTS AXIS

Northern Forest

Scared Forest

Southern Forest

FAEMLAND AXIS

MAJOR ROADS AXIS

X208 X208 G216 G216

X208 X208 G216 G216

Axis Framework

3D Visualization

Satellite Image
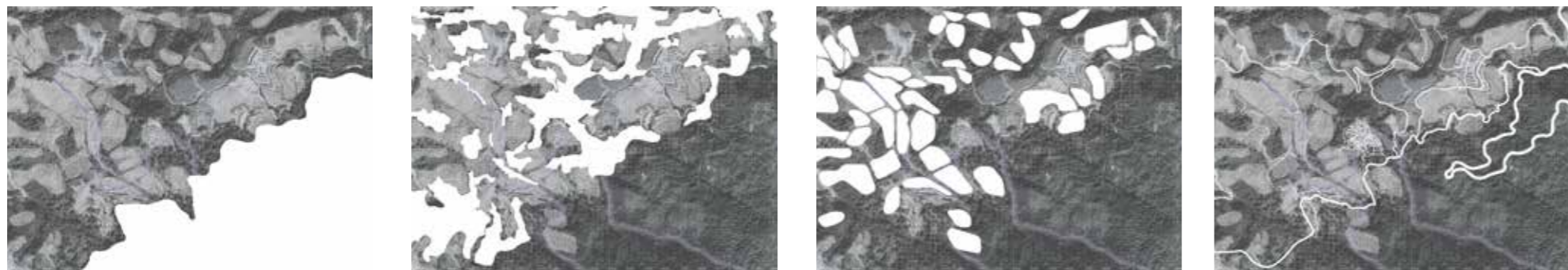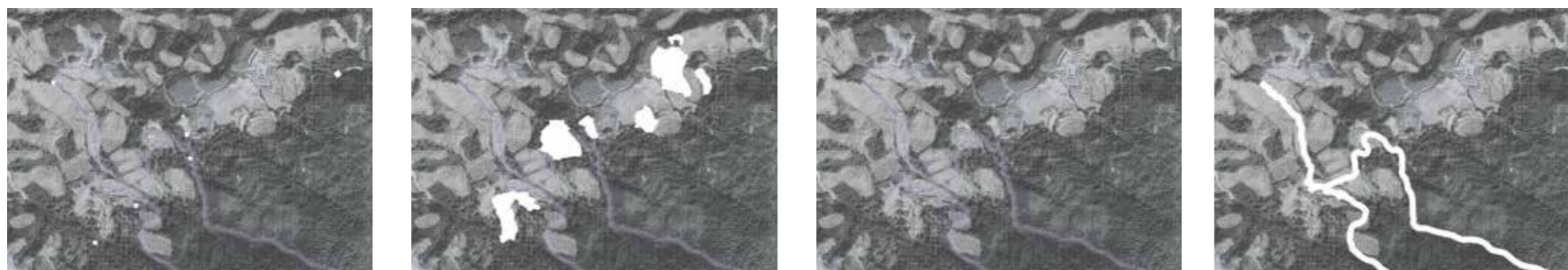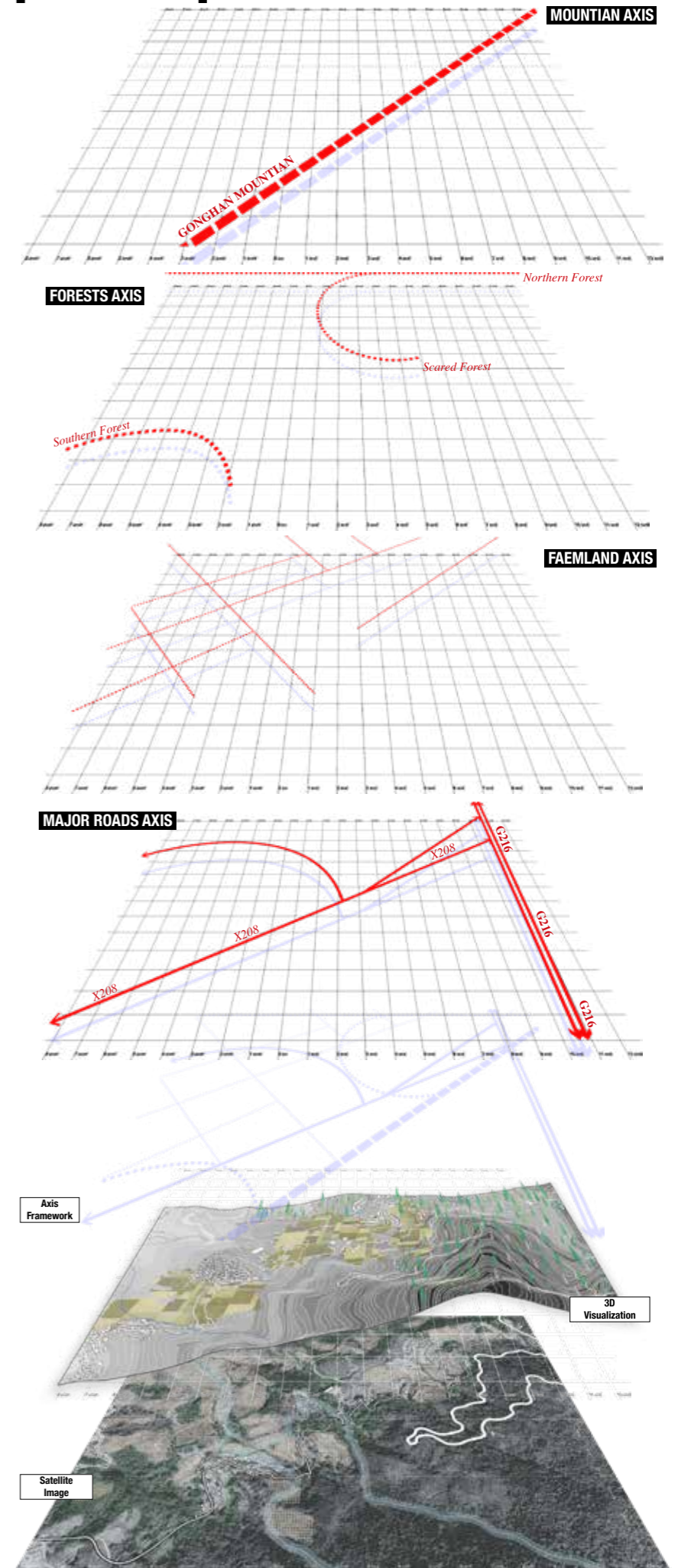
1	2	3	4

1. Publc Space Isolation   2. Settlements Isolation   3. Building Fabric Isolation   4. River Isolation

5	6	7	8

5. Mountain Isolation   6. Forests Isolation   7. Farmland Isolation   8. Roads Isolation

9	10	11	12

9. Mountain Abstraction   10. Forests Abstraction   11. Farmland Abstraction   12. Roads Abstraction

13	14	15	16

13. Publc Space Deletion   14. Settlements Deletion   15. Building Fabric Deletion   16. River Deletion

17	18	19	20

17. Mountain Deletion   18. Forests Deletion   19. Farmland Deletion   20. Roads Deletion

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[Boundaries GENERATING]

elemental intersection leads to the map of re-construction
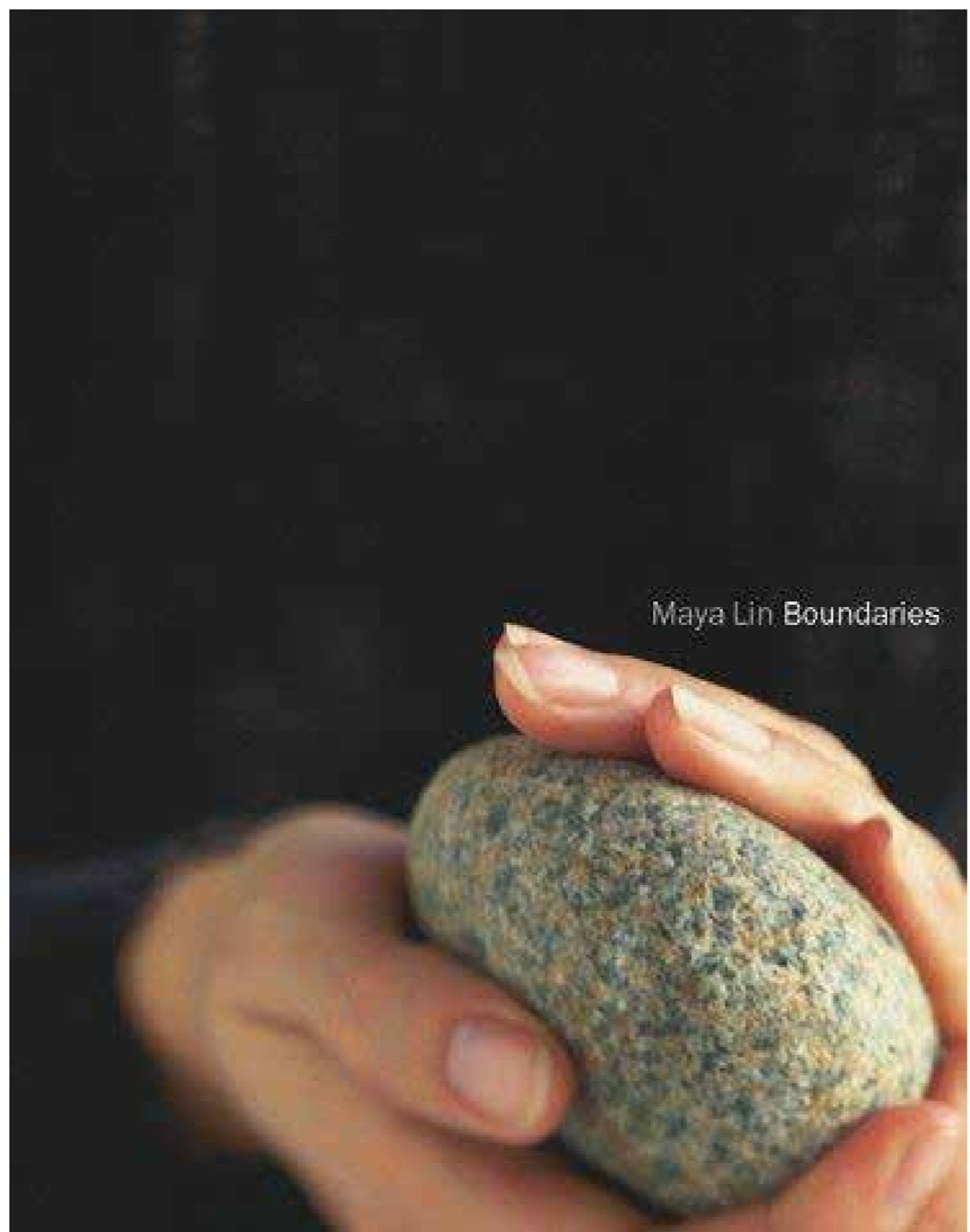
[REFERANCE]

Boundaries

Maya Lin [US]

2000-10-05

publisher:Simon & Schuster (ISBN: 9780684834177)

[INTERSECTION]

$B[1] =$ ···· ∩ ····
    farmland forest

···· **farmland**
···· **forest**
···· **B1_farmland/forest boundaries**

$B[2.1] =$ ∩
    peak peak

$B[2.2] =$ ···· ∩ **river**
    B[2.1] **village**

···· **river**
···· **village**
— **B2.1_peaks boundaries**
— **B2.2_B2.1/village & river boundaries**

$B[3] =$ ···· ∩ **river**
    farmland **irrigation line**

···· **river**
···· **farmland**
···· **irrigation line**
○ **B3_water/farmland intersection**

$B[4.1] =$ — ∩ —
    road road

$B[4.2] =$ — ∩ ····
    road village

— **road**
···· **village**
B4.1_roads intersection
✚ **B4.2_road/village boundaries**

$B[5] =$ ···· ∩ —
    farmland road

— **road**
···· **farmland near road**
···· **farmlad**
···· **village**
— **B5_farmland/road boundaries**

[BOUNDARIES]

TEAM | Dicheng Yang Sun Zhongyi

B[1] Boundaries of Farmland/Forest

Type_1 GreenCorridor

Type_4 ProtectingDitch

B[2.1] Boundaries of peaks

B[2.2] Boundaries of B2.1/Village & rive

B[3] Boundaries of Farmland/Water

Type_2 IrrigationSystem

Type_3 PublicServices

B[4.1] Boundaries of Roads

B[4.2] Boundaries of Roads/Village

B[5] Boundaries of Farmland/Roads

Type_5 PlantationTourism

Overall Boundaries

5 Selected Areas

Base Map

| COUNTRYSIDE DILLEMAS *The Renovation and Preservation of Rural Heritage* | *year. 2022* | SUSTAINABLE ARCHITECTURE AND LANDSCAPE DESIGN

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GONGLAO MOUNTAIN

Type_5 PlantationTourism
V

COMUNITY CENTER

C WENGDING
NEW VILLAGE

#3
Productive Settlements

XINYA RIVER

River Ends

#2
Productive Settlements

X208

#1
Productive Settlements

A WENGDING
OLD VILLAGE

Type_1 GreenCorridor
I

North Plaza

TOURIST CENTER

Tourist Entrance

Type_4 ProtectingDitch
VI

Public Plaza

G216

Type_2 IrrigationSystem
II

Type_3 PublicServices
III

X208

XINYA RIVER

Tourist Entrance

B WNGDING
SOUTHERN
VILLAGE

Enter Point

GONGHAN MOUNTAIN

G216

XINYA RIVER

Enter Point

GONGHAN MOUNTAIN

XINYA RIVER

[Boundaries REINVENTING]

isolation, abstraction, deletion of elements through tangible reading

Type_1
GreenCorridor

[MODEL]

Type_1
GreenCorridor

[BOUNDARY
REINVENT
CONCEPT]

Type_1
GreenCorridor
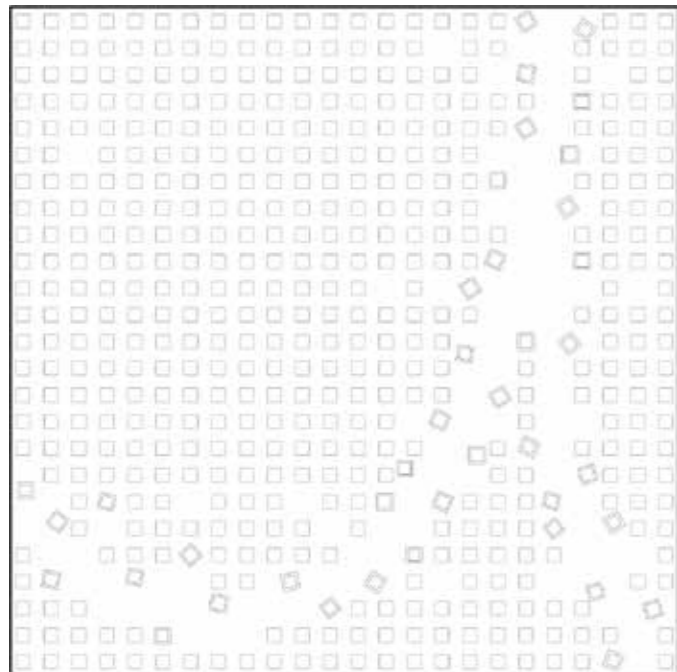
[GEOMETRY]

Type_1
GreenCorridor
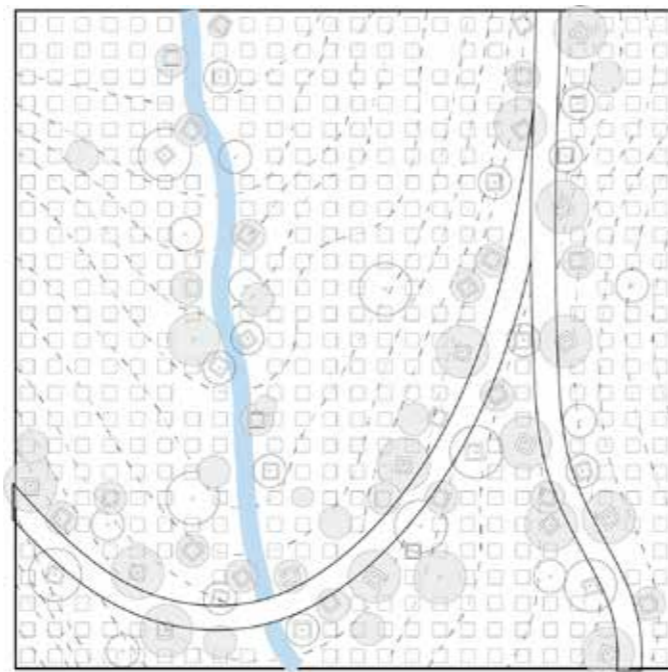
[PLAN]

Type_1
GreenCorridor
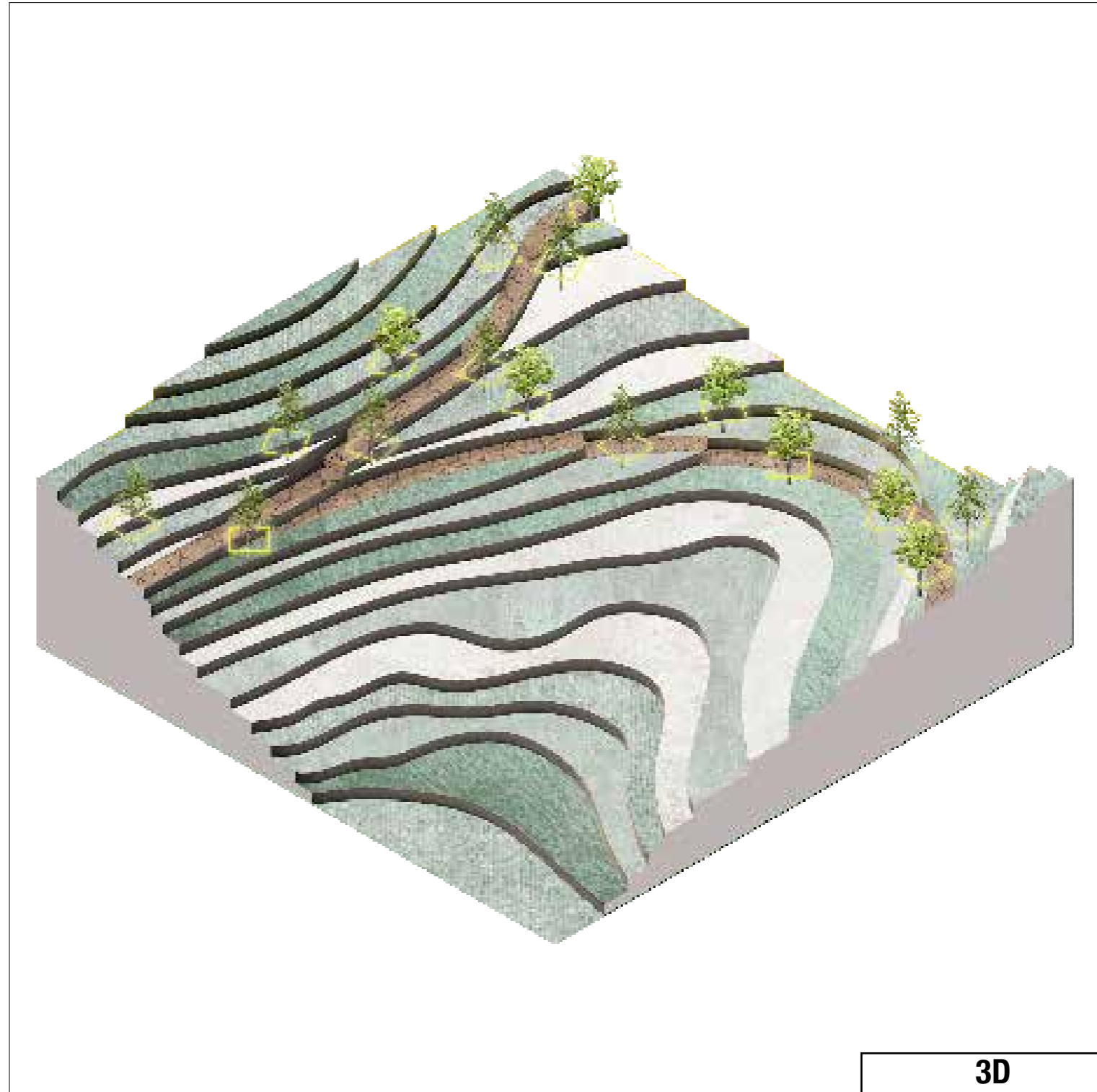
3D
Visualization

[Boundaries REINVENTING]

isolation, abstraction, deletion of elements through tangible reading

Type_2
IrrigationSystem

[MODEL]

Type_2
IrrigationSystem

[BOUNDARY
REINVENT
CONCEPT]
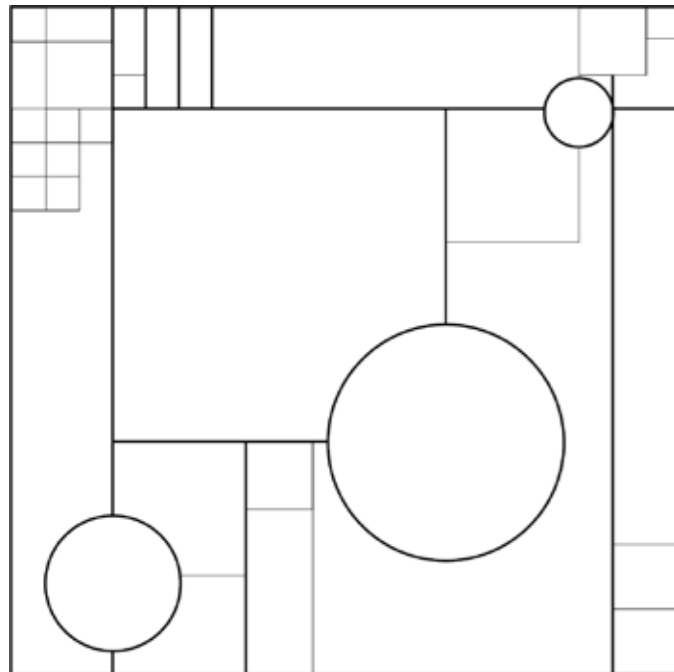
Type_2
IrrigationSystem

[GEOMETRY]
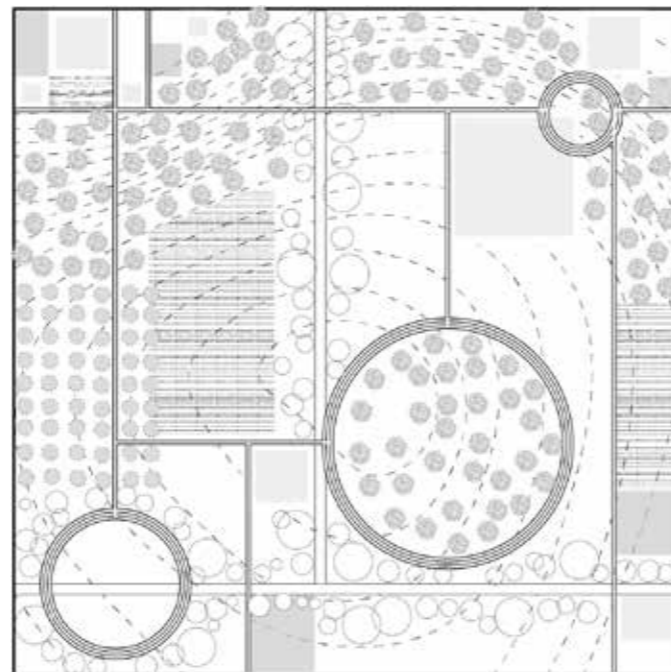
[PLAN]

**3D
Visualization**

Type_2
IrrigationSystem
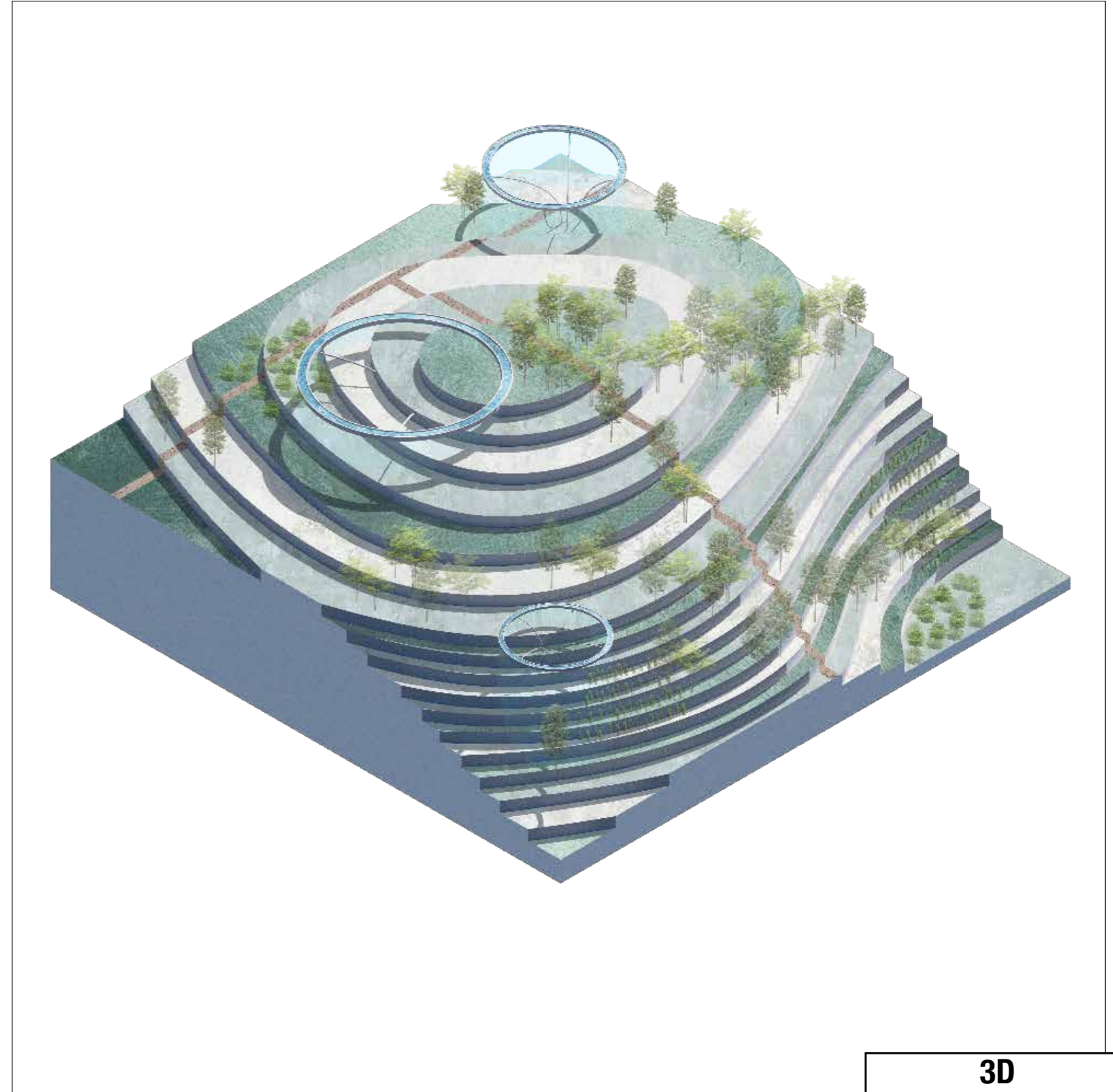
Type_2
IrrigationSystem

[Boundaries REINVENTING]
isolation, abstraction, deletion of elements through tangible reading

Type_3
PublicServices

[BOUNDARY
REINVENT
CONCEPT]

Type_3
PublicServices

[MODEL]

Type_3
PublicServices
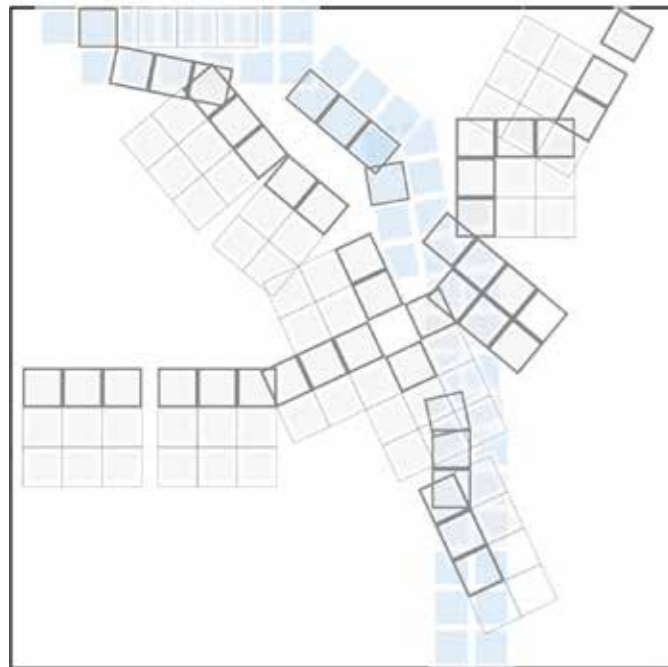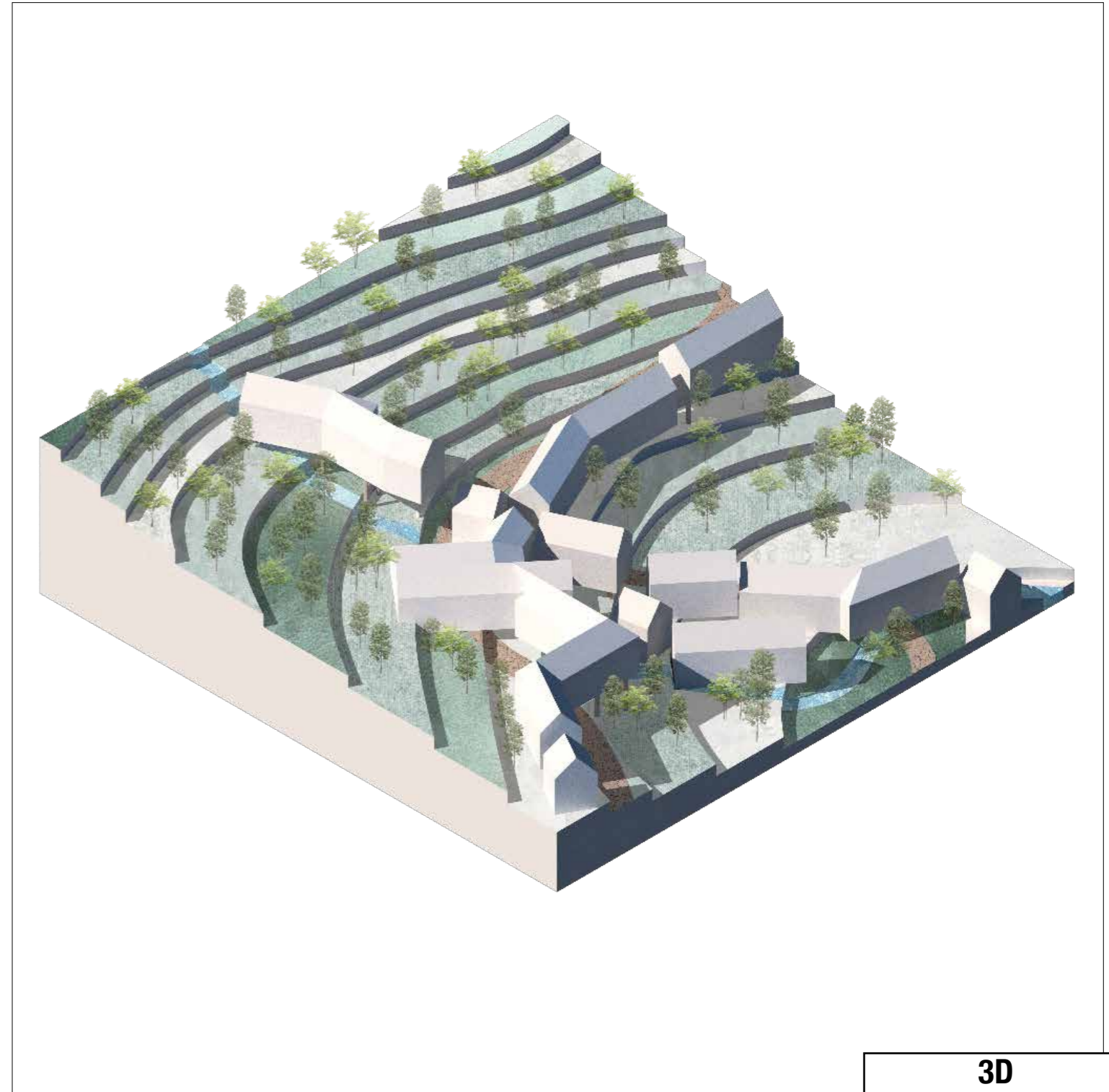
[GEOMETRY]

Type_3
PublicServices

[PLAN]

Type_3
PublicServices

**3D
Visualization**

[Boundaries REINVENTING]

isolation, abstraction, deletion of elements through tangible reading

Type_4
ProtectingDitch
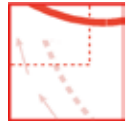
[MODEL]

Type_4
ProtectingDitch

[BOUNDARY
REINVENT
CONCEPT]

Type_4
ProtectingDitch
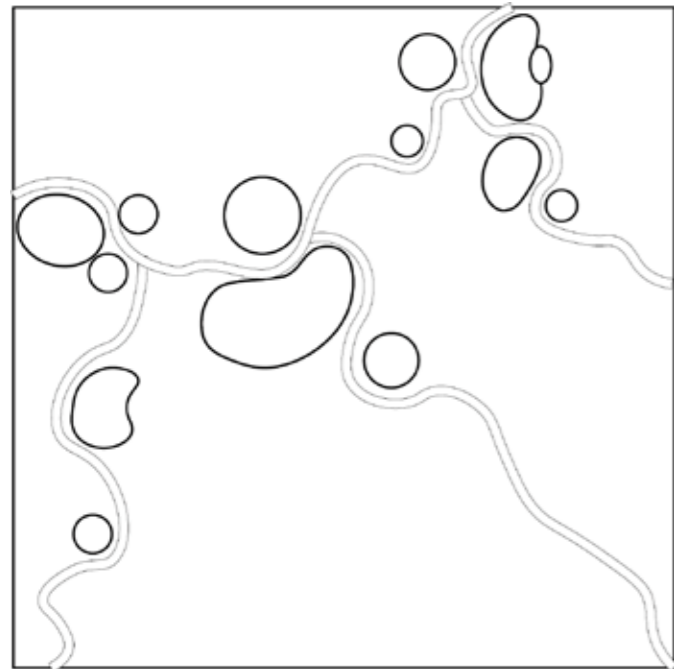
[GEOMETRY]

Type_4
ProtectingDitch
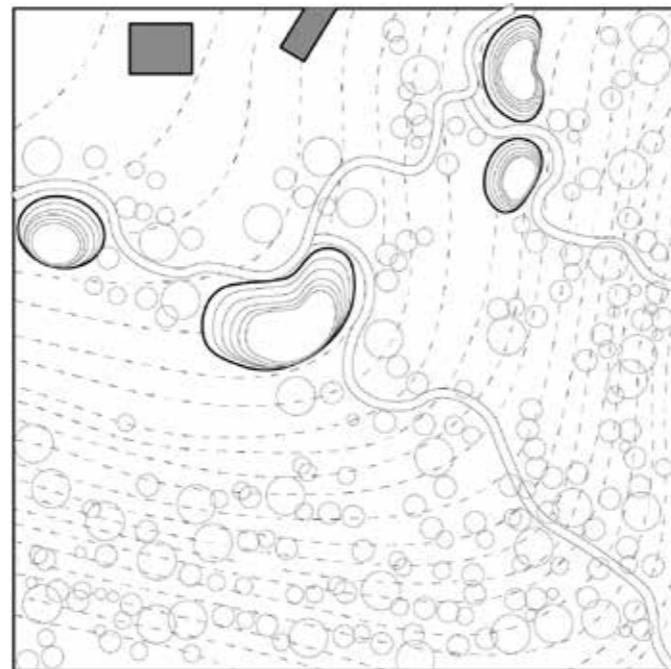
[PLAN]

Type_4
ProtectingDitch

3D
Visualization

[Boundaries REINVENTING]
isolation, abstraction, deletion of elements through tangible reading

Type_5
PlantationTourism

[MODEL]

Type_5
PlantationTourism

[BOUNDARY
REINVENT
CONCEPT]

Type_5
PlantationTourism

[GEOMETRY]

Type_5
PlantationTourism
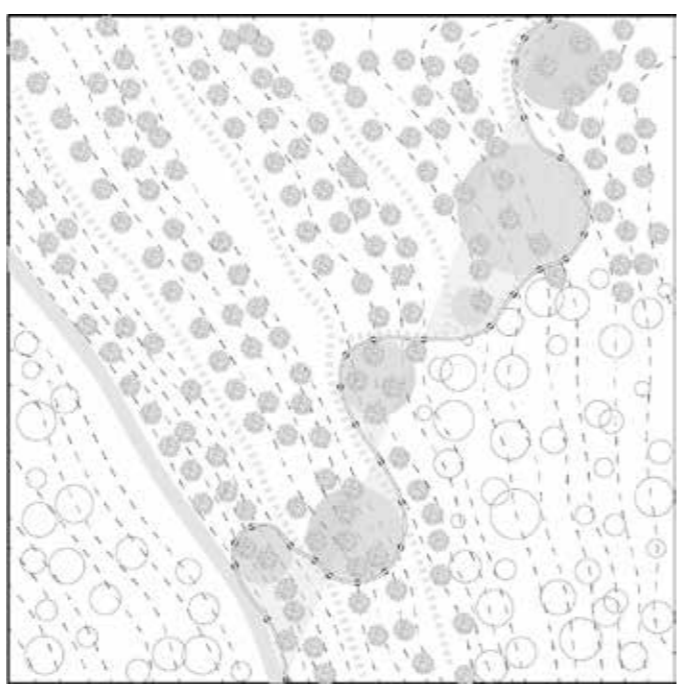
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Type_5
PlantationTourism
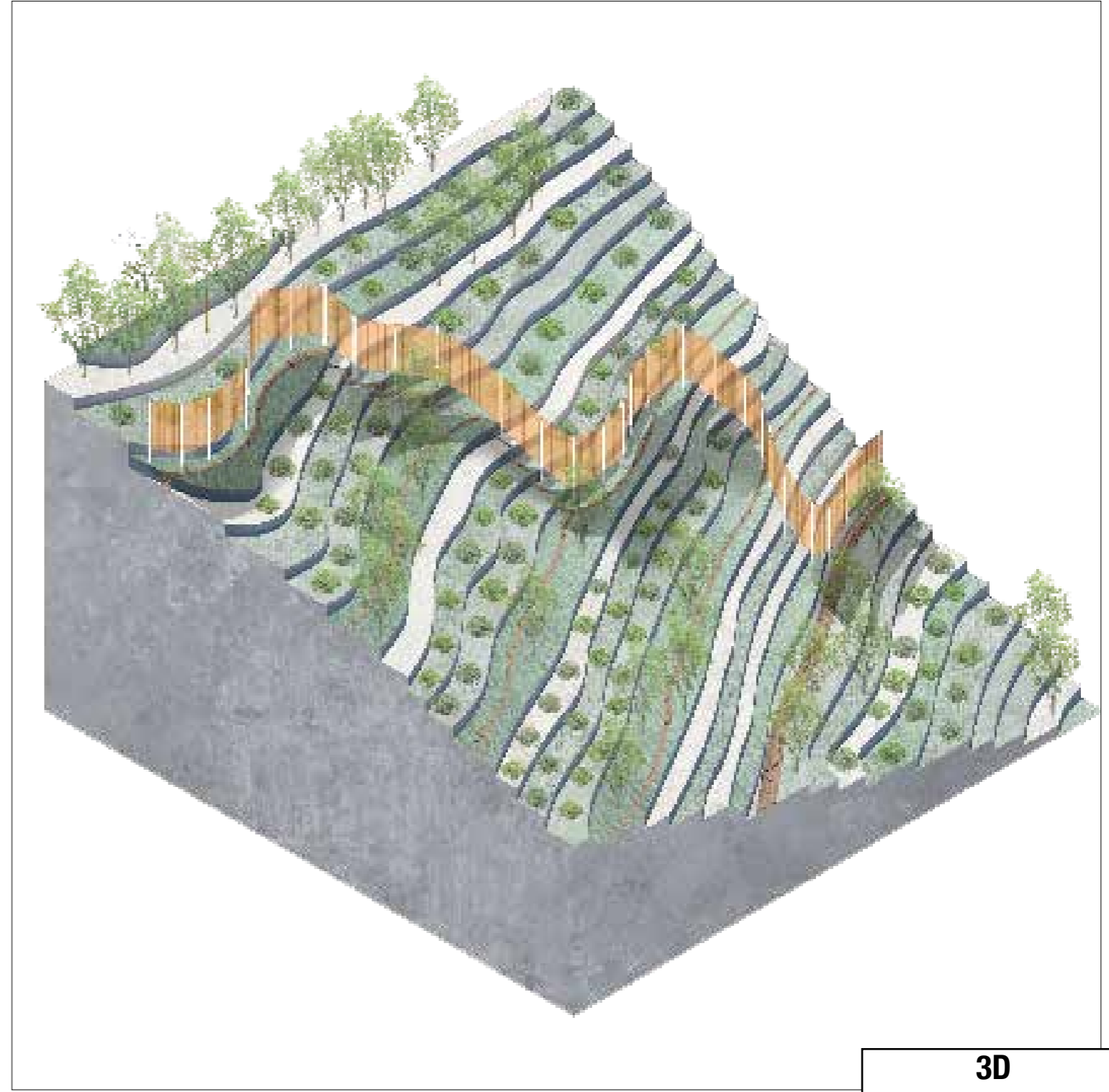
3D
Visualization

METHODOLOGY

MOUNTIAN AXIS

GONGSHAN MOUNTIAN

FORESTS AXIS

Northern Forest

Scared Forest

Southern Forest

FAEMLAND AXIS

MAJOR ROADS AXIS

Axis
Framework

3D
Visualization

Satellite
Image
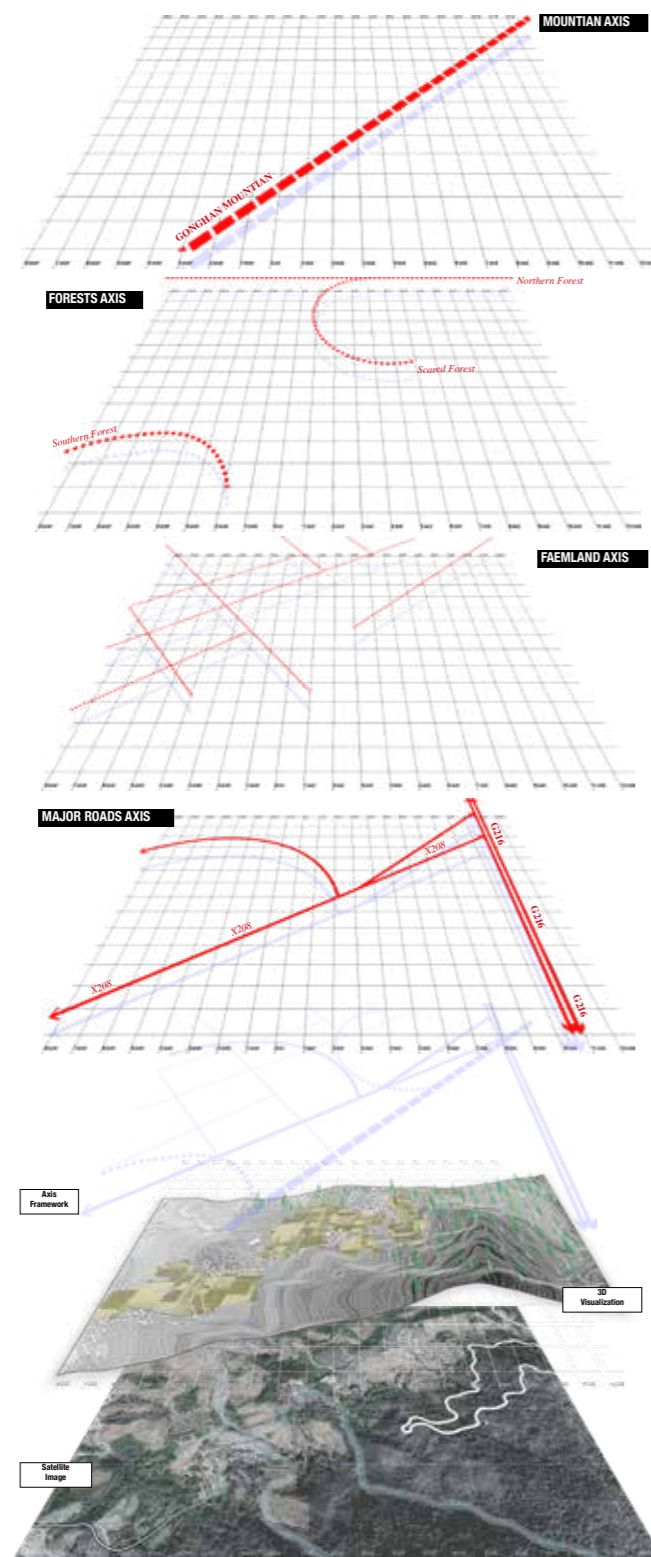
**[Landscape
FRAMEWORKING]**

Step_i
AXIS

B1 Boundaries of
Farmland/Forest

Type_1
GreenCorridor

Type_4
ProtectingDitch

B2.1 Boundaries
of peaks

B2.2 Boundaries of
B2.1/Village & rive

B3 Boundaries of
Farmland/Water

Type_2
IrrigationSystem

Type_3
PublicServices

B4.1 Boundaries
of Roads

B4.2 Boundaries of
Roads/Village

Type_5
PlantationTourism

B5 Boundaries of
Farmland/Roads

Overall
Boundaries

5 Selected
Areas

Base
Map

**[Boundaries
GENERATING]**

Step_ii
LOCATION
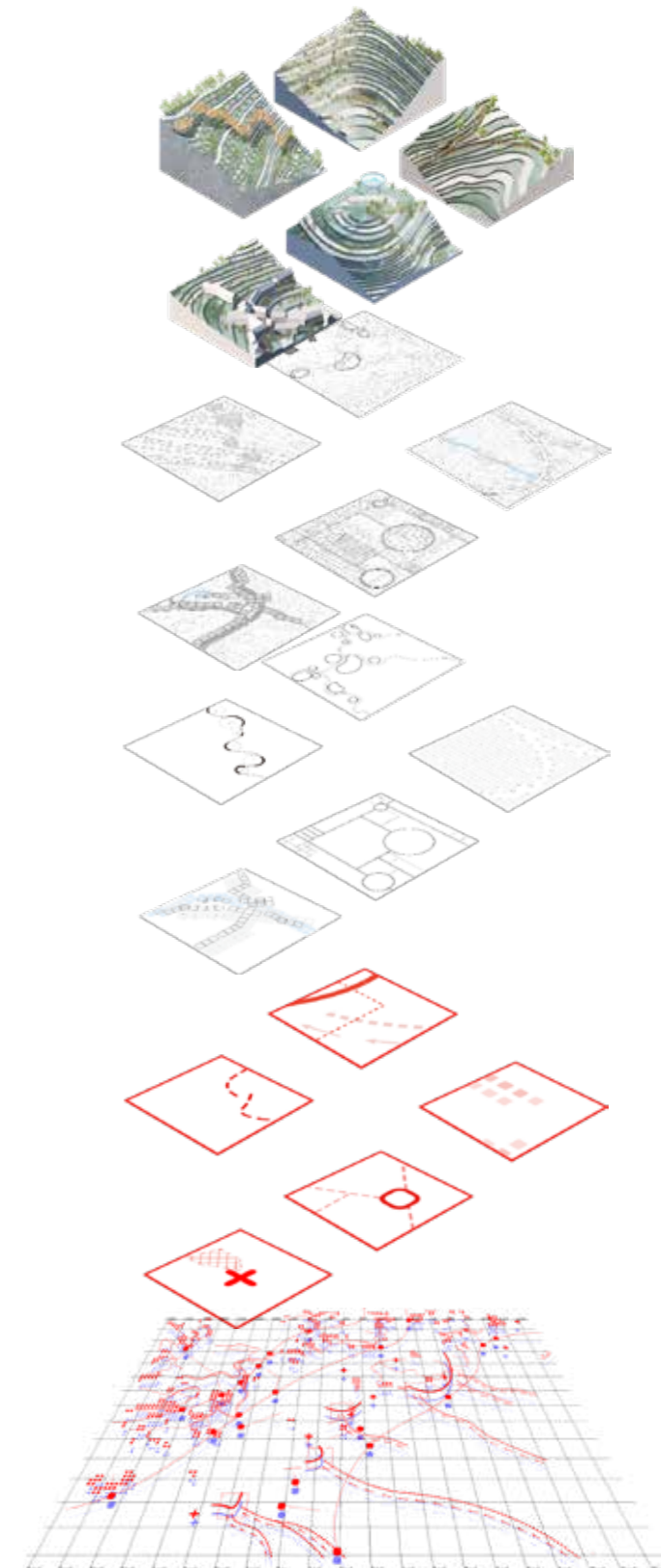
**[Boundaries
REINVENTING]**

Step_iii
INTERVENTION

METHODOLOGY
[Plan CONSTRUCTING]

Type_1
GreenCorridor

Type_3
PublicServices
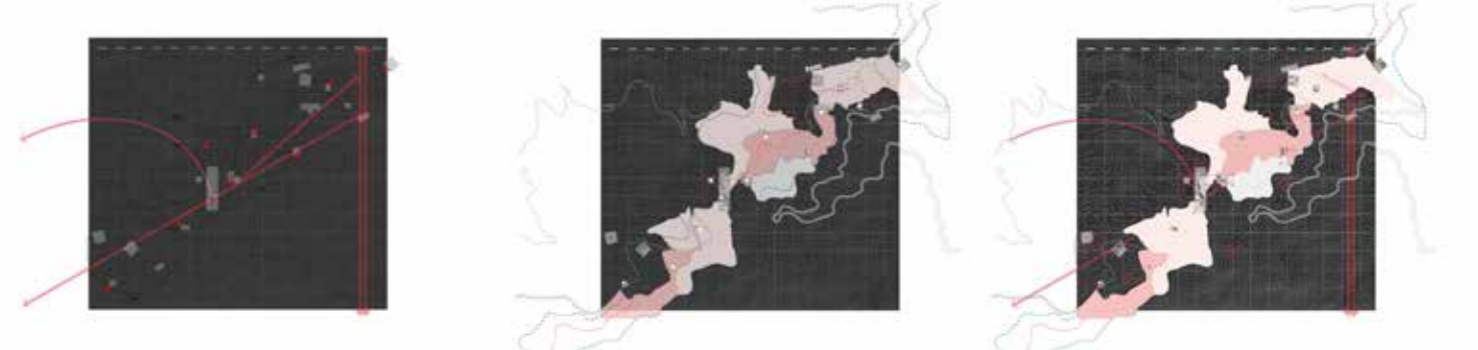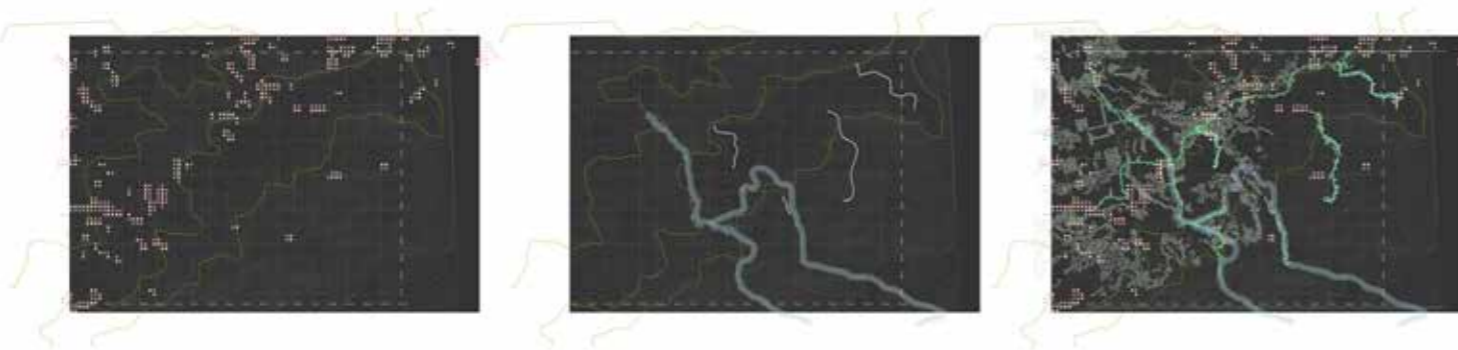
Type_2
IrrigationSystem

Type_4
ProtectingDitch
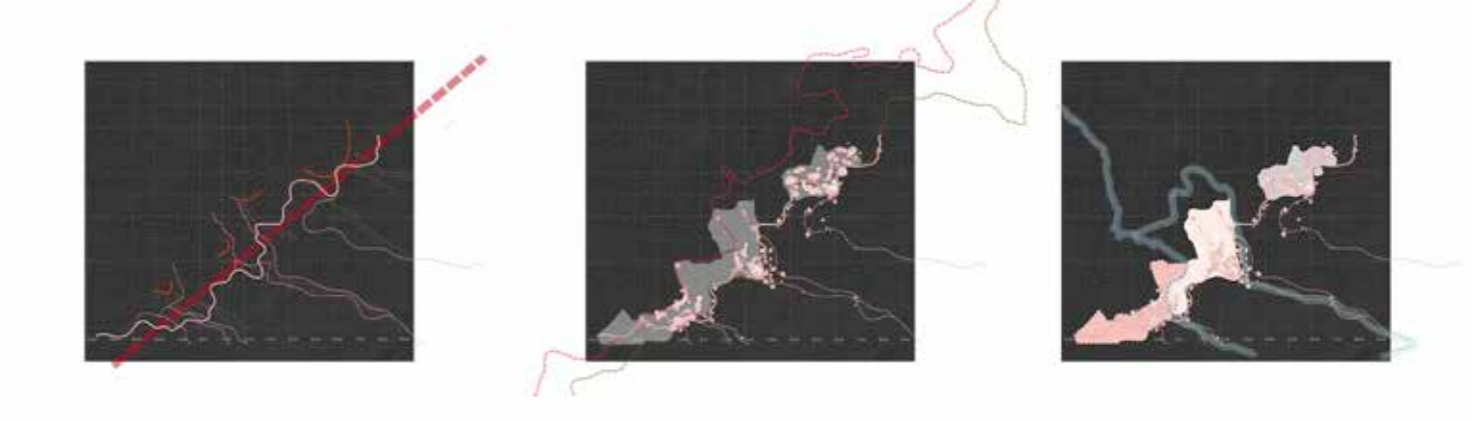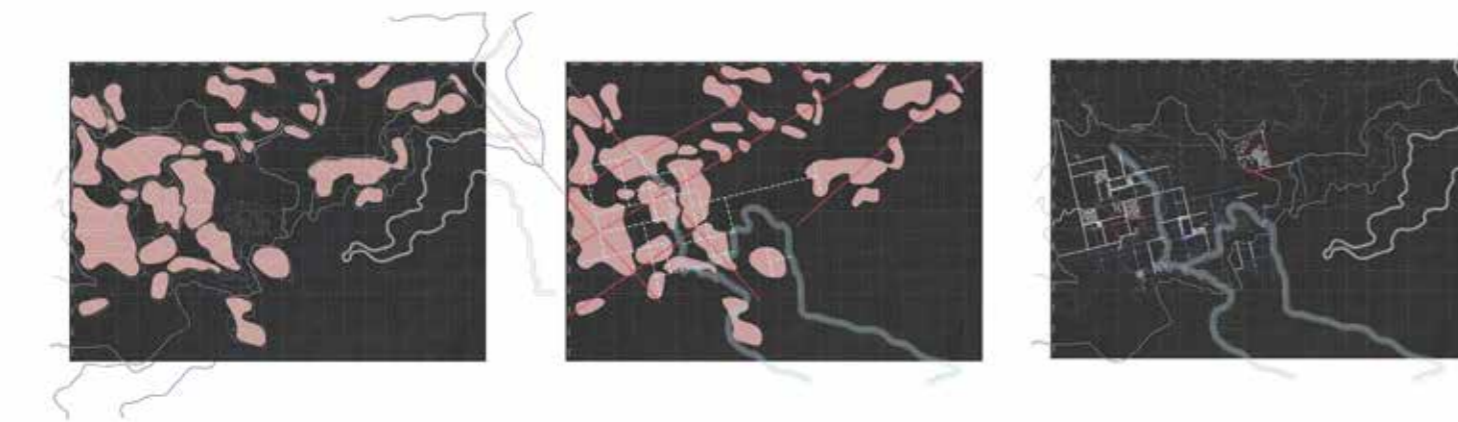
[1]
[Landscape FRAMEWORKING]

Connecting

[2]
[contour line COLLECTING]

Specify Areas

[3]
[Boundaries GENERATING]

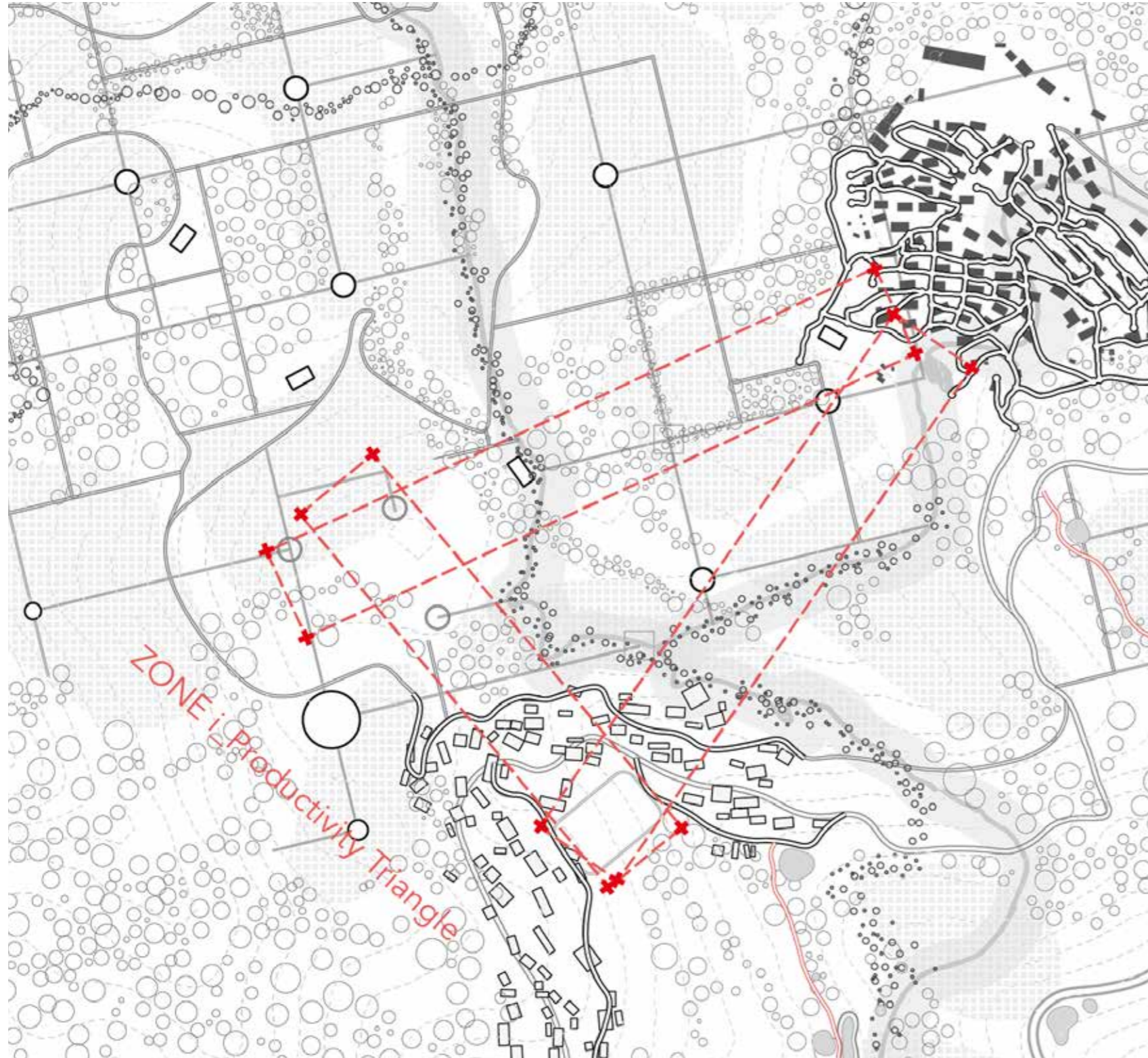*Refine Interventions*

LANDSCAPE (LARGE SCALE) PLAN

[1: 5000]
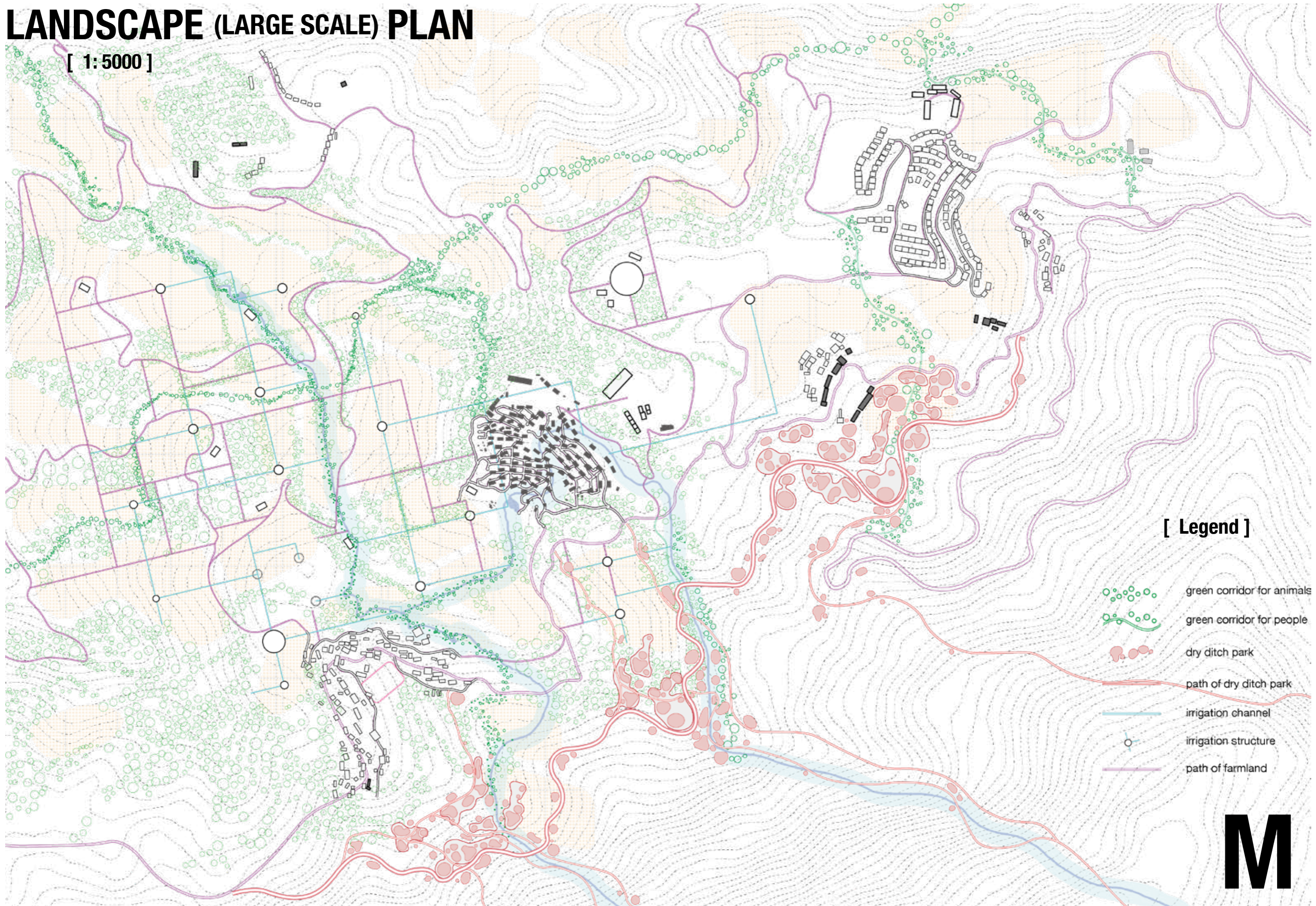
[Legend]

green corridor for animals

green corridor for people

dry ditch park

path of dry ditch park

irrigation channel

irrigation structure

path of farmland

M

CONNECTIONS

[ZONE I]
ZONE i_Productivity Triangle

ZONE i_Productivity Triangle

[SECTIONS]

S1_SECTION-1
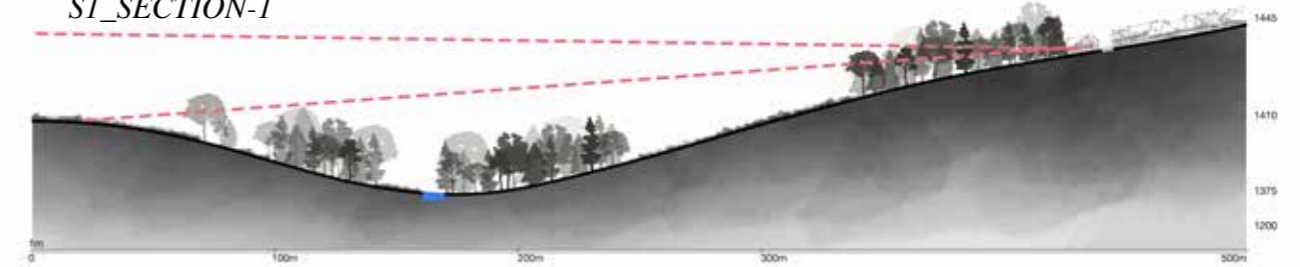
[SECTIONS]

S2_SECTION-2
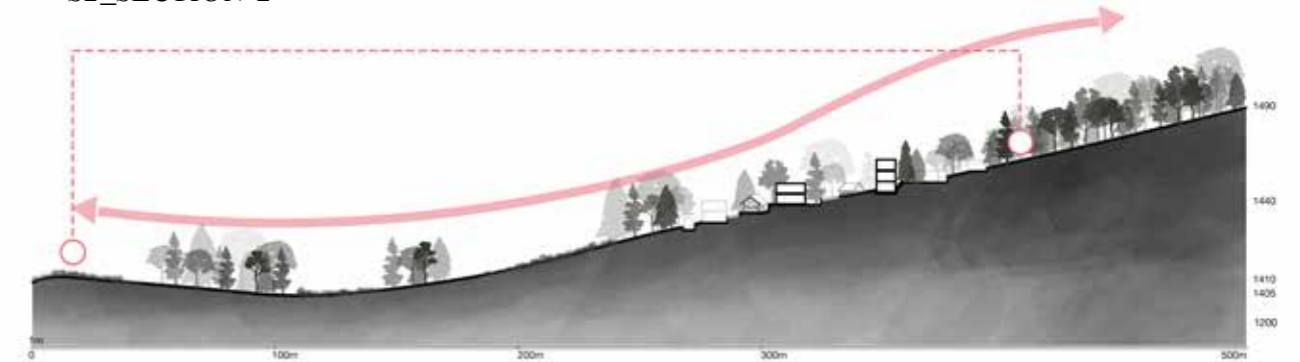
CONNECTIONS

[ZONE II]
ZONE ii_Village Living Room
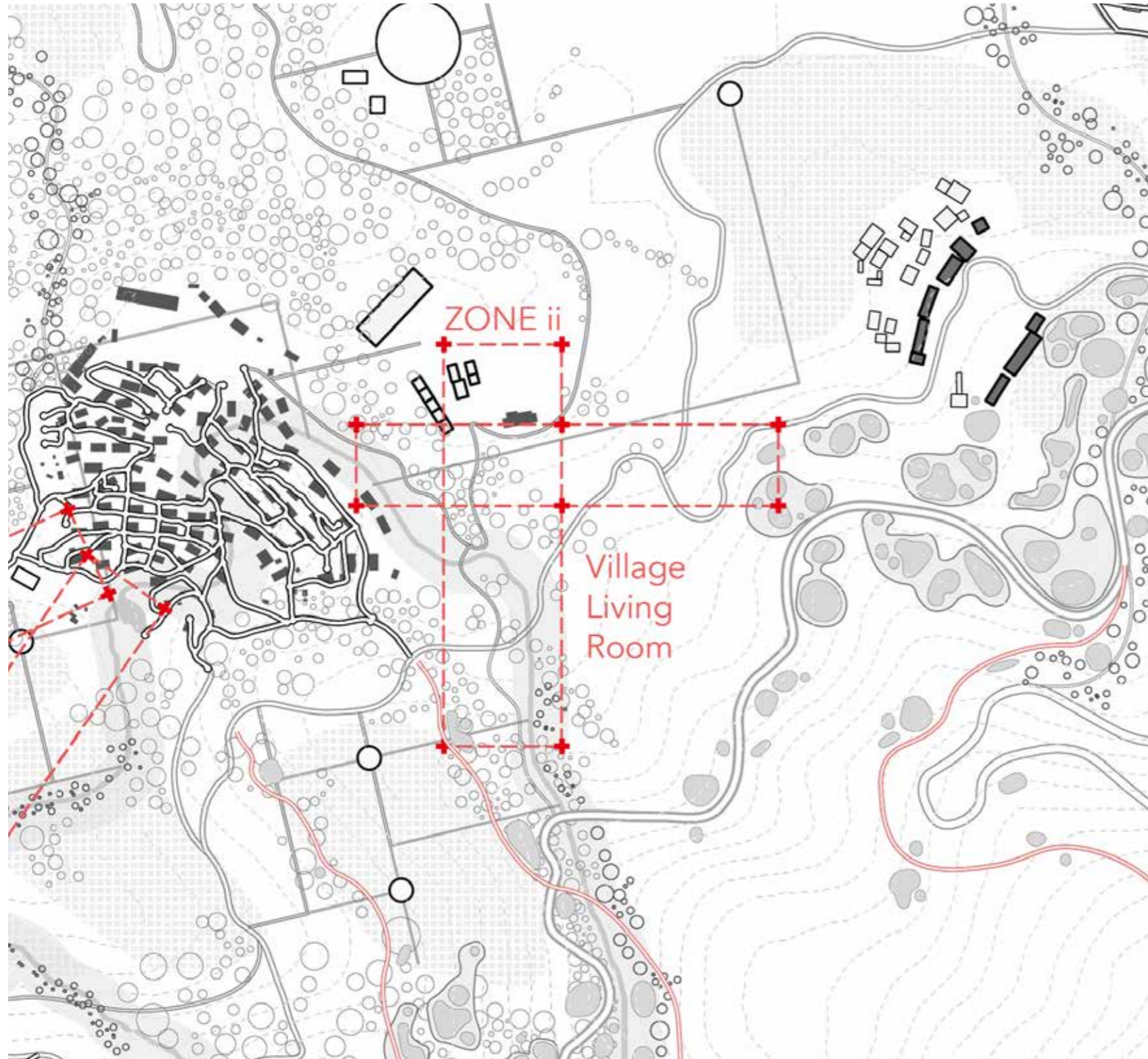
ZONE ii

Village
Living
Room

[SECTIONS]

S3_SECTION-3
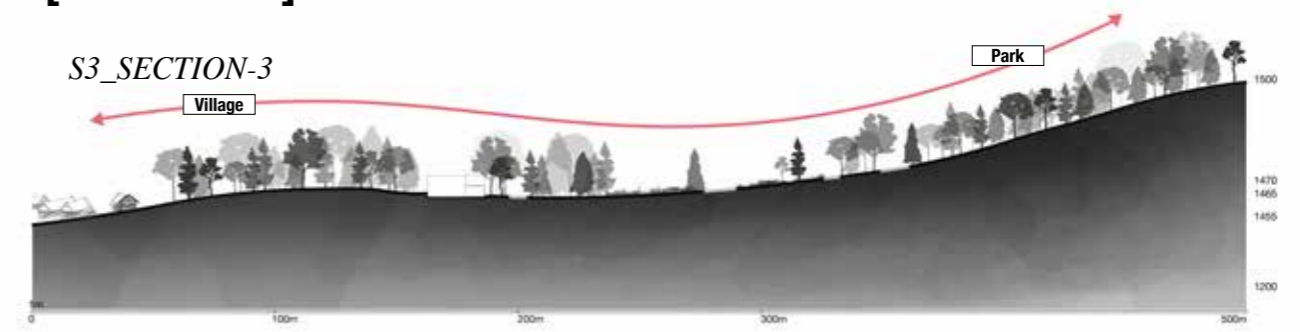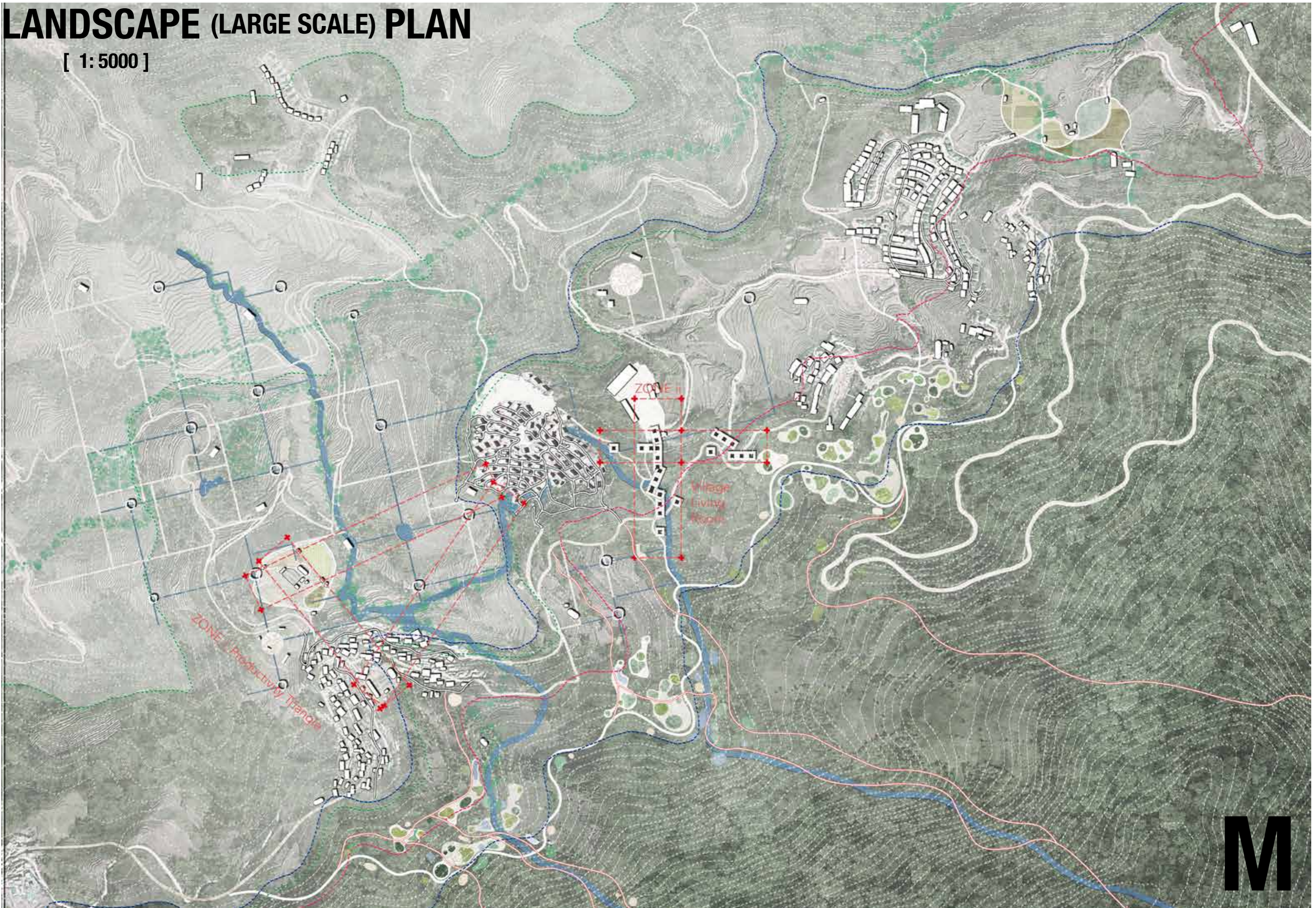
Park

Village

1500
1470
1465
1455
1200

0   100m   200m   300m   500m

[SECTIONS]

S4_SECTION-4

Tourism Center

Village

Road

1480
1460
1450
1200

0   100m   200m   300m   500m

LANDSCAPE (LARGE SCALE) PLAN

[1: 5000]

ZONE II

Village Living Room

ZONE I Productivity Triangle

M

Reconnection:
Regional Architecture
as a Bridge

S

Wengding new village

Wengding v

Wengding southern village

M

Water system	Forest	Shurb	Grass	Farmland	City

Re-Connecting

[Mobility Map]
Centrality of Various Transportations

LOGISTICS CENTER

MOUNTIAN PLANTATION

FARM HOUSE

FIREWATCH

BUS STOP

TRASPORTATION CENTER

CAR PARKING

BUS STOP

ECO-TOURISM PLANTATION

FIREWATCH

VIEWPOINT

BUS STOP

CAMPING SITE

POCKET PARK

BUS STOP

VIEWPOINT

NORTH PLAZA

BUS STOP

VILLAGE CENTRALITY

TOURIST CENTER

LABOUR MARKET

IRRIGATION

WATER POND

[Zone ii]

WATER MONITOR

BUS STOP

CAMPING SITE

AGRICULTURE SERVICE CENTER

FARMER STAMP

WATER MONITOR

FARMER MARKET

IRRIGATION

NATURE RESERVE

FARM HOUSE

BUS STOP

WATER POND

FIREWATCH

Legend

Elements		Lines	
farmland		regional road	
Forest		secondary road	
		rural path	
		river	

2 CHALLENGES

[1]
[Hillside Architecture]

The project needs to cope with the height difference of the hillside, while fitting the needs of pedestrians, vehicles and boats on the river

[2]
[Regional Architecture]

Project need to be integrated into the local culture and natural environment, and constructed with materials and techniques adapted from ethnic minorities group or the region.
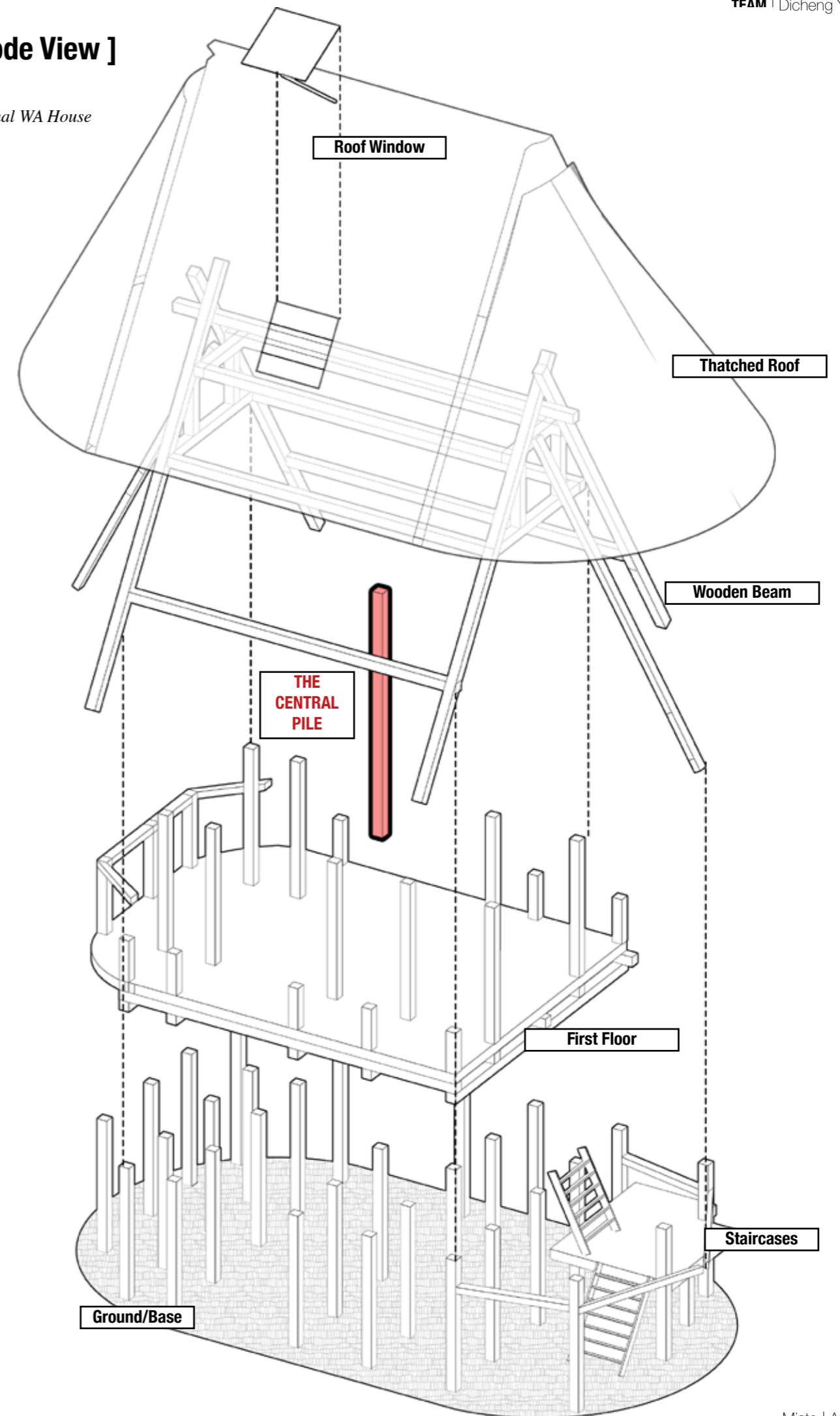
ARCHITECTURAL RESEARCH

[REFERENCE]
The Heart of the House： The Central Pile

[Explode View]

Traditional WA House

Roof Window

Thatched Roof

Wooden Beam

THE CENTRAL PILE

First Floor

Staircases

Ground/Base
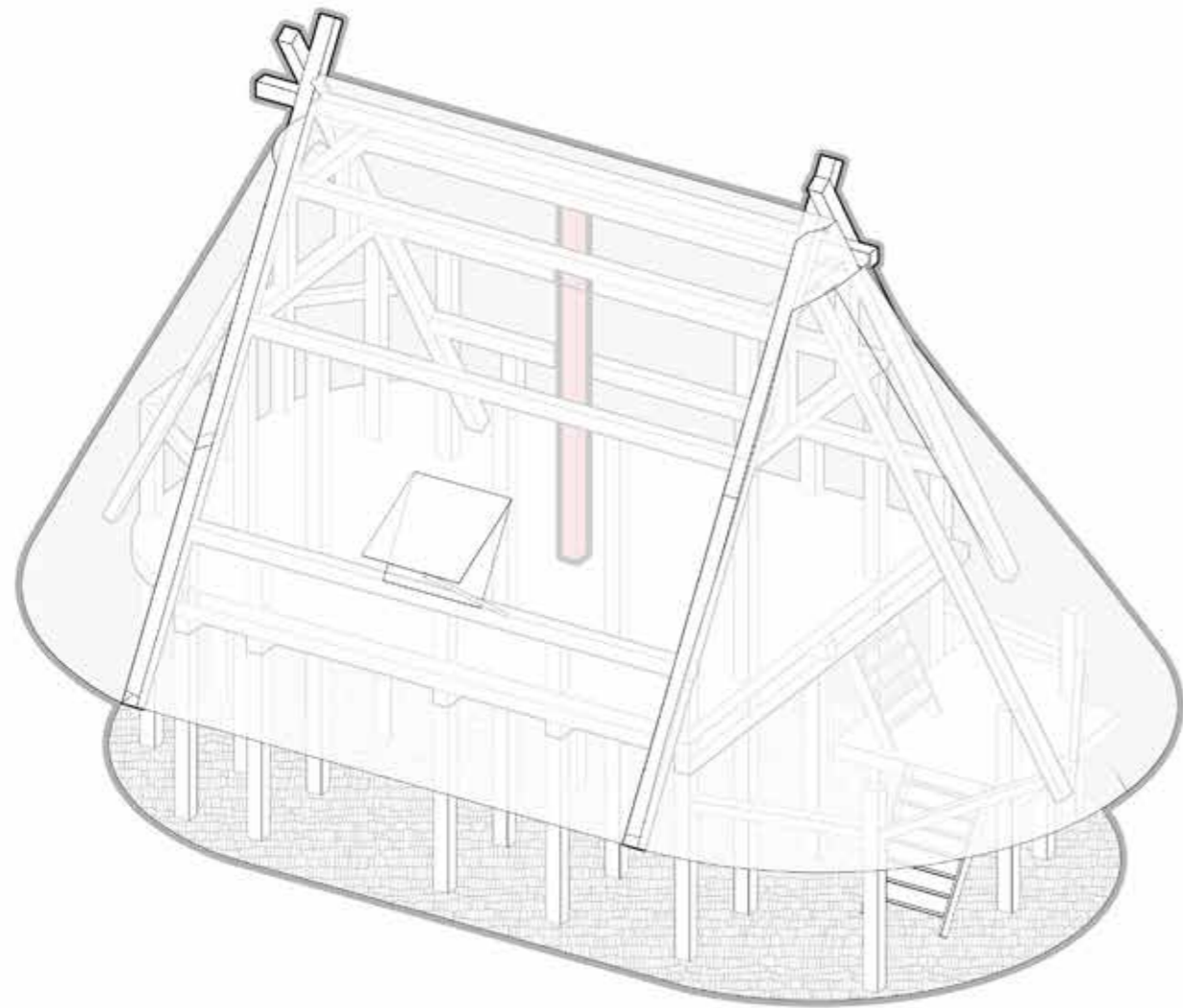
[Illustration]

Traditional WA House

REGIONAL SOLUTIONS

[Pile Room]
Supporting Structure As Living Unit
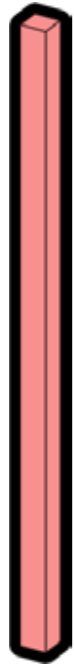
[Pile]

The Central Pile
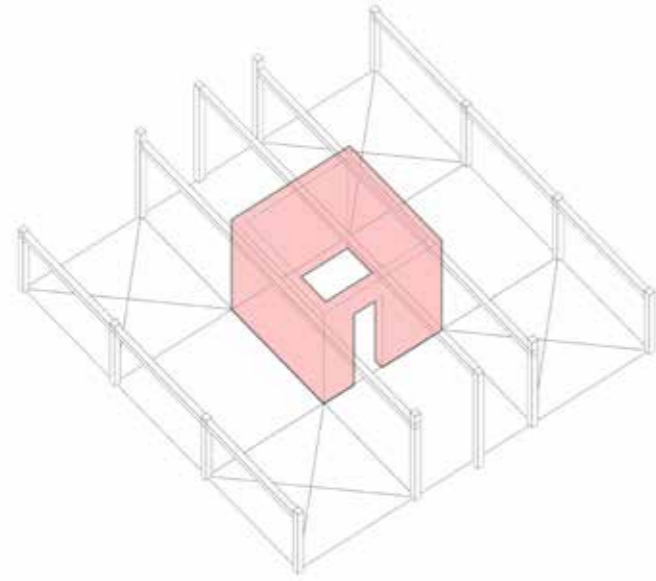*Wengding*
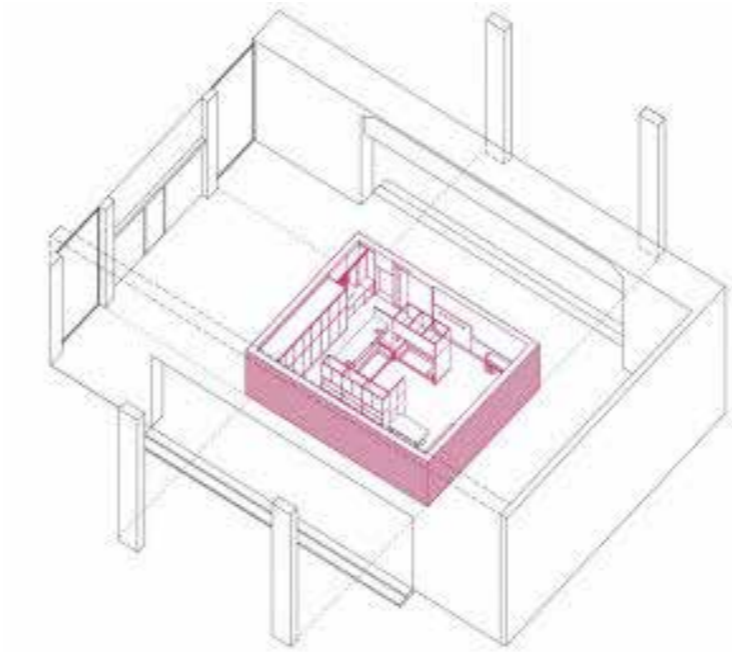
[Room]

Casa Lana
Milano
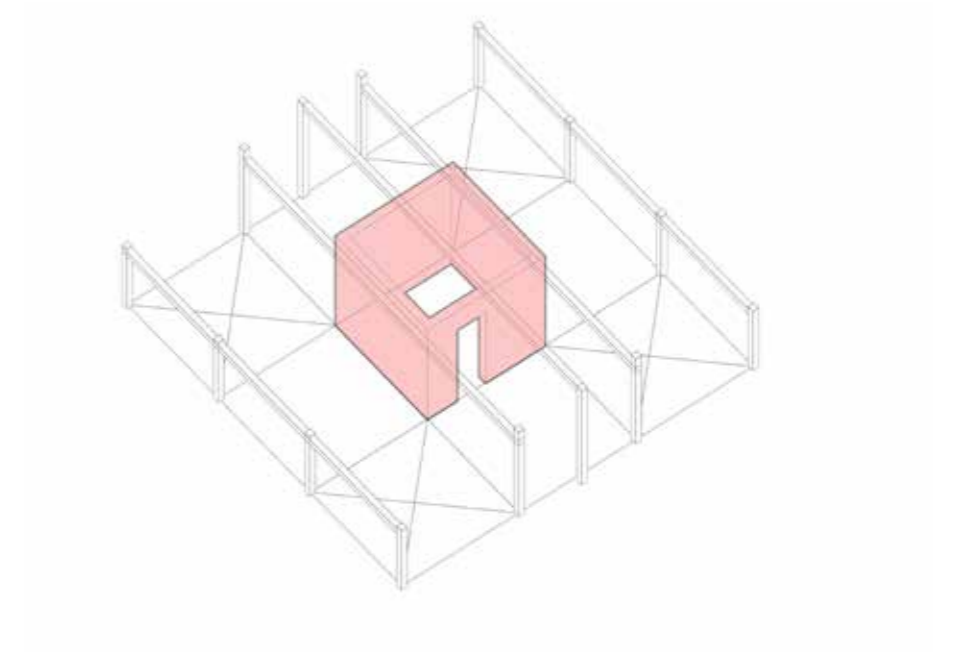
[Pile Room]

The New Idenity

HILLSIDE SOLUTIONS

[Hillside Module]
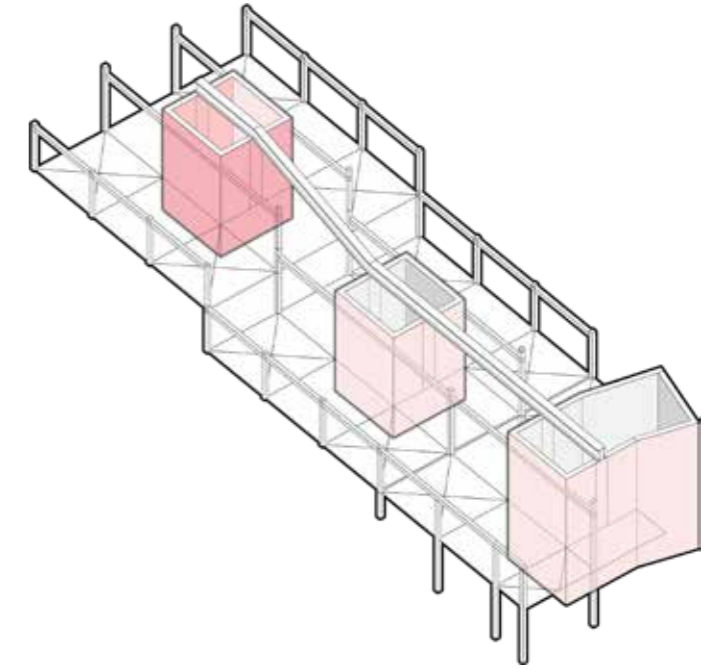Transformation: From Residential to Public

[Unit-House]

House
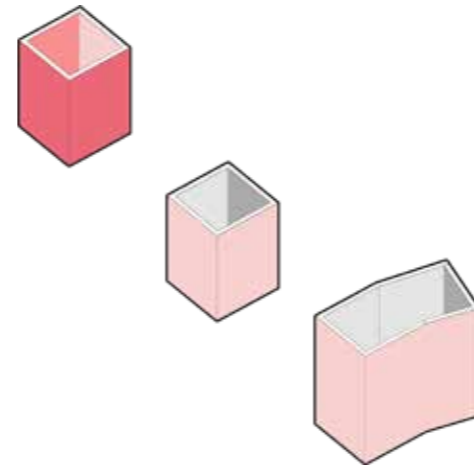
[Piles]

Structure

[Public Building]

The New Idenity

[Wengding: A S MAP]
Reconnection: Regional Architecture as a Bridge

Roof ----------

Load-bearing column ----------

Structure ----------

Environment ----------
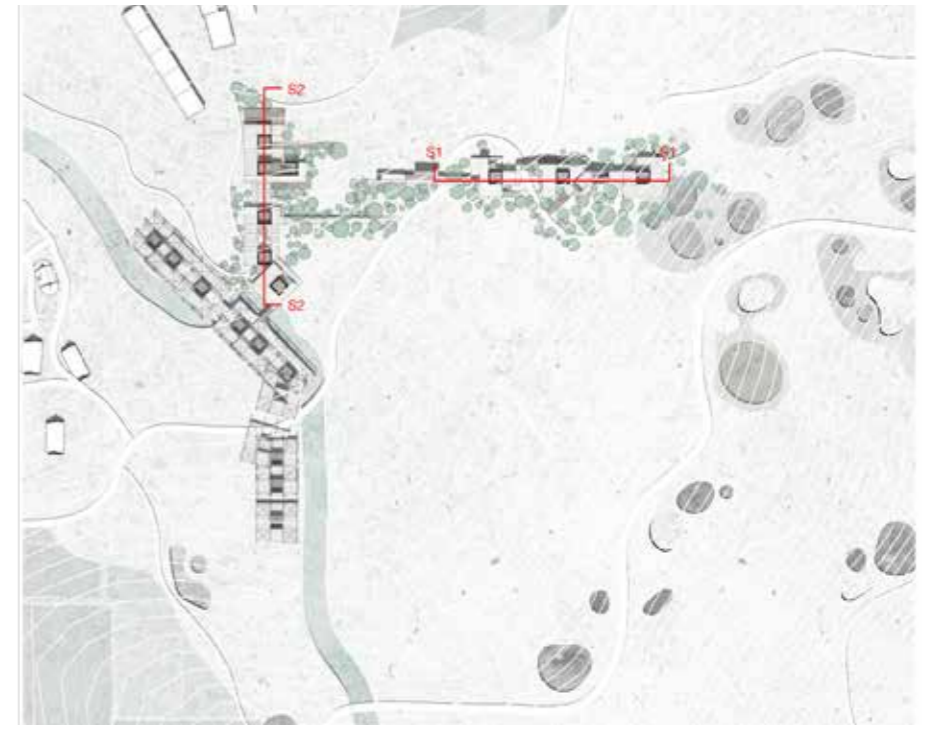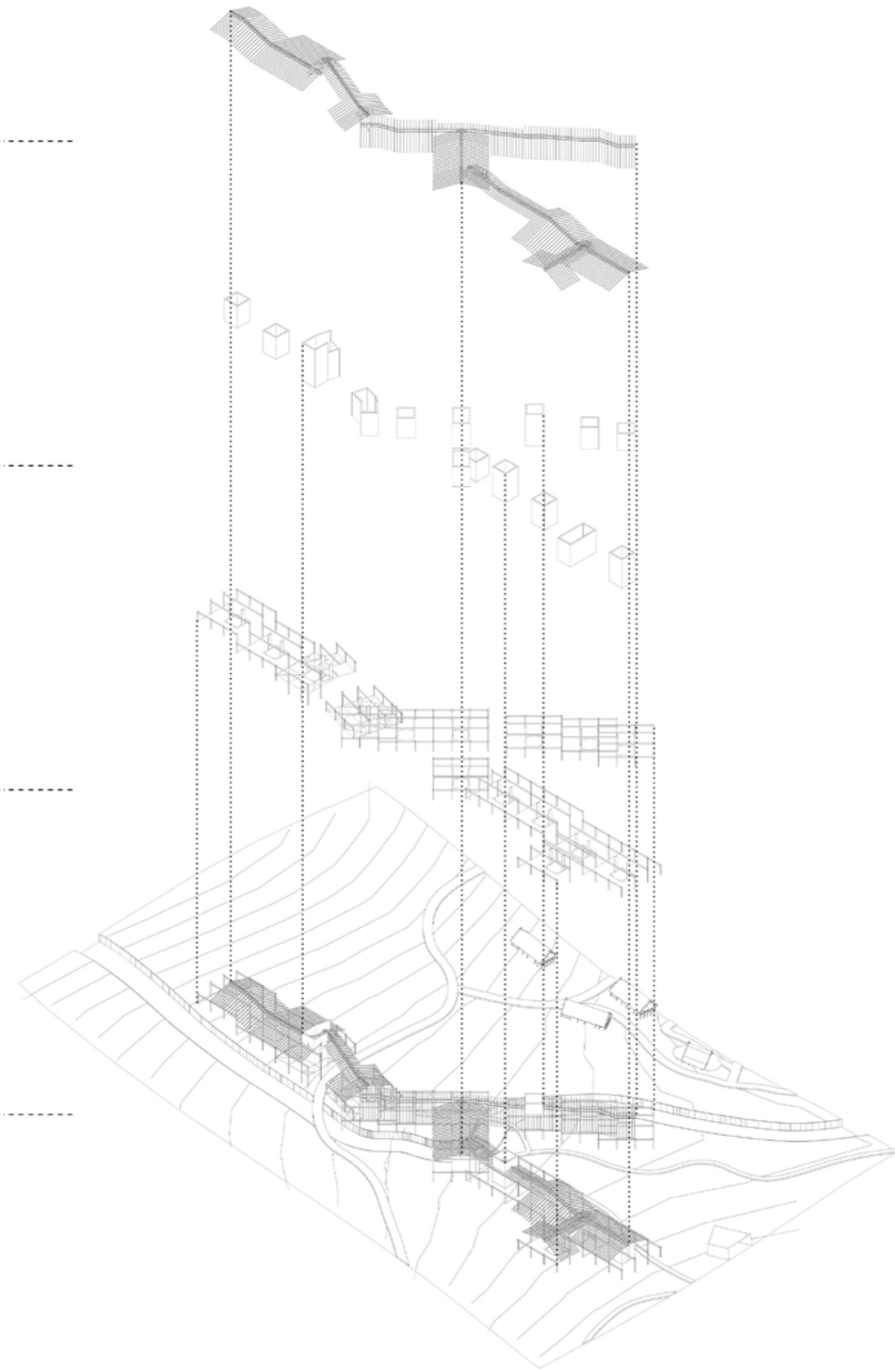
[SECTIONS]

S1_SECTION-1

1:350 (unit: m)

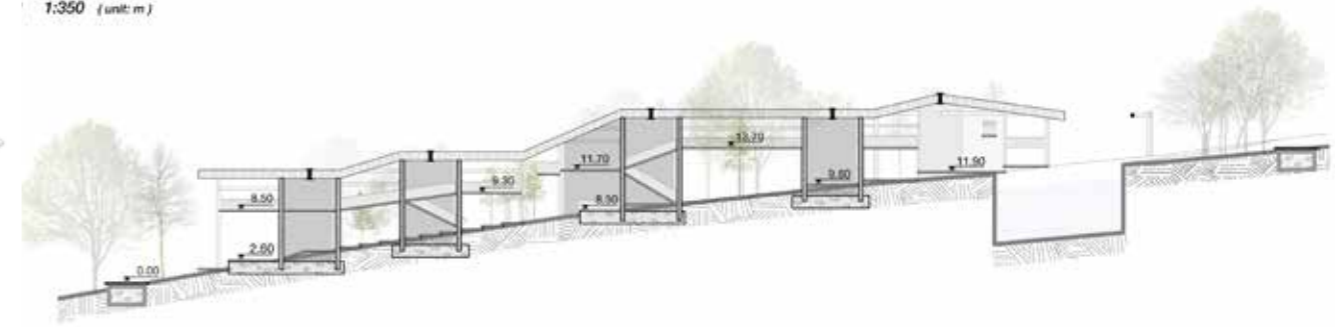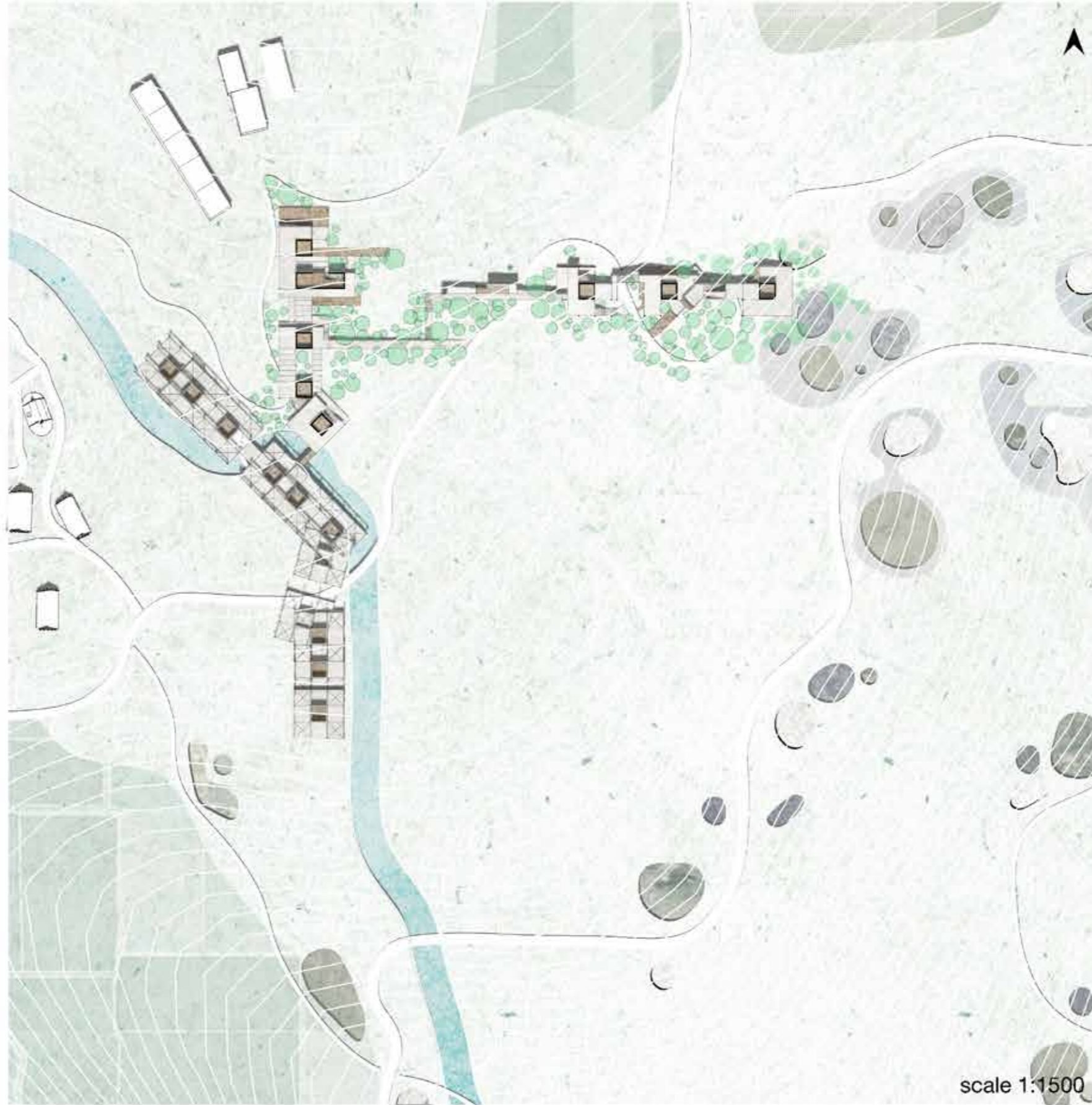## [SECTIONS]

S2_SECTION-2

1:350 (unit: m)

[Wengding: A S MAP]
Reconnection: Regional Architecture as a Bridge

scale 1:1500

S