

LEGACY IN MOTION

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TERRACES LODGE

Re-Inhabiting the Next Generation of Rice Terraces Farmers Through Clustered Infill Infrastructure and Mountain Transit Systems

What is a **TERRACES LODGE**?

For the Tourists - The Homestay experience at the top and the revenue directly funds the repair and maintenance of the surrounding rice terraces.

For the Farmers - The rest spot, storage, and comfort at the bottom.

For the Community/UNESCO - Blends heritage preservation with modern livelihood, giving the youth economic reasons to stay and protect their ancestral lands.

An aerial photograph of the Cordillera region in the Philippines, showing a vast landscape of terraced rice fields. The terraces are arranged in a complex, stepped pattern across the mountain slopes, creating a series of dark, rectangular and irregular shapes. The surrounding terrain is a mix of green and brown, indicating different types of vegetation and land use. The overall scene is a testament to human ingenuity in agriculture and land management in a mountainous region.

Rice Terraces of the Philippines Cordilleras



What are RICE TERRACES?

Rice Terraces are....

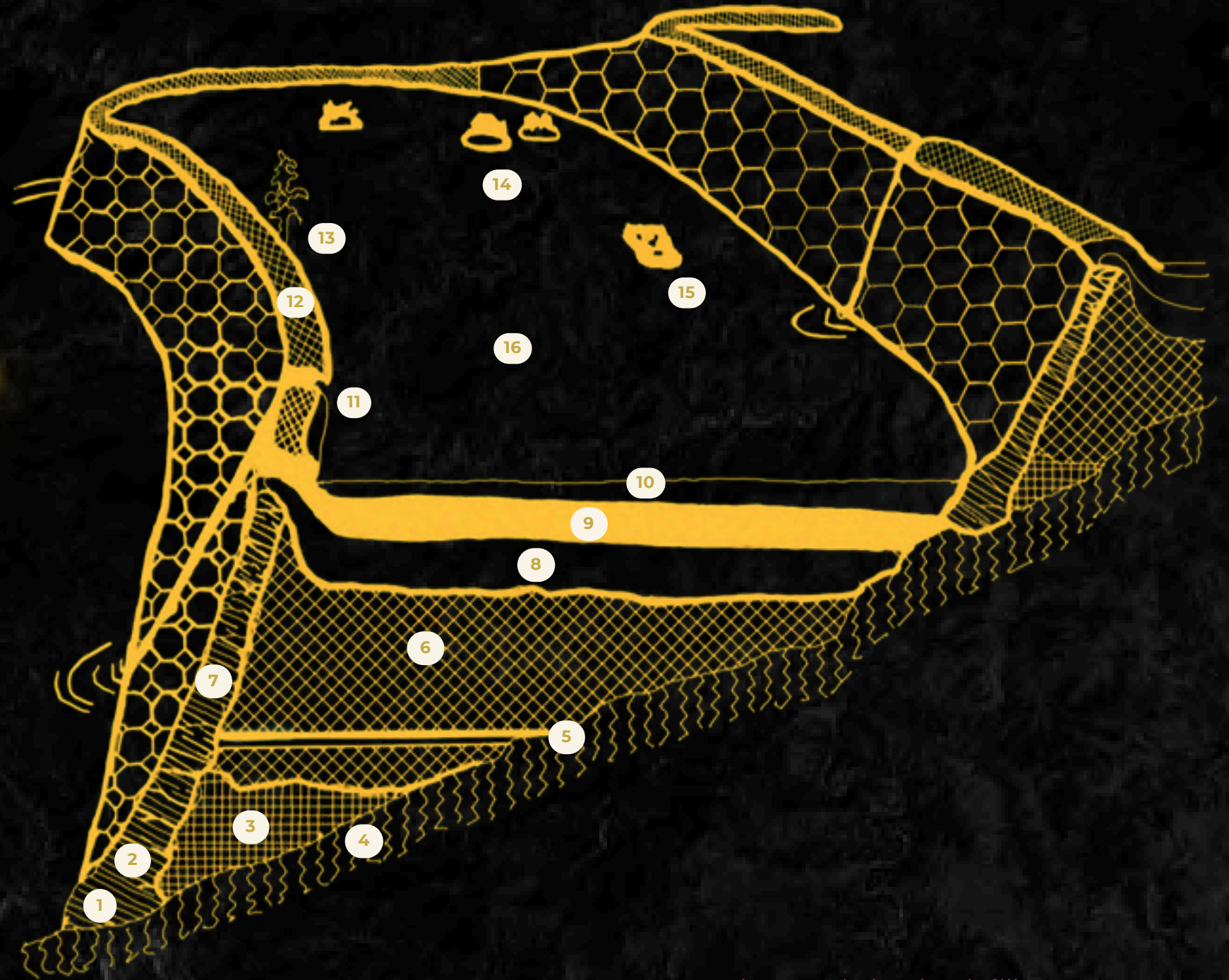
Giant Mountain Staircases: Flat fields carved into hillsides and mountains to grow rice.

Smart Engineering: Built in places where flat land is rare, turning unusable mountains into productive farms.

How do they work?

Mud or Stone Walls: Hold the soil in place and prevent the hillside from washing away.

Gravity Irrigation: Water flows down from the top mountain springs, flooding one terrace before dropping into the next.



1. gopnad - terrace wall foundation
2. 'aldoh - second course walling stones
3. gangal - course fill, small stones
4. doplah - bedrock; or luta original valley floor earth
5. 'ahbulbul- submerged water source
6. 'adog - rough gravel fill
7. topeng - stone retaining wall

8. haguntal - hard earth fill
9. luyo - worked pond-field soil
10. lobong - water
11. guheng - spillway
12. banong - dike, bund, pond-field rim
13. pumpudungan - property marker (site)
14. inado - vegetable mulch mounds
15. tau - fish sump
16. bawang - enclosed pond-field surface

Why do they matter?

Food Production: Allows farming on steep, rugged terrain.

Prevents Landslides: Controls heavy rainwater and stops soil erosion.

Ancient Heritage: Many are thousands of years old, built entirely by hand and passed down through generations.

PRELUDE & GLOBAL CONTEXT

THE GLOBAL ICON

The Rice Terraces of the Philippine Cordilleras

Continuous Stewardship: Over 2,000 years of landscape and cultural harmony.

The Human Canvas: Mountains shaped entirely by communal hands and ancestral knowledge.

ECOLOGICAL BALANCE: A self-sustaining cycle of forest water, soil nutrition, and community life.

The UNESCO Heritage Evaluation Framework

CRITERION III (Cultural Tradition): A unique, living testament to a sustainable land-use system that has survived for millennia in a harsh mountain environment.

CRITERION IV (Evolution of Technology): An outstanding example of an ancient landscape architecture highlighting a highly advanced communal hydraulic engineering system.

CRITERION V (Human Environment): An exceptional illustration of a traditional human settlement that is highly vulnerable under the impact of irreversible socio-economic changes.

The 5 UNESCO Heritage Clusters



HUNGDUAN



NAGACADAN, KIANGAN



BANGAAN, BANAUE



BATAD, BANAUE



MAYOYAO



BANAUE, IFUGAO

BATAD CLUSTER

Famous for its semi-circular, amphitheater-like terraces. It features a stunning backdrop of steep mountain ridges and a traditional village at its base.

BANAUE, IFUGAO

BANGAAN CLUSTER

Features a picturesque traditional village situated in the middle of a small terrace bowl. It serves as a visual model of Ifugao settlement patterns.

MAYOYAO, IFUGAO

MAYOYAO CLUSTER

Known for its high-altitude terraces and the cultivation of rare "Chayya" organic rice. It represents an intact and living agricultural culture.

HUNGDUAN, IFUGAO

HUNGDUAN CLUSTER

Unique for its "spider-web" or centrifugal terrace patterns. It is characterized by extensive stone walling and communal water systems.

KIANGAN, IFUGAO

NAGACADAN CLUSTER

Composed of two distinct rows of terraces separated by a river. It is the heart of the heritage trail and traditional rituals.



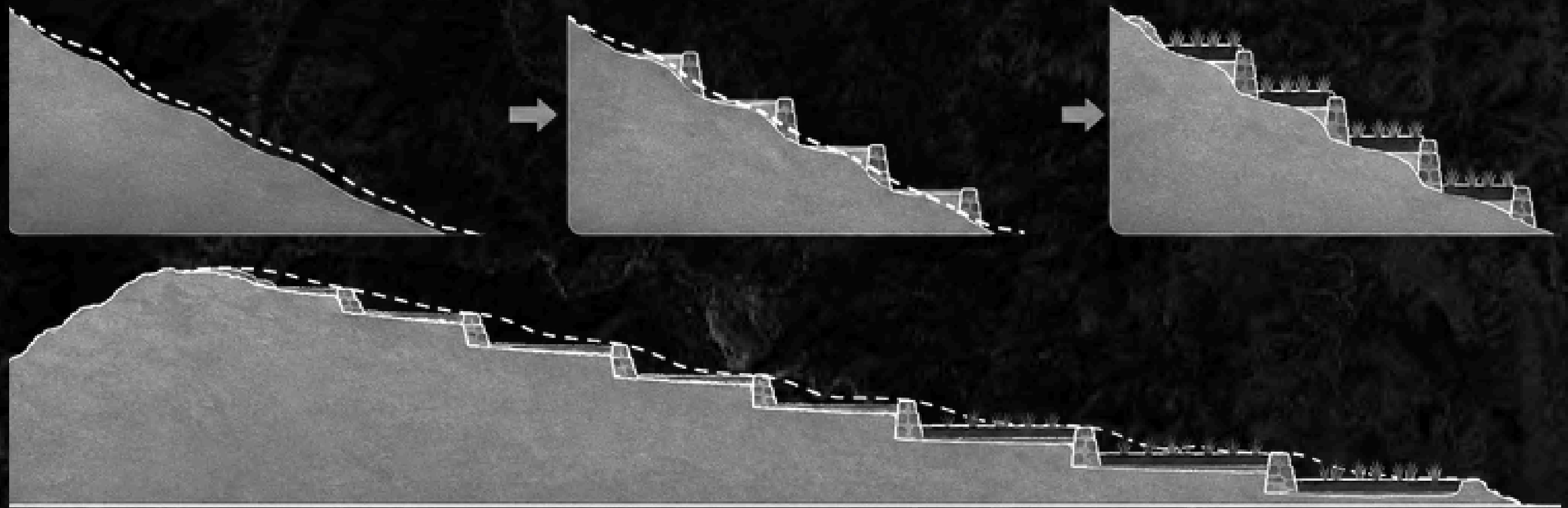
Inscribed in **1995** as a continuing cultural landscape of outstanding universal value.

The Anatomy of a Tiered Ecosystem

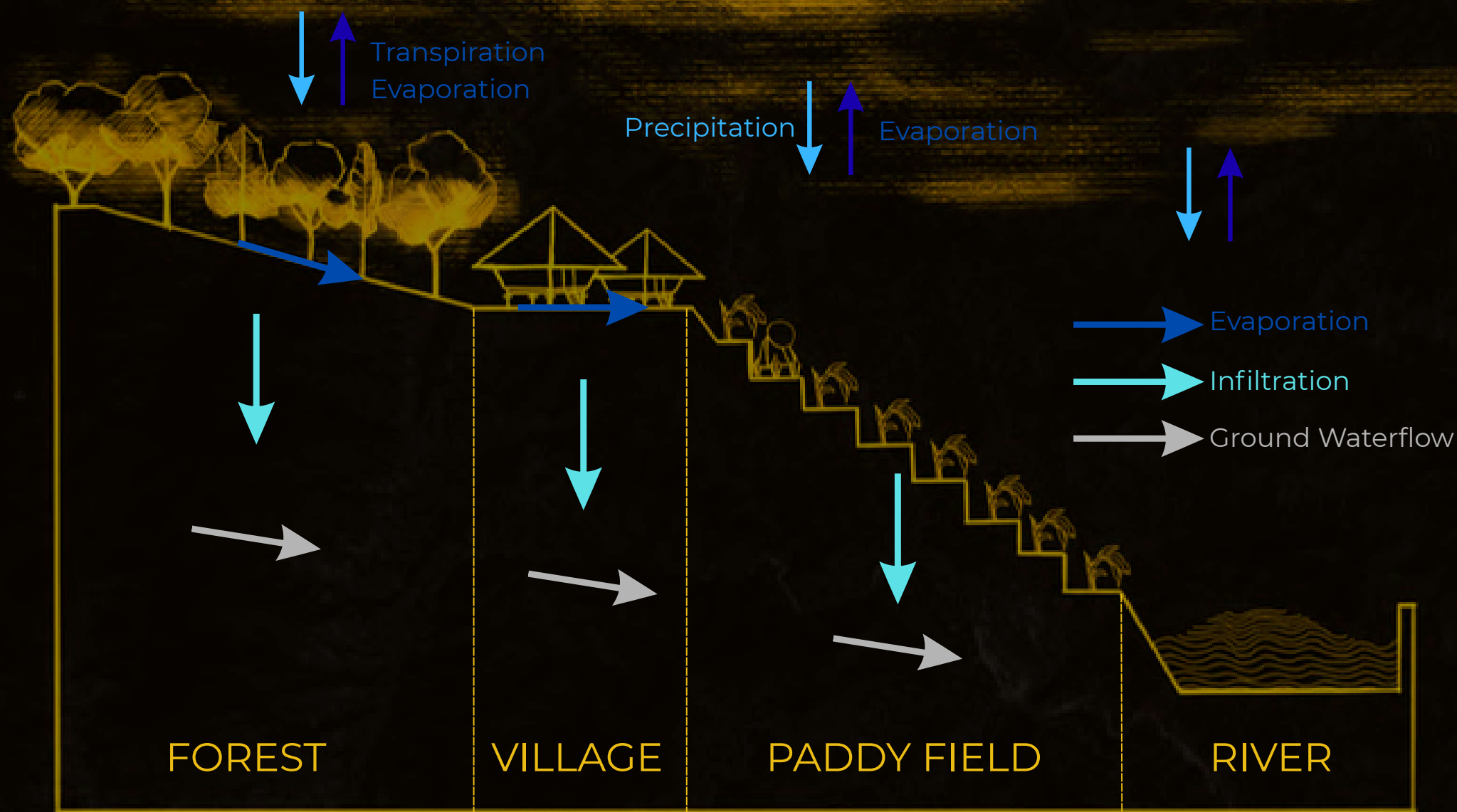
Terrace Wall Morphology: Hand-carved earth and dry-stone retaining walls engineered to prevent massive mountain soil erosion.

Contour-Responsive Design: The steps are not rigid geometric patterns; they perfectly follow the natural, undulating contours of the mountain.

Soil Stratigraphy: A highly deliberate multi-layered soil composition consisting of a compacted clay base to retain water, topped with nutrient-rich organic topsoil.



The Ecosystem Loop



The Closed-Circuit Ancestral Ecosystem

Water Resource Autonomy: Gravity-driven irrigation fed directly by mountain springs and pristine mossy forest canopies.

Interconnected Paddies: A cascading fluid network where every single terrace level acts as a biological filter and storage unit.

The Metabolic Circuit: A fragile, self-sustaining loop combining natural hydraulics, forest ecology, and human agricultural management.

THE CRITICAL THREAT & SITE DECAY

THE IMMINENT CRISIS

The Structural and Cultural Collapse of the Cordilleras

The Core Conflict: The disruption of the ancestral ecological loop due to human absence.

The Spatial Reality: Architecture stepping into a territory facing active physical and cultural erasure.

THE UNESCO THREAT INDICATOR

Current Status Assessment: Rapid acceleration of landscape degradation pushing the site back toward the red boundary.

The Risk Factor: Impending official re-enlistment into the UNESCO List of World Heritage in Danger.

The Structural Implication: A warning that the outstanding universal values (OUV) verified during its inscription are being actively lost due to human absence.

The Abandonment Phenomenon



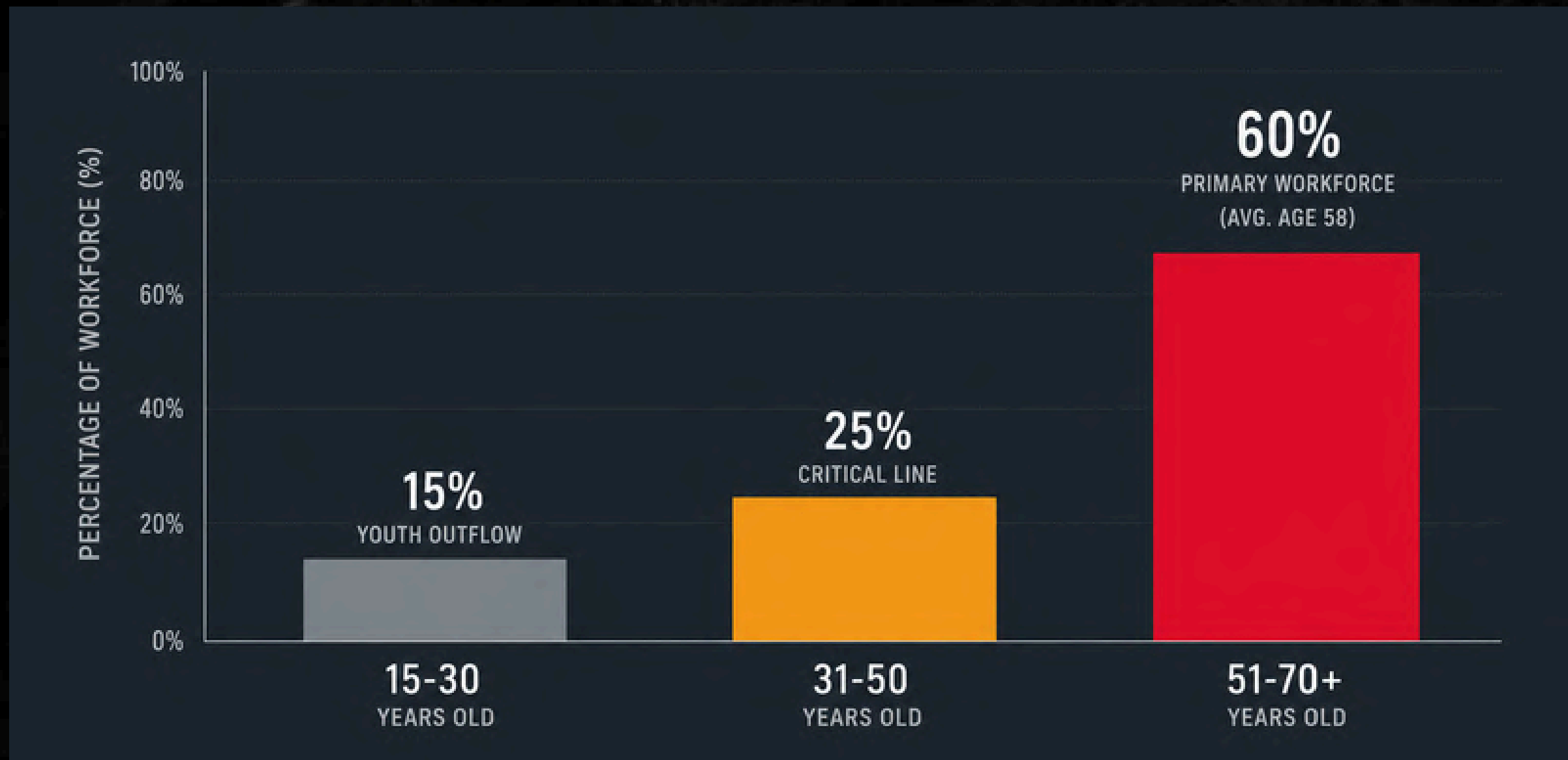
THE SOCIO-PHYSICAL DECAY CHAIN

Youth Urban Outflow: The younger generation is abandoning traditional farming to seek non-agrarian livelihoods in urban centers.

Management Void: This rapid migration leaves a severe labor deficit, resulting in too few active hands to maintain the fragile heritage site.

Accelerated Ruin: Unmanaged terraces rapidly dry out, crack, and collapse—triggering a chain reaction of structural destruction across the entire landscape.

The Demographic Chasm



The Human Void: The average age of active farmers is **58 years old**. The younger generation is fleeing to urban centers.

The Labor Deficit: Manual maintenance of the heavy stone-and-earth structures cannot be sustained by an aging workforce, directly leading to the rapid physical abandonment of the traditional paddies.

The Core Question

Why is a globally celebrated heritage site failing to sustain the very people who build it?

DESIGN PROBLEM

The MAIN PROBLEM

THE COMPOUNDING DECAY & THE RISK OF GLOBAL DELISTING

The Global Threat: If the rapid accumulation of abandoned rice terraces continues unchecked, the Ifugao Rice Terraces risk being placed back onto the UNESCO List of World Heritage in Danger, threatening its status as a Living Cultural Landscape.

The Core Crisis: The physical landscape is collapsing because the agrarian workforce is rapidly declining, leading to structural and cultural decay.

The Architectural Void: Current infrastructure focuses solely on tourist consumption rather than supporting the operational and physical survival of the agricultural matrix.

PROBLEM PILLAR 1

PHYSICAL LABOR EXERTION & AGRARIAN ABANDONMENT

The Problem: Traditional terrace maintenance requires severe physical strain that is no longer sustainable for the aging local community.

The Mechanical Bottleneck: Heavy loads—such as 50kg rice sacks, structural stones for broken walls, and tourist supplies—are transported exclusively via manual hauling across steep, hazardous terrain.

The Impact: The lack of localized mechanical transit solutions accelerates labor exhaustion, driving farmers away from the industry and forcing the abandonment of active paddies.

PROBLEM PILLAR 2

TOPOGRAPHIC INSTABILITY & HERITAGE IMPERILMENT

The Danger List Catalyst: Every single abandoned terrace represents a break in the traditional structural network. Accumulating these unmaintained gaps accelerates the landscape's degradation, which triggers international criteria for the UNESCO Danger List.

The Chain Reaction: When a rice terrace is left uncultivated, the soil dries out, cracks, and loses its water-retention capacity.

The Physical Impact: During heavy regional downpours, these dry, unmaintained sectors become major landslide vectors, triggering massive soil erosion that destroys adjacent active terraces.

PROBLEM PILLAR 3

PEDESTRIAN CONGESTION & SPATIAL DISCONNECT

The Problem: The existing trail system forces a dangerous overlap between tourist leisure and heavy local production traffic.

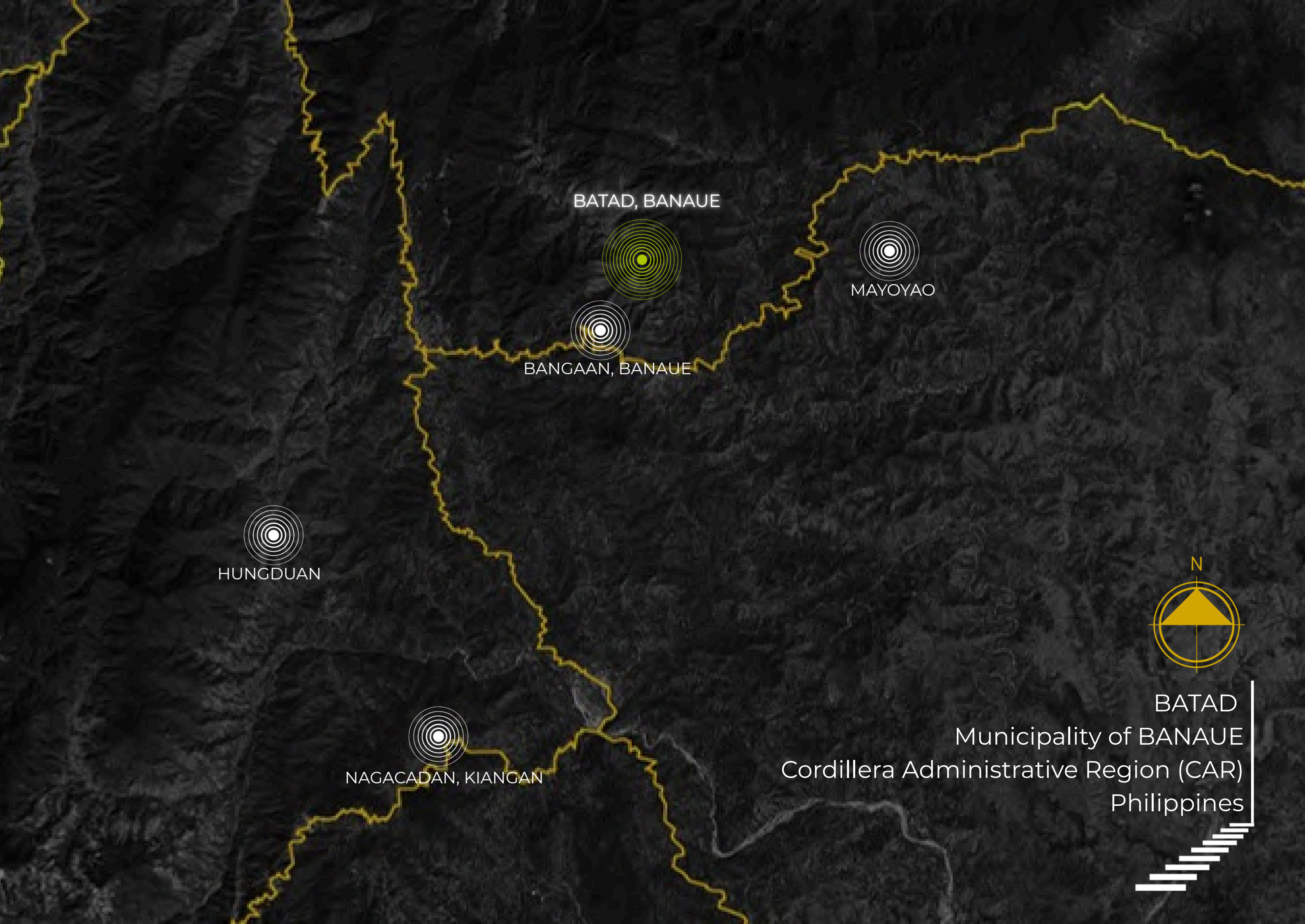
The Spatial Friction: Tourists seeking panoramic views navigate the exact same narrow, high-gradient paths used by farmers carrying heavy agricultural loads, leading to spatial congestion and safety hazards.

The Impact: There is no dedicated architectural buffer or transition hub that manages high-volume pedestrian circulation while simultaneously providing micro-restorative relief and spatial pacing for both users.

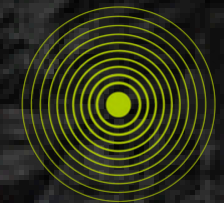
CLUSTER SELECTION: Batad as Catalytic Prototype

The Catalytic Prototype: Batad was chosen as the pilot site due to its **high vulnerability to agricultural abandonment** and **heavy tourism influx**.

Scalable Design: The interventions developed here serve as a modular blueprint, designed to be **replicated and adapted** to the unique terrains of Bangaan, Mayoyao, Hungduan, and Nagacadan.



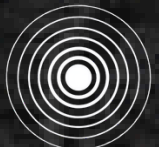
BATAD, BANAUE



MAYOYAO



BANGAAN, BANAUE



HUNGDUAN



NAGACADAN, KIANGAN



BATAD
Municipality of BANAUE
Cordillera Administrative Region (CAR)
Philippines



Why BATAD, BANAUÉ?

The Ultimate Architectural and Spatial Prototype

Amphitheater Geometry: A unique, bowl-shaped physical layout that centralizes community labor and demands a singular, core radial hub intervention.

Extreme Topographic Isolation: Brutal 45-degree slope gradients causing severe vertical, manual hauling strain due to zero vehicular road access.

Primary Tourist Destination: The most highly visited and accessible tourist core among all clusters, creating a high-exposure zone where agricultural decay directly collides with massive global foot traffic.

UNESCO Core Inscription: A high-integrity heritage site experiencing rapid, localized land abandonment and urgent structural vulnerability.



VISUAL PANORAMA



The Multi-Centennial History and Evolution of Batad

Origin Era (c. 2,000 Years Ago): Initial carving of the mountainsides by early Ifugao migrating clans, establishing foundational stone-walling techniques.

The Hydraulic Boom (Pre-Colonial Period): Expansion of individual plot tiers into an interconnected, gravity-driven communal irrigation network.

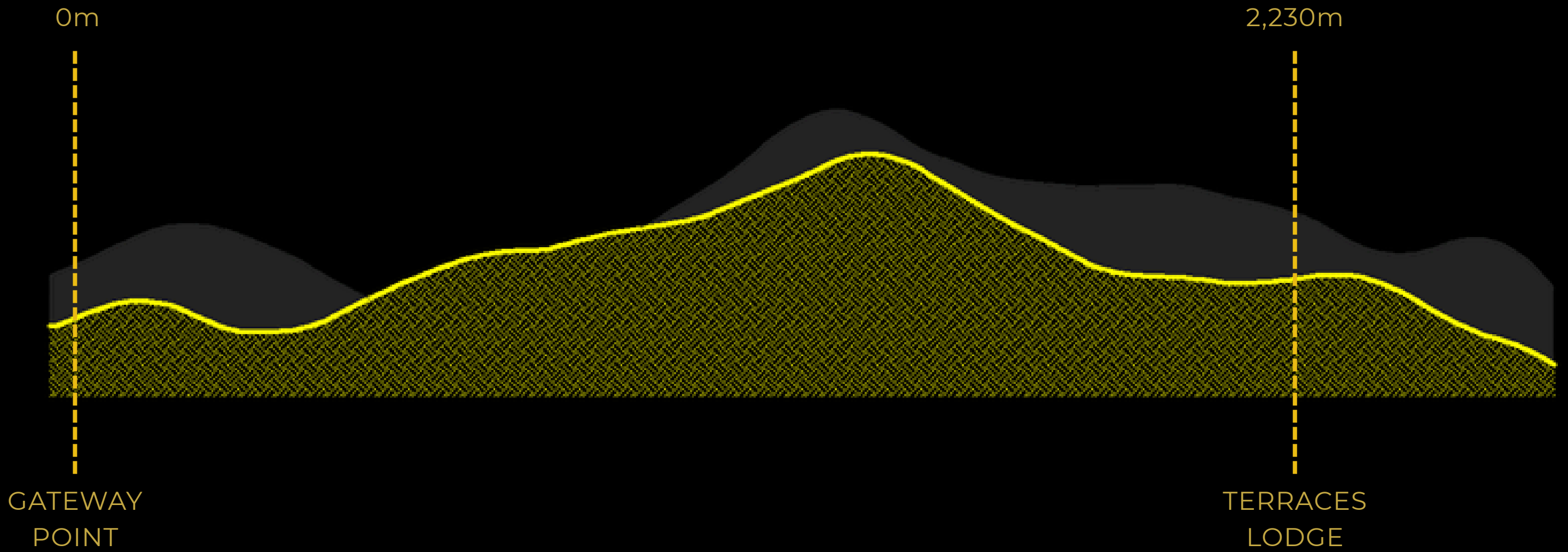
The Colonial Isolation (16th – 19th Century): The community deliberately utilizes the extreme, fortress-like topography of the amphitheater to resist Spanish colonial integration.

Global Awakening (1995): Formal inscription of the Batad Cluster as a core component of the UNESCO World Heritage Rice Terraces of the Philippine Cordilleras.

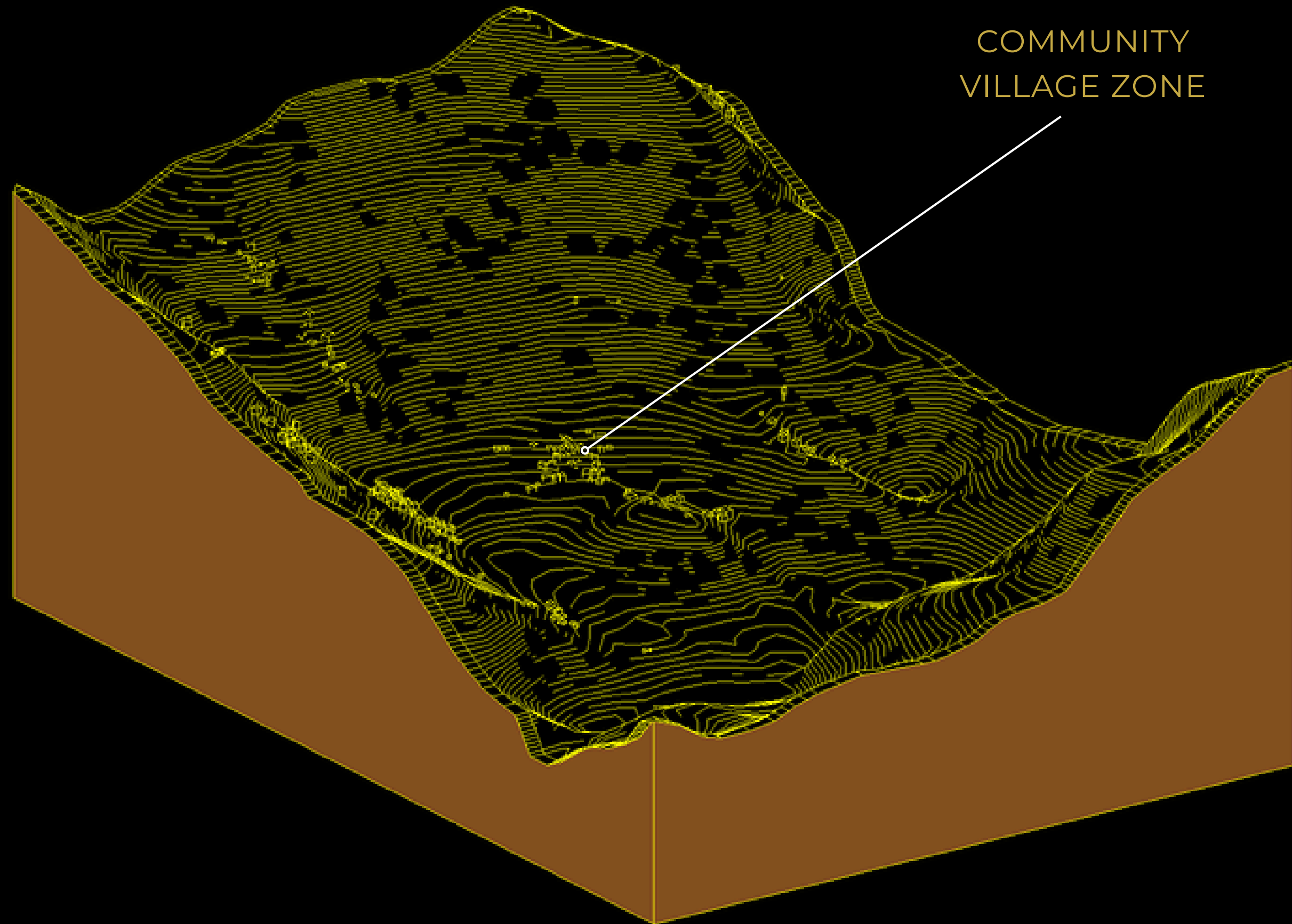
SITE ANALYSIS



Micro-Contextual Analysis
Batad, Banaue Tourist Route Mapping



TOURIST ROUTE SECTION ANALYSIS

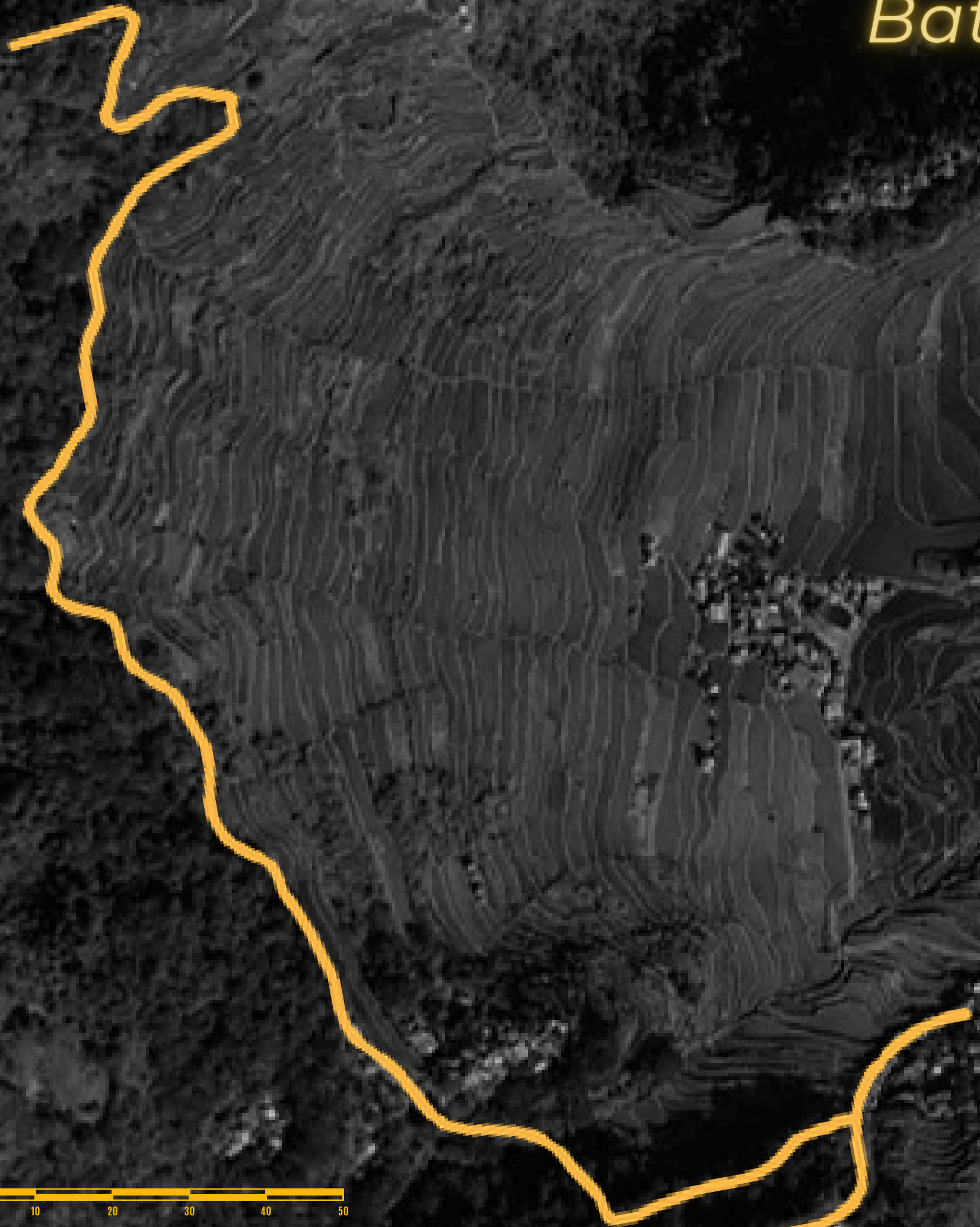


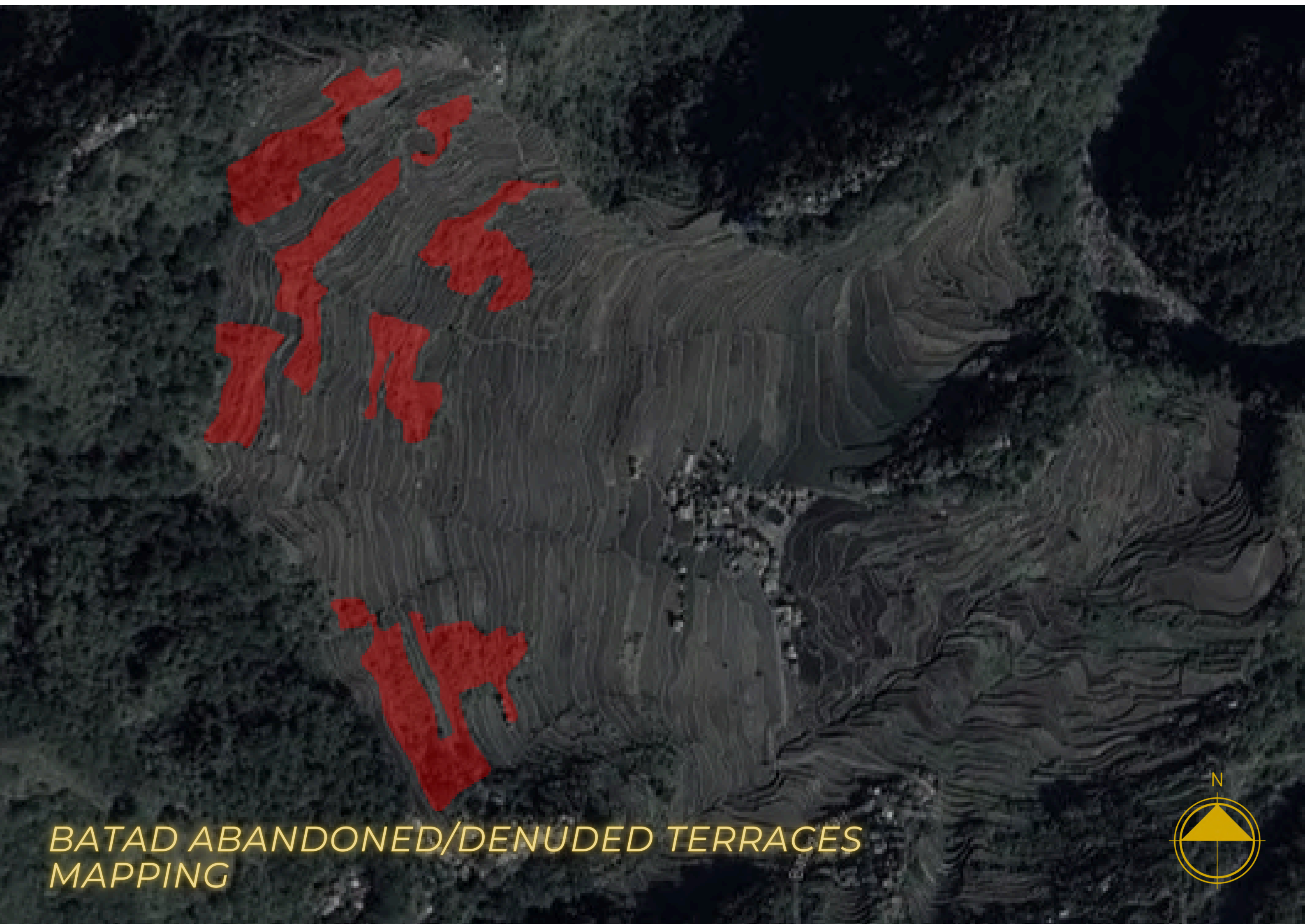
COMMUNITY
VILLAGE ZONE

Geomorphic Baseline Analysis

Pure Topographic Contours and Slope Gradient

Batad Heritage Trail





*BATAD ABANDONED/DENUDED TERRACES
MAPPING*



Visual Damage Assessment: Approximately **20%–25%** of the historic structural footprint has already succumbed to environmental and labor-driven degradation.

The Proximity Threat: The degradation is heavily concentrated on the upper-tier slopes, creating a dangerous top-down threat vector where upper-level structural failures risk cascading down into the remaining active agricultural core.



TERRACES HISTORICAL FOOTPRINT MAPPING




Primary Catchment Network / River System



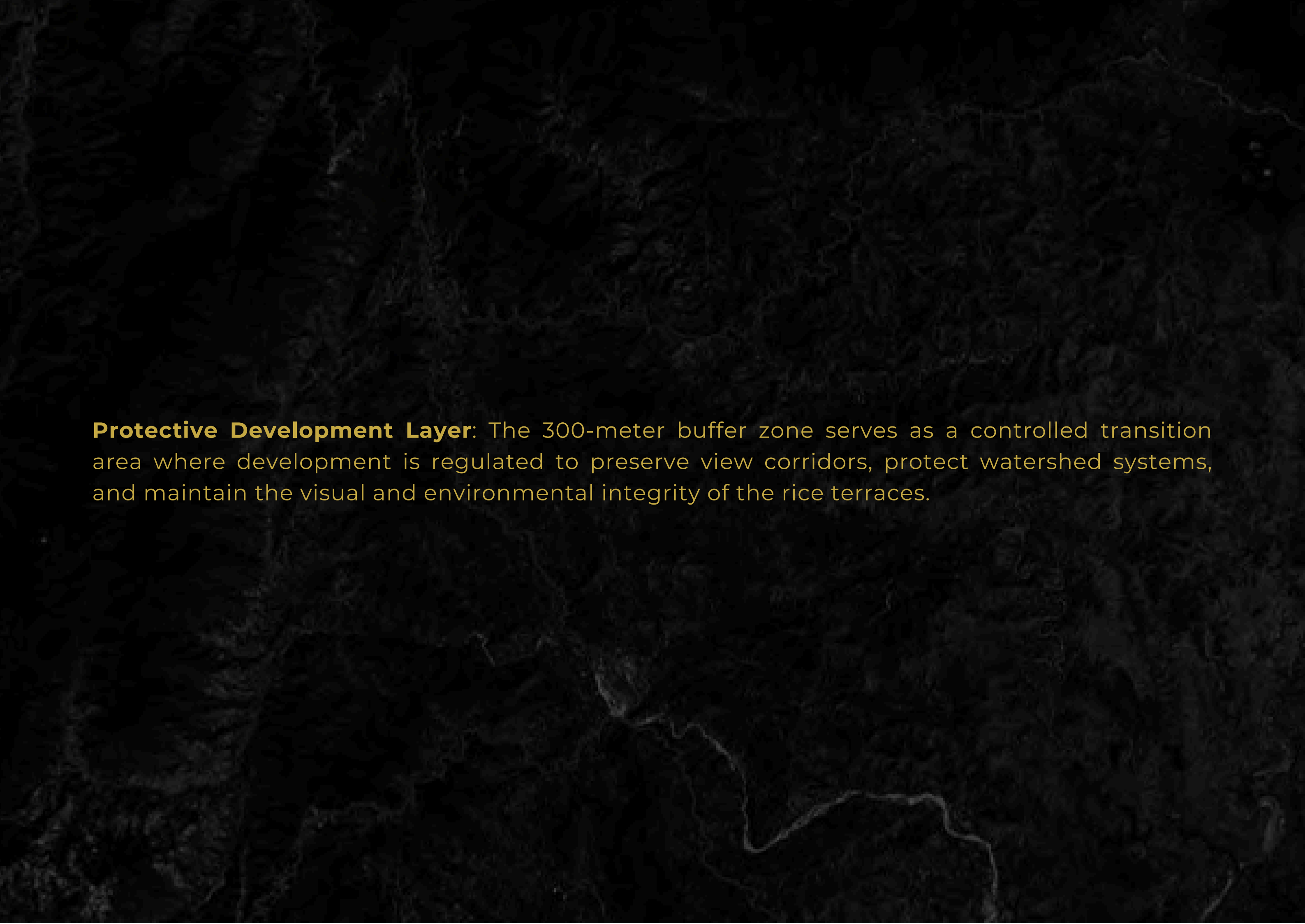
Buffer Zone Map



Buffer Zone Map

An aerial photograph of a rice terrace landscape. The terraces are arranged in a series of curved, stepped patterns that follow the contours of the land. A winding river or stream flows through the center of the terraces, creating a natural boundary. The overall scene is a mix of green and brown tones, indicating different stages of rice growth or different types of vegetation. The lighting is soft, highlighting the textures of the terraces and the curves of the river.

Visual Intrusion Risk: Within the proposed 300-meter buffer zone, uncontrolled development may disrupt the visual continuity of the rice terraces. Incompatible building heights, forms, and roofing colors can diminish the cultural landscape and heritage character of the site.

An aerial photograph of a rice terrace landscape. The terraces are arranged in a series of curved, stepped patterns that follow the contours of the land. A winding river or stream flows through the center of the terraces, creating a natural corridor. The overall scene is a harmonious blend of human-made agriculture and natural topography.

Protective Development Layer: The 300-meter buffer zone serves as a controlled transition area where development is regulated to preserve view corridors, protect watershed systems, and maintain the visual and environmental integrity of the rice terraces.

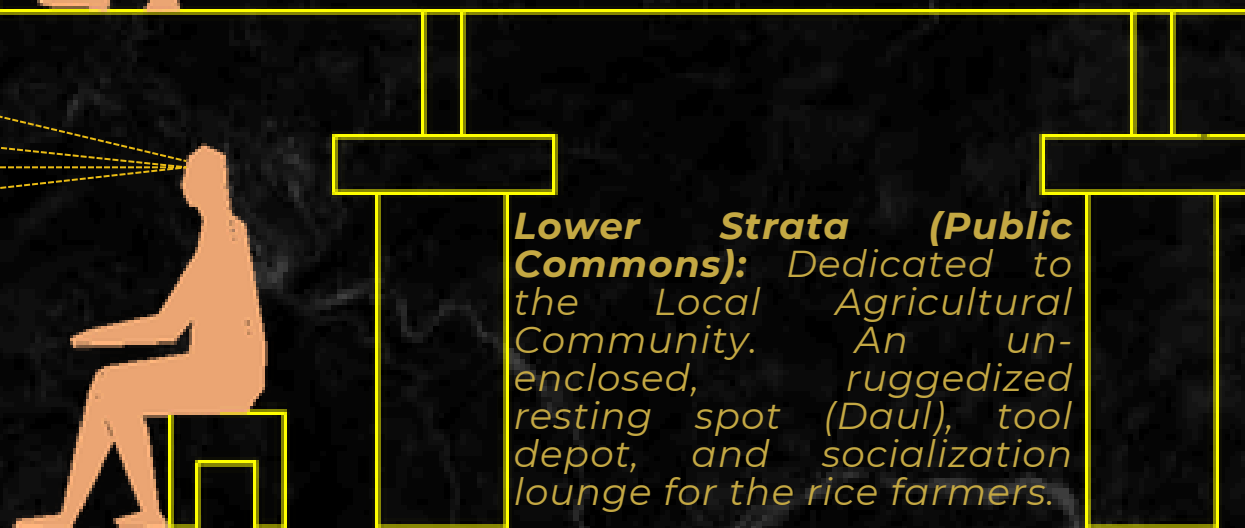
Design Solutions



Socio-Spatial Dualism Concept



Upper Strata (Private Enclosure): Dedicated to Eco-Tourism & Cultural Immersion. It provides high-value heritage lodging, privacy, and curated viewing decks for visitors.



Lower Strata (Public Commons): Dedicated to the Local Agricultural Community. An un-enclosed, ruggedized resting spot (Daul), tool depot, and socialization lounge for the rice farmers.

Core Objective: To seamlessly integrate tourist leisure and local agricultural realities within a single structure, preserving the privacy of the guests while honoring and functionalizing the daily spaces of the farmers.

*Environmental Psychology and Neuro-Architecture
Application in the Sub-floor Void*

PHYSIOLOGICAL RECOVERY ACCELERATION

Metric: 60% Faster Heart-Rate & Muscle Recovery (Within 3–5 Minutes)

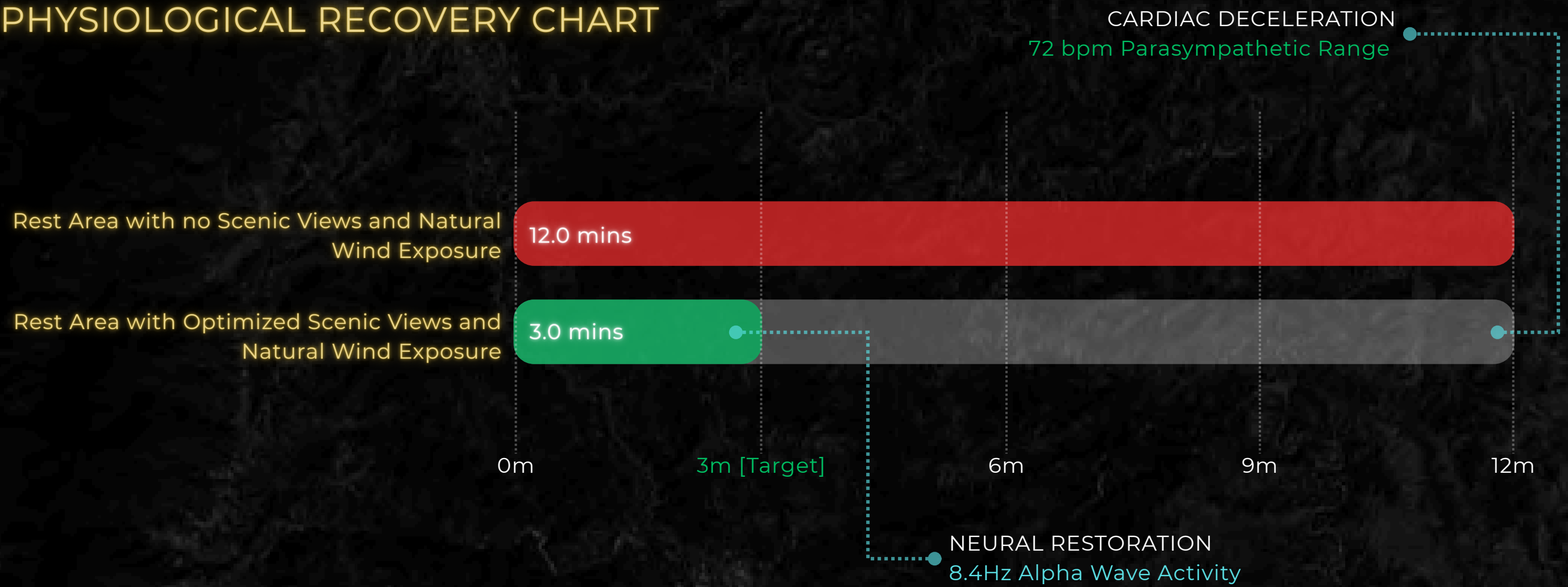
Psychology Application: Ergonomic Biophilic Orientation. Spatial positioning of timber seating directly facing the terrace topography. This active visual engagement with nature drastically out-performs urban or concrete rest environments in mitigating physical fatigue.

NEURO-ENDOCRINE STRESS ATTENUATION

Metric: 21% Cortisol Reduction (Within 20 Minutes)

Psychology Application: Fractal Geometry Processing. Visual immersion into the repeating, natural geometric patterns of the rice terraces triggers a neurological calm, automatically dropping biological stress hormones.

PHYSIOLOGICAL RECOVERY CHART



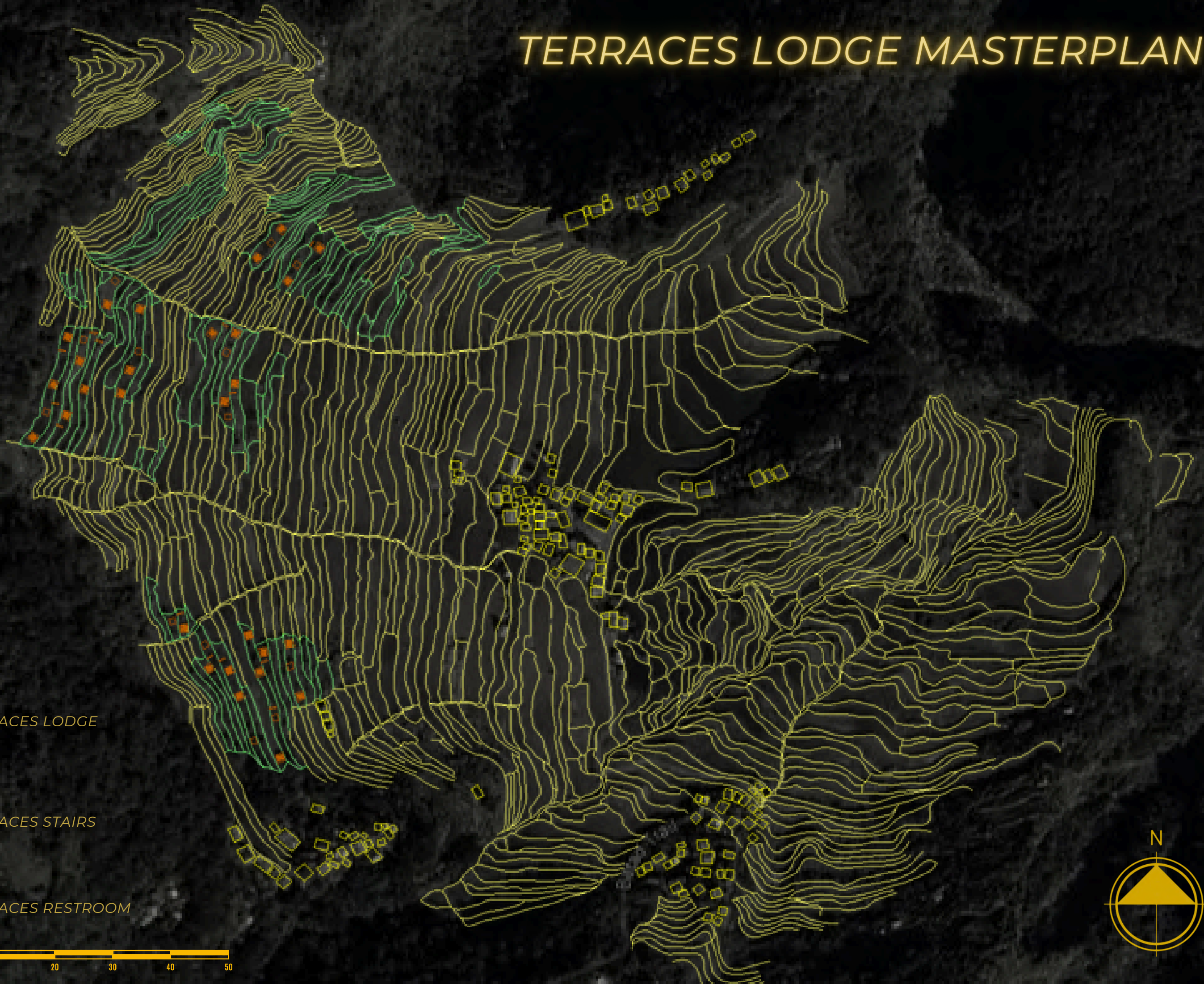
Physiological Recovery Metrics

BIOMARKER INDEX	HIGH STRESS BASELINE	RESTORATIVE COMMONS	RECOVERY VARIANCE
Cortisol Reduction Rate	-12%	-48%	4x Accelerated Decline
Heart Rate Variability (HRV)	Low LF/HF autonomic ratios	High LF/HF parasympathetic response	+32% Autonomic Reset Speed
Attention Restoration (ART)	Baseline (0.0 Performance)	+22.4% Cognitive Task Accuracy	High Capacity Attentional Restore
Skin Conductance Level (SCL)	Chronic high electrodermal state	-0.38 uS Galvanic decline	Rapid Sympathetic Calming





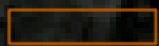
TERRACES LODGE MASTERPLAN



LEGENDS



TERRACES LODGE



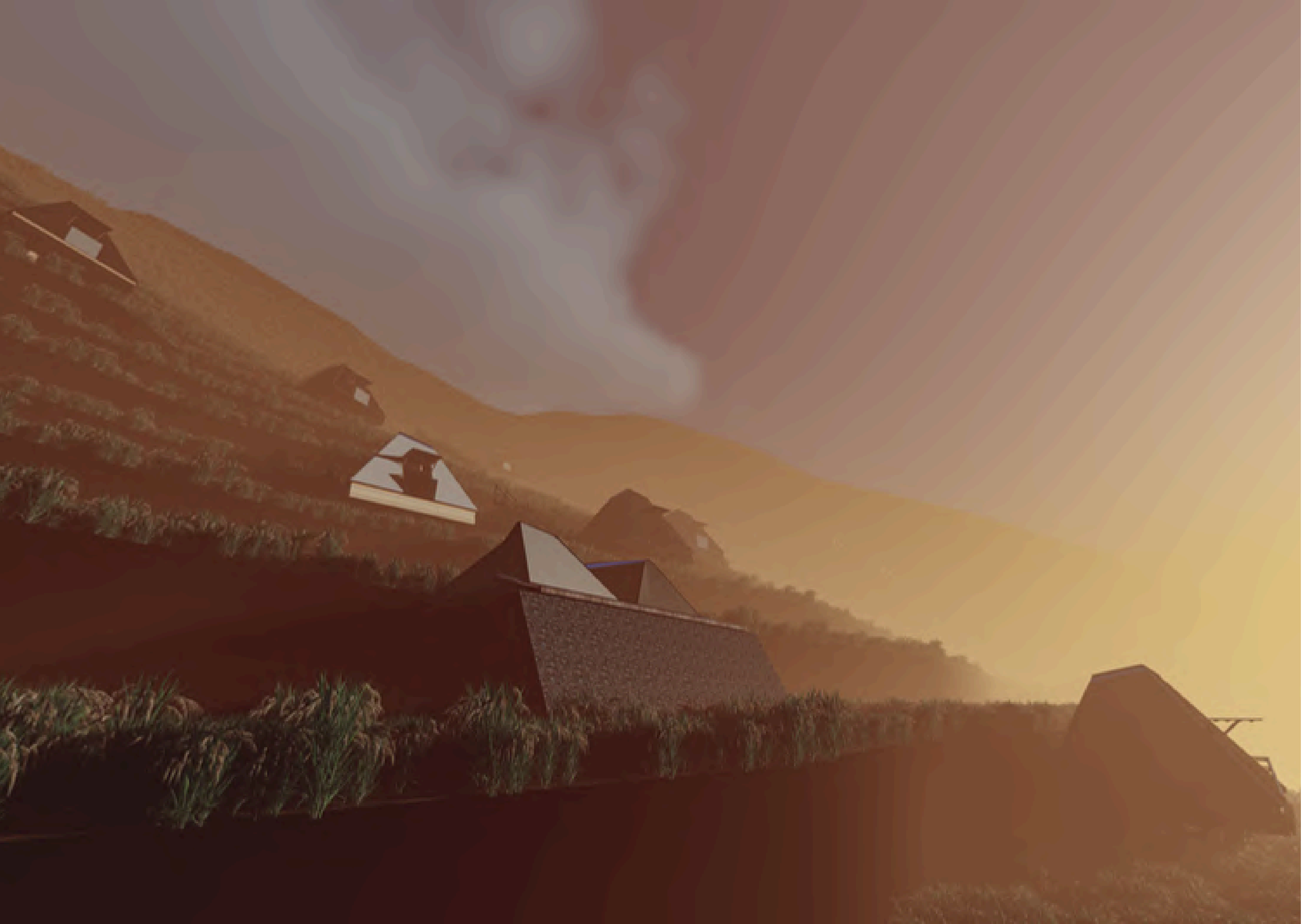
TERRACES STAIRS



TERRACES RESTROOM

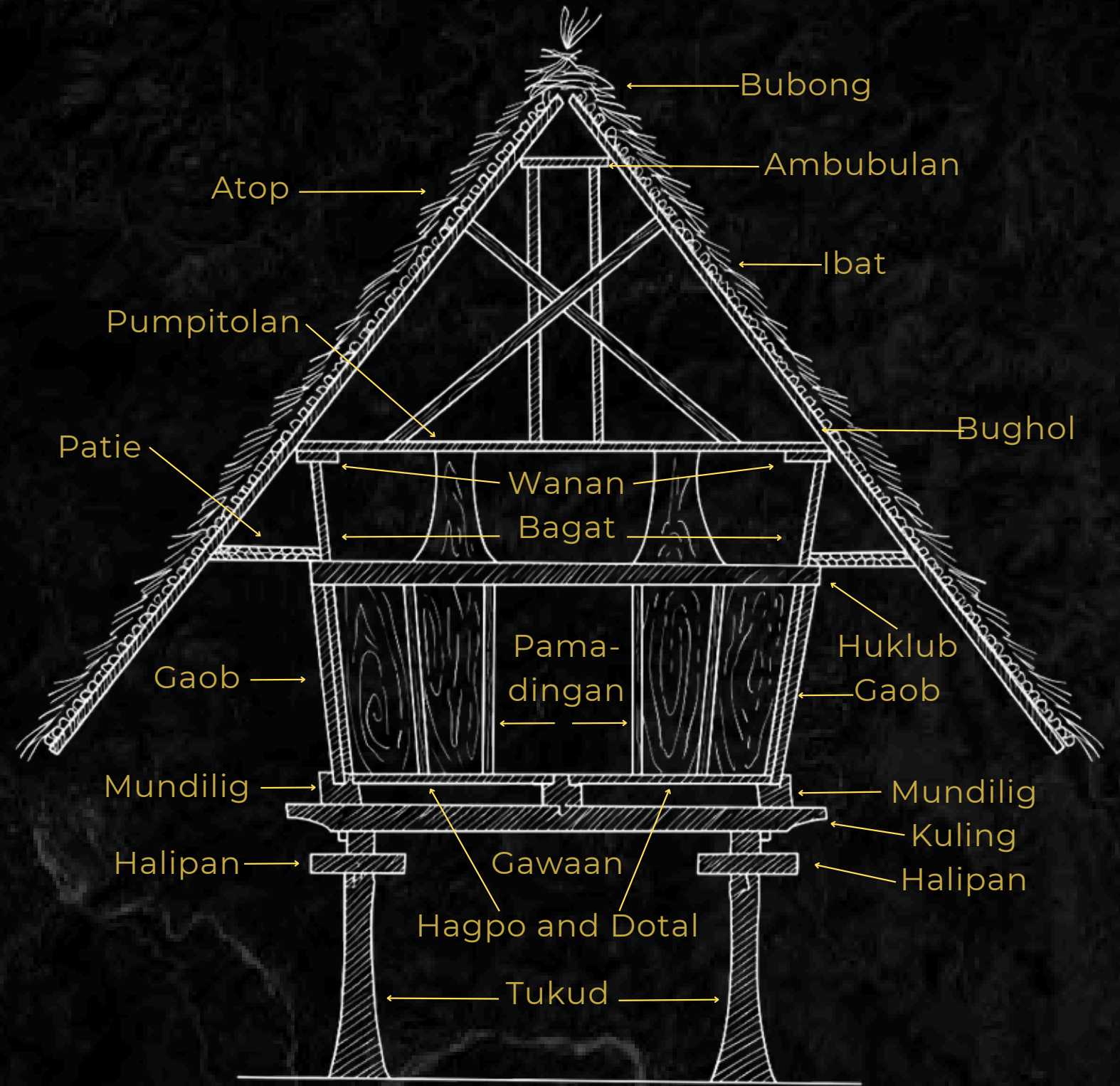






*TYOLOGY EVOLUTION: TRADITIONAL FALE VS. MODERN
SUSTAINABLE TERRACES LODGE*

TRADITIONAL FALE



MODERN SUSTAINABLE TERRACES LODGE



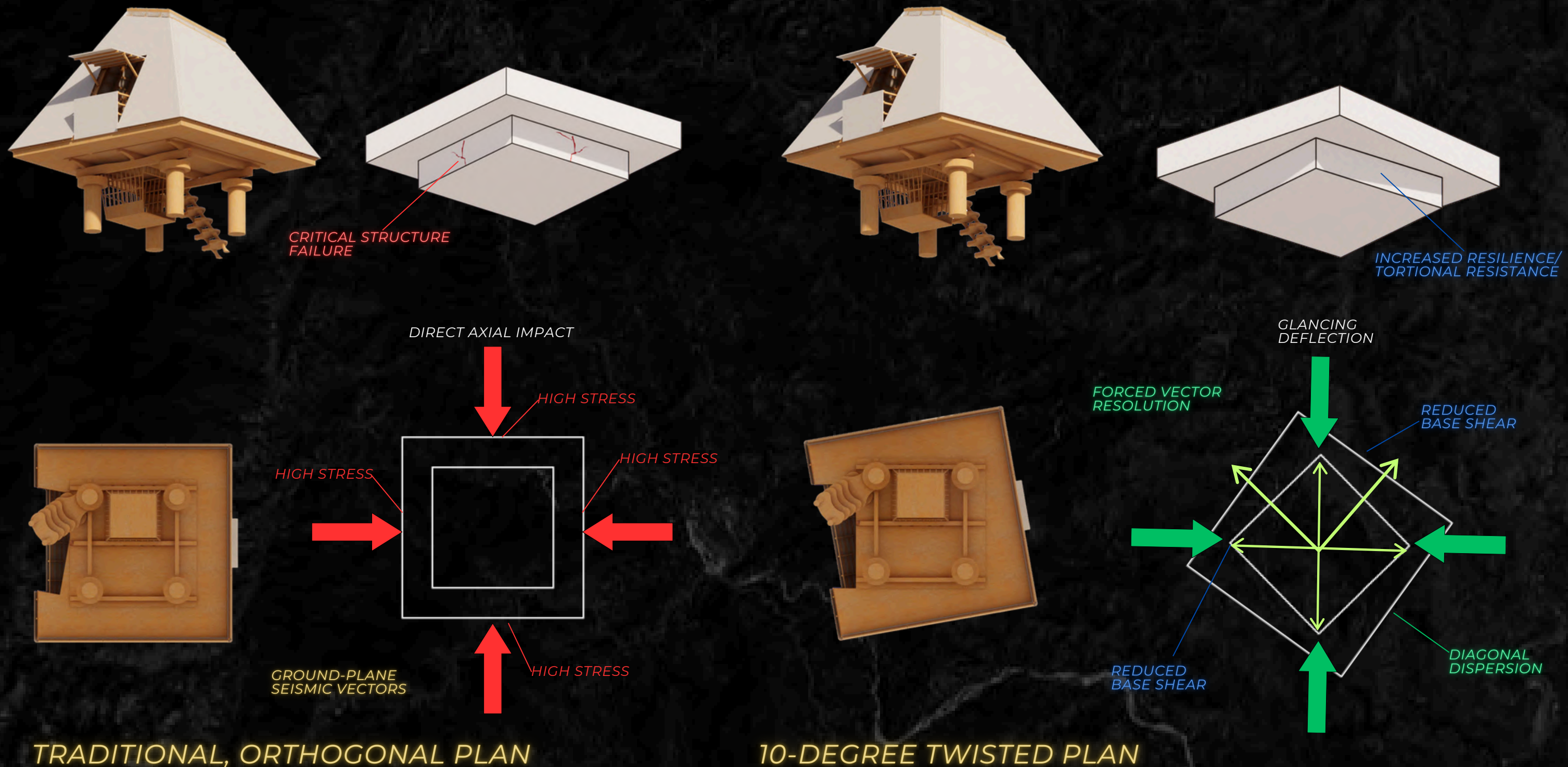
PLAN

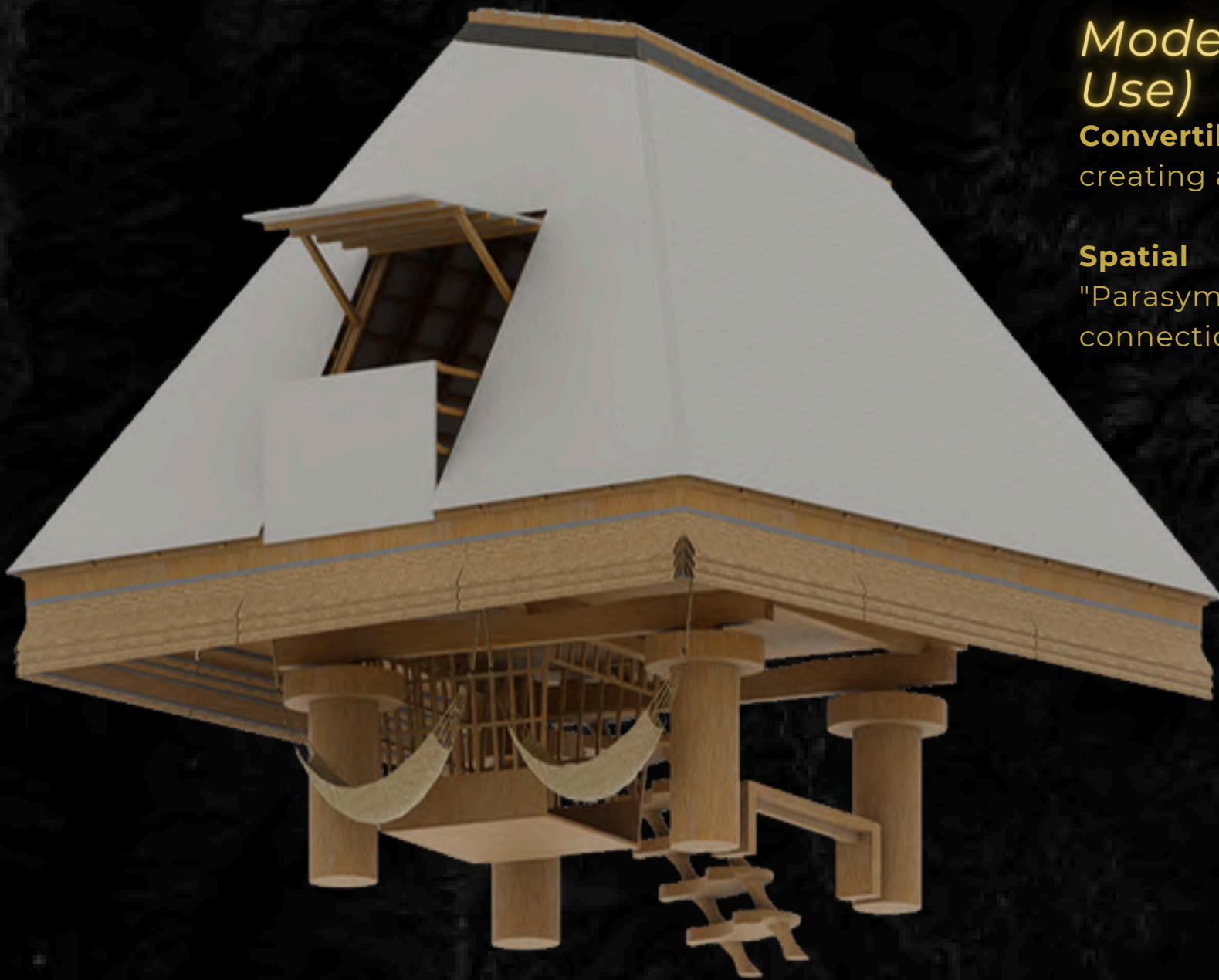


SEISMIC BEHAVIOR COMPARISON

THE PROBLEM: The Cordillera Region (Ifugao) is a high-risk seismic zone where traditional straight layouts receive dangerous, head-on earthquake forces (90-degree direct impact).

THE 10° TWIST SOLUTION: The 10-degree rotation acts as a structural shield that deflects seismic shockwaves, splitting the destructive energy into smaller diagonal components (X and Y vectors) to prevent structural collapse





Mode A: Diurnal Open Configuration (Daily Use)

Convertible Balcony System: Deployed to extend the interior floor plate, creating an unobstructed 180-degree view of the terraces.

Spatial Intent: Maximizes natural cross-ventilation and allows the "Parasympathetic Range" recovery of the user through direct biophilic connection with the landscape.

Mode B: Storm-Protective Defensive Envelope (Rain Protection)

Retractable Balcony: Folds back flush into the facade to form a weather-tight, hermetic seal.

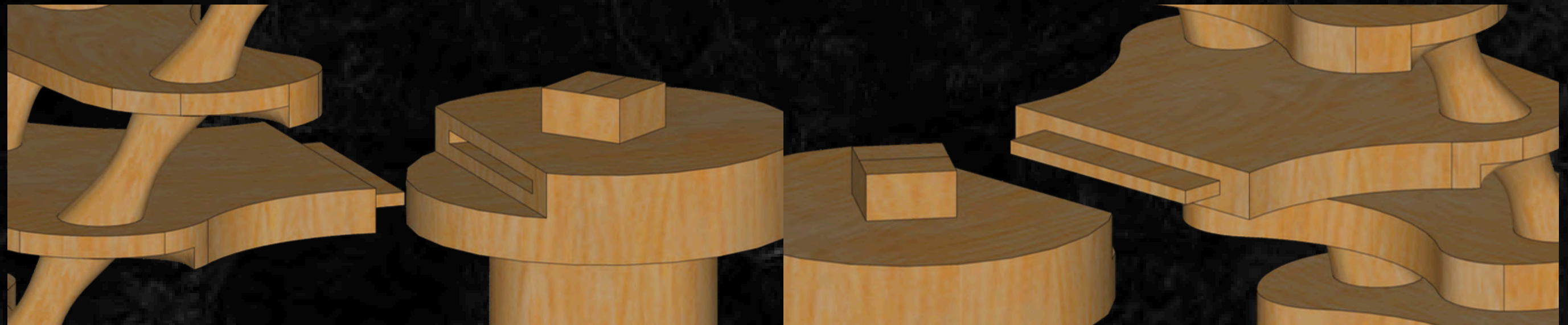
Outdoor Roller Blinds: Deploys vertically to serve as a high-friction moisture barrier against wind-driven rain.

Spatial Intent: Transforms the lodge into an insulated thermal buffer, protecting the interior and timber joints from harsh mountain storms.



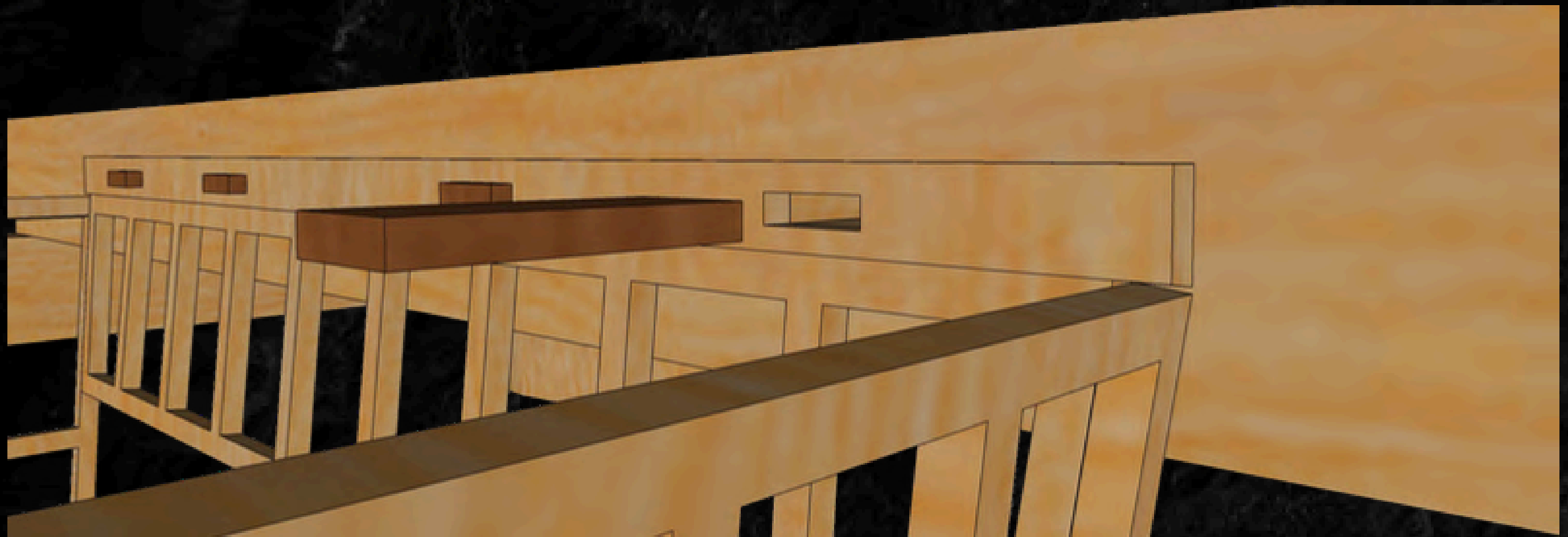


STAIR STRUCTURAL JOINTS & PARTS LABELS



Mortise and Tenon Joint

STORAGE STRUCTURAL JOINTS & PARTS LABELS



Square Peg / Square Wooden Pin

High-Friction Mechanics: Employs Square Wooden Pins instead of round dowels. The four sharp corners bite directly into the timber grain, creating a self-locking bind that tightens naturally as Batad's mountain humidity fluctuates.

Adhesive-Free Environment: Eliminates the need for metallic nails or chemical glues. This creates a non-toxic, moisture-regulated microclimate ideal for preserving agricultural seeds, garments, and farming tools.

Modular Demountability: Allows the storage panels to be easily adjusted, tightened, or completely disassembled without causing any damage to the core timber material.



TERRACES LODGE ARCHITECTURAL
DETAILS

BLOW-UP AXONOMETRIC

Translucent PU-Coated
Polyester (20% VLT)

PVC-Coated Mesh
Fabric

PU-Coated Polyester
Membrane (VLT 10%)

Amugawon Hardwood
Rafters

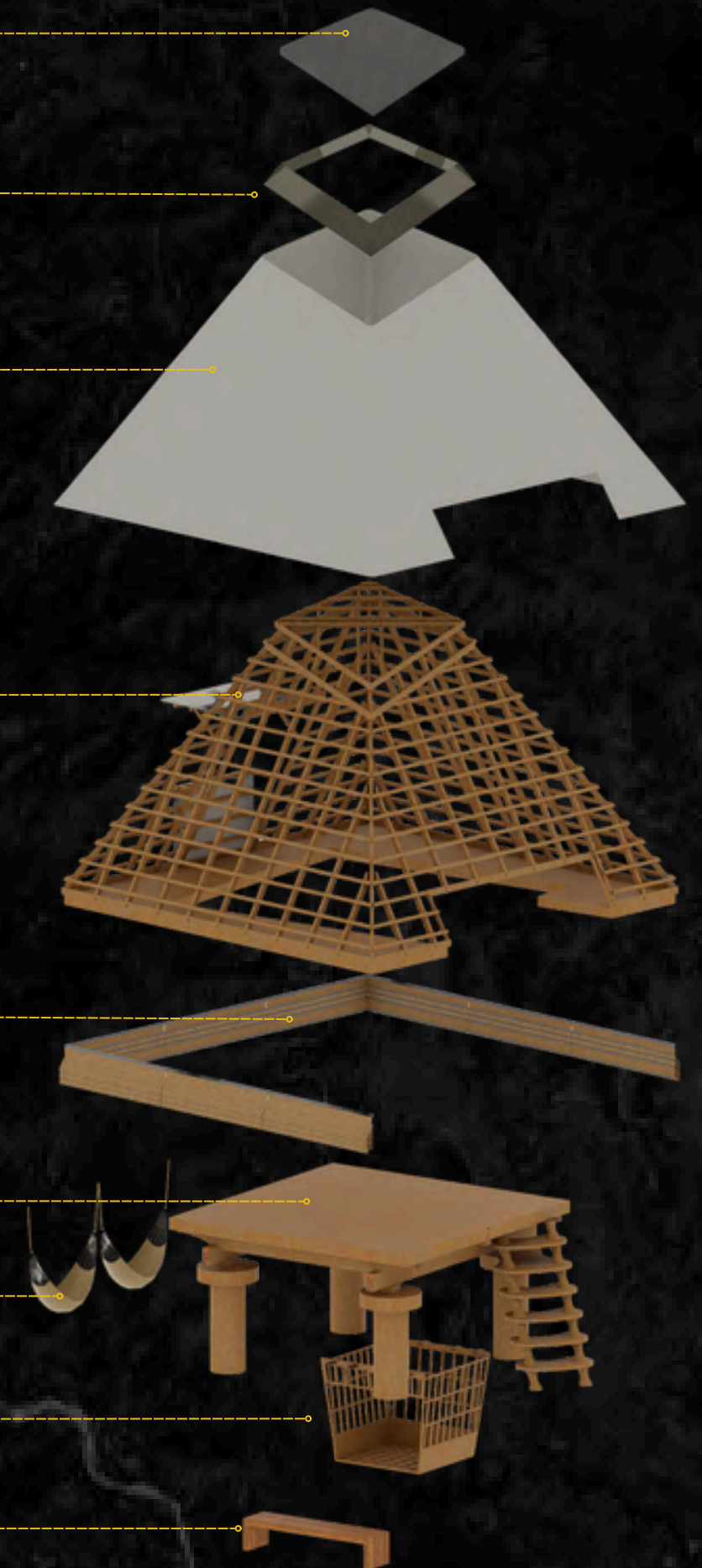
Faux-Wood PVC
Outdoor Roller Blinds

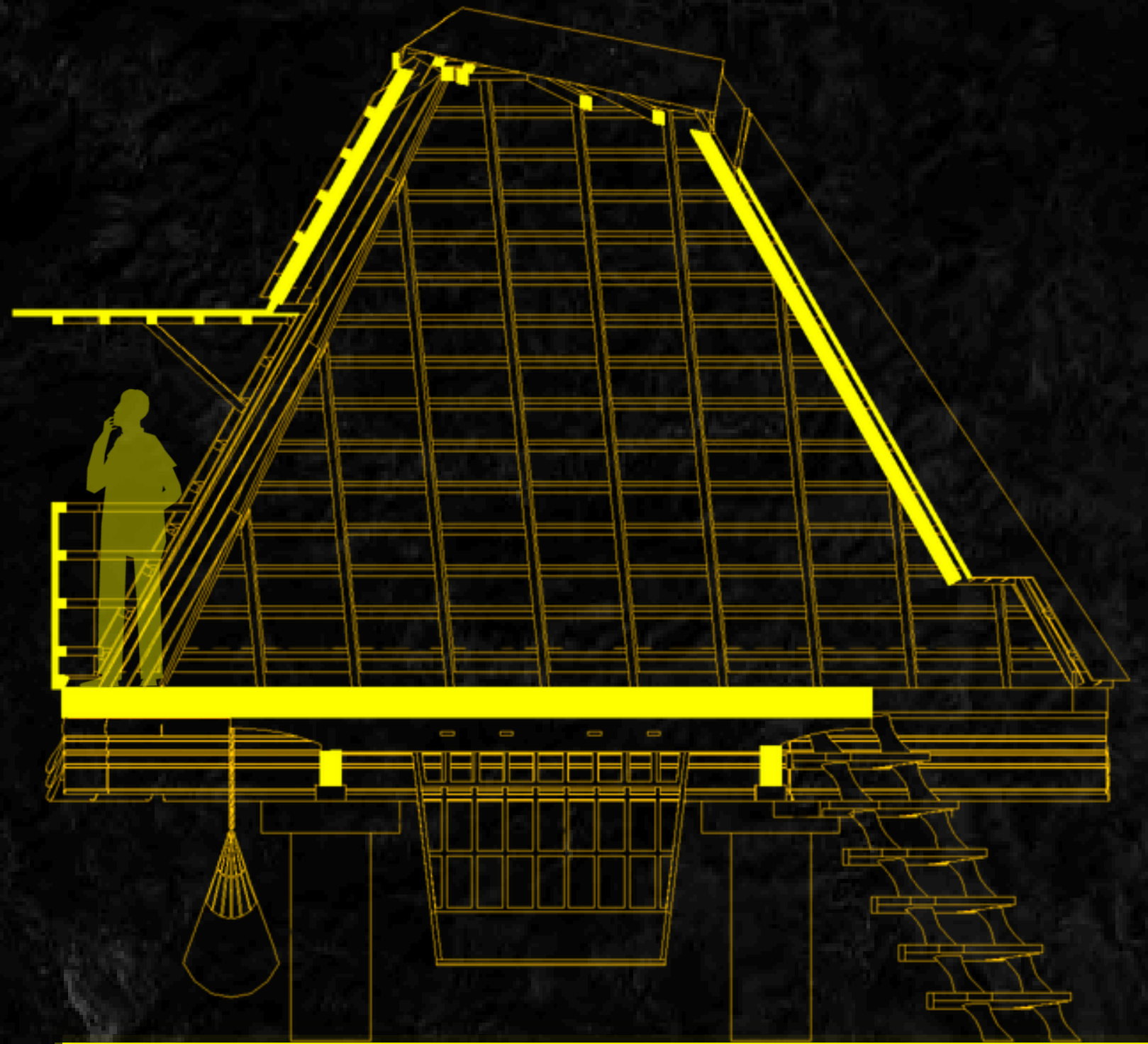
Primary Amaguwon
Structural Framework

Duyan (Hammock)

Integrated Daul
Storage

Modular Timber
Bench





TERRACES LODGE SECTION

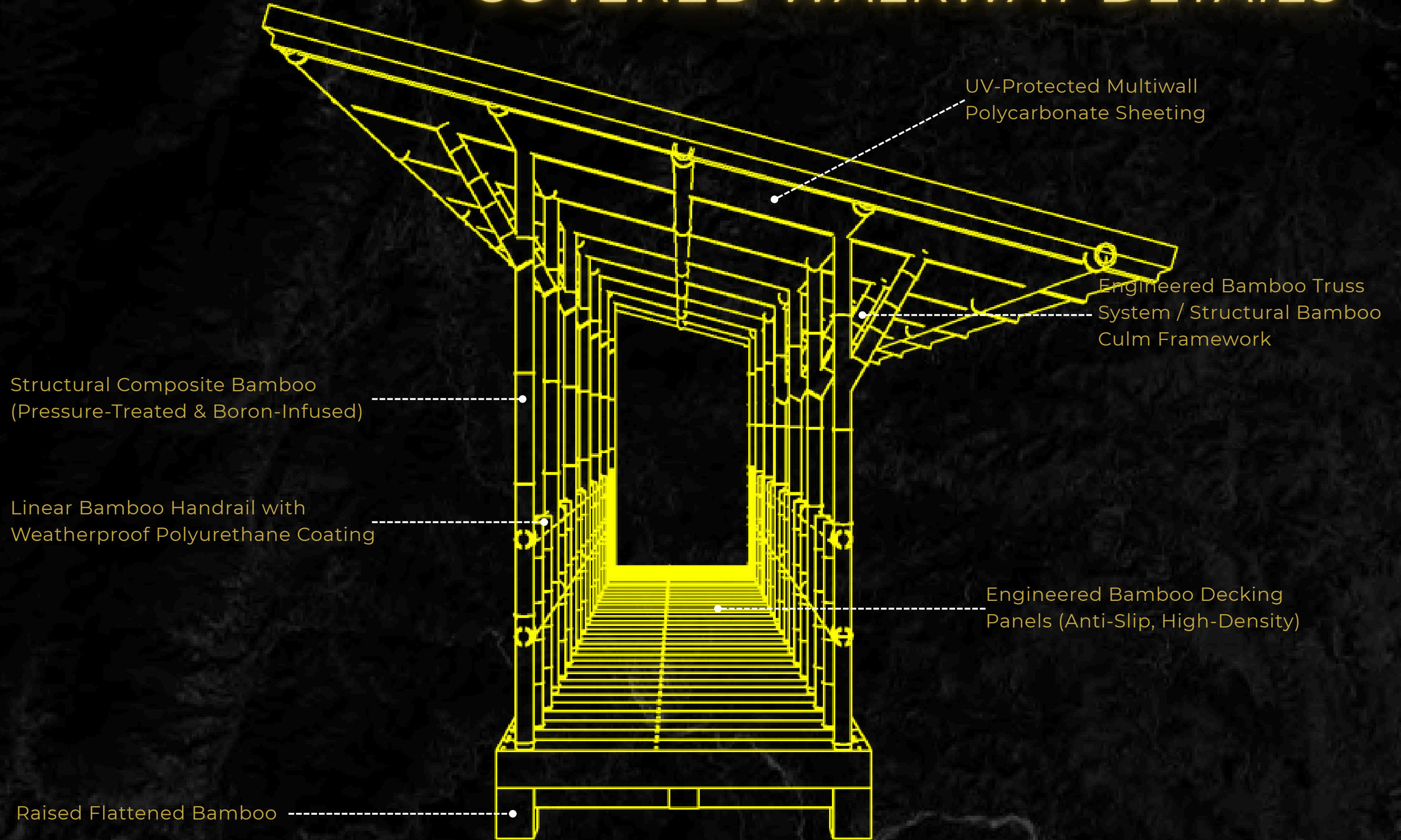




PROPOSED SHELTERED PEDESTRIAN COHESION MAP



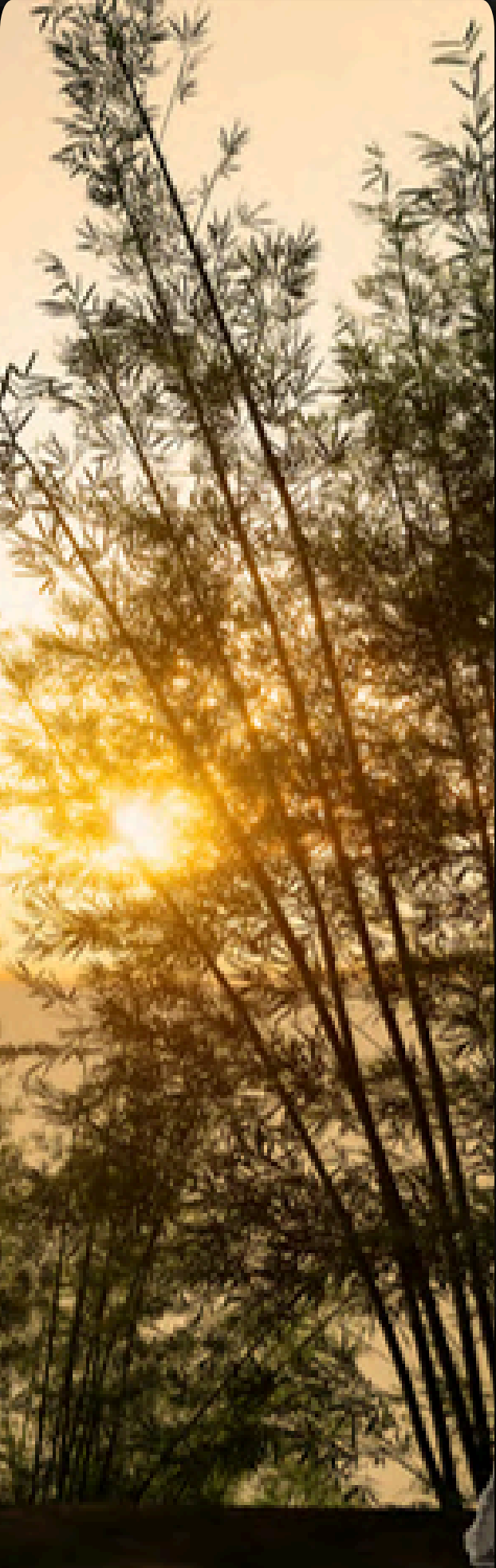
COVERED WALKWAY DETAILS







Urban Phasing Diagram



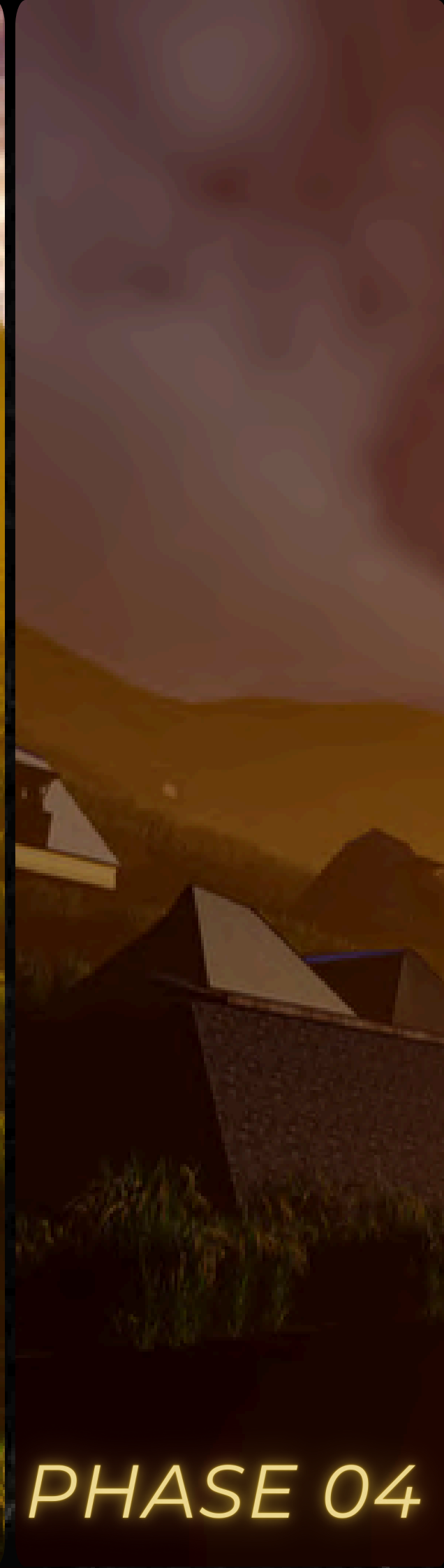
PHASE 01



PHASE 02



PHASE 03



PHASE 04



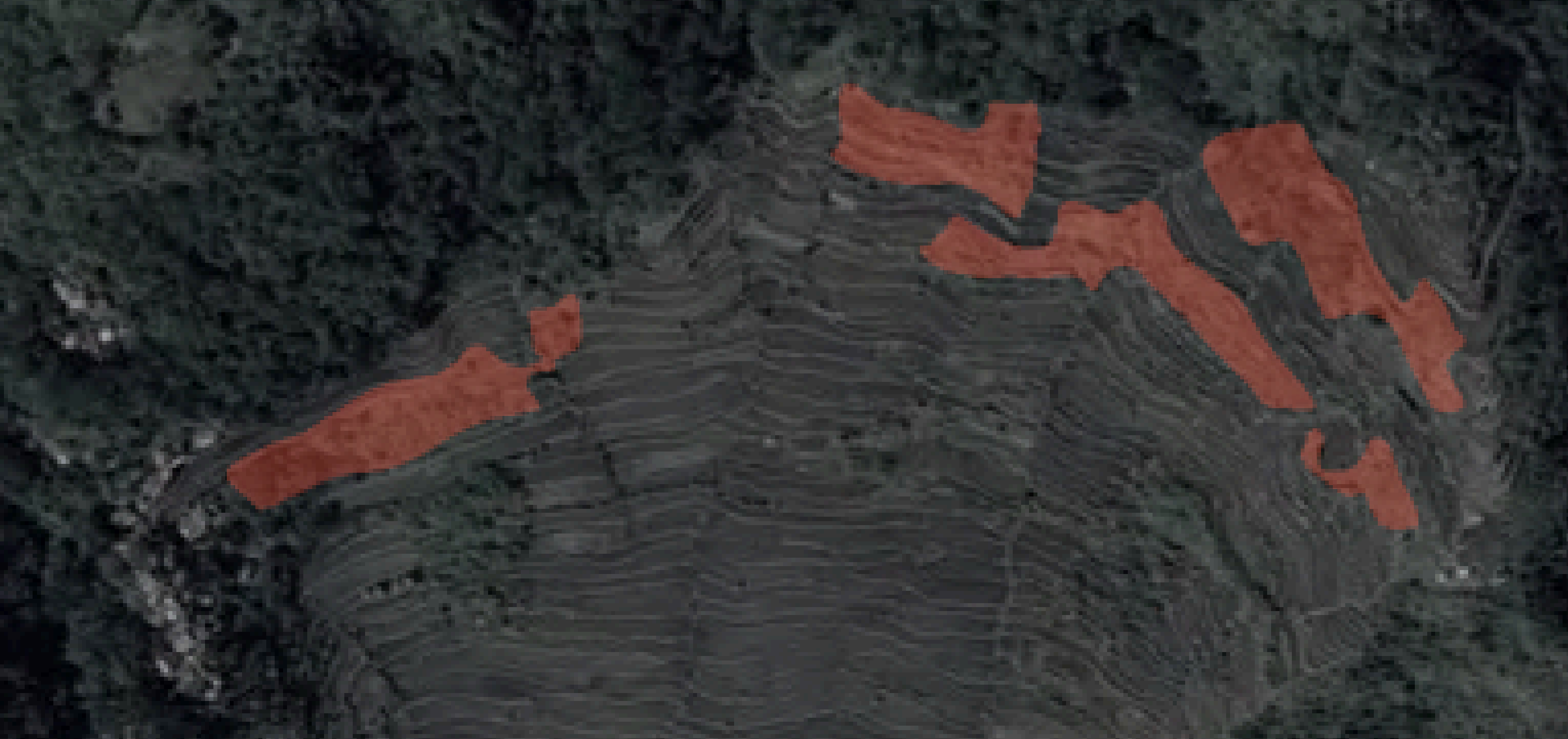
PHASE 05

PHASE 01 (Year 0 - 1)

Ecological Anchoring

Immediate deployment of targeted **BAMBOO PLANTING** clusters along highly degraded, abandoned upper-tier terrace slopes to bind soil geomorphology and arrest active erosion





Targeted Ecological Infill Strategy Map

The initial phase of the urban strategy rejects invasive concrete interventions that threaten the fragile, thousands-of-years-old soil matrix. Instead, it deploys a localized Bio-Engineering Intervention utilizing targeted native bamboo plantations (*Bambusa blumeana*)



Heritage Preservation

Urban Conservation Framework: In compliance with UNESCO Buffer Zone restrictions against new footprints, Phase 1 tackles the rapid decay of traditional thatch roofing—the primary threat to the site’s cultural heritage. Climate shifts and a shrinking local workforce force residents to patch ancestral homes with disruptive corrugated iron sheets. To halt this degradation legally, the masterplan deploys the "Over-roofing" or "Roof Over-lay" retrofitting System, preserving 100% of the authentic vernacular envelope while engineering subsurface structural longevity.



Before Roof Over-lay



After Roof Over-Lay

Detail of Over-Lay Roofing Method

Thatch Envelope

Traditional cogon grass (*Imperata Cylindrica*) thatch, locally sourced and hand-laid in thick layers to achieve desired thickness and weather protection

- Thickness (variable): 120mm-150mm
- Laid with natural taper to shed water

Support Battens

Horizontal bamboo or lightweight timber slats anchored above the metal sheets to provide a stable framework for stitching the thatch layers.

- **Material:** Local Split Bamboo or endemic saplings
- **Function:** Distributes the thatch load uniformly and serves as the primary anchor for local vine lashings.

Existing Corrugated Galvanized Iron Sheet

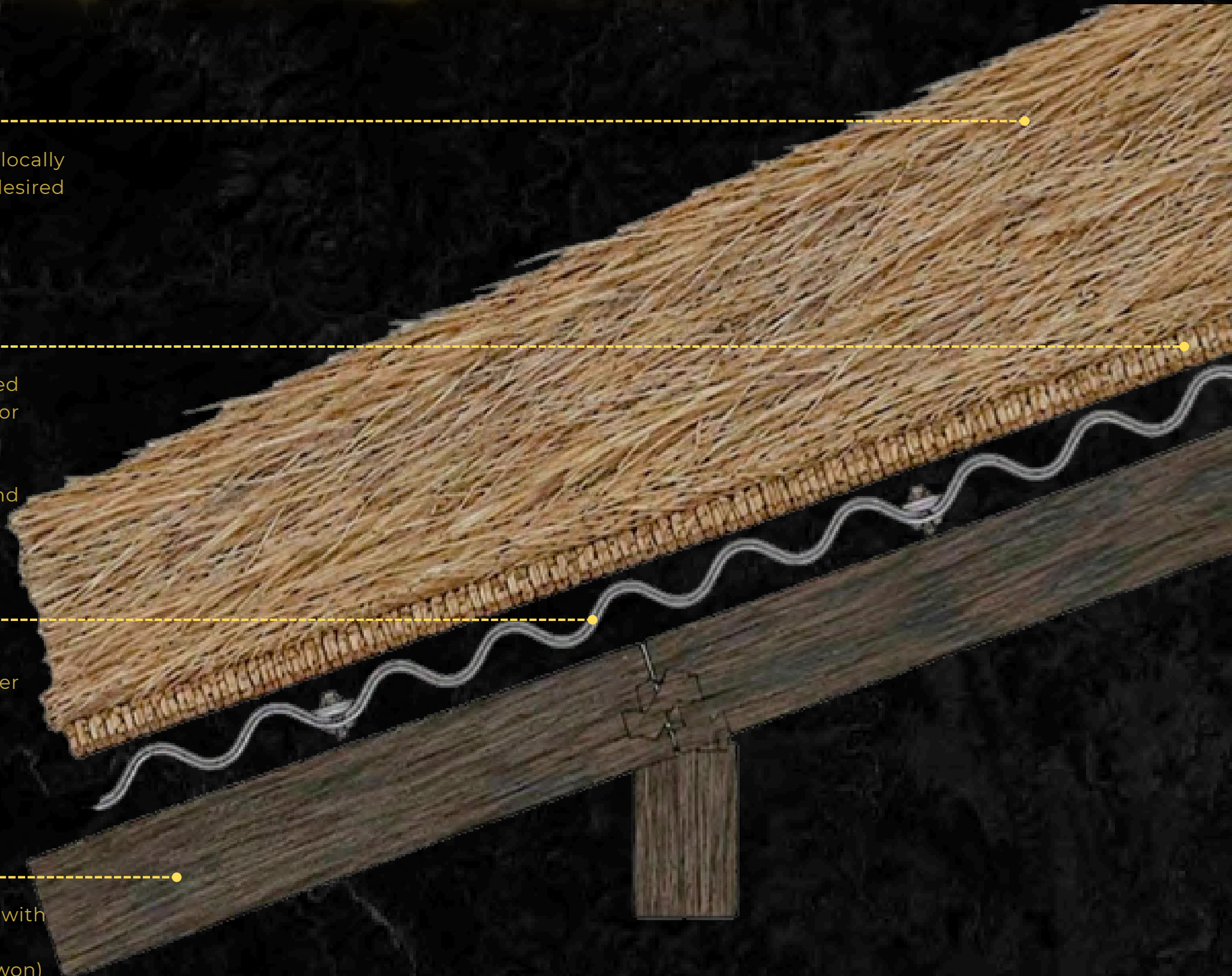
Existing weathered corrugated iron sheet acting as water barrier and primary roof cladding

- **Profile:** Standard corrugated (approx. 76mm pitch)
- **Material:** Galvanized Iron (existing)
- **Thickness:** Approx. 0.40mm-050mm

Existing Hardwood Raters

Original interlocking hardwood rafters, smoked-cured, with traditional joinery supporting the corrugated iron sheet

- **Material:** Local Hardwood (e.g. Narra/Molave/Amaguwon)
- **Section:** Variable (approx. 100mm x 150mm)
- **Finish:** Original, smoked-cured



PHASE 02 (Years 1 - 2)

Pedestrian Access Networks: Installation of pre-fabricated, site-responsive bamboo staircase modules. These structures are elevated on micro-pedestals along abandoned terrace slopes to ensure minimal soil displacement and preserve natural geomorphology.

Strategic Objective: Establishing a primary architectural spine to safely regulate traffic and logistics in absolute preparation for the decentralized hospitality network and lodge distribution.

Pressure-Treated Structural
Bamboo Culms

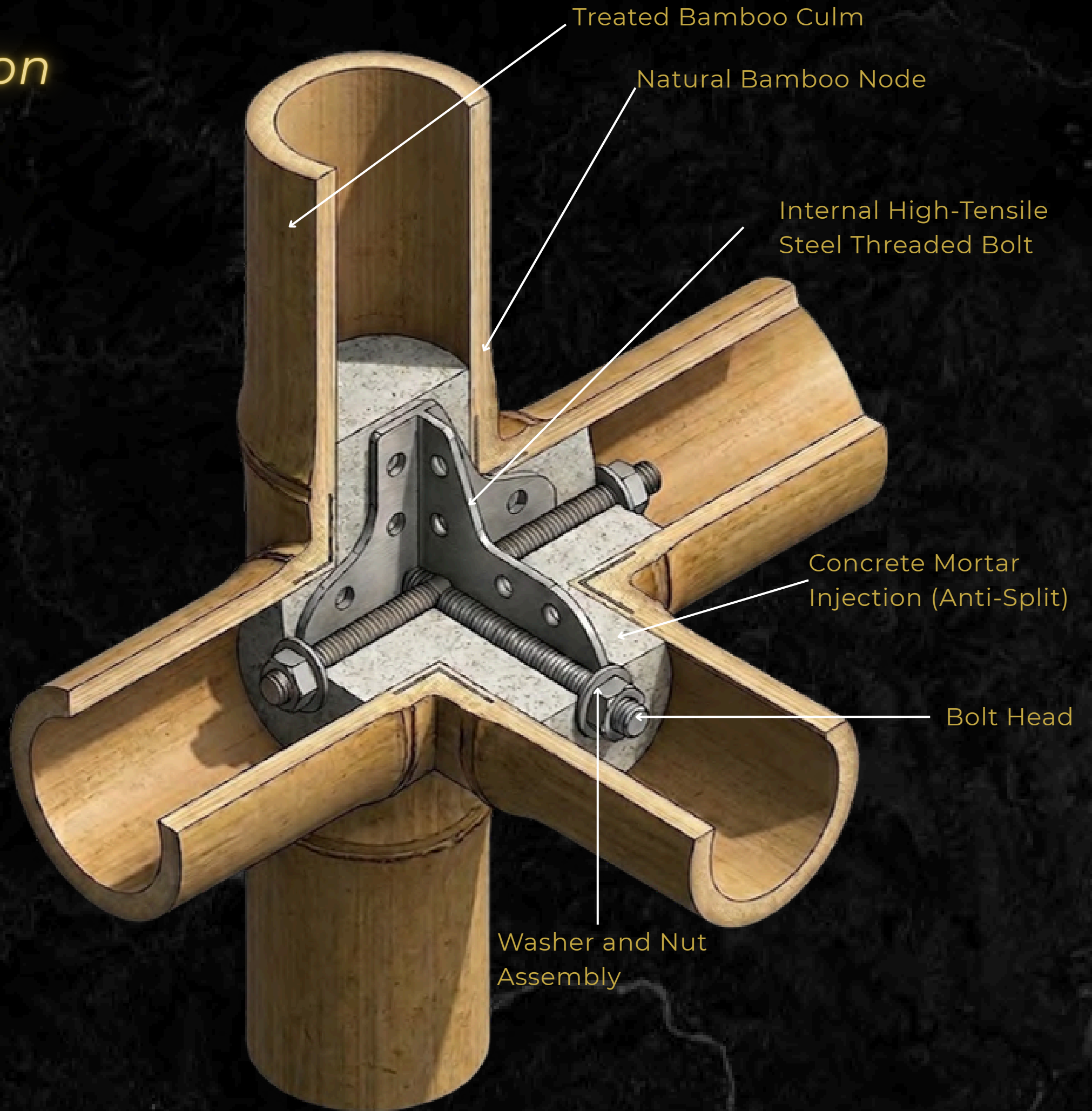


Bamboo Connection

Structural Mechanism: A heavy-duty, multi-directional intersecting joint utilizing an internal 3-way steel angle bracket secured by high-tensile threaded bolts, washers, and nuts.

Anti-Splitting Engineering: The hollow structural core of the bamboo intersection is filled via concrete mortar injection. This eliminates the natural vulnerability of bamboo culms to crushing or splitting when the bolts are fully torqued.

Load Distribution: The combination of internal steel reinforcement and solid mortar cores transforms the organic material into a rigid, high-friction connection node capable of distributing heavy seismic and wind loads across the structural frame.





PHASE 03 (Years 2 - 4)

PILOT ARCHITECTURAL CATALYST

Transitioning from theoretical framework to structural deployment. Establishing the inaugural Cluster of sustainable lodges as a self-undoing catalyst for masterplan expansion

No. of Lodge:
10 units



LEGENDS



TERRACES LODGE

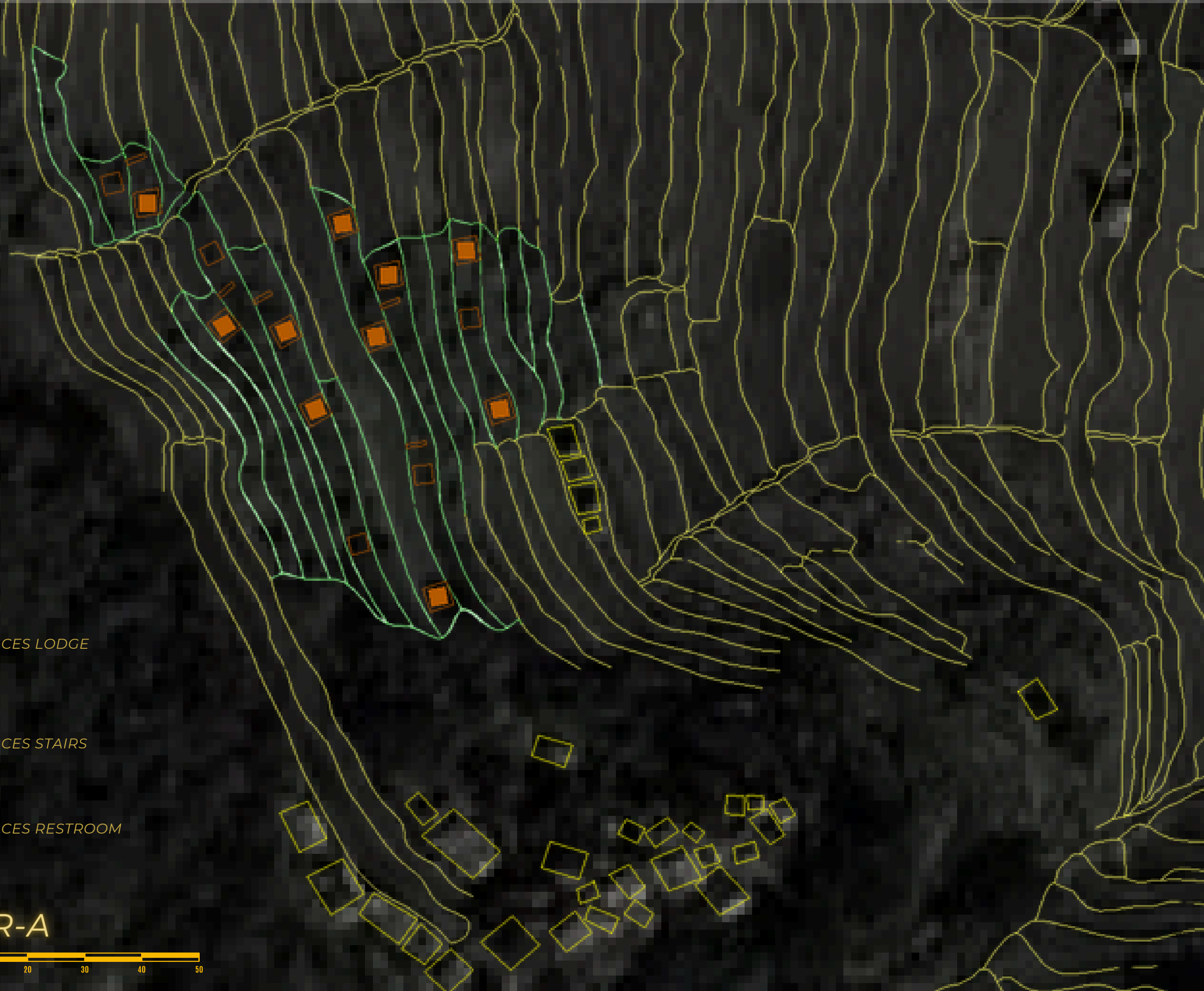


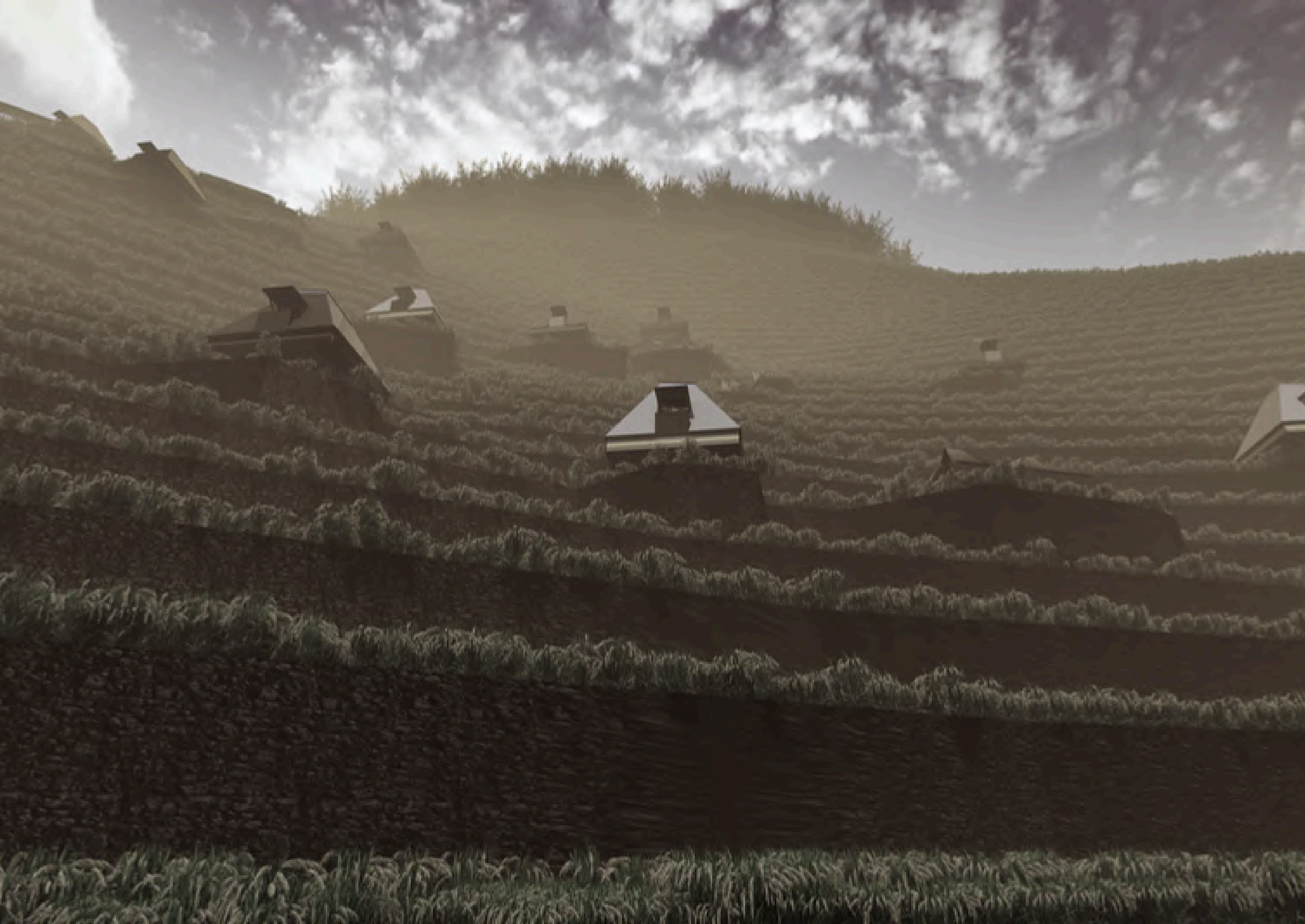
TERRACES STAIRS



TERRACES RESTROOM

CLUSTER-A





OPERATIONAL CORE



Technical Labor

Integration of local Ifugao craftsmen to refine the Mortise-and-Tenon joints with modern bolt reinforcements



Logistical Spine

Implementation of the elevated bamboo staircase network to facilitate material transport without soil erosion



Cultural Buffer

Ensuring lodge operations respect the seasonal agrarian cycle of planting and harvesting in Batad.

Economic Self-Sufficiency

Funding the Future through Sustainable Ecotourism

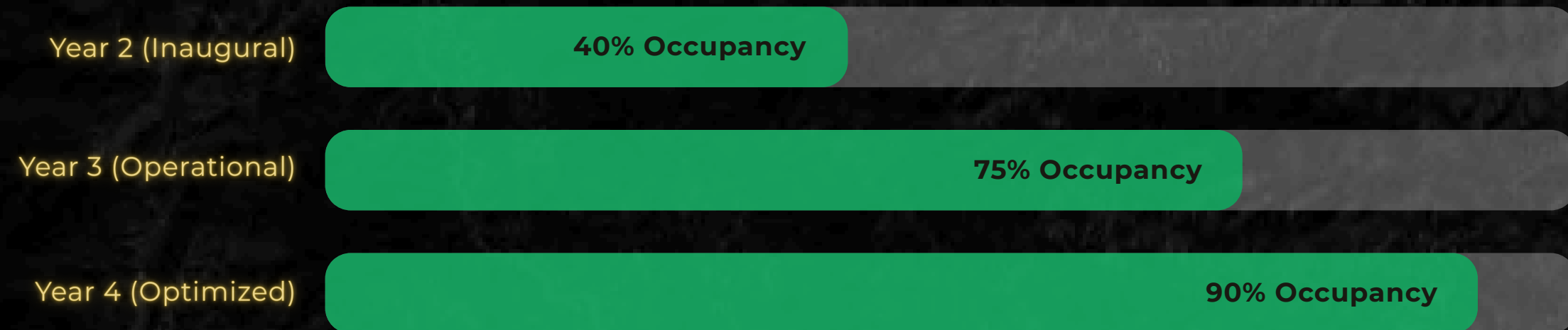
Immediate Revenue Pipelines

100%

Opening Cluster A to global travelers generates the immediate localized revenue required to fully fund Phase 04 and Phase 05. This eliminates reliance on external long-term debt.

Revenue is divided into three buckets: **Expansion Fund, Community Dividend** and **Terraces Fixation Labor.**

Occupancy vs Expansion Capital



Scaling occupancy to 90% provides the capital surplus required for the Phase 04 Horizontal Macro-Expansion

PHASE 04 (Years 4 - 6)

Horizontal Expansion

Scaling the decentralized network while healing the ecological core of Batad

No. of Lodge:
18 units



LEGENDS



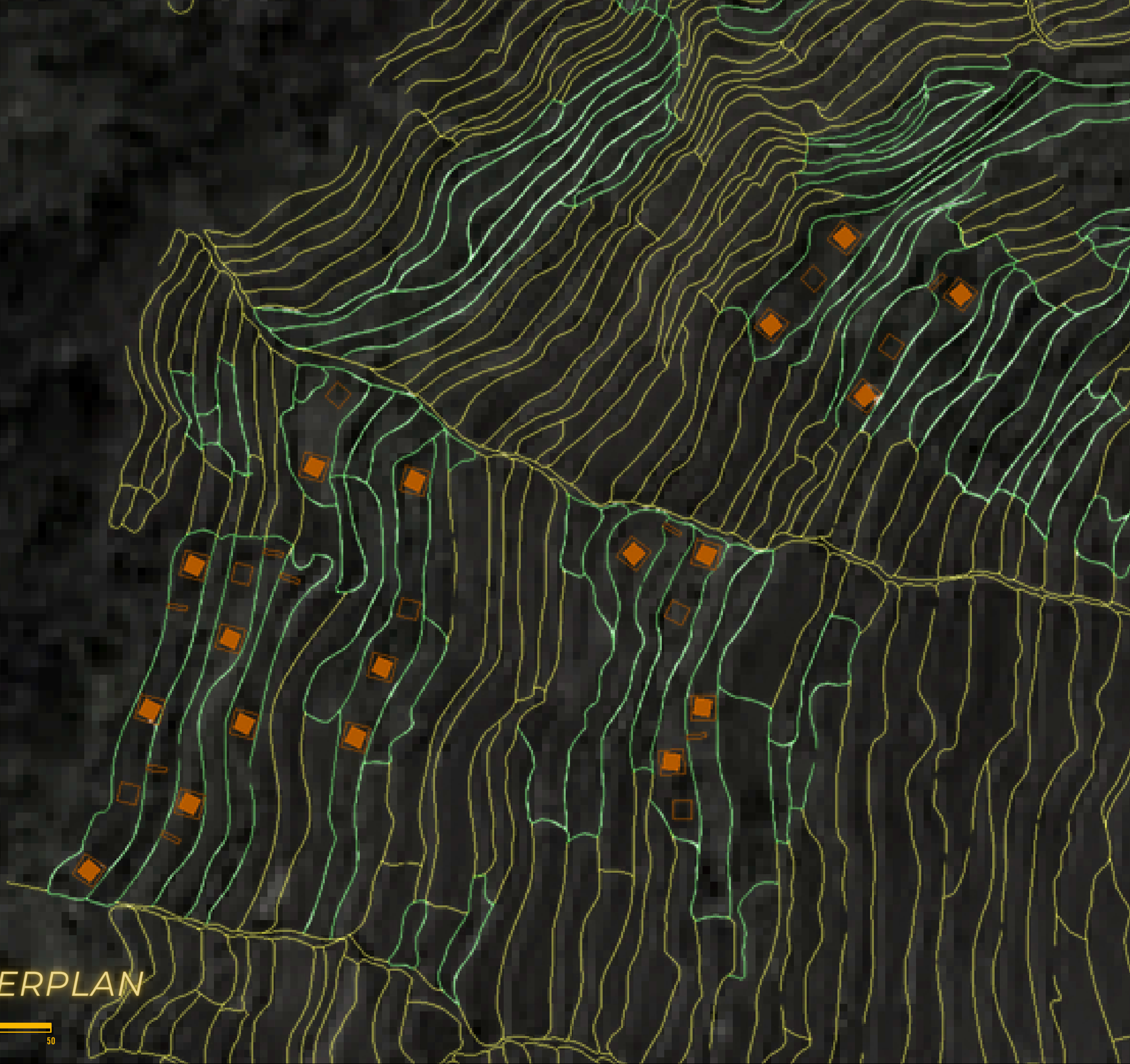
TERRACES LODGE



TERRACES STAIRS

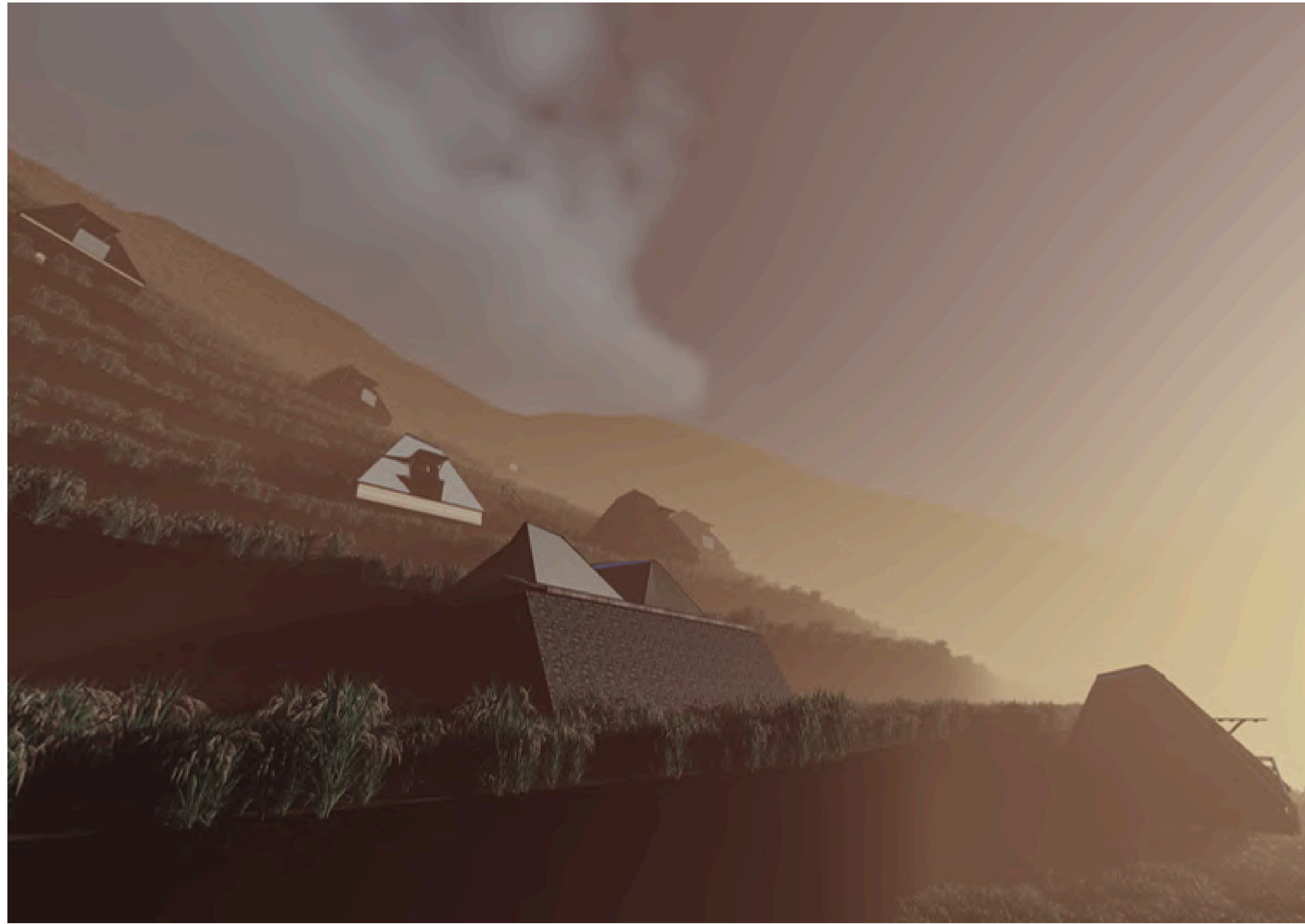


TERRACES RESTROOM



CLUSTER-B MASTERPLAN







Systemic Terrace Scaling



Cluster B Expansion

Establishing secondary hospitality nodes along the tertiary terrace vectors. These modular lodges utilize the same low-impact footprint to ensure agricultural continuity



Agrarian Revival

The expansion acts as a financial catalyst for the rehabilitation of dormant paddies, directly funding the labor required for traditional terrace maintenance

Environmental & Social Impact

65%

By the end of Year 6, the project aims to fix and return to production 65% of currently abandoned terrace clusters in the secondary zones

This intervention stabilizes the soil and creates a **Protective Buffer** against climate-induced erosion.

Active vs Rehabilitated Land



Strategic "Fixation" results in a 150% increase in cultivable area across the tertiary expansion zone

Horizontal Roadmap

1

Year 4

Cluster B Site Prep
& Wall Fixation

2

Year 5

Lodge Deployment
& Agrarian Seedlings

3

Year 6

Full Network Integration
& Coop Transfer

PHASE 05 (Years 6 - 8+)

Capital Reinvestment

Aggregating yields from Cluster A and Cluster B networks to fund industrial-grade interventions.

Financial Maturity



Operating Yields

After six years of optimized lodge operations, the decentralized hospitality network provides a matured financial surplus. These global revenue pipelines are no longer needed for lodge construction, allowing for 100% reallocation into mechanical infrastructure.



Sovereign Funding

By bypassing external debt or government grants, the project maintains total autonomy. The “Monorail Fund” is a community-owned capital pool, ensuring that the infrastructure remains a localized asset for the Ifugao farmers.

The Monorail System

Eliminating vertical hauling strain through site-responsive automation.

Industrial Integration

Technical Specifications

The automated Monorail System is designed specifically for the extreme gradients of Batad. It features a rack-and-pinion drive system integrated into a low-profile, single-rail track that follows the existing pedestrian access network.

Automation: Sensor-based collision avoidance

Energy: Solar-charged battery pods or Gasoline type

Payload: 200kg capacity



Monorail System Map

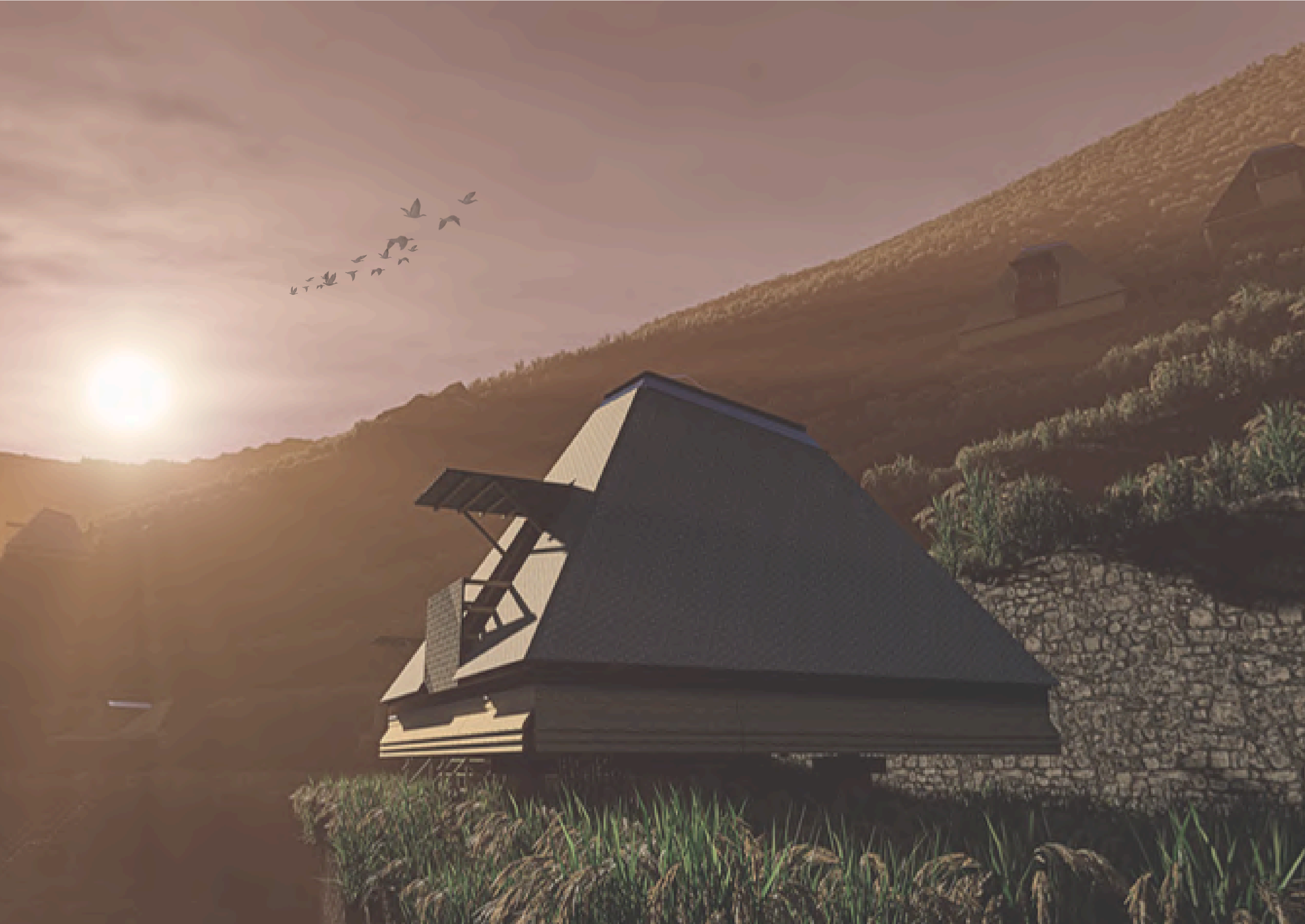


Monorail Infrastructure-Terrain Integration Diagram









Legacy Realization

Securing the Future

Phase 05 is the ultimate fulfillment of the architectural vision. By integrating modern mechanical infrastructure into the ancestral landscape, we remove the physical barriers to terrace preservation.

The farmers are no longer laborers of the past, but managers of a tech-enabled, resilient heritage site. The agricultural ecosystem is secured, the migration to cities is slowed, and the terraces remain active for generations.



“Heritage is our legacy from the past, what we live with today, and what we pass on to future generations.”

— UNESCO

LEGACY IN MOTION

Re-Inhabiting the Next Generation Farmers

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