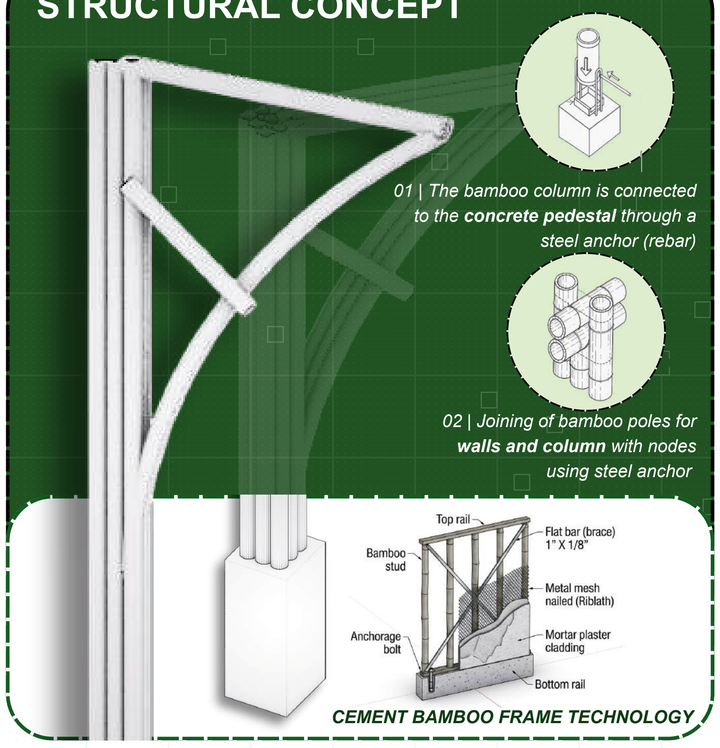
TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES-MANILA
COLLEGE OF ARCHITECTURE AND FINE ARTS
ARCHITECTURE DEPARTMENT
AYALA BLVD., ERMITA, MANILA, 1000 PHILIPPINES

STRUCTURAL CONCEPT



*01 | The bamboo column is connected to the **concrete pedestal** through a steel anchor (rebar)*

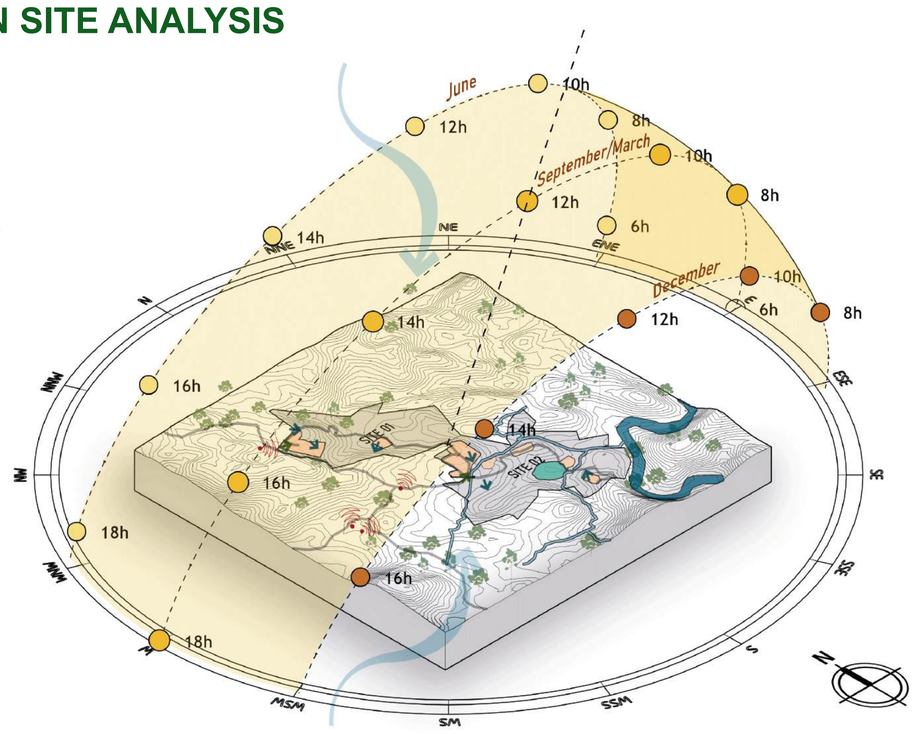
*02 | Joining of bamboo poles for **walls and column** with nodes using steel anchor*

CEMENT BAMBOO FRAME TECHNOLOGY

MASTERPLAN SITE ANALYSIS

LEGEND

- SITE AREA
- CONTOUR
- PHASES OF DEVELOPMENT
- EXISTING ROADS
- RIVER
- CREEK
- PIT LAKE
- SUN PATH
- WIND PATH
- NOISE SOURCE
- VIEWS
- VISTA
- VEGETATION



TOPOGRAPHIC MAP

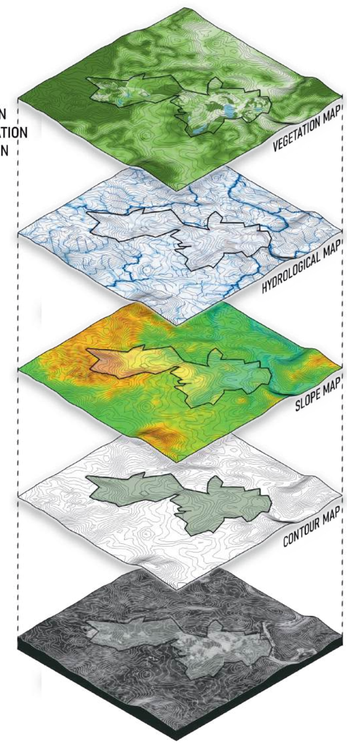
LEGEND

- SITE AREA
- CONTOUR
- NO VEGETATION
- LOW VEGETATION
- MEDIUM VEGETATION
- HIGH VEGETATION
- WATER BODIES

- SITE AREA
- CONTOUR
- Surface Water
- Water Network
- -19.27
- -1.32

- SITE AREA
- CONTOUR
- 19 mts
- 200 mts

- SITE AREA
- CONTOUR



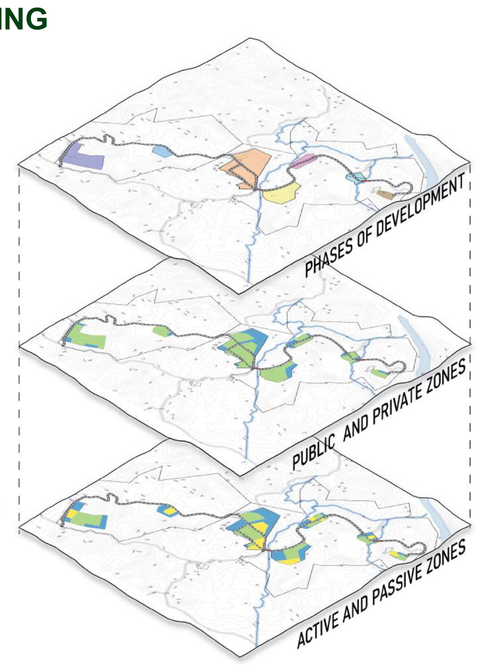
SITE ZONING

LEGEND

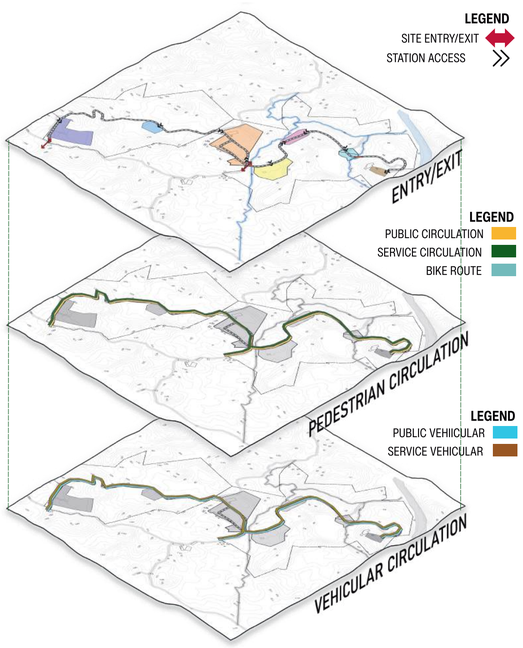
- PHASE 01
- PHASE 02
- PHASE 3
- PHASE 04
- PHASE 05
- PHASE 06
- PHASE 07

- PUBLIC ZONE
- PRIVATE ZONE

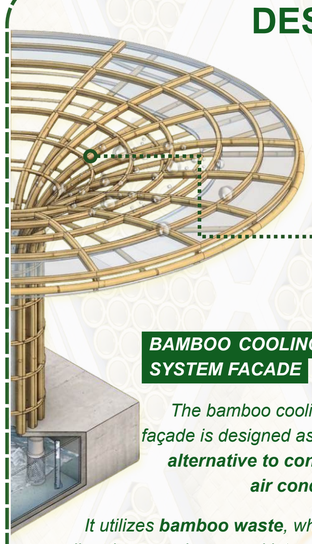
- ACTIVE-PASSIVE ZONE
- ACTIVE ZONE
- PASSIVE ZONE



SITE CIRCULATION



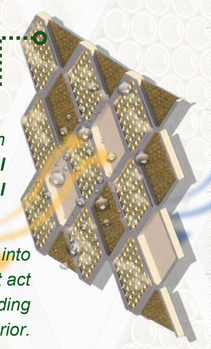
DESIGN FEATURES



*The design feature focuses on **POLLUTION CONTROL**, addressing water, air, waste, and energy management to minimize environmental impact and promote sustainable operations.*

RAINWATER CATCHMENT

BAMBOO COOLING SYSTEM FACADE

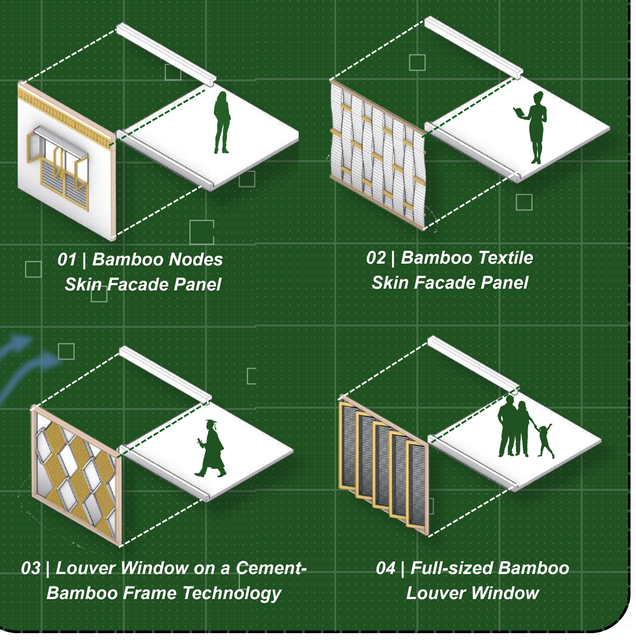


*The bamboo cooling system façade is designed as a **natural alternative to conventional air conditioning**.*

*It utilizes **bamboo waste**, which is cut into smaller pieces and arranged into panels that act as a **breathable screen** along the building exterior.*

DESIGN INNOVATION

FACADE CONCEPT



01 | Bamboo Nodes Skin Facade Panel

02 | Bamboo Textile Skin Facade Panel

03 | Louver Window on a Cement-Bamboo Frame Technology

04 | Full-sized Bamboo Louver Window

PHASE 01

BARLO LIKHAWAYAN

The Barlo Likhawayan Station stands as the central hub and defining core of the entire development, serving as the primary catalyst for both ecological recovery and economic revitalization of the former mining site. It anchors the transformation by integrating bamboo-based industries, livelihood generation, and sustainable practices, demonstrating how restoration and productivity can coexist.

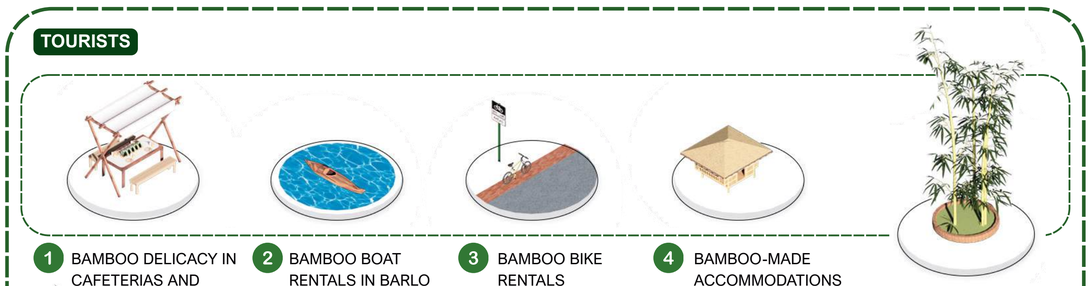
The repurposing of Barlo Mining Site is rooted in a nature-led design philosophy inspired by the principles of Plontur Group, where

the land is treated as the main character and architecture exists only to support it.

By placing landscape at the center of the design process, the architecture emerges not by imposition, but through an engagement with the site's altered condition.

DESIGN PHILOSOPHY

TOURISTS



1. BAMBOO DELICACY IN CAFETERIAS AND RESTAURANTS
2. BAMBOO BOAT RENTALS IN BARLO MINES PIT LAKE
3. BAMBOO BIKE RENTALS
4. BAMBOO-MADE ACCOMMODATIONS AND FACILITIES
5. BAMBUSETUM VISIT

TRAINEES

1. BAMBOO HARVESTING
2. BAMBOO PROPA-GATION
3. BAMBOO TREATMENT
4. BAMBOO SUN DRYING
5. BAMBOO PROCESSING
6. BAMBOO PRODUCTION LECTURE

BAMBOO-RELATED MAIN ACTIVITIES

BAMBOO LIVELIHOOD TRAINING COMPLEX

REPURPOSING OF THE ABANDONED BARLO MINING SITE: A PROPOSED BAMBOO LIVELIHOOD TRAINING COMPLEX INTEGRATED WITH AN AGROECOLOGICAL PARK IN MABINI, PANGASINAN

ANG , KYLA MAE +
SIBAL, DAPHNE CHER