Pooja Bhattarai

Architecture Portfolio
Selected Works 2021–2026

Kathmandu, Nepal
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PORTFOLIO INTRODUCTION

Pooja Bhattarai
Senior Architect - Kathmandu, Nepal

Growing up in Kathmandu, I witnessed rapid urban transformation that reshaped the environmental and cultural identity of my city. Traditional buildings constructed with locally available materials were gradually replaced by dense concrete development, often without consideration for environmental sustainability or cultural continuity. Observing these changes shaped my interest in understanding how architecture can respond responsibly to environmental, cultural, and urban contexts.

Over the past five years as a practicing architect, I have worked on residential, mixed-use, commercial, and community projects across Nepal. These experiences have strengthened my ability to translate conceptual ideas into built form through design development, construction documentation, and interdisciplinary collaboration. My work emphasizes the integration of locally available materials, climate-responsive design strategies, and sensitivity to cultural and environmental context.

I’m deeply interested in how architecture connects with broader urban systems, and how thoughtful, sustainable design and planning can help shape resilient and responsible cities. Through my professional experience, this has grown into a clear commitment to architecture not just as a design practice, but as a way to contribute to built environments that are sustainable, context-aware, and culturally grounded.

This portfolio presents selected works that reflect my design approach, professional development, and ongoing exploration of sustainable and context-responsive architecture.

Skills and Tools

Pooja Bhattarai
Senior Architect - Kathmandu, Nepal

Core Competencies

Architectural and Urban Design
Design of residential, commercial, and community buildings with focus on contextual integration, spatial clarity, and environmental responsiveness.
Sustainable Design and Material Systems
Application of climate-responsive design strategies and locally available materials to support environmentally responsible architecture.
Urban Systems Awareness
Understanding of the relationship between buildings, infrastructure, and urban environments, and how architectural decisions influence broader urban systems.
Construction Documentation and Technical Development
Preparation of architectural drawings, technical documentation, and coordination materials to support construction implementation.
Interdisciplinary Coordination and Site Implementation
Collaboration with engineers, contractors, and stakeholders throughout design and construction phases to ensure technical and design integrity.

Digital Tools

AutoCAD — Technical drawings and construction documentation
Revit — Building Information Modeling and architectural design development
SketchUp — Conceptual and detailed 3D modeling
Lumion — Architectural visualization and rendering
Adobe Photoshop — Graphic representation and visual communication
Adobe InDesign — Portfolio and architectural documentation layout

TABLE OF CONTENT

Project - 01

DAYA MEDITATION HALL

TEMPLE OF KNOWLEDGE - ART OF LIVING

CONCEPT: Grounded in Earth, Elevated in Spirit

LOCATION : Namobuddha, Nepal
Project Type: Meditation and Community Space
Year: 2023-2026

Total Built up Area : 5,098 sq.ft

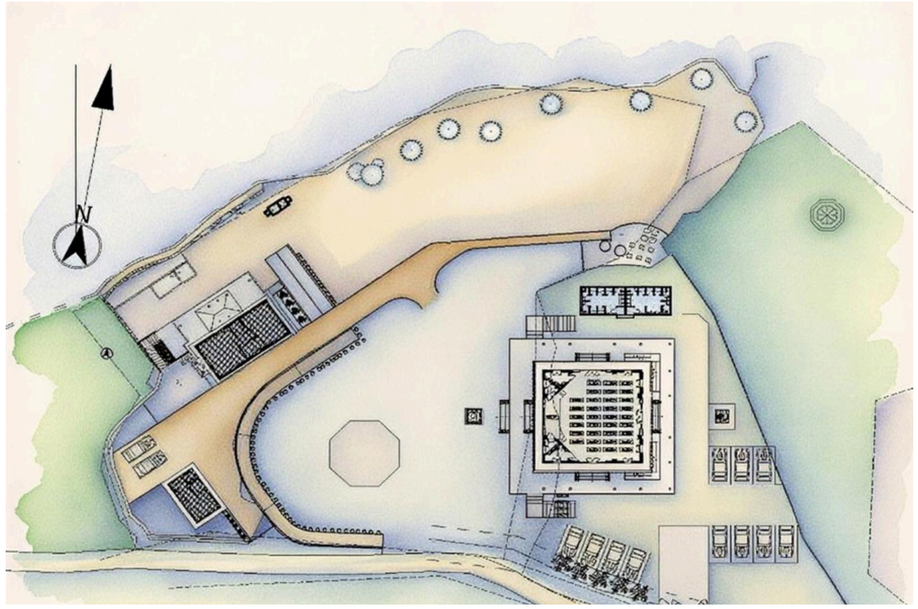
ROLE AND CONTRIBUTION

Role: Project Architect

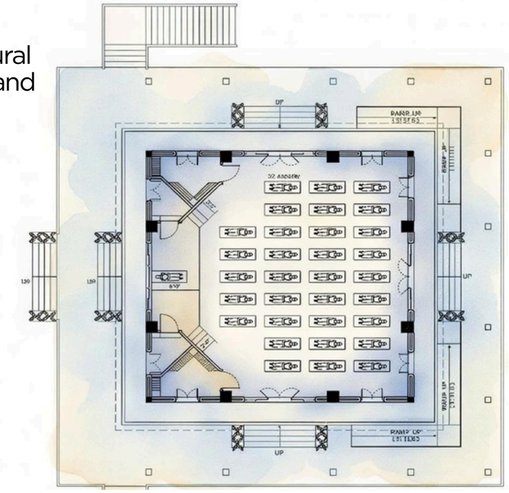
- Led concept design, spatial planning, material research, architectural drawings, and 3D visualization. Also researched material options and proposed the use of locally available materials
- Coordinated with clients, structural engineers, and contractors throughout the design development process.
- This project strengthened my understanding of how material selection, spatial clarity, and environmental responsiveness shape architectural experience.

PROJECT OVERVIEW

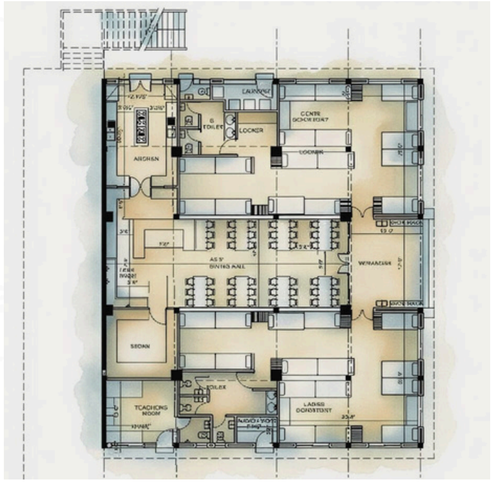
The Daya Meditation Hall was designed as a quiet and grounded space for meditation and small community gatherings. The design allows users to feel connected to the landscape while maintaining privacy and enclosure within the meditation space.



SITE PLAN (45'X45' TEMPLE)



GROUND FLOOR PLAN (FOR MEDITATION)
AREA: 1600 SQ.FT



LOWER GROUND FLOOR PLAN (DORMITORY)
AREA: 3498 SQ.FT

DESIGN SPECIFICATION

The design was guided by the following priorities:
Provide a calm and distraction-free environment suitable for meditation

- Use locally available, sustainable construction materials
- Allow natural daylight while preserving privacy and enclosure

Construction Method :

- Solid brick masonry walls with cement/lime mortar.
- Exterior finished with exposed brick or stone masonry to maintain material honesty.
- Sloped, tiered roof inspired by traditional Nepalese architecture.

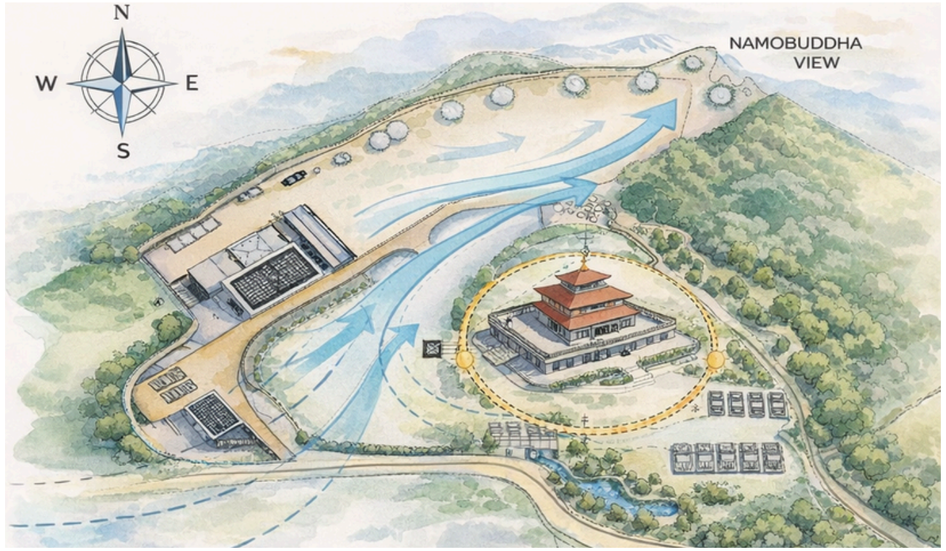
DESIGN APPROACH

- The architectural form was intentionally kept simple and grounded, allowing the materials and proportions to define the character of the building.
- Openings were positioned carefully to allow natural light to enter gently throughout the day without disturbing the calmness of the interior.
- The roof form and structural expression were influenced by traditional Nepali architecture.

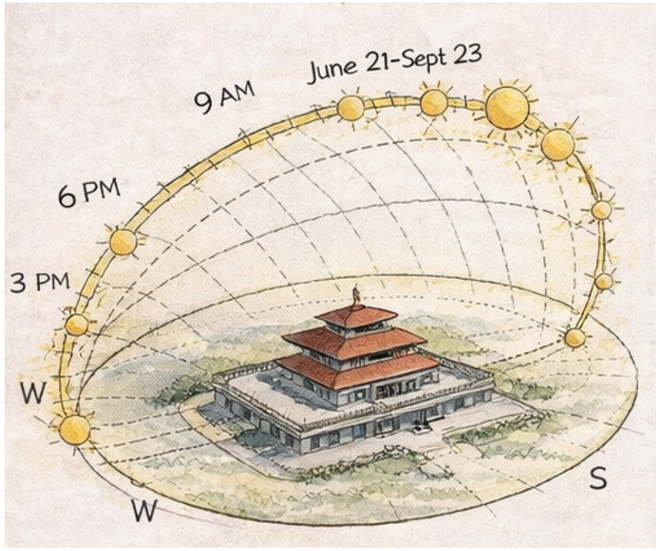
DAYA MEDITATION HALL

TEMPLE OF KNOWLEDGE - ART OF LIVING

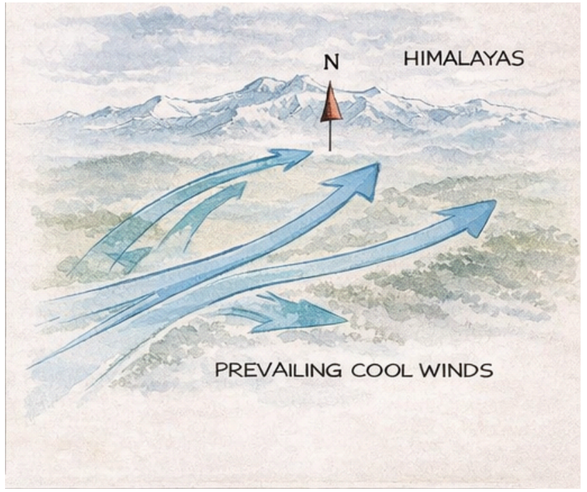
CONCEPT: Grounded in Earth, Elevated in Spirit



The meditation hall is climatically oriented to harness southern winter sun and prevailing valley winds, creating a naturally lit and passively ventilated contemplative space.



SUN PATH DIAGRAM



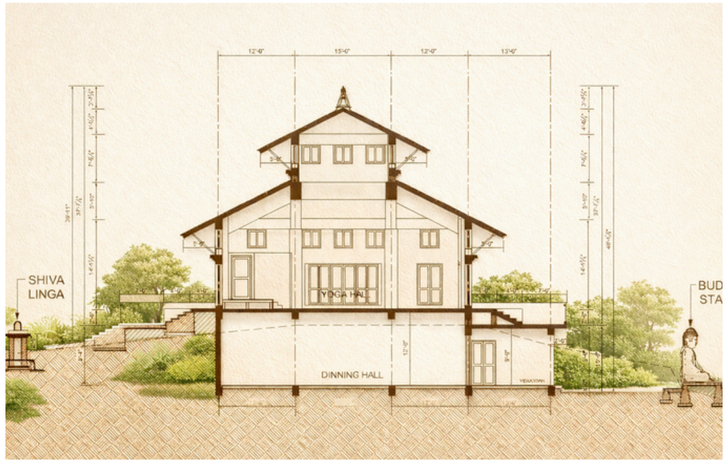
WIND DIRECTION

CORE DESIGN PHILOSHOPY

- Locally sourced brick and stone form the foundation of the structure, symbolizing stability, permanence, and connection to the earth.
- These materials are left expressive and authentic, allowing the building to age gracefully and merge naturally with its surroundings
- The concept emphasizes creating a space that feels calm, grounded, and spiritually uplifting. It focuses on connecting people with nature, with themselves, and with the cultural roots of Namobuddha.

Locally Sourced Bricks

Natural Stone



SECTION

SOLAR ORIENTATION STRATEGY

- The building is aligned considering the east–west solar movement.
- At 27.5°N latitude, the sun remains predominantly in the southern sky throughout the year.
- The southern façade receives maximum solar exposure in winter, making it ideal for controlled daylight and passive heat gain.

Design Response to Sun

- Deep eaves and projecting roofs control summer glare.
- Openings positioned to receive soft eastern morning light — ideal for meditation activities.
- Central hall receives diffused daylight to maintain a calm, glare-free interior environment.

Project - 02

GURUKUTI RESIDENCE

RESIDENCE FOR GURU SHREE RAVISHANKER

CONCEPT: "Earthline House"

A Sustainable home using stablilized rammed earth walls, clay tiles roofing and climate responsive design.

LOCATION : Namobuddha, Nepal
Project Type: RESIDENCE FOR GURU
Area : 1270 SQ.FT
Year: 2024-2026

ROLE AND CONTRIBUTION

Role: Project Architect

- I was responsible for developing the architectural concept, spatial planning, and material strategy for the Gurukuti Residence. From the early stages of the project, I researched sustainable construction methods and proposed the use of rammed earth as a primary wall system.
- I prepared architectural drawings, 3D models, and visualizations to communicate the design clearly to the client and project team.

PROJECT OVERVIEW

The Gurukuti Residence was designed as a sustainable private home for Guru Shree Ravishanker that responds to its natural surroundings while meeting contemporary living needs.

My intention was to create a building that feels grounded in its environment and reflects traditional construction wisdom without compromising structural performance or comfort.

ROOF DETAIL

- Clay / Terracotta Tiles
- Wide overhang Eaves
- Insulation layer

GROUND FLOOR PLAN

DESIGN SPECIFICATION

The design was guided by the following key requirements:

- Use environmentally responsible and locally available construction material
- Ensure structural stability and durability appropriate to local conditions
- Create functional and comfortable living spaces with natural light and ventilation
- Develop a design that reflects cultural and environmental context

Project - 02

GURUKUTI RESIDENCE

RESIDENCE FOR GURU SHREE RAVISHANKER

DESIGN APPROACH

- My approach was to design a building that feels stable, simple, and connected to the ground. The spatial layout was organized to allow natural light to enter living areas while maintaining privacy and comfort.
- The building form was kept clear and efficient, allowing the material expression to define the architectural character.
- I focused on creating a balance between openness and enclosure, ensuring that the house remains comfortable throughout the year.
- Working on this project strengthened my understanding of how architectural form, climate, and material selection work together to shape building performance.

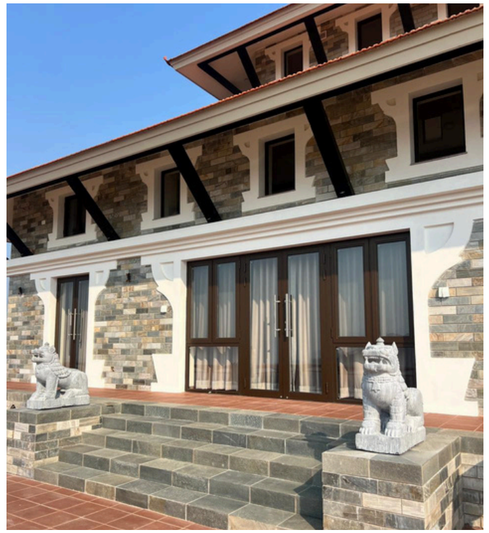
MATERIAL STRATEGY

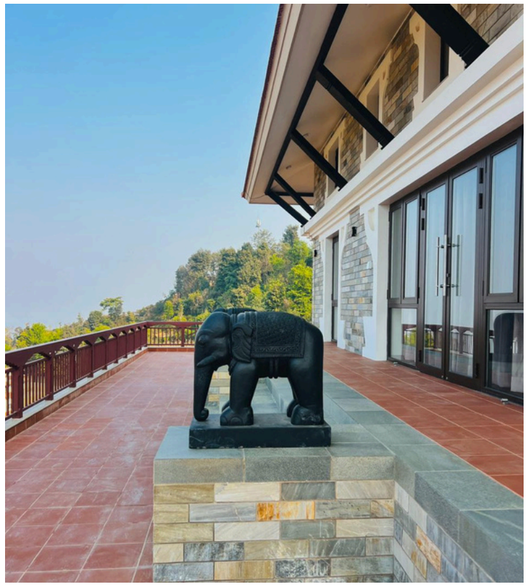
- A key aspect of this project was the use of rammed earth as a primary construction material.
- I proposed this approach after researching its environmental benefits, thermal performance, and relevance to traditional construction practices.
- Rammed earth walls provide excellent thermal mass, helping regulate indoor temperature naturally while reducing reliance on mechanical heating and cooling.
- The use of locally available soil, stone, and timber reduced the environmental impact of construction and supported regional building practices.

Render 3d views

ONGOING CONSTRUCTION WORKS OF MEDITATION HALL AND GURUKUTI








BALUWATAR BUILDING

CONCEPT: Where Classic Grandeur Meets Contemporary Edge

LOCATION : Baluwatar, Kathmandu
PROJECT : Multi Use Building
Architectural Style: Contemporary Neo classical Fusion
Site Area: 6,716.57 sq.ft
YEAR : 2025- 2026

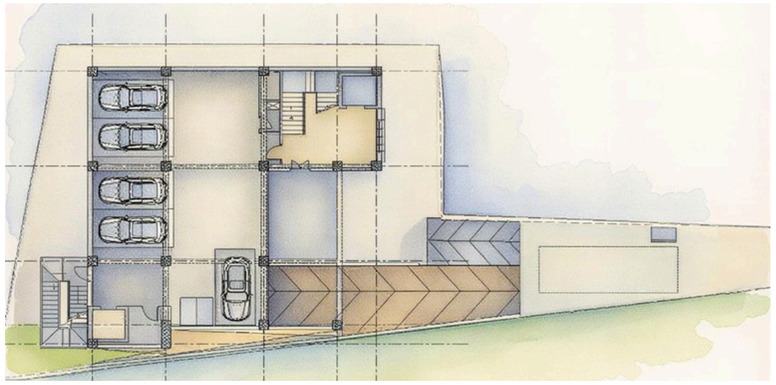
ROLE AND CONTRIBUTION

ROLE : CONCEPT ON ELEVATIONS & 3D VISUALIZATION

- I was responsible for developing the architectural concept, spatial layout, facade design, and overall visual direction of the project. I prepared architectural drawings, 3D models, and visualizations to communicate the design clearly to the client and project team.
- This project strengthened my understanding of how architectural design must respond not only to client needs but also to its urban surroundings.

PROJECT OVERVIEW

The Baluwatar Mixed-Use Building was designed to accommodate commercial spaces at the lower levels and residential units above, within a dense and rapidly growing part of Kathmandu. The project required careful planning to ensure functional efficiency while maintaining a strong architectural identity.



Site Plan with Ground Floor

Design Specifications

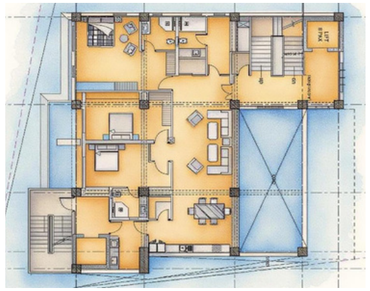
The design was guided by the following requirements:

- Accommodate both commercial and residential functions within the same structure
- Ensure clear circulation and separation between public and private spaces
- Maximize access to natural light and ventilation
- Develop a façade that responds to the local architectural context

Street view

Balcony view

Back view



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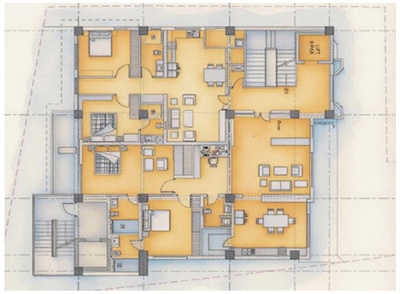

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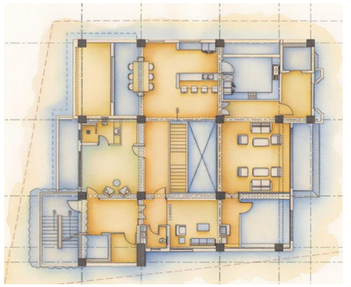

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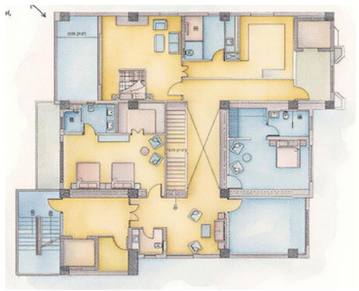


F4

BALUWATAR BUILDING

DESIGN APPROACH

- The building is done in classical proportions and symmetrical facade composition while introducing modern floor-to-ceiling glazing and minimalist black-framed windows.
- The arched openings on the upper levels honor neoclassical vocabulary.

FACADE-SPECIFIC CLIMATE STRATEGIES

North Facade Strategy

- Maximize glazing on this elevation to capture consistent daylight without thermal penalty.
- The large arched tower window is ideally positioned—it provides dramatic natural light and views without direct sun exposure
- The central tower element can function as a thermal chimney, drawing air upward through stack effect

CONCEPTUAL SKETCH

BALCONY VIEW

MATERIAL STRATEGY

- Warm ivory sand-textured render on the primary wing.
- Dark anodised aluminium framing to all window and curtain wall systems
- Wrought-iron balustrade to juliet balconies.

MAIN ENTRANCE

NORTH EAST VIEW

NORTH WEST VIEW

A VERTICAL CITY OF USES

B1 **BASEMENT**

Fully covered, column-free basement carpark providing secure vehicle storage.

G **GROUND FLOOR PARKING & ENTRY**

The ground level provides additional at-grade parking in the protected forecourt beneath the canopy

F1 & F2 **COMMERCIAL SPACE**

First upper floor dedicated to lettable commercial office or retail space

F3 **OWNER'S APARTMENT LVL 1**

The first private residential floor for the owner designed as an open-plan living and dining level

F4 **OWNER'S APARTMENT LVL 2**

The upper residential floor houses private bedrooms, a study, and roof-terrace access.

HOTEL SAKYAMUNI

CONCEPT: Sacred Courtyard Retreat

MAIN GATE

LOCATION : Lumbini, Nepal

Year: 2023 - 2026
Project Type: Hospitality, Heritage

Site Area : 88987.61 sq.ft

ROLE AND CONTRIBUTION

Role: Conceptual /3d visualizer

- I was involved in developing the architectural design, facade articulation, and 3D visualizations for the project.
- I worked closely with the senior architects and project team to translate conceptual ideas into architectural drawings and visual representations
- Through this project, I gained valuable experience in designing hospitality spaces that balance cultural identity with contemporary functional requirements.

DESIGN SPECIFICATIONS

The design was guided by the following requirements:

- Create a comfortable and functional hospitality environment for guests
- Integrate traditional architectural elements in a contemporary context
- Allow natural light and ventilation through the use of a central courtyard

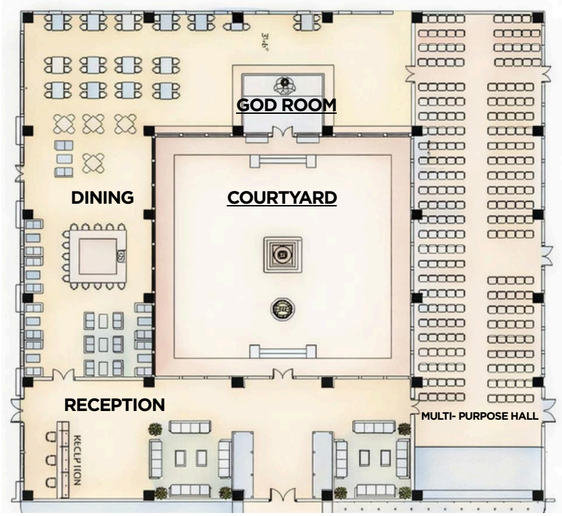
MASTER PLAN

courtyard view

View from Dining interior

Night Render of courtyard

Natural Stone spout



MOTHER UNIT PLAN

PROJECT OVERVIEW

- Hotel Shakyamuni was designed as a hospitality space that reflects the cultural and architectural identity of the Kathmandu Valley while providing a comfortable and welcoming environment for guests.
- From the beginning, the intention was to create a building that feels rooted in its cultural context rather than appearing disconnected from its surroundings.

HOTEL SAKYAMUNI

CONCEPT: Sacred Courtyard Retreat

MAIN ENTRANCE

DESIGN APPROACH

- My approach focused on reinterpreting traditional architectural elements in a way that supports modern hospitality functions.
- Bahal concept inspired hotel design combines traditional architecture with modern amenities, creating a unique and comfortable guest experience.
- Facade elements such as lattice windows were inspired by traditional Newari craftsmanship and reinterpreted using contemporary construction methods. This allowed the building to maintain cultural familiarity while meeting modern performance and construction standards.
- This project strengthened my understanding of how cultural heritage can inform contemporary architectural design.

Massing and Form

- The hotel massing follows the traditional Newari principle of a compact, rectilinear block with a sloped roof. The roof profile uses a double-pitch form with a pronounced overhang, supported by decorative timber struts (tunala) that project from the wall face.
- The primary facade material is hand-pressed exposed brick laid in traditional English bond, using locally sourced fired brick that references the historic architecture of the Kathmandu Valley.

MATERIAL STRATEGY

- The material palette includes exposed brick, timber, and stone, which are commonly used in traditional Nepali architecture. These materials were selected for their durability, environmental performance, and cultural relevance.
- Exposed brick helps regulate temperature and reduces the need for additional finishing materials, while timber elements add warmth and human scale to the building.
- Stone flooring and courtyard materials enhance durability and reinforce the building's connection to its local context.

Materials and Craftsmanship

Primary Timber Species	Sal Wood (Shorea robusta) — traditional Newari construction timber
Secondary Timber	Teak (for exposed external components requiring weather resistance)
Carving Method	Hand carving by traditional Newari artisans using chisels and gouges
Surface Treatment	Raw oil finish (traditional linseed/tung oil) preserving natural wood tone
Lattice Opening Size	25mm to 40mm perforations, variable by window type and privacy requirement
Window Frame Depth	Minimum 150mm frame depth, providing depth and shadow for three-dimensional effect
Fixing Method	Traditional timber-to-masonry pegged joint with lime mortar bedding
Artisan Source	Master wood carvers from the Kathmandu Valley Newari craft tradition

Swimming Pool 3d

Restaurant Block

Swimming Pool

Purposed hotel facade

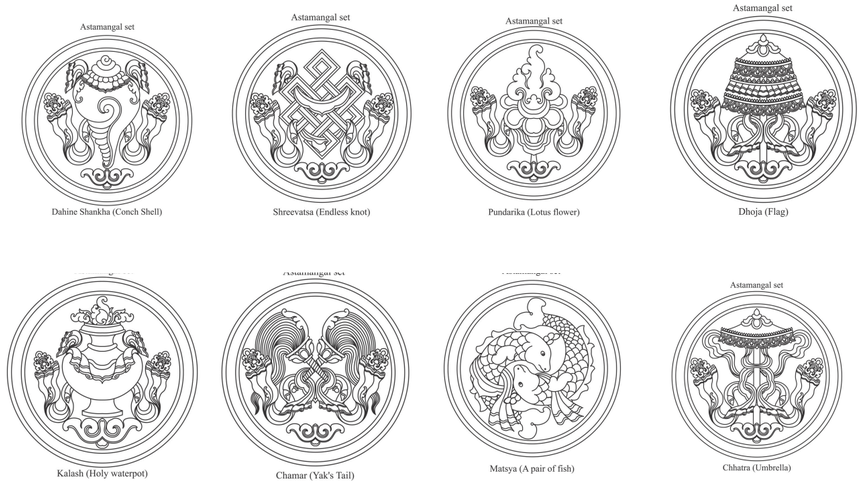
Research on Nepalese Architecture windows and Culture

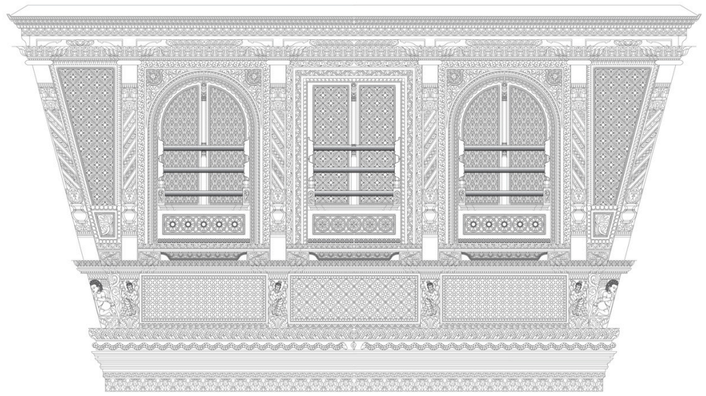
- **The Nepalese Architecture window refers to the elaborately carved wooden window which is the distinguishing feature of traditional Newa architecture.**

In a hotel project like Hotel Sakyamuni that references the bahal typology and traditional Nepalese architecture, the Ashtamangala carved into windows and doors serves three keyroles:

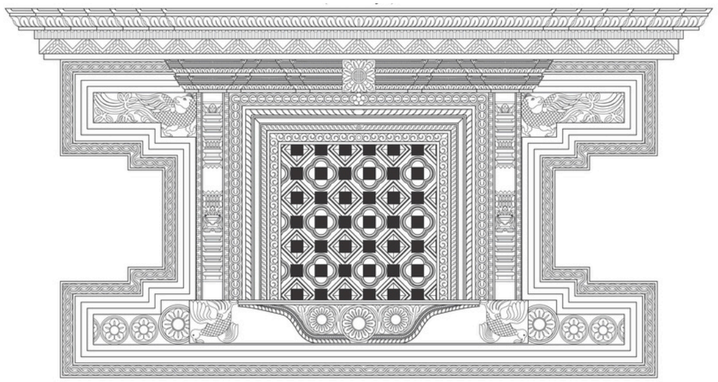
- **Spiritual — blessing the space, protecting inhabitants, and invoking enlightened qualities**
- **Cultural — asserting Newari identity and the continuity of craftsmanship traditions**
- **Architectural — acting as an ornamental language that unifies facades, windows, and gateways into a coherent sacred composition**

Astamangala in Newari Buddhist Architecture

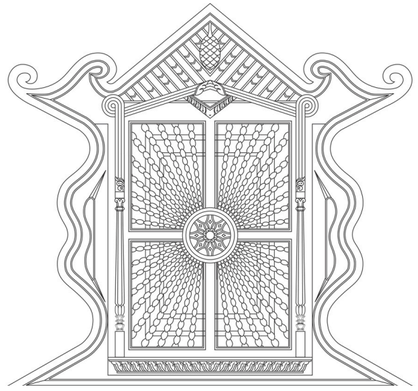




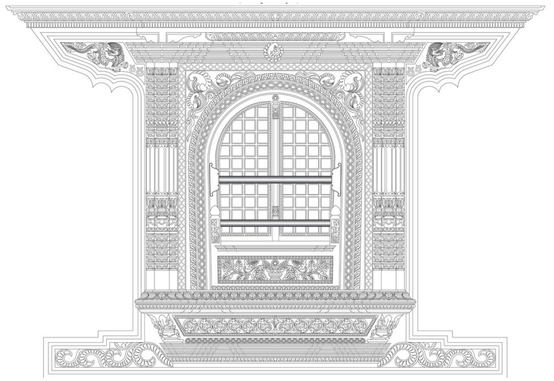
Balconed Window
(Gaha Jhya)



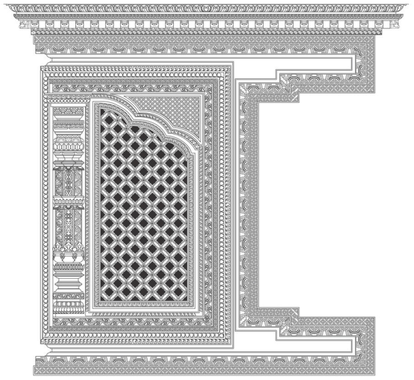
Mesh Window
(Tiki Jhya)



Unique Window
(Deshe Madhu Jhya)



Single Window
(Chapa Jhya)



Corner Window
(Kun Jhya)

Newari artisans are famous for making Ashtamangala in distinct forms, each carrying spiritual and cultural importance. Ashtamangala paintings, skillfully crafted, are often displayed in homes and monasteries to represent wisdom, purity, and prosperity. These paintings not only increase the aesthetic but also support mindfulness and positive energy.

Images of traditional Ashtamangala window carvings were provided directly by a master wood carver of Nepal, and are used with the artist's permission.

SOLU HALL

CONCEPT: Grounded in Stone & Memory

PROJECT OVERVIEW

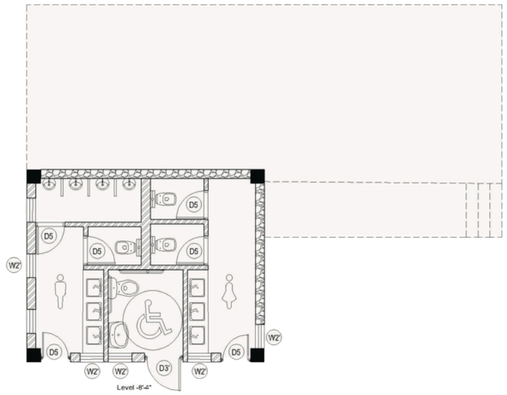
- The Solu Community Hall was designed to serve as a gathering space for the local community in Solukhumbu, a mountainous region with colder temperatures and challenging environmental conditions. The building needed to be durable, thermally comfortable, and easy to construct using locally available resources.
- A climate-responsive community hall designed to host both gathering and grief.
- This project helped me understand how architecture can support communities by responding directly to climate, materials, and local construction practices.

LOCATION : SOLUKHUMBU, NEPAL
Year: 2026
Project Type: Community and Public Building
AREA : 900 SQ.FT

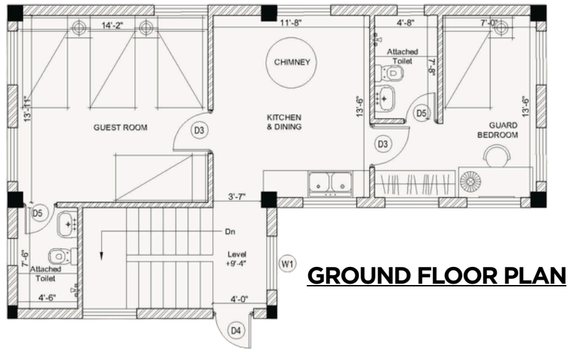
ROLE AND CONTRIBUTION

Role: Project Architect

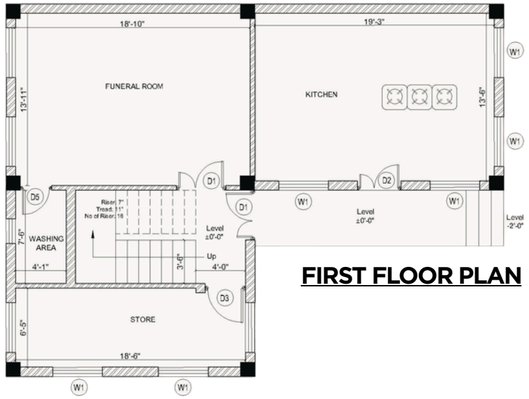
- I was responsible for developing the architectural design, spatial layout, and material strategy for the Solu Community Hall.
- I prepared architectural drawings, 3D models, and visualizations to communicate the design clearly to the client and project team.
- I also researched locally available construction materials and worked closely with engineers and local stakeholders to ensure the building would perform well in the region's colder climate.
- This project strengthened my understanding of how architecture must respond carefully to environmental and community needs.



L .GROUND FLOOR PLAN



GROUND FLOOR PLAN



FIRST FLOOR PLAN

Conceptual Values

- Collective Memory Space
- Dignified Farewell Architecture
- Warmth as Spatial Emotion
- Architecture of Belonging
- Transitional Space Between Life & Loss

DESIGN SPECIFICATION

The design was guided by the following requirements:

- Create a durable and functional gathering space for community use
- Ensure thermal comfort in a cold climate using passive design strategies
- Use locally available and environmentally responsible construction materials
- Design a structure that can be constructed using local skills and techniques

SOLU HALL

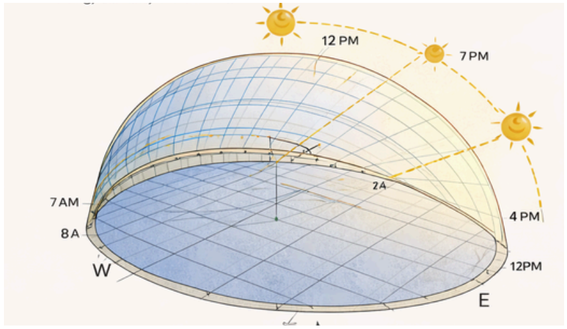
CONCEPT: Grounded in Stone & Memory

3d view

DESIGN APPROACH

- My approach was to design a building that feels grounded and appropriate to its mountainous setting. The spatial layout was kept clear and flexible to allow the hall to accommodate different community activities.
- The building form draws inspiration from vernacular architecture found in the region, where simple forms and thick walls help protect against harsh weather conditions. The design emphasizes structural clarity and material honesty, allowing the building to age naturally over time.
- Through this project, I gained deeper understanding of how architectural design must respond to climate, geography, and community needs.

SUN PATH DIAGRAM



MATERIAL STRATEGY

- Locally available stone was used as the primary construction material due to its strength, durability, and thermal properties
- Thick stone walls help retain heat and maintain comfortable indoor temperatures during colder months.
- Using locally sourced materials reduced transportation impact and ensured the building could be constructed using familiar techniques. This approach also helped maintain visual continuity with surrounding structures.
- This project reinforced my belief that sustainable architecture must begin with understanding the local environment and available resources.

SUSTAINABLE HIGH PERFORMANCE MATERIALS

Locally quarried stone

Sustainable Pine/ Hardwood Timber

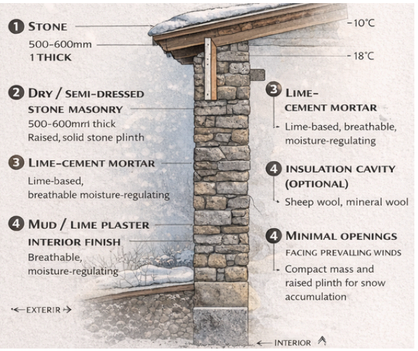
Breathable Mud/ Lime plaster

Optional Sheep Insulation

Passive Solar Design

1. Insulated roof for snow shedding
2. Deep- set insulated openings
3. Reduces heating demand
4. Timber-framed south facing windows
5. Shede snow Overhangs shade summer

STONE WALL STRUCTURE



HIGH THERMAL MASS STRATEGY

- Absorbs solar heat during day
- Slowly releases heat at night
- Stabilizes indoor temperature
- Reduces heating demand
- Provides acoustic silence for rituals

Thank you for taking the time to go through my work.

My experience practicing architecture in Nepal has shaped how I think about design, materials, and the responsibility we have toward the environment and the communities we build for. I hope to continue learning and growing, and to apply that knowledge in meaningful ways in the future.

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