“पहिचान”

CULTURAL INTERPRETATION CENTRE AT PYUTHAN

Cherneta,Pyuthan

By:

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CERTIFICATE

This is to certify that the thesis entitled **CULTURAL INTERPRETATION CENTER AT PYUTHAN -"पहिचान"**, at ***Cherneta, Pyuthan***, submitted to the Department of Architecture of Khwopa Engineering College by **Mr. Paras KC Pokhrel** of Class Roll No. 24/ B.Arch./076 has been declared successful for the partial fulfillment of the academic requirement towards the completion of the degree of Bachelor of Architecture of Purbanchal University.

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ABSTRACT.

The landscape evolves from one period to the next, layering identities that speak of different times. Each period carries its own story rich in culture, tradition, and meaning. But as time moves on, these stories begin to fade. They lose clarity, becoming harder to recognize, harder to remember. What happens when these stories are forgotten or when there's no one to narrate them? What becomes of the historical landmarks and cultural practices that once defined the the place? These layers of identity are in danger of being lost, leaving behind a fragmented and disconnected sense of place.

But can architecture become the medium to hold onto these stories? Can a space be more than shelter can it become a living archive that speaks, remembers, and keeps those narratives alive?

This thesis proposal **"पहिचान: Cultural Interpertation Center In Pyuthan"** is an architectural response to the fading stories of Pyuthan. It aims to use architecture as a tool to collect and hold the scattered pieces of time turning them into a series of spaces that people can feel, walk through, and connect with. These spaces are not just buildings, but quiet storytellers keeping the memories alive through experience.

Pyuthan is a region rich in both intangible and tangible cultural heritage.A literature study was conducted using books, articles, and websites for data collection, followed by qualitative analysis. In the Pyuthani community, cultural information is traditionally passed down verbally through folklores, songs, dances, drama and other rituals on special occasions. However, access to proper information is limited due to inadequate documentation, recording, and preservation methods. Moreover, other crucial aspects of culture such as handicrafts, architecture, built heritage, and tools require more than just storytelling and are still largely unexplored. These cultural elements are at risk of losing their originality and identity. Consequently, both tangible and intangible cultural heritages face greater threats.

A dedicated cultural interpretation center would not only safeguard Pyuthan's cultural identity but also instill a sense of appreciation. The centuries-old traditions can continue to be practiced, allowing users to learn from the virtues and knowledge of older generations, engage with their vibrant culture, and share it with the world. The center would serve as a vital space for preserving culture, promoting cultural diversity, celebrating traditions, fostering social cohesion, and empowering the community.

This project is not just about preserving culture, but celebrating it keeping *पहिचान* alive in the hearts of those who carry it forward.

ACKNOWLEDGEMENT.

I would like to express my heartfelt appreciation to the **Department of Architecture at Khwopa Engineering College** for providing me with the opportunity to conduct research and prepare this thesis report. This experience has allowed me to gain a deeper and more comprehensive understanding of the topic.

I am immensely grateful to my thesis supervisor, **Ar Rikesh Shrestha**, for his invaluable guidance and unwavering support throughout this process. His expertise and mentorship have been instrumental in shaping this research.

I extend my sincere gratitude to all those who have contributed to the compilation of this report. In particular, I would like to acknowledge the people of Pyuthan for their generosity in sharing valuable insights and information, which have been crucial to this study. My profound gratitude also goes to the Head of the Architecture Department, **Ar. Archana Bade Shrestha**,and Thesis Coordinator **Ar. Rashish Lal Shrestha** for their continuous encouragement and support during the study phase.

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Lastly, I am deeply grateful to my friends and family for their unwavering moral support and understanding through all the highs and lows of this journey. Their encouragement has been a pillar of strength in the completion of this report.

To
My Culture

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1 CHAPTER: Introduction

1.1 Background

CULTURE

"Culture is the ensemble of stories we tell ourselves about ourselves."

Clifford Geertz

What are those stories?

- Stories of People and Place
- Stories of Customs and Beliefs
- Stories of Art and Architecture

Culture is shared set of leaves values, costumes, behaviours, and artifices (Street, 2023).

INTERPRETATION

Refers to the process of communicating and conveying the meaning significance and value of cultural heritage - both tangible and intangible.

It helps people understand engage with and appreciate culture.

Thus, interpretation in a Cultural Interpretation Centre is not just about providing information but about fostering meaningful connections with cultural heritage through immersive and engaging methods (Giacomo, 2020).

CENTER

"A cultural centre is a living room for the city, a place for exchange, discussion and creativity."

Renzo Piano

What happens when these stories are forgotten or when there's no one to narrate them? What becomes of the historical landmarks and cultural practices that once defined Pyuthan? These layers of identity are in danger of being lost, leaving behind a fragmented and disconnected sense of place.

A dedicated cultural interpretation center would not only safeguard Pyuthan's cultural identity but also instill a sense of appreciation among younger generations. The centuries-old traditions can continue to be practiced, allowing users to learn from the virtues and knowledge of older generations, engage with their vibrant culture, and share it with the world. The center would serve as a vital space for preserving culture, promoting cultural diversity, celebrating traditions, fostering social cohesion, and empowering the community. The Cultural Interpretation Center in Pyuthan would become a beacon of hope, a symbol of cultural heritage and unity, and a testament to the enduring strength of cultural legacies.

During the early stages of Nepal's organized state system, different dynasties ruled different regions. The Gopal dynasty and the Kirant dynasty held authority over Kathmandu valley, while the Shakyas governed Kapilvastu region (Giri, 2070). Although there is no concrete evidence regarding the rulers of Pyuthan during that era, it can be assumed that Pyuthan was under the rule of Kapilvastu due to its geographical proximity. Some sources even suggest that the territory of the Lichchhavi dynasty ruling in Kathmandu Valley after the Kirant dynasty had extended westward to Pyuthan. Additionally, given the dominance of the Malla kings in the Karnali region during the 14th century, it can be inferred that their influence had also reached Pyuthan. As the Malla Empire weakened, the kingdoms of Bhitrikot, Udayapurkot, Okharkot, etc. emerged in Pyuthan. Before the annexation of Pyuthan in Nepal Kingdom in the leadership of Bahadur Shah without any war on 1 November 1786 (19th of Kartik in 1843), there were many such kingdoms in Pyuthan.

Although Pyuthan is currently a district, it once existed as a separate state. Hence, its name bears significance in many historical references. European historian from around the year 1743 AD (BS 1800) referred to it as 'Pujuthan' in their historical writings. In Medieval historical documents, its name has been referred as 'Piuthana' and 'Pyuthana' (Giri, 2070). While there is no universal and strong fact about the name of Pyuthan, it is widely believed that it may have derived its name as the place where lower-ranking soldiers, known as 'Piyuth' (Lance Corporeal), used to reside, and was later morphed as 'Pyuthan' meaning 'the place of Piyuth'. During the Medieval period, Pyuthan comprised many kingdoms or principalities such as Bhitrikot, Udayapurkot, Okharkot etc. This opinion seems rational as Pyuthan served as a strategic location for storing explosives, weapons, arms and ammunition needed to unify the western region during the unification of Nepal. In recent times, it has become the central hub of this area.

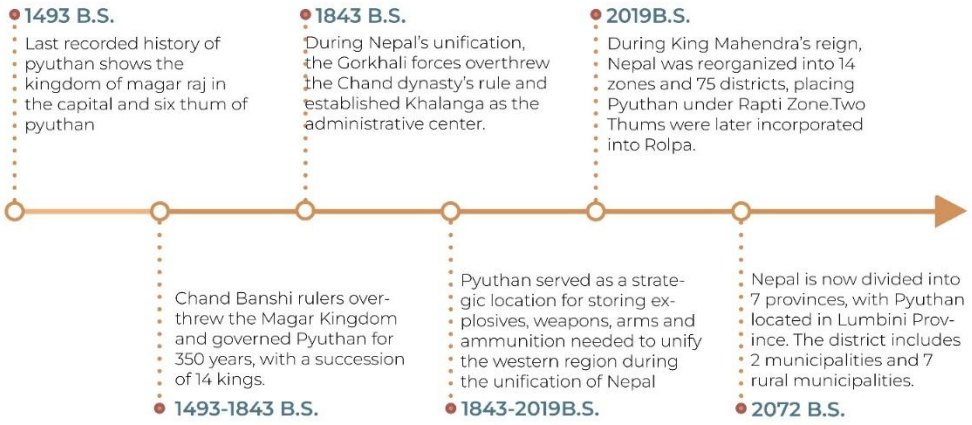

Figure 1: Historical background of Pyuthan District
Source: Author

Prior to 1961/2 AD (BS 2018), Pyuthan district had encompassed a larger territory than it has today. Most of the areas of Baiskhuwa and Kalashesh Thum (area) of present Rolpa district were parts of Pyuthan district. However, during the district reorganization in 1961/2 AD (BS 2018),

important parts of Baiskhuwa and Kalashesh of northwestern Pyuthan district were separated to form Rolpa district, resulting in the present size of Pyuthan to be smaller.

According to the latest political state restructuring, Pyuthan district comprises of two municipalities and seven rural municipalities. Furthermore, one representative will be elected to the federal parliament and two representatives to the provincial assembly through direct election. Khalanga has been serving as the district headquarters since the beginning.

1.2 Problem Statement

Despite the rich cultural heritage of rural hilly regions like Pyuthan, the absence of contextual and community-driven spaces has led to the gradual erosion of intangible traditions, oral histories, and everyday cultural practices (Magar, 2072). Conventional approaches to cultural preservation often prioritize static displays of artifacts over lived memory, and exclude the local community from the process of curating, interpreting, and evolving their heritage. Additionally, the disconnect between cultural expression and spatial design fails to evoke emotional engagement or encourage active cultural continuity.

There is a critical need for an architectural intervention that not only documents but **embodies** the intangible cultural values, promotes **community participation**, and fosters a space of **shared memory, performance, and interpretation**. The challenge lies in designing a dynamic cultural center that bridges the gap between **preservation and living practice**, **past and future**, and between **individual memory and collective identity**.

1.3 Project Objectives

The primary objective of this thesis is to establish a Cultural Interpretation Centre in Pyuthan that actively contributes to the preservation, engagement, and contextual representation of the region's cultural heritage. The project seeks to: Preserve Cultural Heritage – Protect and celebrate both tangible and intangible cultural assets of Pyuthan, including historical sites, traditional practices, folklore, and rituals, ensuring their continuity for future generations.

- **Interpret and Celebrate Culture** – Design experiential spaces that allow visitors to engage with Pyuthan's cultural legacy through interactive exhibits, storytelling, performances, and immersive environments.
- **Community Engagement and Knowledge Transfer** – Actively involve local artisans, historians, and storytellers in the centre's activities to foster a sense of ownership and promote the transmission of traditional knowledge.
- **Contextual Approach** – Utilize regional architectural styles and locally available materials to ensure historical continuity.

1.4 Project Justification

संस्कृति हाम्रो पहिचान हो, जसको संरक्षण बिना भविष्यमा हाम्रो अस्तित्व नै ओझेलमा पर्न सक्छ।
(Giri, 2070)

Culture is more than tradition it's a sense of belonging, a shared identity that connects individuals to their community and land. It gives meaning, pride, and purpose to life. Culture is, in essence, the story of identity.

So here raises a question that,

What happens to a place when its stories are no longer told, and its traditions fade into silence?

Pyuthan, with its layered history from the rule of the Magar kings to the Chand dynasty and later its integration into the unified territory of Nepal holds within it a rich cultural and ethnic treasures. However, with changing times many of these stories, practices, and identities are at risk of being lost.

This thesis proposes an architectural response that does not merely preserve these elements, but **interprets, celebrates, and communicates** them through space ensuring that the lived and inherited essence of Pyuthan continues to breathe through the built environment. The Cultural Interpretation Center aims to be a living archive one that fosters connection, reflection, and pride in local identity across generations.

Figure 2:Reference books and magazines

1.5 Research Area

The following are the research areas for literature and case studies:

- About Pyuthan, their culture and cultural manifestations
- Pyuthan's built culture and architectural expressions
- Architectural resonance contextuality and inclusivity in cultural interpretation centre

1.6 Research Questions

The research process started with the formulation of key questions to guide the study and gather the essential insights for the subsequent design development. The research questions were as follows:

- How can cultural identity be interpreted and incorporated in design process?
- How can be the intangible cultural heritage addressed tangibly?
- How can architecture connect people and communities?
- What approaches can ensure that cultural practices are maintained and celebrated in a changing landscape?
- How can architectural spaces encourage cultural interaction and dialogue among diverse communities?
- How can site context, materials, and technology be effectively integrated into the design process?

1.7 Scope and Limitation

The scope of this thesis includes the study of Pyuthan's cultural heritage—its civilization, traditions, and the role of a cultural center in preserving and promoting them. It focuses on exploring how both the tangible and intangible aspects of Pyuthan's culture can be meaningfully expressed through architecture and spatial design, creating a built environment that reflects and celebrates local identity.

However, this thesis does not intend to revive or revitalize the cultural authenticity but intends to celebrate the cultural experience through architecture.

1.8 Methodology

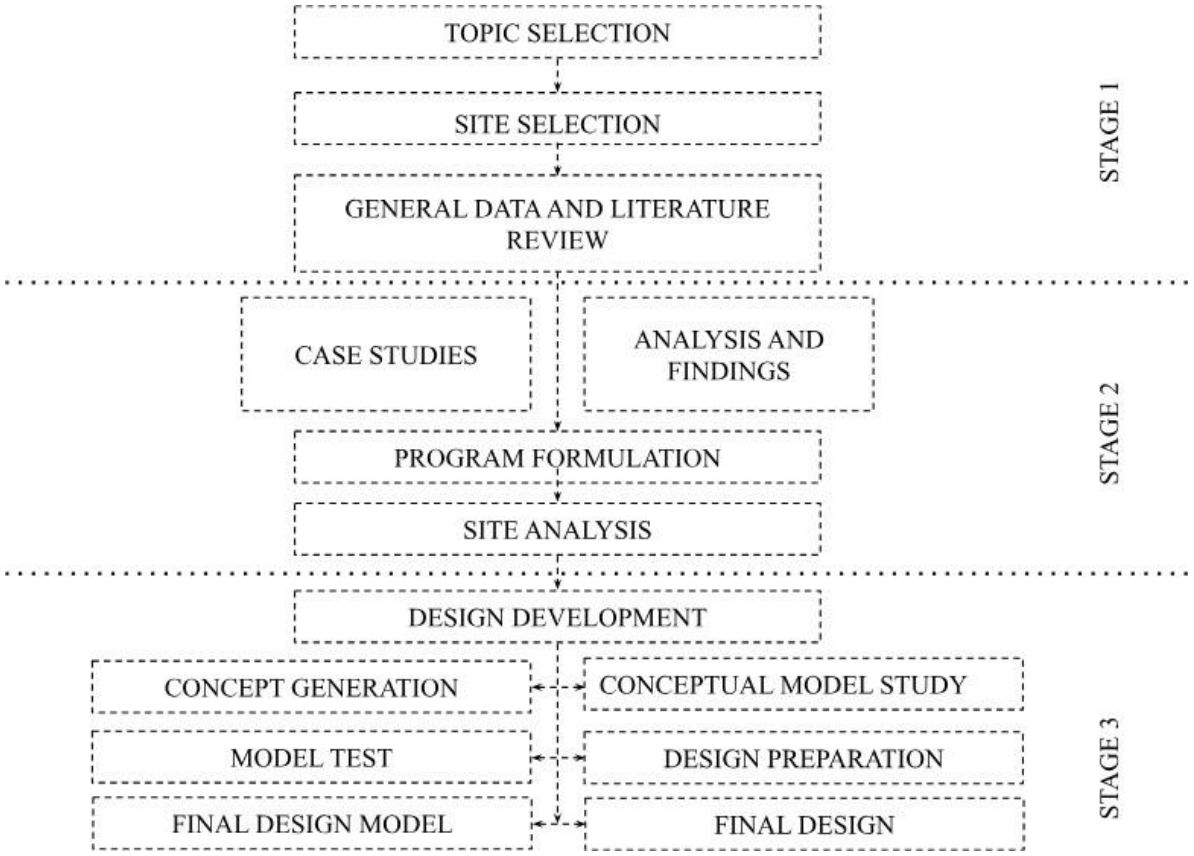

Figure 3: Methodology
Source: Author

2 CHAPTER: LITERATURE REVIEW

2.1 A Brief Introduction to Pyuthan District: Heritage Perspective

Pyuthan, situated in the Lumbini province of Nepal, is one of the 77 districts in the country according to the recent state restructuring. Given the significance of its historical background, geographical location, social dynamics, religious and cultural aspects, traditions, customs, practices and stages of social development, a diverse array of tangible and intangible heritages of Pyuthan district has been created. By gathering information about them, examining them in the light of history, carrying out current activities' heritage-friendly and making them compatible with the society, an important achievement can be attained through tourism development along with the conservation of heritage. Hence, it is pertinent to provide a brief discussion of these properties for a comprehensive exploration.

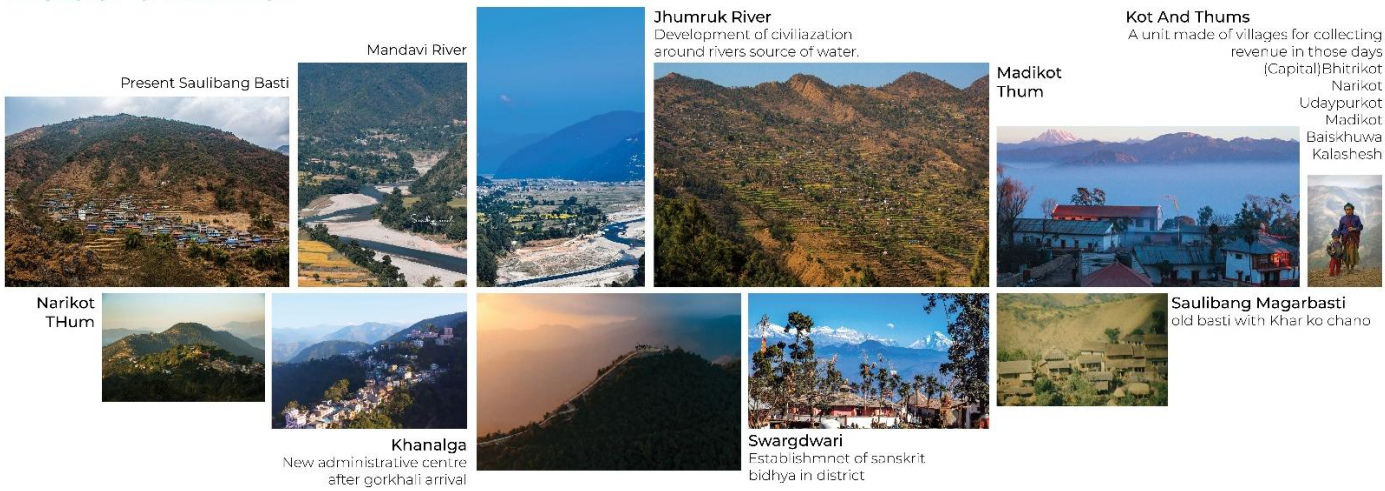

Figure 4: Glimp of Pyuthan valley

2.2 Geographical Location and Climate of the District

Pyuthan is an average hilly district that shares borders with Gulmi and Arghakhanchi in the east, Baglung and Rolpa in the north, Rolpa and Dang in the west, and Dang and Arghakhanchi in the south. The southern region of the district, stretching from north to south and narrowing from east to west, is connected to the Chure mountain range in the south and Mahabharat Range in the north. The district's lowest point is Bangesal of Sarumarani Rural Municipality at an elevation of 305 meters above the sea level, while the highest point is Kothibir of Naubahini Rural Municipality at an altitude of 3659 meters above the sea level. The total land area of the Pyuthan district encompasses 132,890 hectares.

Despite its moderate size, Pyuthan district experiences diverse climatic conditions due to its geographical diversity spanning from 305 meters to 3,659 meters above the sea level. While perpetual snow-capped mountains are absent in this region, the sparsely populated settlements on the high hills of Nauvahini, Sworgadwari, Gaumukhi, and Jhimruk rural municipalities are

characterized by cool temperature. As the terrain gradually descends, flat plains emerge alongside warmer weather, leading to denser settlements along riverbanks. Consequently, Pyuthan district exhibits a climate that ranges from cool and temperate to subtropical in nature.

Figure 5: Geography of Pyuthan
Source: Author

2.3 Historical Background, Naming and Political Structure

During the early stages of Nepal's organized state system, different dynasties ruled different regions. The Gopal dynasty and the Kirant dynasty held authority over Kathmandu valley, while the Shakyas governed Kapilvastu region. Although there is no concrete evidence regarding the rulers of Pyuthan during that era, it can be assumed that Pyuthan was under the rule of Kapilvastu due to its geographical proximity. Some sources even suggest that the territory of the Lichchhavi dynasty ruling in Kathmandu Valley after the Kirant dynasty had extended westward to Pyuthan. Additionally, given the dominance of the Malla kings in the Karnali region during the 14th century, it can be inferred that their influence had also reached Pyuthan. As the Malla Empire weakened, the kingdoms of Bhitrikot, Udayapurkot, Okharkot, etc. emerged in Pyuthan. Before the annexation of Pyuthan in Nepal Kingdom in the leadership of Bahadur Shah without any war on 1 November 1786 (19th of Kartik in 1843), there were many such kingdoms in Pyuthan (Magar, 2072).

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According to the latest political state restructuring, Pyuthan district comprises of two municipalities and seven rural municipalities. Furthermore, one representative will be elected to the federal parliament and two representatives to the provincial assembly through direct election. Khalanga has been serving as the district headquarters since the beginning.

2.4 Bases of Civilization Development in Pyuthan district and its Heritages

In its geographical, historical, and political contexts, Pyuthan district has laid the groundwork for the development of civilization and has fostered diverse aspects of tangible and intangible cultural heritages. Study of history of civilization shows that river civilizations have played a significant

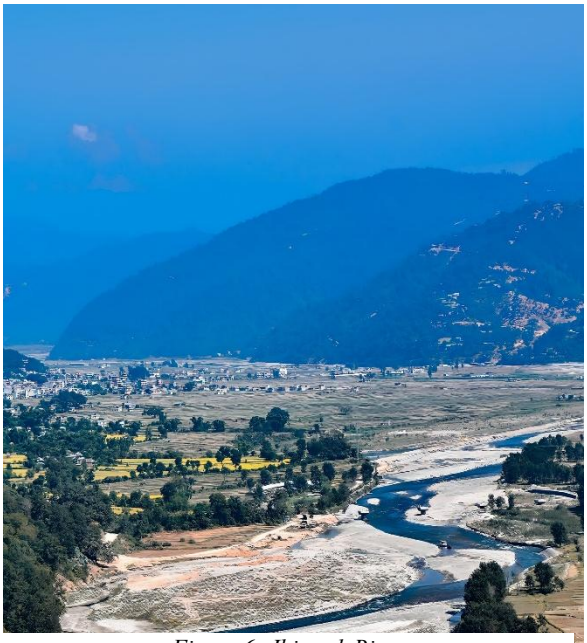


Figure 6: Jhimruk River

Source: Author

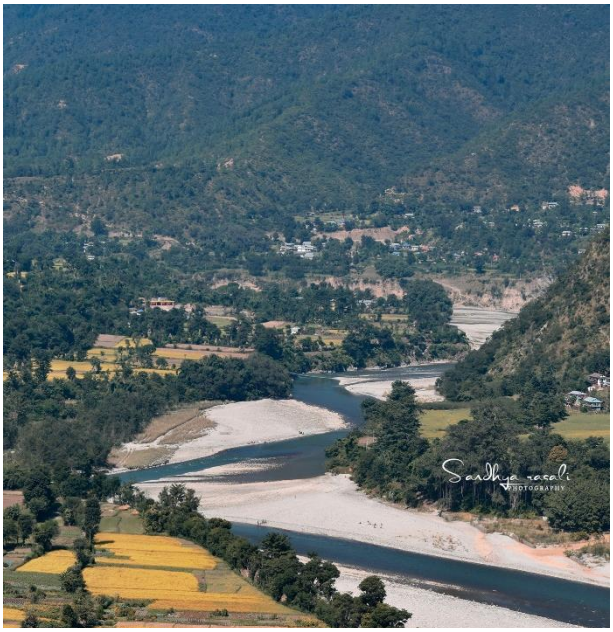


Figure 7: Madi River

Source: Author

role in the development of human civilization in the world. Pyuthan district is home to two major river systems. Jhimruk River and its tributaries, including Aahal Khola (Stream), Gartang Khola, Chunja Khola, Chundari khola, Lung Khola, Khaprang Khola, Jumri Khola, Kandre Khola, Hariya

Khola, Chhape Khola, have saturated vast areas of the district including Pindalne, Tusara, /machchhi, Argeli, Chisavang, Ratatari, Maranthana, Gurigaun, Bagdula, Bijuwar, Kwadi, Khaira, Chunjathanti, Baraula etc. and have established the district as a granary (Pradesh Purbhadhar Bikas Pradhikaran, 2080). These rivers, along with their surrounding settlements, have been instrumental in the ongoing development of these regions.

Mandavi (also known as Madi) River, which originates from Jaljala region of Rolpa district, has not created large fertile areas as compared to Jhimruk River. However, it has contributed in the development of many settlements along the riverbank. Its tributaries include rivers/streams such as Dhanwang Khola, Arang Khola, Gothibang Khola, and Bayan Khola etc. Settlements like Bhingri-Sari, Hansapur, Chidibas, and Majhdamar have developed along the banks of Madi River. These rivers flow through various parts of the district and merge as Rapti River at the confluence of Airavati.

History has revealed that where the organized state power is strong and lasts for a long time, there are more tangible and intangible heritages. Since Pyuthan was a strong state during the Medieval period, most of the heritages also developed at the same time. The most important foundation of development of civilization and heritages in Pyuthan district is the prevalence of forts known as Kots and Thums (A unit made of villages for collecting revenue in those days). These forts were constructed during the reign of petty kings or princelings. Notable forts of Pyuthan district include Okharkot, Bandikot, Narikot, Bhitrikot, Khairakot, Udayapurkot, Majhkot, and Bijulikot. Pyuthan district is characterized as a district having a fort almost in each village.

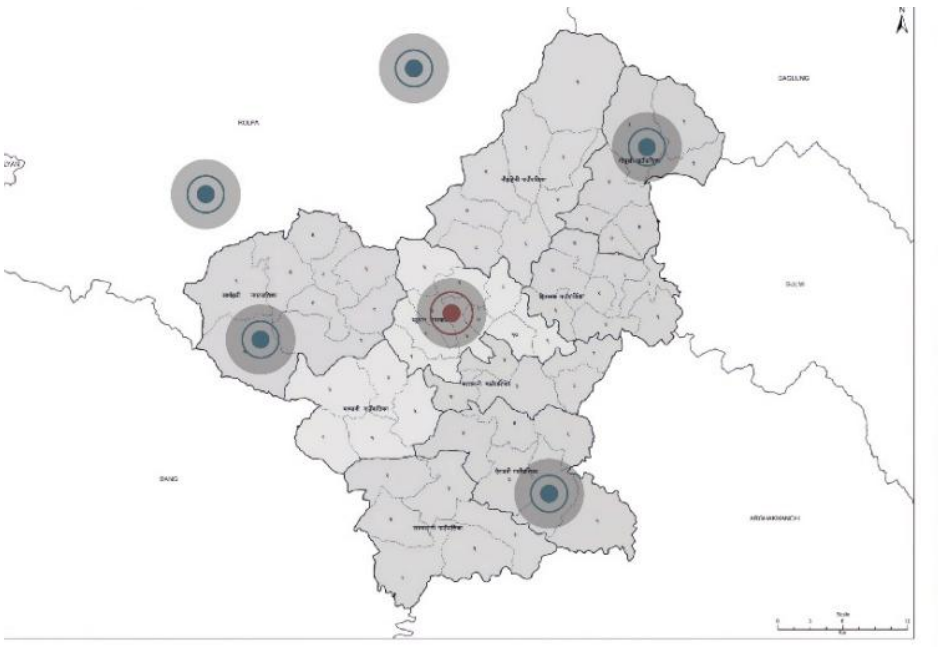


Figure 8: Location of Thums/Kot of Pyuthan Kingdom
Source: Author

2.5 Administrative System

- Kingdom-Pyuthan

  Pyuthan is divided into six administrative thums/kots, each governed by a king known as 'Rajaute.

2.5.1 Bhitrikot (Capital)

The ancient palace in Bhitri Kot, the capital of the medieval Pyuthan state, is an important historical and archaeological heritage of the district. This palace is located in previously Vijuwar Village Development Committee, Ward No. 5. Bhitri Kot. Currently, this place is in Pyuthan municipality ward number 4. Before the unification of Nepal, the Chand clan kings used to rule the Pyuthan kingdom from this palace (L.B Thapa, 2081). Therefore, this palace has historical importance.

No source materials have not been found to clarify the historicity of the palace. But the copper Plate of the ninth-generation king has been found here. A copper plate was written in 1760 B.S. It is estimated that this kingdom was established around 1560 B.S., disding a period of 25 years to eight previous kings. The existence and importance of this palace gradually disappeared when this state was merged to Nepal on 19th Kartik 1843 B.S.

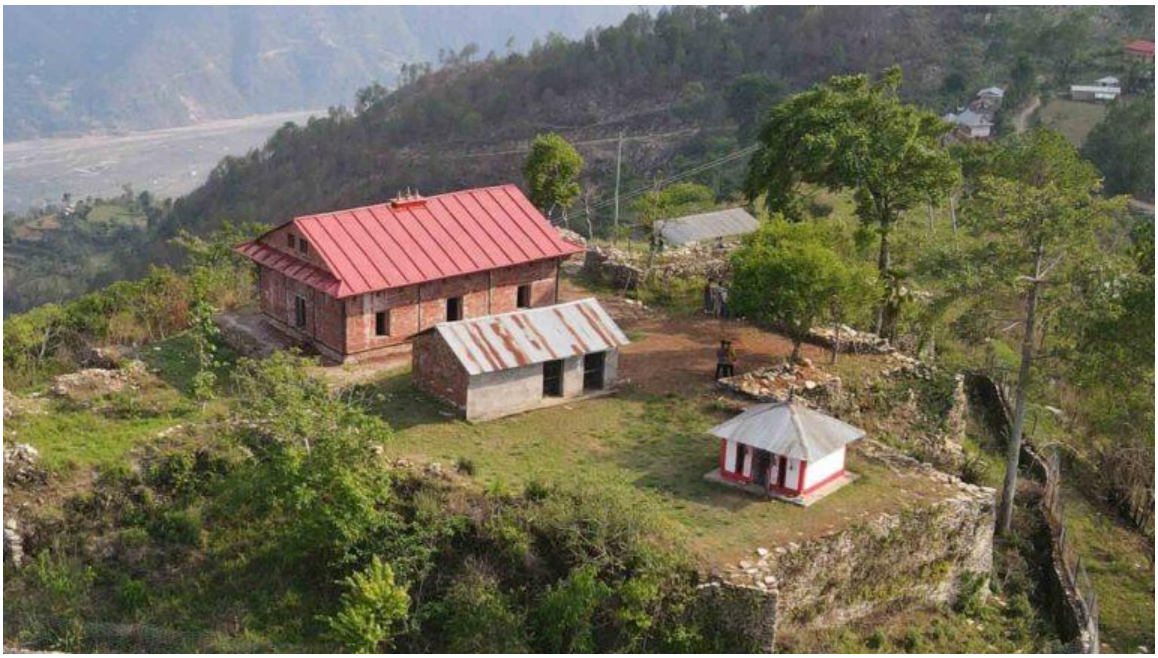


Figure 9: Bhitrikot Durbar
Source: (L.B Thapa, 2081)

This palace was built as a secure fort. There were only entrances on the south-east and south-west sides. Thana was built for security on these two routes, these places are still called Thanachaur and Thanakot. This promicess covers the area of about 135 feet east west and 115 feet north south, was surrounded by a strong wall and fortified. Raktepokhari is about 145 meters above Thanakot, which is the entrance to the palace. There is a popular

belief that it is called Raktepokhari because this pool is made of the blood of the enemies who came to attack the palace.

Thus, for about 300 years, the king named Latraj to Rudra Pratap Chand used this palace as their residence and administrative center. This palace, which has turned into ruins over time, is currently rebuilt by the Department of Archaeology. The rebuilt Darbar Bhawan is a one-storey high rectangular building made of solid bricks and the roof has not been installed yet.

2.5.2 Narikot

2.5.3 Udaypurkot

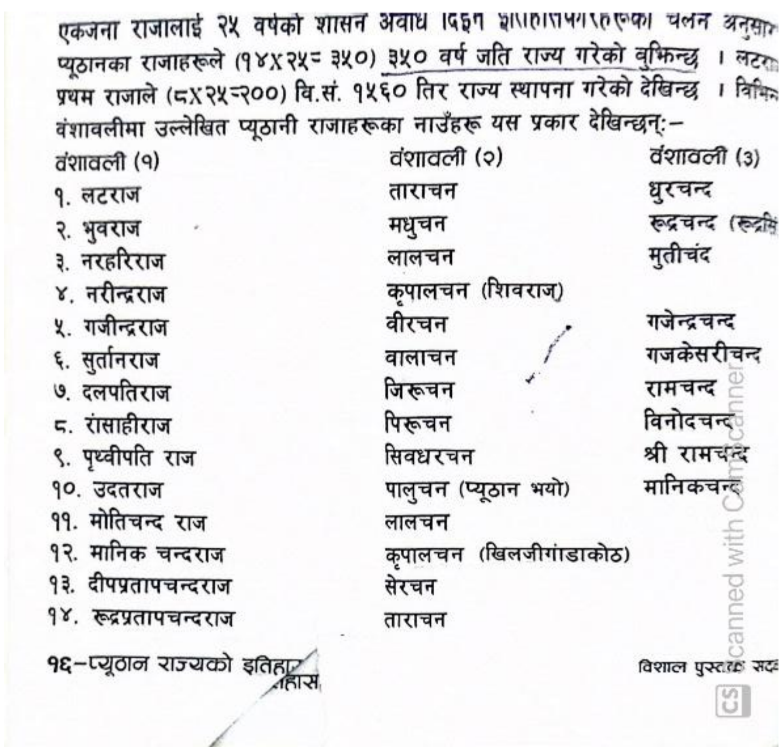
2.5.4 Madikot

2.5.5 Baiskhuwa thum

2.5.6 Kalashesh thum

- King

  There is no physical evidence of the Magar kings after their overthrow. The 14 Chand kings ruled for 350 years, until 1843, when Gorkhali troops led by Giwan Bir Bikram Shah took control of Pyuthan, establishing Khalanga as the administrative kingdom (Giri, 2070).



एकजना राजालाई २५ वर्षको शासन अवाध [illegible] चलन अनुसा
प्यूठानका राजाहरूले (१४X२५= ३५०) ३५० वर्ष जति राज्य गरेको बुझिन्छ । लटरा
प्रथम राजाले (८X२५=२००) वि.सं. १५६० तिर राज्य स्थापना गरेको देखिन्छ । विभि
वंशावलीमा उल्लेखित प्यूठानी राजाहरूका नाउँहरू यस प्रकार देखिन्छन्:–

वंशावली (१)	वंशावली (२)	वंशावली (3)
१. लटराज	ताराचन	धुरचन्द
२. भुवराज	मधुचन	रूद्रचन्द (रूद्रसि
३. नरहरिराज	लालचन	मुतीचंद
४. नरीन्द्रराज	कृपालचन (शिवराज)	
५. गजीन्द्रराज	वीरचन	गजेन्द्रचन्द
६. सुर्तानराज	वालाचन	गजकेसरीचन्द
७. दलपतिराज	जिरूचन	रामचन्द
८. रांसाहीराज	पिरूचन	विनोदचन्द
९. पृथ्वीपति राज	सिवधरचन	श्री रामचन्द
१०. उदतराज	पालुचन (प्यूठान भयो)	मानिकचन्द
११. मोतिचन्द राज	लालचन	
१२. मानिक चन्दराज	कृपालचन (खिलजीगांडाकोठ)	
१३. दीपप्रतापचन्दराज	सेरचन	
१४. रूद्रप्रतापचन्दराज	ताराचन	

१६–प्यूठान राज्यको इतिहास   विशाल पुस्तक सद

Figure 10: Name of Kings
Source: (Giri, 2070)

The term "Bhardar" in historical Nepali contexts refers to high-ranking officials and representatives with significant responsibilities within the kingdom's administration (Giri, 2070). Some handled **administration**, others led the **military**, while some managed **religious** duties, **judicial** matters, and the **economy**. Each Bhardar had a specific role, showing that Pyuthan had a well-structured system of leadership and organization.

- Bhardars
  - Rajkumar
  - Guru purohit
  - Chetrapal
  - Wumara
  - Sardar
  - Dware
  - Katwal
  - Bhandarye

2.6 Religion

Among the Hindus, specific and fundamental religious and cultural heritages have been established. These include Jhakri (shaman) tradition, Siddhapuja (worship of an ascetic), Palu Puja (worship of a tiger), Simebhume Puja (worship of the land and waterbody), Masto Puja (worship of a family deity), and tradition of Nath sect etc (Giri, 2070). The tradition of the worship of Khadka Devi and Kot Puja (worship of a fort) is also deeply rooted in this region.

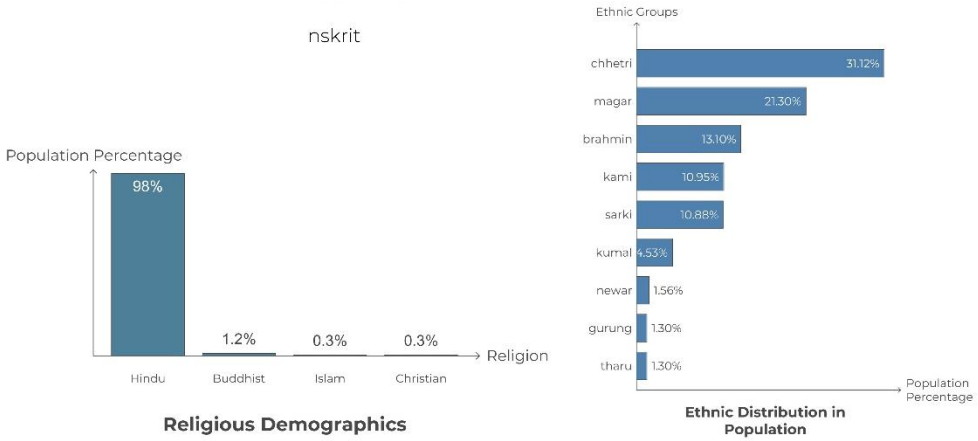


Figure 11: Religious Demographics
Source: Author

2.7 Festivals, and Music and Dance

The cycle of seasons and associated labor activities is acknowledged and punctuated by the celebration of festivals. These festivals bring together all members of the community and draw upon the environmental and social conditions of the given time of year. The major festivals are outlined with reference to their intangible aspects below.

Figure 12: Cultural Activities of Pyuthani People
Source: Author

2.7.1 Festivals

2.7.1.1 Ram (Dalle Sarayen Ram, Chitikhola Sarayan Ram, Shivalya Sarayan Ram)

The tradition of Saraya dance (Special dance with Sword) on the day after Tihar at Dalle Phant (Plain) in Pyuthan municipality is famous as Dalle Sarayan. Apart from Pyuthan, in Gulmi and Arghakhanchi districts, this dance is performed on the occasion of Navadurga and ends on the full moon day after Dasain. In Pyuthan too, the first series of Sarai dances of Dasain ends by dancing in the Rama (fairs) that starts from Dasain and continues up to the full moon day. Different chain of Sarai is started in Pyuthan during the Rams (Fairs) after Tihar as well. After Tihar the various Rams (fairs) are danced and end the Purnima Ram. Therefore, Sarai dance after Tihar is original in Pyuthan with unique cultural background. Dalle Sarai has special significance as it is first Sarai dance after Tihar.

In an article published in Garima magazine, Savitri Kashpati collected and published two folk beliefs about the beginning of this Dalle Sarayan dance. According to her, during unification of Nepal, the tradition of sword dance was started at this place as a celebration of victory in memory of Shah king chasing Chand King of Bhitrikot and killed him at a place Dalle. Another folk belief published by Kashapati reveals that a demon had been killing local people to make food turn by turn. A monk killed the monster in this place, so people started

celebration on the deffeat of the demon. In other words, the celebration started on the victory over demon by saying that he lost.

In this dance, people from most of the Pyuthan come to Dalle Mela with swords in hand by dancing in the musical beat (tune) of Panchebaza. They return after dancing in Dalle. The political and strategic history of Pyuthan is connected to this dance as it is performed after Tihar. Historically, there is no clear evidence on the King of Pyuthan was killed by Shah King. Bahadur Shah's soldiers won the Pyuthan kingdom without any battle (Giri, 2070). Perhaps the king of Pyuthan in the middle ages might have have started such dance to demonstrate his military power to the neighboring states by taking swords (khunda khukuri) from the 'thums' and 'kots' under his control. So, this is different and unique from Sarai Naach of other districts.

Figure 13: Dalle Sarayan Ram
Source: Author

2.7.1.2 Bhume Puja (Saulibang)

In Pyuthan District, the Magar community performs Bhume Puja as a vital ritual to honor Bhume Devi (Earth Goddess) and seek her blessings for fertility, protection, and prosperity. The ceremony is deeply rooted in animistic and shamanistic traditions, where the local Jhakri conducts the rituals at sacred sites, often near ancient trees or stone shrines (*Bhume Than*). The people of Pyuthan believe that neglecting this puja can bring misfortune, crop failures, or diseases, so they perform it with great devotion. Offerings include animal sacrifices (chickens or goats), homemade alcohol (*Raksi*), beaten rice (*Chiura*), and millet bread (*Dhido*). The ritual involves chanting, drumming (*Dhyangro*), and tying sacred threads (*Doro*) around the shrine to symbolize a bond between humans and nature.

During the puja, Pyuthani Magars gather as a community, reinforcing their cultural identity through traditional dances (*Magar Naach*) and songs passed down through generations. The Guruba (shaman) enters a trance, communicating with spirits to seek guidance and blessings.

Figure 14: Bhume Puja

After the rituals, a feast is held where villagers share the sacrificial meat and alcohol, fostering unity (Magar, 2072). In Pyuthan, Bhume Puja is typically performed before planting (Baisakh-Jestha) and after harvest (Mangsir-Poush), aligning with the agricultural cycle. Despite modernization, many in Pyuthan still uphold this tradition, viewing it as a sacred duty to their ancestors and the land that sustains them

2.7.1.3 Masto Puja (Worship of Familiarity/Diwili Puja)

Masto is considered to be the local deity of khas arya community. Discussion on Masto is not found in Vedic literature. All the Hindus migrated from Karnali province to all over Nepal and even some non-Hindus worship masto as a kuldevata (family deity). Local people of Khas Arya community of Pyuthan district take Masto as one of the popular dieties.

This Dewali Puja, is the worship of Masto, the family deity of Rijals around Lung area in Pyuthan. However, thousands of people from other communities also participate in this festive-celebration. This worship is believed to have started after the arrival of the Rizals' ancestor named Shobhakhar at Lung in the seventeenth century (Giri, 2070). The earliest written evidence of masto is the copper plate of 1837 BS. Masto is a very popular deity of khas Community in west nepal's region. Phag, Sagun, Hudkeli etc. tolktales of far west region describe the personality of the deity. It is believed that the wishes of the diety or blessings given by the deity are manifested through dhami (tantric gurus). Dhami is actually considered to be

the bridge between musto and humans. So, the role of Dhami becomes very important during the performance of puja. It is believed that people become lucky by getting the offered wetted rice seeds (Akshanta) on their forehead from the sorcer's hand touching their head with the holy bell at the Masto shrine.

Normally, Masto deity is worshiped in an open space without having roof. There is a tradition to worship masto by offering incense of cow ghee, dhwaja (Shreds) and sacrificing goats. But in Lung area grand temple of the deity has been built. The temple is the Masto Kulayan deity in the picture. Diwali Puja is performed on the Shukla Ashtami day of Mansir. On Saptami day the place of worshipping (gauri) of the deity is cleaned for inviting Masto just a day before performing Puja. On Ashtami day, the deity is taken to Gaura from Kulghar along with a large group of People with Jhanki. As there is no idol of this deity, the bamboo lingo (alam) to which a garland of Dhwaja of notes etc. is tied and considered to be the form of the deity.

Figure 15: Dewali puja of lung
Source: Author

2.7.1.4 Gai Jatra as chhunamune jatra and Ropai Jatra

Gaijatra (Chhunamune Festival), Pyuthan Gaijatra is one of the intangible cultural heritages of Pyuthan district celebrated by the Newar community living mainly in Khalanga, Vijuwar, Bhingri, and Kutichour areas. The original place of residence of the Newar community is the Kathmandu Valley. Gaijatra also started in the medieval period in the Kathmandu Valley. It is believed that this festival was started who migrated to Pyuthan from Kathmandu Valley brought this Jatra to Pyuthan during the reign of King Pratap Malla. It seems that the Newar community and kept it alive in a different name. Here this Jatra is called Chhunamune Jatra. It is believed that this festival was named Chhunamune because small children have more participation in the festival.

Figure 16: Gaijatra khalanga

This Jatra is celebrated every year on the full moon day of the month of Saun or Janai Poornima. In the Newar community, the people of those families, whose matured family member (who was given a cap or gunyu cholo) has died in the year, celebrate this festival. The family members of the deceased within the year celebrate this festival in their memory and pray that they may get a heavenly abode. On this day, a pole attached to a wicker basket decorated with women's clothes, a religious insignia of yak's hairy tail is decorated on the top of the pole, and an image of cow is prepared and is walked around the city. Young children are decorated and made to participate in the adorable procession or jatra with the image of a cow. In the presence of the crowd of people, the procession circumambulates the city. Comedians also participate in such a procession. This Jatra is known as Chhunmune Jatra in Pyuthan.

Although there is a tradition of taking out the image of a cow from the house of the deceased family members, all the relatives of the market area participate in this procession. Traditional musical instruments like madal (tom-tom), cymbals, flute and mujura (small cymbals) are played and the city is circumambulated with ecstasy. It is believed that this Jatra is celebrated to forget the grief of the death of the family member. This procession or jatra, which is believed to have been brought to Pyuthan about two hundred and fifty years ago from the Kathmandu valley, has now become an important cultural heritage of Pyuthan district.

2.7.2 Dance

2.7.2.1 Maruni Dance

Maruni dance is an important intangible cultural heritage of Pyuthan. It is especially popular in Mandvi, Sarumarani, Airavati and Sworgadwari areas of Pyuthan. This is a traditional folk dance of Magar community. However, other communities of the district also participate to perform this dance.

A male dancer dressed in women's clothing is called Maruni. The main character Maruni performs dance and it is called Maruni dance. This dance is performed on the base of the songs of Ramayana, Mahabharata and Puranas, accompanied by Madales who play Madals and Purusunge, a male dancer dressed in male attire. The dance teacher has a special role in the beginning, conduct and end the dance. This dance is characterized by conclusion with special rituals.

Figure 17: Maruni Dance
Source: (Magar, 2072)

This dance, which is formally started on the occasion of Tihar, is formally concluded in the month of Magha by dancing in various fairs after Tihar. It is believed that this dance will not be performed up to next year after its completion. The main characters of the dance are two Madales, one Pursunge and Maruni. The dance guru (gurumukhe) sings the song. As per the beat of song, the musicians play the music. According to the context of such instruments and songs, Maruni sometimes dances with the madal player and sometimes with the pursunge. So all these four characters act and dance simultaneously. During the entire dance period, there are episodes of songs like tighten Samar (Samar Bandhne), Samera, Jhumra, Dhamani and different rhythms are danced in these different situations.

The Maruni dance of the year ends after the closing ceremony is perform formally. On this occasion, the dance is concluded by commemorating the gods and goddesses, keeping them as witnesses, taking off Maruni's clothes and ornaments, musicians put their instruments on the ground, and every one asks the gods and goddesses to excuse for the whole year. After this, it is believed that the instruments used in this dance should not be played. This dance is connected with religious beliefs. Traditional clothes, ornaments, and characters, seem to be practiced in Pyuthan as an important heritage.

2.7.2.2 Bhume Dance of Magar Community

The scene of folk dance presented in the picture is the Bhume dance of the Magar community living in Sworgadwari municipality. This dance is performed in the Magar settlements of Pyuthan in the border areas of Rolpa district. It is called Bhume-nach because it is a dance performed on the occasion of Bhume worship, which is celebrated on the 1st of Ashadha. Therefore, this dance is also one of the important intangible cultural heritages of Pyuthan district.

Figure 18:Bhume Dance of Magar Community
Source: (Magar, 2072)

The original religion of the Magar community before they came in contact with Hinduism is nature-worshipping religion. That is why, they worship land, border areas, wetlands, reservoirs or water bodies, big trees and the spirits of ancestors as

gods. Every year on the 1st of Ashadh, they perform worship of them. It is also their festival or celebration. At the same time, they perform this Bhume dance in the first week of Ashaad.

On the occasion of Bhume Naach, women and men of the Magar community dress up in traditional clothes and gather. This dance is performed by both men and women mixing together in circle in an open space. This dance has become a symbol of Bhoomi Pujan (Worshipping of Land) celebration or happiness. In the past, on the occasion of this dance, there was a tradition of acting out the stories of the Magar community's struggle with nature and the natural events. It is believed that there were 22 rhythms or acting sequences of this dance. At present, all these rhythms or acting dances seem to be disappearing. Currently, this dance is performed according to the lyrics of modern popular songs of the society. This dance is also very attractive for the domestic and international tourists, as a group of singers sings songs accompanied by traditional musical instruments such as madal, bansuri, muzura, etc.

2.7.2.3 Hanuman Dance

Among traditional dances of Pyuthan district, Hanuman dance is a special cultural heritage that is gradually being endangered. Currently existing only in Jhimruk and Gaumukhi rural municipality areas, this dance was once in practice in the entire district. The main feature of this dance is that while singing the devotional hymns, related to lord Rama, a person feels that the spirit of Hanuman (monkey god, ally to Lord Rama) has entered his body and he dances or behaves like Hanuman. Although it is called a dance, as it is an act accompanied by hymns, it is actually a performance art.

2.7.2.4 Sarayan Dance

In this dance, people from most of the Pyuthan come to Dalle Mela with swords in hand by dancing in the musical beat (tune) of Panchebaza. They return after dancing in Dalle. The political and strategic history of Pyuthan is connected to this dance as it is performed after Tihar. Historically, there is no clear evidence on the King of Pyuthan was killed by Shah King (L.B Thapa, 2081). Bahadur Shah's soldiers won the Pyuthan kingdom without any battle. Perhaps the king of Pyuthan in the middle ages might have have started such dance to demonstrate his military power to the neighboring states by taking swords (khunda khukuri) from the 'thums' and 'kots' under his control. So, this is different and unique from Sarai Naach of other districts.

2.7.2.5 Ratauli Dance

2.7.2.6 Madikole Dance

2.7.2.7 Paisaru Dance

2.7.2.8 Singaru Dance

2.7.3 Music

2.7.3.1 Ashare Song

2.7.3.2 Deusii vailo and Teej Song

2.7.3.3 Salaijo, and Yanimaya Song

2.7.3.4 Ratyuli Song

2.8 Socio-Cultural Practice

2.8.1 Jhakri

Jhakri has its own unique characteristics to protect people from tantric influences in this region, where belief in ghosts, spirits , and other traditional entities is prevalent. Due to the belief in Kichkanye, Bhut, Jawe-Bhut , Karase-Bhut, Rake-Bhut, Kacho Vayu, Pako Vayu, Dhananjaya Vayu , etc., the practice of Dhami and healing rituals still persists in the hilly villages.

Since Jhakris are worshipped as divine figures, shrines were built for them, and Guthi were also granted. In villages like Dangawang, Khaira, Paturau Barjiwang, Kochiwang, etc., Guthi was allocated to Jhakri shrines, and this tradition continues to this day. This clearly shows the tantric influence of the Jhakri.

2.8.2 Chhainthi

(A ceremony on the 6^{th} day of newborn child) is celebrated by staying awake all night and by blessing the newborn baby with hymns.

2.8.3 Parimo (Exchange of labor)

The Parimo system is a traditional labor exchange practice in Pyuthan, where community members reciprocate agricultural work without monetary transactions. This system fosters mutual aid and strengthens social bonds among villagers. For instance, if a farmer assists neighbors during planting season, they, in turn, help him when needed. While prevalent in rural areas, such practices have historically contributed to the cooperative ethos in Pyuthan society.

Figure 19: Exchange of Labour during Ropai
Source: Author

2.9 Performing Arts

The Pyuthan have their sort of musical instruments like Ke Madal, Jhyali, Baja, Tyamko, Naumati Baja, Narsingha, Pung, Bhokar etc. which they use for various activities, from birth rituals to death rituals, for religious activities to celebrations.

Figure 20: Musical Instrument
Source: Autho

2.10 Foods Culture

The hilly terrain and favorable climate of Pyuthan allow the cultivation of diverse crops. The primary agricultural products include:

1. **Cereals & Grains**

    - **Dhaan (Rice)** – The staple grain of Nepal, mainly grown in the lower valleys and terraced fields.
    - **Makai (Maize/Corn)** – A vital crop used for food, livestock feed, and local delicacies like "Dhindo."
    - **Gahue (Wheat)** – Another essential grain used for making bread (roti) and porridge.
    - **Jau (Barley)** – Cultivated in colder areas, used for making porridge and traditional alcoholic beverages.
    - **Phappar (Buckwheat)** – Grown in high-altitude areas and used for making pancakes (Phapar ko Roti).
    - **Kodo (Millet)** – A drought-resistant crop, mainly used for making Dhindo and local liquor (Jaad/Raksi).

2. **Root Crops & Legumes**

    - **Alu (Potatoes)** – Widely grown and consumed in various forms, such as boiled, fried, or curried.
    - **Mash (Black Gram/Lentils)** – A vital pulse used for making Dal (lentil soup), an essential part of the daily diet.
    - **Adhuwa (Ginger)** – Cultivated as a cash crop and used in spices, tea, and herbal medicine.
    - **Tori (Mustard Seeds)** – Used for extracting mustard oil, which is essential for cooking and medicinal purposes.
    - **Kerau (Peas)** – Commonly grown and used in vegetable curries, soups, and snacks.

Traditional Food & Drinks of Pyuthan

The **diet of the local people** is primarily based on the availability of these agricultural products. The most common foods and drinks include:

1. **Staple Foods**

- **Dal-Bhat-Tarkari (Lentils, Rice & Vegetables)** – The daily meal for most households, providing balanced nutrition.
- **Sagpat (Leafy Greens)** – Various green vegetables like mustard leaves (Rayo ko Saag) are an essential part of meals.
- **Dudh (Milk) & Dahi (Curd/Yogurt)** – Dairy products are commonly consumed, with yogurt being an essential probiotic food.
- **Gheu (Clarified Butter/Ghee)** – Used in cooking, religious rituals, and as a health supplement.

Figure 21:Traditionl Food

2. **Local Specialties**

- **Dhindo** – A thick porridge made from buckwheat or millet flour, eaten with gundruk (fermented greens) or meat curry.**Phapar ko Roti (Buckwheat Pancake)** – A healthy alternative to wheat-based rotis, often served with ghee or honey.
- **Sel Roti** – A traditional rice flour bread, deep-fried and eaten during festivals.

3. **Traditional Drinks**

- **Jaad (Traditional Fermented Beer)** – Made from millet or rice, commonly consumed during social gatherings and festivals.
- **Raksi (Local Liquor/Alcoholic Beverage)** – A distilled alcoholic drink made from millet, barley, or rice, used in rituals and celebrations.
- **Chhyang (Mild Rice Beer)** – A lighter version of Jaad, often consumed in colder regions.

Figure 22:Trditional Drinks(jaad)

2.11 Architecture Expressions

The settlement patterns of Pyuthan were shaped by geography, ethnicity, and economic activities. Magars predominantly settled on hilltops for security and resources, while Brahmins, Chhetris, and Dalits lived on the lower terraces, relying on fertile land for agriculture and traditional trades.

Valleys were mainly used for cultivation, providing essential crops. The Newars established settlements along trade routes, facilitating commerce and cultural exchange. This structured settlement system fostered economic interdependence and harmonious coexistence, shaping Pyuthan's rich socio-economic fabric.

2.11.1 Housing Typologies

2.11.1.1 Magar House

Magar settlements are in the main kot and thum of the district. The architecture showcases a variety of house types, with the typical house having no dedicated space division like separate room for dedicated activities but is divided into public and private space, reflecting a more open and communal living arrangement. Use of less bright red clay (Rato Mato) and white lime (Kamero), with khar roofs and roofs supported by chaune dhunga (large flat stones).

The spaces are divided for different purposes.teh aagan is the public space, the pidi (varandah) is semi public space where as the open ground floor is semi-private and the upper floor is are strictly private.The ground floor has mainly two doors, the main and the secondary door.

Following are the typologies of houses:

2.11.1.1.1 Bhui Ghar (Low one-story house)

Based on number of story, it is a low height single story residence with a open floor plan

- no provision for dedicated spaces for sleeping and living purposes.
- Traditionally roof with khar and later replaced by tin roofing.
- These buildings generally has no windows and some times no secondary door.
- It has a feature of sloped roof low on two sides.

Figure 23:: Elevation-Bhui Ghar
Source: Author

2.11.1.1.2 Single Story House

The normal single storey house is shown in figure 24.

- The house is built on a stone foundation.
- This house has no secondary door and no attic foor.
- Roofed with khar and has sloped roof on four sides.

Figure 24:Single Story House
Source: Author

2.11.1.1.3 Multi Story House

The multi storey house s illustrated in the given figure 25.

- It is built on a stone foundation.
- It has a secondary door.
- It has gable wall with central window on each (front and rare wall)positioned below the gable roofs.
- It has varying no. of windows with at least 1 or 2 on the longer side.
- The main entrance opens on one of the short sides like all types.
-

Figure 25:Multi Story House
Source: Author

2.11.1.1.4 Deu Ghar (Pujari Ghar)

It is the house where all the traditional and festivals instruments, equipment's and other things for community used is kept. And a caretakers as a community man or a pujari is there.

2.11.1.1.5 Goth Ghar

This house is mainly for animal husbandry.

- It is sometimes one or two storey.
- Lower floor mainly for animal keeping and feeding area and the upper floor for keeping farm products and woods/timbers.
- It as two way sloping roof ,roof with either khar or chaune dhunga.
-

Figure 26:Goth Ghar
Source: Author

2.11.1.1.6 Khar ko Ghar

This house is characterised mainly with the roofing material which is khar. Generally its has four way sloping roof.

Figure 27:Khar ko Ghar
Source: Author

2.11.1.1.7 Dhunge Ghar

- This house is mainly characterised by its building material for its wall construction.
- Stone is wall with no mud plaster on them and well dressed with skilled is delivered in this construction of house.

Figure 28:Dhunge Ghar
Source: Author

2.11.1.1.8 Katera Ghar

It is a type of ghar which is made according to the lifestyle of magar people where magar people live on the fields for months for farming.

- It is temporary kind of structure made out of khar and timber.
- It genrally has a space for cooking sleeping and a animal husbandry as well.
- Its has no wall on all sides and somtimes the terrain itself as the back of the structure.

Figure 29:Katera
Source: Author

2.11.1.2 Chhetri Ghar

Chhetri houses, built with stone and mud mortar, feature separate living and sleep ing rooms. Their facade show cases red clay (Rato Mato) and white lime (Kamero), with dedicated spaces for cattle (goth ghar) and traditional grinding tools (dhiki, janto). For roofing chauni dhunga is used and generally has two way sloping roof. The is one main door and multiple secondary door. The spaces outdoor and indoor is dived inot public to private space. Outdoor aagan is public and pidi is semi public and ground floor with living room semi private , kitchen on ground floor attic and bedrrom on upper floor is strictly private. The attic is genrally used for storage of dhan, gau etc the farm products. The timber member on door and windows are genrally of green and blue color. These color are extratedlocally from bhang and asuro and represent infinity and divine protection. And the black color used is extracted from sal ko bokra.

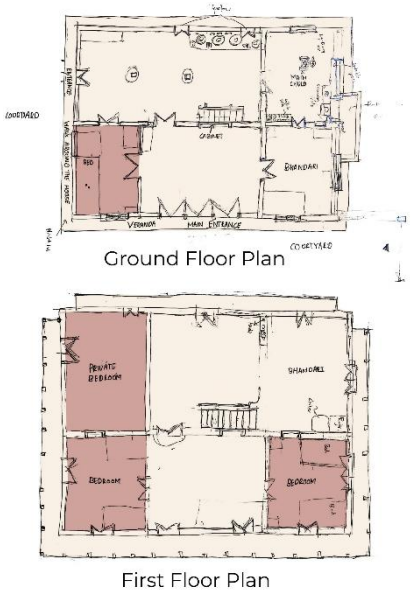


Figure 33: Tipical Floor Plans

Figure 32Figure 24: Tipical Elevation of Chhetri Ghar

Figure 31: Dhiki Jato Ghar

Source: Author

Figure 30: Tipical Elevation of Chhetri Ghar

2.11.1.2.1 Newari Ghar

The Nwari settlement in Pyuthan is traditionally organized along a main circulation street that serves as both the commercial and social spine of the community. The street trade area dominates this core, with shops and small businesses opening directly onto the street, creating an active frontage. Residential houses are primarily located along the sides of this main street, often with mixed-use character where the ground floor is used for trade and the upper floors for living. This pattern reflects the integration of commerce and residence, making the street not only a circulation route but also the central space of community life. Generally one or two side sloping roof.

Figure 34: Typical Elevation of Newari Ghar
Source: Author

2.11.2 Temples

2.11.2.1 Narayana Temple, Bijuwar

The temple is of Narayan located in Bijuwar Bazar, Pyuthan Municipality. This religious monument/heritage has become an important heritage of the Pyuthan municipality area due to the deep religious faith on local people.

Figure 35: Narayan temple
Source: Author

In the inscription next to the temple, Saka Samvat 1770, BS 1905 Baisakh Vadi 13 Rose 1 (Sunday) mentioned the details of the installation of the idol of Narayana has 175 years old history. This two-storey temple has been made of solid bricks with an area of eleven square feet is completely built in the Nepalese multi-layered, roofed (pagoda) style. The temple has a two-tiered of tile roofs. Plain tundals are used on both the roofs. A metal artistic gajur with Chhatra (an umbrella shaped) has been installed on the upper roof. There is a bell offered in 1911. An idol of Narayan has been installed in the inside of the temple.

Local devotees worship in this temple which is not in good condition (in dilapidated condition). The special contribution of the Kashapati Newar community living in the Bijwar is there for construction and the worship in the temple. This temple is under the care of Kashapati Newars. Although physically dilapidated, there is a monument representing the history of Vaishnavism in this area has special significance.

2.11.3 Building Materials

- Stone
- Timber/natural wood
- Chauni-dhunga
- Soil
- Bamboo

Figure 36: Local Building Materials

2.11.4 Places of Social Life

2.11.4.1 Chautaro

A **Chautaro** is a traditional resting platform made of stones, often built under large trees like peepal or banyan. It serves as a resting place for travelers and a gathering spot for villagers to share stories, exchange news, and relax. It reflects the communal spirit and hospitality of rural life.

2.11.4.2 Temples

Temples in the hilly regions are not only places of worship but also important social spaces. People gather here during festivals, rituals, and community events. These temples foster unity, spiritual connection, and serve as meeting points for locals of all ages.

2.11.4.3 Dhunge Dhara

Dhunge Dhara, or stone water spouts, are essential public water sources where people gather daily to fetch water, wash clothes, and bathe. These spots naturally become places for social interaction, especially among women, promoting conversation and community bonding.

2.11.4.4 Aagan

The **Aagan** is an open courtyard space in front of or between homes. It is used for daily chores, drying grains, cooking, and hosting guests. It also becomes a small-scale social hub where family members and neighbors gather and interact.

2.11.4.5 River Ghat and Ponds

River ghats and ponds are used for religious rituals, cremation ceremonies, bathing, and washing. These water bodies also host local fairs and cultural events, making them lively spaces for social and spiritual gatherings.

2.11.4.6 Pathsala

A **Pathsala** is a traditional school where children learn basic education and religious teachings. It also serves as a venue for village meetings and knowledge-sharing, helping build a strong educational and moral foundation within the community.

2.11.4.7 Ram

Ram refers to traditional **melas or jatras** (fairs and festivals) celebrated in villages. These events bring people together for worship, cultural performances, trade, and social interaction. They are important occasions for preserving traditions, strengthening community bonds, and celebrating local identity.

2.11.4.7.1 Khet Bari

Khet Bari, or farmlands, are more than just agricultural fields—they are vibrant social spaces. Villagers work together, sing folk songs, and support one another during planting and harvest seasons, strengthening cooperation and cultural ties.

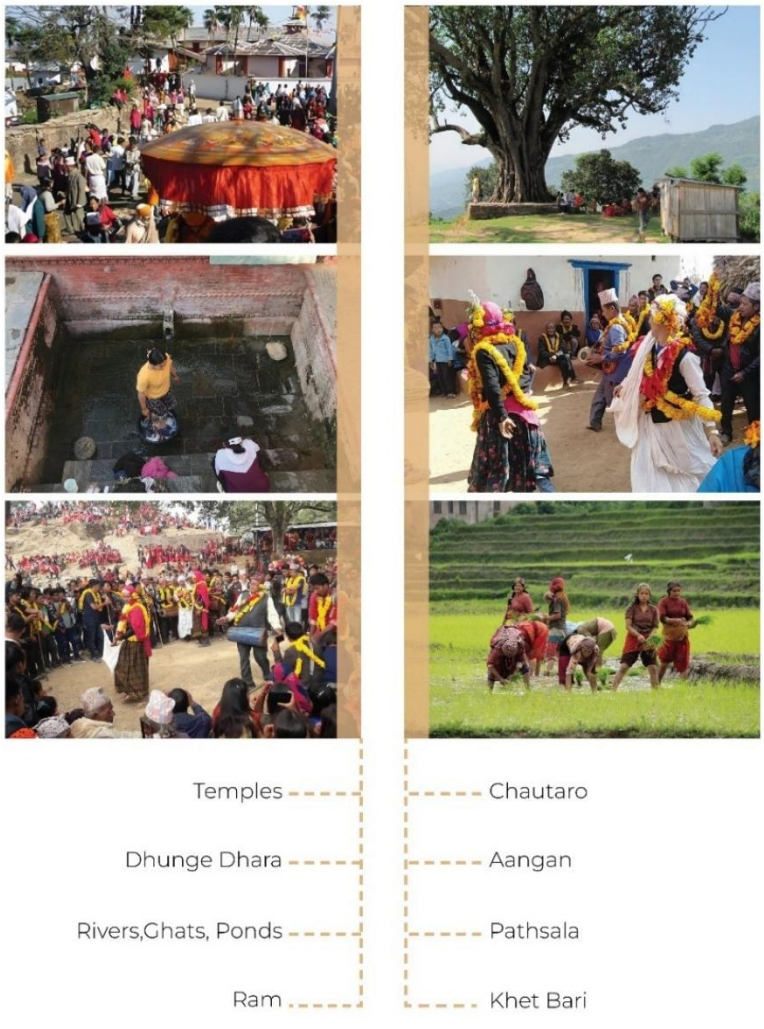


Figure 37:Places of Social Life
Source: Author

2.12 Museum and Exhibition

A building or place where works of art, scientific specimens, or other objects of permanent value are kept and displayed.

2.12.1 Function of museum

a) **Collect:** Required objects can be acquired, rented, or borrowed from a variety of sources; the types of objects required are determined by the museum's aim and type.
b) **Store:** All obtained items must be carefully stored.
c) **Conserve:** Another key role is to preserve an object; this is especially crucial in the storage and display of very delicate objects.
d) **Research:** The acquired things are researched, and the essential information is documented so that all information about them is readily available when needed. For researchers, scholars, and specialists, the majority of museum collections contain cultural and scientific riches. Some museums provide resource centers and libraries on site that are open to a wide range of users, including academics, researchers, students, and the general public.
e) **Expose/exhibit:** The final and most important function of a museum is to present its collection, by displaying the objects and providing necessary information.

2.12.2 Aspect of Museum

In order to improve the quality of the space and leave a lasting impression on visitors, it is critical in every museum to pay attention to various areas of the museum. The following are some of the most significant factors to consider while evaluating the museum's quality.

a) Circulation
b) Space organization
c) Entrance and Access
d) Exhibition Spaces
e) Lighting

2.12.3 Circulation

2.12.3.1 General Consideration

- To eliminate misunderstanding, the entrance and lobby should direct people to the galleries.
- In order to sustain a continual flow of visitors, the circulation pattern should be continuous, moving from one gallery to the next.
- Exhibits on one side of the gallery should avoid dead ends. This will prevent visitors from passing through the same spot many times and will also keep the place from becoming crowded.
- It is preferable to move in such a way that one is not compelled to pass an object that has previously been viewed.

- Enough space for tourists to move at their own pace. The relationships between functions are common to all museums and art galleries. Administration/Office

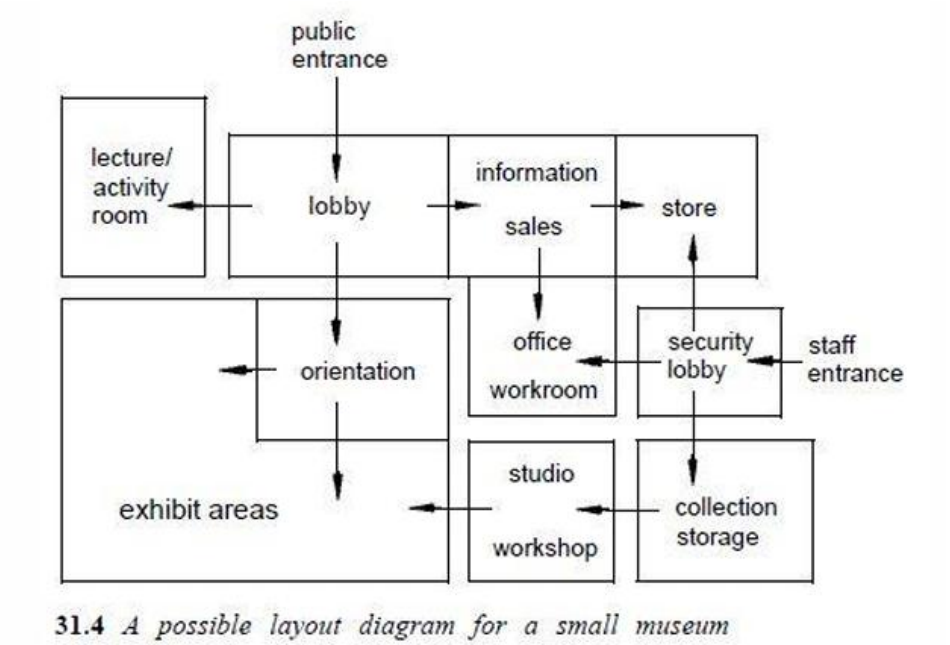


Figure 38: Layout Diagram of Small Museum
Source: (Adler, 2007)

2.12.3.2 Visitors' Orientation

- A visitor should get a clear idea of layout of display rooms
- A central atrium connecting all rooms enables the visitor to orient themselves.
- A symmetrical design or a clear axis leading to the prime area may create an order of orientation
- The entry position can also guide the visitor's route
- In vertically traversed spaces, the visitor should have an idea of the place they are moving to
    a) The visitor is drawn into the Centre of the room.
    b) the visitor is drawn to the right into the Centre of the room.
    c) the visitor is inhibited by the difficulty of making a decision.

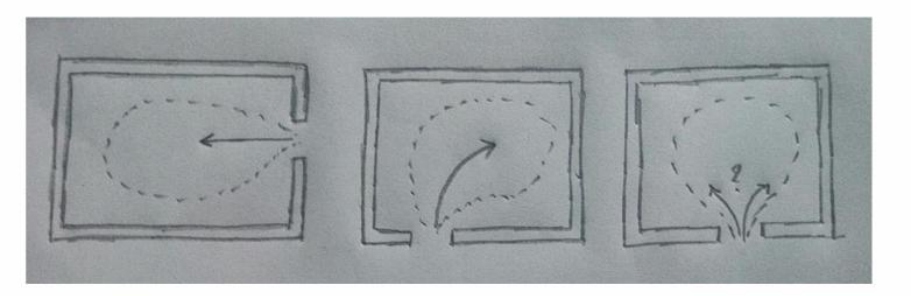


Figure 39: Circulation Way
Source: Author

2.12.3.3 Circulation Pattern

a) Open Plan

- Large autonomous exhibits, free circulation
- Bays and columns- scale, structure and proportion
- Level changes-circulation, mechanical aids
- Roof spans-single/multiple
- Service Spaces- under floor/ overhead area.

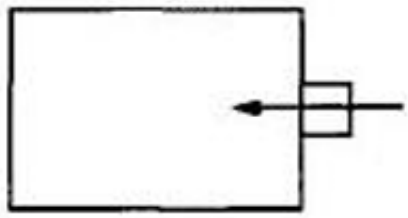


Figure 40: Open Plan

b) Core and Satellites

- Core space for orientation to museum/ subject/ collections
- Satellite spaces for autonomous exhibits/ themes/ collections
- Core/ Satellite- sitting of temporary changing exhibit or special exhibitions
- Free circulation- from core to specific Satellite

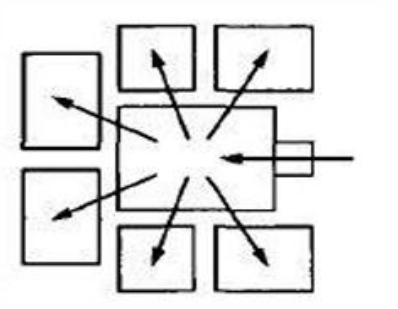


Figure 41: Core and Satellite

c) Linear Procession

- Linear sequence of spaces, controlled circulation, tunnel show
- Thematic exhibitions/ storyline organizations
- Sitting of large key exhibits Figure 46: Linear Procession

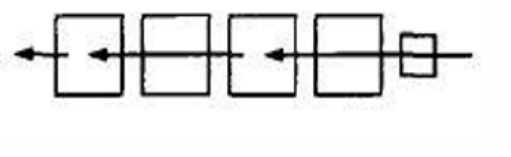


Figure 42: Linear Procession

- Separate entrance and exit - relationship to associated activities

d) Loop

- Linear sequence of spaces, controlled circulation, tunnel show
- Thematic exhibitions/ storyline organizations
- Sitting of large key exhibits circulation returns to exit.

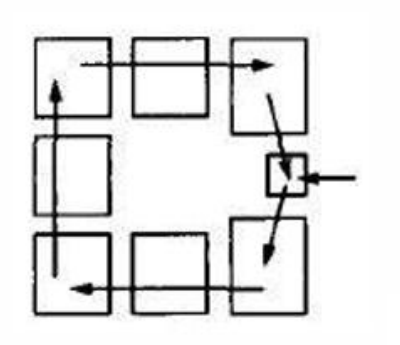


Figure 43: Loop

e) Complex

- Combines group of spaces with features of above-mentioned plans
- Complex organization of collections
- Complex communication strategy

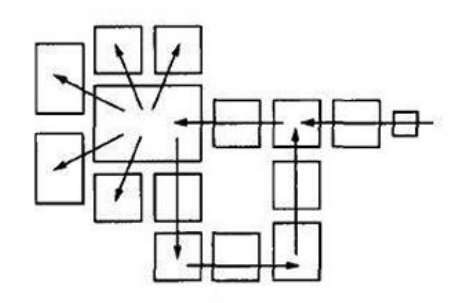


Figure 44: Complex

f) Labyrinth

- Complex organization of collections
- Locally free circulation management of circulation is a museum function
- Complex communication strategy
- Orientation/ disorientation

Figure 45: Labyrinth

g) Star/fan Pattern

The central part is generally continuous, but the path leads to a series of self-contained units which have a more varied path within them.

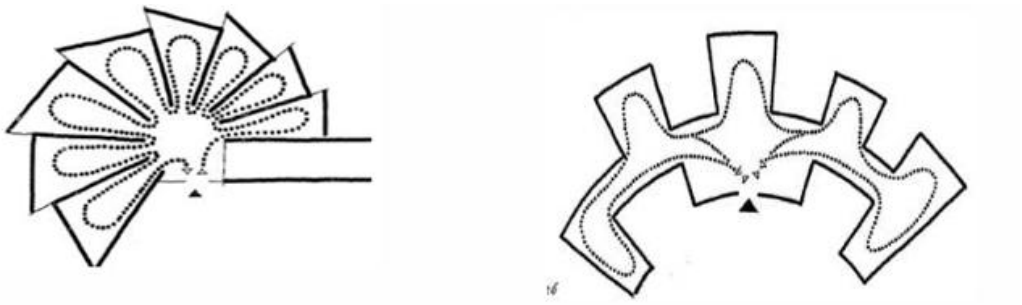


Figure 46: Star / Fan Pattern

h) Arterial Pattern

The main path is continuous, and no option exists for it is used where the presentation is dependent upon a fixed sequence.

i) Combo Pattern

Main circulation path and optional alcoves are provided which a visitor may enter or bypass.

j) Rectilinear Circuit

It is found to be the most simple and easy of all with the same opening functioning as entrance and exit.

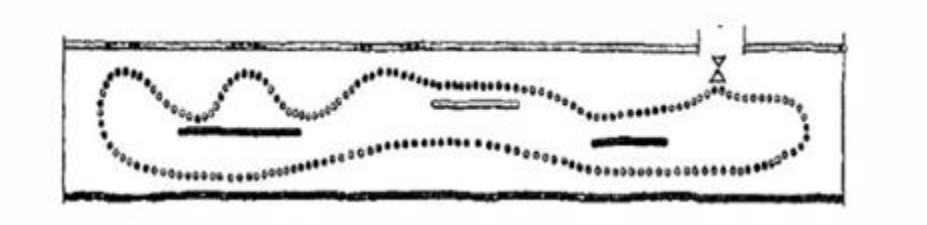


Figure 47: Rectilinear Circuit

2.12.4 Space Organization

When it comes to the spatial needs for a museum, there is no such thing as a perfect area or layout for the type of space necessary. These variables are entirely dependent on the museum's practical requirements and the objects on display. Every collection has its unique set of circumstances, objectives, goals, and issues. The structure of the building, the form of the exhibition room, and related services are all influenced by the collection's specific requirements, therefore designing for a present collection rather than future collections is easier. Certain facilities and areas are required to achieve the aims and function. In a museum, there must be enough variety of rooms to allow each function to be performed individually while also combining certain activities in a single place, as is essential for economics. Because a museum must conduct so many different types of duties, it is impossible to maintain appropriate housekeeping and curatorial procedures without separating functions into separate rooms.

The spaces required by a museum can broadly be divided in two categories:

2.12.4.1 Public Areas

All those areas where the general public is admitted are public areas, it starts at the entrance, the entrance hall should be large so it can admit large crowds and should lead to the auditorium, library and committee rooms directly through corridors, without having to go through exhibition galleries.

Public circulation: Those areas where there is always public access and free circulation is to be provided come under public circulation. E.g., Reception, Gallery, Library, Café, etc.

I. **Enquiry and Sales Counter:** Enquiry should be located at the entrance hall to provide guidance to the public. Generally, a sales counter is located in the proximity for the purpose of selling museum publications, guidebooks, post cards etc.
II. **Galleries:** Galleries are the most important part of a museum as they are the main objective of a museum. Gallery planning and systematic presentation is a vital issue in the design. The design of spaces in a Gallery, sizes of rooms, ceiling heights etc. depend entirely on the type and nature of collection/ objects. Long and narrow galleries are suitable for exhibiting the paintings and the sculptures require tall halls or open courtyards.
III. **Library:** Libraries require separate stacking and reading areas, and a study area. They can also house other facilities like photographic and print collections along with access to the internet. Reading and study areas require sufficient natural light. Restricted circulation: Those areas where there is public access only at certain times such as at certain events or at a particular time and controlled circulation is to be provided come under restricted circulation. E.g., Auditorium, Seminar Hall, Research areas, etc.

Restricted Circulation: Those areas where there is public access only at certain times such as at certain events or at a particular time and controlled circulation is to be provided come under restricted circulation. E.g., Auditorium, Seminar Hall, Research areas, etc.

Auditorium: The planning of auditoriums should be done in such a way that they accommodate multiple functions, lectures, cultural performances etc., and have an attached ante-room doubled as a green-room during performances. Sloping floors should be avoided, if possible, so it can also be used for conferences and temporary exhibits.

2.12.4.2 Private/Service Areas:

The service areas are the behind the scene areas and are important for the proper functioning of a museum. At least 40% of the total area should be provided for spaces like preservation laboratory, offices for administrative and technical staff, workshops, stores, working spaces etc. All these areas should be well planned and interlinked; they should be properly maintained and kept useable. Too many entrances and exits should be avoided, for security, but a separate entrance to the service areas should be provided accessible from electrical and air-conditioning plant and also connected to the stores so that objects can be directly taken to the store without interfering with the public areas.

i. **Freight circulation:** Those areas where there is only access for the staff for service purposes come under freight circulation. E.g., Lab units, Reserve, Collection store, etc.

ii. **Staff circulation:** Those areas where there is only access to the staff for official purposes come under staff circulation. E.g., Administration, Technical room, etc.

The relation between functions and physical facilities is summarized in the following diagram.

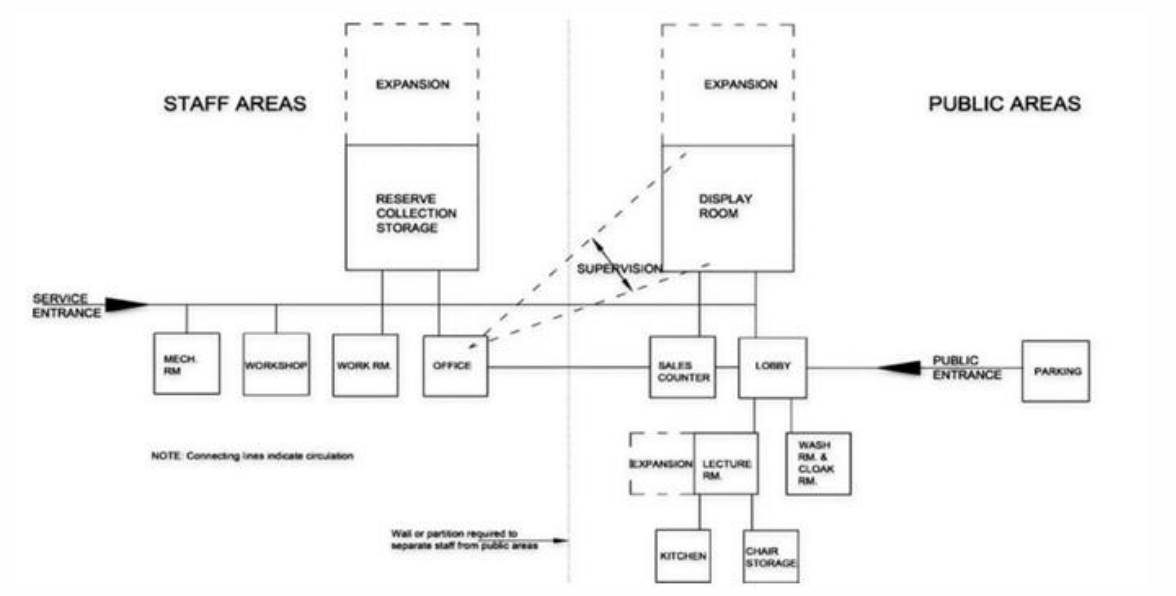


Figure 48: Relation between Function and Facilities
Source: (Adler, 2007)

2.12.4.3 Other Areas:

In addition to the public and private spaces there must be provisions for other spaces such as toilets, separate cloak rooms and water rooms for public and staff as well as enough corridors and staircases for circulation.

i. **Toilets and Cloak Rooms:** Separate facilities should be provided for the public and the staff, which should be well equipped and well maintained. The public facilities should be directly accessible from the entrance hall. ii. Staircases and Corridors:

ii. **Staircases and Corridors:** should be wide enough to accommodate a normal crowd, and should not be crowded by displays, although area signs and notice boards should be placed in a limited number. These spaces should have a pleasant atmosphere which can be enhanced using vegetation, they should be well lighted and non-slippery.

2.12.4.4 Standard Area for Museum Architecture

- Gallery: 40- 50 % of total built- up area
- Educational and promotional activities: 4-8 % of total built- up area
- Space for storage and collection: 10- 15 % of total built- up area
- Space for research and study: 3- 8 % of total built- up area
- Space for administration/ management: 7- 8 % of total built- up area
- Space for circulation: 20- 30 % of total area
- Ratio of gallery to non- gallery space ≤ 45%
- Ratio of permanent display gallery to non- gallery space ≤ 40%
- Provision of future expansion: 20- 25 % of total site area

Standard design data for museum architecture:

- Gallery height: Not less than 3m i.e., 3.6- 5.4 m
- Gallery length: 18.2- 24.4 m • Gallery width: 5- 10 m
- Picture/ painting/ 2D display: 3- 5 m2 hanging surface to each with artificial lighting in darker space
- Sculpture/ 3D display: 6- 10 m2 areas with natural lighting

2.13 Museum Exhibit Areas

An exhibition is display, show or demonstration of something of beauty, value or particular interest to a targeted audience. Exhibitions are complex presentations that convey concepts, showcase objects, and excite the senses.

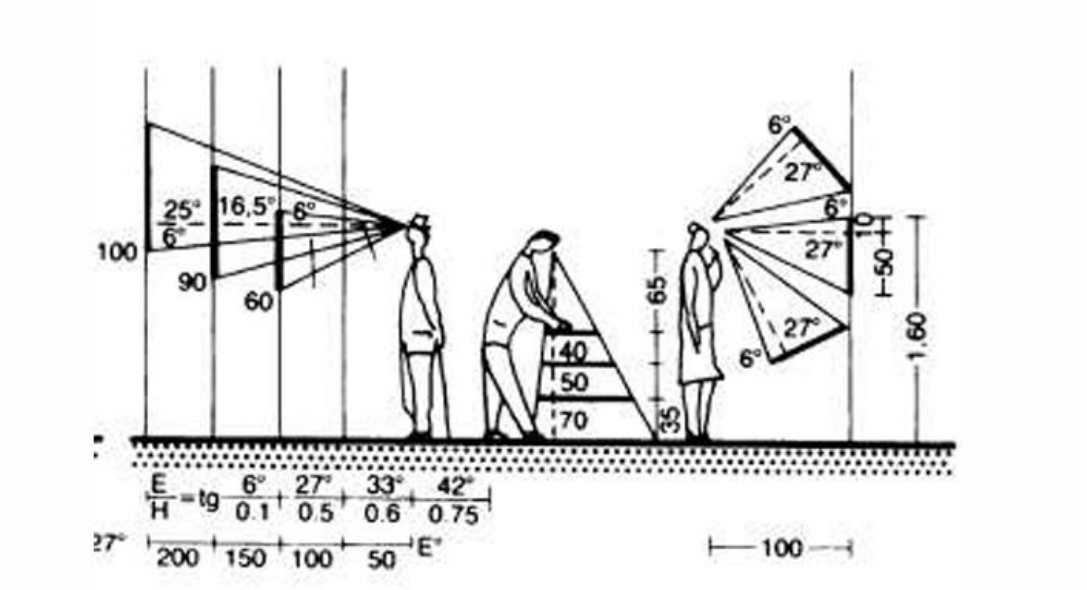


Figure 49: Field of Vision; Height/Size and Distance
Source: (Neufert, 2012)

Open Air Exhibit Space

Open Spaces

A minimum of 30% of each lot must be dedicated to open areas and greenery. Excluding lot setbacks, the Open-air Exhibition Space represents around 50% of each lot, where it is possible to build:

- Structures used for plants ensuring soil permeability (e.g., trellises, pergolas, garden structures, planters).
- Landscaping structure (e.g., structures used to retain soil or other materials, pools, exhibition structures, art works) Covered Exhibition Space
- Covered Exhibition Spaces are buildings or enclosed structures containing exhibition areas or other spaces, including all overhanging upper floors or balconies. Participants may decide to build more than one level within the Covered part of the Exhibition Space, based on their individual needs.

Height of Buildings

- The height of the Covered part of Exhibition Space (or Building Height) must be less than 12 meters.
- The height limit for any additional architectural elements (such as skylights, roof elements, vertical connections to the roof, sunscreens, signals, etc.) is 17 meters (Rovello, 2015).

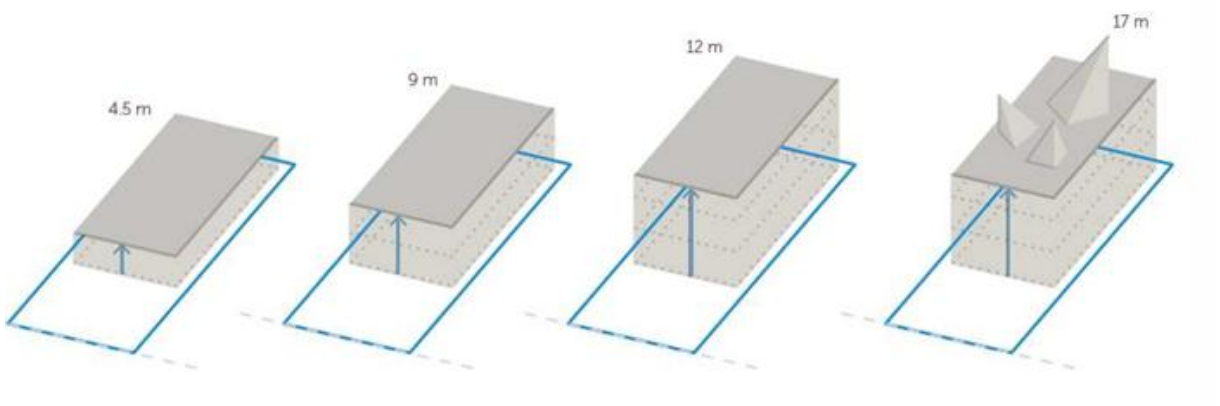


Figure 50: Height of Buildings

Building Setbacks

- The setback from the main boulevard must be no less than 10 meters, in order to create a small square.
- The distance between buildings and the side street shall be no less than 2 meters; there shall be no building concession directly to squares, greens, streets or public spaces, without the 2 meters' setback.
- The setback from the neighboring lot shall be no less than 3 meters.
- The distance between buildings shall comply with fire control requirements (Rovello, 2015).

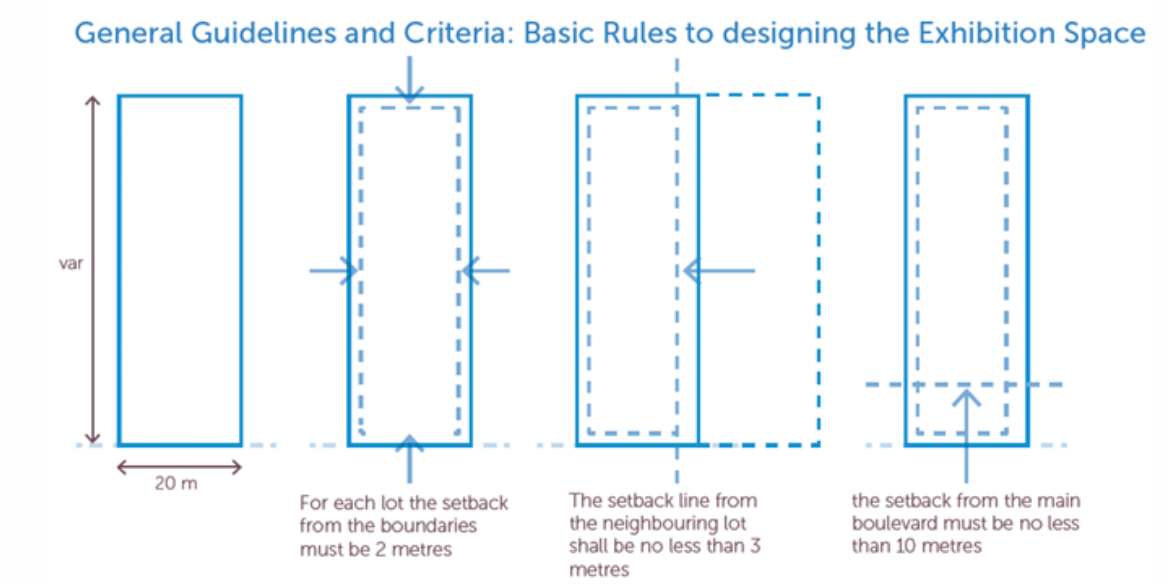


Figure 51: Building Setback

2.14 Space per person for various areas in Exhibition Hall

Space per person	**M²**
Exhibition visitors	1.5
Exhibition Space	1.4
Circulation per stand	5
Conference room	2
Foyer	o.6

Table 1: Space Required for per person in Exhibition Hall

2.15 Lighting

One of the most important variables in defining the quality of a museum's environment is lighting. It's also an important part of how a space is expressed. Visitors' perceptions of space and emotional responses are greatly influenced by light. People's attention can be drawn to or diverted by light. Changes in its intensity, color source, distance, and other factors can have a variety of effects. effect on human psychology and behavior in a way, light has a more contradictory personality. Stronger lighting is essential in a museum context to help the exhibit stand out, and provide diffused, lower-intensity light for human comfort at the same time. If not adequately planned and calculated, light has a degrading effect on specimens. For galleries, the amount of light and its quality must be addressed in connection to contrast, glare, color effects, light color, object brightness, and room lighting. For good visibility, there should be a good contrast of brightness. A decent contrast allows the eyes to focus quickly, yet a great contrast is exhausting and perplexing. A sharp contrast is created by light coming from one direction. It is preferable to have light coming from both directions rather than just one.

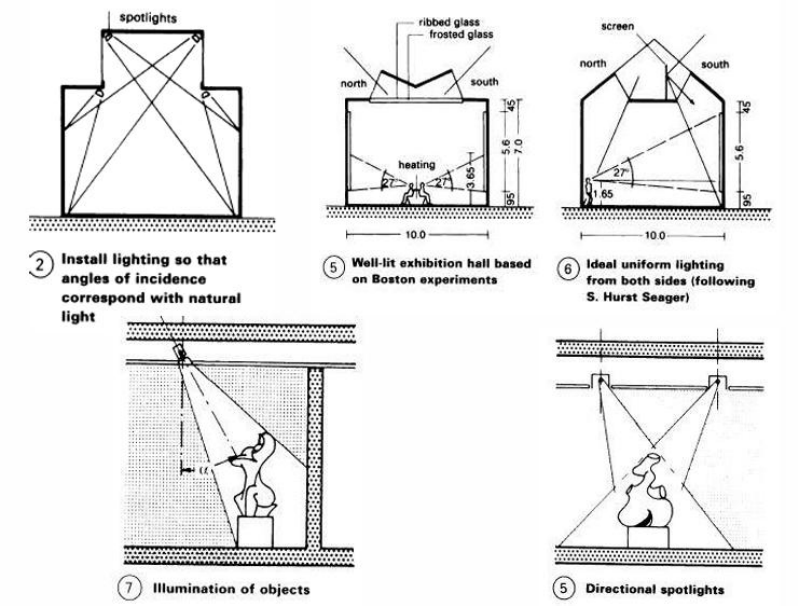


Figure 52: Different Lighting System
Source: (Neufert, 2012)

Lighting Systems

The level of illumination suggested for different spaces:

Space	**Illumination (lux)**
Gallery	500
Office	300
Workshop	250-700
Shop	400
Circulation	200
Toilet	150

Table 2: Illumination Required for Different Space

Types of Objects	**Maximum Illuminance (lux)**
Sensitive objects (water color paintings)	50
Medium sensitive objects (oil paintings)	200
Insensitive objects (stone sculptures)	<200

Table 3:Illumination Required for paintings

2.16 Design for differently abled

- Adult who uses a wheelchair has an average eye level of between 1090 mm and 1295 mm above the finished floor
- Objects placed above 1015 mm will be seen only from below by most seated and short viewers

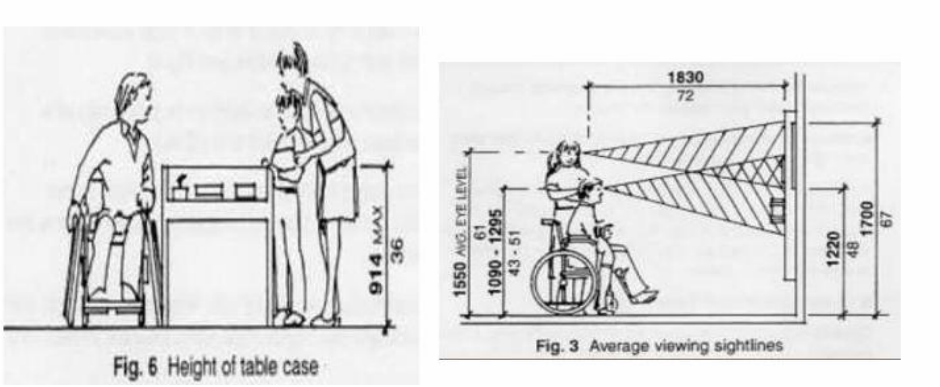


Figure 53: Height of Table and Average Viewing Sightliness
Source: (Neufert, 2012)

Design Consideration

General

- An exterior location is preferred for ramps. Indoor ramps are not recommended because they take up a great deal of space.
- Ideally, the entrance to a ramp should be immediately adjacent to the stairs.
- Ramps can have one of the following configurations:
    a. Straight run
    b. 90 turn
    c. Switch back or 180 turn

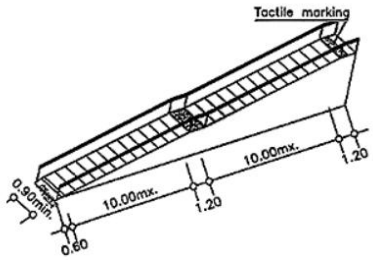


Figure 55: Straight run

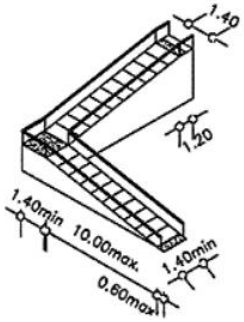


Figure 54: 90 turn

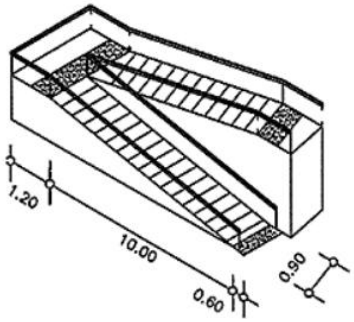


Figure 56: Switch back or 180 turn

Source: (Affairs, 2003-04)

Width

- Width varies according to use, configuration and slope.
- The minimum width should be 0.90 m.

Slope

The maximum recommended slope of ramps is 1:20. Steeper slopes may be allowed in special cases depending on the length to be covered.

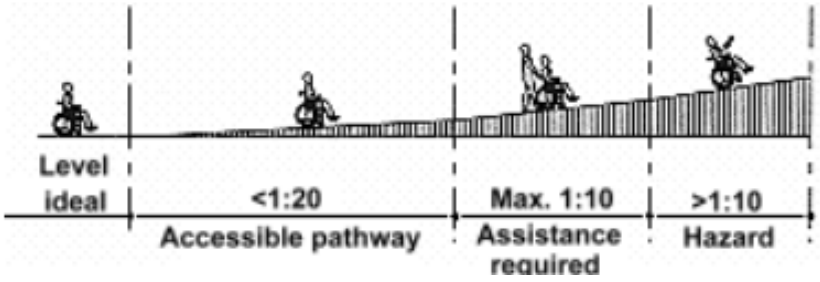


Figure 57: Ramp slope
Source: (Affairs, 2003-04)

Maximum Slope	Maximum Length	Maximum Rise
1:20 i.e., 5%	-	-
1:16 i.e., 6%	8 m	0.50 m
1:14 i.e., 7%	5 m	0.35 m
1:12 i.e., 8%	2 m	0.15 m
1:10 i.e., 10%	1.25 m	0.12 m
1:08 i.e., 12%	0.5 m	0.06 m

Table 4: Ramp Slop

Landing

- Ramps should be provided with landings for resting, maneuvering and avoiding excessive speed.
- Landings should be provided every 10.00 m, at every change of direction and at the top and bottom of every ramp.
- The landing should have a minimum length of 1.20 m and a minimum width equal to that of the ramp

Handrail

- A protective handrail at least 0.40 m high must be placed along the full length of ramps.
- For ramps more than 3.00 m wide, an intermediate handrail could be installed.
- The distance between handrails when both sides are used for gripping should be between 0.90 m and 1.40 m

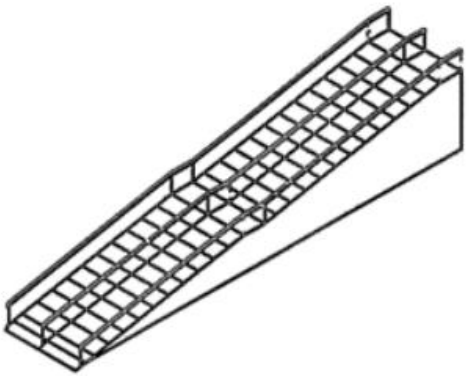


Figure 58: Handrail

Surface

- The ramp surface should be hard and non-slip.
- Carpets should be avoided.

Mechanical Ramps

- Mechanical ramps can be used in large public buildings but are not recommended for use by persons with physical impairments.
- If the ramp is to be used by a wheelchair-confined person, the slope should not exceed 1:12.
- The maximum width should be 1.00 m to avoid slipping.

2.17 Administration/Office

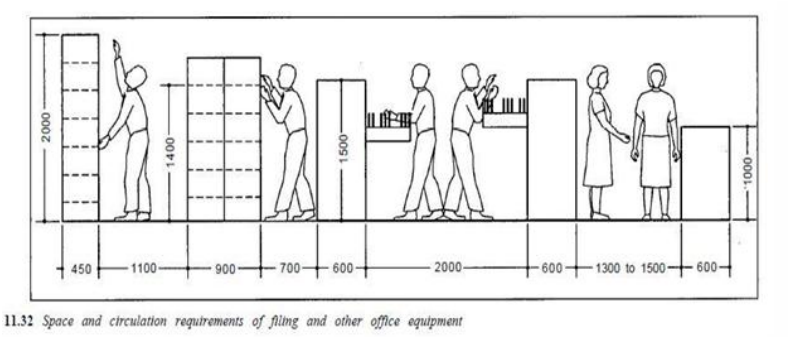
It is the process concerned with determining goals, objectives, policies and plans for which the organization and its management operates.

2.17.1 Circulation

- Aisles leading to main exits from areas which carry substantial traffic (main aisles) should be 60 inches wide.
- Aisles which carry moderate amount of traffic (intermediate aisles) should be 48 inches wide.
- Aisles between rows of desks (secondary aisles) should be approximately 36 inches wide.

2.17.2 General Space Requirements

- Space per person - 8 m² to 13 m² (optimum 10 m²)
- Typical President's office or chairman of the board - 23.22 to 37.16 m²
- Typical Vice-President's office - 13.93 to 23.22 m² (3 to 4 windows in length)
- Typical Executive's Offices - 9.29 to 13.93 m² (2 windows in length)
- Partitioned open spaces – Clerical supervisor or manager - 7.43 to 10.2 m²
- Open Space - Clerical or Secretary 5 to 10.2 m²
- Mail room: 2400 to 2700mm. wide with 762 mm counters on either side. Length depends upon amount of usage.
- Reception Area - 11.61 to 18.58 m², receptionist and 2-4 people; 18.58 to 27.8 m², receptionist and 6-8 people
- File room - 0.65 m² per file with a 900 mm to 1200 mm aisle width
- Area per floor - 450 to 540 m² (No need of doubling the no. of lifts, escape routes and lavatories)
- Floor to floor height: 12ft. (11 to 14 ft.)
- Finished ceiling height - 8 ft. to 8.5 ft.
- Corridors - 20% to 25% of the total usable areas for executive offices, reception rooms, open clerical areas, conference rooms, libraries, file, mail and storage rooms, computer rooms.
- Lighting requirements - corridors - 200 lux, general office: 400 to 600 lux.



11.32 *Space and circulation requirements of filing and other office equipment*

Figure 59: Space and Circulation requirement of Filing and other Equipment's
Source: (Adler, 2007)

2.18 Restaurants

Restaurant is an important part of any activity centers. Where there are people, there food serving business is compulsory. Though, eating is a biological need, it is also a social activity, an interest of customers to taste variety of foods as well as a refreshing and entertaining activity. Restaurants also may have theme to their setup and design the environment according to theme.

2.18.1 Spatial Layout and functions

The spaces in restaurant normally are:

- Entry
- Dining Space - It is the main room of a restaurant and facilities should correspond with the type of operation. A number of additional tables and chairs should be available for flexible table groupings.
- Waiters' station - It is the space from where waiters perform their duties, from where they are distributed, they look after customers and from where they provide service to customers.
- Counter
- Bar
- Kitchen
- Store - cold store/dry store
- Administration (manager's office, meeting room, staff's room, changing room etc.)
- Service entry

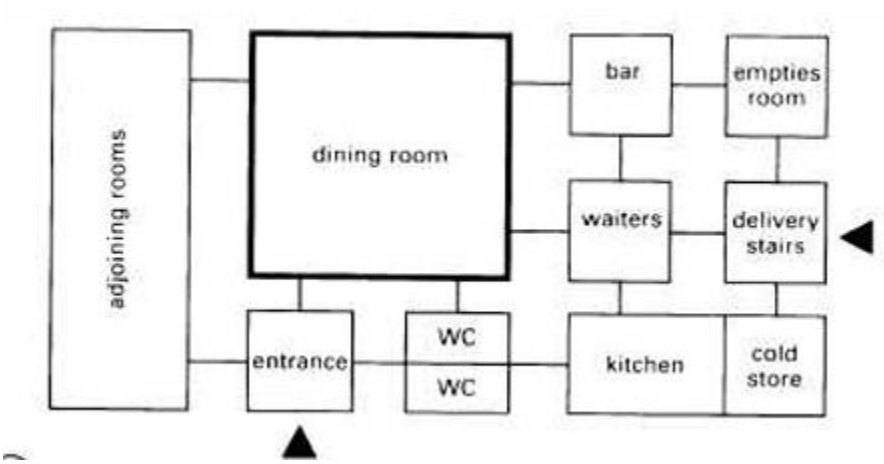


Figure 60: Layout of Small Restaurant
Source: (Adler, 2007)

Layouts for restaurants table

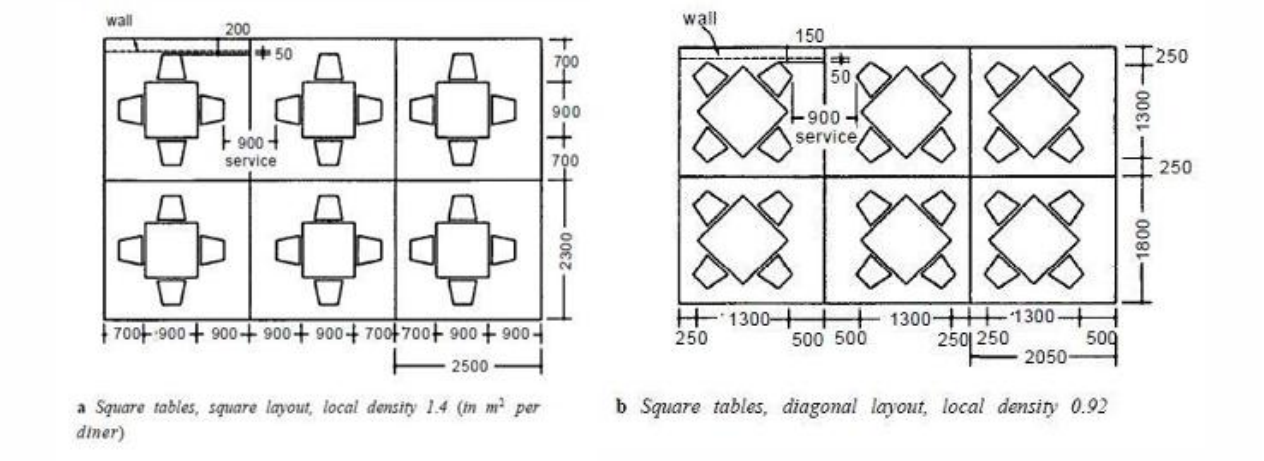


Figure 61: Layout of Restaurants Table
Source: (Adler, 2007)

2.18.2 Space Requirements

- To be able to eat comfortably, one person requires a table area of around 60 cm wide by 40 cm deep.
- The ceiling height of a dining room should relate to the floor area: ≤50 m², 2.50 m; > 50 m², 2.75m; > 100 m², ≥ 3.00 m; above or below galleries, ≥ 2.50 m.
- The minimum width of escape routes is 1.0 m per 150 people.

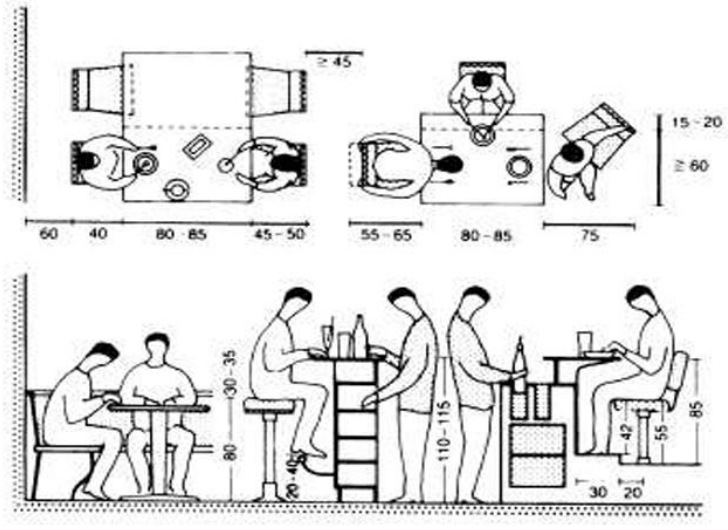


Figure 62: Space Requirements for Server and Dinner
Source: (Adler, 2007)

dining floor area	walkway width
up to 100 m²	≥ 1.10 m
up to 250 m²	≥ 1.30 m
up to 500 m²	≥ 1.65m
up to 1000 m²	≥ 1.80 m
over 1000 m²	≥ 2.10 m

customer places	toilets men	toilets women	urinal bowls	urinals (m)
50	1	1	2	2
50–200	2	2	3	3
200–400	3	4	6	4
400	– determine in individual case ·			

Figure 63: Space requirement for circulation and no. of toilet according to ppl

2.19 Workshop

General Considerations

- Ideal working condition - large, ventilated rooms, with high ceiling and transitional areas such as courtyard, or open to sky spaces should be well appreciated in the studios and work areas. The link between indoor and outdoor space should be maintained as far as possible.
- Studios must have good amount of natural daylight, with high level windows equal to at least 25-30% of the floor area. Roof lighting is also preferred. All windows should have some sort of daylight control.
- Artificial light comes into use in absence of natural light, where detail work and displayed images are to be focused. Lighting should be such that it does not produce any glare, less maintenance, much saving of wall and ceiling space.

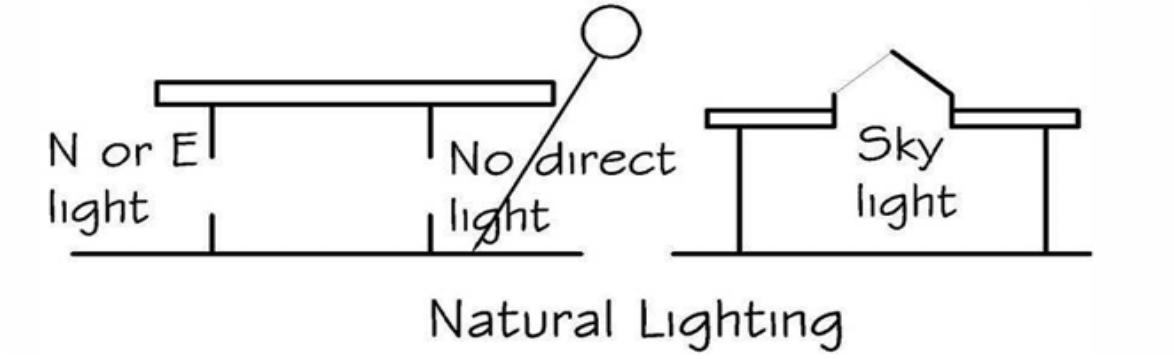


Figure 64: Natural Lighting Design

- It is possible that noise producing workspace can affect the other. So, buffers can be created by additions of walls or vegetations.

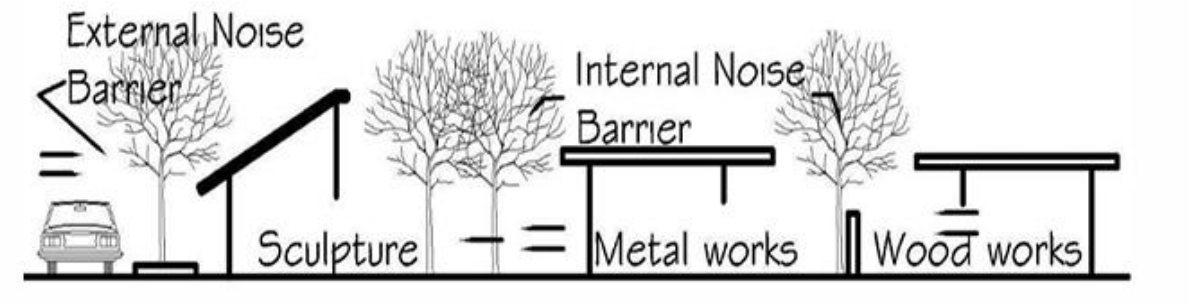


Figure 65: Buffer Creation in Workshop

- General practicing per place areas for work area in different countries are given below. It suggests workspace per person

Activity	Area per place in sq. m
Wood working	4.7
Metal working	5.3
Electricity and electronics	3.3
Spinning and weaving	7.2
Ceramics	5
Bamboo work	3.9
Masonry	3.1

Table 5: Space Required for Workshop Activity

- A workspace should be thermally, mentally and physically comfortable. Use of proper ventilation, growing vegetation as shading devices, using double glazing can be the solutions.

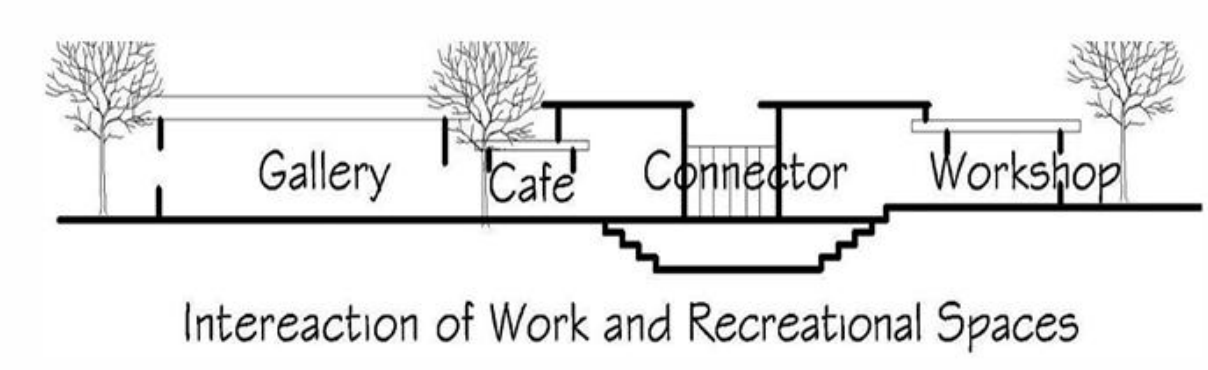


Figure 66: Interaction of Work and Recreational Spaces

2.20 Meeting / Conference Hall

Size

- Conference rooms - 1.39 m² per person
- Lighting requirement: 300 to 400 lux

Space guidelines

- Allow 48″ between table and wall for minimum clearances

- Allow 56″ between table and wall for more comfortable space
- Allow 16″ to walk sideways between chair and wall
- Allow 24″ to walk between chair and wall without turning sideways
- Allow 30″ side to side per chair
- Allow 32″ to 34″ between table and back of chair to rise from chair

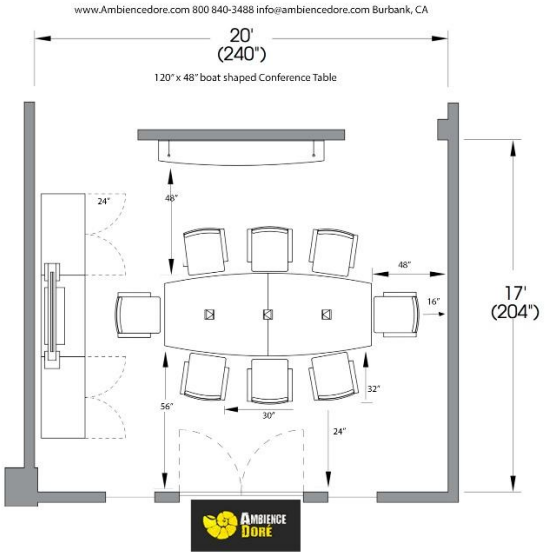


Figure 67: Room Spacing
Source: (Ambiencedore, n.d.)

- Allow 38″ to 40″ between table and back of chair to rise from chair when confined by other sitters • Allow 56″ between table and visual display board
- Allow 36″ bending space to use under counter cabinets or lower shelves of bookcase
- Allow 72″ between table and wall for 24″-deep storage towers and credenzas
- Allow 30″ between table and back of chair to use keyboard
- Allow 24″ to 30″ for standing and presenting material on wall
- TV or monitor viewing recommended at 30 to 45 degrees from center of the screen.

There are practical size and code requirements for fitting conference furniture into a room. The most important consideration is the size of your room because the conference table's size, its shape, the size of the chairs.

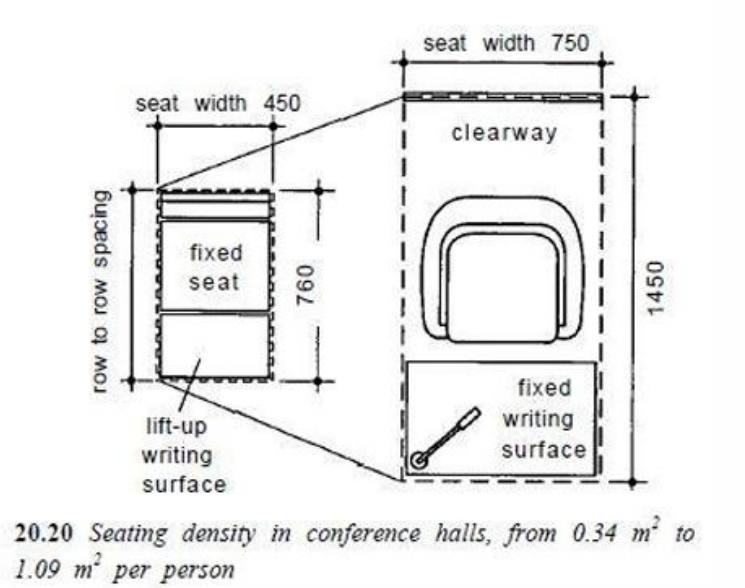


Figure 68: Seating Density in Conference Hall
Source: (Adler, 2007)

Conference Table Size (L * W)	Seating Capacity	Suggested Room	Minimum Room Size
72" * 48"	4 - 6	15'4" * 13'4"	14' *12'
84" * 48"	4 - 6	16'4" * 13'4"	15' * 12'
96" * 48"	6 - 8	17'4" * 13'4"	16' * 12'
120" * 48"	8 – 10	19'4" * 13'4"	18' * 12'
144" * 48"	10 – 12	21'4" * 13'4"	20' * 12'
150" * 40"	10 - 12	21'10" * 13'4"	21' * 12'
288" * 58"	22 - 24	33'4" * 14'2"	32' * 12'10"

Table 6: Size of Conference

2.21 Parking

Parking facility has become an important consideration in design of any building complex. Other than pedestrians, or people coming by public vehicles, people visit on their vehicles which may be bicycle, motorcycle, car, van or other for which parking needs to be provided. Parking, if not designed properly and sufficiently becomes a big issue and problem. For design and planning of parking, vehicular dimensions, turning radius, guiding signs etc. is important.

Different types of parking layout are:

- 0 degree or parallel parking to road - entry and exit to parking area are difficult, suitable to narrow streets. (One-way traffic).

- 30-degree parking - easy entry and exit and used where large parking spaces can be provided, one-way traffic.
- 45-degree parking - good entry and exit, normal type of layout and small space used, one-way traffic.
- 60-degree parking - often used, good entry and exit can be achieved, less area
- 90-degree parking - sharp turn needed and used for compact planning, one- or two-way traffic
- Minimum width of parking aisle

Table 7:Size of Vehicle and Turning Radius

Types of Vehicles	Length (m)	Width (m)	Turning Radius (m)
Motorcycle	2.2	0.7	1
Car			
Standard Car	4.7	1.75	5.75
Small Car	3.6	1.6	5
Large Car	5	1.9	6
Standard Bus	11	2.5	10.25
Pick up Van	4.37	1.64	5

Design issues and considerations

- Paints and guide rails used for demarcation of parking spaces.
- Signs and barriers can be provided for proper parking and to avoid clashes.
- Stop rails or buffers can be provided.
- Car parking spaces for disabled should be more than 3.50 m wide.
- Turning circle for largest vehicle is an outer turning circle radius of 12 m.
- Separate entrances and exits must be provided for large parking.
- Criteria for quality of multi-story carparks are safety, clear visibility, and parking space marking to enable drivers to remember location of their vehicles.
- Other factors to be considered are natural lighting, ventilation, clear view to outside etc.
- Ramp gradient should be 1:10

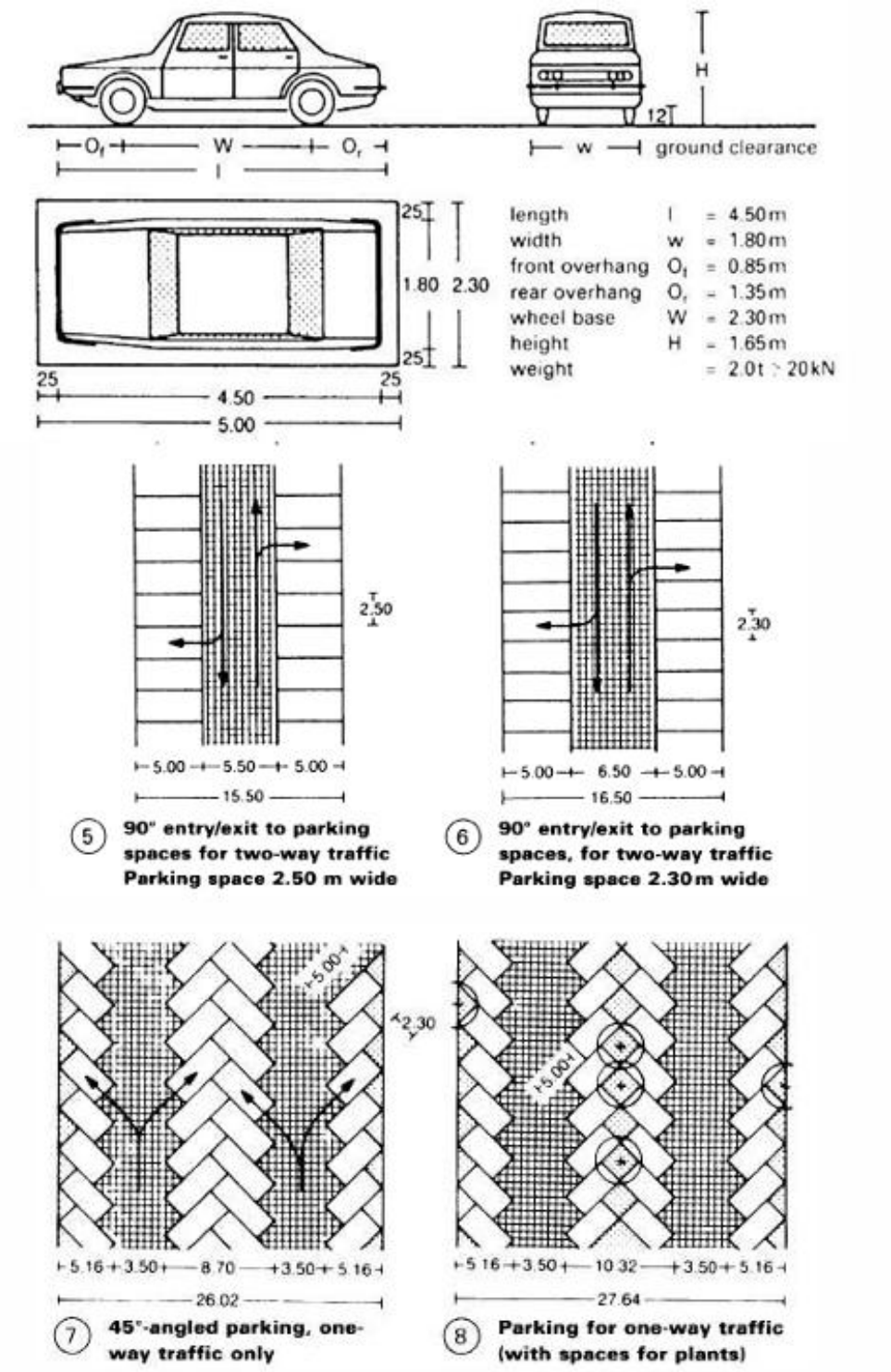


Figure 69: Parking Layout
Source: (Neufert, 2012)

Ramps for Basement Parking

- For each car ramp, the run must be more than 5m long, with ramps that can be up to 12% gradient.

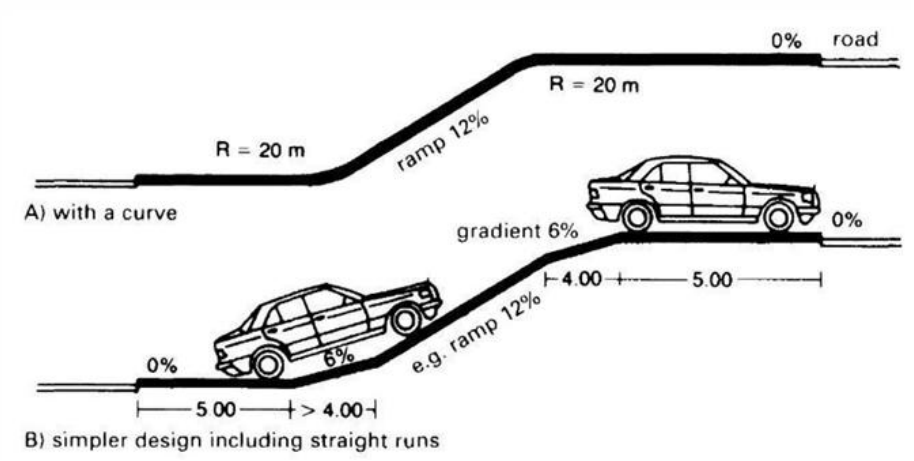


Figure 70: Ramp Design for Car

2.22 Plaza space / Public Space

A public plaza serves a variety of users including building tenants and visitors and members of the public. This space type may function as pedestrian site arrival points, homes for public art, settings for recreation and relaxation, and inconspicuous security features for high profile buildings. Programmatically, plazas are strongly linked to the lobby space type. Both are a "public face" for a building that welcomes and orients visitors.

Space Attributes

The most important consideration in designing exterior plazas is the future, potential use of those spaces. Plazas should invite users to partake in programmed activities (e.g. by providing seating, tables, and shade: lunchtime diners may be encouraged to frequent a space), but should also be flexible enough to accommodate activities that users plan themselves (a shaded, grassy area could host a performance, an impromptu game of Frisbee, or solitary reading).

- **Accessible**

  Access to features: The design team must ensure that landscaping, level changes, or other architectural barriers do not prevent users from accessing amenities within a public plaza. This includes access to public art, water features, seating, and other fixed "furniture", like water fountains.

  Accessible Route: Grass and earth covered plazas must be well maintained in order to ensure compliant routes and ground surfaces. However, masonry surfaces can be easily designed with compliant slopes that meet accessibility standards and properly direct rainwater. In addition, masonry surfaces are less expensive to maintain.

- **Aesthetics**

Materials: Utilize appropriate materials, furniture, signage, and art to reflect the public nature of the space.

Water Features: Water may be used as a visual and acoustic element. However, water features should not become a maintenance burden. In colder climates provisions must be made for easy shut-off and drainage during the winter season. Water features should not be placed over occupied space since leakage problems occur frequently.

Sculpture: In and around federal buildings, sculpture may be provided as part of Art Architecture Program. Under this program, art is not addressed by the site designer except as a coordination effort since the sculptor is selected under a separate contract. However, it is crucial in such cases for the artist and the A/E to coordinate not only the art installation, but how people will move to and from each other's designed areas and how one might support the other.

- Cost-Effective
- Cost-Effective Maintenance
- Use Durable Materials
- Functional / Operational

Encourage Flexibility: Plazas should be designed with electrical outlets lighting, and other simple infrastructure, to support future flexibility and encourage a wide range of uses.

Outdoor Furniture: Seating, tables, bollards, bicycle racks, cigarette burns, trash receptacles, flagpoles, lighting standards, and tree grates should be considered as part of the initial site design. Site furniture should be compatible in size, design, and color with the surrounding architecture and landscape design.

Seating: Seating is a public amenity that is appropriate to locate in the plaza areas of many federal buildings. Moveable seating can be an important component in effective public plazas. Seating should be designed and placed on the site to Sustainable.

2.23 Landscape Principle and Elements

Landscaping: Improve the aesthetic appearance of (a piece of land) by changing its contours, adding ornamental features and plantings. The process of combining a design in relation to the scenic environment. Particular, "soft landscaping" is the use of appropriate trees and vegetation to blend with buildings (e.g., for the purpose of screening them) (Yamini Sonia, 2012).

Principles of Landscape design

- **Unity:** One of the basics of landscape design is creating a central theme to build your outdoor plan upon. A unified look is important to a beautiful landscape design.
- **Balance:** The plants, walkways, and other features of your outdoor plan should be laid out in an asymmetrical design that complements the entire yard.
- **Transition:** Changes in colors, plant styles, and accessories will blend better with planned transitions to slowly move into the new look.
- **Proportion:** Plan a design that incorporates trees and shrubs that are relative to the size of the people and things around them.
- **Rhythm:** The patterns created with colors and lines give the landscape design a natural rhythm that is relaxing and enjoyable.

Figure 71: Landscape design Principles used

Source: (B, Chandrashekhar, & Jawaharlal, Agrimoon)

- **Focalization:** With the use of lines, form, and balance, you can develop a landscape design with specific focal points to draw interest and turn heads.
- **Repetition:** Repetition of these patterns and rhythms, in just the right amount, gives your outdoor design the perfect look without being overpowering.

Elements of Landscape Design

- **Color:** It is important to use a complementing color scheme throughout the yard. Sometimes Contrast can create some interest and excitement.
- **Direction or Line:** Linear patterns are used to direct physical movement and to draw attention to areas in your garden.
- **Form:** Form can be expressed through built objects or trees and shrubs of various shapes and sizes which create natural patterns.
- **Texture:** Paving and building materials along with plants with varying textures can add to the atmosphere of your outdoor area.

- **Scale:** Your outdoor design should balance the size of the buildings or established plants it surrounds, while maintaining a comfortable human environment for the individuals who will use the area.

Types of Plants for Landscape

Design

Find the right types of plants for your area and create a striking landscape that adds both beauty and value to your property. Plants play a vital role in landscape design. From towering trees to delicate flowering vines, plants add beauty to the landscape and they may increase property value (Yamini Sonia, 2012).

Figure 72: Elements used in Landscape Design

Source: (B, Chandrashekhar, & Jawaharlal, Agrimoon)

Ornamental

Trees can serve as living ornaments, drawing the viewer's eye and balancing out the landscape's design. Trees with uniform growth patterns, such as Bradford pear, plum and crabapple, add a decorative element to the landscape. Other plants with interesting shapes or textures, such as yucca, acacia or large-bloom flowers, like rhododendron, hibiscus and lilac, make a showy statement in the landscape (Yamini Sonia, 2012).

Screens

Fast-growing evergreens, willow hybrids and privet shrubs offer a natural screen in the landscape, affording privacy while adding interest and beauty to the yard. In addition to trees and shrubs, vining plants, such as clematis and climbing rose, provide perennial cover for a fence. Annual vines, such as morning glory, cardinal vine, moonflower and Spanish flag, provide bursts of color on a trellis or an arbor (Yamini Sonia, 2012).

Shade

Large trees with dense leaf growth, such as maple, ash, oak and elm, provide welcome relief from the hot summer sun when positioned between the roof of the home and the angle of the sun at midday and afternoon (Yamini Sonia, 2012).

Borders

Outlining a driveway or a sidewalk or enhancing the edge of a flower garden is ideal for border plantings. Shrubs or flowering plants of a similar height and shape form attractive borders and offer a visual separation between elements in the landscape. Both annual and perennial plants make attractive borders when chosen for their mature height and width, their texture or color, and their growth pattern. Tall plants, including butter pat, fountain grass and snow bank, look the best at the

rear of the border, creating a backdrop for shorter plants such as variegated lily and marigold (Yamini Sonia, 2012).

Ground Cover

While grass may be the most common ground cover, you can reduce soil erosion, create a blanket of texture or add color beneath trees or in bordered areas. Low-growing plants that spread, such as vinca, creeping phlox, ivy, creeping juniper and ajuga, create a living plant carpet. For permanent ground cover in the landscape, choose hardy plants that will continue to grow each year (Yamini Sonia, 2012).

Types of Plants

There are about 350,000 plus plant species, their classification gets a little difficult (Yamini Sonia, 2012). However, most of them are categorized in the following three types:

- **Mosses:** Mosses are very tiny plants with equally tiny leaves and no flower bearing capacity. They do not have true roots like other plants, but very thin hair like structures known as a filament that holds them down. They have no seeds, but spores which they use to multiply (Yamini Sonia, 2012).
- **Grasses:** Grass can be identified by their distinct leaves; narrow, slender and usually long. They may or may not bear flowers that are made up of three or six parts which are either way inconspicuous. The roots are in clump form (Yamini Sonia, 2012).
- **Dicots and Monocots:** This type is a banner for all types of Trees, Plants, Shrubs, Bushes, Creepers, Weeds, etc. Most of have them flowers that are showy, with four to five petals, a tap root, and leaves that vary in size and color (Yamini Sonia, 2012).

Landscape Lighting Systems

You can choose different types of lighting. I don't mean the types of fixtures, but I mean the type of systems. They go from the easiest to the most intricate (Yamini Sonia, 2012).

- **Solar Landscaping Lights -** this is the easiest type to install. No electricity is used. Power is supplied by the sun. This is an easy solution. However, no sun that day, no lighting!
- **Low Voltage Lighting -** An easy system to install. Wiring is located just slightly under the ground. A transformer is needed typically on the house for power. This can be installed by anyone with knowledge, even a landscaper. This would be my choice, generally speaking (Yamini Sonia, 2012).
- **120-Volt Lighting -** this uses typical electrical wiring which must be installed to code. This tends to be the most expensive type as you need a licensed electrician. Also, the wiring must go down much deeper that low voltage lighting (Yamini Sonia, 2012).

Landscape Lighting Fixtures

There are various types of lighting fixtures and all serve different purposes (generally) (Yamini Sonia, 2012).

- Path lighting for paths
- Up lighting for trees
- Outdoor accent lighting
- Post lights for more light
- Down lighting for trees
- Housing lighting

Figure 73: Lighting Fixtures
Source: (B, Chandrashekhar, & Jawaharlal, Agrimoon)

2.24 Toilet

- The number of toilets, urinals and wash-basins required is based on total number of pupils and separated according to sex
- Sanitary installations with direct daylight and ventilation are preferable
- Horizontal and vertical circulations usually double as an emergency escape route. Escape routes must have a clear width of minimum 1m per 150 people.

Table 8: Number of Urinal, Washbasin and Water Closet

No. (Male)	Water closet	Urinal	Washbasin
1 - 15	1	1	1
16 - 20	1	1	1
21 – 30	2	1	2
31 – 45	2	2	2
46 – 60	3	2	2
61 – 75	3	3	2
76 – 90	4	3	3
91 – 100	4	4	3
Over 100	4	4	3

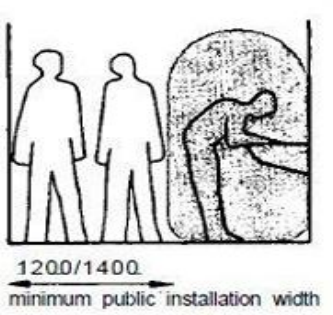


Figure 76: Minimum pulic installation width

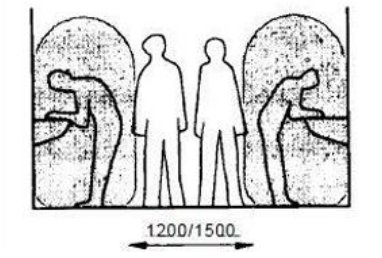


Figure 74: Minimum Installation with appliances on both sides

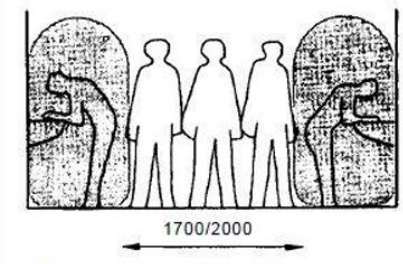


Figure 75: Width of larger public installation

3 CHAPTER: CASE STUDY

3.1 Selection Criteria

Drawing from the literature review and similar studies, a framework was established with specific parameters to guide the selection of case studies.

Jean-Marie Tjibao Cultural Centre
To learn how architecture can embody cultural identity while adapting to its natural surroundings.

Bharat Bhawan
To study the spatial relationship between building units and site.

Nokha Village Community Centre
To explore how architecture connects communities and creates interactive cultural spaces.

Taragaun Cultural Centre and Museum
To understand how architecture can convey cultural storytelling and experiential design.

3.2 Case Study 1 | Tjibaou Cultural Center

Figure 77: Overall view of Tjibaou Cultural Center
Source: (Arquitecturaviva, n.d.)

The objectives of the case study of Tjibaou Cultural Center are to know about the use of space, lighting system, circulation, access, display techniques, planning, natural ventilation system etc. are analyzed.

The Tjibaou Cultural Center is located on the Tina Peninsula, east of Noumea. Tjibaou Cultural Institution is an urban cultural center that restores “Kanak" culture to its proper place in the rising metropolis.

The Tjibaou Cultural Center is dedicated to the cultural origins and search for identity of the native ""Kanak"" people of New Caledonia and the South Pacific, and is named after Jean-Marie Jjibaou, who died in 1989 while leading the fight for his country's autonomy from the French government. It is also known as "Ngan jila" in Jean-marie Tjibaou's native Pije language, which means "culture center."

3.2.1 History

When the Matignon agreements were signed between the representatives of France and New Caledonia, Jean-Marie Tjibaou, the Kanak leader of the independent movement, had mooted a proposal to set up an Agency for the development of Kanak Culture with the objective of promoting Kanak linguistic and archaeological heritage, promote Kanak handicrafts and the arts, encourage cross-regional interactions and evolve design and conduct research activities. This plan was implemented after Jean-Marie Tjibaou was assassinated, to assuage local feelings. The French President ordered that a cultural centre on the lines suggested by Tjibaou be set up in Nouméa. The "Jean-Marie Tjibaou Cultural Centre", which identifies Kanak culture and identity, was formally established in May 1998. However, based on a competition for designing the centre dated to 1991, the work was assigned to Renzo Piano and it was constructed between 1993 and 1998. The inaugural cultural director was Emmanual Kaserhou and the museum curator Susan Cochrane. The project was quite controversial because of its luxurious and monumental nature.

3.2.2 Geography

The site is located on the narrow Tina Peninsula, which projects into the Pacific Ocean along a ridge line, near the Tina Golf Course on the western coast of Boulari Bay, approximately 8 kilometres (5.0 mi) northeast of the old city centre of Nouméa. Though the agency (ADCK) wished to set up the centre in the heart of the city to make a statement within the strongly French-influenced city, the land allotted is between the lagoon and the bay, which is an offshoot of the sea. The lagoon side of this area is made up of dense mangroves at the water edge. Earlier, other types of trees also covered the site. There was a well-trodden path along the centre of the area of the peninsula. A ridge separated the area from the sea, which created the ecology of the area with the bay side experiencing strong easterly winds. Intense heat of subtropical sun was also another factor which affected the design of the building.

Figure 78: Geographic Map
Source: (Arquitecturaviva, n.d.)

3.2.3 Design

- The concept of the design was inspiration from the village cluster and the ribbed hut structure in which tall thin curved timber members clustered together at the top and carry the cladding.
- Tried to gain original vernacular architecture, the ribs are of palm saplings.
- Reinterpretation of the forms, they are made of laminated iron, structurally linked by horizontal tubes and diagonal rod ties of stainless steel.
- Long wooden pieces are not so finely pared, because they are much bigger to achieve resistance to cyclones and earthquakes but used partially because they have to be tall to make a celebratory figure.

Figure 79: Traditional Hut
Source: *Source:* (Arquitecturaviva, n.d.)

- Pavilions or abstracted huts, are of three heights, are arranged in three groups of the villages, in a very gently curving line that follows the peninsula.
- The pedestrian route round the peninsula's perimeter which introduces visitors to the flora of the place and its mythic meanings, which are very powerful in ""Kanak"" culture.

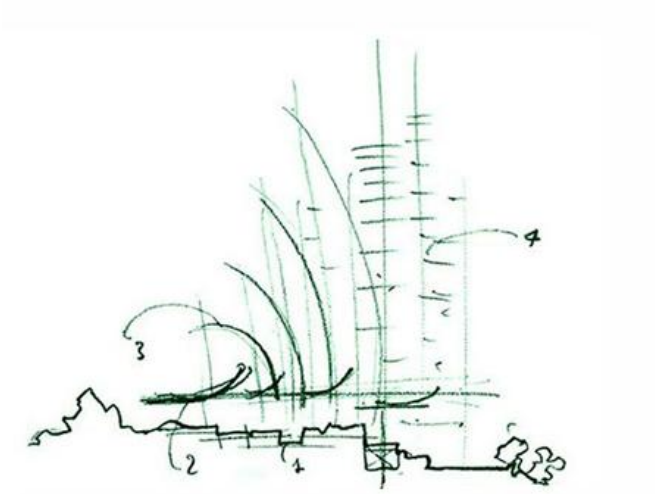


Figure 80: Conceptual Design
Source: (Arquitecturaviva, n.d.)

"Kanak" The Three Village Concept

The First Village

""Kanak"" identity; ""Kanak"" and south pacific art collections, reception hall. This is the starting point for the guided tours, and the home of the permanent art collections.

1. **The Bwénaado house -** Bwénaado means "the gathering of the clans" in the cèmuhî language. It is a tribute to the ""Kanak"" heritage, dispersed over two centuries ago. About twenty objects and works of art, on loan from the "musée del'homme" in Paris, are enjoying a return to the land of their origin before resuming their role as ambassadors of ""Kanak"" culture abroad.
2. **The Jinu house -** Jinu means "the spirit" in the Pije, fwâi, nemi and Jawe languages. The monumental sculptures housed there symbolize tradition reborn. They are gifts of the people of Vanuatu, Papua New Guinea, Indonesia (Papua), New Zealand and New Caledonia.
3. **The "Kanak"é house -** "Kanak"é is a cultural man's name in the Paicî area. An audiovisual presentation celebrates the memory, the quest for, and the rebirth of the ""Kanak"" culture, while reflecting on its philosophy and way of life.
4. **The Pérui house -** Pérui means "the meeting place" in Nenemwâ language. It houses the cafeteria, where you may enjoy refreshments after a visit of the center, an exhibition or a stroll through the grounds. Treat yourself to a snack or a meal with a view of the gardens.

The Second Village

Multimedia library, Contemporary art

1. **The Ngan Vhalik House -** Ngan Vhalik means "the house of the word" in the Pije language. It is set up for audiovisual presentations.

2. **The Mwà véé House -** Mwà véé means "the house of the word" in the Drubea language. It houses the book and magazine collections
3. **The Umatë house -** Umatë means "the yam storehouse" in Drehu language. It is a space used for temporary exhibitions.

The Third Village

Remembrance, Lectures, Meetings

1. **The Mâlep House -** Mâlep means "to live" in the Yâlayu language. It is dedicated to the memory of slain "Kanak" leader Jean-Marie Jjibaou.
2. **The Eman House -** Eman means "Palaver" in the Nengone language. This is a conference and lecture room, equipped with multimedia facilities.
3. **The Vinimoï House -** Vinimoï means "telling stories to the children in the Ajië language. Exhibition of the architectural project of the Tjibaou cultural center.

Figure 81: Overall 3D view of Tjibaou Cultural Center
Source: (Arquitecturaviva, n.d.)

3.2.4 Contemporary Architecture in Harmony with "Kanak" Culture

Inspired by tradition, formed by modern technology, this center celebrates and explains the Melanesian culture of the ""Kanak"". The responses to sea and site have generated a heraldic dance reflected in the waves. The architecture of the Tjibaou cultural center is the result of a close collaboration between architect Renzo Piano and the ADCK,

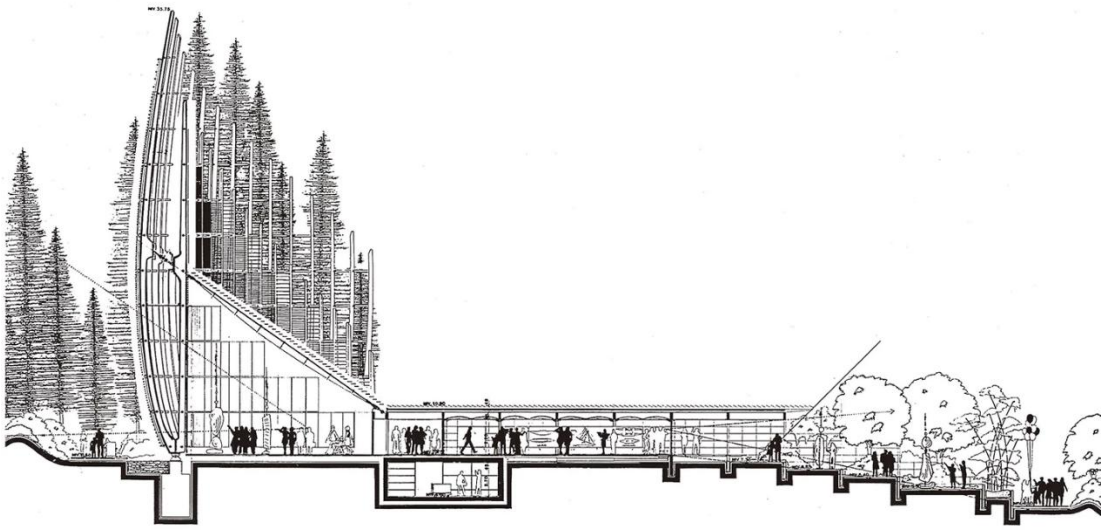


Figure 82: Section of Site
Source: (Arquitecturaviva, n.d.)

resulting in a sublimation of traditional ""Kanak"" architectural forms into a resolutely modern idiom.

This resulted in a series of stylized "great houses", inspired by traditional ""Kanak"" house forms, of different height and surface treatment, given a deliberate "unfinished" aspect as a reminder that ""Kanak"" culture is still in the process of becoming.

Spaces

This is a town that has its own paths, vegetation and public spaces, and is located in direct contact with the ocean.

The cultural complex is composed of ten houses, all different sizes and functions. The small houses are 63 square meters, the medium houses 95 square meters and large houses, 140 square meters.

Their heights range from 20 to 28 meters, with a circular floorplan, which are grouped into three villages, each with a distinct role. All of them are connected by pedestrian walkways in the form of spokes evoking the central promenade of traditional villages.

Villa 1

One part of the cultural package is aimed at permanent and temporary exhibitions and contains an auditorium and an amphitheater.

Villa 2

In the second group of huts there are divided spaces for administration, research, library and a conference room.

Villa 3

Finally, other studies contain cabins for traditional activities such as music, dance, painting and sculpture.

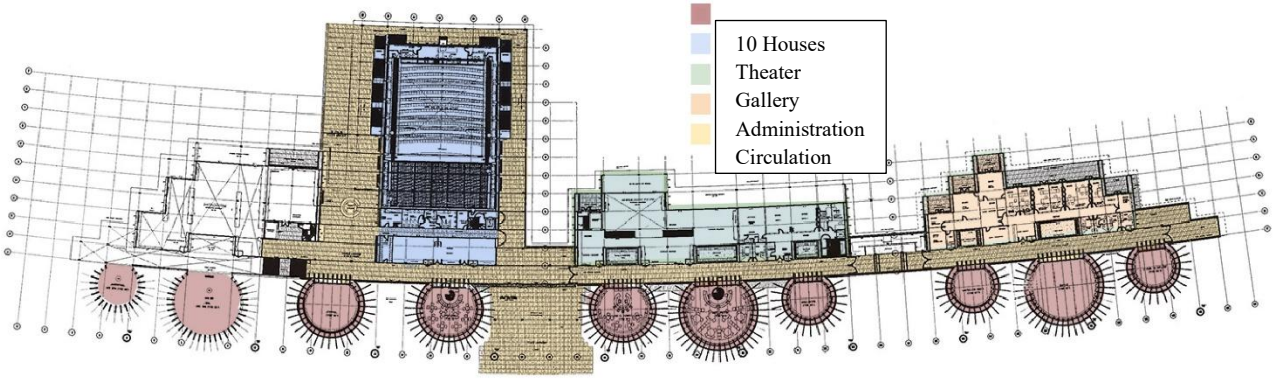


Figure 83: Floor Plan
Source: Author

Table 9: Programs

1	Entrance Porch
2	Passage
3	Gallery
4	Courtyard
5	Theater
6	Café
7	Terrace
8	Lecture Hall
9	Library
10	Media Center
11	Classroom
12	Administration

Table 10: Function

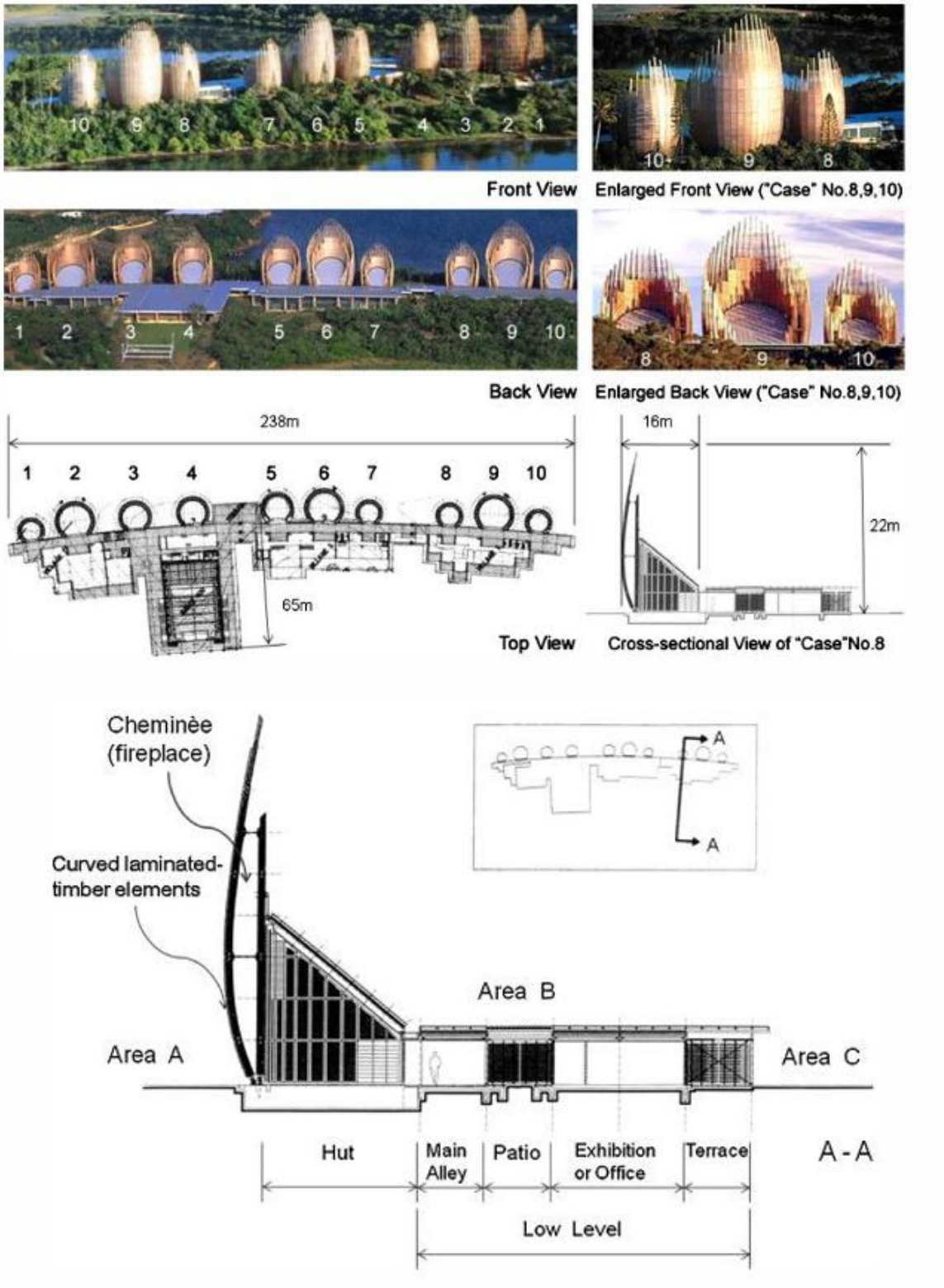


Figure 84: Different View and Section
Source: (Arquitecturaviva, n.d.)

3.2.5 Building Materials and Technology

The materials used in the building of the conical domes consisted of laminated wood and natural wood, concrete, coral, aluminium castings, glass panels, tree bark and stainless steel. The iroko (Clorophora excelsa) timber used extensively was imported from Africa (native to tropical Africa, from Sierra Leone to Tanzania); it was decided to use iroko because it was durable, and mostly resistant to attack by insects, fungi and mould. The frames of all fabricated cases were pre in France and assembled on-site.

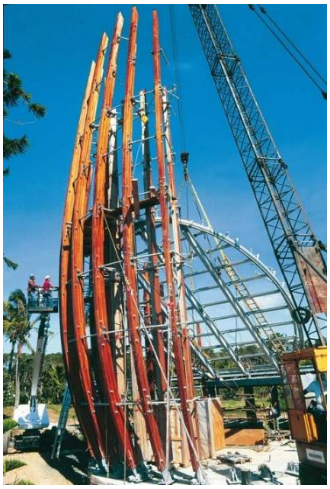


Figure 85: Materials Used in Cases

3.2.5.1 Natural Ventilation

The passive ventilation system is one of the main devices for cooling and ventilating the Tjbaou Cultural center. Ten wooden abstract huts, all varying in sizes, which Piano refer to as "cases", are arranged in a gentle curve along the Peninsula. For maximum ventilation, the architecture is sited on a hilltop, where it is most windy, facing towards the south prevailing wind. On this side of the site, very few trees are planted, so that wind can easily access the building. On the other hand, tall trees are planted along the east and west side to "funnel" the wind into the center (Sandy Yeung, 2006).

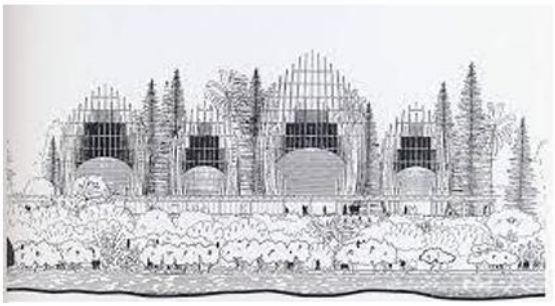


Figure 86: South Elevation

Although ventilation is useful for passive cooling, cooling the air can create an even more pleasant environment, especially in this hot and humid climate. Surrounding the site is water, a practical device to cool the air and human body physically and psychologically. Due to the temperature difference between land and water, cool sea breezes are generated during the day, while land breezes are generated at night. Although water adds humidity to the already over humid environment, the sight

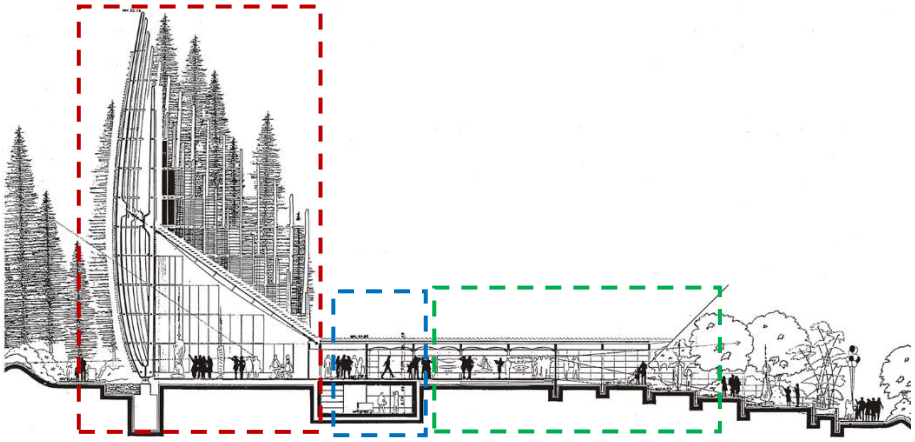


Figure 87: Section Through the site / Library and Exhibition Room
Source: Author

and sound of it can still be cooling to human body psychologically. A second factor that cools the air is the fact that the architecture is elevated above sea level. The steep slope on the south side (direction of prevailing wind) has a cooling on the wind as it travels up the slope from the sea to the building (Sandy Yeung, 2006).

The cases are designed with wooden double skin system, where air circulates freely between the two layers of laminated wood. The system works to bring breezes down into the building or by guiding convection currents up and out of the cases, based on the venturi effect. Wind is induced into the building and expelled through the top of the tilted roof. Since hot air rises to the top, this action of expelling wind will at the same time carry hot air out the building. Wooden slate claddings on the outer shell are spaced accordingly to encourage desired convection currents, and to exploit the monsoon winds coming from the sea, as it can be destructive. Monsoon winds are usually violent, bringing rain and moisture that causes damages to the building. The cladding of the inner skin includes horizontal louvers at the

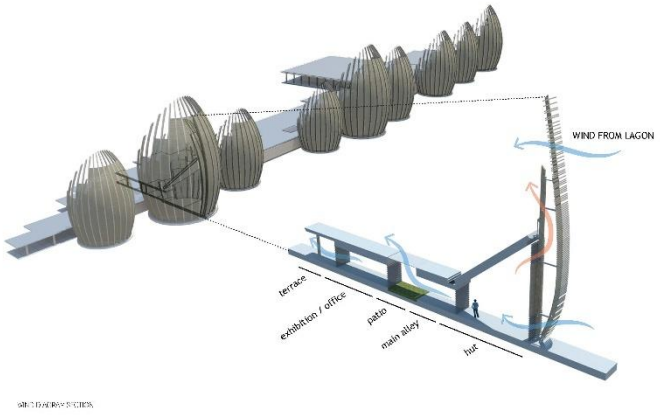


Figure 88: Natural Ventilation System Components

base and below the roof. The louvers just below the roof are fixed open to maintain a balance of pressure inside and out, to prevent the wind from lifting the roof. The lower louvers are adjustable to control ventilation inside the building; they are opened and closed depending on the wind direction and intensity. Aside from ventilation, aiding three louvers are also shading devices that control solar access. While ventilation creates a comfort zone physically, he "voice" of the wind is also very effective for cooling the human body psychologically (Sandy Yeung, 2006).

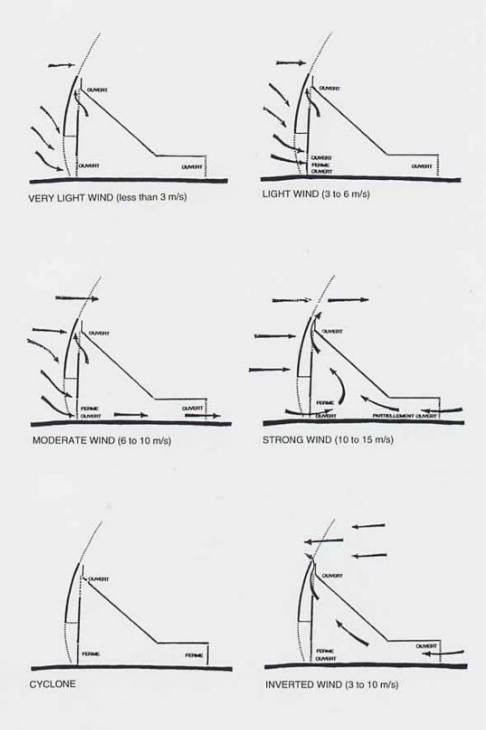


Figure 89: Different Natural Ventilation System

Equally important in Piano's design is the double roof system. The lower roofs main purpose is to drain the gutters. The upper part, which consists of corrugated aluminum sheeting, sits above a large air space for ventilation. Also, as sunscreen, the aluminum sheeting extends out the building to shade external wall. Furthermore, since the roof is composed with metal, it is practical for radiant cooling, as it conducts heat quickly, emitting energy (Sandy Yeung, 2006).

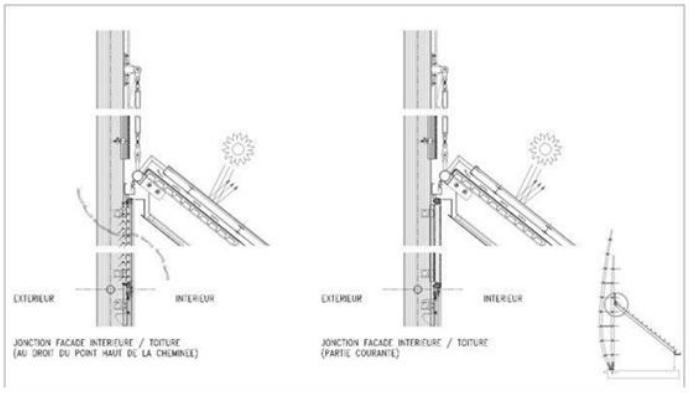


Figure 90: Roof Detail

Solar control is an important aspect to consider in sustainable architecture. This includes issues dealing with natural lighting and shading. Depending on the function of a particular space, the amount of solar penetration varies.

Experimenting with different program arrangement, and use of materials, Piano plays with various lighting and shading techniques simultaneously, to achieve the appropriate lighting effect for each of the spaces in his design (Sandy Yeung, 2006).

To add to what was said about the cases facing south for ventilation, another reason for this arrangement is for solar control. Since most of the large public spaces (such as lecture halls, theatre, galleries) are located in the cases, having them face the south will allow for the best access to natural lighting and view. These large spaces are then linked together with paths and passages, shaded and protected with overhangs and vegetation.

Depending on the function of the room, and the amount of lighting needed, the roof design is either glazed entirely, opaque, or a combination of the two. Where glazed, it is shaded with exterior louvers. Similarly, treatment is used for the sides of the structure. The different claddings give a unique character to each room. Where some spaces are "blindsided, top lit and introverted", others are "extroverted and entirely lit through big windows overlooking selected views". The variation in the cladding elements, in terms of sizes and spacing of wooden slates regulates not only views in and out, but also shading, and airflow.

As mentioned in the beginning, this piece of architecture is celebration of the Kanak culture, which is all about nature, the link between greenery, paths and wind. Thus, it is important to establish a harmonious relationship between the architecture and the environment. Secondly, as already stated, outdoor public areas are sited throughout the architecture, and these spaces requires protection from the sun and wind. In such a case, microclimate of the surrounding area should be carefully considered (Sandy Yeung, 2006).

When creating a comfortable microclimate, it is critical to consider sun and wind protection. Although maximum ventilation is desired, control of wind is still necessary, due to the fact that the architecture is located on a hill top, and it is common to experience harsh, undesired wind condition. Looking at the site section one will notice that a curve is formed between the trees on the north, and the top of the case. The function of this curve is to deflect the wind away from the ground level area, thus creating a comfort zone for terraces, and other outdoor public areas that surrounds the building on the north. Aside from being used as a ventilation system the double wooden skin structure is also a windbreaker that blocks the prevailing wind from the south, creating a more welcoming environment for the outdoor spaces on the north side of the site (Sandy Yeung, 2006).

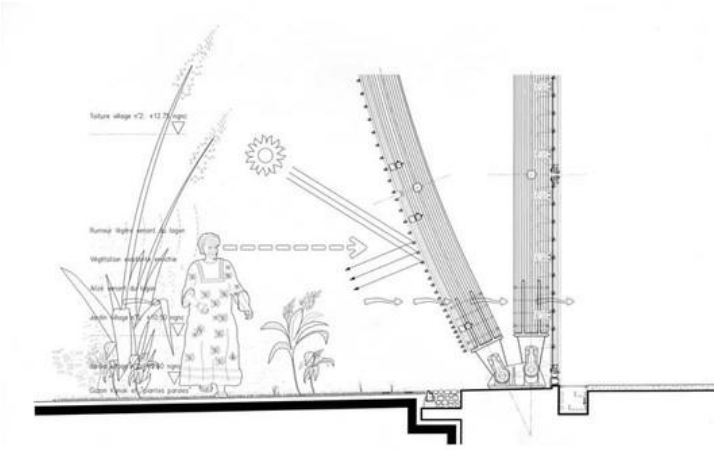


Figure 91: Outdoor Space
Source: (Arquitecturaviva, n.d.)

Terraces are placed throughout the site carefully, choosing the right type of typography to achieve the best microclimate condition. For example, there are neither tall trees nor structures to protect the terrace on the south. To accommodate that, the terrace is sunken downwards; first to provide protection from the wind, secondly to make the trees tall enough to shade the area. Light reaches into this area by means of reflection off the wooden cases. Furthermore, since cold air sinks, this sunken becomes a pool that collects cool air, making the gathering place cooling and comfortable (Sandy Yeung, 2006).

Not only are plants used for aesthetics, they are also effective in terms of regulating light. There are open outdoor spaces all around the architecture, i.e. the terrace, courtyards, and passages that leads visitors from one case to another. Examining the site map, it can be seen that in general, plants and vegetation surrounds the entire site for vegetation and shading purposes. As this is a project about relating to the environment, landscaping is an important element for passive cooling. Aside from having symbolic importance, trees and plants are effective as shades, since they can filter out intense light, yet allow for some ventilation and solar access at the same time.

3.2.6 Inference

- Reflection of the root value of the dedicated community.
- Refection of the essence of vernacular architecture of the targeted community.
- Contextuality in terms of natural conditions, user preference, need and requirement.
- Use of traditional techniques to adapt to the surroundings.
- Continuous flow from entrance to exit.
- Separation and grouping of different spaces as per the nature of the function.

3.3 Case Study 2 | Bharat Bhawan

Architect: Charles Korrea

Date: 1982

City: Bhopal

Country: India

Area: 120000 sqft

Figure 92: Bharat Bhawan
Source: (Misra, 2015)

3.3.1 Site Study

Bharat Bhavan is built in hillside which slopes towards a slope with a series of terraces and courtyards comprise the complex. The visitors enter the highest level and walk down a pedestrian spine, flanked by a pattern of courtyards. The site is accessible at a distance of 12 km from Raja Bhoj Airport, 8 km from Bhopal Railway Station and 6 km from Nadira Bus Stand. The complex is surrounded by hotels, restaurants, residences, hospital, and police station and so on.

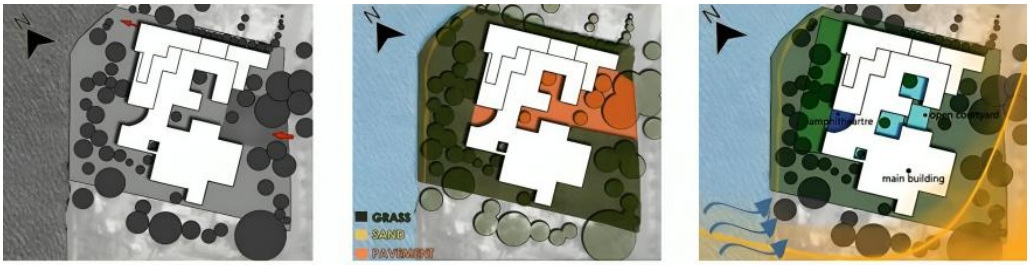


Figure 93: Site Entry/Exit, Landscape, and Site Zoning and Sun path
Source: (Misra, 2015)

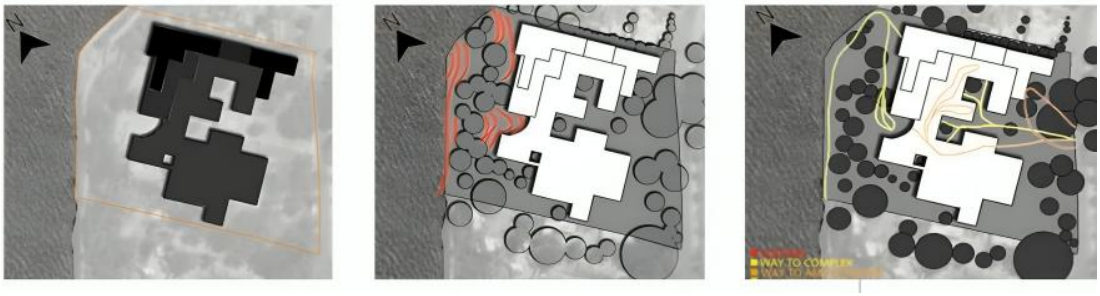


Figure 94: Built up and Unbuilt Area, View of Upper Lake, and Site circulation
Source: (Misra, 2015)

3.3.2 Design Concept

The design concept is based on non-building as only a glimpse of structure is seen from the entrance as if there is no any buildings. As a site is in gentle slope, the topography makes it possible to hide buildings. The courtyard concept is taken and the design consists of series of courtyards and terraces. The steps guide the pedestrian to the lakeside; the religious connotations emphasizing the sacred nature of this pathway which is particularly known as "Ritualistic Pathway". The ritual of following a sacred pathway is, he claims, "a universal impulse, found in all cultures and religions." Correa emphasized the spirituality of his own pathways by drawing parallels with those found in religious architecture, including "the sun temples of Mexico" and The Hindu temples of Bali "with their ritualistic pathways up the hillside."

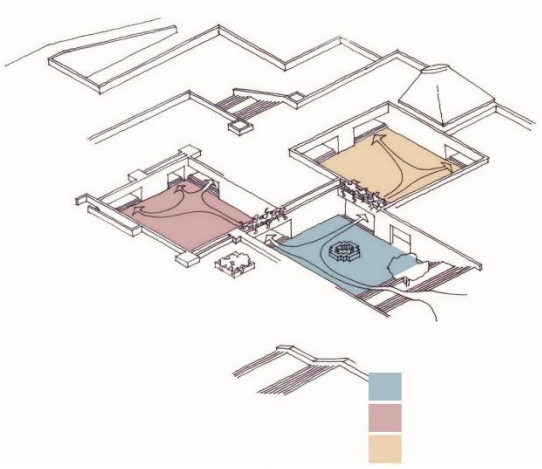


Figure 95: Flow of Energy in Bharat Bhawan
Source: (Misra, 2015)

3.3.3 Spatial Organization

Upon entering, the visitor has the choice of following the path of terraces cascading down to the lake or descending to the three courtyards which provide access to the majority of the cultural facilities. These include contemporary art galleries, a museum of tribal art, an auditorium, a library of Indian poetry, a print shop, and a studio for an artist-in-residence. . From the courtyards, wide glass-paneled openings to the buildings ensure the arts program is both literally and figuratively accessible to all. At the bottom of the site sits an amphitheater, where open-air performances take place with the lake forming a natural backdrop.

Figure 96: Sun and Shadow of Bharat Bhawan
Source: (Misra, 2015)

Figure 97: Master Plan of Bharat Bhavan
Source: (Misra, 2015)

Stairs are reminiscent of Ghats; steps found in Indian cities which lead down to a body of holy water, just as Correa's steps guide the pedestrian to the lakeside. At Bharat Bhavan the steps guide the pedestrian to the lakeside; the religious connotations emphasizing the sacred nature of this pathway. The terraces and courtyards reflect Correa's concern with progression through space where the spaces are casually revealed, and the complex of internal streets acts like a village layout (Bryant-Mole, 2016). He has used the principle of Le Corbusier's 'Architectural Promenade' to create his own 'Ritualistic Pathway' that encourages movement throughout the site's natural gradient, with the courtyards

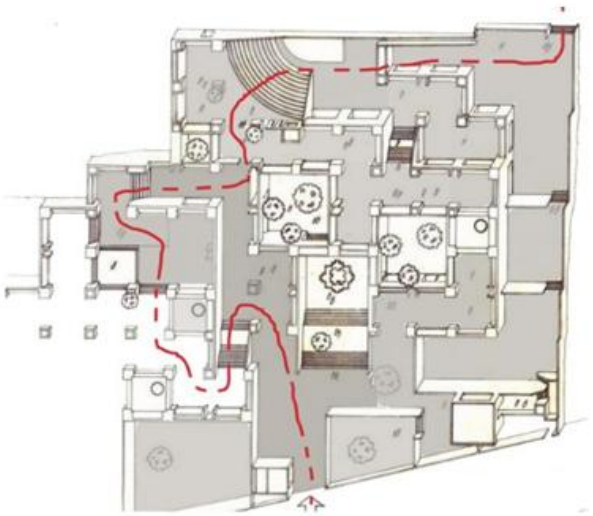


Figure 98: Ritual Pathway
Source: (Misra, 2015)

providing tranquil spaces for rest and relaxation, creating a flow of energy around the complex.

The spaces are categorized into art galleries, auditorium and service areas. The spaces are described as follows:

1. **Art Galleries**

a. Permanent Museum

It is also known as Roopankar/ Modern art gallery. This is only art museum in India which houses both tribal art & contemporary folk with urban art. It is fully equipped workshop for print making & ceramics.

The spaces are characterized by continuous modulation in the ceiling & floor. The walls are colored white, flooring is done with Kota stone and ceiling is exposed concrete. The long span is supported by waffle slabs.

Figure 99: Interior Views of Permanent Museum
Source: (Misra, 2015)

b. Tribal Arts

It showcases arts to create a timelessness experience for the visitor. The idea behind is not to just showcase the artwork but to create a contrasting difference between urban & tribal art.

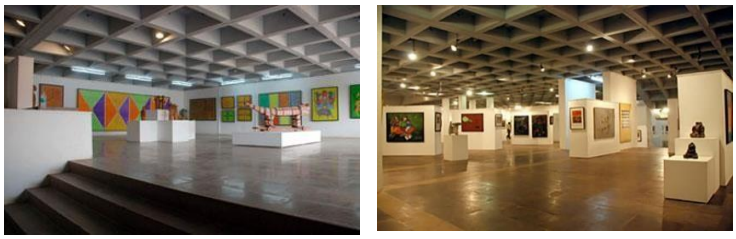


Figure 100: Interior of tribal art gallery
Source: (Misra, 2015)

2. Auditoriums

a. Theatre/Antarang

It is an indoor auditorium with 300 people of capacity. Seating on three side of the stage.no aisles, seating & circulation on the same treads. Lighting is controlled from the control room. The maximum distance between last seat & stage is 18 m. Coffers above are covered to reduce echoes.

b. Studio theatre/Abhirang

It is an indoor auditorium with 100 people of capacity. It is fully equipped with maintained sound & electronic system.

c. Amphitheater/Bahirang

It is an outdoor open air theatre with 1000 people of capacity.it stands overlooking the big lake and also the picturesque scene of the old city.

Figure 101: Antarang

Figure 102: Abhirang

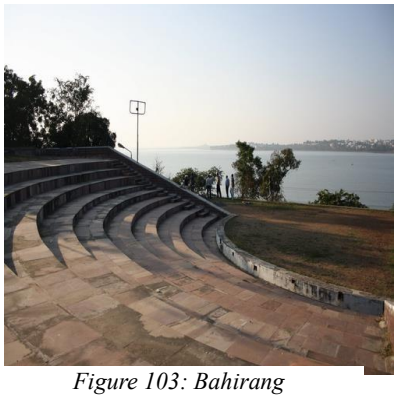


Figure 103: Bahirang

3. Services

a. Administration

It is situated at the right coroner of the Bhawan. It is the main office for regulating functions and where the officers work.

b. Green Room

The antarang, abhirang & bahirang are attached with the green room. Each room size is of 20 sq. m with 20 people capacity.

c. Print Shop

It is one of the significant creative spaces for providing platform of Graphics art. The artists can work on Zinc Plate, Etching, Fiber Glass, Lithography, Serigraphy Building Materials and Screen Printing. Photography, modelling, lithography,drama, dance, painting, textiles, sculpture, pottery & ceramics studios are different spaces under print shop.

a.Library

Vagarth is a library of India poetry in 17 major languages. Anhad is a library of folks & classical books. The two blocks contains a total of 20000 books.

Red sandstone is used on the outer façade of the building. Shells were used in the auditorium. Ashlar stone masonry was used on the outer façade. The use of marble and granite can be seen in interior flooring.

3.3.4 Lighting and Ventilation

Lighting and ventilation are provided from the concrete shells and from slots along the terrace parapet. There are two sets of shutters between the opening of courtyards and terraces. The inner one consist of combination of fixed glass and the outer ones consist of large wooden doors, for security purposes.

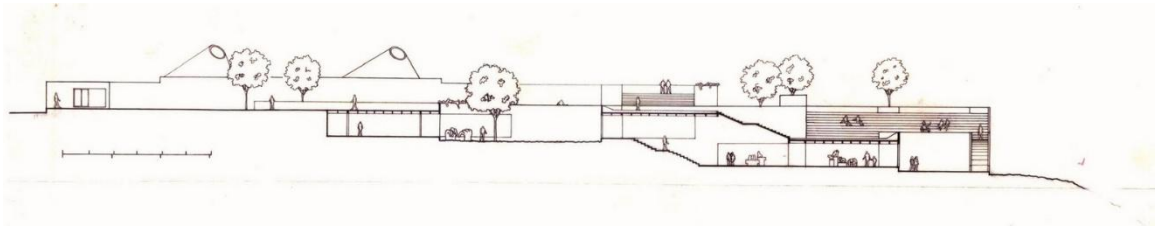


Figure 104: Sectional Diagram
Source : Author

3.3.5 Building Services

The vertical members of the waffle slab is punctured for electric wires. AC compressor fans are placed on terraces of theatres. Water sprinklers are used to irrigate rain water to terrace gardens. Ceiling inside the gallery is precast coffer slab, with provision of skylight & Italian fiberglass are places at roof level and cell for natural light. Terrace is covered with 250 mm brickbat cement mortar over this 50 mm hard metal fiber & at last 170 mm earth filled for lawn.

3.3.6 Landscaping

- The circulation spaces are covered with rough flagstone paving using 600 x 600 mm grid with gap for grass.
- Roofs are covered with grass.
- The steps in the courtyard is inspired from the Indian architecture of Ghats.
- Open to sky concept of courtyards.

3.3.7 Area Analysis

Administration Block: 215 sq.m.

Conference Facilities: 345 sq.m.

Studios/ Workshops: 1005 sq.m.

Library: 360 sq.m. Art Galleries: 860 sq.m.

Retail Shops: 800 sq.m.

Restaurants: 977 sq.m.

Auditorium: 1000 sq.m. Theatre: 1560 sq.m.

The circulation covers 35% of an area. With a total site area of 9968 sq.m, built up areas cover 9785 sq.m area.

3.3.8 Inferences

- Integration of traditional settlement patterns into the chain of mobility within the site
- Use of traditional settings to adapt to the climatic condition.
- Use of natural site conditions in favour of the centre's design.

3.4 Case Study 3 | Nokha Village Community Centre

Architect: Sanjay Puri Architects

Location: Nokha, Rajasthan, India

Completion Year: 2024

Built-Up Area: 11,200 sq. ft

Primary Function: Community centre serving 144 villages.

Key Features: Museum, digital library, amphitheater, green roof, shaded courtyards

Figure 105: Nokha Village Community Centre
Source: (Puri, 2024)

3.4.1 Background

In the heart of Rajasthan, India, a pioneering example of sustainable community architecture unfolds through the Nokha Village Community Centre, designed by the renowned Sanjay Puri Architects. This project exemplifies how architectural innovation can meet community needs while embracing sustainability and local heritage. This case study highlights the remarkable features of the Nokha Village Community Centre, offering insights into the future of sustainable architecture in India.

3.4.2 The Vision Behind Nokha Village Community Centre

The Nokha Village Community Centre was conceived as a memorial by the clients to honor their father, Padmaramji Kularia. Situated in the desert region of Nokha, which comprises 144 small villages, this project addresses the critical need for communal spaces that cater to all age groups. The architects were tasked with creating a space that not only serves the community's immediate needs but also stands as a testament to sustainable and climate-responsive design.

Source: (Puri, 2024)

Figure 106: Nokha Village Community Centre

Figure 107: Outdoor and Indoor Spaces

Source: (Puri, 2024)

3.4.3 Architectural Design and Sustainability Features

The Innovative Spiral Design

At the core of the Centre's design is a 9,000 square foot spiral structure that majestically rises to form an inclined garden. This unique design facilitates recreational activities and gatherings, offering panoramic views of the desert landscape. The spiral's two varying slopes make the rooftop garden an accessible and vibrant space for the community.

Figure 108:Site Plan of Nokha Village of Community Centre

Source: (Puri, 2024)

Embracing Local Climate and Materials

One of the Centre's hallmark sustainability features is its grass-covered earth berm on the southern side, designed to mitigate heat gain typical of the desert climate where temperatures soar between 35 to 40°C for most of the year. Additionally, the building incorporates natural sandstone screens, a nod to Rajasthan's traditional architecture. These screens are not only aesthetically pleasing but also functional, reducing heat gain and creating dynamic shadow patterns throughout the day.

Figure 109: Site Context of Nokha Village of Community Centre
Source: (Puri, 2024)

3.4.4 Community Impact and Spaces

Library and Museum: Hubs of Learning and Culture

Beneath the innovative rooftop garden lies a dual-purpose space housing a small museum and a children's digital library. The library, in particular, stands as a beacon of education for the region, serving schools that lack their own library facilities. The museum and library are ingeniously lit through scooped recesses in the garden berms, ensuring a connection with the natural surroundings.

3.4.5 Open Courtyard and Amphitheater: Spaces for Social Interaction

The design strategically includes an open north-facing courtyard and an amphitheater, fostering an environment for music performances, talks, and community gatherings. This outdoor space enhances the Centre's role as a communal hub, inviting engagement and interaction among villagers.

Figure 111: Open Courtyard and Amphitheatre Space
Source: (Puri, 2024)

Figure 110: Learning Spaces of Nokha Village Community Centre
Source: (Puri, 2024)

3.4.6 Sustainability Practices and Construction

The Nokha Village Community Centre is a model of sustainable construction, employing rainwater harvesting and water recycling to minimize its environmental footprint. The project's commitment to using local craftsmen and materials underscores the importance of community involvement and sustainability in architecture. The Centre's energy-efficient design, from the rooftop gardens to the stone screens and grass berm, sets a benchmark for sustainable community architecture in India.

Figure 112: Local Craftsmen and Materials
Source: (Puri, 2024)

3.4.7 A Model for Future Projects

The Nokha Village Community Centre by Sanjay Puri Architects is a living example of how sustainable community architecture can transform lives and landscapes. It showcases the potential of combining traditional materials and modern design to create spaces that are both beautiful and beneficial to the community. As India moves towards a more sustainable future, projects like the Nokha Village Community Centre will undoubtedly play a pivotal role in shaping the direction of architectural practices across the country.

This case study serves as a testament to the power of sustainable community architecture in India, demonstrating that innovative design can coexist harmoniously with traditional values and environmental stewardship.

Figure 113: Nokha Village Community Centre

Source: (Puri, 2024)

3.4.8 Inference

- Climate adaptive design shaded courtyards and green roofs
- Interactive public space – not just a museum but a patictive space with open gathering area, and performance zones
- Cultural educational hub – digital library
- Community involvement – how Nokha centre engages 144 villages
- Interrogation with landscape – green roof in Nokha offers panoramic view and a functional space

3.5 Case Study 4 | The Taragaun Museum

Project name: Taragaon museum

Location: Boudhanath,ktm

Architect: Carl Pruscha

Construction Year: 1970

Building type: Art gallery

Site area: 3251.60 sq.m

Site gradient: Gentle slope

3.5.1 Background

It was built as a hotel at first in 1970 and it ran as hotel for two decades but by 1990.It was abandoned and neglacted.Arun Saraf decided to convert abandoned structure into museum for preservation, restoration and the documentation arts and heritage of kathmandu valley.The complex was restored rehabilitated and eventually reopened in march 2014.

Figure 114: Taragaun Cultural Centre and Museum
Source: (Taragaonnext, n.d.)

3.5.2 Introduction

A brief stroll from the Boudhanath stupa and inside the premises of the Hyatt regency Kathmandu, stands the Taragaon museum, firstly constructed in 1972 by Carl Pruscha and re-opened in March 2014. The museum spans a place of 35,000 rectangular toes. Carl Pruscha's incredible advantage is to have revived the usage of crimson facing bricks. The architect become inspired by means of the barrel-vaulted shelter buildings, a style which he introduced to Taragaon's structure.

The museum houses a unique archive of more than 50 years of research by foreign artists, photographers, architects, and anthropologists on the Kathmandu Valley, with a particular focus on its heritage, alongside the display of contemporary arts.

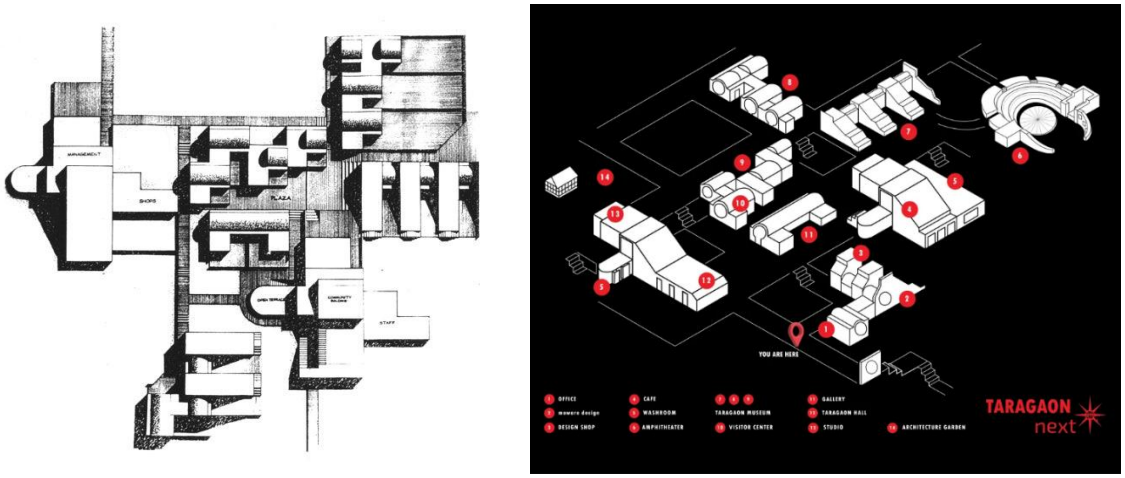


Figure 115: Function Spaces of Taragaun Cultural centre and Museum
Source: (Taragaonnext, n.d.)

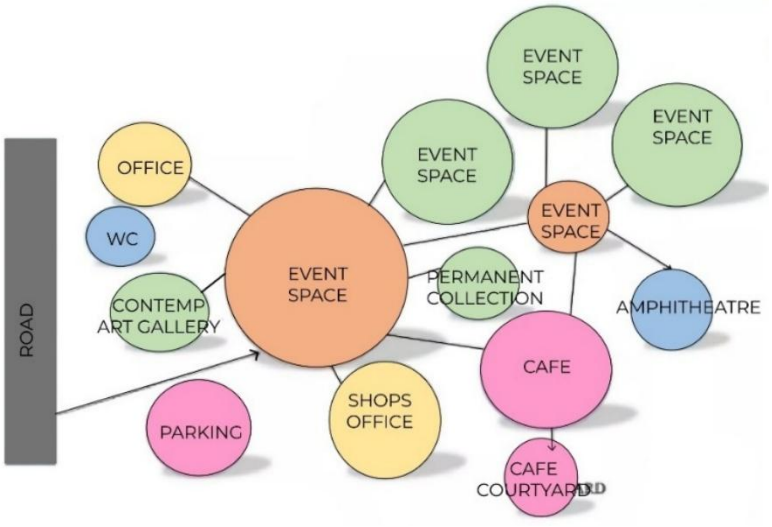


Figure 116: Spetial Diagram of Spaces
Source: Author

3.5.3 Design Features

3.5.3.1 Gallery space:

The museum showcases the recovery and rehabilitation efforts to keep the creative and architectural background of Kathmandu.

Figure 117: Gallery space of Taragaun Museum
Source: (Taragaonnext, n.d.)

3.5.3.2 Display Area:

- Use of single rooms enough to accommodate objects and peoples.
- Interconnected spaces.

Figure 118: Display Area
Source: (Taragaonnext, n.d.)

3.5.3.3 Amphitheatre

The architecture of Taragaon Next deliberately facilitates an inclusive and interactive space, with multiple niches and seated corners designed for viewers to sit, reflect, and converse. Taragaon Next includes two smaller amphitheatres alongside one large one, with the capacity for over 150 people.

With carefully designed acoustics, this open-air amphitheater is an idyllic space for music events, public performances, and lectures.

Figure 119: Amphitheatre Space
Source: (Taragaonnext, n.d.)

3.5.3.4 Taragaun Hall

Taragaon Hall becomes an ideal space for exhibitions, conferences, seminars, and workshops. Divided into two studios, have a terrace and outdoor space, with abundant natural light.

Studio 1 becomes more of an informal workshop space for collaborative and creative learning initiatives. On the other hand, Studio 2 transforms into a formal conference room for seminars, lectures, and film screenings. Hall has capacity to accommodate upto 75 people.

Figure 120: Taragarun Hall
Source: (Taragaonnext, n.d.)

3.5.3.5 Sculpture Garden

The sculpture garden comprises large green spaces nestled in the midst of Boudha, at the center of Taragaon. This ground becomes platform for community building and outreach initiatives – from workshops to public art projects, an open-air space designed for large scale contemporary sculptures and installations.

Figure 121: Sculpture Garden of Taragaun Museum
Source: (Taragaonnext, n.d.)

3.5.3.6 Café

Café serves locally sourced ingredients and recipes with a contemporary spin. Alongside native cuisines, this space itself is a unique experience through design and contemporary art.

Figure 122: An immersive space with local cuisine and exciting art
Source: (Taragaonnext, n.d.)

- **Natural lighting technique:**
  - Use of large circular windows in exhibition areas.
  - Use of clerestory windows for the lightings and ventilation.
  - Use of glass with metal grids which allows maximum sunlight to enter.

- **Materials:**
  - **Glass with supporting metal:** The glass used for light and ventilation is protested with the metal rod for the protection and strength.
  - **Brick:** The brick facade gives aesthetic appearance and highlight the building amongst the surrounding contexts.
  - **White plaster:** The interior background is all white which enhances the art work and creates harmony with brick facade.

3.5.3.7 Inferences

- Cultural story telling through architecture.
- Vernacular material sustainable design.
- Adaptive reuse and cultural spaces.
- Community engagement and interactive spaces.
- Experiential design.

Table 11:Comparative Analysis

Comparative Analysis

Factor	Jean-Marie Tjibaou Cultural Centre	Bharat Bhawan	Nokha Village Community Centre	Taragaon Cultural Center and Museum
Location	New Caledonia	Bhopal, India	Rajasthan, India	Kathmandu, Nepal
Architect	Renzo Piano	Charles Correa	Sanjay Mohe	Carl Pruscha
Site Area	80000 sqm	11148.3648	1207.73sqm	3251.60 sqm
Concept & Design Philosophy	Actively involves Kanak community; serves as a hub for cultural education	Provides a space for artists, poets, and musicians; encourages artistic expression	Designed as a community hub to empower local artisans	Functions as a research and documentation center for heritage conservation
Spatial Organization	Series of pavilions connected by pathways	Multi-level complex with open courtyards	Central courtyard with multipurpose halls	Clustered spaces with interconnected pathways
Architectural Features	Tall curved timber structures resembling Kanak huts	Use of terraces, courtyards, and interconnecting spaces	Vernacular-style walls, shaded corridors, and locally sourced materials	Brick vaulted structures with modular planning
Material Palette & Construction	Laminated timber, bamboo, aluminum	Concrete, brick, stone	Locally sourced stone, mud, lime plaster	Exposed brick, concrete, stone, and metal
Cultural Narrative & Storytelling	Symbolizes Kanak traditions; architecture inspired by traditional Kanak huts	Represents India's artistic diversity; integrates multiple art forms	Celebrates local crafts and traditions through participatory design	Preserves and adapts Nepalese architectural heritage
Spatial Experience & Engagement	Open-air pavilions encourage exploration; natural setting enhances connection to culture	Multi-level terraces create interactive public spaces	Courtyards promote community engagement and storytelling	Modular spaces enable exhibitions, workshops, and cultural exchange
Architectural Language & Expression	Fusion of indigenous Kanak architecture with modern technology	Combines Indian traditional spatial planning with modernist form	Uses vernacular construction with contemporary adaptations	Brick vault structures blend modernity with historical references
Interpretation Methods & Learning Approach	Combination of static (exhibits) and dynamic (cultural performances, workshops) experiences	Free-flowing spaces encourage self-exploration and interaction	Participatory design ensures locals are involved in creating and evolving the space	Uses adaptive reuse to create an evolving cultural interpretation
Role of Community & Cultural Preservation	Actively involves Kanak community; serves as a hub for cultural education	Provides a space for artists, poets, and musicians; encourages artistic expression	Designed as a community hub to empower local artisans	Functions as a research and documentation center for heritage conservation
Site & Contextual Sensitivity	Blends with natural surroundings; maximizes passive ventilation	Positioned along a slope, integrating local topography	Uses locally sourced materials and traditional climate-responsive techniques	Preserves traditional Nepali courtyard planning and site history

4 SITE ANALYSIS

4.1 Selection Criteria

The selection of an appropriate site is foundational to the success of a Cultural Interpretation Center, which aims to serve as a space for preservation, education, and celebration of local culture. Cherneta, located in Pyuthan District, is selected for its unique geographical, cultural, mythological, and social attributes.

4.1.1 Strategic Location

Cherneta lies at the central point of Pyuthan District, making it geographically accessible and symbolically significant. It also sits at the center of six surrounding thums that collectively define the district's cultural and demographic diversity. This centrality ensures that the site is equally reachable for people from all directions, reinforcing its role as a unifying cultural space.

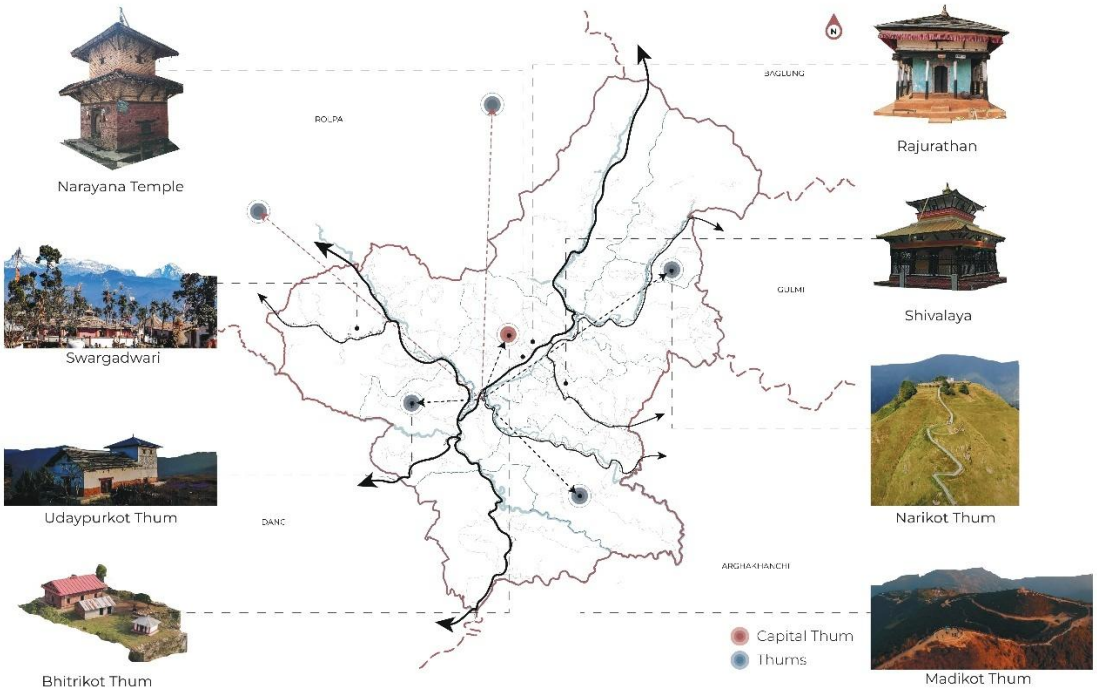


Figure 123: Cultural and Demographic Diversity
Source: Author

4.1.2 Cultural Significance Tooted in River Mythology

The site is deeply embedded in local mythology, enhancing its symbolic and narrative value. According to locals, two sister rivers Mandavi (elder) and Jhimruk (younger) were destined to meet at Cherneta. However, Cherneta Hill stood between them, preventing their confluence and creating two distinct valleys. This natural and mythical divide not only shapes the landscape but also embodies the cultural duality of the region. Locating a cultural center here allows the architecture to respond to this story of separation and identity, making the myth a living narrative in space.

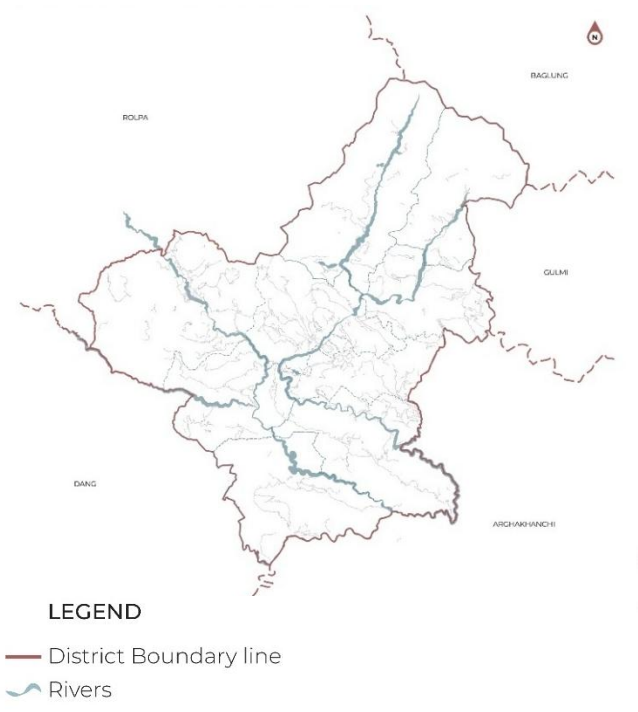


Figure 124: River Mythology

Source: Author

4.1.3 Population Density and Centrality

Due to the settlement distribution along the two valleys, Cherneta becomes a converging point for population movement. It serves as a travel corridor for the majority of Pyuthan's residents, and its centrality ensures that the center is accessible to all caste, ethnic, and social groups in the region. The site's location within the population heartland makes it ideal for maximum community engagement and impact.

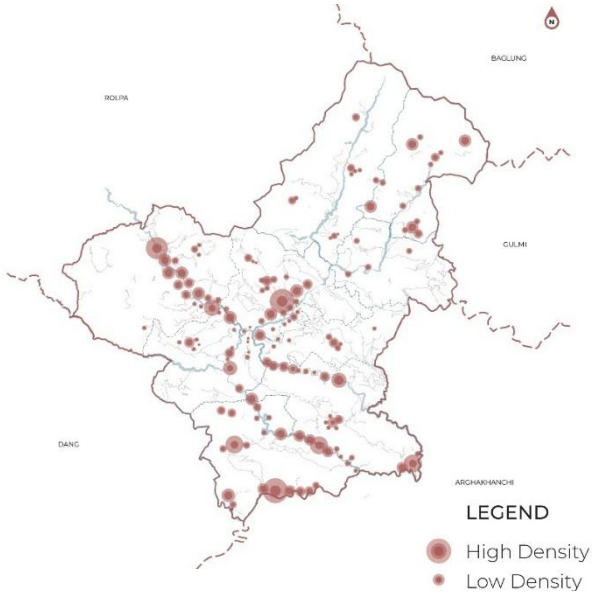


Figure 125: Population Distribution
Source: Author

4.1.4 Valley Arrangements and Scenic Value

Cherneta is situated between the two major valleys of Pyuthan, shaped by the Mandavi and Jhimruk rivers. It serves as a natural and visual border between the two, offering panoramic views of both valleys from its elevated terrain. These valleys host the main settlements of the district, and the site's location symbolizes a point of meeting and observation, making it ideal for interpreting and showcasing the living heritage of both cultural regions.

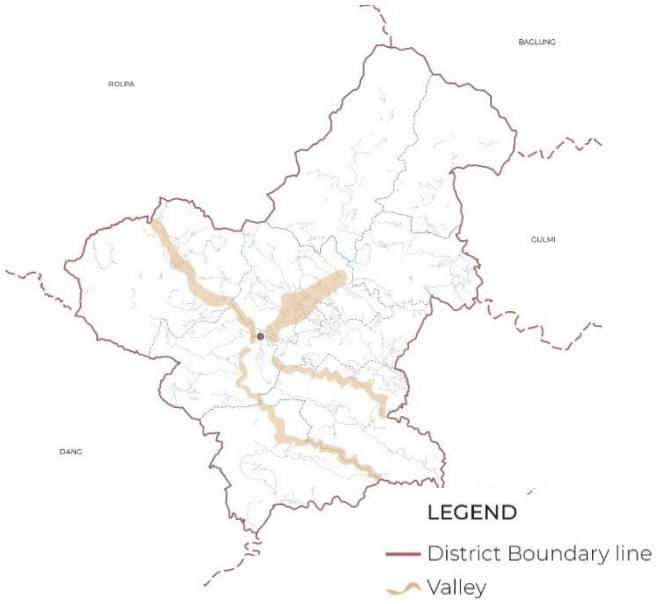


Figure 126: 4.1.3 Vally Arrangement

Source: Author

4.1.5 Cultural Diversity: Caste and Ethnicity

Cherneta lies at the intersection of multiple cultural zones, representing a microcosm of the district's ethnic and caste diversity. This includes Chhetri, Brahmin, Magar, Newar, and other groups. A Cultural Interpretation Center at this site can function as a platform for dialogue, representation, and cultural expression, fostering mutual understanding and shared identity across groups.

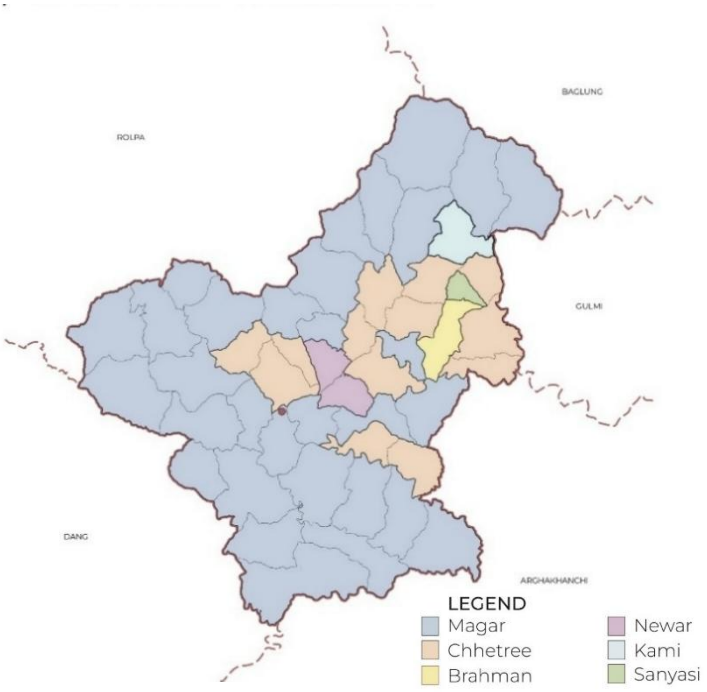


Figure 127: Cultural Diversity, Caste, and Ethnicity

Source: Author

4.2 Site Information

4.2.1 Datas:

Location: Cherneta,Pyuthan

Altitude: 2970

Site Area: 11038.76 Ha (21.6 Ropani)
Site Gradient: Two way slope
Landmark:Jhumruk Hydropower Dam-400m
Yearly Tourist Flow: 2,45,331 (2081 BS)
Nepali: 1,18,432
Indian: 1,26,646
Others:153

4.2.2 Location

The site is located in Cherneta, within Mandavi Rural Municipality, Pyuthan District, Nepal. It lies at a geolocation of 28°04'41.3"N and 82°48'44.0"E. The topography is contoured, with the land sloping downward towards the east and west, creating a dynamic landscape. The main residential zone of Cherneta lies approximately 100 meters to the north of the site. Positioned on a hilltop at an altitude of 2,970 feet above sea level, the site offers panoramic views of the surrounding hills and valleys, enhancing its spatial and visual significance.

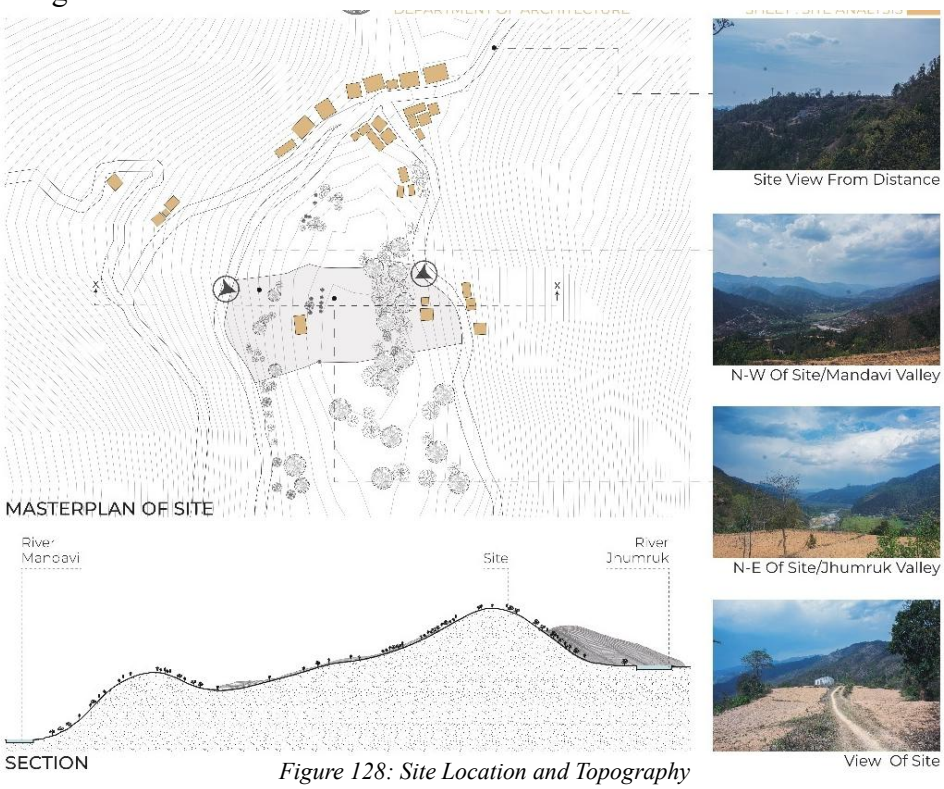


Figure 128: Site Location and Topography
Source: Author

4.2.3 Site Accessibility

The site is accessible via two secondary roads that define its eastern and western boundaries, providing vehicular and service access. Additionally, a primary road is located approximately 100 meters north of the site, connecting the area to nearby settlements and regional centers. A traditional pedestrian route also traverses the site from west to east, originating from Jhimruk Valley and leading toward Mandavi Valley. This route highlights the site's cultural relevance and integration within the local movement network, making it a vital part of the broader regional context.

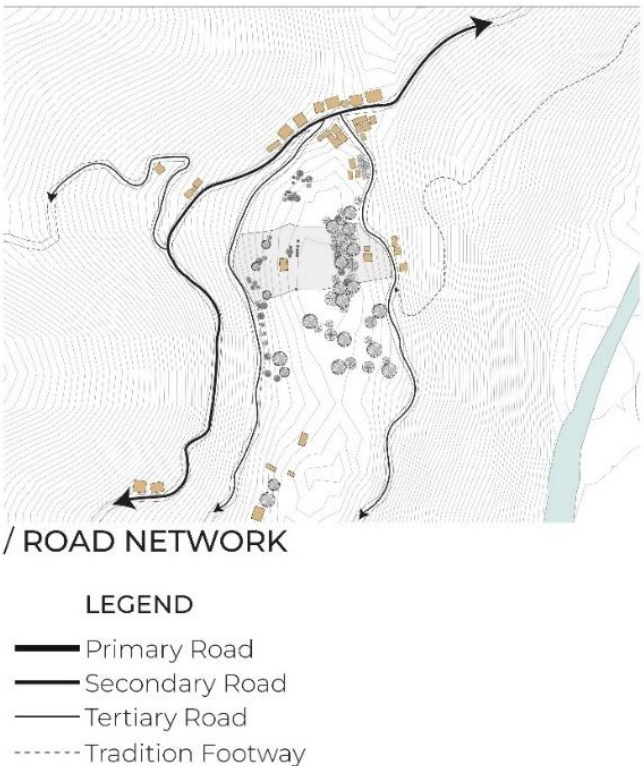


Figure 129:Site Accessibility
Source: Author

4.2.4 Climatic Data

Cherneta, in the mid-hills of Pyuthan, has a subtropical to temperate climate with warm summers (25–35°C) and cool winters (as low as 5°C). It receives 1,500–2,000 mm of rainfall annually, mainly during the June–September monsoon. The area enjoys good sunlight and experiences prevailing winds from the south-west and north-east, which aid natural ventilation. These conditions call for climate-responsive design using sloped roofs, natural airflow, and locally suited materials.

Figure 130:Climatic Data
Source: Author

4.2.5 House Layout Patterns

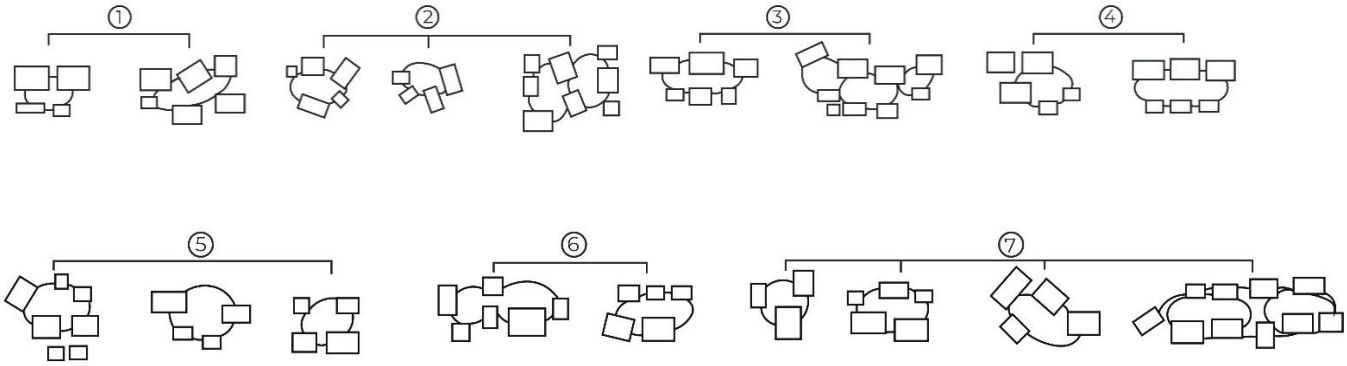


Figure 131: Summary of Houses Layout Patterns
Source: Author

4.2.6 Daily and Yearly Log of People and Festivals

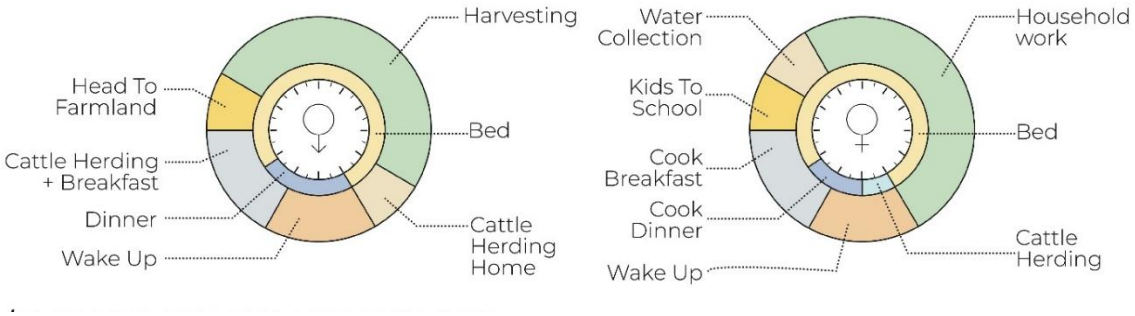


Figure 132: Daily Log of Man and Woman
Source: Author

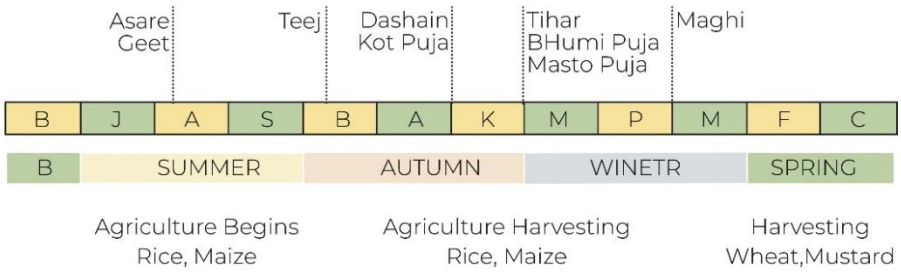


Figure 133: Yearly log of festivals
Source: Author

5 PROGRAM FORMULATION

5.1 User Identification

The users of the Cultural Interpretation Center can be broadly categorized into two main groups: primary users and secondary users, depending on the intensity and nature of their engagement with the center.

5.1.1 Primary Users

- Individuals or researchers actively involved in the study, documentation, and promotion of the local culture and heritage.
- Members of the local communities whose traditions and identities the center seeks to represent and preserve.

5.1.2 Secondary Users

- Residents from surrounding areas with diverse cultural backgrounds.
- General visitors or tourists with an interest in local history and traditions.

Based on the frequency of use, users may further be classified into permanent, regular, and occasional users:

Permanent Users

- Security personnel
- Residential staff (Staff Type 1) who live within the premises

Regular Users

- Non-residential staff (Staff Type 2) who commute daily
- Cultural researchers, delegates
- Trainees
- Trainers
- Workers
- Community members

Occasional Users

- Tourists and casual visitors
- Students or educational groups

The center is designed to accommodate a diverse demographic ranging across different age groups and cultural backgrounds. Its core mission is to provide inclusive spaces and services that address the unique needs of each user group, ensuring meaningful engagement with the cultural narratives it represents.

5.2 Program Postulation Concept

The programs of the Cultural Interpretation Center in Pyuthan are envisioned to uphold every aspect essential for the preservation, practice, and promotion of the local culture, heritage, and collective identity of the region. The continuity between what existed in the past, what is currently practiced, and what may evolve in the future becomes the core principle for fostering cultural resilience and recognition.

To ensure a sustained cycle of cultural knowledge transfer, identity validation, and community celebration, it is essential to preserve the traditions and wisdom of the past, actively engage in the living practices of the present, and encourage the growth and visibility of cultural expressions for the future. This framework serves the immediate and long-term needs of the local communities, allowing them to grow while remaining deeply rooted in their origins.

Accordingly, the programming of the interpretation center is structured around three central pillars: Preservation, Practice, and Promotion. These pillars emerge from the contextual study of the site and the cultural and social needs of the Pyuthan communities.

- Preservation focuses on conserving tangible and intangible cultural assets such as artifacts, architecture, folklore, and rituals.
- Practice creates space for ongoing traditions—festivals, music, storytelling, crafts, and daily customs—to continue and thrive.
- Promotion involves outreach, exhibitions, and educational activities that build awareness, appreciation, and pride in local culture.

Each function of the center is developed in alignment with its vision, mission, and community aspirations. These programs aim to foster cultural continuity, social inclusiveness, and identity empowerment, as reflected in the functional framework chart below.

Table 12:Chart showing distribution of function under three key elements

5.3 Detail Table Of Program Formulation

Table 13: Program Formulation

S.N	PROGRAM	NO. OF USER	AREA/UNIT (sq.m)	NO. OF UNIT	TOTAL AREA (sq.m.)
ENTRANCE					
1	PUBLIC SEATING SPACE	16	32	1	32
2	TICKET COUNTER	3	16	1	16
3	PUBLIC TOILET	5	12	2	24
4	MEETING ROOM	8	16	1	16
5	SURVELLIENCE ROOM		12	1	12
6	STAFF WORK STATIONS	6	24	1	24
7	RECEPTATION AND WAITING		28	1	28
8	STAFF TOILET		8	2	16
9	STAFF ENTRANCE LOBBY		30	1	30
10	MANAGER OFFICE		16	1	16
11	PANTRY		12	1	12
12	STORAGE		12	1	12
				TOTAL AREA	**238**
ZONE 1: CHAUTARO					
1	RESTING PAVILLION		25	2	50
				TOTAL AREA	**50**
ZONE 2: MARKET PLACE					
1	PUBLIC SEATING		18	3	54
2	METAL WORKSHOP		40	1	40
3	CLAYWORKSHOP		40	1	40
4	BAMBOO WORKSHOP		32	1	32
5	STORE		10	2	20
6	PUBLIC TOILET		12	2	24
7	SHOPS		16	8	128
8	RESEARCHER LIVING/DINING		18	2	36
9	BEDROOM		18	4	72
10	TOILET		8	2	16
				TOTAL AREA	**462**
ZONE 3: USTSAVSTHAAN					
1	AUDIO VISUAL ROOM	60	72	1	72
2	BATTLE WEAPONS EXHIBIT		68	1	68
3	SCULPTURE COURT		90	1	90
4	BATTLE ATTIRE DISPLAY		56	1	56
5	PUBLIC TOILET		12	2	24
6	MUSIC/DANCE PERFORM		100	1	100
				TOTAL AREA	**440**
ZONE 4: MUSEUM AND ARCHIEVE					
1	VARENDA		44	1	44
2	COURTYARD DISPLAY AREA		65	1	65
3	COURTYARD 2		24	1	24
4	GALLERY 1		135	1	135
5	GALLERY 2		90	1	90
6	ORAL HISTORY RECORDING		16	1	16
7	CULTURAL ARCHIEVE ROOM		48	1	48
8	RECEPTATION		16	1	16
9	PUBLIC TOILET	2	12	2	24
10	GALLERY 3		32	1	32
11	GALLERY 4		25	1	25
12	GALLERY 5		72	1	72
				TOTAL AREA	**591**

S.N	PROGRAM	NO. OF USER	AREA/UNIT (sq.m)	NO. OF UNIT	TOTAL AREA (sq.m.)
ZONE 5: KHANPANSTHAAL					
1	COMMUNITY KITCHEN		70	1	70
2	STORE		10	3	30
3	CULTURAL CAFE 1		50	1	50
4	CULTURAL CAFE 2		45	1	45
5	PUBLIC TOILET		12	2	24
				TOTAL AREA	219
ZONE 6: SAMJHANASTHAAN					
1	MULTIPURPOPSE COMMUNITY HALL	74	88	1	88
2	DANCE/MUSIC REHERSAL		60	1	60
3	PUBLIC TOILET		12	2	24
				TOTAL AREA	172
OTHERS					
1	BHUME PUJA SPACE		147	1	147
2	GOTH/KATERA GHAR		50	1	50
				TOTAL AREA	197
PARKING					
1	BUS		36	3	108
2	CAR		12	12	144
3	BIKE		20	1.5	30
				TOTAL AREA	282
TOTAL BUILT AREA				2651	
TOTAL PLINTH AREA				2150	4.2 Ropani
CIRCULATION 15% OF PLINTH				322.5	
TOTAL				2472.5	4.8 Ropani
OUTDOOR LANDSCAPE				8566.26	16.8 Ropani
TOTAL SITE AREA				11038.76	21.6 Ropani

5.4 Space calculation

Table 14:Functional Area Division

ZONE 1 :288 s.q.m.(13.4%)
ZONE 2 :462 s.q.m.(21.2%)
ZONE 3 :440 s.q.m.(20.2%)
ZONE 4 :591 s.q.m.(27.2%)
ZONE 5 :219 s.q.m.(10%)
ZONE 6 :172 s.q.m.(8%)

6 CONCEPT

6.1 Design Insights

Culture is more than tradition it is bond that ties an individual to the community and land. For any cultural practice to be preserved or promoted, it must be genuinely accepted by the people and joyfully celebrated. Only then it can continue and grow over time. Therefore, the key guiding factor in cultural sustainability is the ability to connect with the people's beliefs and lead them in a way that aligns with their values.

Architecture plays a vital role in expressing cultural essence. To make a design meaningful and relevant, it should respond to the site's topography and surroundings. This helps create a sense of connection, belonging, and ownership among the people. Furthermore, reflecting the everyday life and experiences of the local community in the design helps make the space more vibrant, active, and culturally alive.

6.2 Design Concept

Every design begins with a whisper an emotion, a question, or a memory. For me, it started with the land, the people, and their stories.

At the hilltop of Cherneta, surrounded by panoramic views and blowing winds on my face, it felt as if the place whispered an emotion; emption of those unheard stories, emotion of my connection to this place and emotion of people who live here. Is it possible to document and displayed it architecturally?

How can a space narrate history of a place?

The ideation of project began with all these thoughts scribbled down in a piece of paper. This was the birth of the concept**"*A walk through living heritage* "**a spatial narrative that invites users to walk through culture, experience traditions, and connect across time.

Pyuthan's culture is woven with multiple layers of stories. This project aims to uncover and embrace these diverse cultural narratives, using them as the foundation to shape an architecture that interprets, represents, and celebrates the unique identity of Pyuthan. The design aspires to become a living medium that not only preserves the past but also reflects the present and inspires the cultural future of the region.

6.3 Stories:

Designing Through Stories

Fom the literature and site study of the regions. There are multiple layers of stories which must be interpreted through the design. The concept is built on three interwoven cultural storylines where a people walk through series of experential space and aims to reflect cultural values and essence.

Stories of six thums
Stories of Social Life
Stories of trails

6.3.1 Stories of six thums

Pyuthan district is divided into 6 administrative thums/kot with capital thum Bhitrikot and five other thums Narikot, Udayapurkot, Madikot, Baiskhuwa and Kalasesh (Magar, 2072). The design is divided into six zones inspired by the six historical Thums (peaks) of Pyuthan, each representing a distinct cultural function.

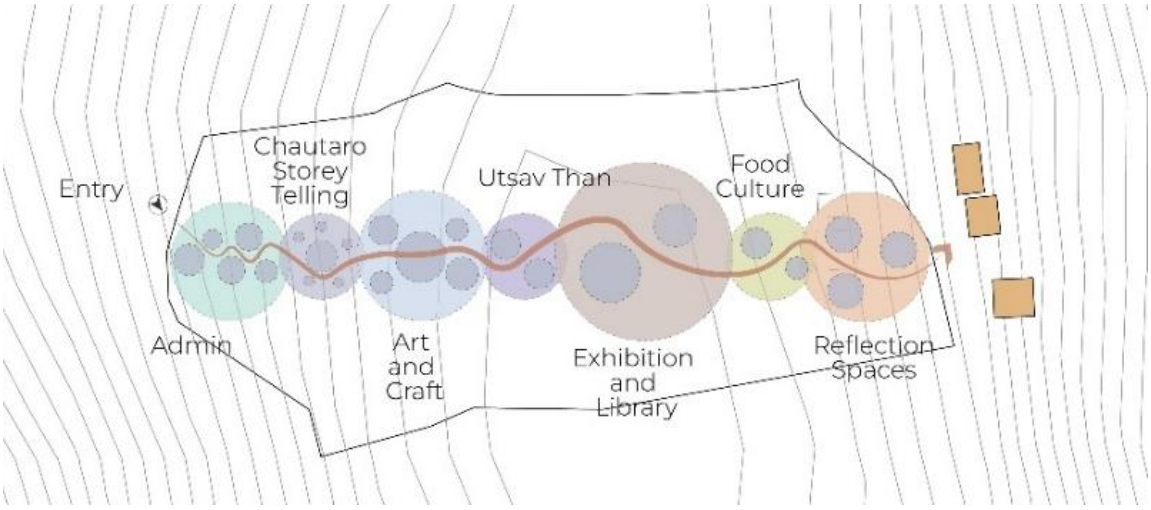


Figure 134: Zoning of Spaces
Source: Author

A saying in Pyuthan goes, *"One must visit the six Thums to truly understand Pyuthan."* This project draws inspiration from that belief, aiming to design spaces that reflect the essence of those Thums. The goal is to create an environment that gives visitors a cultural feel of Pyuthan and inspires them to explore its places and stories further.

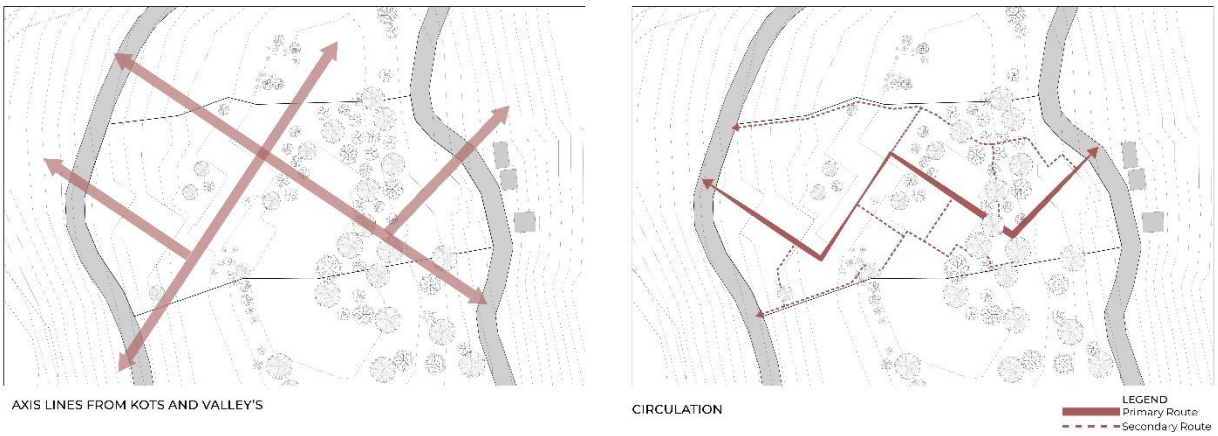


Figure 135: Conceptual Zoning Development
Source: Author

To reflect the essence of Pyuthan, the cultural functions are divided into six zones—each representing one of the six Thums and a cultural theme associated with it.The zoning begins by projecting the actual directional axes from each Thum onto the site at Chhernetta. This projection guides the placement and orientation of each zone, allowing the spatial arrangement to symbolically connect with the cultural geography of Pyuthan.

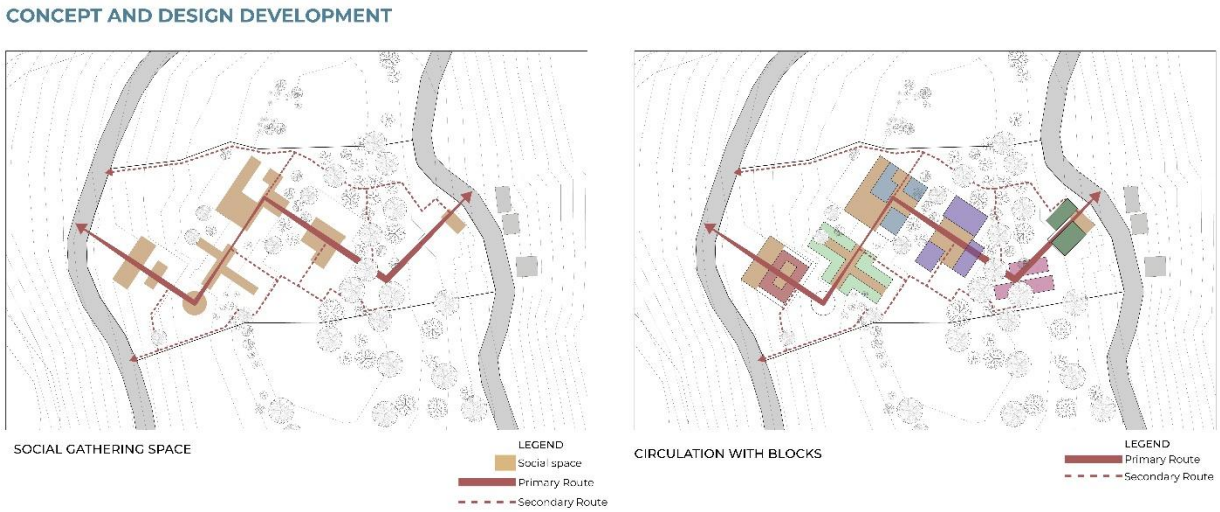


Figure 136: Conceptual Zoning Development

The projected axes from the Thums not only guide the zoning but also define the primary circulation route of the project. Visitors move along a symbolic cultural path, following the same orientation as the original Thums or Kots.
As they walk through the site, each turn along the path gradually reveals views or symbolic references to the respective Thums/Kots creating a layered cultural experience and encouraging exploration through spatial storytelling.

Figure 137:Views of bhitrikot madikot and udaypurkot thum/kot from site

The six zones of cultural interpretation center:

Zone 1: Udaypurkot

Entrance/Admin: The starting point that invites people in with curiosity.
Chautaro: A place of pause and shared thought, a social node rooted in the Nepali way of gathering.

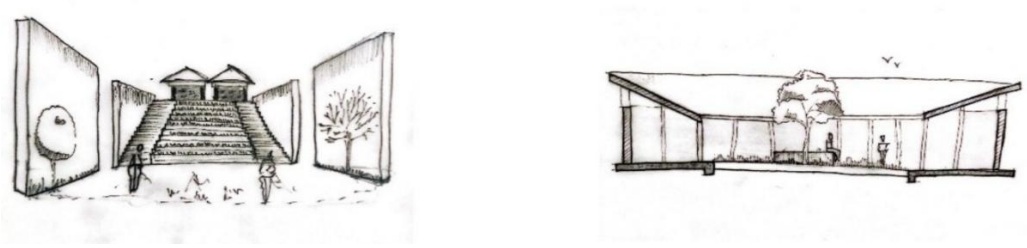


Figure 138:Entrance and Chautaro space

Zone 2: Kalasesh

Sirjana-sthaan/Handicraft Market and Workshops:

Step into the hands of the makers. Watch stories carved into wood, woven into fabric. This is where traditions are crafted and sustained.

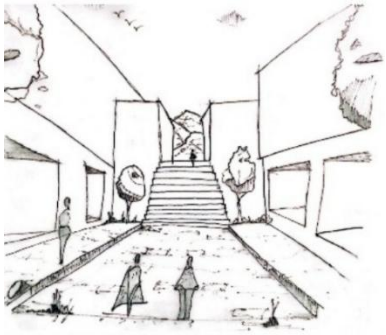


Figure 139:Sirjana-sthaan street view
Source: Author

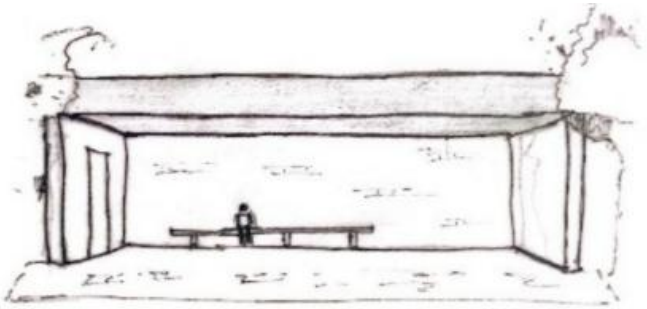
Zone 3: Madikot

Utsavsthaan /Celebration Space: An open ground for drama, festivals, performances, music, and dance.

Zone 4: Bhitrikot

Museum & Archive Zone:

A quieter turn. Walk through time see myths illustrated, listen to oral traditions, read inscriptions of ancestry. These are the anchors of identity.



Zone 5: Baiskhuwa

Khanpan-sthaan/Food culture space:

Culture, shared not just through stories, but through taste local food as an edible history.

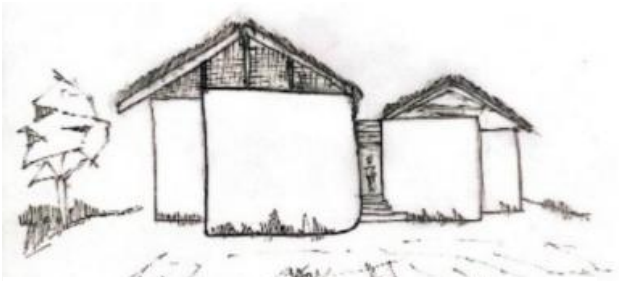


Figure 141:Cultural cafe space
Source: Author

Zone 6: Narikot

Samjhana-sthaan:
A final pause, not an end where memory and advocacy live, and where heritage adapts instead of being frozen in time.

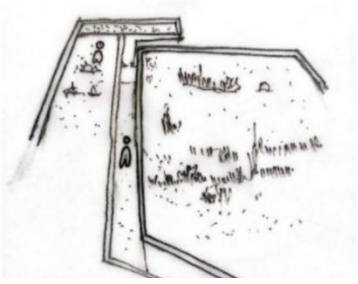


Figure 142::Way to Samjhana-sthaan
Source: Author

6.3.2 Stories Of Social Space

The stories of social life and shared spaces in Pyuthan play a vital role in shaping the spatial character of this project. These everyday interactions form a sense of belonging within the community, which the design seeks to reflect.

Each functional zone includes a dedicated social gathering space, inspired by traditional communal areas such as Chautaros**,** Aagans**,** Bhume Ghars, and courtyards. These elements are reinterpreted architecturally to support interaction, rest, celebration, and reflection—mirroring the local ways of gathering.

Similarly, the landscape design evolves around these traditional forms, creating a layered environment where built and open spaces together reinforce the feeling of cultural identity. From shaded meeting points to memory platforms, the spatial narrative supports both cultural expression and communal connection.

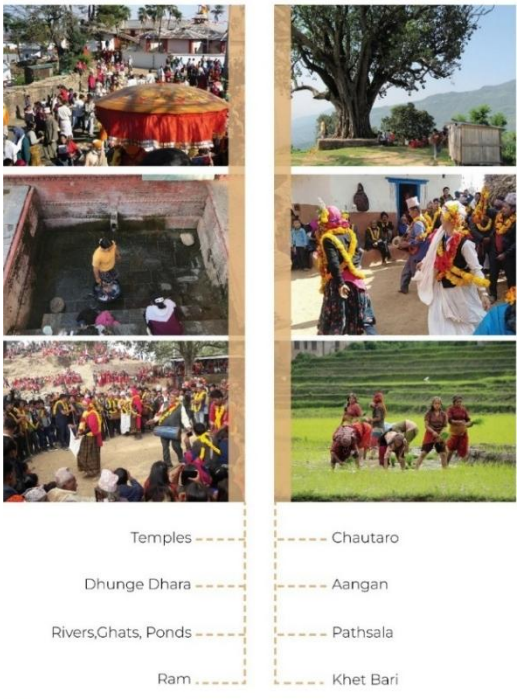


Figure 143: Traditional Social spaces
Source: Autho

6.3.3 Stories of trails

The project aims to recreate the feeling of an authentic cultural trail, where the movement follows the site's natural contours allowing visitors to experience the journey much like walking through the actual hill trails of Pyuthan. This path is designed not just as circulation, but as a trail of culture and experience**.**

Based on site analysis, the terrain stretches from the Mandavi Valley to the Jhimruk Valley**,** beginning from the lower lands of Mandavi, ascending uphill, and then descending toward Jhimruk. Visitors symbolically travel from one valley to another, mirroring the real topographic transition.

Along the trai, the spatial experience unfolds gradually passing through interpertation of different cultural landscapes: from the narrow market like newari streets, to the terraced settlemnts of chettris and brahmans and finally reaching the hill top magar architecture and the lanscapes.

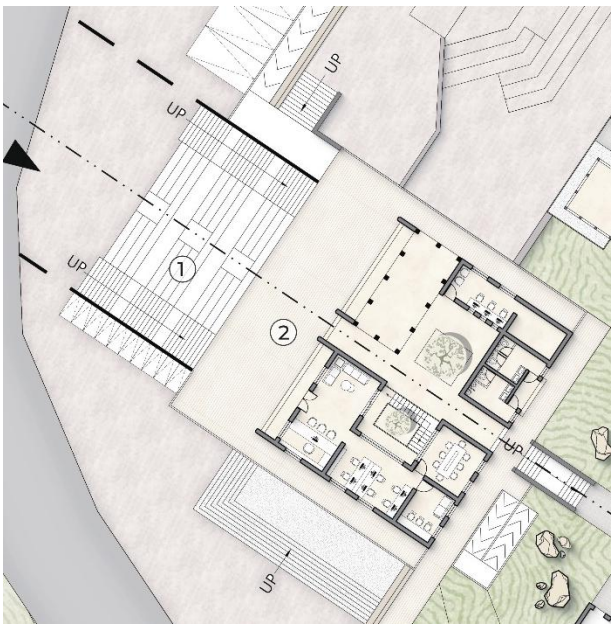
Each space is designed to carry the visual and spatial character of these communities, offering a rich narrative journey through the cultural and geographical layers of Pyuthan.

Figure 144:vies of two valley from site left mandavi valley and right jhumruk valley
Source: Author

7 DESIGN DEVELOPMENT

7.1 Entrance and Chautaro space

Entering from the mandavi valley the the path from the axis of valley leads to the main entrance block of the cultural center throgh the stair leading to the front yard plaza of the admin.



The design approach of this zone is to invites the people with curiosity where the main block is in the raised platform where visit only sees the portiomn of the building inviting them to the space with the sense of curiosity.

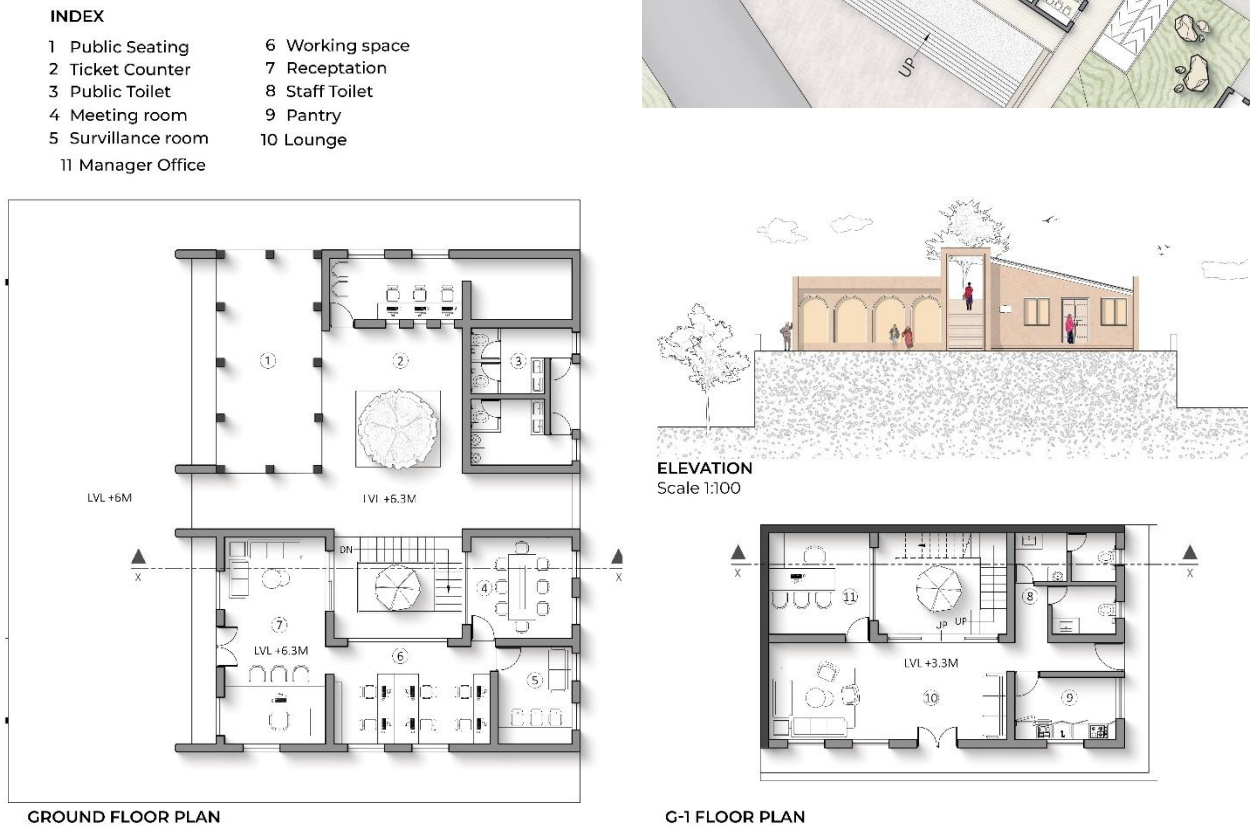


Figure 145:Plan of admin block

Figure 146:Section of admin block

Administrative Block is a two-storey structure, functionally divided into **two distinct zones**: one for **visitors** and the other for **staff**.

Zone One, accessible through a long staircase from the main entrance, is intended for visitors. It includes a **public seating area** oriented toward the scenic **Mandavi Valley**, offering a welcoming pause point. Adjacent to it is a **small courtyard** housing a **ticket counter** and **public restrooms**, serving as the entry node into the center.

Zone Two is dedicated to staff and is accessible from the **southwest parking area**, leading directly to the lower floor. This level includes a **staff lounge**, **manager's office**, **pantry**, and **staff toilet**—ensuring operational functionality and privacy.

From the visitor's courtyard, a vertical transition leads to the **upper floor**, where the **reception**, **working stations**, **meeting room**, and **surveillance room** are located. A **central tree** in the small court enhances the connection between nature and built space, offering a calm and shaded

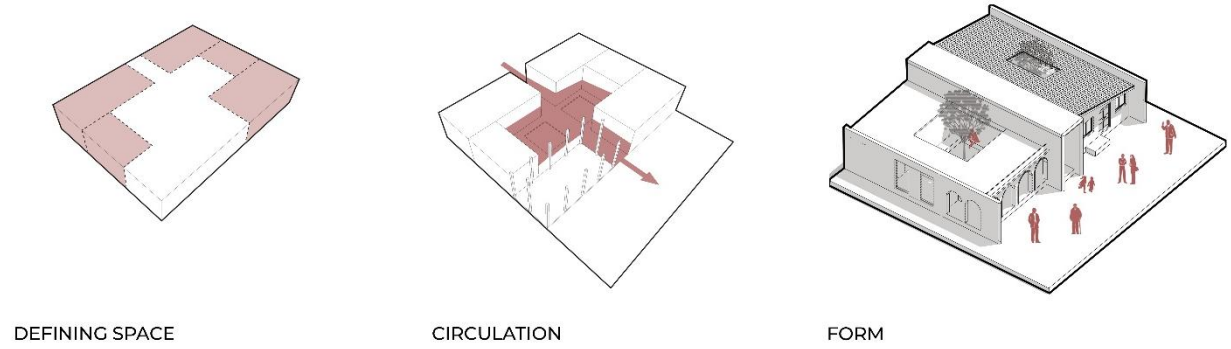


Figure 147:Admin block conceptual development

Figure 148:View from the entrace of admin block

The cultural walk begins from the **Chautaro**, a traditional space that marks the start of every journey in Pyuthan. Serving as a place of rest and social interaction, the Chautaro holds deep cultural significance—where travelers pause, gather, and exchange stories under the shade of a tree, often with expansive views of the surrounding hills.

In this project, the Chautaro is designed as the **pause point** for visitors, offering a shaded public seating area and setting the tone for the experience ahead. From here, the **first directional turn** guides the visitors toward a new axis of circulation—leading them uphill toward the **market space**, representing the bustling community interactions found in traditional settlements.

This spatial transition from rest to movement reflects the layered rhythm of local life and marks the start of the interpretative cultural journey.

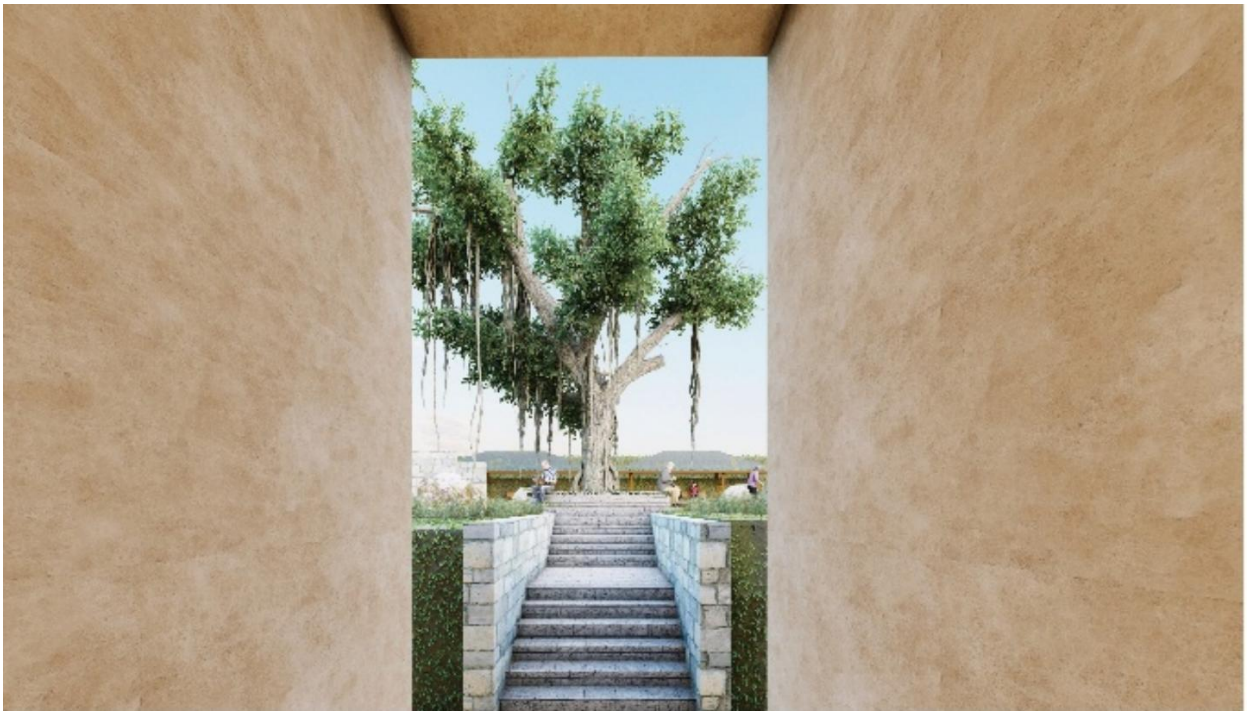


Figure 149:chautaro space conceptual visualization

7.2 Handicraft market and workshops space

The next chapter of the cultural walk leads visitors into the **hands of the makers** a space where stories are not just told but **crafted**. Here, traditions are carved into **wood**, woven into **fabric**, and etched into **metal**, showcasing the living heritage of Pyuthan's skilled artisans.

The design approach for this zone draws inspiration from **traditional Newar market streets**, celebrating their historic role in trade and craftsmanship. The architecture mimics a vibrant, close-knit **street-like settlement**, where compact building fronts with integrated shops and workspaces reflect the character of Newar-influenced settlements in Pyuthan.

This space functions as a **cultural marketplace**, allowing local artisans to display and demonstrate their crafts in an environment that feels both authentic and interactive. The layout encourages movement, interaction, and immersion within the craft traditions.

As visitors enter this space, a **pause point** is introduced along the axis aligned with **Udaypurkot**, offering scenic views of the hills inviting reflection and appreciation. Additionally, at the **northwest corner** of the built form, another **seating space** opens toward the **Mandavi Valley**, where one can visually connect with the broader landscape and nearby settlements, reinforcing the sense of place and belonging.

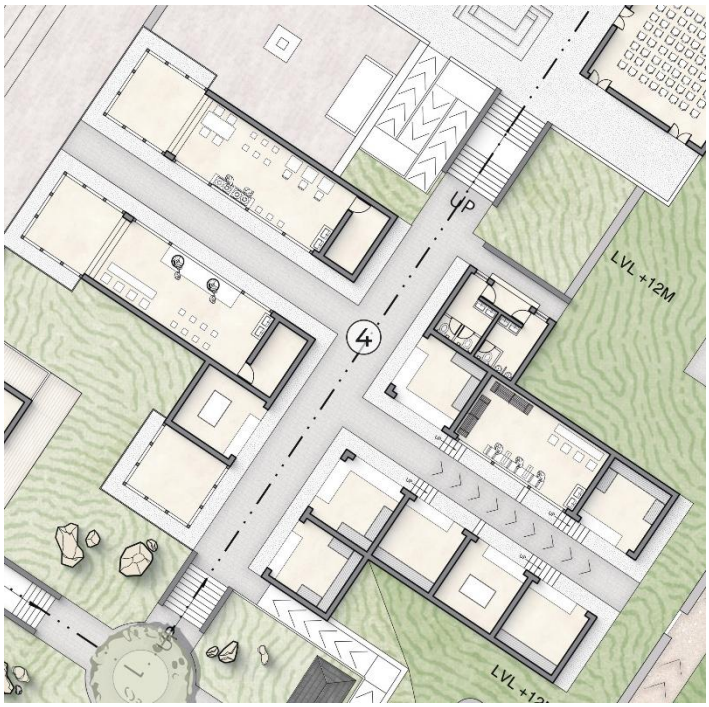


Figure 150:Plan of handicraft and market space

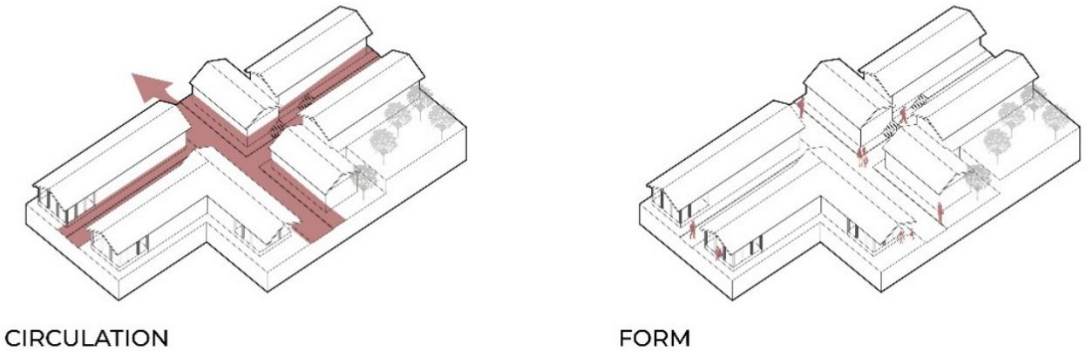


Figure 151:Maeket block conceptual development

The market zone includes **handicraft shops** and **three workshops** dedicated to **woodcraft**, **metalcraft**, and **bamboo craft**. These spaces support both display and active production of local crafts. Additionally, a **public toilet** is provided to ensure visitor convenience.

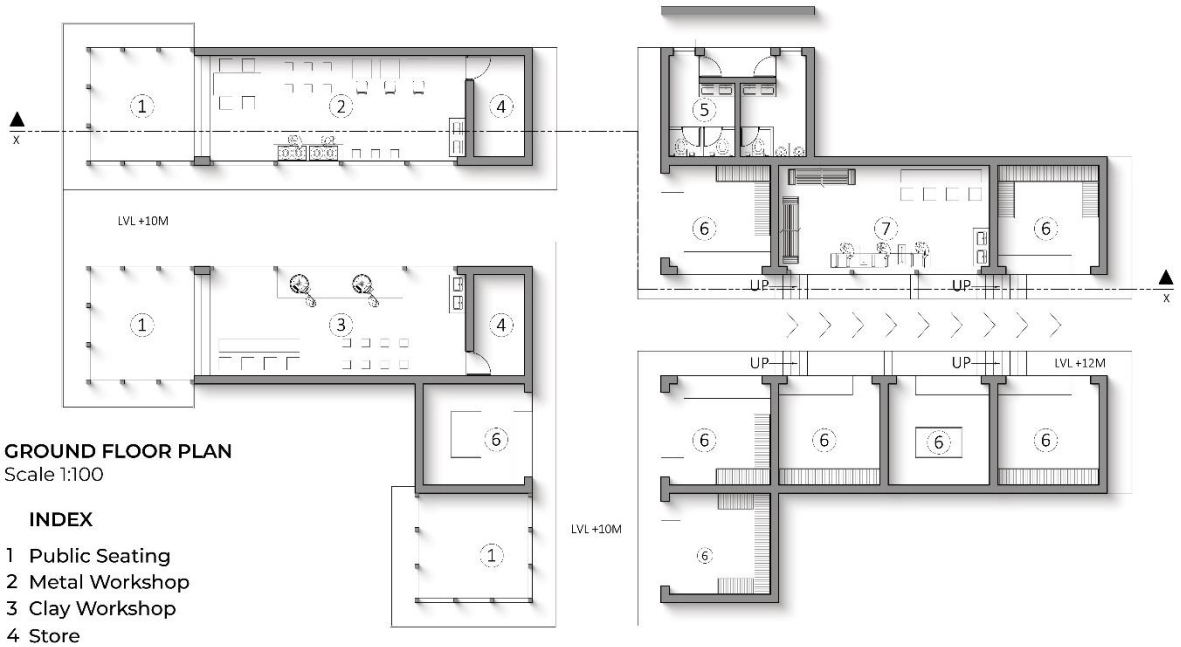


Figure 153:Plan of market block

Figure 154:Section of handcraft and market space

Figure 152:Figure 154:Views of market

7.3 Utsav-sthaan

This chapter of the cultural walk celebrates the **performing arts** of Pyuthan, where music, dance, and drama bring joy and vibrancy to the space. The design is inspired by the traditional **terraced settlements** of Pyuthan, where houses and their adjacent **Aagans** (courtyards) form shared social patterns.

In this zone, the built space represents the **'Ghar'** a house-like structure dedicated to cultural performances such as **drama, music, dance, and battle displays**. Adjacent to it is the **Aagan**, an open courtyard space designed for **celebration and gathering**, continuing the tradition of performance in both enclosed and open settings.

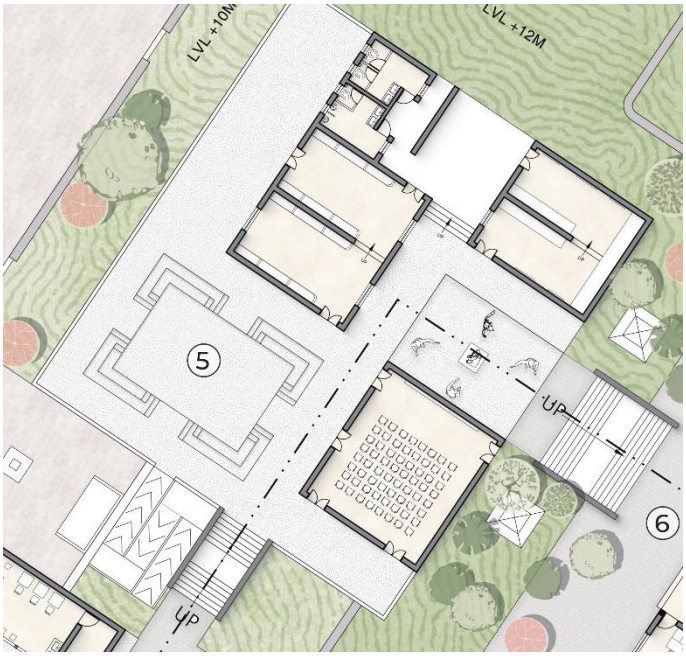


Figure 155:Plan of utsavsthaan

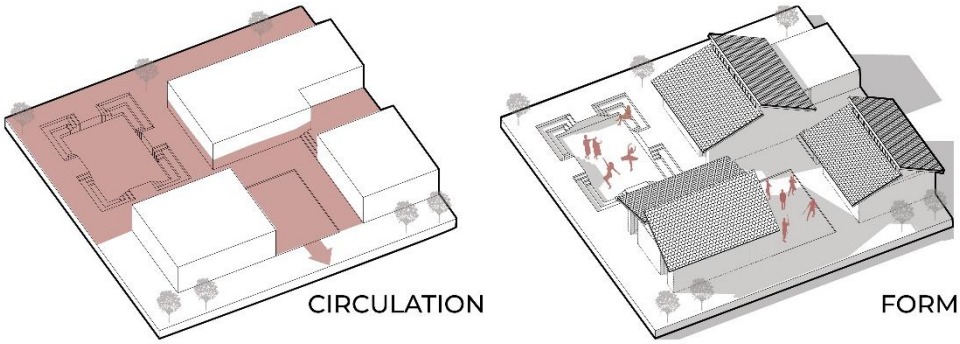


Figure 156:Conceptual development

The performing arts space is divided into **three functional zones**, each designed to celebrate and preserve a unique aspect of Pyuthan's cultural expressions.

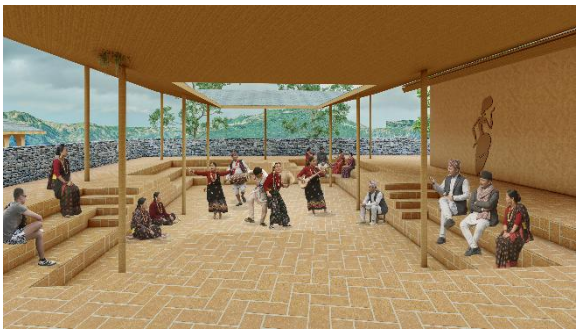
Zone One features an **audio-visual room** where various cultural performances are digitally displayed, allowing visitors to engage with traditions through modern media. Adjacent to this is

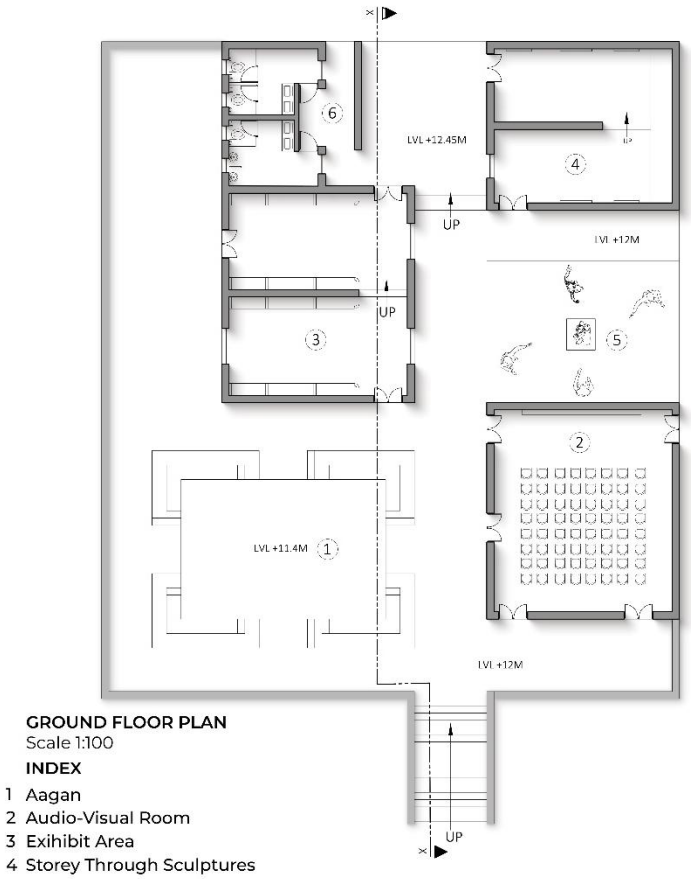
an **open Aagan** an outdoor courtyard space designed for **live music and dance performances**, continuing the tradition of communal celebration.

Zone Two is dedicated to the **Sarayan Naach (Sword Dance)** a significant battle drama festival in Pyuthan that symbolizes the victory of good over evil. This zone includes an **exhibition room** displaying **traditional weapons and instruments** used during the battle performances. An

adjacent **sculpture court** presents **life-sized sculptures** of soldiers and the king in battle, offering a dramatic and immersive experience of the festival's historical narrative.

Zone Three focuses on the **display of traditional battle attire**, showcasing the **costumes worn by kings and soldiers** during the performances. Additionally, a **public toilet** is provided within this area to ensure convenience for visitors.





GROUND FLOOR PLAN
Scale 1:100

INDEX
1 Aagan
2 Audio-Visual Room
3 Exihibit Area
4 Storey Through Sculptures
5 Toilet
6 Attire DisplayRoom

Figure 157:Plan of utsavsthaan

Figure 159:Views of utsavsthaan

Figure 158:Sectionof utsavsthaan

7.4 Museum and archieve

A quieter turn in the next axis of circulation leads visitors toward the **hilltop zone**, a space dedicated to the **display of the past and archival collections**. Before reaching this reflective area, the circulation path passes through a **Bhume Puja temple space**, symbolizing the **origin of Magar settlements** a cultural element deeply rooted in Pyuthan's Magar community.

The existing trees along this route are preserved to create a calming transition, helping visitors **shift from the vibrant Utsavsthaan** to a more peaceful and introspective environment. Upon arrival, the **museum** welcomes visitors with a **resting pause point at the entrance**, encouraging a moment of stillness before engaging with the historical and cultural memories of Pyuthan.

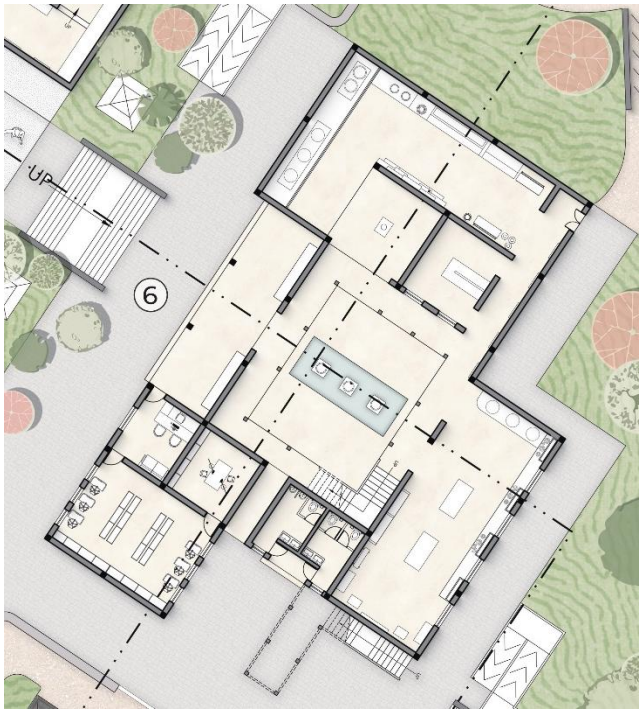


Figure 160:Plan of museum and archive block

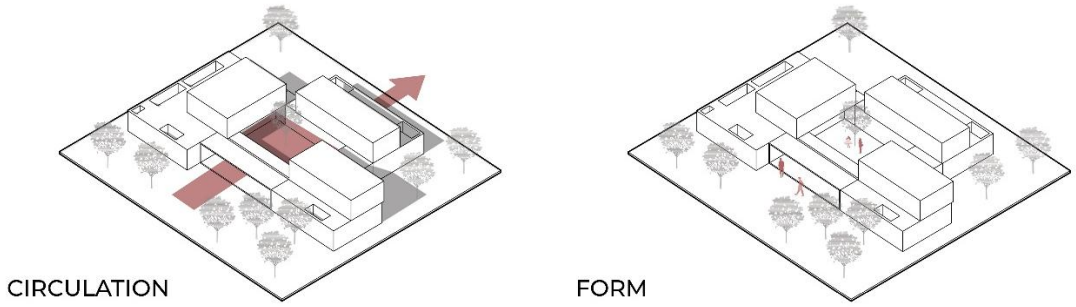


Figure 161:Conceptual developemnt of museum and archieve block

Figure 162: Section of museum and archieve block

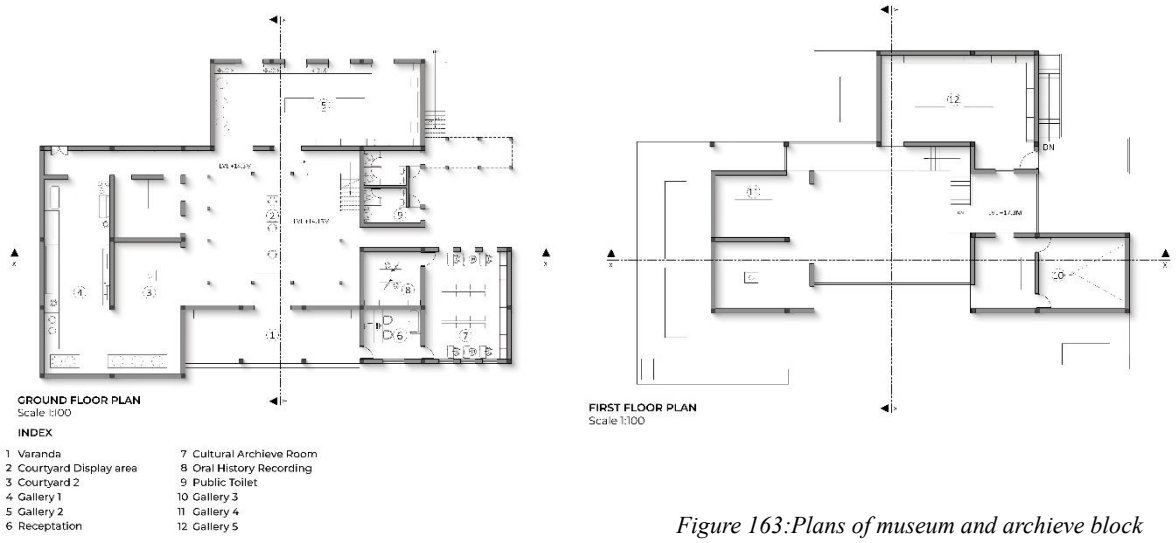


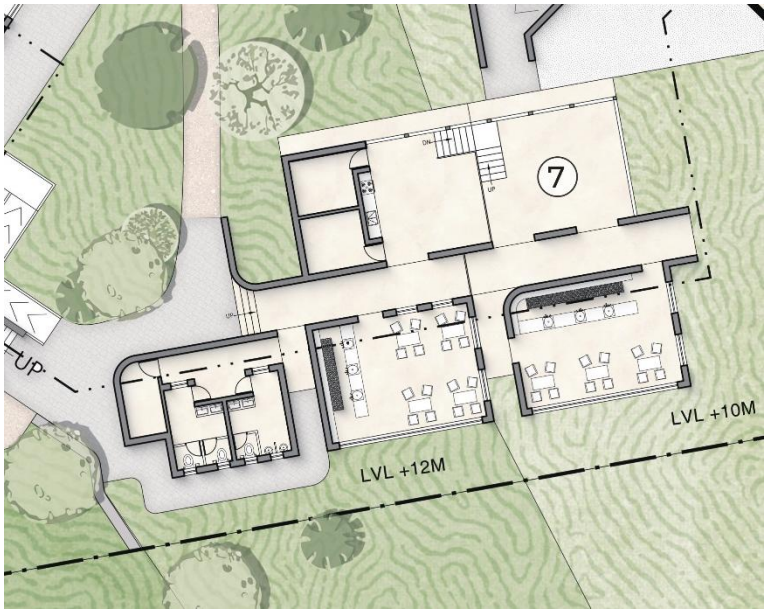
Figure 163:Plans of museum and archieve block

Figure 164:Spaces of museum and archive block

7.5 Food culture

Culture is shared not only through stories and performances but also through **taste** with local food acting as a form of **edible history**. This chapter of the cultural walk introduces the **culinary journey** of Pyuthan, designed to reflect the traditions of communal eating and celebration.

The food zone is set within a **natural grove of trees**, reminiscent of the traditional **Baan Bhoj** practice in Nepali culture, where communities gather under the open sky to share meals. A **community kitchen** is provided to host events and **collective feasts**, reinforcing the spirit of togetherness.



Additionally, the zone includes **two cultural cafés**, carefully oriented to frame scenic views of **Madikot** and the surrounding serene landscape, offering visitors both a taste of local cuisine and a moment of rest within nature.

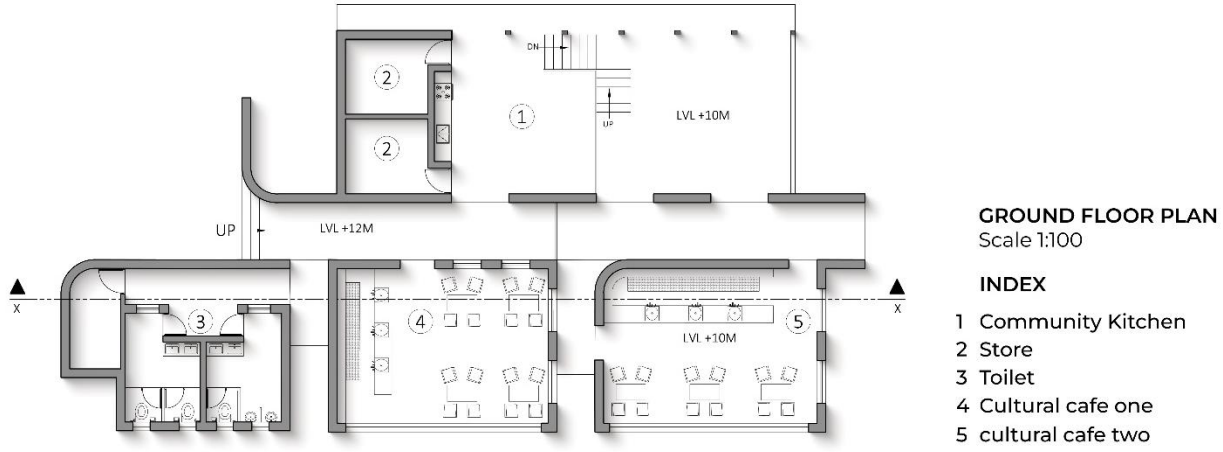
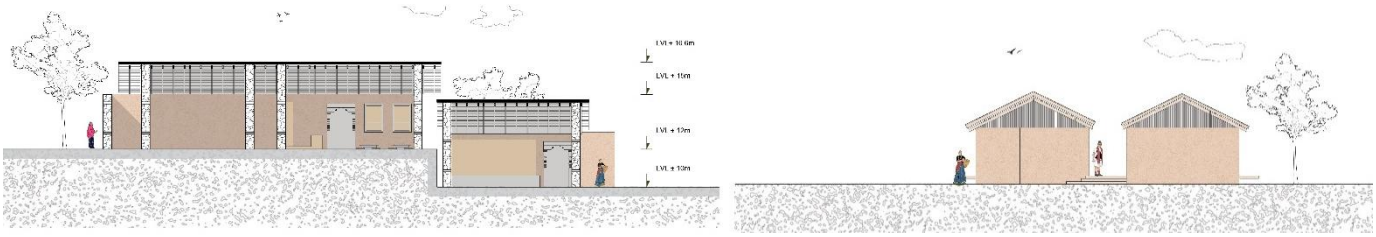


Figure 165:Plan of food culture block



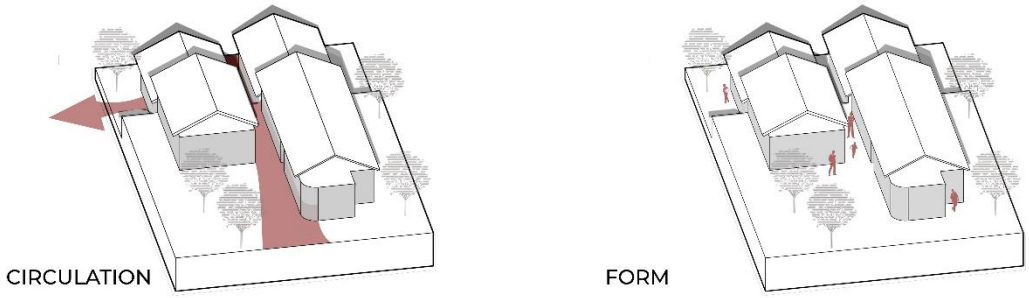
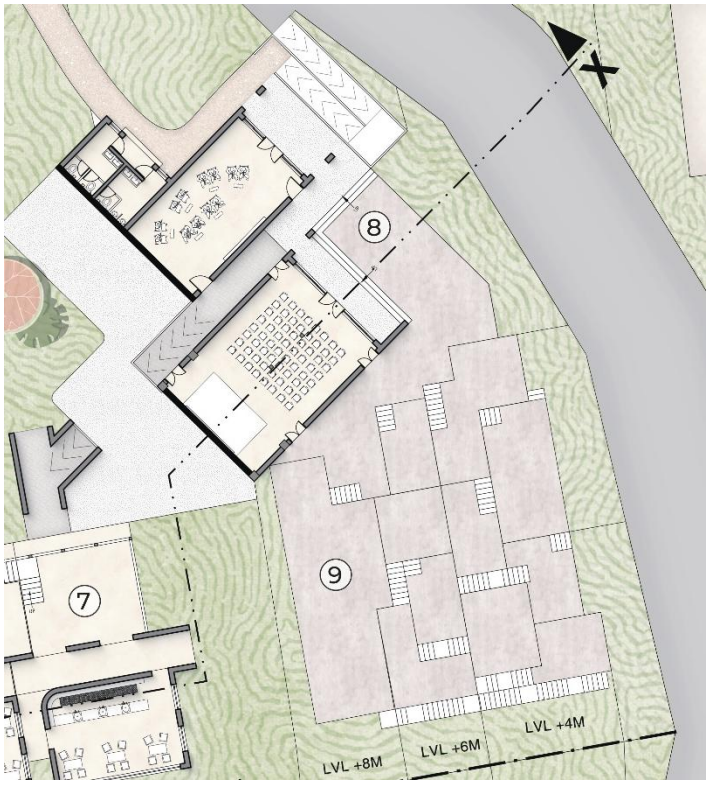


Figure 166: Conceptual developemnt of food block

Figure 167:Views of food culture block

7.6 Samjhaana sthaan

The final chapter of the cultural walk is not an end, but a **pause for reflection** a space where **memory lives**, **heritage evolves**, and culture continues through dialogue and practice. The design aims to create a space that reflects the **cultural background and ongoing significance** of Pyuthan's traditions in a way that is **dynamic rather than static**.



This zone includes a **community multipurpose hall** for **cultural advocacy, discussions**, and **workshops**, especially in **dance and music**, allowing local people to actively engage in preserving and promoting their cultural identity. A **final pause point** is carefully placed to **frame the view of Jhumruk Valley**, symbolizing both reflection and the entrance to a new cultural journey.

The adjacent landscape features **open-air platforms (OATs)** where culturally important **objects of memory** are placed, offering quiet moments for visitors to connect with Pyuthan's living heritage.

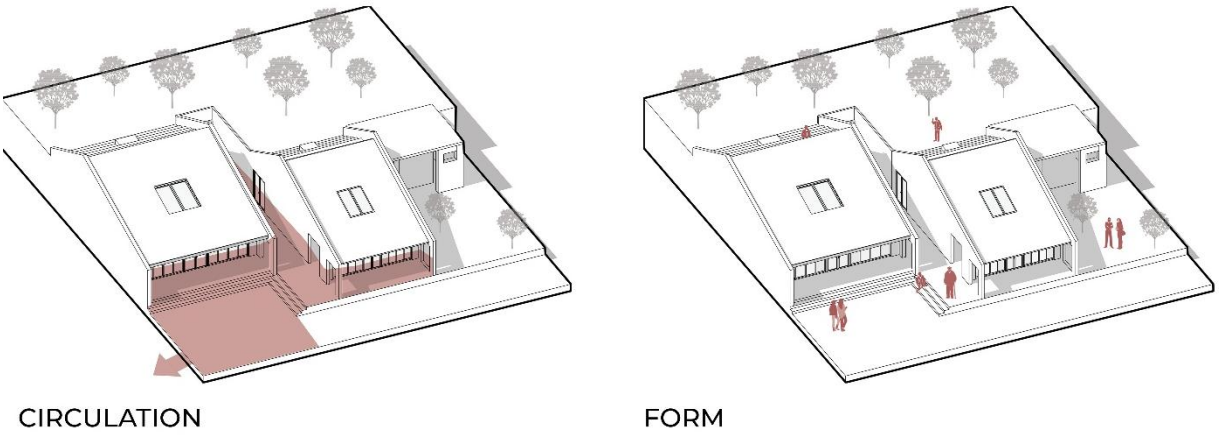


Figure 168:conceptual developement of samjhana sthaan

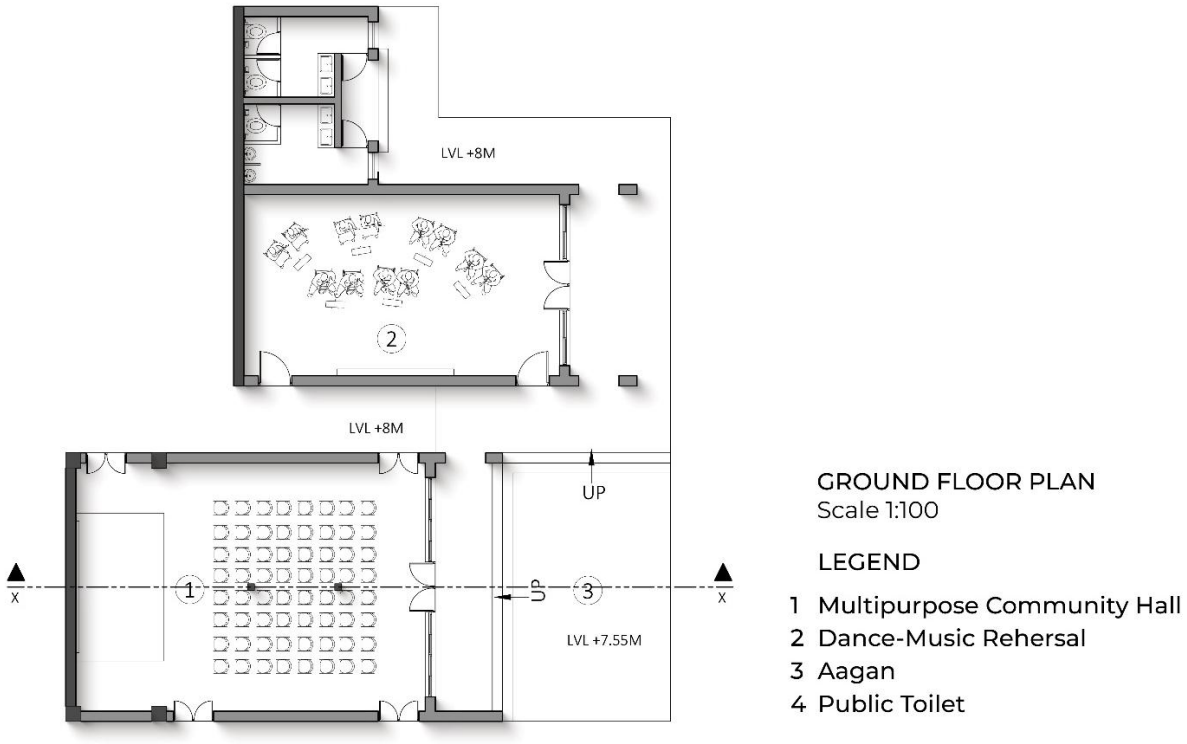


Figure 169:Plan samjhanasthaan

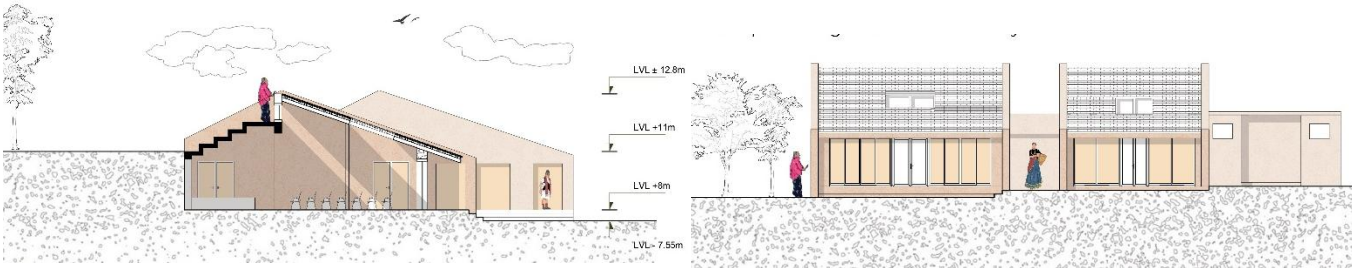


Figure 170:Section of samjhanasthaan

Figure 171:Views of samjhana sthaan

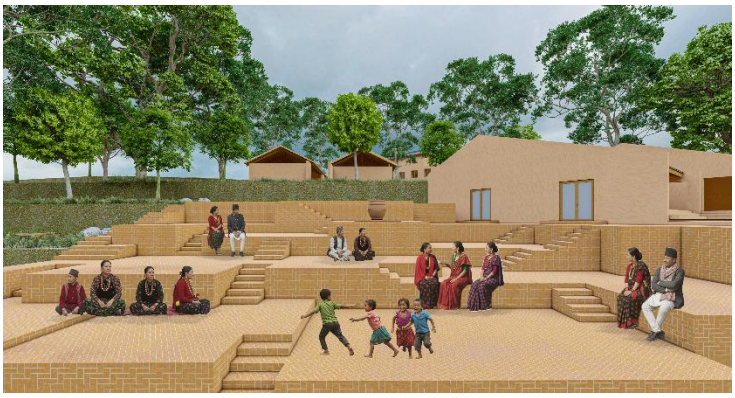
7.7 Landscape

Bhume Puja Sthaan

Bhume Puja Sthaan is a dedicated space for the people of Pyuthan to celebrate Bhume (Mother Earth) one of the prominent cultural traditions of the Magar community. Designed around existing trees, it creates a calm, natural setting that interprets and honors the spirit of Pyuthan's Bhume Puja Sthaan.

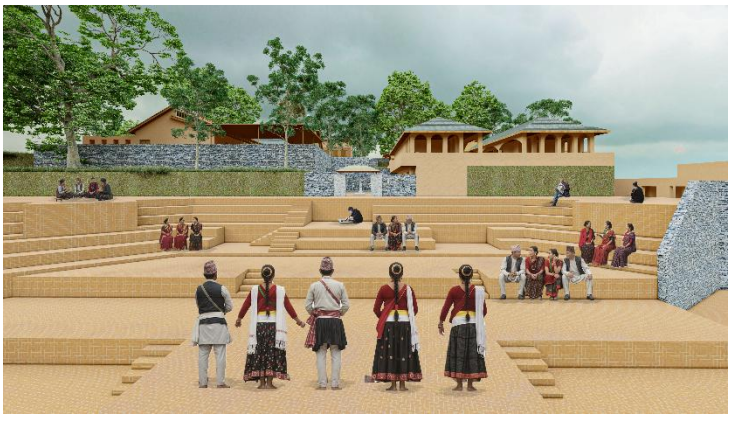
Goth Ghar

Goth Ghar is an interpretation of Pyuthan's traditional cattle shelter, intentionally designed to represent the region's animal husbandry culture. This space also serves as a space for abandoned cattle often seen roaming the streets of Pyuthan, preserving both a cultural practice and a compassionate community value.



OAT 2

OAT 2, in the outdoor area of Samjhana Sthaan, is a space created for the localcommunity a place to gather, share voices, and advocate for their culture. With the Jhumruk Valley as its backdrop, it serves as a setting for remembrance and connection, keeping the spirit of heritage alive



OAT 1

OAT 1 is designed to host large gatherings for cultural events and outdoor exhibitions. Located outside the enclosed boundary of the Cultural Interpretation Center, it is easily accessible along the entrance axis beside the parking area, offering a scenic view of the Mandavi Valley.

8 CONCLUSION

In closing, the Cultural Interpretation Center proposed for Pyuthan stands as an example of how **architecture can support the celebration, learning, preservation, and promotion** of both **tangible and intangible cultural heritage**. By translating cultural **values**, **stories**, and **essence** into spatial experiences and design language. Through active participation, the **community breathes life into the center**, transforming it into a place they can call their own. This shared sense of pride and ownership ensures its endurance, allowing culture to remain vibrant, relevant, and ever-growing.The project demonstrates **how architecture becomes a powerful medium for sustaining identity and inspiring future cultural continuity**.

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10 ANNEX