

**Critical Analysis of Jain Architecture in Bihar Region and its Influence on  
Regional Architecture**

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Date: -

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**DEDICATED TO**  
*MY*  
**MOTHER AND FATHER**

## **ABSTRACT**

*Each style of Architecture mirrors an essential rule that represents a specific culture and time. In this setting the Indian Jain temple architecture are not just the house of Tirthankar idol and place of worship, they are additionally the depository of information, craftsmanship, architecture and culture.*

*The practices and customs of temples exist in history as well as in present time impact. The socio-cultural existence of its kins offers congruity to conventional religious and cultural qualities. The advancement of Jain architecture is set apart by its strict adherence to the first ancient models that were gotten from religious thought and that proceeded over numerous centuries.*

*The Jain religion and its logic incredibly affected Jain temple Architecture in its developmental procedure which proceeds till this date. Hence this exposition through authentic research and other narrative, literary works and hypothetical examination on ancient treatise and current research works on the Jain temple Architecture of India draws out the ideas that have been received since ancient circumstances for the construction of the holy Jain caves and temples, the science associated with the construction of the temple structure and the procedures required alongside the expertise it took to build such buildings.*

*India has given with the gifts of the different religious beliefs. Jainism is one of them, Jain Tirthankars - religious ministers spread the message of peace, peacefulness, love and edification everywhere throughout the world. The center of this awesome religion and its proclaiming is clear in its temples, in the concentrated shaped and in the various outlined remains.*

*The commitment of Jain workmanship to the standard craftsmanship in India has been extensive. Each period of Indian workmanship is represented by a Jain form and every single one of them is deserving of careful study and comprehension. The considerable Jain Architecture and formed landmarks of Bihar region like Khandgiri, Udaygiri, Sammed Shikhar, Koluha, Patna, Ara, Bhagalpur, Jammui, Rajgir, Nawada, and Nalanda are world-*

*eminent. The most awesome of every Jain temple are found in Bihar Region. In India, Bihar has a portion of the essential examples of Jain Artchitecture.*

*Jain architecture can't be certified with its very own style, for in any case it was just about a branch of the Hindu and the Buddhist styles. In the underlying years, numerous Jain temples were made abutting the Buddhist temples following the Buddhist rock-cut style. At first these temples were basically cut out of rock faces and the utilization of blocks were relatively insignificant. In any case, in later years Jains began building temple-urban communities on slopes in view of the idea of mountains of interminability.*

*Contrasted with the quantity of Hindu temples in India, Jain temples are few and dispersed out. The Jain used to separate their more prepared and harmed sanctuaries and made new ones of every comparable place. Then again Jain temples had a specific aggressor air around them, likely as a result of looters who may have diverted wealth. Encompassed by troubled dividers, the Jain temples are partitioned into wards in a way like sustained urban communities with parapets and specialties to repulse equipped animosity. Each ward thusly was watched by monstrous bastions at its closures, with an invigorated portal as the principle entrance. The reason being that Jain temples are the most extravagant temples in the world, outperforming even Mughal buildings as far as loftiness and material richness.*

*Together these viewpoints draw out the workmanship, science and theory behind the construction of the Jain temple which is as significant today as it used to be in the ancient circumstances. A congruity of custom and a science which has its root in the beginning of human consciousness.*

*India has a profound established culture and human progress returning to 5000 years ever. India's ancient yet proceeding with human advancement has entranced and hypnotized the world. Exceptionally rich and differing culture has been a subject of study over the world. A voyage through popular Jain temples in Bihar, India was made to study the visual theory in architecture of temples and symbols of Jain groups. Amid the study a voyage through celebrated Jain journey puts in particular, Patna, Vaishali, Ara, Bhagalpur, Nalanada, Kundalpur, Rajgir, Nawada, Jharkhand and Orissa were gone by over the Bihar region of India. It has been watched that all the concentrated sacred spots are remarkable for their*

*ancient history, architecture of icon and temple. The temples are of profound feeling of recommendation and the inside for peace and contemplation.*

*The present work investigates, to some degree impressionistically, the geometrical, engineering, building material and construction examination of brilliant Jain caves of Orissa and Jain temples in Bihar and Jharkhand States. Over a traverse of this time and space, the author takes note of, a masterful development and development inside "a tolerating cultural stillness that can be best comprehended with a specific mythopoeic reference that goes past the negligible actualities of history." Using these temples as nodal focuses for a photographic and intelligent study, the author has presented the inconspicuous wonders and the imaginative subtleties of the gems like plan form, elevation form, interior layout and intricate carvings of the Jain temples through his delicate focal points and persuasive explanation.*

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# CHAPTER 1

## RESEARCH BACKGROUND

### 1.1 INTRODUCTION

In the legitimate works of *Jain* (called *Agamas*), the beautiful word "*Arhat*" joins Lord *Rishabh Dev*. The religion proposed by "*Arhat*" is known as "*Arhat dharma*". This is the obsolete name of the *Jain* religion. In the ancient structure of *Vaidika*, for example, *Padmapurana*, *Matsyapurana*, *Shiv Purana*, therefore, we find the proposal for *Arhat dharma*. The verbalization "*Arhat*" remained in vogue until Lord *Parshvanath*. The lord *Sri Mahavir* was better known as '*Shraman Bhagwan*' (Dutt, 1908).

The statement of "*Jin*" is the institution of the "*Jain religion*". One who has relied on the preaching of "*Jin*" and that which follows him is called "*Jain*". Since the *Buddhism*, religion was supported by *Buddha* and *Christianity* was supported by *Jesus*, so too the religion supported by *Jin (Arhat)* was called *Jain Religion* (Dwivedi O. P., 1989). Since the follower of *Shiva* is called '*Shaiv*', the supporter of *Vishnu* is called *Vaishnav*; therefore, the admirer of "*Jin*" is called *Jain*. *Jesus*, *Shiva* and *Vishnu* are precious names. In any case, the "*Jin*" verbalization does not refer to any person. The *Jain* religion does not appreciate the evaluation of a man. He loves the genuine properties of a soul that has reached the state of "*Jin*", that is, which has destroyed the front of the *karma* in learning, in the nature and in the essence of the soul (Dwivedi R. C., 1975).

As per *Jain* religion, there were twenty - four *Tirthankars* who existed. As per *Jain* custom, Lord *Rishabh* was the first who taught the lesson of *Ahimsa* to the world. So he could be known as a reformer of the *Jain* religion or a rejuvenation of security that existed a long time ago and had a long tradition (Eisenstadt, 1984).

### 1.2 PRESENT STATE OF RESEARCH ON JAIN ARCHITECTURE

*Jain* temples of India reveal the impact of *Jains* in the country. Due to the presence of a number of *pilgrimage* sites and historical sites in *Bihar*, *Jharkhand* and *Odisha*, *Jain Architecture* has a special impact. The *Jains* have been great temple builders in India, particularly in *Rajsthan*, *Karnataka*, *Gujarat*, *Jharkhand*, *Bihar* and *Odisha*. In *Patna*,

there are thirteen *Jain* temples, which belong to both the *Swetamabher and Digamber* sects.

*Jainism* has had a critical effect on the elaboration of an agreement of logic and ethics that has had an essential effect on all parts of Indian culture through ages; from the *Upanishad* period to the circumstances of *Mahatma Gandhi*. The philosophical thoughts that are regularly considered Indian are *Karma, Ahimsa, Moksa*, restoration; these began at the school of thought of *Sramana* or were disseminated and elaborated by the teachers of *Jain*.

These ideas were later adapted to *Hinduism* and to different religions, regularly in an alternative framework and with different nuances of implications. The *Jains* have also had a major impact on the culture and language of *Karnataka, southern India* and *Gujarat* in general. The *Jains* are among the richest and the most generous Indians.

The Present day and medieval *Jains* assembled numerous temples, particularly in western India. The most punctual *Jain* landmarks were temples in light of the Brahmanical *Hindu* temple design and cloisters for *Jain* ministers. Generally, specialists in antiquated India had a place with non-denominational societies which were set up to loan their administrations to any supporter, regardless of whether *Hindu, Buddhist*, or *Jain*. Large portions of the styles they utilized were an element of the time and place as opposed to the specific religion. Thus, *Jain* craftsmanship from this period is elaborately like *Hindu* or *Buddhist* workmanship, in spite of the fact that its subjects and iconography are particularly *Jain*. With some minor varieties, the western fashion of Indian craftsmanship continued all through the sixteenth century and until the seventeenth century. The rise of *Islam* was added to affect the *Jain* Art and Achitecture but did not affect its character that badly.

Among the most important monuments of *Jain* are the caves of *Udaygiri* and *Khandgiri*, situated close to the city of *Bhubaneshwar* in *Odisha*, India.

The *Dilwara* Temple complex consists of five intricate marble temples, each one dedicated to the *Tirthankar*. Among its most important components is the *Rang Mandap*, a magnificent passage maintained by twelve columns and crowned by an imposing central vault, and the *navchowki*, an accumulation of nine rectangular roofs, equally luxuriously cut. The columns in the main hall are cut into the similarities of the

women playing melodic instruments and sixteen *vidyadevis*, or goddess; everyone has an image that speaks to his learning branch.

- *Jainism* is a trans-theistic religion endorsing peacefulness toward every living being; it started in the Indian subcontinent in the sixth century BC.
- *Jainism* has affected and added to numerous aesthetic circles in India, for example, painting, model, and Architecture.
- Modern and medieval *Jains* fabricated numerous temples, particularly in the western India. The most punctual *Jain* landmarks were temples in view of the Brahmanical *Hindu* temple design and religious communities for *Jain* community.
- Among the important *Jain* point of interest are the *Udaygiri* and *Khandgiri* Caves in *Odisha*, rock cut caves as private squares for *Jain* monks were built in the midst of the leadership of King *Kharavela* of *Kalinga* (200– 170 BC).
- Built under *Chalukya's* supervision in Rajasthan between the years 11<sup>th</sup> and 13<sup>th</sup> CE, the *Dilwara* Temple complex includes five extravagant marble shrines cut; each product is a *Tirthankar's* place.
- Ten sanctuaries in *Pattadakal*, *Karnatakawith* a *Jain* sanctuary, is a UNESCO World Heritage Site. There is a combination of different construction styles of *Hindu* and *Jain* temple.
- The *Jain* Shrine (*Jain Narayana Shrine*) was constructed by *Rashtrakutas*. It almost took the floor and height design after the *Kailasnath* shrine at *Kanchipuram*. It was a totally creative and admirable period of *Dravida's* design.
- *Jains* were, in the same way, skilled designers such as *Hindu* sanctuaries and shrines and excursion sites can be discovered throughout the country. The most important destination for *Jains* is *Bihar* region.

- In Deccan, probably the most important *Jain* temples are found in *Ellora, Maharastra and Aihole, Karnataka*.

There are a number of important historical and unique temples and structure lying throughout the country. Specifically in the region of *Bihar*, we have a number of pilgrimage sites and temples with unique features. All these were recorded, but there is no information about the Architectural feature and style known. This work is an attempt to deliberate the work of Architecture of *Bihar* region.

### 1.3 REVIEW OF THE EXISTING LITERATURE

Each style of building development reflects a clear central domain that addresses a specific culture and time. For instance, the firm and condition based building layout in *Jain* Architecture demonstrates an intricate tendency, anyway the building arranges for which is an important even by current measures depending upon their religion and legacy (Brown, 1942).

As evidence from the ancient sacred texts of *Jain*, the sanctuary is the microcosm of the universe and the enormous application is considered fundamental for the human body, the psyche and the soul; with the individual a microcosm (Hardy, 2007). The structure of the *Jain* temple presents the basic data about the science and cosmology of the period in which they were produced. It is an image of the outer universe and the internal universe. In which the outer universe is conferred to such an extent that the galactic relationship varies between the structures of the temple. The movements of the sun, the moon and the planets, while the internal cosmos is directed with respect to the perception in the core of the temple. The distinctive levels of the superstructure contrast with the levels of consciousness (Kak, 2005).

There were no cases of the use of vaults or arches in *Hindu* temple Architecture, however, curved specialties were made on the surface of the separators and occasionally carried loads from above. In the middle of the *Mauryan* administration, the stone was used as a means for segments and statues. The *Mauryan* ruler *Ashoka* (268 BC-232 BC) used stone as a means of presenting the bill and resilience known as "*Dhamma*" through stone orders and section orders. The stone decrees were cut into the living rock, which later advanced towards the opportunity to be a source of comfort for the structural exercises in the stone (Beck, 2006).

The *Tirthankars* populated their skies with a segment of the divine creatures. *Jain's* temples, in the same way, required a great deal of images presented in unique style of Architecture and for a given region and period, the design of the *Jain* temple is still different from the design of other temples fundamentally for its iconography and for some surviving to its design (Hardy, 2007).

The *Chalukya-Rashtrakuta* domain of the district toward the west understood the upper Deccan affiliations winding up greatly unmistakable from what obtained in the lower Deccan, in this way demonstrating two neighbourhood expressions. That was because the northern zone laid closer the destinations of the prior *Jainism* give in artistry and shake design. The abilities and customs that had won for over eight centuries among the close-by organizations of specialists like this proceeded in the ages that took up by *Jain* shake Architecture and surrender craftsmanship (Deglurkar).

Pranoti Kiran Meghal (Meghal, 2018) introduced *Jain* Architecture from 5<sup>th</sup> century, which is still seen in different parts of *Maharashtra*. According to 2011 enumeration, biggest populace of *Jain* dwells in *Maharashtra*. The creation was finished in the Fifth century in the Architecture, and the arrangement of material is likewise changed. This change is unmistakably seen in the above case from *Ellora* caves and Anjaneri temples as of late developed by *Shirdi* temple. At the point when separated into locales, *Marathwada* and Western *Maharashtra* indicates maximum advancement of *Jain* Architecture from antiquated circumstances, while *Khandesh* demonstrates minimum improvement while *Konkan* zone demonstrates no improvement of *Jain* Architecture. *Vidarbha* indicates improvement of a wide range of Architecture besides cave Architecture. As it may be, with change in time, new temples are getting worked in all districts of *Maharashtra* including *Konkan*. Furthermore, they are developed by utilizing current material, procedures and arranging of ideas.

#### **1.4 RATIONALE OF THE STUDY**

Art and Architecture for long have gone about as vehicles of communicating personality of a particular community or culture through their particular styles and attributes. An architectural style helps in keeping up notable coherence inside the limits of a particular culture, while again it likewise gives peculiarity to the shape in contrast with the surrounding assembled environment. All things considered, all

through the world, religion has propelled Architecture, which is obvious from the archeological records essentially in light of the fact that religious landmarks were frequently worked from more perpetual building materials (Flugel, 1999).

The Temples are, an indispensable part of the *Jain* religious and social life. The Temples are more than a position of worship. They fill in as focus of education, meeting place and a rest house for the voyagers notwithstanding typifying the *Tirthankars*.

The investigation of the Art and Architecture of the *Jains* has, lamentably, remained a subject of concern for architects and art historians. Since little work has been done on the *Jain* Architecture, the present work may end up being a search of its own style and uniqueness after critical analysis of *Jain* Caves of *Odisha* and *Jain* temples of *Bihar* and *Jharkhand*.

There is a requirement for saving the tradition, and for expanding it through procedure of modernisation. Without a doubt, there is an earnest requirement for comprehensive documentation, top to bottom investigation and intensive research in the field of the *Jain* Architecture.

### **1.5 AIM OF THE STUDY**

- Study *Jainism* through its history, ethics, values, culture and other important religions (*Hindu, Islam, Buddhism, Shikhism*) in India and elements of religious buildings.
- Study the influence of *Jain* religion and other parallel religious buildings on religious buildings and vice versa.
- Analyzing the elements of *Jain* Architecture in the *Bihar* region with reference to time and other religious buildings.
- Identifying the changes in Architectural style / construction material occurred during the various periods.
- Analyzing the influence of *Jain* Architecture on Regional Architecture.

## 1.6 OBJECTIVES OF THE STUDY

- Exhaustive study of *Jain* Religion to understand their history, ethics, culture and values.
- Study important religions (*Hindu, Islam, Buddhism, and Shikhism*) in *India* and element of religious buildings.
- To list the religious buildings in *Bihar, Jharkhand and Odisha* build by *Jain community*.
- To group these religious buildings on the basis of *Jainism* Sects and its time periods.
- To study the Architectural character of religious buildings such as plan form, elevational form and interior and exterior features.
- To study the applied building materials and technology inside and outside the listed buildings .
- To study the various catalysts that influenced *Jain* Architecture namely scale, proportion, ratio, local material, climate, socio-economic, religious belief and sects.
- To analyze the influence of *Jain* Architecture on Regional Architecture

## 1.7 RESEARCH QUESTIONS

- a) Why do we have to take *Jain* Architecture as a research topic?
- b) What is an inadequate in the current research on the proposed region of research directed up until now?
- c) How is *Jain* philosophy not quite the same as different religions of the region?
- d) Do have any contribution of the *Jain* philosophy on *Jain* Architecture?
- e) What were the Socio political exigencies in the advancement of the *Jain* Architecture?
- f) How has the *Jain* Architecture developed through various periods of *Jain* history?
- g) What are the general classifications of the structures developed by the *Jains*?

- h) What were the requirements / contemplations behind the development / formation of such structures / temples?
- i) What are the elements, which the *Jains* have acquired from the proceeding or existing architectural styles of the period?
- j) What are the elements, which obviously separate the *Jain* Architecture?
- k) Who were the artists and supporters of the *Jain* Architecture?
- l) What are the present patterns and practices of the *Jain* Architecture?
- m) What effect do have of globalization on the *Jain* Architectural pretentions?

## 1.8 HYPOTHESIS

**H1:** There is a relation between *Jain* religion and *Jain* Architecture.

**H2:** *Jain* Architecture influences the Architecture of *other contemporary religion*.

**H3:** *Jain* Architecture influences the Architecture of *Bihar* region.

**H4:** *Jain* Architecture has relation with the magnificent artistic creation.

## 1.9 RESEARCH METHODOLOGY

Based on the problem of research, the present research work is divided into two parts. The first part of research is qualitative bottom up approach. In this, author attempt to understand *Jain* history, values, culture and ethics and try to relate its implication on *Jain* Architecture. As there are several religions in *India*, so the style of all these *Hindu*, *Islamic*, *Budhhist*, and *Sikh* religion and their Architecture with time period need to be understood. The author attempt to make a relation between their Architecture, which influences each other. It categorize *Jain* Architecture and its elements as native or non-native to its style of Architecture.

Second part of research is based on quantitative type. Details of all the sample caves and temples of *Bihar* region is collected in standard format as given in figure 1.2 and annexure VI (Inventory for *Jain* religion buildings under study in *Bihar* Region).



After analysis of collected data, *Jain Architecture in Bihar region* will be concluded and it is compared with *Jain Architecture in India*. Finally, the proposed “four hypothesis” is examined for its validation.

Research Methodology							
BOTTOM UP	1	Inductive Method					
		Part -I					
		Qualitative Analysis					
		SL.No.	Literature Study				
		1	Ethics				
		2	Value				
		3	Culture				
		4	Study of Hindu Architecture, Islamic Architecture, Buddhist Architecture, Jain Architecture Style / Elements in Various part of India				
		Outcome	Impact Analysis				
		SL.No.					
	2	1	Understanding Impact of Jain Religious and other Major Indian Religion on Building				
		2	Sect Division and thus variation on Religious Buildings				
		SL No.		Digamber		Swetamber	
			Population, Socio-economic, religious belief	Interior	Exterior	Interior	Exterior
		1		Decorative	Simplicity	Highly Decorative	Decorative
		2		Nude		Cloth	
		Outcome	Broad categories of Jain Architecture				
		SL.No.	Timeline study of Jain religion and temples				
			Evolution time Period of Jain temples in India and Bihar region				
		1	Important Temples				
		2					
		3					
		4					
		Outcome	Validating appearance of Architectural style in Jains reference to time in India and in Bihar region				
	Thus Qualitative study Aim		Categorising Jain Architecture, Validating its element as native or non native in reference to India / Bihar region				

Figure: 1.1- Research Methodology (Qualitative Bottom up approach).

Source: (Author)

Part -2							
Quantitative Analysis							
1	Critical Analysis of Jain Architecture style and elements in India						
	Sl.No.	Architectural Studies	Jainism				
	1	Over all Form					
	2	Plans					
	3	Elevation					
	4	Roof Structure					
	5	Elements					
	6	Material					
	7	Constructional details					
	Result 1	Critical Analysis of Jain Architecture style and elements in India					
2	Result 2	Compare	Jainism Architecture In Bihar Region / Result 1				
3	Final Hypothesis		.=	Result 2			
				H1: There is a relation between Jain religion and Jain Architecture.			
				H2: Jain Architecture influences the Architecture of other contemporary religion.			
				H3: Jain Architecture influences the Architecture of Bihar region.			
				H4: Jain Architecture has relation with the magnificent artistic creation.			

Figure: 1.2- Research Methodology (Quantitative analysis).

Source: (Author)

## **1.10 SCOPE AND LIMITATION OF THE STUDY**

The scope of work primarily focus on the study of temples and other structures of prayer in *Jain* religion and contemporary buildings of similar nature in *Hindu*, *Islamic*, *Buddhism* and *Sikh* religion in India. The Architectural features of all these temples and other structures of prayer is discussed.

The research is limited to study of the *Jain* caves of *Odisha* and *Jain* temples of *Bihar* and *Jharkhand*. All these three *Jainism* centres are collectively termed as *Bihar* region in this research. The *Khandgiri* and *Udaygiri* caves of *Odisha* and *Jain* temples of *Bihar* and *Jharkhand* have been taken as the sample case study. The plan form, elevational form, interior and exterior features, building material and construction techniques of these structures and temples are covered under study. The analysis of these samples are only for the superstructure and not substructure.

The major limitation is that, the research is essentially based on primary sources - opinion surveys, consultation with historians and archeologists and authors own case study as well as secondary sources - literature survey. Due to constraints in accessibility of certain sources, some information might have been omitted from the study.

Therefore, the work is largely dependent on personal observation and understanding of the author as well as of the experts in various fields, along with subjective assessment of various fields of considerations.

## **1.11 OVERVIEW OF THESIS**

Chapter 1: Research Background

Chapter 2: *Jainism* and Its Relevance to Architecture

Chapter 3: Indian Major Religion, Timeline and Its Relevance to Architecture and Elements

Chapter 4: The *Jain* Temple

Chapter 5: The Geometry of *Jain* Temple

Chapter 6: Dimensional Analysis

Chapter 7: Influence of *Jain* Architecture on Regional Architecture

Chapter 8: Inference

## CHAPTER 2

### JAINISM AND ITS RELEVANCE TO ARCHITECTURE

#### 2.1 ORIGIN OF JAINISM

*Adinath* or *Rishabh Dev* is "considered as the harbinger of human progress. Since he presented the *Karma-bhumi* (the season of development); set up the social foundations of marriage, family, law, esteem, state, and so on. He demonstrated mankind the headway of land, unmistakable articulations and claims to distinction, analyzing, composing and number juggling; amassed towns and urban communities; and essentially, drove the various types of activities with a view to give another sort of social demand suggested for developing the welfare of human animals". The *Jain* most of the time express that the indigenous name of India, that is *BhArat*, comes after the name of *BhArat* the eldest son of Lord *Rishabh Dev*. He had surrendered his position of remarkable quality and had denied the world for plausibility; his other discernible young son was *Bahubali*, who is on the same path adored by the *Jain*, but not as a *Tirthankar*. From now on, the other twenty-three *Tirthankars* that ended with the Lord *Sri Mahavir* followed the Lord *Sri Rishabh Dev*.

A time-line spread of *Jain* religion in India from the 500 BC till present date is shown in figure 2.1. As per the census 2011 presently *Maharashtra* has highest population of *Jains* in India, followed by *Delhi*, *Gujarat*, *Rajasthan*, *Madhya Pradesh* and other states. *Bihar* region (*Bihar*, *Jharkhand* and *Odisha*) have only 1.02% of *Jain* Population. As it is evidence that, the *Jain* religion first started in *Bihar* and spread to other parts of India.

##### 2.1.1 Jain Architecture

The dedication of *Jain* Architecture to standard art in India has been remarkable. The extensive *Jain* temples and the extraordinary framed purposes of *Karnataka*, *Maharashtra* and *Rajasthan* are acclaimed worldwide. The *Jain* Architecture cannot be confirmed by its particular exceptional style, since it was only a branch of *Hindu* and *Buddhist* styles. In significant years, several *Jain* temples were built that flanked the *Buddhist* temples following the style of the *Buddhist* beating cut. In the beginning, these temples were regularly cleaned up by the shake faces and the use of squares in every

realistic sense was immaterial. However, in recent years, *Jains* have begun to build temple urban groups on slopes in light of the likelihood of accumulation of propagation.

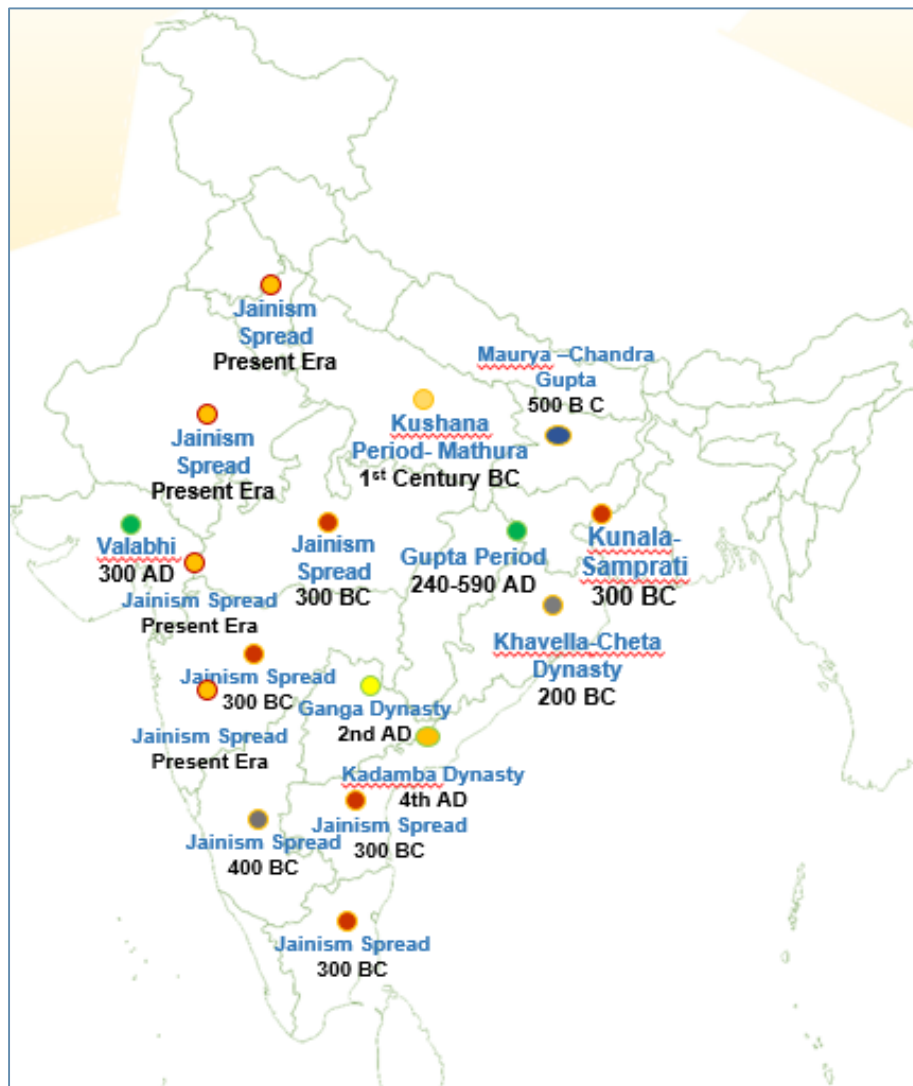


Figure: 2.1- Spread of *Jainism* from 500 BC to present date. Source: (Author)

Shown variously in association with the extension of *Hindu* temples in India, the *Jain* temples are few and remain outside. The latter used to break down the more stable, demolished temples, and build new ones on a relative site. Naturally, the *Jain* temples had a specific quality of assailant around them. The reason is that the temples of Jains are the richest temples on the planet, even surpassing the *Mughal* structures.

### ***Interior design of Jain temples***

The dedication of the *Jains* to the craftsmanship and the setting was extremely important in shaping the famous dazzling appearances, particularly in the type of paintings, temples and representations scattered throughout the country and covering a period of exploration in the perception from more reliable until time limit. The settlement of the Indus Valley (around 2300-1750 BC) is India's most provoked human progress. Mohen-Jo-Daro male seal figure also indicates existence of *Jain* religion (Shah, 1998, p. 3).

In the third century BC, the exposed and *kayotsarga-mudra*, which proposed the full gravity of photography, were related only to *Jin*. In the 1st century, with the figure of *Parsvanatha*, scheduled *dhyanamudra* inside, is in the collection of the State Museum of *Lucknow*.

In the middle of the period, new structures and iconographic features (except the *Jin*) of various deities were pointed. The parikara (casing) of the images of *Jin* is also made up of figurative frames *Navagrahas*, *Sarashwati*, *Lakshmi* and small figure *Jin*. Furthermore, the standard figures *Astapratiharyas* and *yaksa-yaksi* have been cut in the same way. Precision and folding near ornaments and other distinctive ornaments are parts of the *Jain* medieval figures (Pal, 1996).

### ***Lord Parshavanath***



Figure: 2.2 - *Lord Parshavanath Statue*

Source: (Samet-Shikhar, 2018)

Jain craftsmanships and works have the fundamental objectives of keeping up-to-date, protecting and extensively recommending the lifestyle.

*Palitana* is a standout among the different habitats for a meeting of icons. At one point recently, all the *Jin* icons were uncovered, with no signs of identification, in any case, later had inscriptions such as a lion (*Mahavira*), a hooded cobra (*Parshavanath*) and a bull (*Rishabhadev*) and so on occasionally without eight promising images on both sides to see the confirmation prints. The photographs of various lesser heavenly creatures were in like way intertwined they included demigods etc (Eliade, 1961). This symbolizes that craftsmanship is particularly basic in the conditions of *Gujarat* and *Rajasthan* in India.

The temple that makes manpower is equally notable in *Jain's* Achitecture. The great design and the *Jain* figure are found in the caves excavated in *Mathura*, *Bundelkhand*, *Madhya Pradesh* and *Odisha*.

In *Udaigiri* and *Khandgiri* various caves have been found. A piece of cells has cutting grids on the spacers. In a little bit of the cell, the floor rises to the back to fill it like a pillow. A couple of cells has low levels for the beds (Eliot, 1962). The extension of the cells is centered with authorities that receive enough light, and the cells open on a tunnel. The natural spaces of *Udaygiri* in some of caves have two floors and a patio in the front.

The best and most beautiful of the caves of *Udaigiri* is cave - 1 called *Rani-Gumpha* or *Rani*. (*Gumpha*, the word of the area to be kept). The design of the campus is rectangular, arranged on three sides of a quadrant. The highest portion of the verandah expands outward like a ledge (eaves). The areas have been cut to support the roof of the house and give the holes an effect of essential homes. Lower storey has a cell with three small caves and a gallery with columns. Two *dwarpalas* (*guards*) are prepared ready to secure on both sides of the verandah. Despite the way the columns have been separated, the capitals must be discovered with bulls and carved lions. The way to the cells are determined by the themes of the lotus and the vines that come out of the mouth of the animals. The cutout friezes that represent the social theme of a master who returns successfully from a fight embellish the rear partitions of the galleries. Work in upper

storey is superior to that of lower storey. The shape of the *Tirthankars* cut into cell separators is a subsequent expansion to the *Khandgiri*.

### **Jain Architecture in the History of India**

The *Jains*, who have contributed to the craft and design field since the early days. Statues of *Tirthankar Risabhadeva* and figure revealed *yogis* or key uncovered ideas recorded on some ceramic seals. Artifacts from the ancient Indus Valley civilization found in *Mohenjodaro*, and beyond the denudated red stone statue are equivalently old. The last one is remarkably similar to focus stone to clean up the image of *Jain* of *Lohanipur (Patna)*, sometimes attributed *Mauryan* (fourth BC). King *Kharavela* of *Kalinga* as engravings *Hathigumpha*, who has restored the image of *Jain* taken from *Magadha* to (4th century BC). During the period of *Satavahana* (60 BC to 225 AD), *Mathura* and *Saurashtra* were the central reign (Shah, 1998, pp. 3-7).

### **In the Gupta period**

It is said that the Gupta period (from 4<sup>th</sup> to 7<sup>th</sup> AD) was the splendid time of ancient Indian culture. After the period of *Gupta*; *Kakkula*, *Vatsaraja* and *Mahendrapala* were *Jains* rulers in the *Pratihara* line. *Chittod* was the capital of *Paramaras* where *Kalakacharya* and *Haribhadra* gave their lives for the change of craftsmanship and design. *Jains*, in the middle of *Candela*, *Khajuraho*, *Devagadh*, *Mahoba*, *Madanapur*, *Canderi*, *Ahar*, *Papora* and *Gwalior* line wrapped around celebrating his *Jainism* craftsmanship. Some essential incisions, *toranas*, images and other sculptural material can be found in *Tripuri*. As noted in recent times, the status of *Bihar* has been evident from the early days with regard to *Jain* culture (Shah, 1998, pp. 13-16).

### **East India**

*Jainism* has a long history since the ninth century BC just like the 23rd *Dharma Chaturyam Tirthankar Sri Parshvanath*, who focused on *Satya (truth)*, *Ahimsa (quiet)*, *Acharya (not taken)* and *Aparigraha (non-possessiveness)* that was served. *Chaturyam Dharma* was the pioneer of *Sri Mahavir's* religious and social demand. The Eastern India as needed are unequivocally preserved in the ancient history of *Jainism*. *Jainism* had a phenomenal support in the time of King *Chetaka*, the pioneer of *Vaishali*, *Bimbisar (Shrenika)* and king *Ajatshtru* of *Shishunaga* (642-413 BC), the rulers of



*nandas* (413-322 BC) and the emperor *Chandragupta Maurya* (322-298 B.C.) of the *Maurya* dynasty. In this context, it is also proposed that *Jainism* was on a similar path slandered by Emperor *Ashoka* before it was changed to *Buddhism*. He also helped to spread *Jainism* in *Kashmir*. *Ashoka's* nephew, Emperor *Samprati* was on a similar path, extended his help to *Jainism* (Ghosh, 1974, p. 69).

### ***South India***

*Jainism* reaches south India at *Shravanbelagola* 300 BC due to drought in *Bihar* region for the long time. The *sangh* moved to south under the leadership of *Acharya Bhudrabahu*. The sovereign *Chandragupta Maurya* was part of the *sangh*. *Jainism* also made an "obligation concerning the realization and gigantic during the *Vijayanagar* Empire (1336-1565 C.E.) (Ghosh, 1974, p. 92).

### ***West India***

The improvement of the *Jains* from the eastern part to the western part of India did not produce any vulnerability at some time in the third century BC. Taking after the diminution of the influence of *Jain* in the *Maurya* Empire. Some ideas of the relic of *Jainism* in the West India by the way in which Lord *Neminath*, the twenty-second *Tirthankar* of the *Jain* had attended the salvation on Mount *Girnar* in the *Junagarh* area of *Gujarat* in the second millennium BC. "In addition, ancient academic statements claim that Lord *Sri Mahavira*, the 24th *Tirthankar*, had gone to the place of *Marathavada* and *Maharashtra* in the middle of his religious journey to various parts of India". The main group of religious seriousness *Jain* met in *Vallabhi* and expressly expressed the *Jain* law.

*Maharashtra* from the third century onwards, "the decision arrangements equipped *Satavahanas* of *Paithans*, *Chalukyas* of *Kalyan*, *Rastrakutas* of *Malakhed*, *Yadava* of *Devagiri* and *Silaharas* of *Kolhapur* and *Konkan* increased their praise praised to a huge extent to the *Jain* religion". *Jains* in *Maharashtra* claim to have four essential *Siddhakshetras* (places where *Tirthankars* or blessed individuals in particular, to have *nirvana*) in *Gajapantha* (*Nasik* District), *Magitungi* (*Khamdesh* District), *Kunthalagiri* (*Osmanabad* District) and *Muktagiri* (*Amraoti* District) (Ghosh, 1974, p. 85).

## North India

With minor special cases, all of the finished *Jainism* structures was to be impeded to ensure sublime help in the middle of a couple of times fundamental to *Muslim* control in northern India. As part of its *Din-e-Elahi* approach, *Mughal* emperor *Akbar* was clearly dedicated for *Jainism*. He had rejected the butchering of animals between the days of *Paryushan* in 1583 CE. At first, *Jahangir* had denied this course of action. Again announced the same in 1610 CE. The sovereign *Shahjahan* was more tolerant of *Jainism* and allowed a *Jain* Temple to construct first. Jains have contributed the structural parts of the *Red Fort* at *New Delhi* and in the same way; they traded with the inhabitants of the area (Ghosh, 1974, p. 143).

### 2.1.2 Sects in *Jainism*

Even in this case *Jainism* was not an unprecedented case. Spreading expansive parts of India, shifting the clarifications of *Jain's* statutes, and limiting current leaders, at the time caused the marked areas and sub-fragments within *Jainism* in different inspirations that led time in its long history. The most fundamental sects in *Jainism* are known as *Digamber* and *Shvetambar* groups. The division of sects took place is about 600 years after Lord *Sri Mahavira's nirvana*.

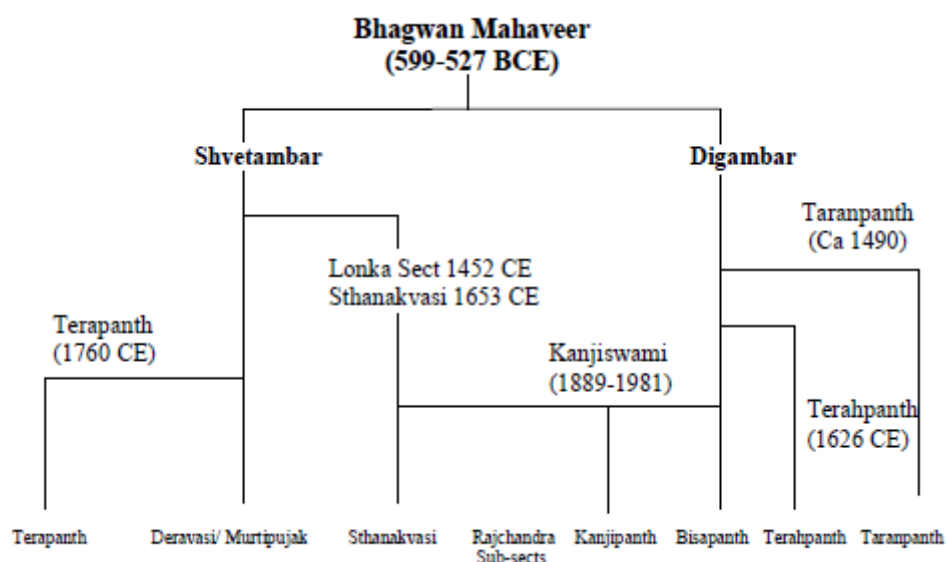


Figure: 2.3 - *Jainism*: Major Sects and Sub-sects

Source: (Sect division, n.d.)

### ***Sub-sects of Digamber***

There are three basic subsections within the *Digamber Jain*, which are in particular *Bisapantha*, *Terapantha*, and *Taranpantha*.

#### ***Bisapanth***

This is the main extraordinary sub-sect (appreciating the image) of the *janism* of *Digamber*, whose devotees strengthen the relationship of *Bhattarak* (head of religious or mythological meetings) that flourished in the medieval period from the fourteenth to the nineteenth century. The temple is based on cult icons of *Kshetrapals*, *Padmawati* and other deities along with those of the *Tirathankaras*. The *Bisapanthi* "appreciate these icons with saffron, fragrant *agargianti*. (Sangave, 2006).

#### ***Terapanth***

This reformist sub-group began within *Bisapantha* sooner or later in the middle of the seventeenth century as a restriction on the control and direction of the *Bhattaraka*. Hence, his motivation compares in the same way after the improvement of *Adhyatma* in northern India. As shown *Lath* "the *Terapanth* itself a branch of the *Adhyatma* of *Banarsi* proclaims quickly, and inverts its *Adiguru*, the creator instructor". In their temples, the *Terapanthis* show symbols *Tirathankaras* and not of *Kshetrapalas*, *Padmawati* and various deities. They worship icons with sustenance created by the oldest plant (known as *sachitta*), with the holy rice called '*Aksata*', nails of carnation, stick sandle, almonds, dry coconuts, dates, etc.

#### ***Taranpanth***

This non-reverential subquestion was created by *Taran Swamy* (1448-1515 C.E.), who suffered from *Islam* from the point of view and lessons of *Lonka Shah*, the coordinator of the subsection of meaning *Sthnakvasi* of *Jainism Swetamber* from the other. In their temples, *Taranpanthis* worship blessed coordinator fourteen books, near consecrated books *Digamber Jainism*. As for the station's capabilities, the *Taranpanthis* are surprisingly liberal and other *Digamber* subsections.

### ***Shrimad Rajchandra 'Sub-Sect'***

*Shrimad Rajchanda* (formal name *Rajchandbhai Ravjibhai Shri Mehta*) was considered to be the who started this sect. "The different emotions and practices of *Mahatma Gandhi* began from the position of his *Rajchandra Gandhi* organization towards the adjustment of women, the opportunity to reduce positions, *Satyagraha* (battle of truth) and was developed for Rajchandra.

### ***Kanji Swamy Panth***

In recent decades, another sub-band called *Kanji Panth Swamy* has emerged in *Digamber Jainism*, known by its creator, *Kanji Swamy*. The *nischaya-Naya* provides a supplement on discernment and a true method for the evaluation of the spirit with a perspective of refinement; in any case, the *vyavahar-Naya* is a short point or brief passenger leading us to modify the problems of useful life in daily existence. Highlighting the past, the *Kanji-Panth* obviously needs to force religious traditions into Jainism (Fischer, Jain, & Jyotindra, 1977).

The *panth* is similarly not perfect for the state exposed in *Jainism*. It is much celebrated with the educated class and the diasporic encounter, and its effect has spread widely. In any case, another interesting conclusion is that "the poorer and smaller *Digambers* tend to strengthen the *KSP*". However, the *Kanji Panth* has made a clear division within the social order of *Digamber Jain* in the north and center of India. The intellectuals took for granted rejecting the *Anekantavada* instruction in this context the tendency of a *naya* to the heaviness of *Sonagarh*. Moreover, *Jaipur* and *Mumbai* are the basic convergences of *Kanji-Panth*.

### ***Sub-Sects Swetamber***

As a *Digamber*, *Swetamber Jain* also isolated in three sub-sects imperatives, for particular *Murtipujak*, *Sthanakavasi* and *Terapanth*. These are quickly discussed as below:

### ***Murtipujak***

*Murtipujakas* (these people generally called Dera-vases or Chaitya-vases (Temple tenants), Mandir-Margi (frequented the temple) or Pujera (fans) were the main source of *Swetamber Jainism*. Recovered *Tirthankars* icons are extravagant decorated with materials. It is complete with flowers, common things, saffron and other things. Both male and female, religious severity wear white cloths and mouth covered with cloths while talking, otherwise keep them in hands and remain in temples or in specially preserved structures known as *Upashrayas* estimators of this subgroup are mostly concentrated in *Gujarat*, but constantly now also found in most of the cities gigantic and urban groups of India.

### ***Sthanakvasi***

This group was initially known as the *Lonka* petition developed by *Lonka Shah* in *Ahmedabad* in 1474 C.E. it was then updated in 1653 CE by a layman based in *Surat*, *Viraji*. Around that time, the devotees were known as *Dhundiliyas* (seekers). *Sthanakavasis* do not place values in the construction of temples, a symbol of love and excursion. The life of the monks uses white cloths and cover the mouth with superficial stripes. *Sthanakvasis* are generally found in *Gujarat*, *Rajasthan*, *Punjab* and *Haryana*.

### ***Terapanth***

A branch of the sub-association *Sthnakvasi*, *Terapanthi* sub-sect was developed in 1760 AD. *Acharya Bhikanji* like *Sthnakvasis*, even *Terapanthis* have no confidence in symbolizing appreciation. Since its inception nearly 250 years ago, it has been solidly administered with less than eleven progressive *Acharyas del Panth*, including the current occupant *Acharya Mahashraman*. His ninth pro-*Acharya Tulsi* (1914-1997) had earned a great name and distinction for his development of *Anubrata*, who emphasized five small guarantees in *Jainism* for the proper flourishing of the masses. For the most part, especially by accumulating areas of *Rajasthan*, *Terapanthis* are similarly a bit honest and urban communities in northern and central India (Fischer K. , 1957).

To add, there is nothing surprising that a religion indicating *Anekantvad* (fundamental relativism) should have such a variety of sects and sub-sect and that even with assortments of controversies and experiences occurring within and between them. In

addition to responses including doctrinal feelings and differentiations, open considerations, conflicts and heat modes, also have been observed and clashes between *Digamber* and *Swetamber* for even the obligation related to places.

### ***Jain Architecture Associations***

All *Jain* cults, sects and sub-classifications have their specific affiliations whose annual social affairs are managed locally, nationally or internationally. It subordinates to the level of the alliance and the needs of the moment, think of a wide range of issues related to the meeting at these events and social traditions. Thus, for example, around *Bharatvarshiya Digamber Jain Mahasabha*, for several years, had considered endless questions. For example, the need to maintain a specific character of the *Jains* recovery and proper maintenance of *Jain* sites. A prerequisite for social change within the meeting, especially as regards the marriage of young people, the sharing of framework development houses and homes for disadvantaged people. Education and opportunities for women; enthusiasm for *Mahavir Jayanti's* declaration as an open possibility in 1939 and shortly thereafter, in the mid-1950s; fortifying for the developments of *Satyagraha*, *Swadeshi* and habitual challenge of *Mahatma Gandhi*. The possibility, in a *Jains tradition* required another constitutive role and delimitation of the Council, in any case, has not increased (Flugel, Peter, 1995-96).

## **2.2 JAIN COSMOLOGY**

As indicated by the *Jain*-doctrine, the world is eternal and ephemeral. It listens just to its own laws and stays unaltered in its essential nature despite the fact that its parts change. No god has made it, ruled it and can destroy it. As opposed to most different religions, since *Jains* deny most unquestionably the existence of an imperishable, all-forceful most noteworthy "Lord" who creates the universe, rules it, and destroys it. The acknowledgment of a creator and destroyer appears to them to be unjustified and self-contradictory and must be rejected both from the perspective of logic and profound quality.

The perspectives on the nature of god are altogether different among the individual. Indian and non-Indian systems, which *Jains* have questioned and do as such, even at this point. Most importantly, *Hinduism* has delivered a wealth of different doctrines on god and his association with the world. Doctrines, which seem to have depleted every

one of the conceivable outcomes of considering, begun with the outrageous monotheism, which makes the most honed qualification between god, matter and souls. Up to the absolute best theophany for which the world is an unfilled appearance and god is everything. Three sorts of belief in god can be principally recognized. The primary view: God is a perfect, omniscient, all-powerful, inescapable, kind and favored element. Which creates and destroys the world, which is too generic but not the same as it is and controls autonomously the souls and substances in it. This view, which is to be sure near *Christianity* and of Islam. It has been pushed especially by the *Nyaya-Vaisesika*-rationalists and the scholars of various *Vaisnavite* and *Saivite* sects.

A moment gathering of systems educates: matter and souls are doubtlessly unique in relation to god at the season of the origin of the world and are managed by him. In any case, they have risen originally from god; god has formed himself into them and takes them back again into himself. These hypotheses have been proposed by the *Vaisnavite* and *Saivtaism* schools in the most extraordinary ways (Flugel, 1999, pp. 7-75).

The third view at long last takes a gander at god, *Brahma*, as the main genuine sat, the total. The majority of the marvels in the world are just a *Maya*, a fantasy, which is "developed" from the supreme being by the oblivious; actually, every soul is indistinguishable with God, and all distinction is just an illusionary appearance, as incredible as a fantasy or a *Fata Morgana*. An acosmic theophany of this sort experienced its weighty improvement in *Sarikara's Advaita*-philosophy; yet it is additionally found among *Vaisnavas*, *Saivas*, and *Saktas* and in other Indian systems. *Jain*-savants considered inside and out every one of these doctrines and attempted to discredit them in the most acuminous way.

The suspicion that the world must have a creator originates from the origination that it is a product, similar to a pot; and precisely in this way, similar to the products having a cause, the world all in all must likewise have one. As an evidence for this that the world is to be likened with natural products, it is said that it is liable to change like those. If this somehow happened to be right, then god should likewise be a product, in light of the fact that specific changes must also occur in it on account of the movement of making, pulverizing, and so on practised.

## 2.3 SPREAD OF JAINISM WITH TIME

- Lord *Sri Mahaveer*, the last *Tirthankar* is generally regarded as the founder of *Jain* religion.
- There are twenty-four *jinās* or saints who were attained *nirvana* and possessed high place in *Jain* Architecture.
- *Jina* implies "conqueror" or, then again "leader" from which the *Jain* is determined.
- One particular variety found in *Jain* temples is that they are four confronted or "*chaumukh*". Thus rather than a solitary figure with single face, one path, with one access to the cell, they gave a fourfold picture or a gathering of four different *Tirthankars*.
- This requires the holy place chamber with four entryways, which influenced impressively the layout design of temples.

### 2.3.1 Jain Architecture (3<sup>rd</sup> century B.C-17<sup>th</sup> century A D)

- *Jains* exploited its necessity in the construction of the outside and fit as a shape of *vimana*.
- They presented the colonnaded gathering of little places of worship around the four sides of the courtyard in which the primary temple stands.
- Eight to twelve columns are masterminded as an octagonal set inside a square. The dome is supported by these columns joined by section sort raking struts.
- The dome is built on flat courses with successively reducing square, laid corner to corner to each other, with "*Amalaka*" or, on the other hand decorative "*Kalasa*" at the top.
- Another innovation was the construction of flawlessly cut and marbled roof with central pendants practically like light fixtures in their delicacy and grace.



## 2.4 GODS AND CULTS

*Jainism* adopts worship of *Shakti* in a number of structures. These structures might be placed in isolation in temple.

Goddesses worshipped in *Jainism*:

### A. Less Known Goddesses:

1. Mothers of *Tirthankars*.
2. Goddess of Knowledge.
3. *Dikkumaris*.
4. *Laxmi*

### B. Broadly known Goddesses:

5. *Shasandevīs* or *Shasansundaris*
6. *Saraswati*
7. *Prabodhit Devīs* or *Dixit Devīs*.

The *Jain* philosophy perceives importance of gods and goddesses. The perceptions put forward in a few books, *mantras*, *yantras* and *stotras* plainly state it. On the off chance that look painstakingly, one may discover at each *Jain* temple gods and goddesses speaking to the chief God. They are defenders of the soul of the chief God. To start with comes a line of *Tirthankars* that makes a sum of twenty - four *Tirthankars*. They are:

Table: 2.1 - Twenty four *Tirthankar*'s detail. Source: (Tirthankar, 2014)

Sr.No	Name	Emblem	Shashan Devi	Colour	Age
1	<i>Rishabhanatha</i> ( <i>Adi</i> )	Bull	<i>Maru-Devi</i>	Golden	84,00,000
2	<i>Ajitanatha</i>	Elephant	<i>Vijaya-Devi</i>	Golden	72,00,000
3	<i>Sambhavanatha</i>	Horse	<i>Sena</i>	Golden	60,00,000
4	<i>Abhinandanathanatha</i>	Monkey	<i>Siddhartha</i>	Golden	50,00,000
5	<i>Sumatinatha</i>	Heron	<i>Sumangla</i>	Golden	40,00,000
6	<i>Padmaprabha</i>	Padma	<i>Susima</i>	Red	30,00,000
7	<i>Suparshvanatha</i>	Swastika	<i>Prithvi</i>	Golden	20,00,000
8	<i>Chandraprabha</i>	Crescent Moon	<i>Lakshamana</i>	White	10,00,000
9	<i>Pushpadanta</i>	Crocodile	<i>Rama</i>	White	2,00,000
10	<i>Shitalanatha</i>	Shrivatsa	<i>Sunanda</i>	Golden	1,00,000
11	<i>Shreyanasanatha</i>	Rhinoceros	<i>Vishnudri</i>	Golden	84,00,000
12	<i>Vasupujya</i>	Buffalo	<i>Vijaya</i>	Red	72,00,000
13	<i>Vimalanatha</i>	Boar	<i>Suramya</i>	Golden	60,00,000

Sr.No	Name	Emblem	Shashan Devi	Colour	Age
14	<i>Anantanatha</i>	Falcon	<i>Sarvavasa</i>	Golden	30,00,000
15	<i>Dharmanatha</i>	Vajra	<i>Suvrata</i>	Golden	10,00,000
16	<i>Shantinatha</i>	Antelope or deer	<i>Acira</i>	Golden	1,00,000
17	<i>Kunthunatha</i>	Goat	<i>Sri-Devi</i>	Golden	95,000 Years
18	<i>Aranatha</i>	Nandyavarta	<i>Mitra-Devi</i>	Golden	84,000 Years
19	<i>Mallinatha</i>	Kalasha	<i>Rakshita</i>	Blue	55,000 Years
20	<i>Munisuvrata</i>	Tortoise	<i>Padmavati</i>	Black	30,000 Years
21	<i>Naminatha</i>	Blue lotus	<i>Vapra</i>	Golden	10,000 Years
22	<i>Neminatha</i>	Shankha	<i>Sivadevi</i>	Black	1,000 Years
23	<i>Parshvanatha</i>	Snake	<i>Vama</i>	Blue	100 Years
24	<i>Mahavira</i>	Lion	<i>Priyakarni</i>	Golden	72 Years

These twenty-four *Tirthankars* have twenty-four "*Shasandevi*", goddesses. The Jain econography of *B. C. Bhattacharya* notices sixteen "*Vidhyadevis*", goddesses of knowledge who are less known. There are "*Dikkumarikas*" who incorporate "*Shrim*", "*Hrim*", "*Kirti*", "*Biddhi*" and "*Laxmi*". All the *Tirthankars* are related with "*Yakshas*" and "*Yakshinis*". Among the *Yakshinis*, those like *Sri Chakkeshwari*, *Jwalamukhi*, *Ambika*, and *Padmavati* are worshipped on a more extensive scale. Specially, Goddess *padmavati* who is a "*Shasandevi*" of the twenty - third *Tirthankar*, *Sri Parshvanath*. In the eleventh century of the *Vikram era*, *Shri Nayavimalsuri* addresses the goddess as *Saraswati*, *Durga*, *Tara*, *Shakti*, *Aditi*, *Laxmi*, *Kali*, *Tripursundari*, *Bhairavi*, *Ambika* and *Kundalini*. In this manner, worship of goddess *Padmavati* in *Jainism* might be identified with worship of *Shakti* in *Hinduism* (Fohr, 2001). To worship this goddess, a few *stotras*, "*kalpas*", supplications, and psalms are written. An investigation of *Jain* goddesses uncovers that these goddesses do an imperative work of quiet down obstacles and pressures and to produce welfare for individuals. These goddesses of *Jainism* are similarly more "*satvik*" or spiritual, sobre and peaceful by nature.

*Jainism* is not a worshipper of God, but rather it proliferates worship of *Tirthankars*. Masters and ministers are worshipped as gods. *Jain* temples have idols of goddesses as objects of worship. The worship indicates similitude in strategies with routine about contemplation and *mantra* scriptures. *Hemachandrasuri's* "*Yogashastra*" acknowledges worship of *Shakti* and its practice with *mantras*. For example, the "*Namskar-Mahamantra*" contains the sole embodiment of the *Jain* confidence. It contains the quintessence of the whole "*Dwadashanga Vani*". The *Namaskar-Mahamantra* consolidates in it knowledge like '*Tatva*', '*Padarth*', '*Dravya*', '*Guna*',

'Paryay', 'Nay', 'Nikshep', and so on. The whole *mantra* scriptures of *Jainism* have risen out of these *mahamantras*. Any strategy worship perceives essentiality of *mantra*. Add up to responsibility, patience, inclusion, confidence, certainty and progressions are the cardinal standards of worship by *mantras*. *Mantras* like *Biamantra*, *Kutamantra*, *Shatakshari*, *Sahasrakshari*, *Malamantra*, *Pauranik mantra*, *Nama mantra* *Shabar mantra*, *Rishimantra*, *Siddhaguru mantra*, and so on are among well-known *mantras*. The reality of the matter is that worship by *mantra* benefits a worshipper with achievements and success. The *Jain* philosophy states that unique worship and custom for Goddess *Padmavati* empowers one to secure forces of *mantras* and particular results are created with them. The *Namaskar Mahamantra* goes this way:

This *Jain Paramanta* pays respect to the five Supreme Elements like:

1. *Arhat*,
2. *Siddha*,
3. *Acharya*,
4. *Upadhyaya*,
5. *Sadhu*.

The *mahamantra* acknowledges presence of the God, *Guru* and religion. To worship this *mahamantra* is tantamount to worshipping the God, *Guru* and religion.

## 2.5 SUMMARY

The current state of anthropological / sociological writing unequivocally prescribes the need for more accurate research of *Jainism* and the group of *Jains*, which relates it to the development of its own style of Architecture. Obviously, there is a fundamental need to recognize data gaps in the anthropological / sociological examinations of the *Jain* group. The collection of a good record of reference in the group of *Jainism* people should be the main walk that is worth mentioning to build a considerable variety of human sciences compared to the subject. In addition to human examinations and social sciences, history, political science and demography are different controls that can also improve the human science research of the group of *Jain* people and the Architectural style.

## CHAPTER 3

# INDIAN MAJOR RELIGION, TIMELINE AND ITS RELEVANCE TO ARCHITECTURE AND ELEMENTS

### 3.1 *HINDU* ARCHITECTURE

*Hindu* Architecture has advanced for hundreds of years from the simple slice of sake into sacred places to gigantic and sumptuous temples that extend across the Indian subcontinent and past, giving shape to a canonical style that is still maintained in current *Hindu* temples throughout the world. The basic components of the style are the exact and congruent geometry when viewed from each of the four sides or more, the square structure and the terrain drawing of the net, removing the towers and exposing the improved mold that incorporates divine beings, worshipers, erotic scenes, botanical and geometric animals and examples.

*Hinduism* did not have a specific organizer as in *Christianity* or *Islam*. It subsumed each marvel in the immense domain of India, including even neighborhood beliefs and tribal gods, so they could even be contradictory to each other. As indicated by *Hindu* hypothesis, even *Buddhism* and *Jainism* are only orders of *Hinduism* (Banerjea, 1941).

In the field of Architecture as well, those of *Buddhism* and *Jainism*, which were raised is an indistinguishable climate from that of *Hinduism*, have no incredible aberrations from *Hindu* Architecture, making it conceivable to state that their structural systems and types of their parts are totally the same.

#### 3.1.1 Beginning and Purpose

Since the 4<sup>th</sup> AD, another type of cult or reverential known as *Bhakti Hinduism* develops on India subcontinent, and the ancient Vedic divine beings have been supplanted by Gods like *Shiva*, *Vishnu*, *Krishna*, *Brahma* and *Devi*. The sanctuary was seen as the residence of a specific god (*devalaya*). *Hindus* do not need to go to consistent services, but an accidental walk around the inner sanctuary, known as *pradaksina* and completed clockwise, was considered positive. Temples have inevitably become the particular focal objective of a network and, as required, maintenance is assured using rewards and

blessings of the type of decision, as evidenced by the numerous temples registered (Rao, 1993).

### 3.1.2 Early Influences

At that point, with the landing of the Gupta project in the 400-500 AD, the main *Hindu* temples without ties were produced with reflections, such as towers and previous niches. The main materials used were wood and ceramics; however the designer's little by little in blocks and stones, mainly sandstone, rock, and marble. No mortar was used as part of the more seasoned techniques, so a precise cut of the coated stones was necessary. The extraordinary cases of persuasives in temples merge those of Udaygiri in Malwa and date back to the fifth century of our era. The first detached temples will expire in *Deogarh* and will establish the 600 CE *Dasavatara* sanctuary dedicated to *Vishnu*.



Figure: 3.1- *Durga Temple, Aihole*

Source: (Durga temple, 2015)

## 3.2 RELEVANCE OF *HINDU* ARCHITECTURE

The *Hindu* temple is laid out as shown by the eight cardinal bearings and a divine being speaking to everybody (*dikpala*) may some of the time be spoken to in sculpture on the temples outside. Based on a complicatedly cut stage (*adhisthana*), the temple is

frequently suggested in antiquated *Hindu* messages on *Architecture* (the *Vastu Shastras*) as the consecrated mountain *Meru or Kailasa*, the residence of *Shiva* in the *Himalayas*.



Figure: 3.2- *Gopuram and Nataraja Temple, Chidambaram.*

Source: (Chidambaram-northgopuram-navalingashrine, 2016)

Early temples comprised of just a *garbhagriha*, however after some time increases were made in constructed and duplicated crosswise over temple sites to make an accepted architectural style by the tenth century AD. The most evident of these highlights were a patio entrance (*ardhamandapa*) and pillared lobby (*mandapa*) which prompted the *garbhagriha* – highlights which created in the *Deccan* from the eighth century AD. Significantly more amazing, over the *garbhagriha*, a colossal corbelled pinnacle *shikhara* was developed.



Figure: 3.3 - Brihadeeswarar Temple, Tanjavur.

Source: (Brihadeeswarar-temple, 2015)

### 3.3 TIMELINE OF HINDU ARCHITECTURE

The forerunner of *Hinduism* is called *Brahmanism*, in which just *Brahmans* (priests), the most astounding class among four varnas into which individuals were partitioned by birth in antiquated India, could middle of the road amongst gods and believers. It was basically a religion of ceremonies stressing penances of creatures to gods.

On the opposite side, *Buddhism and Jainism* were agnostic religions built up around the sixth century BC in logical inconsistency to the standing framework and the conciliatory practices of *Brahmanism*, so their temples were in a general sense spots of seeking after illumination for monks and explaining lessons to laypeople.


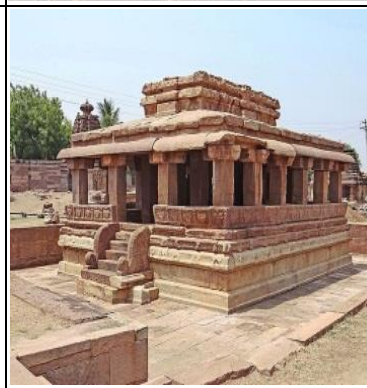
Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
1	<i>Bhitargaon</i> Temple Source: (Bhitargaon, 2017)	<i>Kanpur, Uttar Pradesh</i>	5th century AD	This is oldest temple and constructed with brickwork and still existing in India. Its features are very similar to <i>Mahabodhi</i> temple constructed in 250 BC	
2	<i>Lad Khan</i> Temple Source: (Lad-khan-temple-in-aihole, 2017)	<i>Aihole, Karnataka</i>	675 - 725 AD	<i>Aihole</i> was a meeting place of medieval times and a cradle for experimentation of <i>Hindu</i> arts, especially temple Architecture. The artisans and regional architects of the <i>Aihole</i> region have created prototypes of 16 types of independent temples and 4 types of rock-hewn shrines to express the theology of <i>Hinduism</i> in stone.	






Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
3	Virupaksha Temple Source: (Hampi, 2017)	<i>Hampi, Karnataka</i>	740 AD	A fully developed <i>Dravida</i> style of Architecture, very closely resembling <i>Kailasanatha</i> temple in <i>Kanchipuram</i> .	
4	<i>Parashurameshvara</i> Temple Source: (parashurameshvara-temple-bhubaneswar-odisha-3740, 2017)	<i>Bhubaneswar</i>	750 AD	Built in the style of <i>nagara</i> , which emphasizes the vertical structure and has all the main features of the temples of the <i>Odisha</i> style of the century before the tenth.	
5	<i>Kailasanatha</i> temple Source: (Kailasanathar-temple, 2017)	<i>Ellora, Maharashtra</i>	770 AD	It is oldest rock cut <i>Hindu</i> temples. It is India's most notable cave temples due to its size, Architecture and sculptural treatment. The Architecture of the temple shows vestiges of the <i>Pallava</i> and <i>Chalukya</i> styles.	




Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
6	Pattadakal Temple complex Source: (Pattadakal-temples, 2017)	<i>Bagalakote, Karnataka</i>	7th -8th century AD	Constructed during 7th to 8th century AD, the form of temple is asymmetric. The interior has the influence of rock-cut Architecture.	
7	Mamallapuram temples or Mahabalipuram temples Source: (Mahabalipuram, 2017)	<i>Mamallapuram, Tamil Nadu</i>	7th-8th century AD	The site have number of temples such as <i>Rath</i> temple, <i>viharas</i> , rock cut temples etc.	
8	Bhutanatha temples Source: (Bhutanatha-group-of-temples, 2017)	<i>Badami, Karnataka</i>	7th to 11th century AD	Temple with open <i>mandapam</i> and group of temples	




Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
9	<i>Mukteshvara</i> Temple Source: (Mukteshvara-temple-bhubaneswar-odisha-3735, 2017)	<i>Bhubaneswar</i>	950 AD	Culmination of all previous developments started and Initiation of a period of experimentation in <i>Hindu</i> temple Architecture that continues in whole century.	
10	<i>Lakshmana</i> Temple Source: (Lakshmana+Temple, 2017)	<i>Khajuraho</i>	954 AD	Hindu temple of the tenth century built by <i>Yashovarman</i> . It is a temple of <i>Sandhara</i> of the <i>Panchayatana</i> variety. The entire temple complex is located on a high platform ( <i>Jagati</i> ), as seen in the image. The structure is composed of all the elements of <i>Hindu</i> temple Architecture.	
11	<i>Kandariya Mahadeva</i> Temple Source: (kandariya-mahadev-temple, 2017)	<i>Khajuraho</i>	1000-1025 AD	The concept of <i>urushirnga</i> "multiple Sikhara" started with the sculptural details in the elevation at different levels.	




Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
12	<i>Brihadisvara</i> Temple Source: (Brihadisvara temple Thanjavur, n.d.)	<i>Thanjavur</i>	1010 - 1025 AD	One of the largest temples in South India and an exemplary example of a fully realized <i>Dravidian</i> Architecture.	
13	<i>Lingaraja</i> Temple Source: (Lingaraja, 2017)	<i>Bhubaneswar</i>	1050 AD	"One of the best examples of purely <i>Hindu</i> temple in India". The temple has a vast courtyard surrounded by hundreds of small shrines.	
14	<i>Rajarani</i> Temple Source: (Rajarani-temple, 2017)	<i>Bhubaneswar</i>	1105 AD	A <i>panchratha</i> style of temple on a raised platform built in red and yellow opaque sandstone.	







Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
15	<i>Nataraja</i> Temple Source: (Chidambaram temple, 2017)	<i>Chidambaram, Tamil Nadu</i>	1150-1200 AD	The temple, as it is, had a <i>pre-Chola</i> existence and the Architecture is clearly <i>Dravidian</i> with the <i>Sanctum Sanctorum</i> , which closely resembles the structures of <i>Kerala</i> or <i>Malabar</i> .	
16	<i>Hoysaleswara</i> Temple Source: (Hoysaleswara-temple, 2017)	<i>Halebidu, Karnataka</i>	1160 AD	The temple had towers at the top of each sanctuary, but now they have disappeared. The temple was built with chlorite <i>schists</i> , more commonly known as greens or soapstone. Soapstone is soft when extracted and easier to cut into complex shapes, but hardens over time if exposed to air.	
17	<i>Jagannath</i> Temple Source: (History-of-jagannath-puri-temple, 2017)	<i>Puri, Odisha</i>	1174 AD	Most magnificent temple of India and it Contains at least 120 temples and shrines.	



Table 3.1:- Time line of <i>Hindu</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
18	<i>Sun Temple</i> Source: (Konark, 2017)	<i>Konark, Odisha</i>	1250 AD	Built in stone in the form of an elegant giant car dedicated to the Sun God, the <i>Konark</i> temple presents this large-scale iconography. It has 24 elaborately carved stone wheels that have a diameter of nearly 12 feet (3.6 m) and are towed by a series of seven horses.	
19	<i>Chennakeshava Temple</i> Source: (Chennakesava-temple, 2017)	<i>Belur, Karnataka</i>	1346 AD	The temple had a tower ( <i>Bhumija</i> style), which was repeated damaged and destroyed, rebuilt and restored. This tower shape is rather rare in pure <i>dravidian</i> Architecture.	
20	<i>Meenakshi Temple</i> Source: (History of temple, 2017)	<i>Madurai, Tamil Nadu</i>	16th century AD	The temple has total of 14 raised entrances. Each of them is a multi-story structure and shows thousands of mythological stories and several other sculptures. The temple also has numerous rooms with pillars called " <i>Mandapam</i> ".	

*Hinduism*, which was built up around the start of the Common Era, was an exceptionally created phase of *Brahmanism* in readiness for hypothetical question. Retaining society beliefs and neighborhood divinities in different locales, it was a thorough going pantheistic religion in light of, most importantly, worship for the gods that began in the *Vedas*. Each *Hindu* temple has one of those gods cherished as the primary divinity, and is as hospitable to it as though it were a living personality (Davison, 2003).

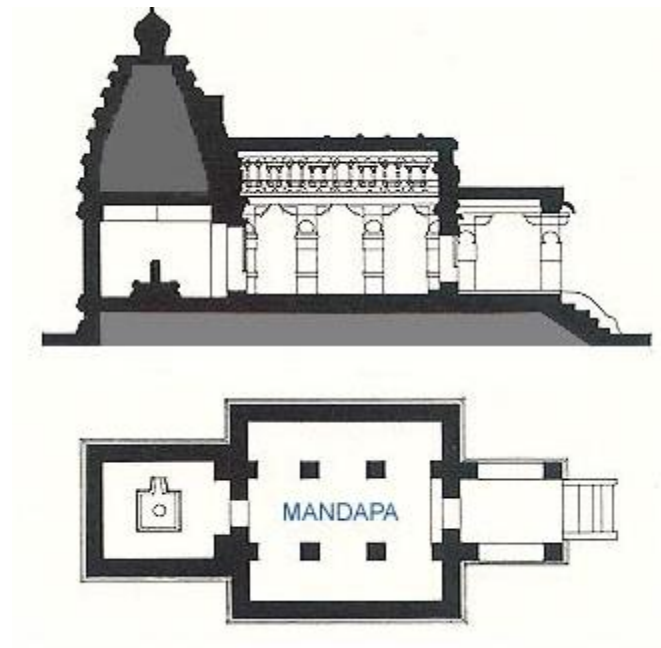


Figure: 3.4 - Principal Plan and Cross Section of a Hindu Temple (Malikarjuna Temple in Aihole, 8th century). Source: (Plan\_ba, 2017)



Figure: 3.5 - Unfinished rock-carved temples. Source: (Xpid\_eng, 2017)

### *Cave Temples and Rock-Carved Temples*

It is assumed that ancient India was plentiful in wood and most temples were work of timber, however none have survived. The ancient Architecture that we can see now is comprised of cave temples, which were unearthed into rough mountains and architecturally cut in detail. This frame was started by *Buddhist* monks and workers, executing upwards of a couple of hundred in numbers from the 2nd century BC crosswise over India (Kolapen & Kolapen , 2002).

Then again, since the *Hindus* favored model more than any of the developmental expressions, they needed to make even their architectural fills in as though forms. Solid temples, etched not as caves but rather straight forwardly upon one shake in the round in this demeanor, are called 'shake cut temples'. Begun in Mahabalipuram in the seventh century, it accomplished its apogee in the *Kailasha* Temple at *Ellora* in the eighth century. Such a sculptural character in Indian Architecture would remain as the essential component in later stone temples as well.

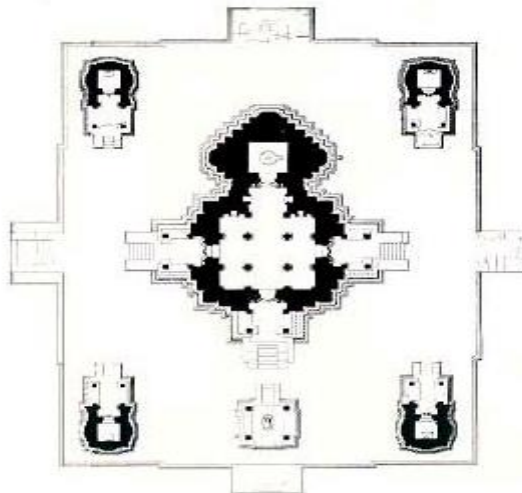


Figure 3.6:- Plan of the *Gondeshvara* Temple in Sinnar, in the *Pancha-yatana* Form

Source: (Hind\_eng, 2017)

Although the less complex *Hindu* temples did not have *Mandapas*, made up of a single *garbhagriha* (*sanctum*) running with a patio, they progressively extended to scale, according to the institution of the form. The *garbhagriha* itself did not expand, in light of the fact that it was a square room flanked by thick dividers; however it extended its game plan, surrounded by a circumambulatory passage for worship, and was surpassed



with a pinnacle laden with stones, showing its sculptural exterior view (Mookerjee, 1985, p. 180).

The *mandapa*, before the *garbhagriha*, was also, in a general sense, a square room with four pillars, which sometimes turned into an imposing hypostyle hall.

Keeping in mind the end goal to solemnize temples, designers regularly expanded the quantity of *mandapas*, setting them in a line in the front, and occasionally included an open *mandapa* without fringe dividers, the yards, and even an independent holy place for a *Nandi* (bull), vehicle for *Shiva*, all in line on the pivot.

The purpose behind this way is a *Hindu* temple was bound to have a decided pivotal heading, following the way that *garbhagriha* as a god's home just a single passageway entryway in front to be bolted around evening time. This confinement made the temple difficult to spread in four ways, and induced another strategy for the solemnization of temples, including four little independent shrines in four slanting corners on the platform, giving the whole temple the type of *Pancha-yatana* (five shrines).



Figure 3.7:- *Vishvanatha* Temple of the northern type, *Khajuraho*

Source: (Vishvanath, 2017)

### ***The Northern and Southern Types***

Through the considerable improvement of *Hindu* temple Architecture in the medieval period, equaling stone Architecture in Europe and the Middle East, its style was generally partitioned into two: the southern type and northern type. It may have mirrored the distinctions of likings between northern Indo-Aryans and southern

*Dravidians*, languages of which were in totally unique branches (Bhaktipada, 1989, p. 390). The temple that demonstrates the distinction between them most unmistakably was the outline of their towers over the haven.

In the northern Type, the pinnacle takes off in the state of an ordnance shell, which is known as a '*shikhara*'. On the highest point of the *shikhara* is a fluted plate, an *amalaka*, impersonating the state of a sacrosanct organic product, *anmalok*, and further over it is a pitcher-like *finial*, a *kalasha*. Comparative little *shikharas* with similar segments are heaped up to make a more prominent *shikhara*, rehashing this cycle in a few layers to frame the entire mind-boggling body.

Instead of this, in the southern Type, lined smaller than normal shrines make a flat story and numerous storied heaped up in steps frame a pyramidal pinnacle. Over it is an extensive hemispheric or octagonal vault like crown stone, which is known as a '*shikhara*' in southern India, truly meaning a mountain summit in *sanskrit*.

Among the southern type temples, the *Karnataka* area incited star-molded plans for *garbhagrihas* and a one of a kind frame made out of a few *garbhagrihas* and a mutual *mandapa*, showing their towers in the transitional state of the northern and southern types (Dehejia, 1994, p. 150).



Figure: 3.8 - A *Himalayan* wooden Temple at Sungra

Source: (Sim\_eng, 2018)

### ***Correspondence to Climate***

In spite of the fact that the Indian subcontinent has a place with the zone of storm to a vast degree, its substantial geographical territory incorporates decent variety from the

frosty area of the *Himalayas* to southern India in the subtropical zone through hot-dry western India grasping an awesome desert. *Hindu* temples have likewise a wide assortment relating to those climates. The first component achieving the variety is the building materials.

Central India, having countless rough mountains, turned into the most swarmed territory for cave temples. The delta districts along the Indus in the west and the *Ganges* in the east don't produce stone of good quality, so brick has been utilized as the fundamental material since the season of the Indus Valley Civilization. Brick temples in Bengal secured with earthenware boards, prepared with carvings executed on not completely dried dirt, colored towns the shade of Indian red.

Wooden temples plummeted from ancient Architecture to some degree are found in the *Himalayan* district in the north and the *Kerala* locale in the south, both are honored with much precipitation and forests. Particularly in hilly *Himachal Pradesh* there are interesting wooden temples surmounted with tapered or gambrel roofs, totally unique fit as a fiddle from stone temples in the lower Indian planes.

Be that as it may, what underlies these wooden temples is the piece of; there is no contrast amongst these and stone temple in demonstrating the dwelling place god by its wooden '*shikhara*' on a little chamber (Banerjee, Jitendra Nath, 1941).



Figure: 3.9 - *Lorojonggrang* Temple at Prambanan, *Java*

Source: (Prambanan temple compounds, 2018)

*Hindu* Architecture was conveyed to *Burma (Myanmar)*, *Khmer (Cambodia)*, *Champa (Vietnam)*, *Java* and *Bali (Indonesia)* in undefined structures from *Buddhist* Architecture. In this procedure, it produced different transfigurations as indicated by the traditions and climates.

The best illustrative case is the *Lorojonggrang* temple at *Prambanan, Java*, committed to *Shiva*. Somewhat on account of the ancient custom of precursor worship in *Java*, a 'place of god' additionally came to have the character of a mausoleum for ancestors. This is likely the motivation behind why most temples were not went with *mandapas* but rather a patio just, situated in the focal point of its podium. The type of their towers depended on the southern type, in which flat floors were heaped up in steps.

*Khmer* Architecture's transfiguration is best appeared in the *Angkor Vat*, in which the temple and Lord's tomb were joined in one. Fitting in with the '*Deve-Raja*' (god-ruler) philosophy, building its areas on an immense scale than at any other time existed in India, on a square arrangement like an augmented type of *mandala* (Michell, 2000, p. 220).

It was made conceivable by the beauty of the type of the *Chaturmukha* (four-confronted hallowed place) design created in *Jain* temples, which was conveyed to Southeast Asia alongside *Hindu* Architecture. Thus, rather than *Hindu* temples in India, those in south east Asia could spread in four directions, shaping incredible *mandala*-like designs. In the *garbhagriha* of the *Angkor Vat*, as a four-colored place of worship, there would have been cherished the God *Vishnu*. Its pinnacle is thought to have begun from the artillery shell shape of the northern type.

### **3.4 ELEMENTS OF *HINDU* ARCHITECTURE**

#### **1. Plan**

It is a roundabout, container or arch shaped. Mud and Bamboo sticks were utilized for development. Over the span of development number of plans were consolidated in the temple Architecture, for example, round arrangement, square, rectangular, circular, upsidal, stellar, and so forth. Content like *Manasara* notices thirty-two types of square plans. Plan is basic for any structural temple. Plans of the temples rely on the quantity of parts that existed inside the temple. The most straightforward arrangement of the

temple comprises of a *garbhagriha* and *sabhamandapa* or patio. This straightforward arrangement does not suggest that the structure had a place with the most punctual period. The temples developed in the later period likewise have basic plans. Development of a temple relies on the financial position of the builder. At the point when an *antarala* is included amongst *garbhagriha* and *mandapa*, at that point the arrangement of the temple comes minimal bigger. At the point when a *pradakshinapatha* (circumambulatory path) is added to *garbhagriha* and *antarala*, the arrangement of the temple ends up noticeably more extensive. At that point, it is called as *Sandhara* temple. Over the span of time, number of parts of the, temple expanded like *mandapas*, shrines for auxiliary deities; *prikaras*, and so on, and the arrangement of the temple turned out to be huge and more extensive. With the entry of *Agamas* in *Hindu* religion, the subtle elements of Architecture turned out to be more sophisticated in the temple and mirrored the principal symbolism of *mandalas*.

The *Yoga Tattva Upanishad* talks about the symbolism as far as the five essential components that constitute the material premise of the whole universe. Earth components are spoken to by a 'Square', Water with a 'semi-hover', fire by a 'Triangle', air by a 'six-calculated figure' and ether (sky) by a circle. The point without measurement dab (*bindu*) is the concentration of all vitality. The symbol in the sanctum possesses the focal position and the temple speaks to the next essential structures. The architectural subtle elements of a sophisticated temple mirror this key symbolism. The over five structures are spoken to in a *mandala* known as *Vishva-Karma mandala*, which is viewed as essential to all temple Architecture. The four sides of the *mandala* symbolize the four principle directions and the edges of the square speak to four mid-directions and each of the eight quarters is managed by a god. The internal circle symbolizes the 'Creator' (*Brahma*), which is emblematic of movement, monitored by the eight directions. The *mandala* is emblematic of the whole universe. The 'all-producer' (Creator) is additionally the ancestor. The entire mass of scripture, comprising of manuals of Architecture, figure and painting by and large are known as *Agama*. Early temples were presumed to be worked by this All-creator.

## **2. Sanctum**

The sanctum is in fact known as the *garbhagriha*, the womb house. It is an imperative part in the temple appropriate. Generally, the *garbhagrihas* are square fit as a fiddle.

Some *garbhagrihas*, which are longer, and against the standard pivot, additionally can be seen. *Garbhagriha* used to be little at the outset and could concede just a single worshipper at any given moment; however, the holy place was implied for open and the essential sanctuary, sanctum alone constituted the real temple. This kind of single cell shrines likewise can be found in the present day temple Architecture, which are for the most part committed to the mother Goddess or *gramadevatha* or *gramapurush*. The temple should comprise of a sanctum in which the God is to be introduced and housed. The structural associations close-by the temple are likewise basic for the essential worship and rituals (Rajan K. S., 1972, p. 230).

Writings like *Sri Prasna* depicts that the sanctum is the body of the heavenly nature and the symbol is its spirit (*Jiva*). Typically it is a stone structure, square fit as a fiddle and basically plain with some anticipated chunks in the divider or specialties. There ought not to be any pillars in the sanctum hall. The sanctum ought to be furnished with windows for air and light, which in the end help in conservation of the symbol. In long time past days, the wooden stucco or mud windows were given to the sanctum. The sanctum spoke to then by an unfilled low stage (*Vedi*) oblivious room. A copper vessel (*kumbha*), a conciliatory chimney (*kunda*) or an etched symbol (*bimba*) used to be put on a seat oblivious space to forestall sick impacts of weathering other than the secret of the perfect nearness in the sanctum. The sanctum was normally worked in stone; however, developments in block are not uncommon (Patil, p. 191).

*Vishnu Tilaka* notices that while the stone sanctum is the best, the block one is the following best. The wooden sanctum however is second preference and the mud sanctum is to be viewed as the most exceedingly awful.

The sanctum of the temple must be built first. Before development of the sanctum a huge function known as 'impregnating' (*Garbha-dana* or *Garbha-Nyasa*) ought to be performed. This custom includes letting into the earth a stately copper pot containing nine valuable stones, a few metals and minerals, herbs and soil (cleansed earth by ants), symbolizing creation and prosperity. The building that contains the womb is said to be prosperous. After finishing of this custom, a stone section (*Adhara-sila*) is put over the spot. The copper pot here symbolizes the womb and the symbol symbolizes the spirit. This is the centrality of the sanctum, which is known as the 'womb-house'. Writings like *Silparatna*, *Tantra-Samuchchaya* and *Isana-Shivaguru Paddhati* give a detailed

record of this custom. At the point when the course of action of the *garbhagriha* is more than one in a few temples, they are called as a *Dwikutachala*, *Trikutachala* temples etc.

In a couple of temples, anticipating sections and specialties are found in the dividers of *garbhagrihas*. (E.g. *Tambdi Surla* temple has anticipating sections and in *Mahadeva* temple at *Curdi* have specialties). The useful parts of these are for giving space to keeping certain items utilized for worship. These specialties and anticipated pieces are given by their comfort and introduction of the temple entrance e.g. anticipated pieces in *Mahadeva* temple *Tambdi Surla* were settled in the western mass of the sanctum (raise divider), while a recessed specialty was given in the *Mahadeva* Temple at *Curdi* in the southern mass of the sanctum. Some *garbhagrihas* will have a stone projection from the back mass of sanctum touching the picture kept at the inside. The pictures of deities in standing posture are of significant tallness. The focal point of gravity of such pictures falls in reverse far from the inside on the grounds that the heaviness of the back part of the *Prahhavali* is heavier than that of the front bit of the picture. Despite the fact that pictures are settled on *pithas* by embeddings anticipating join into the sockets; the likelihood of their fall can't be discounted. Under these conditions, the pictures require bolster at a more elevated amount from the back divider (e.g., Temple of *Lakshminarayana* at *Balaganur* and *Sangameswar* at *Kurdi* in *Raichur* area of *Karnataka*). Most of the temples in *Goa* have the fundamental god at the focal point of the sanctum and set over *pranala*.

### **3. Pradakshinipatha:**

All around the sanctum a passage is kept regularly limited, allowing the devotees to go round the sanctum in the standard demonstration of commitment. This circumambulatory way thusly turned into a structural contribution as the temple developed in measure; it was more open normally, as it was in the early stage. The temple, which has the circumambulatory passage, is known as *Sandhara* temple, e.g. *Jain* temple at *Kudne* and the temples of *Ponda* and *Bardez talukas* have this element. The temple, which doesn't have *pradakshinapatha* is known as *Niradhara* temple.

### **4. Shikhara**

*Shikhara* or superstructure is the best individual from a holy place. A level roof stone slab that covers the sanctum is additionally called as *Kapota*. Level roof (*Kapota*) of

the sanctum on which the pinnacle rests and rises is over-laid by a single stone slab, referred to in the texts as '*Brahma randrasila*' (the stone). This fills in as the base (*adhithana*) for the superstructure those ascents over the sanctum known as *Vimana* or *Shikhara*, which frames the vital piece of the temple. In early days, this vertical accentuation was laid on just a single tier (*prathamatala*). Afterward, number of tiers (*talas*) was added to this superstructure. It was trusted that the whole region, which the *vimana* or *shikhara* neglected was rendered sacred and the territory secured by this *shikhara*, would be prosperous. Superstructures of temples of *Kalinga* sort are straightforward with arrangement of subsiding courses shaping ventured pyramids. Another kind of superstructure that is of storied sort contains a few *talas* (stories) (Rao, 1993, p. 103) .

*Archana-Navnita*, an old content arranged these sacred spots into five sorts 1) *Svayam-Vyakta* (self-show) 2) *Daivika* (introduced by Gods) 3) *Arsha* (introduced by sages) 4) *Pauranika* (celebrated in the Puranas) and 5) *Manusha* (manmade) shrines".

**Nagara:** Actually implies squarish, cruciform in design and its Shikhara has a vertical accentuation.

**Vesara:** Circularly stressed flat perspective shape, as domical or octagonal or in the shape of vaulted roof. Another element is storied towers and tall gopuras. It is a mix of *Dravida* and *Nagara* style of *shikhara* highlights.

**Dravida:** Polygonal or octagonal (six or eight sided): It is round about in design or apsidal. General origination is that *Nagara* kind of temples wins in the land between the *Himalayas* and *Vindhya* ranges. *Vesara* kind of temples exists in between *Vindhya* ranges and *Krishna* stream. *Dravida* sort of temples exists in the middle of River *Krishna* and *Kanyakumari*.

The term *Shikhara* signifying 'Mountain top' may show that it implied '*Meru*' which means mountain or *Kailasa*, so tall and consecrated place of *Shiva*.

The North Indian *vimana* or *shikhara* is delegated by a substantial round (Wheel shaped) capstone piece known as '*amalaka*' (ribbed plate looking like an amalaka organic product, emblic myrobalan), while its south Indian partner closes in a vault (*Srng*) or wagon roof (*khakra*). The south Indian *vimana* is broader and shorter than



the north Indian vimana. The north Indian temples ascend from a platform (*Pitha* or *Jagati*), however the divider (*tiara*) and primary body (*gandi*) to the head (*mastaka*), which comprises of a rib, is surmounted by a 'skull' (*khapuri*) on which is introduced the *kalasa* (finial). What's more, finial will be seen as the weapon (*ayudha*) of the deity, a trident or a plate signal e.g. temples in *Odisha* and *Khajuraho*. The *Jain* temple at *Cudne, Goa* remains on *Pitha* (*Jagati*) like north Indian temple (Bhaktipada, 1989, p. 390).

Contrasted with the north Indian temple *shikharas*, in the *Dravidian vimana*, the stature is less underlined. The arrangement of the *virmana* could be round or square. It could likewise be six-sided or eight-sided. It transcends the sanctum with level roof of the sanctum (*bhumika* or *kapotha*) as its base (*adhisthana*). Here and there, in any case it incorporates the zone secured by the circumambulatory way round the sanctum and also the rectangular porch quickly before the sanctum. Its mass lays on a square base called bolster (*adhisthana* or *pitha*) and ascends through adapted treatment of dormer windows in a few tiers to a vault shaped pinnacle (*shikhara*) surmounted by a dome (*Srnga* or *Stupi*)

## 5. Kalasa

It was an old custom to introduce a crowing part as a conciliatory 'Vase (*Kalasa*)' made of metal. *Kalasa* indicates a characteristic of exaltation. It possesses the highest piece of the temple underneath the *Ayuda*.

## 6. Porch

The rectangular porch before the sanctum sanctorium (*mukha-mandapa* or *mukha-sala*) is a pillared hall, enabling the lovers to stand and watch the worship rituals as they are directed inside the sanctum. At the point when the temple ended up noticeably famous and enthusiasts expanded, the sanctum required extra hall and this porch turned out to be just a vestibule (*antarala*). Its principle work is to suit more enthusiasts of the temple. The porch (vestibule) is structurally interfacing the sanctum with the extra hall (gathering hall). Like the *antarala* before the sanctum, a low raised structure called '*Sukhanasi*' delegated *antarala*. It is raised before the *Shikhara*, which remains on sanctum appropriate. Dissimilar to the sanctum secured by level roof stone slabs, *antarala* is additionally filled in the comparable way, which fills in as the base

(*adhithana*) for the super structure. *Mahadev* temple at *Tambdi Surla* is the best case for antarala with *sukhanasi*. Here the level roof slabs are organized in light sort (*Kadlikakarna*) and two rotative squares (*trabeats*) put consistently in subsiding way to lessen space for ceiling and secured at the best with wonderfully cut lotus stone (*Padmasila*). This sort of ceiling, find in the sanctum of a similar temple and sanctum and porch of the *Mahadev* temple at *Curdi*. Despite the fact that the *Khandepar* caves are solid up to the stature of *kapotha*, trabeat framework was appeared in the alleviation of the ceilings of sanctum and porch; however, they are not structural temples (Rajan K. V., 1981, p. 336).

## 7. Door

Door is another critical factor in temple Architecture. The doors of the temple should dependably be two framed and the two are depicted as mother and daughter. *Brihat-Samahita* endorses that the door must be situated amidst the front divider and that it must be an indistinguishable way from the symbol. As indicated by *Agnipurana*, the door should dependably be set in one of the four directions and never in the corners (Tulasi, 2011).

*Dwiira-Sakha* (doorjamb) is single framed in early temples without much ornamentation. Ornamentation created in the later period in the door panels, and it got comfortable as *Sakhas* in temple Architecture, for example, *LataSakha*, *PatraSakha*, *PushpaSakha*, and so on.

### 3.4.1 Structural components of *Hindu* Architecture

In the temples of northern India, the sanctuary or *garbhagriha* is designed on a raised base, or a plinth (*pitha*) on which is the plinth (*vedibandha*). The entire temple complex, including the *mandapas* and distinctive consecrated sites, is usually erected on a portico (*jagati*) that sometimes has essential dimensions. The sanctuary has a level roof on the inside and the superstructure is generally empty from the inside to reduce weight.

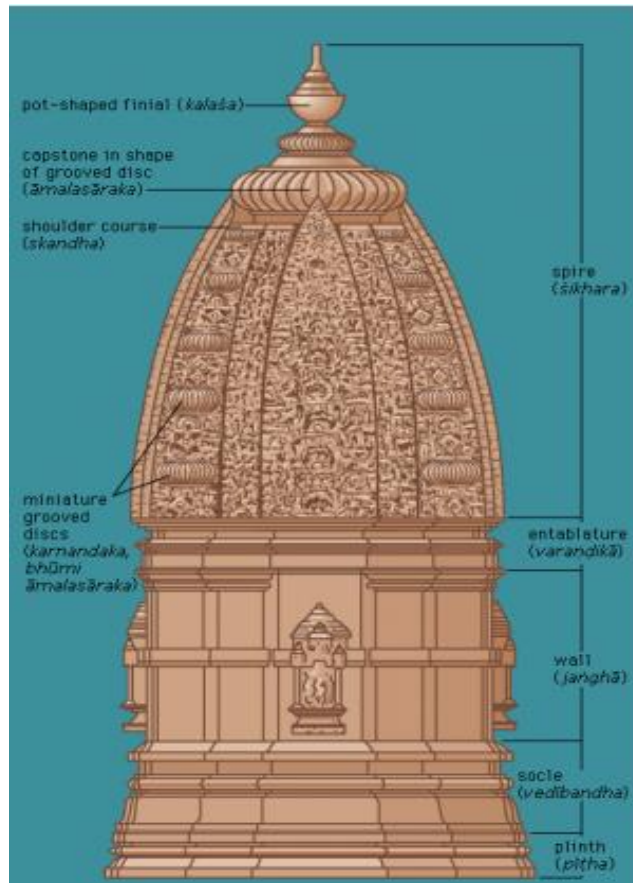


Figure: 3.10 - Various features of the north Indian temple

Source: (North Indian temple, 2016)

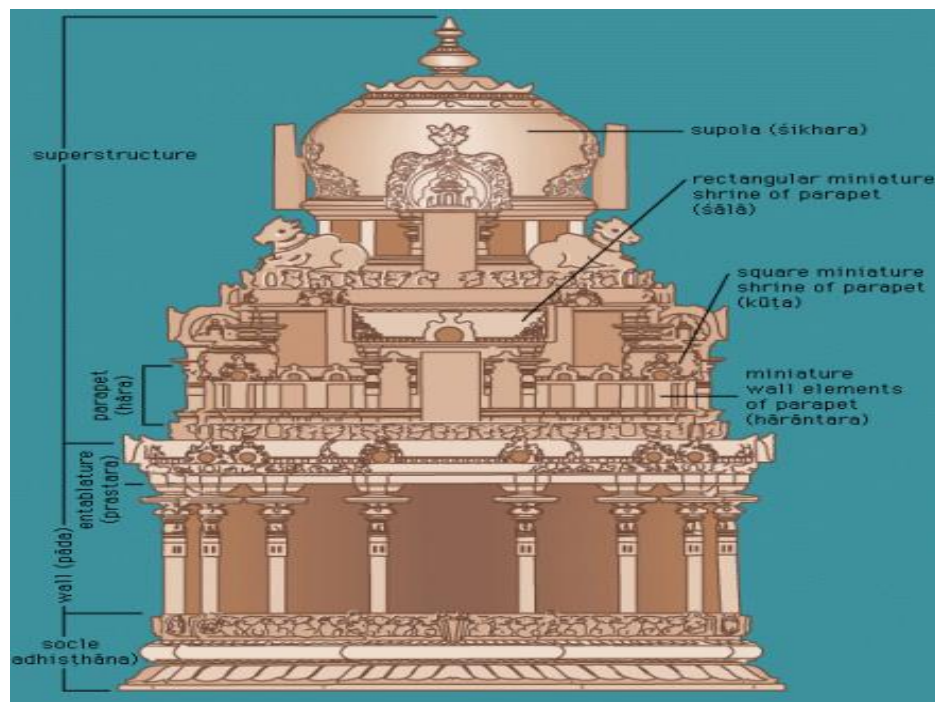


Figure: 3.11- Various features of the north south temple India

Source: (South Indian temple, 2016)

### ***The base or the Pitha***

The *Hindu* temple base consist of the moulding. These frame levels are groups that contrast with the block courses that support the walls and the excellent structure of the *Hindu* temple. In the design of *Hindu* temples, mouldings do not exist as edges or adjustments of the various components, but as components with older components. These are more like the architrave, frieze and cornice of an established pediment than the mouldings inside these.

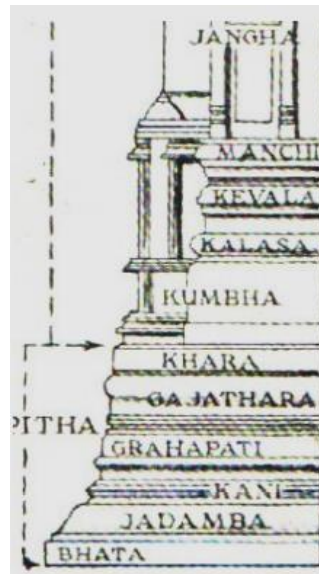


Figure: 3.12 - Base-moulding features of the north Indian temple.

Source: (Hardy, 2007)

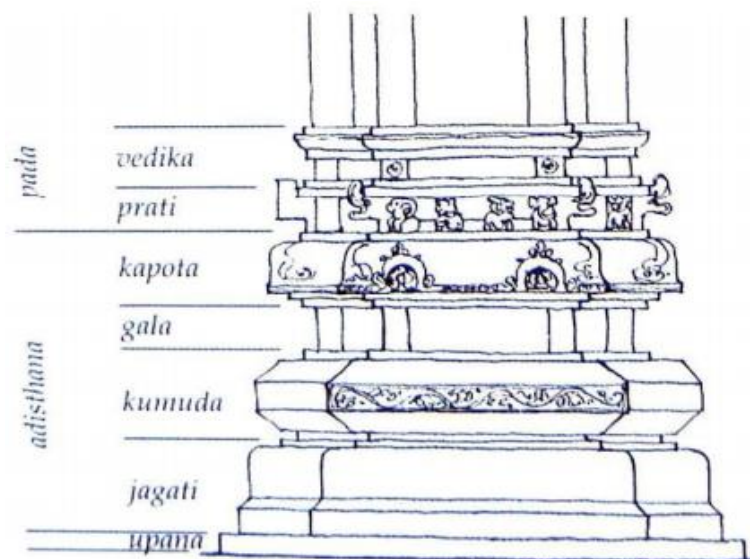


Figure 3.13:- Base moulding features of the south Indian temple.

Source: (Hardy, 2007)

### *The Supporting Elements*

The temple is composed of tall, thin, separate columns that support the roof, beams and temple structure. Columns are not the parts that represent *Hindu* temple Architecture like classical western Architecture. It is difficult to organize Indian columns, as there is no specific provision of the section. The contours of the columns of every age and style have intertwined in various ways, but one of a kind, which has passed from one period to another or switched to new ones. The Indian scriptures orchestrate the columns in their transverse area. Cross-sectional area varies round and polygonal square (faceted) through scalloping (corrugated), lobed, star and phase (Hardy, 2007). Development and collaboration widely isolate Indian columns on five essential components to be precise; writing columns as, tall, square, round composition, Ghata-*Pallava* pillow columns and *bharaṇa* columns.



Figure: 3.14 – The cushion type of column.

Source: (Hardy, 2007)



Figure: 3.15 – The *Ghatapallava* type of column. Source: (Hardy, 2007)

However, the unmistakable Indian columns are composed of parts designed vertically, similarly to cut the temple base and is usually seen in all periods and styles. The basic parts of the columns are: bar (*Uttara*), the highest segment of the segment is the pillar, and these are the rays of the base temple. The region below is the section, that supports the columns. The section indicates the direction of the pillar and shortens the path between the columns. This section leads instead of the pillar directly and acts as a shock absorber for limited loads. Head or capital segment is called *ghata*, a regulated part or swelling that is fixed by the neck and the shoulder section (*Lasuna*). This information works like a mattress for the pile of structures. Under the bone and the pair is *Lasuna* band, a pan, *malasthana* and down band of another level. These two components are inseparable and are cut by a square of solitary stone.

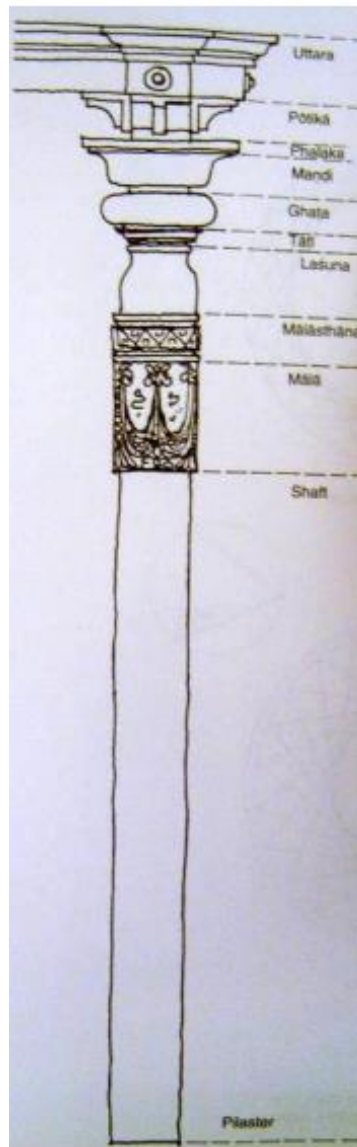


Figure: 3.16 – The different parts of the columns. Source: (Hardy, 2007)

### ***The Superstructure or the Shikhara***

The Latin Shikhara is curvilinear in the graph and consists of the plane of one on the roof tiles of the other level. The surface of the entire sikhara is ensured by a vine-like interwoven work, made of a modest candrasala of fantasy. Shikhara decreases in the best of cases and is hit by a regular course (*skandha*), above which a roundabout (*griva*) forms, which passes over a vast wrinkled circle called *amalaraka*.

The *phamsana sikhara* has a rectilinear frame and is worn in stature in contrast to the *Latin* one. It also includes slabs and is fixed by a part in the form of a tall part, which is called *ghanṭa*.



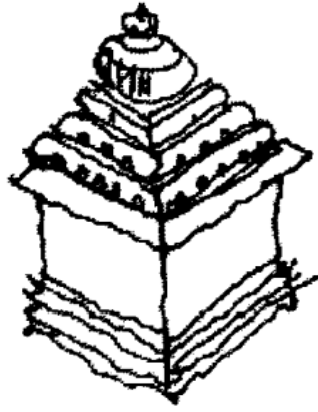


Figure: 3.17 – The phamsana type of shikhara. Source: (Hardy, 2007)

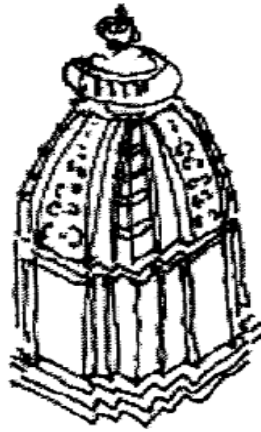


Figure: 3.18 – The *Latina* type of shikhara. Source: (Hardy, 2007)

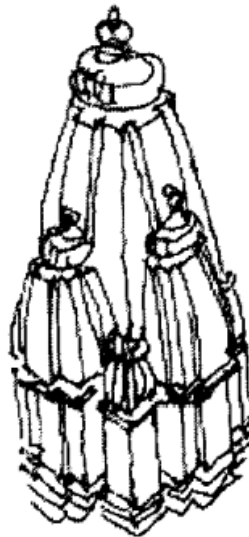


Figure: 3.19 – The *Sekhari* type of shikhara. Source: (Hardy, 2007)



In the 10th century, another type of *shikhara* or tower created called *sekhari*. In this part, in the form of a tower created *Latin* focal of at least a row of half needles including the sides and on the bottom hung with spirals. Corners present here are loaded with spirals, the whole mass of the carved masonry reminiscent of a mountain with lots of auxiliary peaks (South Asian arts, 2018). Temple in northern India, *Latin* and *sekhari* are generally in the holy place and *phamsana* are usually found in the *mandapa*. In the temple of south India, the super structure is that of the script of *kutina* and *shala*. The super structure has a pyramidal shape and is part of adventurous stories. Each story recreates the main story and imagines that it has its "wall" enclosed by a parapet. In antiquated temples, these adventurous stories of the superstructure with its parapets proved increasingly ornamental, so that over time they became very enriching groups around the pyramidal superstructure (South Asian arts, 2018). The vented structure surmounted by a strong arch or dome or a roofing vault. The first is *kutina* and the second is the *shala* script. The structure is delegated with a pot and finial.



Figure: 3.20 - Shikhara of the south Indian temples. Source: (Hardy, 2007)

### ***The Mandapa and the Pillared Hall***

The first *Hindu* temple will have a portico in front of the sanctuary. The most important temples have no less than a mandapa, the group of spectators before the fundamental sanctuary. The mandapa can be closed or opened with one or two corridors. In the middle of the 7<sup>th</sup> and 8<sup>th</sup> century, the mandapa have level ceilings generally set with huge slabs of stone. The space between the columns was solved in the introduction taking into account the rationality of extraction and transport. The stone slabs for the material have been cut down into dazzling models, continuing with the use of stone cutting. In the temple of northern India, in the mid-ninth century, the mandapas were based on the hypothesis and geometry of the *vastupurashamandala*. The mandapa reflects the central plan of the place of the fundamental cult, the focal abyss of the mandapa orders the course of the action and has a width indistinguishable from that of the *garbhagriha*. A distinctive type of roof motifs, including most light ceilings, has generally been perceived.

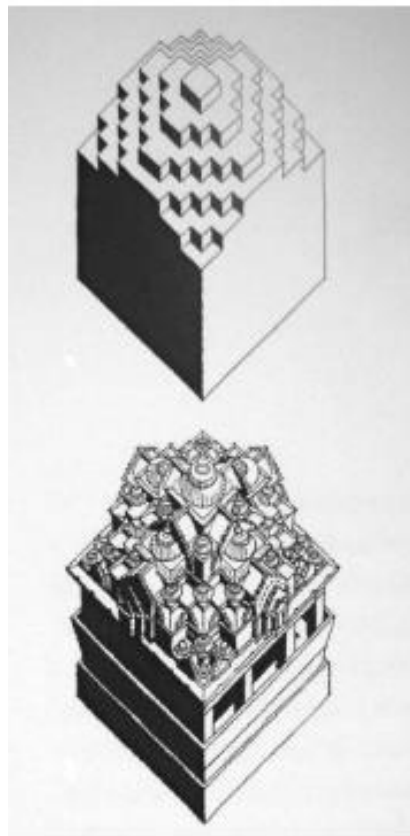


Figure 3.21: – The north Indian temple mandapa form. Source: (Hardy, 2007)



Figure 3.22: –The north Indian temples mandapa. Source: (Vardia, 2008, p. 39)

### 3.5 ISLAMIC ARCHITECTURE

So far, there is no archaeological confirmation of the primary *Islamic* structures on Indian soil. Which, in all probability, were delivered by the triumph of Sindh in the eighth century. Despite the fact that, the elimination in the introduction was embraced in Bhambor (Pakistan) and in another place could possibly discover the Daybul site. The structures after the start of the twelfth century, whatever it is, clearly demonstrate the response of the *Muslims* to the indigenous construction. Because the traditions of symbolic sanctuaries, with their abundant representation of flourishing figures, their unhappiness and mystery, or more the whole idea of love they suggested, was an abomination to *Islam*. (Alfieri, 2000).

The most of the *Islamic* construction in Delhi, there was reuse of material looted by *Hindu* and *Jain* sanctuaries. The main illustration, the *Al-Islam Quwwat Mosque* in Delhi, is actually based on a sanctuary foundation, and somewhere in the range of twenty-seven shrines were attached to give segments, separators, roofing materials and ceiling; the figures drawn were mutilated or divided into divisions that the untwisted sides of the stones were all that could be seen.

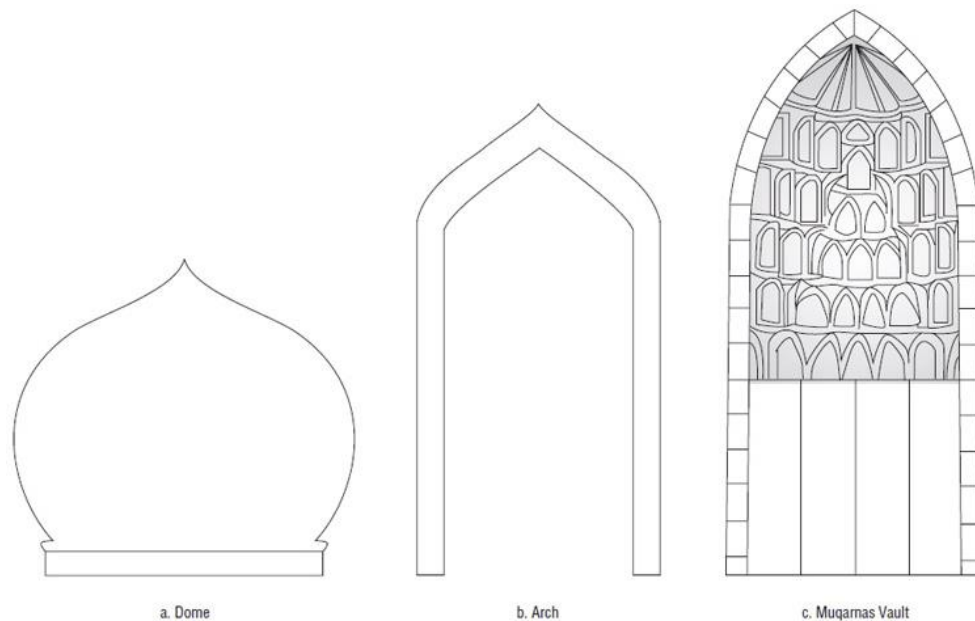


Figure: 3.23 – *Islamic basic Architectural Components.*

Source: (Basic Architectural components, 2017)

### 3.6 TIMELINE OF ISLAMIC ARCHITECTURE

#### *How Did It Begin?*

In the seventh and eighth centuries, *Islam* spread to *Spain* and *India*. *Islam* arrived in *India* mainly with sellers, merchants, celestial men and debtors. Despite the fact that in the eighth century the *Muslims* had begun to develop in *Sindh*, *Gujarat*, etc. The development of *Turkish* was initiated by the *Turkish* state, founded after the *Turkish* success in the country. Until the thirteenth century in north, an essential part of these relocations and victories was that *Muslims* consumed many highlights of nearby culture and tradition and consolidated them with their own compositional highlights (Grover, 1996, p. 190).

Thus, in the field of Architecture, a blend of numerous basic procedures, adapted shapes, and surface improvements occurred through consistent intercessions of acknowledgment, dismissals or changes of building components. These building elements or classes displaying different styles are known as Indo-Saracenic or Indo-*Islamic* Architecture. By the twelfth century, *India* was at that point acquainted with fantastic development in pompous settings. Certain strategies and embellishments were common and mainstream, for example, trabeation (the utilization of shaft instead of

arches or vaulting), sections, and numerous columns to help a level rooftop or a little shallow dome. The arches in early developments were molded in wood and stone, and were not able to manage the heaviness of the domes / top structures. Such arches should have been built with voussoirs (arrangement of interlocking squares) and fitted with cornerstones (Volwahren, 1970, p. 190).

By following the tradition of the Prophet, i.e. building a mosque when they begin to possess another settlement. Change of structures utilized by the general population before the *Muslims* assumed control over the state/nation, for e.g. *Hagia Sophia* in *Istanbul, Turkey*.

*Islamic* Architecture is the whole scope of Architecture that has advanced from *Islam* as a social, political and religious wonder. Thus the term includes religious structures and also mainstream ones, noteworthy and in addition present day articulations, and the creation out of every other place on earth that have gone under the fluctuating levels of *Islamic* impact.

At the time of the *Muslim* victory, India was a land full of usual inventiveness: shrines and cloisters multiplied *Hindu* places of worship and dimensions taken into account for all purposes. Every slope and spring, urban areas were rich and specially laid out, *Hindu* rulers had worked for their strength and imperial residences, and the remaining portions of the early periods of Indian human progress, for example, *Hindu*, *Buddhist* and *Jain* surrender sanctuaries and *Buddhist* stupas and religious communities were different.

The field of *Islamic* Architecture is a key case of this rich heritage. As an aspect of Islamic development, Architecture is a natural verbalization of solidarity of beliefs and Islamic finds that considers social and common boundaries. This address presents the historical setting of *Islamic* societies through their most materialistic signs: an authoritative Architecture that lasted for fourteen centuries and in three continents Asia, Africa and Europe. *Islamic* Architecture as a chronic convention and as a social implication that has influenced and has been influenced by developments with which it has come into contact. Since the *Islamic* in west along the Atlantic and the Mediterranean Sea to the far east Asia, Architecture has shown the encapsulation of *Islamic* research results into various structures and styles at once, which are creative virtuoso.




Table 3.2:- Time line of <i>Islamic Architecture</i>					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
1	<i>Cheraman Juma Masjid</i> Source: (Cheraman-juma-masjid, 2017)	<i>Kodungallur, Thrissur, Kerala</i>	629 AD	(Possibly Foundation stone year by King <i>Cheraman</i> but Completed possibly 680-700 AD by <i>Malik Deenar</i> who was a disciple of <i>Hasan Basri</i> who was born in 642AD). It is the first mosque in India.	
2	<i>Palaiya Jumma Palli</i> Source: (kilakarai the oldest mosque in india, 2017)	<i>Kilakarai, Tamil Nadu</i>	628-630 AD	The oldest mosque in Tamil nadu. It is also known as <i>Meen Kada Palli</i> or <i>Old Jumma Palli</i> .	
3	<i>Jama Masjid</i> Source: (Great Mosque Budaun, 2017)	<i>Budaun</i>	1223 AD	This mosque reflects <i>Persian</i> and <i>Afghan</i> Architecture. The floor is in white marble. This mosque is the third oldest and second largest mosque in the country after <i>Jama Masjid in Delhi</i> . The central dome of the mosque is considered the largest for any dome of the mosque in the country.	






Table 3.2:- Time line of <i>Islamic Architecture</i>					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
4	<i>Kazimar Big Mosque</i> Source: (Kazimar-Big-Mosque-in-Madurai-India, 2017)	<i>Madurai, Tamil Nadu</i>	1284 AD	One of the oldest and Second mosque in <i>Tamil Nadu</i> .	
5	<i>Adina Mosque</i> Source: (Adina-mosque-malda, 2017)	<i>Maldah, West Bengal</i>	1363 AD	The largest mosque in South Asia built by <i>Sultan Sikandar Shah</i> at that time.	
6	<i>Atala Mosque</i> Source: (Atala-mosque-jaunpur-1408, 2017)	<i>Jaunpur</i>	1408 AD	The architectural style of <i>Atala Masjid</i> is known as <i>Sharqi Style</i> . The use of minars was avoided in <i>Atala Masjid</i> .	






Table 3.2:- Time line of <i>Islamic Architecture</i>					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
7	<i>Sidi Saiyyed mosque</i> Source: (Siddi-saiyed-mosque, 2017)	<i>Ahmedabad</i>	1573 AD	The mosque is completely arched and is famous for its trussed windows ( <i>jalis</i> ) of ten beautiful windows carved into the side and back arches.	
8	<i>Charminar</i> Source: (Charminar, 2017)	<i>Hyderabad</i>	1591 AD	Four fluted minarets with profusion of stucco decorations and the arrangement of its balustrades and balconies.	
9	<i>Fatehpuri Masjid</i> Source: (Masjidfatehpuri, 2017)	<i>Delhi</i>	1650 AD	The mosque had canalized dome with <i>mahapadma</i> and <i>kalash</i> at the top.	



Table 3.2:- Time line of <i>Islamic Architecture</i>					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
10	<i>Jama Masjid</i> Source: (Jama-masjid, 2017)	<i>Delhi</i>	1656 AD	It has similarities to <i>Buddhist</i> pagodas and is constructed in Persian style.	
11	<i>Aasfi Masjid</i> Source: (Bara_Imambara, 2017)	<i>Lucknow</i>	1784 AD	Also known as <i>Bara Imambara</i> , its Architecture reflects the maturation of ornamented <i>Mughal</i> design	

### 3.7 RELEVANCE OF *ISLAMIC* ARCHITECTURE

The Islamic rule in India has also seen the introduction of many new elements in the style of construction. The first buildings of the slave dynasty did not use authentic styles of *Islamic* construction and consisted of false domes and false arches. Then, authentic arches and authentic domes begin to appear; the oldest illustration is *Alai Darwaza* next to *Qutb Minar* (Desai, 1970, p. 110).

These designs were cut on a stone with little modification, cut into plaster, painted or inlaid. The use of lime as a mortar was also a remarkable component distinct from the conventional construction style.

The Architecture of the tomb is also another component of *Islamic* Architecture since the act of internment of the dead was adopted. The *Mughals* also made huge gardens on different levels and terraces in the design of the *bagh* (garden). The academics follow the progress of the example *bagh* to plant the first *Mughal* country, *Kabul Valley*, where landscape and territory, gardens and housing complexes were established. The *Mughals* purchased this script from the garden and transformed it beautifully according to the new lands in India. For the *Mughals* they are also credited with having introduced the dual-vaulted dome-style Architecture and *Dura* stone-cut decorations (Parihar, 1999, p. 255).

### 3.8 ARCHITECTURAL ELEMENTS OF *ISLAMIC* ARCHITECTURE

Each *Islamic* structure, for example, a mosque, is made out of various spaces and infrequently it is conceivable that new spaces to be added as an option to different structures.

**Mian Sara (courtyard):** is an important element for *Islamic* Architecture. The vast majority of the mosques, schools, and caravanserais, have a focal courtyard or yard. Mian Sara had two important aspect in the Islamic period: First, it could fulfill *Muslim's* requirement for a place to preform bathing and purging in the mosques. Second, it could isolate the working from the commotion and movement regular day to day existence by putting the attention on the inside of the building.

**Ravagh:** Covered spaces that are set around the mosque's overskirt or Mian sara. The passage of such spaces is towards the overskirt and associates the mosque's entrance to the Shabestan or the vault.

**Dome:** A dome covering has various qualities in *Islamic* Architecture and has had more capacities than some other covering.

**Stellar Shabestan:** They don't have much stature and are typically set around the domes. These Shabestans are planned in a way that they could be extended or made littler by including or evacuating sections.

**Minaret:** Minaret or Minar implies the place of light, and is utilized to allude to high structures that were normally set near religious structures, for example, mosques (Kiyani 2007). Prior to the development of *Islam*, minarets were worked between the urban areas and fires were lit upon at that point, and they were called guiding towers. Later on, that *Islam* turned into the prevailing religion, minarets were assembled wonderfully and a *Mazene* was put over it (Al-Naghsh, 2001, p. 45).

**Passage:** In *Iranian* Architecture, the section propylaeum and the finials were one of the most unmistakable and fundamental visual components. In such structures, the endeavor was that the section be additionally striking in appearance contrasted with others around. The withdrawal in the entryway of the mosques welcomes individuals in and invites them.

In the eighth century, in the great mosque of *Damascus*, the minaret had become a cornerstone of *Muslim* religious Architecture. The *Islamic* Architecture could be linked to the components of the scheme that are accompanied:

- Large domes
- Minarets or towers (in the eighth century, in the great mosque of *Damascus*, the minaret had become a fundamental component of *Muslim* religious Architecture)
- Large courtyards they often converged with a corridor of focal attraction
- Use of geometric and monotonous craftsmanship (*Arabesque*)
- Wide use of animated *Arabic* calligraphy

- Use of symmetry
- ablutions of wellsprings
- A *mihrab* inside the mosques shows the course towards *Mecca*

We can recognize the components of the *Islamic* Architecture that wound up plainly significant impacts in the cutting edge plan as:

- **Calligraphy:** Because the images were forbidden as an architectural device, several *Arabian* couplets were engraved on the walls, in the form of calligraphy and embellishments. These are still used in several current buildings. They add to the magnificence and give a spiritual and academic atmosphere to the place.
- **Domes:** Perhaps the most perceived factor in *Islamic* Architecture, they continued to appear without the bomb, in the *Islamic* world at any time. They are still used in current buildings where the planner wants a gigantic space inside and does not have the desire to limit himself to inflexible forms. The domes have proved to be representative of the *Islamic* world and have two main symbolic meanings: representing the vault of paradise and the divine force that overwhelms the enthusiastic and physical being of the trustworthy. It also had a utilitarian use that had to emphasize specific areas such as the ship or the *mihrab*, while it also illuminated the interior of the building.
- **Minarets:** The towers around the buildings enhance the splendor and give a majestic appearance to the structure that is located in the middle. The oldest remaining minaret is the *Qal'at* of *Beni Hammad*, built in 1007 in eastern *Algeria*. It was luxuriously enriched with an opening that gave light and which diminished the weight of the structure, different types of arches were used in the frames of these windows, including the clover, the semi-round and the poly-lobed arches.
- **Vaults:** It is an architectural curve that forms a roof or a roof that allows to have a roof over a large space made of bricks, stone or rubble. Types of arches were used by the Romans, but the *Muslims* refined them so that they could manufacture more and more. They did times that were so strong, but better with walls of thinner curtains, so they let in more light. The great mosque of *Cordoba*

was the launching pad for many European Architecture. Its wide vestibule of polychrome arches, horseshoe-shaped and at the intersection, cross vaults and domes, all developed towards the north, and it is significant that the ribbed vaults do not appear in the churches that existed at that point. The first ribbed type of vault was used in the 13th century *Abbasid* palace of *Ukhaydar* in *Iraq*.

- A four-iwan plan, with three subordinate halls and one essential one that countenances toward *Mecca*.
  - *Mihrab* or supplication specialty on an inside divider was demonstrating the heading to Mecca.
  - *Pishtaq* is the formal passage to the iwan, as a general rule the essential supplication corridor of a mosque, a vaulted lobby or space, walled on three sides, with one end entirely open; a Persian expression for a portal foreseeing from the facade of a building, typically embellished with calligraphy groups, covered tilework, and geometric designs.
  - Iwans too widely appealed between various pavilions.
- **Arches:** It is essential element in Architecture because they enclose large spaces while supporting huge loads. Being strong and adaptable, they have become larger and larger, and today *Greek, Romans, and Byzantines* were acquired by the *Islamic* who had great plans for their mosques and palaces. So, they grew new forms like the horseshoe, multi-thwart, pointed, and ogee curve, which was urgent for architectural progression. *Muslims* were so certain of their mastery of the curve that they did some spectacular experiments with forms and techniques of its construction – one of these was the intersecting arches, which gave an extra structural element.

### 3.8.1 Architectural Ornamentation

The ornamentation incorporates epigraphs, verses of holy book, brickwork and geometric ornamentation and calligraphy. Arabesque designs are selective to *Islam* and are made from two elements; interweaved designs and vegetable plans. Interlaced designs are basically a grandstand of geometric idea. While the vegetable plans are an indication of endeavors to diagram weight, and since they are comprised of interwoven shapes, one might say that it has been enlivened less from a genuine vegetable than a simply linear method (Imeni, 2011, p. 142).

### 3.8.2 Spiritual Foundations

It incorporates the accompanying elements:

**Space:** The Muslim designer considers the rhyme of climb in every one of his structures and looks to rise above from the natural domain and come to a more prominent and more significant space. They likewise free himself from the progressions and advancements of this world.

**Shape:** The universe is comprised of certain however inconspicuous truth and it will come back to it. Shapes have dependably been in the ideal immaculateness and flawlessness; it is this virtue and flawlessness that qualities Architecture with a supernatural trademark and conveys it near the pictures of the other domain.

**Symmetry:** Symmetry in Architecture is propelled by nature. Symmetry itself comprises of two sorts: vertical and even. In vertical symmetry the pictures of the building was made so utilizing the waterfront, and in even symmetry wall inverse to each other are indistinguishable.

**The Orientation of the Mosque:** The entire building is arranged towards Qibla. The pivot of *Mosques* towards the close-by rows originates from a similar regard.

**Absence of Orientation:** Rather than the general view that is arranged towards Qibla, the inside of the mosque is totally without orientation and plans to regard the absence of any visual segregation in the mosque by either total majority or outright straightforwardness.

**Color:** Although the *Muslim* model focuses on the visual importance of colors. It exhibits the aggregate solidarity of space by the differentiating colors set other than each other. It is motivated by the perspective in such a utilization of colors. Teacher Pope says so in regards to colors: "In the vast majority of *Islamic* periods, the utilization of various and vivacious colors achieved such a stature and agreement, to the point that was never observed. Such an extreme reliance on colors is required by the viewpoint and the landscape" (Pourjafar, 2014, pp. 10-19).

**Light:** Light enters the mosque using glass in the windows and spirituality to the space.

### 3.9 BUDDHIST ARCHITECTURE

The religion that began in India was faced with so many different structures. It was adapted into such a vast assortment, to the point that it is often difficult to see how the various organizations of *Buddhism* are connected. When religion changes and adapts, the *Buddha* is loved: *Buddhism* began in today's India, where it became a composed religion proven by priests, nuns and laity (Kashyap E. B., 1958).



Figure: 3.24 - The Eight Great Places of *Buddhism* (Four Great Places are plotted in red). Source: (Images, 2017)

Maintaining the ultimate aim of welcoming the degree of achievement of the *Buddha*, we must strive to imagine what life was like in the first months in India, especially in towns and villages in the Ganges river valley, such as *Kapilavastu* at the foot of the *Himalaya* Mountains, is now the country of Nepal. This is the district, where the *Buddha* was probably conceived; around 560 BC consistently, the current has dominated the valley by destroying crops. The storms also came every year, making devastation.

The *Brahmins* (*Hindu* priests) chanted *Vedic* chants (the most established writings of *Hinduism*) and penances offered fire to *Brahma* (*Hindu* divine power of creation). In any case, they have not updated the conditions for the typical man. From the most specific circumstances, the *Hindu* society was stratified. The castes settled the economy firmly with the *Brahmins*, the managers and the performers of extremely positive by their social order.

### ***The middle way***

One of the greatest spiritual conquests of the *Buddha* was the beginning of the middle way. He discovered the regulation of the middle way simply after having lived for a long time as ascetic. This experience has convinced him that the extremes must be avoided.

Karma transgresses beginning with one life and then the next. Determine how a being (major or minor) will be renewed. Karma is not predestination because the possibility of predestination does not consider an unbridled decision. Current circumstances are controlled by events from previous life, but there is a total opportunity between the present and the future. The upward compactness is possible.

A being can experience the *Buddha* and have a privileged point of view in human domination. How can salvation be achieved? Everything is short, everything is intermittent, everything is distressing. *Nirvana* is the usual name for what is not *samsara*. Where is *Nirvana*? There is no place *Nirvana* is out of the vertical thinking of the universe (I.B.Horner, 1975-77).



### 3.9.1 The main branches of *Buddhism*

Over the centuries, two major branches of *Buddhism* have emerged: a transmission that was established in southeast Asia and a transmission that has progressed in east Asia. A new branch of transmission from the north has also been created. Each of the three branches started in India and grew even more when they crossed Asia. They are known as *Buddism Budd Theravada* and *Mahayana Budd Buddhism* (Smith, 1966-72).



Figure: 3.25 – The Stupa Sanchi, India. Source: (Stupa at sanchi, 2017)

### 3.10 ENLIGHTENMENT OF *BUDDHA*

*Buddhists* visit the stupas to achieve rituals that help them achieve one of the most significant goals of *Buddhism*. To understand the teachings of the *Buddha*, known as the four noble truths (also known as the *dharma* and the law) so that when the pelvis kicks it stops being accelerated in samsara, the infinite cycle of birth and death (Cowell, 1973).

The Four Noble Truths:

1. Life is suffering (suffering = rebirth).
2. The cause of suffering is desire.
3. The cause of desire must be overcome.
4. By the time the desire is overcome, there is no more suffering.

Actually, *Buddha* means "the enlightened One" and the learning that the *Buddha* learned on his path to enlightenment that *Buddhist* practitioners individually seek to travel to enlightenment (Buddhadatta, 1980).

### ***The circle or wheel***

One of the earliest *sutras* (a collection of sayings accredited to the *Buddha* that forms a religious substance) account that the *Buddha* gave specific instructions regarding the correct strategy for respecting their remains (*Sutra del Maha-parinibbana*). *Buddha* ashes had to be kept in a stupa at the intersection of the incredible four incredible ways (the four directions of space), for the purpose of fire rotates motionless, the place of the enlightenment.

### ***Circumbulation***

The devotee does not enter the stupa; it is a solid protest. Instead, they surrounds him (walks through it) as a meditative work focusing on the teachings of the *Buddha*. This development suggests the infinite cycle of resurrection (*samsara*) and pathway (eight guidelines that help professionals) that lead to learning the four noble truths and the central focus of the fixed focal point of the wheel illustration.

The devotee can walk around the stupa or move through a series of prostrations (a development that lowers the body of the expert on the ground in a submission position). A torrid and indirect movement around the stupa increases the temperature of the body. Practitioners do this to reflect the brightness of the fire that burned the body of the *Buddha*, a process that resumed burned the bonds of egocentrism and association with the ordinary world and without complications. Attachments to common domination are considered obstacles on the path to enlightenment.

## **3.11 BUDDHIST MONASTERIES**

### ***The work of the monastery***

However, in *Buddhism* and Christianity, instead of statues, monks or nuns beg for the benefit of the general public. The monastery usually becomes the spiritual center of the city or the nearest city. In *Christianity*, the monks ask God for the salvation of the souls of the living. However, in *Buddhism*, there is no understanding of the soul. The goal is

not heaven, but the cessation of the infinite cycle of resurrection (*samsara*), to reach *moksha*, which is the opportunity or the release of the association with the internal identity or the material world and the conclusion of *samsara*, and recognize *nirvana* ., which will be released in the interminable state of unity with everything.

### **3.11.1 The four noble truths or *dharma*s**

It is difficult to reach *moksha*, which is why the *Buddha's* teachings focus on achieving enlightenment or learning that helps way to *moksha*. This is briefly described in its four noble truths, as also mentioned *dharma* (law):

- Life is (suffering = resurrection).
- The cause of suffering is desire.
- The cause of desire must be overcome.

Just when desire survives, it is no longer (suffering = resurrection). The skilled practitioners of *Buddhism* understood that only one in two people had been established to perform the rites necessary to obtain the authorized purposes of the consummation of *samsara* (resurrection). However, the typical person could improve their karma (an activity or action that establishes a cycle of cause and impact) through standard altruistic acts that, for the most part, were planned for the religious group. *Buddhist* monks and nuns considered and prayed in the interest of the secular group (or average citizens, practically all those who were not priests or priests), those who did not have specific data on certainty, helping them to achieve the goal of understanding the four noble truths. Monks and nuns also instructed the lay expert on the most capable strategy for coordinating rituals, on how to think about them and advising them on which divine nature of *Buddhism* to focus (this depended on the problem or obstacle in the specialist's path to enlightenment). The people, therefore, supported the monks with donations of sustenance and other necessary goods (Kashyap B. J., 1960).

### ***The beginnings of monasteries***

In the early years of *Buddhism*, following the practices of contemporary religions such as *Hinduism* and *Jainism* (and distinctive beliefs that never existed again), the monks engaged in an ascetic life (a routine with respect to a specific search for self of religion or spiritual goals) that envelops the country without endless homes. They were fed, dressed and hosted in the harsh atmosphere by people who want to justify themselves, who earn spiritual credit through virtuous acts. In the end, the monastic complexes were made for the monks close enough to a city with a real purpose of obtaining alms or charity from the villagers, far enough not to be disturbed in the midst of contemplation.

### **3.12 ELEMENTS OF *BUDDHIST* ARCHITECTURE**

1. **Stupa** - The first was the stupa, an important element in *Buddhist* Architecture. On an incredibly basic level, it is an internment track for the *Buddha*. The first stupas contained the ashes of *Buddha*.
2. **Vihara** – Second was construction of *vihara*. It is *Buddhist* monastery, which contained a residential complex for the monks.
3. **Chaitya** - Third was the chaitya, a campaign of assembly that contained a stupa (however a discharge of relics). This has become an essential component for the monasteries in central India. The focal passage of the *chaitya* was designed to contemplate the circumbulation of the stupa.

#### **3.12.1 Temple Elements of the of Buddhist Architecture**

##### ***Roof shapes***

Multiple levels of the roof are a basic component of the *Thai* temple. The use of multiple decorated levels is provided for roofs in temples, castles and open basic structures. A couple of levels are used routinely; however, some glorious temples have four. The use of multiple levels of the roof is more elegant than useful. Because the temple rooms are large, their roof regions are huge. To help the roof look, the smallest level is the largest, with a smaller focusing layer and smaller roof to finish everything. Multiple levels in each roof: a roof with two layers can have 2-4 breaks in each level.

### ***Rivets on the roof***

Most of the decorations are attached to the bulletin board; the long, thin edge at the end of the roof at the end of the pinnacle. The enriching structure is known as *lamyong*. The *lamyong* is streaked in a wavy and sinuous *sadung* shape drawn by the *naga*. His forehead as the projections called *bai raka* recommends both *naga* blades and *garuda* feathers. Its lower end is known as *Hang Hong*, which usually looks like the head of a detached *naga* and looks from the ceiling. The head of the *naga* can be drawn in flames like *kranok* motifs and can have different heads.

## **3.13 TIME LINE OF BUDDHIST ARCHITECTURE**

### ***Ashoka: the first King to embrace Buddhism***

The special sites for King *Ashoka* (304-232 BC), the first ruler (of northern India) to capture *Buddhism*, were also an essential for the functioning of the monasteries. *Ashoka* included one of his famous pillars in this area: proclaiming his pillars claim to *Buddhism*, and served as educational objects in the *Buddhist* belief system.

A *vihara* was home or perhaps some stories, in front of a terrace with columns. The cells of the monks or nuns have been designed around a focal meeting room as in the *Ajanta vihara* arrangement (left). Each cell contained a stone bed, a pillow and a specialty for a light.

With a specific purpose aimed at perceiving the right point in which the *Buddha* attained enlightenment, *Ashoka* has built an important precious stone position (actually *vajrasana* gemstone seat) emphasizing the indestructible form of *dharma*.

### **3.13.1 Buddhist Monasteries in India**

In India, in the first century, many monasteries were established as learning centers sites currently associated with the *Buddha* and *Buddhism*. These sites come together in which the *Buddha Lumbini*, *Bodh Gaya* where lord *Budhha* attained enlightenment and learning *Dharma* (the four noble truths), and *Sarnath (Deer Park)*, where lord *Budhha* delivered his first discourse sharing the *dharma* was conceived, and *Kushinagar* in which Lord *Budhha* kicked the container.

### 3.13.2 The Historical Buddha

#### *A Human Endeavor*

Among the founders of the great religions of the world, *Buddha* was the principal instructor who did not claim to be another typical person. The distinctive teachers were God or simply inspired by God. However, the *Buddha* was an immaculate human being who came to be seen in a religion definitely meant to be superhuman. Man's position, as *Buddhism* shows, is supreme. Man is his particular teacher, and there is no being or superior control that judges his destiny. If the *Buddha* should be known as a "savior" by any creative effort, it is simply in the sense that the Lord *Budhha* has discovered and shown the way to an opportunity, for *Nirvana*. It is with this level of individual responsibility that the *Buddha* offers an opportunity for his disciples. This change of thought is exceptional in the history of religion and is necessary because, as the *Buddha* demonstrated, man's freedom depends only on the affirmation of truth, and not on the merciful magnificence of a God or an external power as a reward for his submission to behavior (Cunningham, 1963).

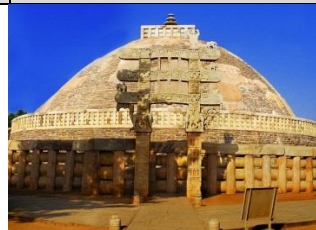
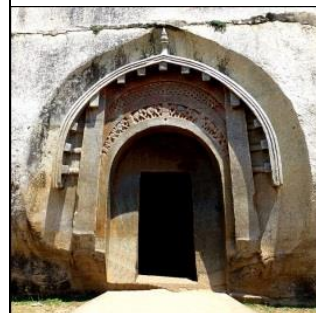
Table 3.3:- Time line of <i>Buddhist</i> Architecture					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
1	<i>Sanchi Stupa</i> Source: (Sanchi, 2017)	<i>Sanchi</i>	3rd century BC	It is the oldest stone structure of India and built by <i>Ashoka</i> .	
2	<i>Lomas Rishi Cave</i> Source: (Barabar-caves, 2017)	<i>Barabar Hills, Jehanabad</i>	3rd century BC	The cottage-style facade at the entrance to the cave is the first survival of the cave or <i>chandrashala</i> " <i>chaitya</i> arch", which has been an important feature of Indian sculptural Architecture and sculptural decoration for centuries. It is considered by many scholars as "the prototype of the <i>Buddhist</i> caves of Western Deccan, in particular the structure of the <i>chaitya</i> hall built between the 2nd century BC and the 2nd century CE". Example of <i>Hinayana</i> Architecture.	




Table 3.3:- Time line of <i>Buddhist</i> Architecture					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
3	<i>Mahabodhi</i> Temple Source: (Mahabodhi temple, 2017)	<i>Bodhgaya, Bihar</i>	250 BC	Originally established by <i>Ashoka</i> , and then expanded during the second to the seventh century AD. Its present pyramidal structure dates back to the <i>Gupta</i> empire, in the 5th-6th century AD	
4	<i>Dhamek</i> Stupa Source: (Dhamek Stupa, 2017)	<i>Sarnath</i>	249 BC	<i>Dhamek</i> built with a substantial core of bricks, but facing a solid "shell" of stone masonry. It was rebuilt later in 500 AD	
5	<i>Ajanta</i> Caves Source: (Welcome to Ajanta Caves, 2017)	<i>Aurangabad, Maharashtra</i>	200 BC - 480 AD	The caves of <i>Ajanta</i> are ancient monasteries and worshipers of different <i>Buddhist</i> traditions carved into a 250-foot rock face. Both developments of <i>Hinayana</i> and <i>Mahayana</i> are in <i>Ajanta</i> . It began to understand the durability and stiffness of stone as a building material; its understanding gave a streamlined Architecture	








Table 3.3:- Time line of <i>Buddhist</i> Architecture					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
6	<i>Amravati Stupa</i> Source: (Intro, 2017)	<i>Vijaywada, Andhra Pradesh</i>	200 BC - 300 AD	The <i>Amravati</i> art school has had a great influence on art in <i>Sri Lanka</i> and Southeast Asia. It also had influence on the southern Indian sculpture.	
7	<i>Barhut Stupa</i> Source: (Bharhut, 2017)	<i>Satna, Madhya Pradesh</i>	125-100 BC	One of the earliest examples of Indian and <i>Buddhist</i> art, later of the monumental art of <i>Ashoka</i> (about 260 BC), and a little later of the first reliefs of Sunga on the railings of <i>Sanchi Stupa</i> .	
8	<i>Takh-I-Bahi</i> Source: (Takht-i-Bahi, 2017)	<i>Mardan, Pakistan</i>	1st century BC	Considered among the most impressive relics of <i>Buddhism</i> throughout <i>Gandhara</i> and a prominent representative of the Architecture of the <i>Buddhist</i> monastic centers of his time.	

Table 3.3:- Time line of <i>Buddhist</i> Architecture					
Sl.No.	Name of structure	Place	Period (Circa)	Description	Image
9	<i>Ghantashala</i> stupa Source: (Into the Glory of Ghantasala, 2017)	<i>Vijaywada, Andhra Pradesh</i>	1st century BC	The stupa is of an exclusive design that recalls the Architecture of the <i>Satavahana</i> periods and is also known as ' <i>Maha Chaitya</i> '. It is a brick arrangement that forms a cubic solid placed at the center that is embellished with twelve signs of the zodiac.	
10	University of <i>Nalanda</i> Source: (Nalanda (Mahavihara), 2017)	<i>Nalanda, Bihar</i>	5th to 12th century AD	A large <i>Buddhist</i> monastery in the ancient kingdom of <i>Magadha</i> . The excavations revealed eleven monasteries and six large brick temples arranged in an orderly manner.	

### 3.13.3 The *Buddha Shakyamuni*

*Shakyamuni Buddha* is the creator of the *Buddhist* religion. He lived and was educated in India in the sixth century BC, a period of prosperity of religious and philosophical thought from Greece to China. Conceived as the ruler of the crown of the immense Kingdom of *Shakya*, the young *Siddhartha Gautama* was prepared to be a teacher according to the wishes of his great father. However, when she was about twenty nine, he learned about the significant suffering experienced in life by people. He left his life as an imperial resident; he abdicate his beautiful clothes and gems to discover the causes of this suffering and the means to overcome it.

#### ***What does this statute say?***

The *Buddhist* figure talks with signals of hands and body. *Shakyamuni's* correct hand stretches out descending to contact the earth. This motion speaks to the minute in which he called the earth to witness his amazing quality in the territory of illusion (*maya*), the incomparable God of the world (*samsara*), who had attempted to divert him from his consideration. Accordingly, the earth shook and shivered to detect the acknowledgment of *Shakyamuni's* Buddhahood. *Shakyamuni's* left-hand rests in his lap in a signal of reflection and holds his charity bowl.

#### ***How was this sculpture used?***

This style is essentially the same as can be found in *Tibet*, as it has been instructed by *Tibetan* craftsmen to *Mongolian* specialists and takes after the strict and positive benchmarks of customary *Tibetan Buddhist* iconography. *Tibetan* consecrated workmanship dependably meets a religious point of confinement. This figure, as the majority of the *Tibetan* work, can be utilized as a part of reflection as a manual to envision the brightening of one, and in addition of different creatures. Sacrosanct model gives the master guide access to the *Buddha*. Once he is formally enabled as the embodiment of the *Buddha*. It is thusly conceivable to get adoration, offers, admissions and petitions of each assortment of the expert. These sacrosanct pictures are welcome to have a state of regard in a *Buddhist* conciliatory stone, both at home and in a religious community. There they transform into a condition of experience for examination and custom.

#### 3.13.4 Development of the *Buddha* image



Figure: 3.26 – Architectural element showing the *Buddha's* first sermon. Source: (Development of the Buddha Image, 2017)

There is a significant verbal meeting regarding the improvement of the *Buddha* image: where it happened for the first time, why and when. Understandably, the photo of the *Buddha* created in the middle of the early CE in two critical centers of Indian craftsmanship in the middle of the *Kushana* period. One of the main region of artistic creation was the old district of *Gandhara*, an area that includes the north-west of India, and today parts of *Pakistan* and *Afghanistan* (David's, 1969).

Amidst the *Maurya* time frame, in the period of the sovereign *Ashoka* (272-231 BC), essential landmarks and different show-stoppers were carved in stone, clearly from nothing. While stone carvings, similar to the tremendous segments delegated with pictures of lions and wheels, communicated imagery and on *Buddhist* themes, there are no *Buddha* pictures of this period. Various researchers have theorized that there was an aneonic period (without icons) in *Buddhist* elaboration, where there was abandonment against the picture of the credible *Buddha*, and a few images supplanted an unequivocal human portrayal. A few researchers have deciphered story reliefs in early *Buddhist* landmarks to show old *Buddhist* parades or devours, where an iconic images, instead of human images, dedicated to the *Buddha*.

Not all researchers perceive these speculations, autonomously. It appears to be likely that different kinds of religious imagery, in *Buddhist*, *Hindu* and diverse settings, have been made of transient materials beforehand made of stone. When in doubt, the momentous refinement and the peculiar condition of the sculptural abilities communicated in the *Maurya* stone figure infer that the sculptural convention was then uncommon today. The incomparable way and *Buddhist* tendencies of the sovereign *Ashoka* may have been the principal unprecedented instigators of a change to a sweeping stone figure in India.

### **3.14 SIKH ARCHITECTURE**

The history of *Sikh* Architecture began with *Guru Nanak Dev Ji*, the first *guru* of the *Sikh* tradition in the *Punjab* region of the Indian subcontinent. Religious practices were formalized by *Guru Gobind Singh Ji* on April 13, 1699. These latter baptized five people of different social backgrounds to form *Khalsa*. The first five, Pure: One then baptized *Gobind Singh* in the fold of *Khalsa*. This gives the order of *Khalsa*, a history of about 300 years.

History of *Sikh* Architecture is closely associated with the history of *Punjab* and the socio-political situation in the northwest Indian subcontinent of the sixteenth century (present-day *Pakistan* and *India*). During the *Mughal* domination of India (1556-1707), *Sikhism* was in conflict with the laws of the *Mughal* Empire. Affecting the political successions of accumulated Mogul, while the saints of Hinduism and Islam. Eminent *Sikh* gurus have been killed by Islamic rulers for refusing to convert to Islam and opposing the persecution of Sikhs and Hindus.

#### **3.14.1 TIMELINE OF SIKH ARCHITECTURE**

In the series of developments made by *Sikh Gurus*, the *Sikh* town /cities were made in various historical layers. The town of *kartarpur* (now in *Pakistan*), *khadoor*, *Goindwal*, *Tarn Taran*, *Amritsar*. The development of the city *Amritsar* in the *guru* period was in the pattern of bead and thread. The site was selected by the third and the fourth *Guru* for development of the town. The city was planned on the basis of the topography of the town, climate and vegetation, the regional linkages available to connect new settlement with the main cities like *Delhi* and *Lahore*. The fourth *Guru* formed secular city and the religious complex. The construction of the religious complex was

undertaken by fifth *Guru*. Further, the sixth *Guru* developed *Akal Takhat*, *Lohgarh* fort and *Bibeksar*. So, during the succession of the various *Gurus* the city developed in the linear form; although the overall form was conceived by the fourth *guru*. The city took form in the bead and thread pattern in which different nodes acting as the beads and the streets or linkages connecting them acts as the thread weaving those beads.

All the spaces to be used as socio-religious purposes are based on specific functional zones, which are further based on the spatial philosophies that describes for how the spaces are to be designed. This may be understood by knowing how the various zones are to be put together or to be arranged in particular manner that suits them best as per concept / design philosophy of these spaces. The basic design philosophy in any religion for designing of religious structures is pre-defined with set of rules and regulations. For example in *Hindu*, *Muslim* or any other religious Architecture typology, the design is based on mythic-spatial design. In *Hindu* temples, the zones are divided in set pattern. The various zones like - *mandapa*, *garbhagriha* etc have the special significance with respect to their location and use. Many a times these encapsulating zones divide the space in fixed pattern in which the use of the space is defined. Similarly, in *Muslim* Architecture, in Indian sub-continent, the western face has to be kept closed with a deep arched niche to pray in the direction of Mecca.




Table 3.4:- Time line of <i>Sikh</i> Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
1	<i>Golden temple</i> Source: (Golden Temple, 2017)	<i>Amritsar, Punjab</i>	1577 AD	The temple is built around an artificial lake. The building material for the temple was brick. As rebuilt by Ranjit Singh, current design is an adaptation of the <i>Mohammedan</i> styles, seasoned with a good deal of <i>Hindu</i> tradition.	
2	Tarn Taran Sahib Source: (Tarn Taran, 2017)	<i>Tarn Taran Sahib, Punjab</i>	1590 AD	After several restorations and additions to the original structure, the current temple recalls the <i>Golden</i> temple. There are seventeen huge entrance doors in the Tarn Tarn where elephants could easily pass.	
3	<i>Gurdwara Sri Keshgarh Sahib</i> Source: (Anandpur sahib, 2018)	<i>Anandpur Sahib, Punjab</i>	1665 AD	The <i>Guru Granth Sahib</i> is kept under a canopy outside the sanctuary, on which stands a fluted lotus dome surmounted by a high ornamental pinnacle of golden metal, and a golden khanda as a final touch. On the ceiling, the corners of the room and the balcony are adorned with vaulted kiosks.	








Table 3.4:- Time line of <i>Sikh</i> Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
4	<i>Takht Sri Patna Sahib</i> Source: (Gurudwara Patna Sahib, 2017)	<i>Patna, Bihar</i>	1666, 1954 AD	One of the five takhts or the highest positions of religious authority for the <i>Sikhs</i> . <i>Patna Sahib</i> is the birthplace of the <i>guru Govind Singh ji</i> .	
5	<i>Gurdwara Katalgarh Sahib</i> Source: (Gurudwara Sri Katalgarh Sahib, Chamkaur Sahib, 2017)	<i>Chamkaur Sahib, Ropar</i>	1831 AD	The main building called <i>Mariji Sahib</i> is an elegant three-storey vaulted structure that stands on a high base. The large sofa room contains an eight-meter square sanctuary. Another large room nearby is called <i>Akal Buriga</i> . It was used for daily congregations before <i>Mariji Sahib</i> was built.	
6	<i>Sri Hazur Sahib</i> Source: (Gurdwara Hazoor Sahib, 2018)	<i>Nanded in Maharashtra</i>	1832 AD	It is based on the scheme of <i>Takht Sri Patna Sahib</i> . It is the place for <i>Sri Guru Granth Sahib</i> and <i>Sri Dasam Granth</i> .	
7	<i>Gurdwara Fatehgarh Sahib</i> Source: (Fatehgarh Sahib, 2017)	<i>Fatehgarh Sahib, Punjab</i>	1711 - 1813, 1944 AD	The <i>Gurdwara Fatehgarh Sahib</i> campus is made up of many other <i>Gurdwaras</i> .	



Table 3.4:- Time line of <i>Sikh</i> Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
8	<i>Gurdwara Achal Sahib</i> Source: (Achal Sahib Gurdwara, Batala, 2017)	<i>Batala, Amritsar</i>	Late 19th century AD	Average base to height ratio is 0.15, meaning there by that overall height of the dome is more than the diameter at the base. Facade is divided into a number of small panels with the help of marble cladding and play of levels. 0.85 M wide Eave projects out at first floor ceiling level.	
9	<i>Gurdwara Battha Sahib</i> Source: (Gurdwara Bhatta Sahib, 2017)	<i>Ropar, Punjab</i>	1914 AD	Four shrines are located on the first floor and have approach through a flight of steps.	
10	<i>Sri Damdama Sahib</i> Source: (Takht Sri Damdama Sahib, 2017)	<i>Talwandi Sabo, Bhatinda, Punjab</i>	1970 AD	It is sacred fifth Takht of the <i>Sikh</i> . It is also known as <i>Guru ki Kashi</i> .	

### 3.14.2 Relevance of Sikh Architecture

The *Sikh* architectural style and the design of a very popular *Sikh* building are mainly due to their religious monuments. Their ancient buildings such as fortresses, palaces, *samadhi* (mausoleums built on cremation sites), *havelis* (fortified houses), *bungas* (residential houses and educational houses), educational institutions, etc. They are no different from the contemporary style that is generally a blend of *Mughal* and *Rajput* Architecture. *Percy Brown*, an art historian, described a late form of the *Mughal* style of Architecture.

Examples of this type are the *Samadhi* of *Maharaja Ranjit Singh* in *Lahore* and *Khalsa* college in *Amritsar*. While massive columns, portals, interior structures, *bukharchas* (3 or 4 windows projected in rows) in *penda* or *gharvahj* (projection in base) in the form of open split lotus, the *chhatn* (kiosks) on the parapet, all traces the origin of the *Rajput* Architecture, the dome, the arches, the minarets and the underground cellars bear the mark of the *Mughal* style. The *Sikh* religious buildings, the *Gurdwaras*, also show the essentially eclectic nature of their architectural design, but at the same time possess characteristics and present an identifiable image of a style that can undoubtedly be called *Sikh* Architecture.

For example, compared to *Hindu* temples, they are more spacious (with the addition of an adjoining sofa or meeting rooms when needed) and, in most cases, have access on all four sides. There is no space is oriented like *Muslim* mosques. The *Guru ka Langar* (common kitchen and dining room) is a necessary addition to a *gurdwara*, and most *gurdwaras* have *sarovar* (bathtubs) nearby. Each *gurdwara* is recognizable from afar by the *nishan sahib*, the *Sikh* that penan in yellow or blue that flies over a high flag. The *gurdwaras*, unlike *Hindu* temples, have no image carved in or around them.

In principle, *gurdwara* buildings do not have to conform to any established architectural pattern. The only established requirement is the installation of the *Guru Granth Sahib*, the *Sikh* Holy Scripture, in a building under a canopy or a canopy post, usually on a platform higher than the floor on which the devotees sit. However, in due course more and more *Gurdwaras* had buildings of a particular design that more or less imitated the model of *Harimandar*, the holiest sanctuary of the *Sikhs* located in the walled city of *Amritsar*.

When classified according to the shape of their plan, the buildings of *Sikh* shrines are of four basic shapes: the square, the rectangular, the octagonal and the cruciform. However, the latter is rarely used, the only notable example is *gurdwara Nanak Jhira* in *Bidar* in *Karnataka*. Among the octagonal, the best known is *Gurdwara Baba Atal* in *Amritsar*. Many *gurdwara* have an octagonal sanctuary in their square or rectangular room. A circumscribed passage usually runs around the sacred place. In elevation, the *gurdwaras* have structures ranging from one to nine floors, usually surmounted by a dome. Several *gurdwaras* have basements below the ground floor. A recurring element of *gurchvara* design is the preferred, use of two-storey height with a half-height circular gallery, leaving the center of the ground floor covered only by the upper roof and / or dome. As a general rule, a *gumbad* (dome) is the main characteristic of a *gurdwara*.

Even the rectangular fluted *gurdwara* buildings often have a decorative dome on the site where *Guru Granth Sahib* is installed. Sometimes, a small sanctuary of a single room is surmounted by *palaki*, a *palanquin* like a roof, derived from the architectural style of *Bengal*. Most often, the dome is fluted or ribbed. Different dome shapes characterize our sanctuaries as tarus, hemispherical, oblong and conical or three quarters of a sphere, the last mentioned is the most used. In general, the dome arises from a floral base and has an inverted lotus symbol on the top from which the *kalas* or fine ornaments rise.

Usually, a dome is painted white or sometimes gold. The domes of some important *gurdwaras* are covered with gilded copper plates. Some domes are covered with slabs of marble or pieces of white or colored porcelain. In addition to the large central dome, there are often four other domes, one at each corner and several solid domes that embellish the parapet. The dome is invariably crowned by an ornate temple, the *kala*. Based on *Mount Kailash*, the *kala* shoots in the form of a cylindrical construction, often with some concentric disks, and spheroids that culminate in a small canopy with hanging pendants on the outer edge. The *kalas* are generally made of brass or gilded copper. Recently, the use of steel or golden *khanda* (double-edged sword) as a pinnacle is fashionable. Elevation is usually treated by dividing the facade according to the structural lines of columns, pillars and pillars with vertical divisions that create areas with well-modeled surfaces.

The treatment often creates bas-reliefs of geometric, floral and other motifs. Where the magnitude is the goal, the work in relief gilded copper or brass, often occurs extravagant. The interior is embellished with gachch or stucco, fixing mirror, *jaratkari* or inlay work, *mohrakashi* or filigree, *Pinjra* or trellis or stone grids, and the fresco. These techniques are used for the production of beautiful designs and friezes based on vine motifs, plants, flowers, birds and animals.

These techniques, in addition to consuming a lot of time and comfort, require very experienced artists. Therefore, they are used in very important sanctuaries. Excellent examples of this type of work can be seen in the Golden Temple. As many have painted the frescoes on the walls of the first floor of *Baba Atal*. A very special aspect of *Sikh* Architecture regarding the construction of gurdwara buildings is the contribution and participation of the common man.

Except for some shrines have their income from donations made by previous rulers, resources for new construction or reconstruction are collected through voluntary contributions, and although bricklayers and artisans can be salaried workers, unskilled workers and rations for the the whole labor force comes from the *karseva* system, free voluntary service of devotees.

### **3.15 JAIN ARCHITECTURE**

The responsibility of *Jain* workmanship to the standard craftsmanship in India has been great. Each time of Indian craftsmanship is addressed by a *Jain* change and every last one of them is meriting critical examination and cognizance (Stevenson, 1915, p. 360). *Jain* Architecture can not be authorized with its novel style, as it was suitable around a branch of *Hindu* and *Buddhist* styles. In the years, various *Jain* sanctuaries were constructed connecting *Buddhist* sanctuaries following the *Buddhist* style of the shake cut. At first, these sanctuaries were mostly cut with smoothness and the utilization of squares was basically insignificant. Regardless, as of late the *Jains* started to assemble in sanctuary urban communities on the slopes in the light of the likelihood of mountains.

Rather than the quantity of *Hindu* sanctuaries in India, the *Jain* sanctuaries are few and scattered. The *Jain* used to separate their more prepared and harmed sanctuaries and made new ones of every comparable place. Normally, the *Jain* sanctuaries had an air of particular attacker around them, likely in light of the raiders who may have involved

the wealth. Encompassed by bothered dividers, the *Jain* sanctuaries are disengaged in the corridors in a way like urban areas held with parapets and claims to fame to fight off ill will out fitted. Each area like this was seen by colossal defenses in its terminations, with an enlivened entry as a crucial section. The reason is that the *Jain* sanctuaries are the most extravagant sanctuaries on the planet, outperforming even the *Mughal* structures as far as size and material richness.

Sanctuary urban areas did not depend on a particular understanding; rather, they were the symptoms of sporadic improvement. The standard levels of the slant on which the "city" had been constructed required unmistakable levels, to such an extent that as Architecture expanded the design and grandness expanded. Every sanctuary, notwithstanding, was thought about a progression of representations, styles, arranged in the benchmarks of design utilized as a part of the center of the period. The primary grouping resembled *chaumukh* or four-sided sanctuaries. In these, the photograph of a *Tirthankar* would oppose four sides, or four Tirthankars would be set up successively to challenge four cardinal methodologies. The section to this sanctuary would be four entryways. Lord *Adinath's* chaumukh sanctuary is a typical example of the four-entryway sanctuary (Nahar & Ghosh, 1988, p. 830).

Normally, the exits lead to a progression of the chambers cut into the focal corridors of the temple. These sections, which remain around without an unequivocal reason, can have an impact on the place in such a way as to seem an unreflective maze, but on closer examination, it ends up showing that there is a style and a method in it. These are temples inside a temple, isolated in the sacred and surrounded by a field of chapels and shrines, and the labyrinth of segments extends as a limit against the looters. The standard imprint collected from these temples is however the variety of their segments according to each other. The pointed towers of each curve are unique, but indicate the position of a congregation, a corridor.

### **3.15.1 Relevance of *Jain* Architecture**

*Jains* commitment to the workforce and Architecture was extraordinarily basic in the perspective of sublime artistic creations, especially in the types of images, temples and works of art scattered throughout the country. It covering a period of lucidity from short at the most cutting-edge times. *Jain* craftsmanship with a vast assortment changes

progress and embellishments (despite *Jin's* images) has never been monotonous. The human advancement of the Indus Valley (around 2300-1750 BC) is the most flourished development in India. The figures in a bit of *Mohen-Jo-Daro* estate and, in addition to a *Harappa* male torso will help to remember the images of *Jina* ethics of their nudity and posture, such as *kayotsarga-mudra*, shown with more emphasis at *Lohanipur, Patna*. However, nothing can be said for sure until the contents of the Indus Valley are finally deciphered. These figures gave rise to five seven-wind caps depicted as sky clad and remain in the exclusively-*mudra kayotsarga*. The first century BC with the figure *Parsvanatha*, in *dhyanamudra* posture, is the accumulation at the state museum of *Lucknow*. The representation of *dhyanamudra* *Jin* (leg put on the leg) and the representation of the swastika the central part of his chest, figures unprecedented for *Mathura Sunga-Kusana*. (Nahar & Ghosh, 1988, p. 830).

In the *Gupta* period (from the 4<sup>th</sup> to 6<sup>th</sup> century AD) the *Jain* models are represented by a couple of destinations, such as *Mathura, Rajgir, Kahaum, Nachna, Durjanpur (Vidisha), Varanasi, Chausa* and *Akota*. *Jain's* trades and composition prospered with more enthusiasm between the tenth and fifteenth centuries. In the period, a large number of *Jain* temples were constructed with idealized sculptural sculptures. In the middle of the period, the new structures and iconographic aspects (except that of the *Jins*) of different deities were characterized and continuously the number of weapons and in this line that is attributed extended to get the maximum benefit possible from the most like the copies of the texts organized. The *parikara* (environment) of the *Jin* images is also realized with the figurative representations of *Navagrahas, Sarasvati, Laksmi* and the humble figures of *Jin*. In addition, the images of the *Astapratiharyas* and the *Yaksa-yaksi* figures were also cut. Precision and bending together with ornaments and ornaments were other unmistakable highlights of the medieval *Jain* models. Models of *Parsvanatha* and *Mahavira Jin* were cut in the middle of the period (Glasenapp, 1999, p. 600).

*Jain's* Art and Architecture have the essential goal of keeping up, saving and broadly recommending the lifestyle. In addition, devotee also praise for mental pleasure. *Jain* realized that genuine art speaks to the soul of true religion. In addition to his religious esteem, he was taken as a treasure of the country. This is why *Jain's* numerous artistic approaches have become vacation destinations.

The *Jains* could be satisfied with their rich social heritage by the most specific circumstances. He has a religious introduction to his art in modified structures. Being overwhelmingly idolatrous, they have an iconography and an art of making extraordinary symbols. which could make various symbols of various sizes, materials (wood, stone, metal, marble, etc.) and postures (lying or standing). They could cut the stone symbols on the side. The sum total of the symbols that have been made by weighting measures appealing faces of the *Jin* who transmit the possibility of a productive moment of everyday life.

There are numerous credential idols in the world, one of them is *Bahubali* in *Shravanbelgola* in *Karnataka* (983 AD), and Lord Rishabhdev in the state of *Madhya Pradesh* require a remarkable opinion for its size and height. The symbols are worshiped simply after the sanctification function continues for seven days with great glory and spectacle. This service has an expansive repetition for the last quarter of this century.

The *Jain* symbols were discovered as early as 400 BC in various parts of India. In general there are several symbols. Seeing theses several different symbols in each exhibition hall, one can judge the improvement of the iconography with respect to the material and the excellence with the style. *Palitana* is extraordinarily in contrast to another place for a variety of idols. Impressions are also a distinctive part of *Jain* art that has an impact on a point to be taken. The stamped and venerated images were also made as an evident and subsequent proof.

Many temples have the art of appalling nature, for example in *Khajuraho*, *Deogarh*, *Mount Abu*, *Ranakpur*, and so on. Temples everywhere have a glorious story before them, for example, in *Hastinapur*, *Mathura* etc. Numerous temples have separated pillars called pillars of vanity control again a strong point of the *Jains* in the religious Architecture (Schubring, 1962, p. 330).

The magnificent Architecture and the *Jain* model can also be found in the caves carved into the rock of *Mathura*, *Bundelkhand*, *Madhya Pradesh* and *Odisha*. Several caves carved into the rock are located in *Udaigiri* and *Khandagiri*, twin hills in the *Bhubaneswar* district of *Odisha* and *Ellora* in *Maharashtra*.

During the 2nd century BC, *Jain* caves primarily as retreats for the life of *Jain* monks they have a place with the essential requirements. The eighteen caves of *Khandagiri* and fourteen caves of *Udaigiri* with total thirty-two caves design the ruins as the rock-cut *Buddhist* caves. The *Jain Viharas* here do not have the assembly request or mediator embraced by any cell or sanctuary as *Buddhist Viharas*. Caves are on multiple levels and are cramped with low ceilings. There are no specials on the walls. Cells are practically nil and simple, compared to the strict abnegation of *Jain* monks. A segment of the cells has frames cut on the walls. The doors are practically nothing and one has to turn or scroll to enter a cell. In one part of the cells, the floor rises to the back to fill as a cushion. A couple of cells have low levels for the beds. The extension is such that the cells receive sufficient light, the cells open on a tunnel. The caves of *Udaygiri* have two floors and have a patio in front.

The largest and best caves in *Udaygiri* are called *Rani-Gumpha* or performances. (*Gumpha* is the adjacent word to yield). The *Rani-Gumpha* is essential for its friezes of intense forms. Architecture rendered is basic, having been brought to light on three sides of a quadrilateral. The gallery ceiling extends outward like a ledge (eaves). The pillars have been cut to help the roof of the caves impact the structural houses. The curator of the lower floor has a cell with three small steps and a gallery with columns. Two furnished *dwArapalas* are raised to protect both sides of the verandah. The corridors towards the cells are designed with lotus and vines themes that emerge from the mouths of creatures. The back of the gallery is protected by a frieze of luxury cut figures.

### **3.16 TIMELINE OF JAIN ARCHITECTURE**

**(3<sup>rd</sup> Century B.C-17<sup>th</sup> Century A.D):**

Lord *Sri Mahavir*, the last “*Tirthankar*” is for the most part viewed as the organizer of *Jain* religion. There are twenty-four of these *jinās* or holy people who were opposed and involved high place in *Jain* Architecture. - *Jina* signifies "hero" or "pioneer" from which the *Jain* is inferred. *Tirthankars* mean producers of the stream crossing who lead the path over the working life torrents of the interminable cycle of resurrection. One impossible to miss variety found in *Jain* temples is that they are four confronted or “*chaumukh*”. Consequently, rather than a single figure with single face, one path, with



one access to the cell, they gave a fourfold image or a gathering of four different *Tirthankars*. It requires the shrine chamber with four doorways, which influenced extensively the layout of temples

### ***3<sup>rd</sup> Century B.C-17<sup>th</sup> Century A.D***

*Janis* exploited this necessity in the development of the outside and fit as a fiddle of *vimana*. They presented the colonnaded gathering of little shrines round the four sides of the courtyard in which the primary temple stands. The temple comprises of a Temple patio. Eight to twelve columns are masterminded as an octagonal set inside a square. The dome is upheld by these columns joined by section sort raking struts. The dome is based on even courses with progressively lessening square, laid diagonally to each other, with “*Amalaka*” or, then again ornamental “*Kalasa*” at the best. Another innovation was the development of flawlessly cut and fussed marble ceiling with focal pendants practically like light fixtures in their delicacy and elegance (Nyaya vijaya ji, 1998, p. 490).

### ***Neminath Temple (Gujarat, 13<sup>th</sup> Century)***

The well-known temple by the *Jains* is on the hills of Girnar, almost 915m above mean ocean level, close to the memorable city of *Junagadh*. The temple comprises of a courtyard of 58m x 40m and is encompassed by pillar. It houses containing more than seventy cells. The *vimana* is made out of a grouping of turrets around the central tower.

**Table 3.5:- Time line of *Jain* temple Architecture**



Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
1	<i>Udayagiri and Khandagiri Caves</i> Source: (Udaygiri caves bhubaneshwar, 2016)	<i>Bhubaneswar, Odisha</i>	2nd century BC	Partially natural and partly artificial caves, which have total thirty - two, cave with features intricately carved and ornate caves.	
2	<i>Badami Caves</i> Source: (Badami, 2016)	<i>Badami, Karnataka</i>	6th century AD	The temples of the cave of <i>Badami</i> consist of four caves, all carved into the soft sandstone of <i>Badami</i> on a cliff at the end of the 6th century AD. Only one of these four caves is the <i>Jain</i> temple. The caves are considered an example of <i>Indian</i> Architecture carved into the rock, in particular the Architecture of <i>Badami Chalukya</i> .	



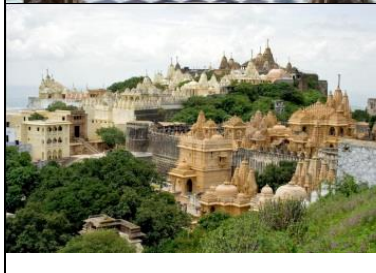
Table 3.5:- Time line of <i>Jain</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
3	<i>Brahma Jinalaya</i> Source: (Brahma Jinalaya, 2016)	<i>Lakkundi, Karnataka</i>	1172 AD	The general structure with its well-proportioned levels and the finial ( <i>amalaka, kalasha</i> ) gives the superstructure a "majestic" appearance. The decorative ornaments are brought to a new level compared to the previous temples.	
4	<i>Dilwara temples</i> Source: (Dilwara Jain Temple, 2016)	<i>Mount Abu, Rajasthan</i>	11th - 13th century AD	It is believed that the temples of <i>Dilwara</i> are the most beautiful example of <i>Jain's</i> architectural perfection. The ornamental detail that extends onto carefully carved ceilings, doors, pillars and panels is simply wonderful.	
5	<i>Shatrunjaya temple Complex</i> Source: (History of Shatrunjay tirth, 2016)	<i>Palitana, Bhavnagar</i>	11th - 16th centuries AD	<i>Shatrunjaya</i> , on top of a steep hill, is full of temple complexes with individual examples built in the standard ' <i>nagara</i> ' style: that is complete with <i>shikharas</i> and ceilings with an angle of 45 degrees above the <i>mandapas</i> .	




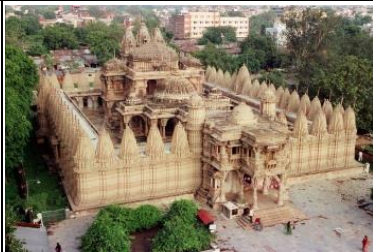

Table 3.5:- Time line of <i>Jain</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
6	<i>Saavira Kambada</i> temple Source: (Saavira Kambada Basadi, 2016)	<i>Moodabidri, Karnataka</i>	1430 AD	Known for its 1000 pillars, the temple is also known as " <i>Chandranatha</i> Temple" as it pays tribute to the <i>Tirthankar Chandraprabha</i> . The city of <i>Moodabidri</i> is characterized by its eighteen <i>Jain</i> temples; The temple of <i>Saavira Kambada</i> is considered the best among them.	
7	<i>Ranakpur Jain</i> temple Source: (Ranakpur temple, 2016)	<i>Ranakpur, Rajasthan</i>	15 <sup>th</sup> century AD	one of the biggest and most important temples of the <i>Jain</i> culture. The campus includes numerous temples such as the <i>Chaumukha</i> temple, the <i>Surya</i> temple, the <i>Parsavanth</i> temple and the temple of <i>Amba</i> . Light marble was used.	
8	<i>Lal Mandir</i> Source: (Shri Digambar Jain Lal mandir, 2016)	<i>Delhi</i>	1658 AD	Lal Mandir known for its red sand stone. It was reconstructed in the beginning of nineteenth century.	

Table 3.5:- Time line of <i>Jain</i> temple Architecture					
Sl.No.	Name of Temple	Place	Period (Circa)	Description	Image
9	<i>Hutheesing Jain</i> temple Source: (Hutheesing Jain temple, 2016)	<i>Ahmedabad</i>	1848 AD	The architect of the temple was <i>Premchand Salat</i> . The front is exquisitely decorated with a dome-shaped structure. The temple has a unique <i>manastambha</i> (or column of honor) inspired by <i>Jain manastambha</i> and <i>kirtistambha</i> in <i>Chittore</i> in <i>Rajasthan</i> .	
10	<i>Nasiyan temple</i> Source: (Nasiyan Temple, 2016)	<i>Ajmer, Rajasthan</i>	1865 AD	In constrection of temple, tooks twenty - five years. The corridor of temple have fascinating series of large gilded wooden figures and scene from <i>Jain Agam</i>	

### 3.17 ELEMENTS OF JAIN RELIGION

Jainism educates a detailed doctrine of *atman*. The majority of selves (*atman*) is a principal doctrine of *Jainism*, though *Buddhism* precludes the truth from claiming *atman* by and large. The *Jain* *atmavada* contrasts from Vedantic *atmavada*. In the *Upanisads* and the *Bhagavadgita*, a definitive solidarity of *atman* is instructed, while in *Jainism* infinite number of atmans is underestimated.

A most critical component of *Jainism* is the thing that might be depicted as *yoga*. The word *yoga* suggests two things: contemplation or *dhyana*, and renunciation or parsimonious method of life. *Jain yoga* is non-theistic. *Jainism* has reliably focused on religious austerity. Cases of extraordinary type of austerity are depicted in various *Jain* writings. Lord *Sri Mahavira* is known to have accomplished freedom through extraordinary types of austere practices.

One of the cardinal precepts of *Jain* thought and culture is the possibility of *ahimsa*. This word has regularly been interpreted as peacefulness (Jacobi, 1884, p. 500).

Logically, the most critical doctrine of *Jainism* is that of *anekantavada*. The doctrine shows that the distinctive points of view about truth speak to just incomplete viewpoints. A few scholars have alluded to this doctrine as the rule of relativity. It is a non-absolutist hypothesis, which might be said to have advanced the opportunity of theoretical perspectives

### 3.18 SUMMARY

Starting with humble caves and squat level roofed temples, *Hindu* design, at that point, developed throughout the centuries and, notwithstanding some provincial variety, landed at a standard course of action, which included a tremendous walled complex with huge enlivening gateways offering access to a holy space of lesser sanctums overwhelmed by the fundamental temple and its monumental arrangement of towers.

The idea of workmanship and Architecture managed as *Islamic* religious Architecture focuses on *Mosques*. *Masjid e-Ala* is two storied building which was continuation of the *Deccan Islamic* tradition of *mosque* building. *Hyder Ali* developed *Idgah* at *Kolar*, *Arohalli*, and *Devenehalli*. The *Jumma Masjid* at *Srirangapatna* is as grand as the

*Sultan* who build it. The Palaces, *Zananas*, *Hava Mahal* and different landmarks of *Hyder Ali* and *Tipu Sultan* have the highlights of Indo-Islamic Architecture. They were motivated by the *Mughal* style of Architecture. *Dariya Daulat* was the late spring royal residence of the *Sultan*. It looks like the *Mughal* style of Architecture particularly the *Akbar's Darbar* at *Agra*. It has the highlights of Indo-Islamic Art.

*Buddhist* Architecture has its underlying foundations profoundly established in Indian soil: the inception of the lessons of the *Buddha*. *Buddhist* Architecture started with the change of a few pictures that talk about parts of the *Buddha*. The Indian sovereign *Ashok*, who not just settled *Buddhism* as the state religion of his tremendous *Magadha* realm yet additionally chose to construct landmarks to spread *Buddhism* to better places. Specific *Buddhist* structures and models are for instance, stupas, pagodas, cloisters.

*Jainism* has from the beginning introduced a religious enthusiasm among its devotees, the solid articulation of which seen everywhere throughout the nation in showstoppers and Architecture, figures, caverns and sanctuaries. *Jain* writing isn't just religious yet in addition grasps numerous common branches of getting the hang of including arithmetic and stargazing.

All through the time of history, Art has remained a spurring power for the general population. Religion assumes a critical part in its improvement. The *Jains* are among the most seasoned religion with religious philosophy, logic, religion-socio-customs, scholarly traditions, and so forth. The social history of the group, in this manner, can be depicted on the premise of contemporary *Jain* writings, their dialects; content gives a unique identity in the *Jain* religion a flawless systematic way expounding every one of the qualities and reflected through its Art and Architecture.

## CHAPTER - 4

### THE JAIN TEMPLE

#### 4.1 THE ORIGIN OF JAIN TEMPLES

A *Jain* temple is the place of worship of *Jain* community to *Tirthankar*, *Derasar* is a word utilized for a Jain temple in *Gujarat* and southern *Rajasthan*. *Basadi* is a *Jain* place of worship or temple in *Karnataka*. The word is utilized basically as a component of south India and, furthermore, in *Maharashtra*. Its true use in northern India is protected in the names of the temples of *Vimala Vasahi* and *Luna Vasahi* of *Mount Abu*.

A *Vatteluttu* inscription discovered from *Talakkavu* at *Putadi* near *pulpally* reveals the connection of *Talakkavu Jain* temple with *Trikkannamatilakam*, which was the most important *Jain* centre of ancient *Kerala*. The script and language of the inscription would suggest that the *Jain* temples settled here in the 9<sup>th</sup> to 10<sup>th</sup> AD. Today there are neither *Jains* nor *Jain* temples available.

#### 4.2 EVOLUTION OF ARCHITECTURAL STYLE

##### 4.2.1 Jain Philosophy

The *Jain* structure, similar to the *Buddhist* structure, is not mysterious. It does not see the proximity of a creator or God. Another fundamental component is that it is the pluralist system. Souls are numerous, infinite. *Moksha* maintenance is not unusual, but rather the realization of the impeccable soul, splendid and blessed has no body or physical exercise. Religious method of reasoning *Jainism* shows that there are nine truths or substances (*Nav-tattva*) are: (1) soul (*jiva*), (2) non-soul (*ajiva*), (3) legitimate (*Punya*), (4) sin or failure, (5) waves of *Karma* (*asrava*), (6) stop the *karmic* matter (*Samvara*), (7) oppression (*bandha*), (8) release *karmic* matter (*nirjara*), and (9) possibility (*moksha*) (Flugel, Peter, 2003, pp. 7-53) (Flugel, Peter, 2006, pp. 91-112).

##### *Karma Philosophy*

The word has two ramifications, one is "any activity" and the other is fine particles that are absorbed and adhere to the spirit because of its development. What is being done is that "*karma*" is the actual institution of the term *kamma*. Both suggestions conform to



the unique condition. The whole universe is stacked with fine *karmic* particles. However, when these particles are maneuvered in the spirit, adhere to it, and bind through their activity, at that point they are simply distributed by the term *Karma*. *Karmic* particles linked with the spirit are called "*dravya karma*" or physical *karma*.

The spirit (normal soul) is the expert of both these *karma*. They are usually connected as conditions and final products, similar to a seed and a tree. In the course of philosophy not *Jain*, running with words is used for *karma*:

(i) **Cause of slavery:** The particles of *karmic* material are first attracted by the spirit and subsequently bound by it. The limit of attracting them to the spirit is realized through the movement of the mind, of the conversation and of the body. So the movement is called *asrava* (immersion), rather ratio of magnification and limiting *karmic* particles spirit is performed *mithyatva* (healthy or certain inclination or convinced), having you (without control), *pramada* (slow) and *kasaya* (vitality). So they are known like the way of slavery. Every movement that exists with these four becomes a reason to subjugate. Only *yoga* or movement is called *asrava*, the remaining four as *kasaya* or not *asrava* or fusion, but the reasons for the *asrava*. From this we can appreciate that *yoga* (movement) is the reason for both immersion and oppression.

(ii) **Philosophy of rebirth:** Every birth of a spirit is rebirth in the context of its previous birth. There can never be a birth that is not linked to the previous birth. The course of the action of the birth of the soul does not begin. In case one way or another we have the courage to hope that a shocking born spirit, which induces possible that even a perfect soul has been freed from the cycle of birth under its attainment of impeccability will end up being born. This would make it infinite, go out and admire an inscrutable opportunity. It would be foolish to believe that the spirit remains free from birth and eventually begins to wait for birth. It is reasonable to maintain that the course of the birth action continues, in the case in which it precedes any extension of the creative capacity, without interruption and which once breaks; it is broken until the end of time.

As indicated by conviction of *Jain* religion freedom is described as, "correspondingly as the oil plant is attempted to separate oil from *sesamum* seeds, blending is grasped to

separate ghee from margarine deplete and fire is used to separate metal from metal, so in like manner the spirit achieves freedom reparation through and restriction."

### ***Jain Traditions***

Indian culture can be characterized in two general social issues: (1) *Brahman* culture (Vedic) (2) *shramana* culture. The philosophical school of *Mimansa*, *Vedanta*, *Nyaya* and *Vaishesika* is at the top of the list. The philosophical schools of *Jain*, *Buddhist* and *Sankhya* have a place in the culture of *Shraman*.

The custom of the *Jain* and *Tirthankars* philosophy is largely ancient. The *Jain* philosophy is *Sanatana*; Confirmations of closeness of *Tirthankar Rishabhdev* were found in the work of human advancement of the Indus Valley (Flugel, Peter, 2007).

### **4.2.2 TIRTHANKARS**

Jainism is the ancient religion of India and in the midst of its long and uninterrupted proximity is proclaimed by twenty - four Great Preachers known as "*Jinas*", ie "Victories" or "*Tirthankars*", ie "Creators of authority over the wave of proximity". In the context of these twenty-four *Tirthankars* progression, *Sri Adinath* is the first and *Sri Mahavir* is the last and twenty-fourth *Tirthankar* (Flugel, Peter, 2008, pp. 181-271).

### **4.3 TEMPLES OF JAIN RELIGION**

The *Jain* religious buildings are broadly classified as follows.

1. *Chaityalaya*
2. *Tunk*
3. Temples
4. *Jal Madir*
5. *Samosaran*
6. *Manastambha*

*Chaityalata* is a house temple in the *Jain* religion, where the people can visit and host different kind of rituals. Normally east facing *Mulanayak* is placed in the temple with highly decorated *vedi*. *Tunk* is small structure with the foot idols of the *Tirthankar* or the saint. Temple or city temple is place of worship. *Jal Mandir* is basically *Samadhi mandir* dedicated to *Tirthankar* and *Samosaran* is a replica of *Tirthankar* facing all

cardinal direction and giving preaching. *Manastambha* is a freestanding column generally in front of the temple with the four facing *Tirthankar*.

#### **4.4 Jainism in Odisha**

The stature of *Odisha* as a place where there is significant spirituality is seen by the way in which it has had an association with the three-orthogenic religious traditions of India: *Hinduism*, *Buddhism* and *Jainism*. Speaking of *Jainism* in *Odisha*, it was the twenty-third *Tirthankar*, *Parsvanath*, which gave impetus to the custom and made an important speech here in the eighth century BC. Buddhism saw an awakening with emperor *Ashoka*, but *Jainism* was worshiped in a similar way (Foot & Brown).

History has wide support of *Jainism* from the *Kharavelas* the *Chedi* administration in the first century BC, which developed indoor caves in *Kumari Parvata*, now known as *Khandgiri* and *Udaygiri*, on the edge of *Bhubaneswar*, so that the *Jainist* monks can live and reflect.

The significant inscriptions inside these caves reveal numerous certainties of history. They speak of the lords of the *Chedi* line, also called *Mahameghavana* who administer *Kalinga* around the 1st century BC. The predominant part of these caves began in the middle of *Kharavelaa* time, when *Jainism* was the religion of the *Kalinga* state. The inscriptions also make one specific to two other rulers of this line, *Kudeparisi* and *Vadukha*, as contributors. Equipping records that confirm the success of ambitious *Kharavela* vocation, the construction of cave temples and recovery of *Kaling-Jin statue* by the king *Nandas* of *Magadha* in (4th century BC) and its reinstallation on the *Kharavela* hills.

Indeed, even after the death of the sovereign *Kharavela*, *Jainism* continued to have an impact under its successors, the governments of the *Ganges* and *Jainism* Saladdod excessively treated with surprising consideration, this witnessed by numerous archaeological finds have revealed the state (Foot & Brown).

The hollows at *Khandagiri* and *Udayagiri*, with their sculptures what's more, engravings are the earliest remains. Despite the fact that no early *Jain* Shrines or monuments, aside from the above, have been found, it is early *Jain* hallowed places or monuments, aside from the above, have been found, clearly the extensive quantities of

symbols, sculptures, and so on spread around *Odisha* recommend that there were *Jain* temples and monuments, which are currently totally broken down. Of the various, heterodox groups *Jainism* as the most accommodative to the *Brahmanical* religion. In spite of the fact that the *Jains* did not have faith in the expert of God and that God was the maker, they started to worship the *Tirthankar* and a few Gods from the *Hindu* pantheon (Forester, 1973, pp. 16-36 ). Consequently, the *Brahmins* never truly restricted the *Jains* and endured it.

The iconographic portrayal of the *Jain* gods and *Brahminical* gods is like a layman. In any case, to recognize the *Jain* from the *Brahmanical* obligations one ought to pay special mind to recognizing "Signs". These components are the remaining of sitting position of the symbols, the *chauri bearers*, the *kevala* tree, flying *gandharvas* with *festoons*, *champak* check, umbrella, the trifoiled curve and so on and the nakedness of the picture. As *Jainism* stayed for so long in *Odisha*, on occasion going to the front line and at different circumstances taking a backbench, it is numerous ways influenced a few different cliques in *Odisha*. The *Jagannatha* faction is obligated to *Jainism* for a large portion of its ceremonies and celebrations.

#### **4.4.1 Udayagiri and Khandagiri Caves**

Date of Construction : 200-170 BC

Plate Number: - I

Among the first *Jain* landmarks are the caves of *Udayagiri* and *Khandagiri*, situated near the city of *Bhubaneswar* in *Odisha*, India. These caves are to some extent typical and have been cut off as private pieces for the *Jain monks* in the middle of the reign of King *Kharvela* of *Kalinga* (200– 170 BC). There are in total thirty-two caves existing in these two caves.

The monks are accepted to have lived here under unforgiving conditions but then have possessed the capacity to produce dazzling and unpredictable figures delineating the royalty, courts, religious symbols, and customary existence of society.

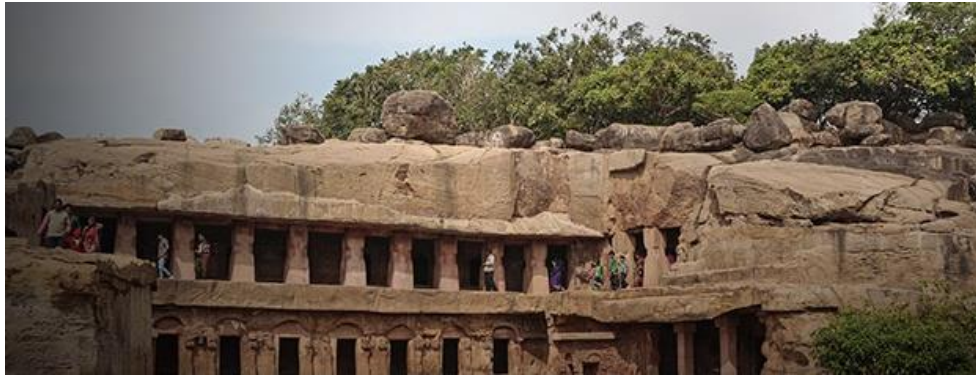


Figure: 4.1 - The *Udaygiri* and *Khandagiri* Caves. Source: (Author)

#### 4.4.1.1 Caves of *Udaygiri*

The caves in *Udaygiri* are to some degree better known because of a few imperative monuments of history and art.



Figure: 4.2 - Location of *Udaygiri* and *Khandagiri* Caves. Source: (Author)

#### **Cave 1: *Rani Gumpha***

Temple Type – Cave

Plate Number: - II

### **Architectural features**

*Rani Gumpha* is also known as *Rani ka Naur* and Queen's Cave or Queen's Palace cave. It has a double storeyed monastery. There are seven entry doors with frontal face. Apart from that, there is an upper floor, which contains nine columns. There is a monument of women, who is dancing and playing musical instrument. The cave is famous due to its exceptional acoustical characteristics. The sizes of cells are varying from 22'-0" X 8'-0" to 8'-0" X 6'-0". The height of the cells is 3'-6". The height of entryway verandah is 6'-3".

### **Cave 2: Bajaghara Gumpha**

Temple Type – Cave

Plate Number: - III

### **Architectural features**

It is known as a simple and small cave. It is made for *Jain* monks because it has bed and pillows made of stone. It has rectangular shaped pillars. There is no other sculpture found in this cave. The sizes of cells are 8'-0" X 8'-0". The roof of cell is gable and height of the cells is varies from 5'-6" to 6'-6".

### **Cave 3: Chota Hathi Gumpha**

Temple Type – Cave

Plate Number: - III

### **Architectural features**

*Chota Hathi Gumpha* is known as a small size. There are six small elephant's figures in the facade. The word '*chota hathi*' means 'small elephant'. *Chota Hathi Gumpha* has a front door on both sides along with the exquisite relief with elephants. The sizes of cells is 8'-0" X 6'-0". The height of roof is 3'-6".

### **Cave 4: Alkapuri Gumpha**

Temple Type – Cave

Plate Number: - III

### **Architectural features**

*Alkapuri Gumpha* is known as double storied cave. There are part of columns is built. This cave consists of sculpted ornaments and sculptures. There are exquisite reliefs depicting elephants on rock-cut pillars's capitals, winged creatures and people. The

sizes of cells is 6'-0" X 6'-0". The roof of cell is gable and height of the cell varies from 5'-6" to 6'-6". The entry of the cave is from 14'-0" X 8'-0" verandah.

**Cave 5: *Jaya-vijaya Gumphā***

Temple Type – Cave

Plate Number: - III

**Architectural features**

*Jaya-vijaya Gumphā* is known as double storied cave. In this cave there are some rock-cut columns and some built. The sizes of cells are varying from 27'-0" X 7'-0" to 7'-0" X 6'-0". The roof of cell is gable and height of the cell varies from 5'-6" to 6'-6". The height of entryway verandah is 6'-3".

**Case 6: *Panash Gumphā***

Temple Type – Cave

Plate Number: - IV

**Architectural features**

*Panash Gumphā* is known as simple cell along with two built columns. It is another shelter with ochre paintings near to this cave. The size of cells is 6'-0" X 6'-0". The roof of cell is flat and height of the cell varies from 6'-3". The entry of the cave is from 18'-0" X 8'-0" verandah.

**Cave 7: *Thakurani Gumphā***

Temple Type – Cave

Plate Number: - IV

**Architectural features**

*Thakurani Gumphā* is known as double storeyed cave. In this cave there are some rock-cut and other are built. It has a relief carving with winged animals. It has few tiny relief sculptures. The size of cell is 8'-0" X 6'-0". The height of roof is 3'-6". The entry of the cave is from 8'-0" X 5'-0" verandah.

**Cave 8: *Patalapuri Gumphā***

Temple Type – Cave

Plate Number: - IV

### **Architectural features**

*Patalapuri Gumpha* is cut cave designed roughly. There are two columns at verandah. The columns are decorated with reliefs depicting winged beings. The size of cells is varying from 32'-0" X 7'-0" to 6'-0" X 6'-0". The roof of cell is gable and height of the cell varies from 5'-6" to 6'-6". The height of entryway verandah is 6'-3".

### **Cave 9: Mancapuri Gumpha**

Temple Type – Cave

Plate Number: - IV

### **Architectural features**

*Mancapuri Gumpha* is double storeyed cave. There are four columns on the lower floor. There are several sculptures and reliefs, inscriptions in this cave. Out of those inscriptions, two inscriptions resemble. The size of cells is varying from 21'-0" X 7'-0" to 7'-0" X 6'-0". The roof of cell is flat and height of the cells is 3'-6". The height of entryway verandah is 6'-3".

### **Cave 10: Ganesa Gumpha**

Temple Type – Cave

Plate Number: - V

### **Architectural features**

*Ganesa Gumpha* is known because of its stone monument. It has monument of *Jain Tirthankar* and some of like fighting people in action. There is an inscription also. It consists of two dwelling cells with low ceilings along with the verandah with a bench in front. The sizes of cells are 8'-0" X 6'-0". The roof of cell is flat and height of the cell is 3'-6". The size of entryway verandah is 17'-0" X 4'-0" and height is 6'-3".

### **Cave 11: Jambesvara Gumpha**

Temple Type – Cave

Plate Number: - V

### **Architectural features**

*Jambesvara Gumpha* has a two plain door opening with low cell. There is an entrance with one column and two pilasters. There is an inscription also which indicates that the cave of Nakya, wife of *Mahamade*. The size of cell is varying from 10'-0" X 7'-0" to



7'-0" X 6'-0". The roof of cell is flat and height of the cells is 3'-6". The size of entryway verandah is 10'-0" X 4'-0" and height is 6'-3".

#### **Cave 12: *Singh Gumpha***

Temple Type – Cave

Plate Number: - V

##### **Architectural features**

*Singh Gumpha* is a small cave temple. Its entrance is shaped like some animal's head and entrance door is look like the animal's throat. The entrance is decorated with domed elements. Some inscriptions are also there which talk about this cave which belongs to the city of Judge Sabhuti. The size of cell is varying from 8'-0" X 7'-0". The roof of cell is flat and height of the cells is 3'-6".

#### **Cave 13: *Sarpa Gumpha***

Temple Type – Cave

Plate Number: - V

##### **Architectural features**

*Sarpa Gumpha* is a small cave, which is unusual and decorated on the upper side of the entrance. It names '*sarpana*' because '*sarpa*' mean snake. There are two inscriptions found in this cave. The sizes of cells are varying from 8'-0" X 8'-0". The roof of cell is flat and height of the cells is 3'-6".

#### **Cave 14: *Hathi Gumpha***

Temple Type – Cave

Plate Number: - VI

##### **Architectural features**

*Hathi Gumpha* is a great history and records of king *Kharavelaa*'s empire. It has a natural artificial structure like columns of verandah. There is an inscription in this cave. Apart from this, there are lots of symbols and foot idols drawn on this cave. There is a hollowed boulder with entrance doors and windows in the front of *Hathi Gumpha*. The sizes of cells are varying from 15'-0" X 8'-0" to 6'-0" X 6'-0". The roof of cell is flat and height of the cell is 3'-6". The entryway of these caves are natural topography.

**Cave 15: *Dhanaghara Gumpha***

Temple Type – Cave

Plate Number: - VII

**Architectural features**

*Dhanaghara Gumpha* has an entrance of two columns, which are massive and unfinished, decorated adorned with doorkeeper's sculpture. The sizes of cells is 14'-0" X 7'-0". The roof of cell is flat and height of the cell is 3'-6". The size of entryway verandah is 14'-0" X 6'-0" and height is 6'-3".

**Cave 16: *Haridasa Gumpha***

Temple Type – Cave

Plate Number: - VII

**Architectural features**

*Haridasa Gumpha* is cut cave designed roughly, verandah with one column. There is an inscription in this cave. The sizes of cell is 14'-0" X 7'-0". The roof of cell is flat and height of the cells is 3'-6". The size of entryway verandah is 12'-0" X 6'-0" and height is 6'-3".

**Cave 17: *Jagannath Gumpha***

Temple Type – Cave

Plate Number: - VII

**Architectural features**

*Jagannath Gumpha* is also a roughly rock cut cave. The sizes of cells is 18'-0" X 7'-0". The roof of cell is flat and height of the cell is 3'-6". The size of entryway verandah is 18'-0" X 6'-0" and height is 6'-3".

**Cave 18: *Rasui Gumpha***

Temple Type – Cave

Plate Number: - VII

**Architectural features**

*Rasui Gumpha* is a very small cave and it has only one entrance. The sizes of cells is 7'-0" X 6'-0". The roof of cell is flat and height of the cells is 3'-6".

#### **4.4.1.2 Caves of *Khandgiri***

The *Khandgiri* hill contains to a certain extent less caves. The *Khandgiri* caves are progressively encroached by the *Brahmins*, turning them into *Hindu* shrines, but the internal carvings still tell the story of *Tirthankars*.

##### **Cave 1 and 2: *Tatowa Gumpha***

Temple Type – Cave

Plate Number: - VIII

##### **Architectural features**

Cave 1: The entrance has the form of parrot and so it is named as *Tatowa Gumpha*. Cave is luxuriously carved, decorated with two door assistants too. The two entries in the cells are "watched" by two bulls and two lions as depicted.

Cave 2: *Tatowa Gumpha* has a gallery decorated with pilasters; pilaster capitals contain impeccable sculptures.

##### **Cave 3: *Ananta Gumpha***

Temple Type – Cave

Plate Number: - IX

##### **Architectural features**

*Ananta Gumpha* consists of dazzling figures of women, elephants, athletes, geese conveying blossoms.

##### **Cave 4: *Tentuli Gumpha***

Temple Type – Cave

Plate Number: - IX

##### **Architectural features**

*Tentuli Gumpha* is a small rock-cut chamber. There is a verandah with one column. Entrances in shrines decorated with portals.

**Cave 5: *Khandgiri Gumph***

Temple Type – Cave

Plate Number: - IX

**Architectural features**

*Khandgiri Gumph* is known as double storied cut cave. The ground floor - first cell size is 13'-0" X 6'-0" and second cell size is 6'-0" x 6'-0" with height of 3'-6". The first floor have three cells with cell size of 6'-0" x 6'-0" with height of 3'-6".

**Cave 6: *Dhyan Gumph***

Temple Type – Cave

Plate Number: - IX

**Architectural features**

*Dhyan Gumph* is generally has a roughly cut cell Architecture with cell size of 16'-0" X 14'-0" with height of 6'-9".

**Cave 7: *Navamuni Gumph***

Temple Type – Cave

Plate Number: - X

**Architectural features**

*Navamuni Gumph* is generally has a cut cell, raise wall embellished with *Jain Tirthankars, Sasana Devis* and *Ganesh*. Inscription is carved here. There is a small figure of Lord *Chandrparbha* seated on a lotus. There is a figure of *Naga* also. The size of cell is 28'-0" X 10'-0" with height of 3'-6".

**Cave 8: *Barabhuji Gumph***

Temple Type – Cave

Plate Number: - X

**Architectural features**

*Barabhuji Gumph* is embellished with *Jain Tirthankars, Sasana Devis* and rock-cut foot idols. Some *Tirthankar*sculptures are also found in this cave. The entry to the cell is from 6'-0" wide and 6'-9" height verandah. The size of cell is 18'-0" X 6'-0" with height of 3'-6".

**Cave 9: *Trusula Gumpha***

Temple Type – Cave

Plate Number: - X

**Architectural features**

*Trusula Gumpha* was displayed in medieval circumstances through a few changes. The entry to the cell is from 6'-0" wide and 6'-9" height verandah. The size of cell is 18'-0" X 6'-0" with height of 3'-6".

**Cave 10: *Ambika Gumpha***

Temple Type – Cave

**Architectural features**

Relief images of *Sasan devis* is present in this cave. The entry to the cell is from 6'-0" wide and 6'-9" height verandah. The size of cell is 12'-0" X 6'-0" with height of 3'-6".

**Cave 11: *Lalatendukesari Gumpha***

Temple Type – Cave

**Architectural features**

*Lalatendukesari Gumpha* also known as *Keshari Cave* has a raise wall embellished with reliefs of *Mahavira*, *Parsvanatha*, and *Jain Tirthankars*. The entry to the cell is from 6'-0" wide and 6'-9" height verandah. The size of cell is 18'-0" X 6'-0" with height of 3'-6".

**Cave 14: *Ekadasi Gumpha***

Temple Type – Cave

**Architectural features**

*Ekadasi Gumpha* has a basic cell structure. It is very small and simple. No inscriptions are found here. The size of cell is 6'-0" X 6'-0" with height of 3'-6".

Cave 12 and cave 13 (*Lalita Gumpha*) of the *khandgiri*, hills are roughly cut caves of very less architectural significance.

## **4.5. JAINISM IN BIHAR**

### **4.5.1 Historical Background**

Unpartitioned Bihar was the centre of ‘*Shraman* culture’ is the place where twenty – two, out of twenty- four *Tirthankars* attained salvation (*Nirvan*). Out of these twenty – two, the six were born here. Hence the sacred place of *Bihar* occupies the special place in the world. Lord *Sheetalnath* (10<sup>th</sup> *Tirthankar*) was born at *Bhadrikapur*; Lord *Vasupujya Swami* (12<sup>th</sup> *Tirthankar*) at *Champapur*; Lord *Mallinath Swami* (19<sup>th</sup> *Tirthankar*) and Lord *Mahavir Swami* at *Vaishali*. Out of twenty – four *Tirthankars* *Sri Rishabdevji* and Lord *Neminath Swamiji* attained salvation at *Kailash* Mountain and *Girnar* Mountain respectively. The sacred land of *Bihar* has also the privilege of having fourty - six *Kalyanak* of human welfare.

Politically *Bihar* is now divided into two parts; The *Macca* of *Jain* Religion “**Sammed Shikhar**” is now in the state of *Jharkhand*. It was on this sacred land of *Bihar* that monarchs from *Sishunag* dynasty to *Gupta* dynasty resigned and ruled all over Indian territories and far off provinces. The *Jain* emperor *Chandragupt* of the *Maurya* Empire renounced everything for the initiation of knowledge as “*Nirgranth Muni*”, at the end of his life. The great “*Sheelvratdhari Mahamuni Sudarshanji*” got salvation here. “*Acharya Sri Sthoolbhadra Swami*” presented unique example of “*Sheelvrat*” after spending four month of rainy season (*Chaturmas*) in the “*Chitrashala*” of “*Nagarvadhukosha*” of *Patliputra*.

The ancient *Jain* pilgrimage of *Bihar* has a rich story. It is a unique place of the two sects of *Jainism*, which has been the birth and growth of *Jainism*.

## **4.6 JAIN TEMPELS OF BIHAR**

### **4.6.1 Patna**

*Patliputra* has been the meeting point of different religion: “*Sheelvratdhari Mahamuni Sudarshan*” of *Jain* religion attained salvation (*Nirvaan*) at *Gulzarbag*. The birthplace of 10<sup>th</sup> *Guru* of *Sikh* religion; *Guru Govind Singhji Maharaj*. *Phulwari Sharif* is the place of *pilgrimage* of the believers of *Islam*. Lord *Buddha* embraced and sanctified this place with his advent here and the santifying river the holy *Ganga* flows through this region.

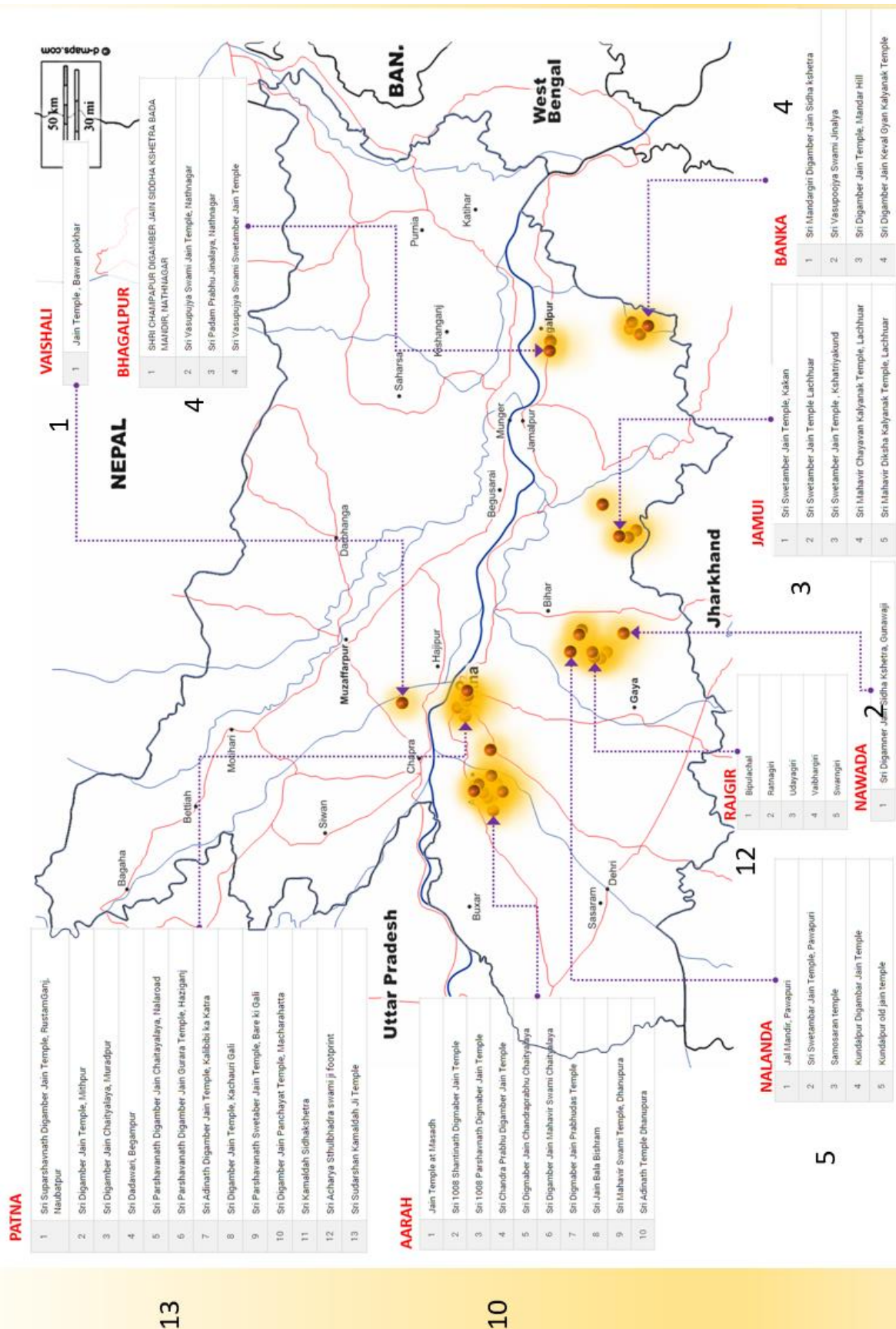


Figure: 4.3 - Location of *Jain temples in Bihar*. Source: (Author)

History, Archeological surveys and holy Scriptures inform us that this city of *Patna* is closely associated with *Jainism*. A number of broken “*Jain* statutes, *Voluptuous Yakshini*, *Jain Chakra*, *Kalp tree*” of *Maurya* period preserved in *Patna* Museum were collected from *Lohanipur* area of *Patna*. *Kamaldah* sanctuary, the foot idol of “*Acharaya Sthoolbhadra Swami*” on the ruins of picture gallery of “*Nagarvadhu Kosha*”, the lane adjoining the “*City Chowk*” after the name of merchant “*Hira Lal Shah*”, *Langoor* lane, *Katra of Kali Bibi*, the ancient *Digmaber Jain* temple in *Tamolin lane*, the ancient *Swetambar Jain* temple in “*Bare-Ki-Gali*” and “*Dadavadi*” situated in “*Begumpur*” area speak loudly about *Patliputra* to be associated with *Jain* culture from the ancient times.

#### **4.6.1.1 Sri Sudarshan Kamaldah Ji Temple, Gulzarbagh**

Location : *Gulzarbagh*, *Patna*

Date of Construction : - 1791’s

Temple Type – *Siddha Kshetra of Jain Saint Sudarshan, Swetamber Jain*

Plate Number: - XI

#### **Historical Background**

Salvation place of *Mahamuni Sudarshan Swami* – This auspicious place is half kilometre south of *Gulzarbag (Patna)* Railway Station. In this structure the foot idol of *swami* are inscribed on black marble. The common belief is that *swamiji* was sentenced to go to gallows but by miracle the gallows converted in seat of monarch and *swamiji* attained “*Kevalgyan*”.

In the course of time, he attained salvation at this auspicious place. Devotees visit this place all round the year. The structure of temple is such that, in past temple is like *Jal mandir* as *Jal mandir* at *pawapuri*. This is why, it is known as auspicious *kamaldahji*. The evidence of the temple on the left side and pound on the other side is intact. The road leading to this temple is made of ancient bricks. Every year the salvation ceremony of “*Sudarshan Swami*” is celebrated with great fan fare by the followers of *Jainism* on the day of and the annual *Rath Yatra* of *Jain* ends here through the temple of *Sri Parswanath Digmaber Jain Guraraji*, *Langoor* lane and *Hajiganj* (Jain B. K., 2012).



## **Architectural features of the Temple**

The temple *Sudarshan Kamaldah Ji* Temple has been magnificently decorated dome with groove and flower pattern. The size of garbhagriha is 9'-6" X 9'-6" with 6'-0" circumambulatory path. The total height of temple is about 21'-3".

### **4.6.1.2 Sri Sthulbhadra Sadhana Sthal, Gulzarbagh**

Location : *Gulzarbagh, Patna*

Date of Construction : 1791's

Temple Type – *Siddha Kshetra of Jain Saint Sudarshan, Svetamber Jain*

Plate Number: - XI

## **Historical Background**

On way to the salvation place of *Sudarshan Swamiji*, on the right side leading to a mound, the temple has foot idols auspicious inscribed on black marble. The popular belief is that, it was the picture gallery (*Chitrashala*) of *Kosha the Nagarvadhu* and *Rajnartaki* of *Patliputra* where *Muni Sthoolbhadra Swami* spent four months and it was in his memory that his scared foot idols was installed for the gracious view (*Darshan*) for which devotees come here round the year.

## **Architectural features of the Temple**

The temple is situated on a mound measuring 65'-6" x 65'-6". The temple has magnificently decorated dome with groove. The size of foot idol *garbhagriha* is 3'-6" X 3'-6" with *sadhana* space of 5'-6" x 2'-6". The total height of temple is about 10'-6".

### **4.6.1.3 Sri Kamaldah Sidhakshetra, Gulzarbagh**

Location : *Gulzarbagh, Patna*

Date of Construction : 1910's

Temple Type – *Siddha Kshetra of Jain Saint Sudarshan, Svetamber Jain*

Plate Number: - XIII

## **Historical Background**

Towards the north of *Gulzarbhag* station is *Digmarber Jain* temple and office; there is a charming statue of Lord *1008 Sri Neminath Swami* in black marble. Other ancient

idols of white marble and eight metals are also found there. There is proper arrangement for the stay of travelers in the guesthouse, which is available there.

### **Architectural features of the Temple**

The main *garbhagriha* of the temple is square size 10'-0" X 10'-0" with a central dome and four-miniature dome at corners. There is 5'-0" wide circumambulatory path around *garbhagriha*. The total height of temple is about 20'-0". The temple is constructed with brick and lime mortar. The temple is finished with cement mortar.

#### **4.6.1.4 Sri Parshavanath Digamber Jain Gurara Temple, Haziganj, Patna City**

Location : *Haziganj, Patna City*

Date of Construction : 1864's

Temple Type – *Sri Parshavvanath Digamber Jain Temple*

Plate Number:-XIV

### **Historical Background**

This is also called *Langar Gali* as it was the birthplace of 10<sup>th</sup> Sikh Guru Sri Guru Govind Singhji. This temple is situated in this lane. Earlier the idol of 1008 Shri Parswanath was placed on the main alter, but at present the charming idol of Lord Mahavir Swami can be seen there. There are three idols of black color on the east alter: two idols of Bhagwan Chandaprabhu Swami and one of Bhagwan Mahavir Swami. These idols appear to be of tenth and eleventh century and the total number of idols in the temple is fifty-five.

### **Architectural features of the Temple**

The temple is in dilapidated condition and encroached by the group of people at present. The statues present here is about 10<sup>th</sup> to 11<sup>th</sup> century. As per the inscription outside temple it was constructed in 1864. At present the temple is not properly maintained. There are in total fifty-five statues in this temple. In early time there was a statue of Lord Sri Parshavanath but at present there is a beautiful sitting posture statue of Lord Mahavir. The size of garbhagriha is 22'-0" X 18'-9" with madapam hall of size 18'-0" x 10'-0". The temple is constructed with Brick and lime mortar.

#### **4.6.1.5 Sri Aadinath Digamber Jain Temple, Kalibibi ka Katra, Patna City**

Location : *Kalibibi ka Katra, Patna City*

Date of Construction : 1942's

Temple Type – *Sri Aadinath Digamber Jain Temple*

Plate Number:-XIV

##### **Historical Background**

In the temple idol of *Sri Adinath Swami* is established. This idol of black colour belonging to the tenth or eleventh century is particularly charming and worth seeing. An idol of Lord *Sri Vasupujya Swami* is also there which is of red marble and appears to belong to the fifteenth century. Eight idols are made of marble and other eight are made of metals of which *chaubisi* is highly artistic.

##### **Architectural features of the Temple**

The entry to the temple is from very narrow lane. The structure of the temple is incomplete since, the upper part of superstructure is not completed. As *mula nayak* the statue of Lord *Sri Aadinath* in black color is present. The statues present here is about 10<sup>th</sup> to 11<sup>th</sup> and 15<sup>th</sup> century. As per the inscription outside temple it was constructed in 1942. There are in total seventeen statue in this temple out of which eight are of stone, eight are of *asta dhatu* and one is of *chaubisi*. The size of *garbhagriha* is 16'-0" X 11'-9" with *madapam* hall of size 16'-0" x 7'-0". The temple is constructed with brick and lime mortar.

#### **4.6.1.6 Sri Digamber Jain Temple, Kachauri Gali, Patna City**

Location : *Kachauri Gali, Patna City*

Date of Construction : 1880's

Temple Type – *Sri Munisubratnath Jain Temple*

Plate Number:-XV

##### **Architectural features of the Temple**

In *Kachauri* lane there is a *Shikharband* Jain temple, in which the idols of 1008 *Bhagwan Sri Munisubratnathji* is established. The statues present here is about 10<sup>th</sup> to 11<sup>th</sup> century. As per the inscription outside temple it was constructed in 1880. The size of *garbhagriha* is 8'-0" X 7'-2" with *madapam* hall of size 14'-8" x 16'-4". The height of temple is 26'-6". The temple is constructed with brick and lime mortar.

#### **4.6.1.7 Sri Parshavanath Swetamber Jain Temple, Bare ki Gali, Patna City**

Location : *Bare Ki gali, Patna City*

Date of Construction : 1880's

Date of Re- construction: - 2015's

Temple Type – *Sri Parshavanath Swetamber Jain Temple*

Plate Number:-XVI

#### **Historical Background**

Adjacent to the main gate of *Harmanirji Sahib* and inside the big gate there is a temple where idols of Lord *Vimalnath Swami*, Lord *Vasupujya*, Lord *Shantinath*, Lord *Aryanath* and some metal idols are established. In the next chamber, white marble idols of Lord *Adinath Swami* and metal idol of *Parswanath Swami* are established. At the altar by its side, Lord *Kuthunath Swami* is present. On the upper floor there is white and black marble idols of Lord *Paraswanath* and *Parswanath Swami* respectively and also the idols of *Adinath* and *Avinandan Swamiji* are present. Outside the temple, on its left side in a small and new temple one can also see the presence of Sri *Bhumiaji Maharaj*.

#### **Architectural features of the Temple**

The old temple is almost in dilapidated condition. In 2009 right side of the existing temple, construction work of new temple is started on the basis of *nagara* style. The size of *garbhagriha* is 22'-4" X 22'-6" with *madapam* hall of size 22'-4" X 22'-6". The new temple is constructed with brick and cement mortar and finished with marble cladding. The height of temple is 41'-0".

#### **4.6.1.8 Sri Digamber Jain Panchayat Temple, Macharahatta, Patna City**

Location : *Kachauri Gali, Patna City*

Date of Construction : 1860's

Temple Type – *Sri Chandraprabhu Swami Panchayat Jain Temple*

Plate Number:-XVII

#### **Historical Background**

In this zigzag lane inside a big gate and on the left of the orchard there is an ancient temple which is known as *Panchayati* temple. On the main altar there is a very beautiful idol of Lord *Sri Chandraprabhu Swami*. On both side there are metal idols of mother

*Padmavati* and *Chetrapal*. In the left hall there is very ancient black marble idols of Lord *Sri Adinath Swami* is established.

### **Architectural Features of the Temple**

The size of *garbhagriha* is 14'-0" X 15'-0" with *madapam* hall of size 24'-0" X 12'-0". There is another *garbhagriha* of *Sri Adianath* in the back of main temple having size of 8'-0" x 8'-0". The temple pyramidical *shikhara* is a unique in charateer with a total height of 40'-0". There are rest rooms for the visiters. The temple is constructed with brick and lime mortar.

#### **4.6.1.9 Sri Dadawari, Begampur, Patna City**

Location : *Begampur, Patna City*

Date of Construction : 1780 s

Date of Re- construction: - 2012 s

Temple Type – *Sri Chandraprabhu Swami Panchayat Jain Temple*

Plate Number:-XVIII

### **Historical Background**

The ancient temple is situated at the centre of large park on the southern side of *Patna city* rail track. The descendents of *Sri Hirachand*, the jeweller of King *Jehangir* built it in 1780. On the main altar of the temple the foot idol of *Gurudev* and *Bhomiaji* is presented in the backyard. This temple is managed by *Patna* group of *Swetamber Jain* temple committee.

### **Architectural features of the Temple**

The campus have two temples front and rear. The size of front temple *garbhagriha* is 7'-0" x 8'-8" and the rear temple *garbhagriha* is 8'-0" x 8'-0". The height of front temple is 24'-0 and rear temple is 22'-0". Front temple has grooved floral pattern decorative dome and while the rear temple have simple dome. The temple is constructed with brick and lime mortar. The temple is recently renovated with the marble cladding.

#### **4.6.1.10 *Sri Digmaber Jain Chaityalaya, Muradpur***

Location : *Muradpur, Patna*

Date of Construction : 1920's

Temple Type – *Sri Digamber Jain Chaityalaya*

Plate Number:-XIX

#### **Historical Background and Architectural Features**

It is a beautiful *chaitalaya* established by *late Sri Surajmal Jain*. Eleven small and big metal idols are here including the main idols of *1008 Bhagwan Sri Adinath Swamiji*. The *chaityalaya* is on the first floor of a residential building. The idols are placed in 22'-0" X 22'-0" size hall. The temple is constructed with brick and lime mortar.

#### **4.6.1.11 *Sri Digmaber Jain Temple, Mithapur***

Location : *Mithapur, Patna*

Date of Construction : 1962's

Temple Type – *Sri Digamber Jain Chaityalaya*

Plate Number:-XX

#### **Historical Background and Architectural Features**

On *khagaul* road and in front of *Bhanamal* mill there is three-storied temple. On the ground floor there is arrangement for the stay of devotees and visitors; on the second floor at the big hall of size (22'-0" X 28'-0"), there is a white marble idol of *Sri Mahavir Swami*. An ancient idol made of white marble of Lord *Sri Parswanath Swami*, and sixth other idols made of metals are also there. In front of this hall, one finds "*Jinwani*" which is a storehouse of *Jain* literature. On the third floor there is white marble idols of Lord *Sri Shantinathji* and three other idols made of metals in a hall of size (22'-0" X 30'-0"). The temple is constructed with brick and lime mortar.

#### **4.6.1.12      *Sri Parshavanath Digmabar Jain Chaityalaya, Nalaroad, Patna***

Location : *Nalaroad, Patna*

Date of Construction : 1980's

Temple Type – *Sri Digamber Jain Chaityalaya*

Plate Number:-XXI

#### **Historical Background and Architectural Features**

The *chaityalaya* was constructed in 1980's with a view of living and worship purpose for a specific time period. Prayers are offered in all solemnity by *Jain* in this *chaitalaya*. On the occasion of *Daslakshan* religious celebration Religious *Guru* and team of spiritual talkers are invited for awaking of consciousness and knowledge of religion from different places for ten days. The main idol of this small *chaitayala* is of Lord 1008 *Sri Shantinath Swami* placed in a hall of size 12'-4" X 32'-4" on the fourth floor of building.

#### **4.6.1.13      *Sri SuParshavanath Digmaber Jain Temple, Naubatpur, Patna***

Location : *Naubatpur, Patna*

Date of Construction : 1940's

Temple Type – *Sri SuParshavanath Digmaber Jain Temple*

Plate Number:-XXII

#### **Historical Background and Architectural Features**

The temple is dedicated to *Sri Suparshavanath Ji* and it was constructed in 1950. It is located at about 20 KM west of Patna. The temple is managed by *Ara Digamber Jain samiti* trust. The temple has square *garbhagriha* 8'-0" X 8'-0" with three side door and circumambulatory path. The height of temple is 42'-0". The *shikhara* of temple is octagonal pyramid. The temple is constructed with Brick and lime mortar.

#### **4.6.2      *Vaishali***

*Vaishali* is 50 km away from Patna is blessed with the birthplace of Lord *Mahavir*. A memorial of Lord *Sri Mahavir* was established here on 23<sup>rd</sup> April 1956 by *Dr. Rajendra Prasad*, the first president of India. Now, by the blessing of *Jain muni Acharya Sri 108 Vidyandiji, Vidyasagarji, Vardmansagarji Maharaj*, A spacious park and a large temple are under construction under the supervision of *Bhagwan Mahavir Smarak Samiti* consisting of *Sri Naresh Kumar Sethi* of *Jaipur* (Chairman), *Sri Ratanlalji*

*Gangwal (Secretary), Sri Puranmalji Sethi of Ranchi, Sri Satish Jain of Delhi, Sri Kailash Chand Jain (Pandya), Sri B. K. Jain (Ara), Sri Syrendraji Gangwal of Patna and many others. The style of newly constructed temple resembles Nagara style of Hindu temple Architecture.*



Figure: 4.4 - Memorial of *Lord Mahavir*  
Source: (Author)



Figure: 4.5: - Proposed model of  
new temple in Nagara Style.  
Source: (Author)



Figure: 4.6 - View of ongoing construction of temple at *Vaishali, Basokund*. Source:  
(Author)



#### **4.6.2.1 Jain Temple at Bamapur**

Location : *Bawan Pokhar, Vaishali*

Date of Construction : 800's

Temple Type – *Sri SuParshavanath Digmaber Jain Temple*

Plate Number:-XXIII

#### **Historical Background**

*Bhawan Pokhar* temple is located in *Basarh, Vaishali* in *Bihar, India*. More specifically, it is situated on the northern banks of a pond called *Bhawan Pokhar*. The *Bhawan Pokhar* temple was built by the *Pallavas*, during the *Pala* period. *Bhawan Pokhar* Temple is constructed using stone. Interior of the temple has images in ruined condition. It is said that during the *Mughal* period the idols were destroyed and thrown into pond. This collection of different idols is made of black basalt, dating back to the *Guptas* and *Palas* period.

#### **Architectural Features of the Temple**

The campus have two temples front and rear. The size of front temple *garbhagriha* is 10'-0" x 10'-0" and the rear temple *garbhagriha* is 14'-0" x 12'-0". The height of front temple is 24'-0 and rear temple is 16'-4". Both the temple have pyramidal *shikhara*. The temple is constructed with brick and lime mortar.

#### **4.6.3 Ara**

#### **Historical Background**

This pilgrimage is 55 km from *Patna*. It is reputed for number of ancient temple, which have artistic and charming. In eastern India, *Ara* is known by "*Jainpuri*". There is fourteen famous *shikharband* temples and twelve *chaityalaya* - all are ancient and charming. There is a temple at *Dhanupra* with a rest house for girls and aashram for women established by respected *Matasati Chandabai*. On the hillock, there is three-meter tall white marble idols and a *manstambha*. *Ara* provides good arrangement for stay in its rest houses. "*Jain Siddhant Hall*" has been established by *Babu Dev Kumar Jain*, which has a rich collection of manuscripts, significant books, handmade paintings and pictures. *Ara* has a good treasure of ancient religion and spiritual wisdom for its visitors. Here total eleven number of structure is taken as sample, out of which seven

numbers are temples two numbers are *chaitayalaya* and one Bahubali statue and one *manasatabha*.

#### **4.6.3.1 Sri 1008 Parshavanath Digmabar Jain Temple**

Location : Ara Town

Date of Construction : 1880's

Temple Type – *Sri Parshavanath Digmaber Jain Temple*

Plate Number: - XXIV

##### **Architectural Features of the Temple**

The *garbhagriha* of the temple is a unique in nature, based on *Chaturmukha Mahaprasad*. In which the main *chaturmukha vedi* is at the center and around it there are other *vedi* arranged at all cardinal directions. The size *garbhagriha* is 28'-6" x 18'-6" in octagonal shape with circumambulatory path. The height of temple is 50'-0". The top of temple has pyramidical *shikhara* with spire. The brick and lime mortar is used in construction of temple.

#### **4.6.3.2 Sri 1008 Tirthankar Shantinath Digmabar Jain Temple**

Location : Ara Town

Date of Construction : 1894's

Temple Type – *Sri Shantinath Digmaber Jain Temple*

Plate Number: - XXV

##### **Architectural Features of the Temple**

The temple has *vedi* of *Tirthankar Shantinath* in sitting posture. The temple has square *garbhagriha* 16'-0" X 16'-0" with three side door and circumambulatory path. The height of temple is 67'-8". The top of temple has pyramidical *shikhara* with spire and decorative grooved dome at all four corners of the circumambulatory path. The temple is constructed with brick and lime mortar.

#### **4.6.3.3 Sri Chandra Prabhu Digmabar Jain Temple**

Location : Ara Town

Date of Construction : 1870's

Temple Type – *Sri Chandra Prabhu Digmaber Jain Temple*

Plate Number: - XXVI

### **Architectural Features of the Temple**

The temple has octagonal *vedi* of *Tirthankar Chandraprabhu* in sitting posture. The temple has square *garbhagriha* 10'-0" X 10'-0" with four side door and circumambulatory path. The height of temple is 47'-3". The top of temple has pyramidal *shikhara* with spire and decorative dome at all four corners of the circumambulatory path. The temple is constructed with brick and lime mortar. There is a *manastabha* in front of temple of 40'-0" height. In the rear side of temple there are tunks of all twenty four *Tirthankar*.

#### **4.6.3.4 Sri Digmabar Jain Chandraprabhu Chaityalaya**

Location : Ara Town

Date of Construction : 1965's

Temple Type – *Sri Chandraprabhu Chaityalaya*

Plate Number: - XXVII

### **Architectural Features of the Temple**

The temple has *vedi* of *Tirthankar Chandraprabhu* in sitting posture. The temple has rectangular *garbhagriha* of 14'-0" X 18'-0" and double height *mandapam*. It is placed on the first floor of building. The height of temple is 28'-6". The top of temple has pyramidal *shikhara* with spire. The temple is constructed with brick and lime mortar.

#### **4.6.3.5 Sri Digmabar Jain Mahavir Swami Chaityalaya**

Location : Ara Town

Date of Construction : 1962's

Temple Type – *Sri Mahavir Swami Chaityalaya*

Plate Number: - XXVIII

### **Architectural Features of the Temple**

The temple has *vedi* of *Tirthankar Mahavir* in sitting posture. The temple has square *garbhagriha* of 8'-0" X 8'-0" and entry from 6'-0" verandah. It is placed on the first floor of building. The height of temple is 30'-4". The top of temple has pyramidal *shikhara* with spire. The temple is constructed with brick and lime mortar.

#### **4.6.3.6 Sri Digmabar Jain Prabhudas Temple**

Location : Ara Town

Date of Construction : 1870's

Temple Type – *Samosaran*

Plate Number: - XXIX

#### **Architectural Features of the Temple**

The temple has octagonal *vedi* of *samosaran* Temple of *Tirthankar Sitalnath*. The temple has square *garbhagriha* 12'-0" X 12'-0" with four side door and circumambulatory path. The height of temple is 55'-10". The top of temple has pyramidal *shikhara* with spire and miniature pyramid at all four corners of the circumambulatory path. The temple is constructed with brick and lime mortar.

#### **4.6.3.7 Sri Parswanath Digamber Jain temple Masadh**

Location : *Masadh, Ara*

Date of Construction : 1870's

Temple Type – *Sri Parswanath Digamber Jain temple*

Plate Number: - XXX

#### **Historical Background**

*Sri Parswanath Digamber Jain temple* is situated in *masadh*, which is twelve km away from Ara - where black marble idols of Lord *Sri Parasnath* and white marble of Lord *Adinath* is placed. The *Chinese* traveller "*Hwensheng*" made its reference in 637 AD in his travel journey. The present temple was completed in 1819 AD (Jain B. K., 2012, p. 158).

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Parsvanath*. The temple has square *garbhagriha* 12'-0" X 12'-0" with three side door and circumambulatory path. The height of temple is 44'-1". The top of temple has pyramidal *shikhara* with spire and grooved dome at all four corners of the circumambulatory path. The temple is constructed with brick and lime mortar. These are subsidiary rooms and halls constructed with the temple.

#### **4.6.3.8 Bisram, Dhanupura, Ara**

##### **Historical Background**

The name '*Bisram*' in Hindi, translates to 'rest'. During the travel of *Sri Mahvir* sought rest here, in the village. There are two temples dedicated to *Sri Adi Nath* and *Sri Mahavir*. In addition, one *Bahubali* statue and one *manastambha* in front of the statue is present.

##### ***Sri Jain Bala Bisram***

This first Jain institution for promotion of female education in India was founded in 1921 by *Pandita Chanda Baiji*, aunt of *Late Sri Nirma Kumar Jain*, at *Dhanupura*, two miles east of the town. Its teaching is based on religion and the ideals of Indian womanhood.

Situated in a compound amidst natural surroundings, the institution is in the lap of nature and has won appreciation from one and all. It has quite a few units within its campus, and they include *Sanskrit Mahavidyalaya*, and School of Arts and Crafts.

##### **4.6.3.8.1 *Sri Jain Bala Temple and Manastambha, Bisram***

Location : *Ara Town*

Date of Construction : 1955's

Temple Type – *Bahubali* Statue and *Manastambha*

Plate Number: - XXXI

##### **Architectural Features of the Temple**

This temple stands in the compound of *Jain Bala Bishram*. The statue is 15 feet high in a single white *Jaipur* marble stone. It stands over an artificial mountain amidst beautiful natural surroundings. It is a replica of the famous 57-feet-high ancient image of *Bahubli Swami*, the illustrious son of the first *Jain Tirthankar Lord Rishabhadev*, which is established at *Shravanabelagola* in *Karnataka*. The size of *garbhagriha* is 10'-0" x 14'-0" with height of 27'-0". The top of the temple has *chhatra* style dome. A twenty – four feet high *manastambha* was also built by *Pandita Chanda Baiji* on the campus.

##### **4.6.3.8.2 *Sri Adinath Digamber Jain Temple, Dhanupura***

Location : *Ara Town*

Date of Construction : 1870's

Temple Type – *Bahubali* Statue and *Manastambha*

Plate Number: - XXXII

### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Adinath*. The temple has square *garbhagriha* 12'-0" X 12'-0" with three side door and circumambulatory path. The height of temple is 53'-6". The top of temple has pyramidical *shikhara* with spire and grooved dome at all four corners of the circumambulatory path. The temple is constructed with brick and lime mortar. These are subsidiary rooms and halls constructed with the temple for the other *Tirthankar*.

#### **4.6.3.8.3 Sri Mahavir Swami Digamber Jain Temple, Dhanupura**

Location : Ara Town

Date of Construction : 1870's

Temple Type – *Bahubali* Statue and *Manastambha*

Plate Number: - XXXIII

### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Mahavir*. The temple has square *garbhagriha* 12'-0" X 12'-0" with three sides door and circumambulatory path. The height of temple is 43'-0". The top of temple has pyramidical *shikhara* with spire. The temple is constructed with brick and lime mortar. These are subsidiary rooms and halls constructed with the temple for the other *Tirthankar*. The front portico of temple is semicircular with round pillars.

#### **4.6.4 Jammui**

### **Historical Background**

Consider to be the birthplace of Lord *Sri Mahavir* by *Swetambar*s. There are two beautiful temples in *nagara* style. One is in the village *Lachhuar* and other is on the hill valley. The hill near *Lachhuar* in *sikandra* Police Station is also known as "*Chhatriya Kund*" The whole area known as "*Kundgram*" divided into two parts by the range of hills, one part is called "*Brahman Kundgram*" and the other part "*Chhatriya Kundgram*".

#### **4.6.4.1 Sri Swetambar Jain Temple, Kshatriyakund, Lachhuar**

Location : *Kshatriyakund, Lachhuar*

Date of Construction : 1870's

Temple Type – *Sri Mahavir Swetamber Jain Temple*

Plate Number: -XXXIV

#### **Architectural Features of the Temple**

The complete form of temple is completely inspired from *Hindu* Nagara style of temple. The complete hierarchy as *ardhamandam*, *mandapam*, *antarala* and *garbhagriha* is completely seen here. The size of *garbhagriha* is square 6'-0" x 6'-0" followed by *antarala* followed by square *mandapam* of 18'-0" x 18'-0" followed by *ardhamandam*. The plan is completely based on square - circle - square concept of *vastupurushamandala*. The elevation form is completely derived from *nagara* style with exception of intricately carved marble corbelled arches, ceiling, columns and other surfaces. The total height of temple is 50'-0". The temple is constructed with brick and lime mortar and intricately carved sand stone and marble.

#### **4.6.4.2 Sri Swetambar Jain Temple, Lachhuar**

Location : *Lachhuar*

Date of Construction : 1870's

Temple Type – *Sri Mahavir Swetamber Jain Temple*

Plate Number: - XXXV

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Mahavir*. The temple has square *garbhagriha* 14'-6" X 14'-6" with three sides door and circumambulatory path. The height of temple is 46'-10". The top of temple has pyramidal *shikhara* with spire and grooved dome at all four corners and four sides of the circumambulatory path. The temple is constructed with brick and lime mortar. There are subsidiary rooms and halls constructed with the temple for the other *Tirthankar*. The *rang mandap* of temple is rectangular size of 37'-3" x 30'-0" with intricately carved arches covered with grooved dome.

#### **4.6.4.3 Sri Swetamber Jain Temple Kakan**

Location : *Lachhuar*

Date of Construction : 1870's

Temple Type – *Sri Suvidhinath Swetamaber Jain Temple*

Plate Number: - XXXVI

#### **Historical Background**

The history of the sanctuary begins with the ninth *Tirthankar Sri Suvidhinath*. According to the *Swetamber* traditions, the four *Kalnayaks* (*Chayvan, Janm, Diksha and Keval Gnan*) of *Sri Suvidhinath* have occurred here. *Sri Suvidhinath* is also called *Pushpadanta* (Society, Shri Jain Swetamber, 2018).

#### **Architectural Features of the Temple**

The size of *garbhagriha* is rectangular 8'-0" x 10'-0" followed by *antarala* followed by rectangular *mandapam* of 36'-9" x 21'-3" followed by *ardhamandam*. The elevation form is completely derived from *nagara* style with exception of intricately carved cement mortar corbelled arches, ceiling, columns and other surfaces. The total height of temple is 43'-8". The temple is constructed with brick and lime and intricately carved in cement mortar.

#### **4.6.5 Bhagalpur**

##### **4.6.5.1 Sri Champapur Digamber Jain Siddha Kshetra Bada Mandir, Nathnagar**

Location : *Nathnagar, Bhagalpur*

Date of Construction : 1760's

Temple Type – *Sri Vasupujya Digamber Jain Temple*

Plate Number: - XXXVII

#### **Historical Background**

*Champapur* is rather old and historic *Teerth Kshetra*. *Champapur* is the only "*Panch Kalyanaka Kshetra*" in the world. It is related to *Panch Kalyanaka*: - "(i) *Garbha*, (ii) *Janma*, (iii) *Tapa*, (iv) *Gyan* and (v) *Moksha*" of the 12th *Tirthankar Bhagwan* and arrival of "*samosaran*" of all the twenty-four *Tirthankars*.



### **Architectural Features of the Temple**

The main temple of *Champapur Siddha Kshetra* is quite old (about 2500 years). This symbolic temple of '*Panch Kalyanaka*' is adorned with five altars, a magnificent spire and two famous columns.

The gateway to this temple is built in the *hawamahal* style of *Jaipur* (the pink city), it is large, attractive and artistic. An ancient "*Adinath Jinalaya* from the northeast" is also present on the southern campus, near the main temple. Here is also a *Khadgasana idol* '*Kushan* periodic' of Lord *Adinath*, who is 2000 years old. These are many older idols present in this temple. In this temple, the statues of all twenty-four *Tirthankars* are present in marble collectively and this seems wonderful and unique.

The magnificent 61-feet high "Column of Dignity" is here and is one of the massive pillars of dignity present in eastern India. The four idols of *Jin* present in the upper part on the four sides of the column, the four idols are established respectively on four altars present in the central part of the column. Around these four altars, the 16 dreams are carved in marble that respected *Tirthankar's* mother before conceiving a child. "*Tunks*" of twenty-four *Tirthankars* are built around the three sides of this column of dignity. The first of these "*Tunks*", the temple of *Bhagwan Bahubali* is quite attractive. At the end of these twenty-four "*Tunks*" there are the standing images of "*Ganadhar Mandar*". *Sri Mandar* was the first *Ganadhar* of *Bhagwan Vasupoojya*.

*Lord Shantinath* temple with a magnificent idol of 9.25 feet tall and Lord *Sri Mahavir Swami* temple with a magnificent 7.25 foot tall idol are also present at this campus. Here is also the artistic temple decorated with a mirror, in which the idol '*Khadagasan*' of Lord *Parshvanath* , 7.25 feet tall, crowned by 'seven snake caps' is installed.

A magnificent '*Jal Mandir*' is also built here, in which a 16-foot tall idol of Lord *Vasupoojya* is established on a large lotus flower. The water is filled with an artificial lake around the altar. The huge umbrella marble is present above the idol.

#### **4.6.5.2 Sri Vasupujya Swami Jain Temple, Nathnagar**

Location : *Nathnagar, Bhagalpur*

Date of Construction : 1960's

Temple Type – *Sri Vasupujya Digamber Jain Temple*

Plate Number: - XXXVIII

#### **Architectural Features Of The Temple**

The temple has sitting posture *vedi* of *Tirthankar Vasupujya swami*. The temple has square *garbhagriha* 11'-0" X 11'-0" with one side door followed by *rang mandapa* of size 9'-6" x 22'-0" and circumambulatory path. The height of temple is 43'-0". The top of temple has pyramidal *shikhara* with spire. The temple is constructed with brick and lime mortar and intricately carved in cement mortar. These are subsidiary rooms constructed with the temple for the other *Tirthankars*.

#### **4.6.5.3 Sri Vasupujya Swami Svetambar Jain Temple, Champanagar**

Location : *Champanagar, Bhagalpur*

Date of Construction : 1936's

Temple Type – *Sri Vasupujya Svetamber Jain Temple*

Plate Number: - XXXIX

#### **Architectural Features of the Temple**

There are three main *garbhagriha* in the temple. Two on ground floor depicting the all five *kalyanaka* of *Sri Vasupujya Swami* and one *garbhagriha* of *samosaran* temple on first floor of first temple. The size of first and *samosaran garbhagriha* is 20'-0" X 20'-0", second *garbhagriha* is 14'-0" x 14'-0" with one opening in each. There are three entryway to all these *garbhagrihas* with circumambulatory path. The height of temple is 43'-6". The top of temple has pyramidal *shikhara* with spire. The temple is constructed with brick and lime mortar and intricately carved with mortar. There are subsidiary rooms and *Tunk* constructed with the temple for the other *Tirthankars*.

#### **4.6.6 Banka**

##### **4.6.6.1 Sri Digmabar Jain Siddha Kshetra Moksha Kalyanak Temple**

Location : *Mandargiri, Banka*

Date of Construction : 1820's

Temple Type – *Sri Vasupujya Moksha Kalyanak Temple*

Plate Number: -XL

### **Architectural Features of the Temple**

The temple is on the *Mandar* hill. It is a great place of for *Hindu* and *Jain* both. This place is a *Nirvana* place for *Sri Vasupujya Swami*. The temple have two square *garbhagriha* of size is 20'-0" x 20'-0". In first *garbhagriha*, there is *Samadhi* of *Sri Vasupujya Swami* with an opening in the wall and other *garbhagriha* has standing statue of *Sri Vasupujya Swami* is present. The top of both the temple have round base pyramidical *shikhara*. The height of temple is 51'-10". The temple is constructed with brick and lime mortar.

#### **4.6.6.2 Sri Digmabar Jain Temple**

Location : *Boisi, Banka*

Date of Construction : 1880's

Temple Type – *Sri Vasupujya Moksha Kalyanak Temple*

Plate Number: - XLI

### **Architectural Features of the Temple**

The temple is situated at *boisi* railway station, *Banka*. The temple have two square *garbhagriha* of size is 8'-0" x 8'-0" on ground floor and first floor of same premises. From the top of this temple *Sri Digmabar Jain Siddha Kshetra Moksha Kalyanak* temple is clearly seen. In first *garbhagriha*, there is sitting posture *vedi* of *Sri Vasupujya Swami* with three side entry, while on the first floor foot idol of *Sri Vasupujya Swami* is established. The top the temple have hexagonal base grooved pyramidical *shikhara*. The height of temple is 38'-0". The temple is constructed with brick and lime mortar. The exterior of temple is highly decorated with mosaic work.

#### **4.6.6.3 Sri Vasupoojya Swami Jinalaya**

Location : *Boisi, Banka*

Date of Construction : 1977's

Temple Type – *Sri Vasupujya Moksha Kalyanak Temple*

Plate Number: - XLII

### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Vasupujya swami*. The temple has square *garbhagriha* 7'-0" X 7'-0" with one side door followed by *antarala* followed by *rang mandapa* hall of size 15'-0" x 12'-3". The height of temple is 29'-0". The top

of temple has pyramidal *shikhara*. The temple is constructed with brick and lime mortar and carved groove in cement mortar. The temple has two very decorative carved column and balcony with grooved half dome in cement mortar.

#### **4.6.7 Nalanda**

##### **4.6.7.1 Jal mandir, Pawapuri**

Location : *Pawapuri*

Date of Construction : 1760's

Date of Renovation / Reconstruction: 1920's

Temple Type – *Sri Mahavir Nirvana* Temple

Plate Number: - XLIII (A) and XLIII (B)

#### **Historical Background**

The *Jal Mandir* which means Water Temple, is in Pawapuri also known as Apapuri. Which means a city without sins, is a very revered temple dedicated to Lord *Sri Mahavir*, the 24<sup>th</sup> *Tirthankar* (religious preacher of *Jainism*), which marks the place of his cremation. *Sri Mahavir* reached *Nirvana* (salvation) in *Pawapuri* in 528 BC. The temple was built inside a pool full of red lotus flowers. It is said that the temple was built by King *Nandivardhan*, the elder brother of *Sri Mahavir*. The foot idol of *Sri Mahavir* is deified in the temple.

#### **Architectural Features of the Temple**

The temple has foot idol of *Tirthankar Sri Mahavir swami*. The temple has square *garbhagriha* 12'-0" X 12'-0" with three side door and 8'-0" wide circumambulatory path. The height of temple is 23'-6". The top of temple has *chhatriya* dome at center and all cardinal directions and decorated grooved dome at all the four corners. The temple is constructed with brick and lime mortar and finished with decorative marble cladding in wall, ceiling, columns and arches.

##### **4.6.7.2 Samosaran Temple, Pawapuri**

Location : *Pawapuri*

Date of Construction : 1910's

Temple Type – *Sri Mahavir Samosaran* Temple

Plate Number: -XLIV

### **Architectural Features of the Temple**

The temple is in the form of circular auditorium with facing all cardinal directions standing posture *Tirthankar Sri Mahavira*. The size of *garbhagriha* is 12'-6'' X 12'-6''. It is believed that the *Lord Sri Mahavir* preaches at this place several times. In the memorial, it was constructed in 1910. It has three level of storey with a height of 34'-6''. The entire *samosaran* is finished with white cladded marble. Its arches, railing and the top of *shikhara* in tree replica is intricately carved.

#### **4.6.7.3 Sri Swetambar Jain Temple, Pawapuri**

Location : *Pawapuri*

Date of Construction : 1880's

Temple Type – *Sri Mahavir Swetambar Jain Temple*

Plate Number: - XLV

### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Mahavira*. The temple has square *garbhagriha* of 10'-0'' X 10'-0'' with three side door and circumambulatory path. The height of temple is 53'-0''. The top of temple has pyramidal *shikhara* with spire and grooved. The temple is constructed with brick and lime mortar and carvings of plaster in ceiling, eaves, and columns.

#### **4.6.7.4 Sri Kundalpur Digamber Jain Atishaya Kshetra**

Location : *Kundalpur*

Date of Construction : 1710's

Temple Type – *Sri Mahavir Digamber Jain Temple, Manastambha*

### **Architectural Features of the Temple**

According to the *Digamber Jain* sect, *Sri Kundalpur Digamber Jain Teerth Kshetra* is the sacred place of *Sri Mahavir*, *Garbha*, *Janma* and *Tapa Kalyanaka*. There are two temples and a *manastambha* on the campus. The first temple is a huge and glorious temple with beautiful spirers at *Sri Kundalpur Digamber Jain Teerth Kshetra*. The main idol is an attractive idol of *Padmasana* of Lord *Sri Mahavir*, white in color and four and a half feet of height established in this temple. The other temple is an underground temple with a pyramidal superstructure, the temple symbolizes *Sri Mahavir* birthplace. *manastambha* is a huge and brilliant tower where eight idols of Lord *Sri Mahavir* are

established in front of each of the cardinal directions in two levels with intricate carvings. The height of the *manastabha* is 52 feet. In between the temple and *manastambha*, there is beautifully marble carved *tunk* with the foot idols of Lord *Sri Mahavira*.



Figure : 4.7 - Main Temple *Sri Kundalpur Digmaber Jain Atishaya Kshetra*

Source: (Author)



Figure : 4.8 - Birth place Sri Mahavir, 24th Tirthankar.

Source: (Author)



Figure : 4.9 - Manastambha, Sri Kundalpur Digmaber Jain Atishaya Kshetra.

Source: (Author)

#### **4.6.7.5 Sri Digamber Jain Tirtha Kshetra Prachin Mandir Kundalpur (Kalyanak Kshetra)**

Location : *Kundalpur*

Date of Construction : 1840's

Temple Type – *Sri Digamber Jain Chaubisi Jain Temple complex*

Plate Number: - XLVI (A) and XLVI (B)

#### **Architectural Features of the Temple**

This is a temple complex with five temples and rest house. The first temple is totally based on the life history of *Sri Mahavir ji* in three floors. The temple is clad with red sand stone. The second temple is dedicated to *Sri Rishavnath ji*. The standing posture statue is placed in the temple. The third temple is dedicated to *Sri Mahavir ji*.

The forth temple is dedicated to all the *navgrahs*. As per the mythological consideration, these have impact on the human *karmas*. The top of these temple have very decorated pyramidical *shikhara* with spire finished in cement mortar. The fifth and last temple is dedicated to past *chaubisi*, current *chaubisi* and future *chaubisi*. In the Jain tradition, it is believed that the universe is a continuous process, it cannot be destroyed and created so; there are past *chaubisi*, current *chaubisi* and future *chaubisi* in present tradition. The temple has three floors dedicated to different period *chaubisi*. The temple have highly decorated corbelled arches and multiple miniature pyramidical *shikhara* is placed on the top.

#### **4.6.8 Rajgir**

##### **Historical Background**

This place is particularly significant for the followers of *Jainism* and for archaeological point of view. This area is known as “*Panchpahari Siddhchhetra*”. There are *Panchpahari - Bipulachal, Ratnagiri, Udayagiri, Swarnagiri* and *Vaibhargiri*. All these hills have about twenty-one temples on the hilltops constructed in different periods by *Digamber* and *Swetamber* Sect. This place is blessed by “*Garbha*”, “*Janma*”, “*Tap*” and knowledge – four kalyanak of Lord *Munisuvratnath Swami*. The first sermon of Lord *Mahavir Swami* was delivered on “*Vipulachal Hill*” in the memory of this place was particularly blessed by the stay of Lord *Sri Mahavir*. The first “*Gandhar*”, *Indrabhuti Gautam* attained salvation on the “*Vaibhavgiri*” mountain.

In this *Digamber Jain Siddha Kshetra* there are ten temples located in the hills and two are located in the valley. On the first hill known as *Vipulachala*, there are four magnificent temples located. A huge and attractive monument was built here in the memory of Lord *Muni Suvratnath*. On the second hill of *Udaygiri* there are two temples. It is said that these temples were discovered while digging the place. Even the idols have recovered from here and kept in *Lal Mandir*, in the valley. *Swarnagiri* is the fourth hill also known as *Shranangiri*. There are three temples. There are two caves in the southern part of this hill. The images of '*Jin*' have been carved on the walls of the caves. In the fifth hill known as *Vaibhavgiri* there are five temples. From this place a large *Jain* temple was recovered about 1200 years after having excavated twenty four rooms. Many old artistic idols are established here.



#### **4.6.8.1 Samosaran Temple, Bipulachal**

Location : *Bipulachal, Rajgir*

Date of Construction : 1878's

Temple Type – *Samosaran Temple*

#### **Architectural Features of the Temple**

The temple is in the form of circular auditorium with facing all cardinal directions standing posture *Tirthankar Sri Mahavira*. The size of *garbhagriha* is 10'-0" X 10'-0". It is believed that, the Lord *Sri Mahavir* preaches at this place first time after the enlightenment. It has three level of storey with a total height of 50'-0". The entire *samosaran* is finished with white cladded marble. Its railing and the top of temple in tree replica is carved with marble.



Figure : 4.10 - *Samosaran Temple, Bipulachal*. Source: (Author)

#### **4.6.8.2 Sri Digmaber Jain Temple, Ratnagiri**

Location : *Ratnagiri, Rajgir*

Date of Construction : 1935's

Temple Type – *Sri Mahavir Temple*

Plate Number: - XLVII

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Mahavira*. The temple has irregular octagonal *garbhagriha* of 19'-6" X 16'-11" with single entry followed by *mandapam* of size 12'-5" x 8'-7". The height of temple is 38'-0". The top of temple has octagonal pyramidal *shikhara* and *mandapa* has floral pattern *chhatriya* dome in

plaster. The temple is constructed with brick and lime mortar. The main entry has cupped arches.

#### **4.6.8.3 Sri Swetambar Jain Temple, Ratnagiri**

Location : *Ratnagiri, Rajgir*

Date of Construction : 1960's

Temple Type – *Sri Chandraprabhu Temple*

Plate Number: - XLVIII

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Chandraprabhu*. The temple has square *garbhagriha* of 18'-0" x 18'-0" with single entry. The top of temple has corbelled pyramidal *shikhara*. The height of temple is 27'-0". The temple is constructed with brick and lime mortar and finished with marble.

#### **4.6.8.4 Udaygiri**

In this hill some remains of old temple have been found, which clearly indicates that, existence of *Tirthankar* worship on these hills. All these remains have been preserved by the *Jain* society. The temple has three entryway with circumambulatory path. Presently wall upto a height of 3'-0" have been constructed and preserved with the pyramid shape miniature foot idol.



Figure : 4.11 - Remains of old temples preserved at *Udaygiri hill, Rajgir*.

Source: (Author)

#### **4.6.8.5 Sri Digambar Jain Temple, Udayagiri**

Location : *Udayagiri, Rajgir*

Date of Construction : 1942's

Temple Type – *Sri Digamber Jain Sri Adinath Temple*

Plate Number: - XLIX

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Aadinath*. The temple has square *garbhagriha* of 10'-0" X 10'-0" with single entry followed by *mandapam* of size 10'-0" x 6'-0". The height of temple is 33'-9". The top of temple has octagonal pyramidal *shikhara* and *mandapa* has floral pattern *chhatriya* dome in plaster. The temple is constructed with brick and lime mortar. The main entry has cupped arches.

#### **4.6.8.6 Sri Swetambar Jain Sanwaliya Parshavanath Temple, Udayagiri**

Location : *Udayagiri, Rajgir*

Date of Construction : 1957's

Temple Type – *Sri Parshavanath Temple*

Plate Number: - L

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Parshavanath*. The temple has hexagonal *garbhagriha* of 10'-6" x 10'-6" with single entry and circumcumbulatory path. The top of temple has corbelled pyramidal *shikhara*. The height of temple is 24'0". The temple has four foot print idols established at the cardinal directions with the miniature corbelled *shikhara*. The temple is constructed with brick and lime mortar and finished with marble.

#### **4.6.8.7 Sri Parshavanath Swetambar Jain Jinalaya, Vaibhargiri**

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1908's

Temple Type – *Sri Parshavanath Swetambar Jain Jinalaya*

Plate Number: - LI

#### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Sri Parshavanath* and two foot idol on the side wall. The temple has square *garbhagriha* of 10'-0" X 10'-0" with single entry followed by *mandapam* of size 14'-0" x 14'-0". The height of temple is 33'-6". The top of temple has decorated pyramidical *shikhara*. The temple is constructed with brick and lime mortar and cladded with marble.

#### **4.6.8.8 *Sri Dhanna Shalibhadra Swetambar Jain Temple, Vaibhargiri***

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1901's

Temple Type – *Sri Swetambar Jain Temple*

Plate Number: - LII

#### **Architectural Features of the Temple**

The temple has almost similar features as *Sri Parshavanath Swetambar Jain Jinalaya, Vaibhargiri*. The temple has sitting posture *vedi* of *Sri Parshavanath* and two foot idol on the side wall. The temple has square *garbhagriha* of 9'-0" X 9'-0" with single entry followed by *mandapam* of size 9'-0" x 9'-0". The height of temple is 31'-9". The top of temple has decorated pyramidical *shikhara*. The temple is constructed with brick and lime mortar and cladded with marble.

#### **4.6.8.9 *Sri Digmabar Jain Temple, Vaibhargiri***

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1890's

Temple Type – *Sri Digmabar Jain Temple*

Plate Number: - LIII

#### **Architectural Features of the Temple**

The temple has almost similar features as *Sri Parshavanath Swetambar Jain Jinalaya, Vaibhargiri*. The temple has sitting posture *vedi* of *Sri Parshavanath* and two foot idol on the side wall. The temple has square *garbhagriha* of 9'-0" X 9'-0" with single entry followed by *mandapam* of size 9'-0" x 9'-0". The height of temple is 31'-9". The top of temple has decorated pyramidical *shikhara*. The temple is constructed with brick and lime mortar and cladded with marble.

#### **4.6.8.10 *Sri Mahavirswami Swetambar Jain Temple, Vaibhargiri***

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1890's

Temple Type – *Sri Mahavirswami Swetambar Jain Temple*

Plate Number: - LIV

##### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Sri Mahvirswami*. The temple has square *garbhagriha* of 10'-0" x 10'-0" with single entry and circumcumbulatory path. At the corner of circumambulatory path these are four hexagonal niches having foot idol of *Tirthankars*. The top of temple has floral pattern groved dome and at corners of temple offset pyramidal *shikhara* is constructed. The height of temple is 29'-5". The temple is constructed with brick and lime mortar and finished with marble.

#### **4.6.8.11 *Sri Munisvaratswami Mukhya Jinalaya, Vaibhargiri***

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1820's

Temple Type – *Sri Munisvaratswami Mukhya Jinalaya*

Plate Number: - LV

##### **Architectural Features of the Temple**

The temple has sitting posture *vedi* of *Tirthankar Munisvaratswami*. The temple has square *garbhagriha* of 8'-0" x 8'-0" with single entry and circumcumbulatory path. The top of temple has corbelled pyramidal *shikhara*. The height of temple is 30'-0". The temple is constructed with brick and lime mortar and finished with marble.

#### **4.6.8.12 *Sri Gautamswami Nirvan Temple, Vaibhargiri***

Location : *Vaibhargiri, Rajgir*

Date of Construction : 1835's

Temple Type – *Sri Gautamswami Nirvan Temple*

Plate Number: - LVI

##### **Architectural Features of the Temple**

This is the place where the first disciple of *Sri Mahavir* taken *Samadhi*. The temple has foot idol of *Gautamswami*. The temple has square *garbhagriha* of 8'-0" x 8'-0" with single entry and circumcumbulatory path. The top of temple has corbelled pyramidal

*shikhara*. The height of temple is 16'-0". The temple is constructed with brick and lime mortar and finished with marble.

#### **4.6.8.13      *Sri 1008 Mahavir Swami Jinalaya, Rajgir***

Location : *Rajgir*

Date of Construction : 1919's

Temple Type – *Sri Mahavir Swami Jinalaya*

Plate Number: - LVII

#### **Architectural Features of the Temple**

The temple is situated at the *Rajgir* city. The temple has sitting idol of *Tirthankar Sri Mahavir swami*. The temple has square *garbhagriha* of 8'-0" x 8'-0" with single entry and circumcumbulatory path. The top of temple has pyramidal *shikhara* and front dome above verandah. The height of temple is 35'-0". The temple is constructed with brick and lime mortar.

#### **4.6.8.14      *Sri Swetambar Jain Temple, Rajgir***

Location : *Rajgir*

Date of Construction : 1961's

Temple Type – *Sri Mahavir Swami temple*

Plate Number: - LVIII

#### **Architectural Features of the Temple**

The complete form of temple is completely inspired from *Hindu nagara* style of temple. The complete hierarchy as *ardhamandam*, *mandapam*, *antarala* and *garbhagriha* is completely seen here. The size of *garbhagriha* is rectangular 16'-2" X 12'-8" followed by *antarala* followed by square *mandapam* of 30'-0" x 30'-0" followed by *ardhamandam*. The plan is completely based on square – circle - square concept of *vastupurusamandala*. The elevation form is completely derived from *nagara* style with exception of intricately carved marble corbelled arches, ceiling, columns and other surfaces. The total height of temple is 57'-0". The temple is constructed with brick and lime mortar and intricately carved sand stone and marble.

#### 4.6.9 Nawada

##### Historical Background

This place is on Patna-Ranchi road towards *Biharsharif*. This holy place is considered as salvation (*Nirvana*) place of *Gautam Gandharva*. The *Sidha Kshetra* have one *Digamber Jain Temple*, *manastambha*, one *Swetamber Jal Mandir* and rest house. This place has therefore special significance and attraction for *Jain* pilgrims all over the world.

##### 4.6.9.1 Sri Digmabar Jain Sidha Kshsetra, Gunawaji

Location : *Gunawa ji, Nawada*

Date of Construction : *Jalmandir* (1876's) and Temple (1880's)

Temple Type – *Sri Jal Mandir* and *Sri Mahavir swami temple*

Plate Number: - LIX (A) and LIX (B)

##### Architectural Features of the Temple

There are two important temple is at this *sidhha kshetra*. One is *Jal mandir* with the totally dome superstructure placed in a centre of the pond. The temple has single entry square *garbhagrigha* of size 8'-0" X 8'-0" with the three sitting posture *vedi* of *Tirthankars*. There is circumambulatory path around the *garbhagriha*. The total height of temple is 17'-6". The temple is constructed with brick and lime mortar and finished in decorative plaster.

The second temple is adjacent to *Jal mandir* and has sitting posture *vedi* of Lord *Sri Mahavira*. The size of *garbhagriha* is square (10'-0" X 10'-0") with three side openings. There is a *mandapam* hall of size 20'-0" X 28'-0". The top had octagonal pyramidal *shikhara*. There is a *manastambha* in the front of temple of height 31'-6".

The third temple is of *Gautam Swami* in the same campus of octagonal in plan with circumambulatory path. The top of temple has dome with the lotus petals. All these temples are constructed with brick and lime mortar and finished in decorative plaster.

## 4.7 Jainism in Jharkhand

*Shikharji, Jharkhand, India*, is situated at *Parasnath*. It is a *Jain Tirtha* acknowledged to be the *nirvana* place of twenty of the twenty-four *Jain Tirthankars*. The site of Architectural importance are *Barakar, Palgang, Isari bazar* and *Kolhua Mountain*. All these places are *pilgrimage* site for the *Jain* community.

### 4.7.1 *Sri Rijubalika Tirtha, Barakar*

Location : Barakar, Jharkhand

Date of Construction : 1865

Temple Type – *Siddha Kshetra* of Lord *Sri Mahavir*

Plate Number: -LX

### Historical Background

The current river Barakar was the *Rujubaluka* river of ancient times. It is believed that this great place was called *Rujuvaluka*. On Farmer *Shyamak's* farm on the bank of this river under a *shal* tree at the auspicious moment of *Vijay Muhurta*, on the tenth day of the brilliant month of *Vaishakh* Lord, *Sri Mahavir* attained omniscience. Therefore, this place is considered a very sacred and sacred place in the history of *Jain* (Sangh, Sri Jain Svetambar, 2018).

### Architectural Features of the Temple

The temple of *Sri Rujubaluka Teerth* houses the deity of Lord *Sri Mahavira*. The temple has been beautifully decorated with intricate artistic designs. The creative work of the temple boasts of the skills of the craftsmen. The idol of the Lord is about 15 cm tall and is white. The idol has been beautifully carved into a single stone and looks very attractive. The smiling face of the Lord seems very calm and serene. The temple having square *garbhagriha* with size 14'-0" X 14'-0" with 6'-0" circumambulatory path. The total height of temple is 33'-0". The central part of the temple have Pyramidical *shikhara* with spire and decorative dome at the all four corners. The arch is corbelled unique feature of the temple. The facia is clad with marble.



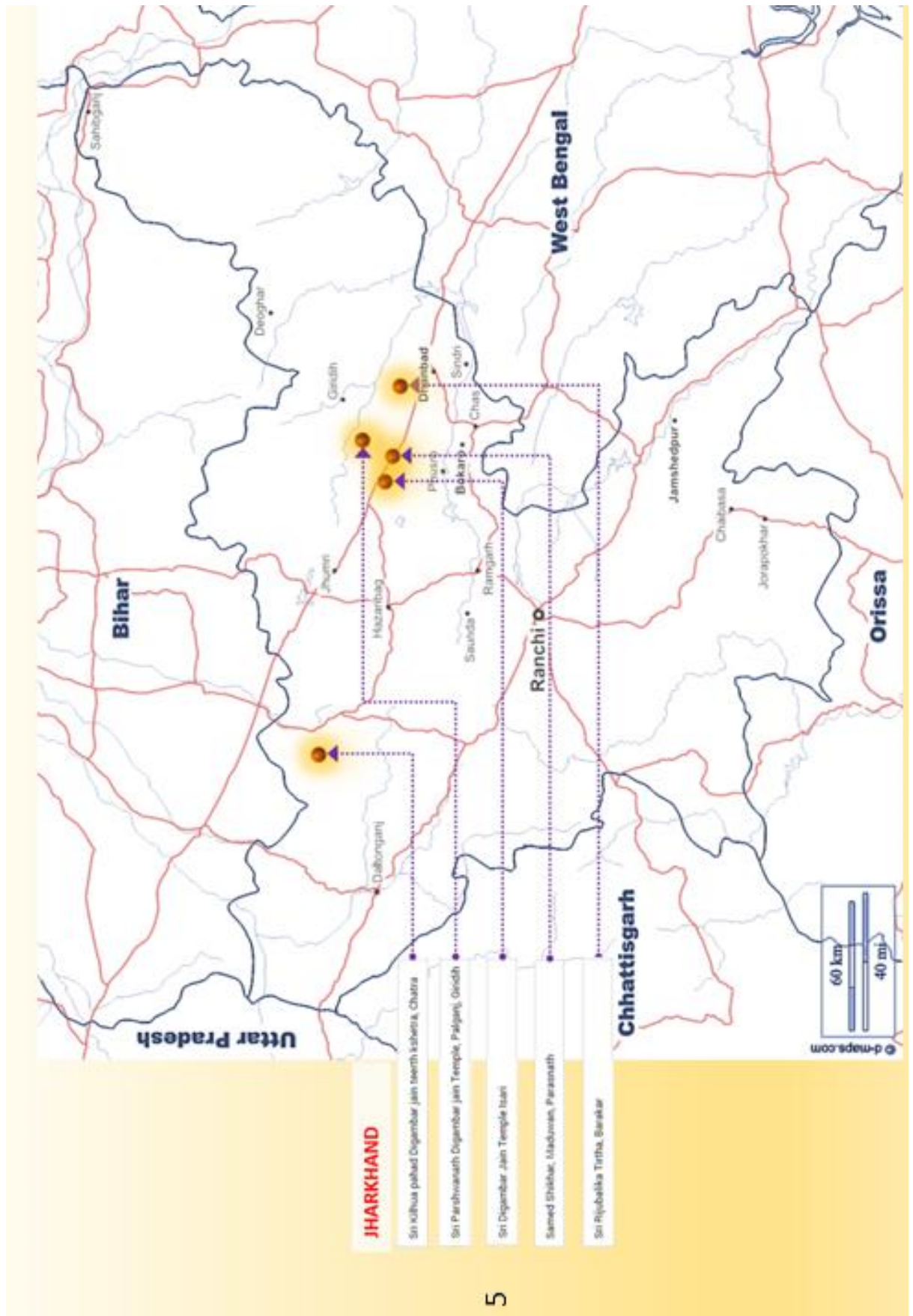


Figure: 4.12- Location of Jain temples in Jharkhad. Source: (Author)

#### **4.7.2 Sri Parshavanath Digamber Jain Temple, Palganj**

Location : *Palganj, Jharkhand*

Date of Construction : 1970

Temple Type – *Sri Parshwanath Digamber Jain Temple, Palganj*

Plate Number: - LXI

##### **Historical Background**

*Raja Parasnath Singh* and his ancestors had developed this village. It is 17 Km south from *Giridih* at *Giridih Dumari Road*. It is famous place of worship *Jain*. *Palganj* was the original foot of *Sammed Shikhar* and the current *Madhuvan* is located at a distance of 20 kilometers from *Palganj*.

##### **Architectural Features of the Temple**

The temple of *Sri Parshwanath Digamber Jain Temple Palganj* houses the deity of *Parshwanath*. The temple has been magnificently decorated on octagonal *shikhara*, dome, lintel and columns in lime mortar plaster. The idol of the Lord is black in colour. The temple having square *garbhagriha* with size 14'-0" X 14'-0" with 6'-0" circumambulatory path. The total height of temple is about 34'-0". The central part of the temple have octagonal Pyramidical *shikhara* dome at the all four corner. The main entrance of temple is with arch supported with pilaster.

#### **4.7.3 Sri Digamber Jain Temple, Ishari Bazar, Jharkhand**

Location : *Parasnath, Jharkhand*

Date of Construction : 1924

Temple Type – *Sri Digamber jain Temple*

Plate Number: - LXII

##### **Architectural Features of the Temple**

This temple is very near to *Parasnath* railway station constructed in 1924. The temple is having rest houses. The tourist travelling to *Parasnath* hill come here for *darshana* and rest. The temple houses the diety *Sri Chandraprabhu*, *Sri Adinath* and *Sri Mahavir*. The principal diety is *Sri Mahavir*. The temple has octagonal *shikhara*, with two front corner *shikhara*. The temple is finished with lime mortar plaster. The temple main *garbhagriha* is square with size 8'-0" X 8'-0" with 5'-0" circumambulatory path. The total height of temple is about 38'-0".

#### **4.7.4 Sri Parshavanath Digamber Jain Temple, Kolhua mountain**

Location : *Chatra, Jharkhand*

Date of Construction : 1625

Temple Type – *Shri Kolhua Pahad Digamber Jain Teerth Kshetra*

Plate Number: - LXIII

#### **Historical Background**

According to Jain's ethic, the tenth *Tirthankar Bhagvan Sheetalnath* was born in *Bhadrikapuri* or *Bhaddalpur*. He accepted the monk's hood in the nearby *Bhaddalpur* forest called *Sahetuk-Van*. Until three years he practiced penance and meditation, often absorbed in himself to experience eternal joy and happiness, thus conquering the ills of affection and the aversion of the world, to break the web of birth and death. Finally, in the day - *Paush Krishna Chaturdashi*, he reached divinity - again in *Sahetuk-Van*. This *Sahetuk-Van* is now *Kolhua Pahad*. This area, including *Bhaddalpur*, saw the four *Kalyanaka* of *Bhagvan Sheetalnath*, *Kalyanakas-Garbh-Janma-Tapa-Gyan*. Today's *Bondalgaon* in the *Chatra* district of *Jharkhand* is *Bhadrikapuri* or *Bhaddalpur*. There are also three other places called *Bhadeja*, *Bhaddia* and *Bhadiyagaon*, but these villages do not have symptoms of *Jainism*. However, *Bhondalgaon* and its surroundings have a huge material linked to *Jainism*, so many ruins of idols, temples and other symbols. Therefore, many history scholars such as *Sir Willium Hunter*, *Dr.Stane* after a thorough study and investigation have discovered and declared *Kolhua Pahad*, a *Jain Teerth* and *Bhondalgaon*, the birthplace of Lord *Sheetalnath* (Kshetra, 2018).

#### **Architectural Features of the Temple**

This Temple is present on the hilltop of *Kolhua Mountain*. In front of temple there is a big lake, which have water throughout the year. The temple houses the diety *Sri Parshavanath*. The temple has rectangular *shikhara* and is finished with lime mortar plaster. The temple main *garbhagriha* is rectangle with size 11'-0" X 18'-0". The total height of temple is about 40'-6".

#### **4.7.5 Sammed Shikhar, Madhuban, Parashnath**

Location : *Madhuban, Jharkhand*

Date of Construction : 1955

Temple Type – *Nirvan place of twenty Tirthankar*

Plate Number: - LXIV (A)

### **Historical Background and Architectural Features**

*Sammed Shikhar Hill* near *Madhuban* at an altitude of 4450 feet from the sea surface. The history of this hill is very old. Twenty *Tirthankars* of this twenty-four *Tirthankaras* and a series of *Tirthankars* of the last twenty-four *Tirthankars* groups, achieved salvation in this holy hill.

#### **(1) *Gautam Swami Tunk***

Plate Number: - LXIV (B)

The first *tunk* is of Sri Gautam Swami. In the temples there are twenty-four foot print idols of all twenty – four *Tirthankar*. All the tunks of *Sammed Shikhar* can be seen by this *tunk*.

The temple is finished with marble. The temple main *garbhagriha* is square with size 8'-0" X 8'-0" with 5'-0" circumambulatory path. The total height of temple is about 25'-0". The top of the temple having grooved dome.

#### **(2) *Bhagawan Kunthunath tunk***

Plate Number: - LXIV (C)

In this *tunk* of Baba Kunthnath, seventeenth *Tirthankar*, The foot print idols are established.

#### **(3) *Eterna Jina, Rusabhanan tunk***

Plate number: - LXIV (C)

In this *tunk* of *Eterna Jina, Rusabhanan*, The foot print idols are established.

#### **(4) *Bhagawan Chandranan tunk***

Plate number: - LXIV (C)

In this *tunk* of *Bhagawan Chandranan*, The foot print idols are established.

#### **(5) *Bhagawan Neminath tunk***

Plate number: - LXIV (C)

In this little temple there are the black foot print idols of *Bhagwan Neminath*. For *Bhagawan Neminath* a Jain temple with four mouths is built. This tonk of *Bhagawan Neminath*, the twenty-first Tirthankar, is also known as mitradhar tunk.

**(6) *Bhagawan Arnath tunk***

Plate number: - LXIV (D)

In this tunk of *Bhagawan Arnath*, eighteenth *Tirthankar*, there are the idols of the black foot of *Bhagawan Arnath*. There is a new four-mouth temple of *Bhagawan Arnath*. It is known as the *Natak giri tunk*.

**(7) *Bhagawan Mallinath tunk***

Plate number: - LXIV (D)

In this *tunk* of *Bhagawan Mallinath*, the nineteenth *Tirthankar* is also known as *Sabal giri*. At this *tunk*, there are the black idols of *Bhagawan Mallinath*.

**(8) *Bhagawan Shreyansanath tunk***

Plate number: - LXIV (D)

In this *tunk* of *Bhagawan Shroyansanath* there are the black idols of *Bhagawan Shrenshanath*. *Tunk* is also known as *Sankul giri*.

**(9) *Bhagawan Suvidhinath tunk***

Plate number: - LXIV (D)

In the ninth *tunk* of *Bhagawan Suvidhinath*, there are currently the white idols of *Bhagawan Suvidhinath*. It is known as the *suprabhgiri*.

**(10) *Bhagawan Padmaprabhu Swami tunk***

Plate number: - LXIV (E)

In this *tunk* of *Bhagawan Swami Padmaprabhu*, the sixth *Tirthankar*, now there are black idols of the *Swami Padmaprabha* foot. It is also known as the *Mohangiri*.

**(11) *Munisurvati Swami tunk***

Plate number: - LXIV (E)

In this *tunk* of *Bhagawan Munisuvrat Swami*, twentieth *Tirthankra*, today there are the idols of the black foot of *Baba Munisurvati Swami*. It is also known as the *Nirjargiri Tunk*.

**(12) *Chandra prabha Swami tunk***

Plate number: - LXIV (F)

In this *tunk* of *Chnadra prabha Swami*, the eighth *Tirthankar*, at the moment there are the black idols of *Bhagawan*. It is known as the *Lalitghat tunk*. It's on a high hill and the climb up to hill is difficult. It is at a distance of two miles from *Jalmandir*. Of all the caves on the high hills, here is the largest and most excellent cave. It is good for meditation.

**(13) *Bhagawan Risabhadev tunk***

Plate number: - LXIV (E)

In this *tunk* of *Risabhdev Bhagawan*, the first *Tirthankar*, there are idols of white feet of *Bhagawan*.

**(14) *Bhagawan Anantanath tunk***

Plate number: - LXIV (E)

At this *tunk* of *Bhagawan Anantanath*, the fourteenth *Tirthankar*, there are now black-footed idols of *Bhagawan Anantanath*. It is also known as the *Svayambhugiri tunk*.

**(15) *Bhagawan Shitalnath tunk***

Plate number: - LXIV (G)

In this *tunk* of *Baba Shitalnath*, the tenth *Tirthankar*, there are standing idols of *Baba Shitalnath*. its ascent is difficult.

**(16) *Bhagawan Sambhavnath tunk***

Plate number: - LXIV (G)

In this *tunk* of *Baba Sambhavnath*, the third *Tirthankar*, there are now standing white idols of *Baba*, also known as the *Dunk Dhaval tunk*.

**(17) *Bhagawan Vasupujya Swami tunk***

Plate number: - LXIV (G)

At this *tunk* of *Vasupujyaswami*, the twelfth *Tirthankar*, foot print idols are installed.

**(18) *Swami Abhinandan tunk***

Plate number: - LXIV (G)

In this *tunk* of *Abhinandan Swami*, the fourth *Tirthankar*, are his foot print idols. It is also known as the *Anadagiri tunk*.

**(19) Jalmandir**

Plate number: - LXIV (H)

This *Jalmandir* is the splendid temple of *Shamaliya Parshvanath*. *Shamaliya Parshvanath* is *Mulnayak* in this temple. Only this temple have *Tirthankar* statues established, others have only foot print idols. The *Tirthankar Bhagawan* is only seen in this *Jalmandir*. There is a large open space, which can accommodate five hundred people. In the main temple shrine, there are idols of *Shamaliya Parshvanath*, *Bhagawan Abhinandan* and *Swami Sambhavnath*. In the sanctuaries openings are to the right and left portion, there are twenty-eight idols of *Tirthankaras*, gods, goddesses and *parshva Yaksha*. The great wealthy merchant *Khusaldas* built this beautiful temple in 1768 AD.

The temple is finished with marble. The temple main *garbhagriha* is rectangular with size 24'-0" X 8'-6", *mandapam* (24'-0" X 24'-0"), and *ardhamandapam* (27'-0" x 8'-0"). The total height of temple is about 39'-6". It has entry from three sides and the top of entryway have marble finish decorative dome supported with column and arches. The *mandapam* of the temple has a marble finish decorative dome and *garbhagriha* has Pyramidical *shikhara* with spire.

**(20) Ganadhar Subh Swami tunk**

Plate number: - LXIV (I)

In this *tunk* there are currently the foot print idols of *Ganadhar Subh Swami* are established.

**(21) Bhagawan Dharmanath tunk**

Plate number: - LXIV (I)

In this *tunk* there are currently the foot print idols of *Bhagawan Dharmanath* are established.

**(22) Varisen, the eternal Jina tunk**

Plate number: - LXIV (I)

In this *tunk* there are currently the foot print idols of *Varisen* are established.

**(23) Vardhaman, the eternal Jina tunk**

Plate number: - LXIV (I)

In this *tunk* there are currently the foot print idols of *Vardhaman* are established.

**(24) *Bhagawan Sumatinath tunk***

Plate number: - LXIV (J)

It is tunk of *Bhagawan Sumatinath*. Foot print idol of Lord are established.

**(25) *Bhagawan Shantinath tunk***

Plate number: - LXIV (J)

It is tunk of *Bhagawan Shantinath*. Foot print idol of Lord are established.

**(26) *Bhagawan Mahavir Swami tunk***

Plate number: - LXIV (J)

It is tunk of *Sri Mahavir Swami*. Foot print idol of Lord are established.

**(27) *Bhagawan Suparshvanath tunk***

Plate number: - LXIV (J)

It is tunk of *Bhagawan Suparshvanath*. Foot print idol of Lord are established.

**(28) *Bhagawan Vimalnath tunk***

Plate number: - LXIV (K)

It is tunk of *Bhagawan Vimalnath*, the thirteenth Tirthankar. Foot print idol of Lord are established.

**(29) *Bhagawan Ajitnath tunk***

Plate number: - LXIV (K)

It is tunk of Lord *Ajitnath*, the second *Tirthankar*. Foot print idol of *Lord* are established.

**(30) *Bhagawan Neminath tunk***

Plate number: - LXIV (K)

At this *tunk* of Bhagawan Neminath, the twenty-second *Tirthankar*, there are currently the foot print idols of Lord is installed.

**Architeturual features of Tunk:-**

All the tunks have almost similar Architectural features. *garbhaghiha*'s dimensions is 4'-0 "x 4'-0" in most *tunks* with a height of about 14'-0 ". All *tunks* are constructed of with decorative marble slab. The superstructure of the *tunk* is either dome or pyramidical *shikhara* or combination of both.



**(31) Sri Digamber Temple Jain Parshavanath, Samed Shikar, Parshvanath**

Plate number: - LXIV (L)

*Mulnayak*: almost 92 cm in height, black-colored *Parshvanath Baba* idol (*Baba Shamaliya Parshvanath*) in the *Padmasana* posture.

This temple of Lord *Sri Parshvanath*, the twenty-third *Tirthankar* is the *Mokshanagari* of *Sammed Shikharji Giriraj*. After seeing the temple, after reaching *Mokshanagari*, one gets lost in the real joy and pleasure of seeing *paramatmas* directly. This is the highest temple on the highest hill. There are 80 steps leading to the *Lord* temple, "*Meghadambar*" is another name for this temple. There are idols of Lord standing on the stone slab where Lord reached final liberation. This stone slab is adorable. At this peak there is a temple of the pinnacle. In it, there are the standing idols of *Baba Purusadaniya Parshvanath*.

The temple is finished with marble. The temple main *garbhagriha* is square with size 14'-0" X 14'-0" have *vedi* with *Parshvanath* foot idols miniature in marble with combination of dome and pyramidical *shikhara*, *mandapam* (14'-0" X 12'-0"). The total height of temple is about 50'-3". It has entry from three sides. The *mandapam* of the temple has a marble finish decorative grooved dome and *garbhagriha* has pyramidical *shikhara* with spire. The temple is constructed with brick and lime mortar with marble cladding (Kothi, 2018).

## **CHAPTER 5**

### **GEOMETRY OF *JAIN* TEMPLES**

#### **5.1 INTRODUCTION**

*Jainism* has constructed a specific iconography and has created a large number of religious images and custom tools that are not used or adored by peoples of various religious and social events in the subcontinent. Several themes have been given by *Jain* fables, who give clear representations of incredible constructions, some of which have become a physical obstacle in *Jain's* Art and Architecture. In light of a habitual type of temple and worship of the statues, specific personalized devices that were reserved a couple of minutes to adapt and help the complex religious ceremony of *Jain*. This document will analyze three unmistakable *Jain* religious elements: *meru*, *Samosaran* and *simhasana*. *Meru* is a cosmological component, *samosaran*, considered all, an amazing development, and *simhasana* is a personalized tool. In its particular forms, each of the three things is new to *Jainism*. The three components form a unique entity because they are apparently unequivocally related. Each of the three is perfectly healthy pyramidal and includes three significant levels of overlap. The association between them, independently, is not just visual or basic (Hegewald, 2009).

#### **5.2 COSMOLOGICAL AND *JAIN* TEMPLE**

*Jain's* cosmological works offer minute representations of astronomical oceans and island rings. They represent what is recognized as the physical idea of the *Jain* universe, regardless of how its standard point is to give the disciples a manual for salvation. With the sole understanding of the form and geography of this moral and extraordinary universe, a superior kind of spiritual closeness. Essential for most of the representations of the universe, and the *Jains* can leave the generous world and go to the individual world, the terrestrial masses are the proximity of the consecrated mountains. Everywhere, these are particular vertices, but are consistently represented as complete mountain ranges. The *Mount Meru*, as the meaning of the mountain of *Jain*, has expanded the immensity in such a way that it has modeled a picture, which is illustrative of all the consecrated mountains of *Jain*.



Figure: 5.1 - *Jain Tirtha*, Shravanabelagola.

Source: (Jain Tirtha, Shravanabelagola, 2018)

Despite the expressive arts of painting and small-scale-themed divider, the three-dimensional images of *meru*. Such data may be almost zero, about one meter high and made of brass, or it may be more noticeable routine contours such as white marble. Typically, the insignificant metallic representations of *meru* are held in places of the application side, which contain the rooms and the largest temple *mandapas* structures.

Going through the section, it will be shown that the representations of *meru* and *samosaran* are clearly correlated in a lasting way and an extraordinary part of the time is almost indistinguishable. From the open material, independently, the impression is created that it is more typical that *meru* figure is octagonal and sometimes has a square base, and that the three-dimensional *samosaran* are round.

### ***The mythological dimension***

*Jain's* social group built typically has a policy of confusing astronomical geography, as well as a significant unambiguous drive and fables. In the concentrations of myths and legends of *Jain* are the biographies of the twenty-four *Jain Tirthakaras*. The records of the *Jin* are inexorably related and are taken after a controlled agreement and those that portray the life and actions of *Adinatha* and *Mahavira* are the lowest. It is said that all the *Jin* are familiar with a *ksatriya* family, the heavenly creatures to their destiny mixed as meaningful instructors, deny life wrenching sensible world, monk wrapping and after gravity strenuously achieve enlightenment. As a result, the celestial creatures have an impact on an

amphitheater, a similar external structure. This is insinuated as *samosaran*, or more casually as *samvarsana*, which really connotes the collection.

As noted some time ago, *meru* and *samosaran* are apparently linked tirelessly. In this context, it is essential that in various philosophical and religious messages on Architecture, for example, the *vastuvidya* of *visvakarma*, *merus* and *samosaran* be administered jointly and inspected in practically identical passages. Its structure similar to an amphitheater, containing three courtyards or fortifications to satisfy the assembled spectators of celestial creatures, individuals and animals that affect the formalized essential education of *Jin*. The *samosaran* can be round or square in the diagram, regardless of their appearance, from all angles, more usually have an indirect plane.

Pyramidal connecting door is topped by a square stage suggested as *pitha*, in which *Jin* seat. Creatures of the sky then make three images of misty *Tirthankar* arranged on practically indistinguishable stools, to face the gathering of individuals in everything else. This fragment of the story gives the sound of having a quadruple symbol at the top. The quadruple image is provided by a structure (*Sri-mandapa*) or fixed under a tree part of the three-layer structure. In numerous illustrations, the two segments, a place of affection and tree, are accessible. The protective tree creeps like *caitya-vrksa* or, more particularly, as *Asoka* tree. In the perspective of the contiguous relationship between the realization of *Jina's* omniscience and *samosaran* structure, which gives the scene in his first speech, surprising group meeting models are representations as important *kevalajnana Tirthankar*.

It is interesting that despite what representations of *samosaran* divided into three layers do not appear in the surviving *ayagapatas* first century to the second century AD, there is what radiates the impression of the first cut representations in the cavities of *Jain* in *Udaygiri* in *Odisha*. (Shah 1955: 94).<sup>1</sup>

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<sup>1</sup>In the construction and decoration of later temples, both medieval and contemporary, paintings of this type are most likely placed on the vertical walls of the temples. This can be seen in the Nasiyan Temple

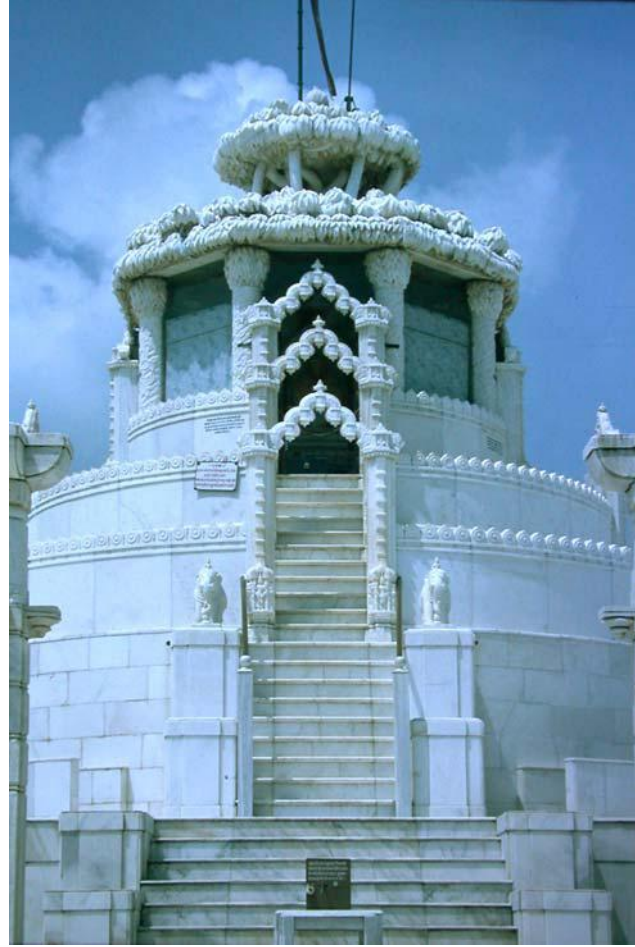


Figure: 5.2 - Large-scale representation of a *samosaran* at *Pawapuri* in *Bihar*,  
Source: (Author)

The stone *samosaran* engravings are constantly identified as burning with dimensional stone merus discussed above. The stone *samosaran* indicated generally have an underlying module base, three circular support levels surmounted by a square structure that matches a photograph of a *Jin* quadruple.

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in Ajmer (Ajmir), in Rajasthan, and in the outer walls of the Baḍaga Basadi temple complex in Mudabidri (Mūḍabidrī) in Karnataka. In these temples, images of samavasaraṇa are used to announce a distinct and distinct Jain identity outside the temple structures

Especially in the last hundred years, the pyramids of *samosaran* are equally appreciated within the central points of the cult temples. In these illustrations, photos on top of the structures are small, which emerges from the enormous amazing addressing rooms, which have been represented with great interest and aim to present the fundamental part of the strategy. In this way, the inclination is created that in recent cases works of Architecture and without figurative statues show the basic grouping of the cult. This confers a general bias of *Jain*'s work to show interest in reliably expanding. It focusing on extravagant and cosmological points, which are excellent for *Jainism* and give clear motivations behind the partition of various religious social events in the subcontinent.

### ***Hypothetical messages on Architecture***

It is pleasant to note that in all additional high beam span; the structure at the top of the structure is occasionally entangled, obscuring the various images inside. In these cases, it seems, inside and out, to be legitimately *kevalajnana* part "the achievement of enlightenment" in general that ultimately is the purpose of each *Jain*. In contrast to the design of the first preaching recorded in a specific *tirthankar* that is symbolized.

While the *samosaran* in the southwestern temple complex constructed in the *Papora, Madhya Pradesh*, is particularly associated with the first speech delivered by Lord *Sri Parsvanatha*. Three *samosaran* in the northeast temple district, regardless of the unreasonably should be overcome by specific images of *Jin* are, as it were, revered as images of *kevalajnana* in general terms.

*Pawapuri's* case is particularly huge, because it is recognized to verify the place in good faith in which the irrefutable Lord *Sri Mahavira* delivered his first sermon. One of the best representations of this kind was delivered to *Palitana*, at the base of *Satrujaya*. Despite the fact that the most humble *samosaran* are generally solid, filling and fantastic patterns and allowing visitors to climb the structures, the second representation is a "real" in its interpretation of an inner space is enclosed. In this specific form, it has not been related to various religious and social issues in the broader Asia or outside the territory.

### 5.3 THE RITUAL INSTRUMENT

Despite their unmistakable cosmologies and incredible stories, based on *Tirthankars*, the *Jains* have built similar to a specific type of personalized temple. This is based on its strategy for the management of discrete blessed images and the proximity of different religious figures, remaining as often as possible in a number of rooms arranged in various levels sacred places of the floor. Impeccability considerations are of great value for the association with the hallowed symbols of *Jain* and especially for the *mul-nayaka*.

In its general sense, the term is used to insinuate the seat placed above the custom supports next to it. Despite everything, it is associated with greater frequency to the entire three-level structure. Such a custom three-layer stage is found in most of the *Jain* temples each time. Most *simhasana* are arranged in the main *mandapa* on the front of the garbhagriha, which houses the focal photograph of a *Jain* temple, but in the same way, they can be arranged in front of the side cells.

It is evident from the description that the personalized post-*simhasana* are in a general sense solidly identified with the following three-level structures, *meru* and *samosaran*, previously discussed. Above all basic is so capable; they seem to represent an association between the other two things.

#### 5.3.1 The Concept

The sacred statues of *Jain* must be formally presented and purified through the execution of a complex development of services that recalls a specific goal of working in a ritual way and of being solid religious things. In a *Jain* environment, these traditions of constitution and refinement are consistently suggested as *panch-kalyanaka-pratistha*.

## 5.4 THE LAYOUT OF JAIN TEMPLE

For the most part, courses lead to a movement of fragmentary charges in the central part of the temple. These segments, which remain for no apparent reason, can impact the site to look like a maze negligence; however, after careful consideration, it closes in a recognizable way. It is obvious that there is a style and a system in it.

- The paths of the *Jain* temples lead to a movement of chambers segmented in the central vestibules of the temples.
- These temples inside a shelter, divided into sanctuaries and included by a number of places of supplication and sacred places, and the labyrinth of segments develops as a defense against looters.

The dedication of the *Jains* to work and Architecture was incredibly basic in the context of the incredible creative signs, particularly in the types of paintings, temples and pieces, scattered throughout the country and covering a period of time in the sense of the most provocative through the times avant-garde. *Jain's* craftsmanship with an inexhaustible assortment changes progressions and embellishments (despite the images of *Jin*) has never been boring. Moreover, the advancement of the Indus Valley is the fastest human progression in India. Figures of a seals and male torso of *Mohen-Jo-Daro* are opinion pictures of *Jin* ideals of their nudity and position in *kayotsarga-mudra*.

*Jain's* craftsmanship and composition thrived with great energy between the 10<sup>th</sup> and 15<sup>th</sup> centuries. In the period, a large number of *Jain* temples were constructed with sculptures. In the middle period new structures and the iconographic characteristics (with the exception of *Jin*) of various deities were established. The *parikara* (environment) of the *Jina* images was also realized with the figurative representations of *Navagrahas*, *Sarasvati*, *Laksmi* and the minor figure of *Jin*. Furthermore, the *Astapratiharya* and *Yaksa-yaksi installed* have been cut in the same way. Precision and bending in statues and ornaments were other specific features of medieval *Jain* models.

The craftsmanship and Architecture of the *Jain* have the vital objective of maintaining, guaranteeing and cultivating in an integral way.

The *Jains* could be happy for their rich social heritage from the most tried and true conditions. He has a religious presentation in his art in mixed forms. Being



overwhelming admirers of another God, they have an iconography and craftsmanship of extraordinary images. They could also evacuate stone symbols. The set of symbols that were made by the appealing estimates thought on the faces of the winners the possibility of transmission to convince the withdrawal of basic life.

The *Jain* religion was already spreaded in 500 BC in various parts of India. They are generally unique. Seeing several different symbols in each presentation step, one can judge on the difference in iconography on the material and on the perfection with the style. *Palitana* is a unique among other places for the accumulation of images.

The temple that makes design is equally splendid in the *Jain* plan. These temples are places where the symbols of *Jin* near demigods and goddesses, are preserved in stone or marble. Numerous temples are the specialty of improving the incredible nature, for example in *Khajuraho*, *Deogarh*, *Mount Abu*, *Ranakpur* and others. In *Udaygiri* and *Khandgiri* various agitated cuts were found; two hills in the *Bhubneshwar* district of *Odisha*.

The stories for the religion are also found in various temples and caves that deal with religious stories, statutes and conspicuous events of the lives of the *Jin*. Dreams of the mother, breathtaking scenes, decorations smaller than expected on paper or ornaments of palm leaves (unique copies), that in the same way a specialty of respect. The cases of decision of this trade are found in several libraries of extraordinary copies of *Jain*. Even the felling of trees has been artisanal. It seems that, in general, some of these expressions have diminished widely.

#### **5.4.1 The Plan**

The genuine differentiation is the advancement of 'temple' by the *Jains* rather than solitary *Hindu* temples, which are the standard instead of the exception. A *Jain* place of affection is moreover noted for its rich materials (routinely marble), and what's more the abundance of ornamentation which decorates the structure.

Consequently, that it isn't uncommon to find four of these pictures put successive, one for each cardinal course. Certainly, housetop outlines, for instance, at the temples at *Mount Abu*; end up being exceptionally point by point with marble divine beings and concentric rings of cutting.

An even more disapproved view, of course, is that the urban areas of the temple also served as fortifications, which has made an immunological site far from possible attackers. Clearly, with the arrival of Qutb-ud-din Aibak and successive rulers, it was typical that some *Jain* and *Hindu* temples "lost" their portions as building material for mosques, the new religious typology that emerged in India after the twelfth century.

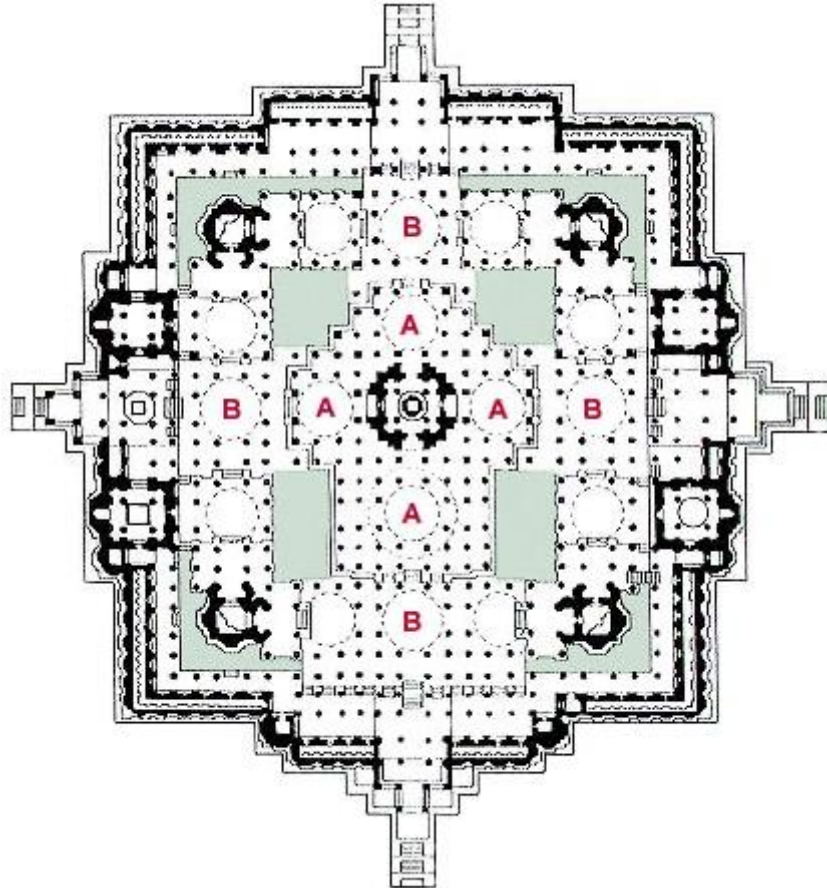


Figure: 5.3 - Chaturmukha Style Plan (Type-I).Source: (Kumar S. , 2001, p. 100)

The central place of plan is called "*Mula-Prasada*", within which is "*garbhagriha*" (sacred place), and its guide statue is "*mulanayaka*". For a place of worship *chaturmukha* (four faces), not in any way like the temples of the *Mount Abu*. There is no "*gudha-mandapa*" (closed entrance) or "*Trika-mandapas*" (vestibule), however, there are four "*ranga-mandapas*" (A social hall) before four steps from the essential heavenly place. Each ranga-mandapa is connected to a three-storey "*meghanada-mandapa*". Having four "*mahadara-prasada*" (despicable celestial place) from one corner to another in four methods for the essential sanctuary, the temple that compose it is "*panchayatana*" (type of five chapels). Furthermore, there are two east and west sides "*bhadra-prasada*", which make the total piece much more complex. A line of

"deva-kulika" (small temple of worship) along "bhamati" (house) incorporates all the perplexity.

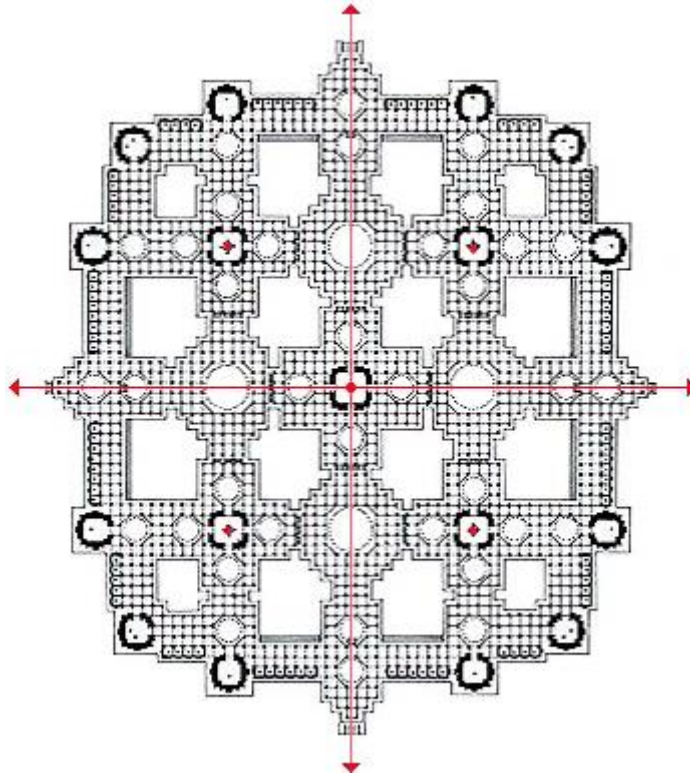


Figure: 5.4 – Chaturmukha Style Plan (Type-II). Source: (Kumar S. , 2001)

Plan 2:- The ideal plan of the *Jain Temple*, with a view to the definition of *somapura*, 1960. In a general sense, this is a type of "pancha-yatana" wrapped in meetings, each space is reliable and is united as in the temple of *Ranakpur*. The five places of worship are all "chaturmukha" having independently four "ranga-mandapas" before four faces. There are more critical "meganada-mandapas" at the crossing points that connect five sanctuaries and continue with "balanaka" (entrance campaign) on four sides. In the peripheral line there are four "Mahadara-prasadas" (unreliable holy places) and eight "bhadr-prasadas" despite ninety two "deva-kulikas". The total number of *Tirthankar* statues is 124 on the ground floor only. All the holy places have "shikhara" (tower in the sanctum) and the flag pole, the *mandapas* are protected by vaults or "roofs of *samosaran*".

#### 5.4.2 Auxiliary components

Temples linked to different convictions in South Asia often share Architectural parts and show essential styles in a region and an indisputable period. In any case, *Jain* temples sometimes share constructive and amazing segments found in the temples of

various religions, they are particularly *Jain*. Their religious structures are specially changed according to *Jain's* supernatural meditations and customs. There are three surprising features of *Jain's* religious structures. Immediately, there is everything around more than one shrine in a temple. Thus, most are merged with additional structures that cover part of the religious building. With all that is taken into account, temples are often assembled to build temple structures or "temple and city groups".

A *Jain* temple could be mentioned by a wide variety of names. The terms for "temple" used as a bit of *Jainism* were occasionally dark as early work, for example, teaching, worship and life had no exceptional areas and consistently occurred in an equivalent place. As structures and rooms in the *Jain* temples were twisting unequivocally engaged to particular purposes after a while, the writing ended up being correct. The term used as a bit of today changes as shown by the territory of India and the neighboring vernacular.

#### **5.4.3 The pillared hall or the mandapa**

The sanctum of the temple is made as meeting palace and can accommodate a statue of a consecrated religious figure or hypothetical segment for example, eight great images, the *siddhachakra*, unlimited individual, yantras and sacred syllables or mantras. All that is considered the place of worship contains gigantic quantities of sacred items. Most of the temples, throughout the India, have some sacred places. The arcades are practically nothing, the clear brokers offering access to altars and *mandapas*.

#### **5.4.4 The divider**

Almost in any case, *Jain* temples are enclosed by high compound dividers. Known as *prakara*, these divisors do not disengage compound separators, incorporating the entire sacred temple domain: some types of temples have developed these dividers to create structures that look alert and solid. The dividers have joined the exterior of the temples of the complex, so there are the same *prakaras*. This can happen with a great variety of temples; however, it is particularly common in *haveli* temples.

#### **5.4.5 The Superstructure or Shikhara**

*Shikhara* or superstructure is the best individual from a sanctum in *Jain* Architecture. This fills in as the base (*adhithana*) for the superstructure that climbs over the sanctum known as *vimana* or *shikhara*, which outlines the fundamental part of the temple. In

early days, this vertical emphasis was laid on only a solitary level (*prathama tala*). A short time later, number of levels (*talas*) were added to this superstructure. It was assumed that the entire locale, which the *vimana* or *shikhara* overlooked was rendered brilliant and the area secured by this *shikhara*, would be prosperous.

*Archana-Navnita*, an old substance described these heavenly places into five sorts “1) *Svayam-Vyakta* (self-appear) 2) *Daivika* (presented by Gods) 3) *Arsha* (presented by sages) 4) *Pauranika* (celebrated in the *Puranas*) and 5) *Manusha* (synthetic) havens”.

#### **5.4.6 The supporting Elements**

- *Jain* temples have different segments having an especially formed structure, molding square.
- The squares thusly molded make chambers, used as meager places of petition and contains the statue or idol of a divine being.
- From these segments are extravagantly cut areas that create at around two third of their stature.
- The rooms of these temples have pointy vaults and wherever there is curve, the sections are blocked to make an octagonal space inside.
- The only assortment in Architecture specific to *Jain* temples is is *chaumukh* layout. The from which have been observed time to time. In these, the *Tirthankar* faces back to back in all cardinal directions.
- Entry to these temples is moreover from four doors that face the cardinal directions.

## 5.5 THE STRUCTURAL SYSTEM

*Jain* temples frequently share design and inventive fragments found in temples of different religions, they are unmistakably *Jain* style. Their religious structures are particularly changed as per *Jain* significant custom practices.

There are three main highlights of *Jain* temples.

- There is generally more than one place of worship in a temple.
- Most are wrapped by extra structures that shape some segment of the temple.
- Temples are as routinely as possible stuffed together to pass on temple structures or 'temple-urban zones'.

### 5.5.1 Trebeated system

In the trebeated framework, simply the flat and the vertical support members are used. For instance, columns or pilasters together overpowering with cross shafts and lintels.

During the tenth and eleventh century the internal rooftops were laid circuitous with stone courses, arranged one over the other in reducing widths of span, to deliver complex plans.



Figure: 5.5 - Internal ceilings of the *Jain* temple with trabeated system.

Source: (Vardia, 2008, p. 30)



Figure: 5.6 - The pillars and the beams of the *Jain* temple.

Source: (Vardia, 2008, p. 30)



Figure: 5.7 - Rotating and diminishing squares and circles in internal ceiling.

Source: (Vardia, 2008, p. 30)



Figure: 5.8- Intricately carved rotating and diminishing squares and circles inside internal ceilings. Source: (Vardia, 2008, p. 30)





Figure 5.9:- Rotating and diminishing squares and circles inside internal ceilings with idols. Source: (Vardia, 2008, p. 30)

### 5.5.2 Corbelling system

The corbel system of the load transfer of the structure is adopted in *Jain* temple. The adjustment measures, all considered, from procedures to curves, vaulting and various types of utilitarian construction rules have never had an incredible impact on the movement of the *Jain* temple. There were no examples of the use of vaults or curves in the *Jain* temple Architecture, but the strengths on the surface of the separators were determined and from time to time, they transmitted loads from above.

The organizers of *Jain* temple remained attached to particular methods and reached their progress with the gravity law i.e. assurance with the weight acting vertically and transmitting all the weight down by using corbelled system.

### 5.6 Conclusion

The *Jain* cosmology and *Jain* temple have very strong relation. Every Architectural style has reflection of their own religious belief and worship of God. After systematically examination of the features like cosmological belives, it found that, the primary form of temple evolved from the concept of *meru*. Subsequently the ritual intruments, layout of temples and structural systems have beed analyzed and interpreted. It gives an idea about the plan form features and constructional detail.



## CHAPTER 6

### DIMENSIONAL ANALYSIS

#### 6.1 INTRODUCTION

Every religion have uniqueness in their Architectural style. All these Architectural styles defined by the plan form, elvational form, site area, height of the structure, orientation. This chapter discusses and examines the results of the dimensional analysis of the *Jain* caves and temples in the *Bihar* region. In this section, the strategies for analysis and relation between different parameters for the thirty-two caves and fifty-eight temples are discussed. The twenty-nine *tunks* on the *Sammed Sikhar* assumed to be one structure, because of the unique characteristic of these *tunks*.

#### 6.2 Elements of *Jain* caves

During the study thirty-two caves of *Khandgiri- Udaygiri, Odisha* were documented. Various elemnets of these structures like number of storey, number of cells, plan form, type of roofs, and roof height are discussed in the following section. Table containing the detailed information about these elements is attached at Annexure I and II.

##### 6.2.1 UDAYGIRI CAVES

All the eighteen caves of *Udaygiri* is analyzed for different parameters and the results are as follows:-

##### Number of floors

*Udaygiri* caves are mostly single-storeyed - only two of the eighteen caves found and surveyed in *Udaygiri* are double storeyed. The average ceiling of these cells were 1.33 m high. The cells in *Rani Gumpha, Manchapuri Gumpha* are double storeyed caves and have ceiling height of 1.05 m at both levels.

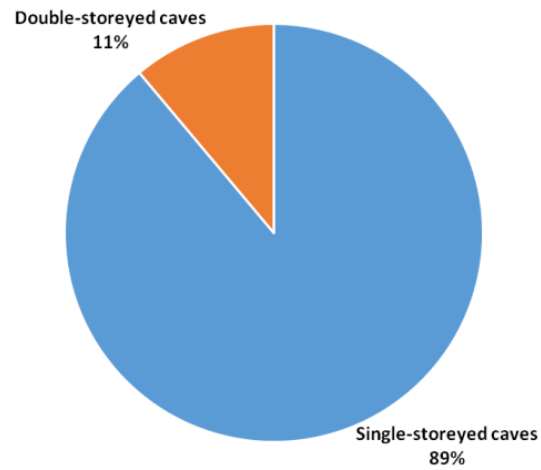


Figure: 6.1 –Number of floors in *Udaygiri Caves*. Source: (Author)

### Plan form

Most of the *Jain* caves as shown in the above chart have a rectangular plan. Sixteen out of eighteen caves are rectangular in plan. *Bajaghara Gumph*a and *Sarpa Gumph*a have square shapes.

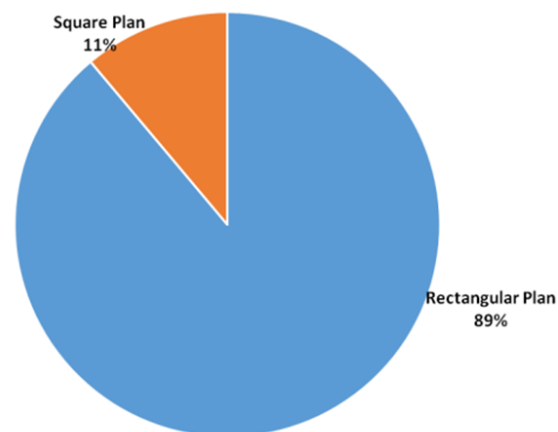


Figure: 6.2–Plan form in *Udaygiri Caves*. Source: (Author)

### Number of cells

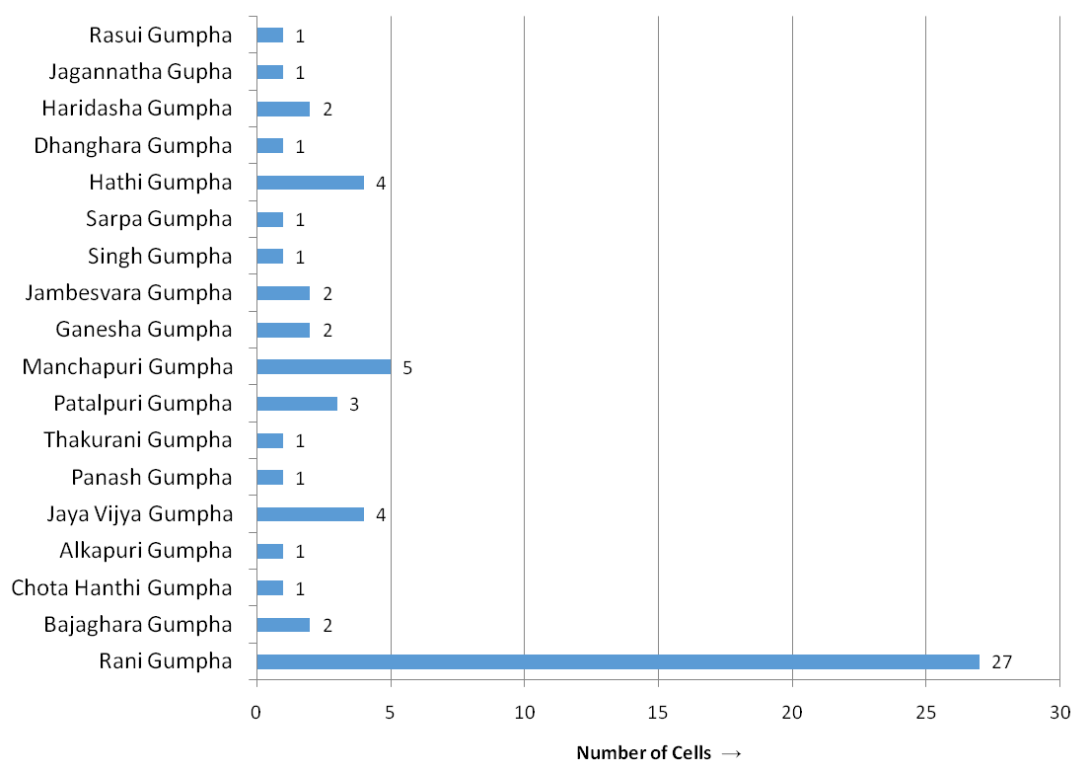


Figure: 6.3 – Number of cell in *Udaygiri* Caves. Source: (Author)

On an average, there are more than three cells in each of the caves of *Udaygiri*. However, it is further observed that the double-storeyed caves were having more number of cells than those in single-storeyed caves. Rani Gumpha and Manchapuri Gumpha, which are double storeyed, have twenty-seven and five number of cells in them respectively. Of the sixteen single-storeyed caves as mentioned above, only seven caves have more than one cell. Of these however, *Hathi Gumpha*, *Jaya-Vijya Gumpha* and *Patalpuri Gumpha* has three and more number of cells.

### Area of single cell

The average size of cells in the *Udaygiri* caves is 8.13 Sq.M. *Patalpuri Gumpha* had the largest cell size of 20.16 Sq.M. and there are three cells in the cave. *Panash Gumpha* and *Alkapuri Gumpha* had smallest cells of area 3.24 Sq.M. each having only one cell.

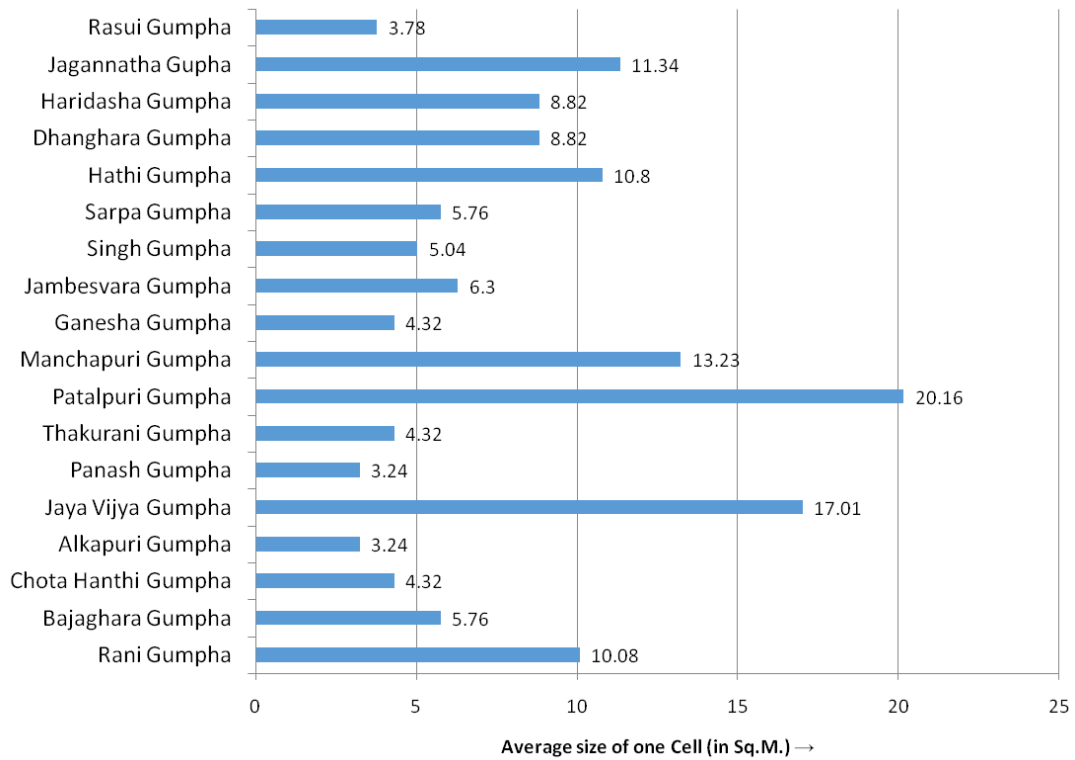


Figure: 6.4 –Area of single cave in *Udaygiri* Caves. Source: (Author)

### Total Area of each Cave

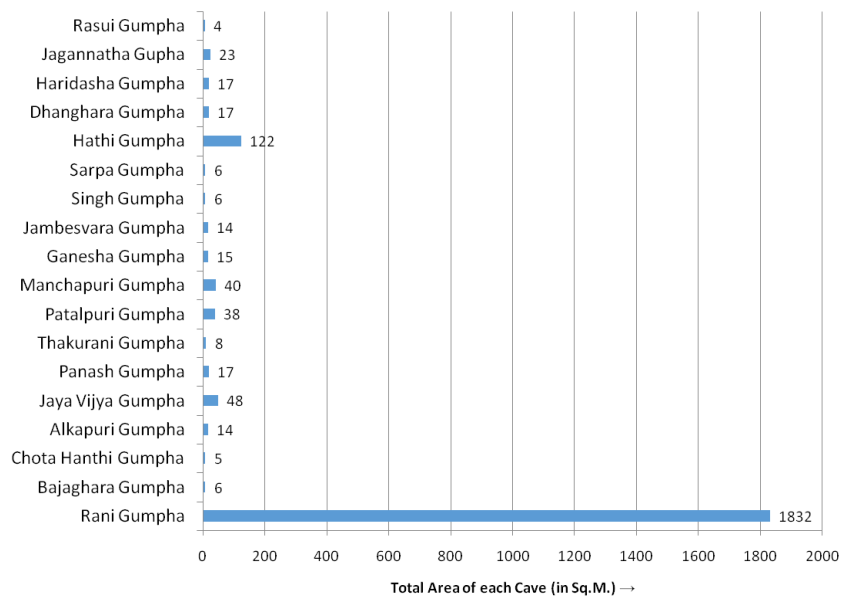


Figure: 6.5 –Total area of each cave in *Udaygiri* Caves. Source: (Author)

*Rani Gumpha* cave having area of 1832 Sq.M. is the largest of group of caves at *Udaygiri*. Rest of the caves are much smaller in comparison. Average area of the rest

seventeen caves is 23.5 Sq.M. Among the rest seventeen caves, *Rasui Gumph*a is the smallest; having area of 4.0 Sq.M. whereas *Hathi Gumph*a is 122 Sq.M. only next to the *Rani Gumph*a. It shows that *Rani Gumph*a and *Hathi Gumph*a is more important on *Udaygiri hill*.

### Type of Roof

There are usually gable shaped roofs and flats roofs cut from natural rocks. About 72% of the caves have flat roof profile, while 22% have roofs with gable profile. *Hathi Gumph*a has unique roof, having natural terrain as cover to the cave.

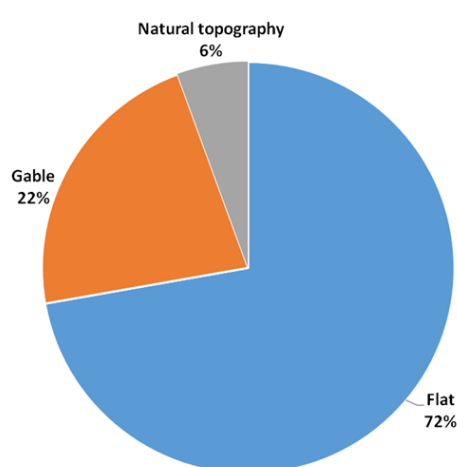


Figure: 6.6 –Type of roof in *Udaygiri Caves*. Source: (Author)

### Ceiling height

Fourteen of these caves had a verandah in front of the cells. The ceiling of the verandah was usually different from that of the cell. Average ceiling height of cells was 1.30 M. While for verandah, it was 1.90 M. It is evident that entrance to the cells was so arranged that the user had to move from larger space to smaller space. The cells were mostly used for meditation and sleeping purposes, as it was difficult to stand up under a ceiling only 1.05 M high.

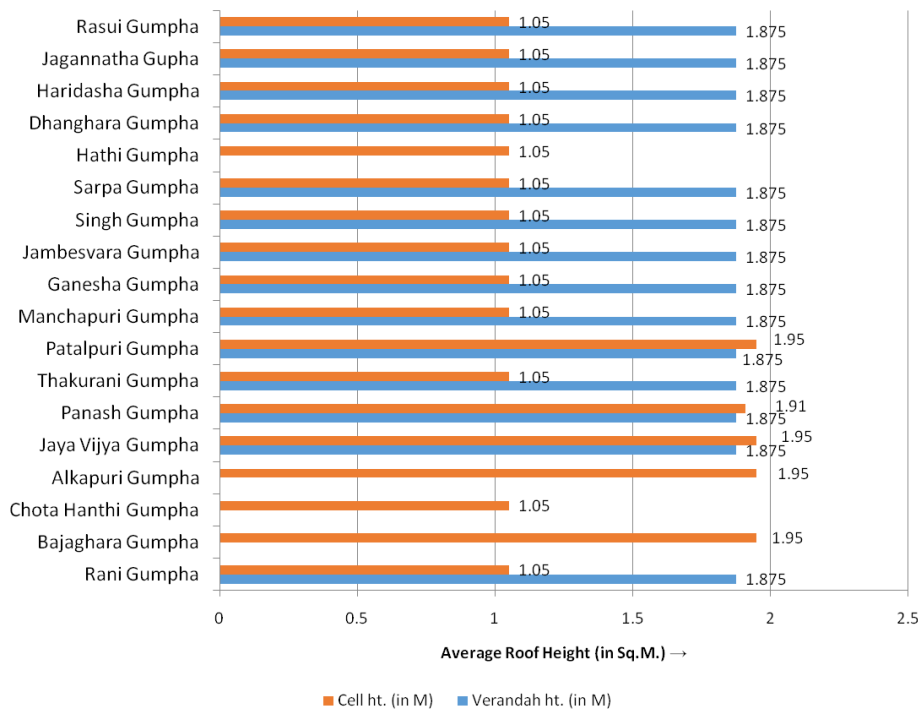


Figure: 6.7–Ceiling Hight in *Udaygiri Caves*. Source: (Author)

### Internal / External features

The architectural features or the religious/ symbolic ornamentations have been observed and sorted here. Almost one -third of the caves have such features only on the exterior, while equal number of caves have carvings and sculptural features in the interior. In only 6% of the caves, ornamentation features were found in the exterior as well interior sides. The author found that 22% of the caves had blank walls in the exterior as well as interior of the caves - devoid of any kind of conscious effort towards decoration. Absence of architectural features as such may also be attributed to gradual decay with time or vandalism. The present form has been observed and noted here. Only 6% of the caves had simple cells, i.e. where there were hardly any architectural features visible of the exterior as well interior of the cells.

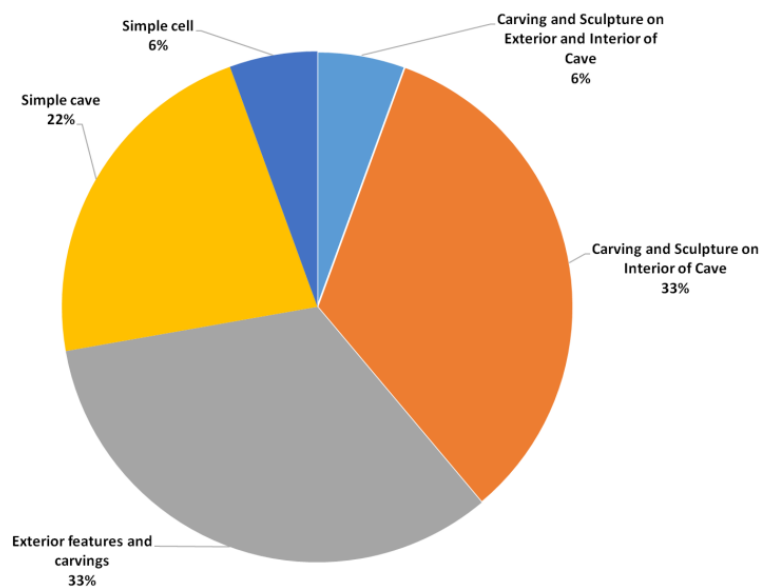


Figure: 6.8– Internal / External features. Source: (Author)

### 6.2.2 KHANDGIRI CAVES

All the fourteen caves of *Khandgiri* is analyzed, as above in the case of *udaygiri* for different parameters and the results are as follows:-

#### Number of floors

*Khandgiri* caves are mostly single-storeyed - only two of the fourteen caves found and surveyed in *Khandgiri* are double storeyed. The average ceiling of these cells were 1.18 m high. The cells in *Tatowa Gumpha-1* and *Khandgiri Gumpha* are double storeyed caves and have ceiling height of 1.05 m at both levels.

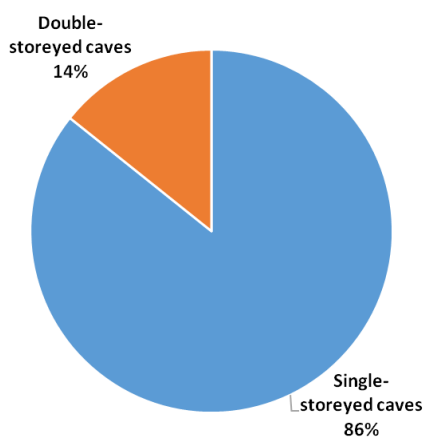


Figure: 6.9–Number of floors in *Khandgiri* Caves. Source: (Author)

## Plan form

Most of the *Jain* caves as shown in the above chart have a rectangular plan. Twelve out of fourteen caves are rectangular in plan. *Khandgiri Gumpha* and *Ekadashi Gumpha* have square plans.

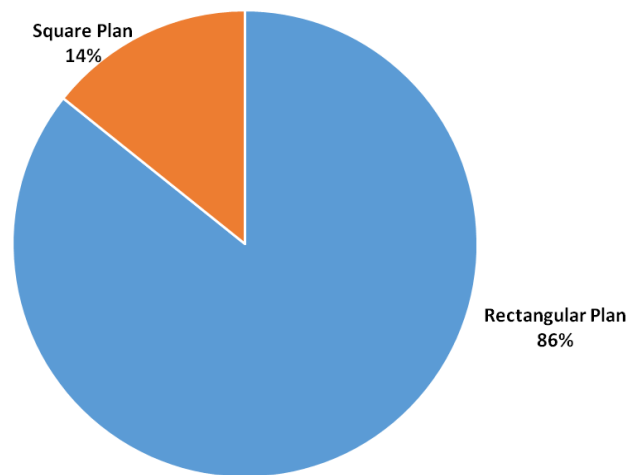


Figure: 6.10–Plan form in *Khandgiri* Caves. Source: (Author)

## Number of cells

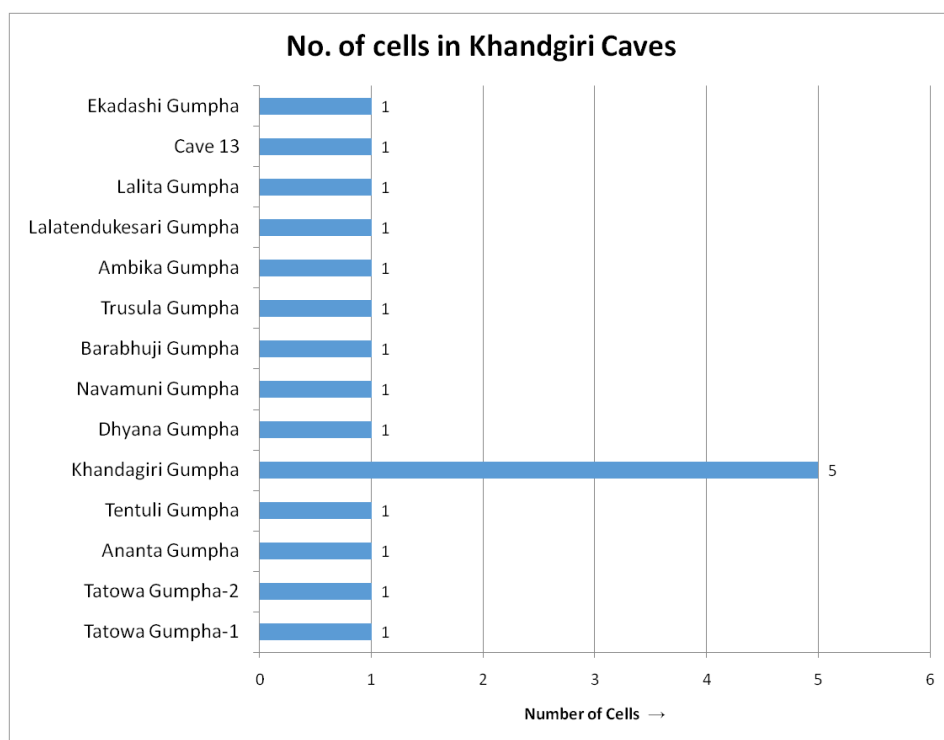


Figure: 6.11 – Number of cell in *Khandgiri* Caves. Source: (Author)



All the caves in *Khandgiri* have only one cell, with an exception of *Khandagiri Gumphra* (its name is *same as*, the group of caves itself), which has five cells, distributed across two levels. It is also noted that the only cave with two floors is square in shape.

### Area of single cell

The average size of cells in the *Khandgiri caves* is 9.7 Sq.M., which is approximately 48% of the average cave size itself. *Navamuni Gumphra* cave had the largest cell size of 25.2 Sq.M. and there is only one cell in the cave. *Ekadashi Gumphra* and *Khandgiri Gumphra* had smallest cells of area 3.24 Sq.M. It is noted that despite having smallest size of cells, *Khandgiri Gumphra* has five cells.

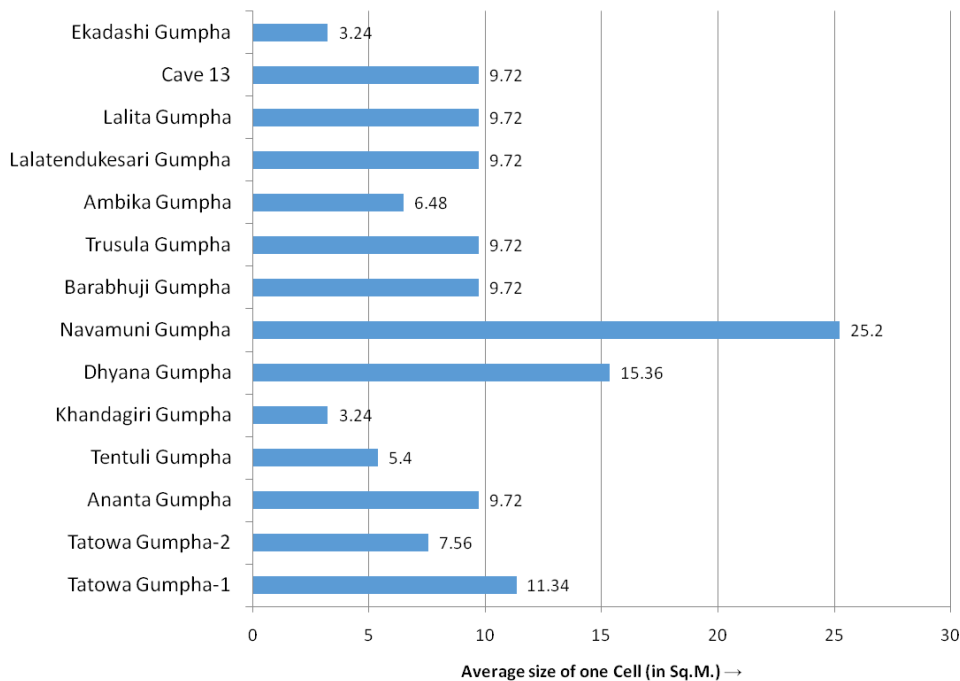


Figure: 6.12 – Area of single cave in *Khandgiri Caves*. Source: (Author)

### Total Area of each Cave

*Navamuni Gumphra* cave having area of 36 Sq.M. is the largest of all caves in this group of caves at Khandgiri. Average area of the fourteen caves is 23.5 Sq.M. *Ekadasi Gumphra* having are of 12 Sq.M. is smallest of all.

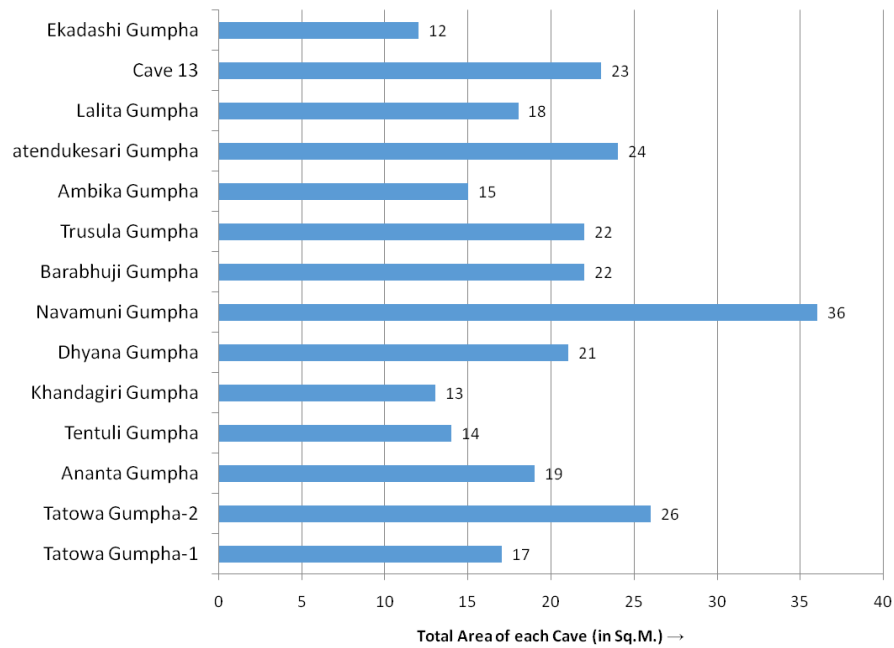


Figure: 6.13 –Total area of each cave in *Khandgiri* Caves. Source: (Author)

### Type of Roof

There are usually gable shaped roofs and flat roofs cut from natural rocks. About 86% of the caves have flat roof profile, while 14% have roofs with gable profile.

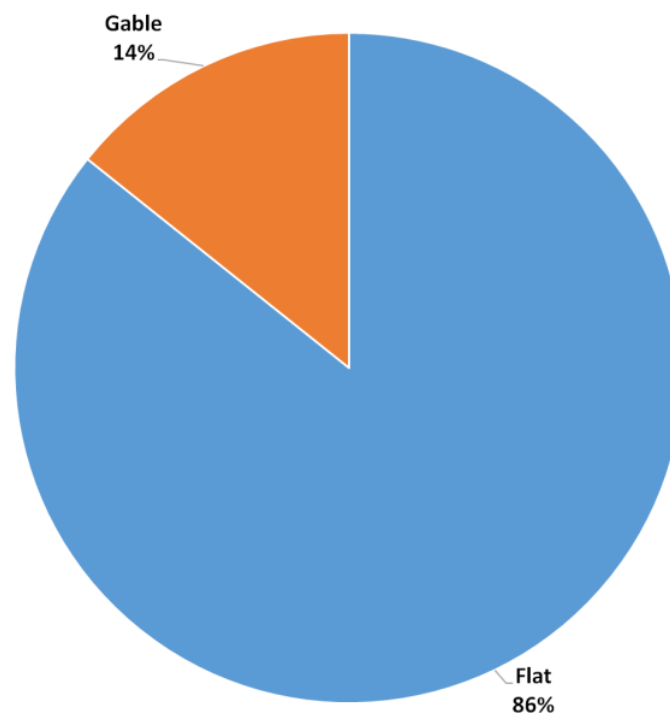


Figure: 6.14 –Type of roof in *Khandgiri* Caves. Source: (Author)

## Ceiling height

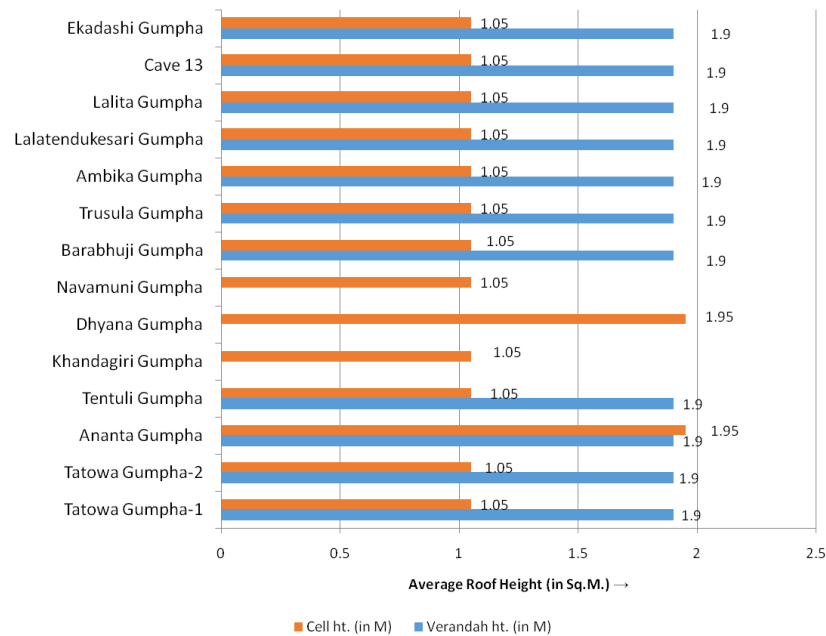


Figure: 6.15 – Ceiling Height in *Khandgiri Caves*. Source: (Author)

Eleven of these caves had a verandah in front of the cells. The ceiling of the verandah was usually different from that of the cell, it was 1.90 M. It is evident that entrance to the cells was so arranged that the user had to move from larger space to smaller space. The cells were mostly used for meditation and sleeping purposes, as it was difficult to stand up under a ceiling only 1.05 m high.

## Internal / External features

The architectural features or the religious / symbolic ornamentations have been observed and sorted here. Almost 14% of the caves have such features and carvings only on the exterior. In 29% of the caves, ornamentation features like carvings and sculptures were found in the interior sides. The author found that more than half of the caves (57%) of the caves had blank walls in the exterior as well as interior of the caves - devoid of any kind of conscious effort towards decoration. Absence of architectural features as such may also be attributed to gradual decay with time or vandalism. The present form has been observed and noted here.

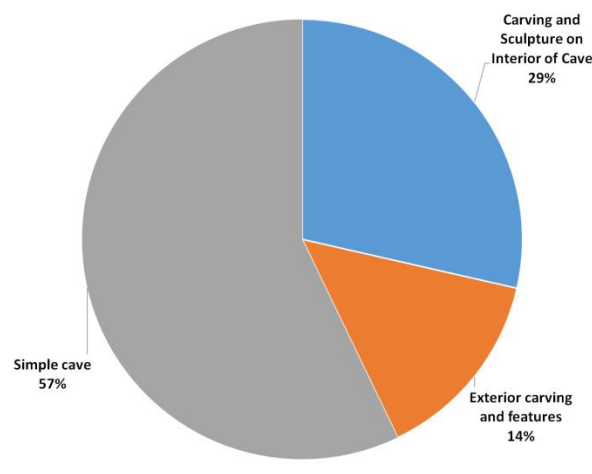


Figure: 6.16– Internal / External features *Khandgiri* Caves. Source: (Author)

### 6.3 Elements of *Jain* Temples of *Bihar* Region

Fifty-eight temples of *Bihar* and *Jharkhand* were documented. Various elements of these structures like plan form, elevational form, type of roofs, roof height, carving type, orientation, style of *Vedi*, principal building material and finish are discussed in the following section. Table containing the detailed information about these parameters are detailed at Annexure III and V.

As it is known that, *Jain* community is divided into two major sects *Digamber* and *Swetamber*. In this region, temples belonging to both the sect are present. Out of fifty-eight *Jain* temples of *Bihar* and *Jharkhand* surveyed under this study, it was found that 66% of the temples are of the followers of *Digamber* Sect of *Jainism*, and the rest 34 % belongs to *Swetamber* Sect.

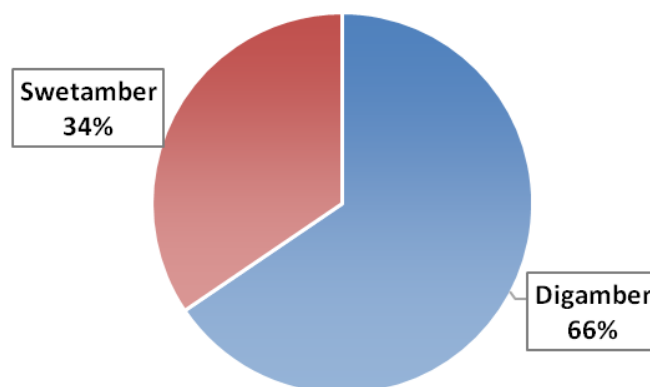


Figure: 6.17 – Distribution of temple between *Digamber* and *Swetamber*.

Source: (Author)

### 6.3.1 Orientation of *Mula Nayak*

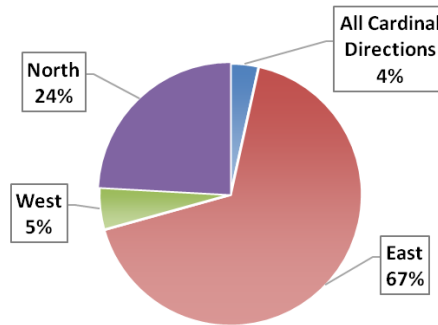


Figure: 6.18 – Orientation of *Mula Nayak*. Source: (Author)

Majority of the temples have their deity facing east - about 67%. Approx one-fourth (24%) of the temples are having deity that face towards North. Only a few ie. 5% of the temples' deity face West. Two temples (4 %) have their deity facing all the cardinal directions

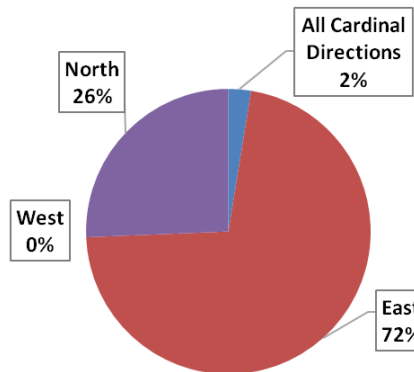


Figure: 6.19 –Orientation of *Mula Nayak* in *Digamber* Temple. Source: (Author)

In case of *Digamber* temples majority of the temples have their deity facing east - about 72%. Approximately one-fourth (26%) of the temples are having deity that face towards north and 2 % have their deity facing all the cardinal directions. No any deity face south or west. It means they are very particular that the deity should preferably east. The temple haveing *mula nayak* face all cardinal direction is *Samosaran* Temple.

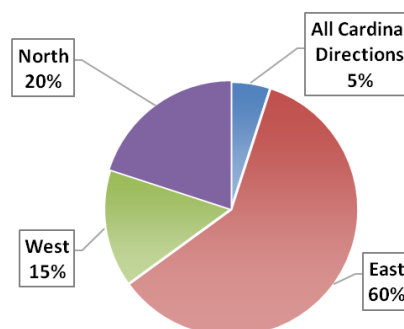


Figure: 6.20 – Orientation of *Mula Nayak* in *Svetamber* Temple. Source: (Author)

In case of *Swetamber* temples majority of the temples have their deity facing east - about 60%. Approximately one-fifth (20%) of the temples are having deity that face towards north. In case of 15% temples deity face west and 2 % have their deity facing all the cardinal directions. It means they are very flexible in the face of diety but prefer east direction.

### 6.3.2 Garbhagriha Plan Form

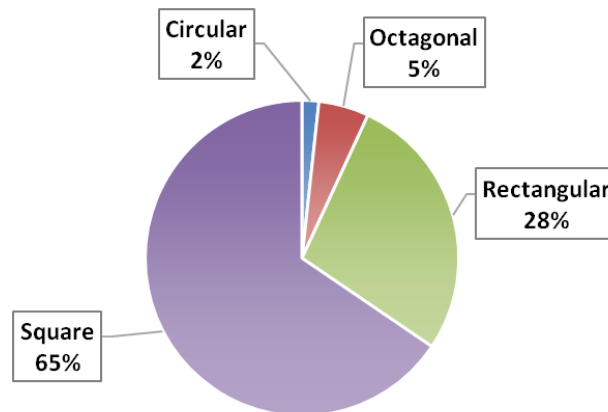


Figure: 6.21– *Garbhagriha* Plan form. Source: (Author)

Sanctum of the temple is called "*Garbhagriha*". More than half of the temples have square plan form for the sanctum. As shown in the above pie chart, there are four plan forms - namely Square, Rectangular, Octagonal and Circular - observed respectively in 65%, 28%, 5% and 2% of the temples.

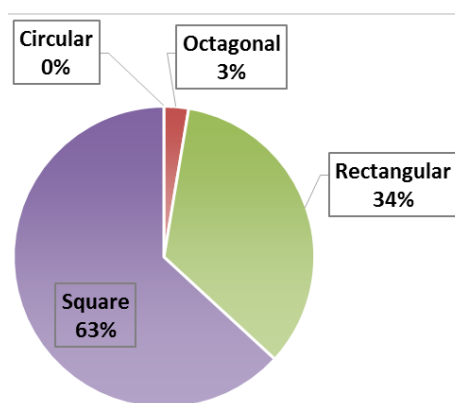


Figure: 6.22 – *Garbhagriha* Plan form of Digamber Sect. Source: (Author)

In case of *Digamber* Sect, more than half of the temples have square plan form for the *garbhagriha*. As shown in the above pie chart, there are three plan forms - namely

Square, Rectangular, Octagonal observed respectively in 63%, 34%, and 3% of the temples.

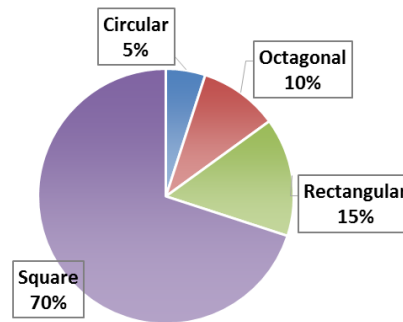


Figure: 6.23:– *Garbhagriha* Plan form of *Swetamber* Sect. Source: (Author)

In case of *Swetamber* Sect, more than half of the temples have square plan form for the *garbhagriha*. As shown in the above pie chart, there are four plan forms - namely Square, Rectangular, circular, Octagonal observed respectively in 70%, 15%, 10% and 5% of the temples.

Similarly, most of the *Digamber* sect temples have square sanctum plan profile (63%) None of the *Digamber* sect temples have circular sanctum. Therefore, square *Garbhagriha* is preferred in both the sect.

### 6.3.3 Overall Plan Form

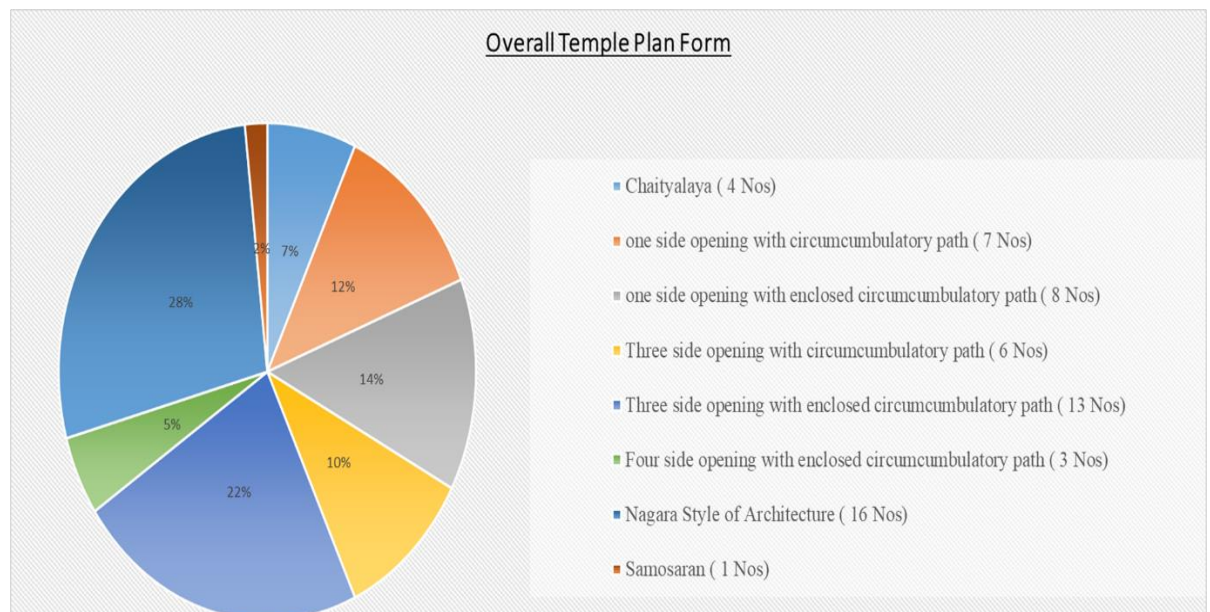


Figure: 6.24:– Overall Temple Plan form. Source: (Author)

Out of fifty-eight temples, the overall plan form of most of the temples built in this region are of typical *Hindu nagara* style of Architecture with 28%. The form *Samosaran* is only 2% with one number of temple. The details of other overall plan form can be seen in *figure: 6.24* above. Which clearly shows that effect of *Hindu* temple Architecture on the *Jain* temple Architecture. *Jains* also maintain its own Architecture in the form of *Samosaran* temple as religious symbolism with the representation of *tirthankar* worship unique to the *Jain* Architecture.

#### 6.3.4 Carving Detail

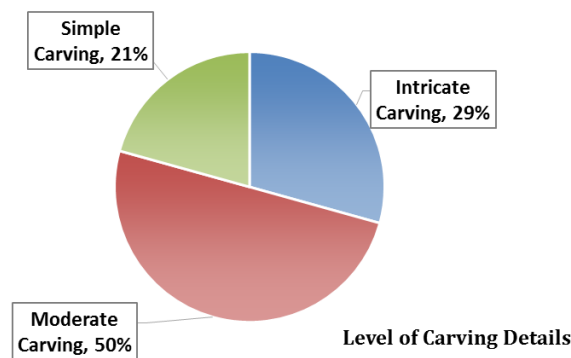


Figure: 6.25– Level of Carving Detail. Source: (Author)

It is the unique feather inherent with *Jain* Architecture. Comparatively, half of the temples have moderate carvings as part of their decoration, while around one-third of the temples ie. 29% have much detailed “Intricate” carvings in them. Rest of the temples have simple carvings.

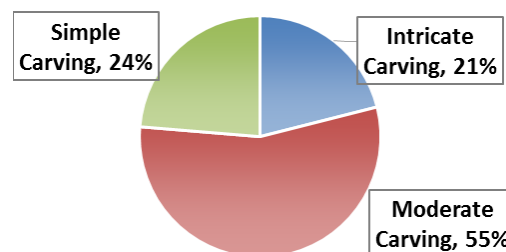


Figure: 6.26– Level of Carving Detail in *Digamber* Temples. Source: (Author)

In case of *Digamber* temples, half of the temples have moderate carvings as part of their decoration, while around one-third of the temples ie. 21 % have much detailed “Intricate” carvings in them. Rest of the temples have simple carvings.



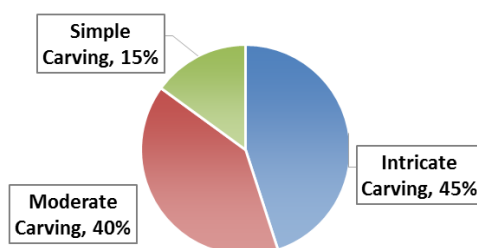


Figure: 6.27– Level of Carving Detail in *Swetamber* Temples. Source: (Author)

In case of *Swetamber* temple, the level of details in carving is found to be from moderate to intricate in *Swetamber* Jain Temples. The level of details in carving is found to be mostly moderate in *Digamber* Jain Temples.

### 6.3.5 Detail of Vedi of Tirthankar

The platform on which the statue of deity (called *Tirthankar* in *Jainism*) is placed is called "*vedi*". *Vedi*'s of the *Jain* temples are categorised by the author under nine types - 1. *Kshatriya dome style*, 2. *Decorative Arch niche with foot idols*, 3. *Foot idol Idol*, 4. *Statue of Platform*, 5. *Standing posture*, 6. *Sitting posture*, 7. *Samosaran Temple standing*, 8. *Smaadhi*, 9. *Pyramidal Shikhara* - as shown above.

*Kshatriya dome style vedi* is the most popular type, which is found in 76% of the temples.

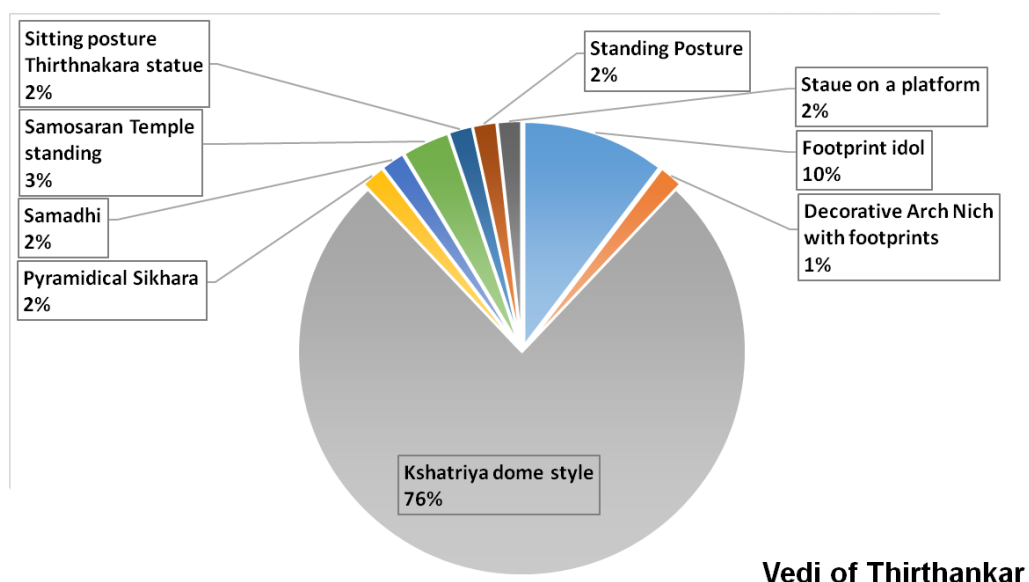


Figure: 6.28– Vedi of Tirthankar. Source: (Author)

### 6.3.6 Element / Motif of Elevational form

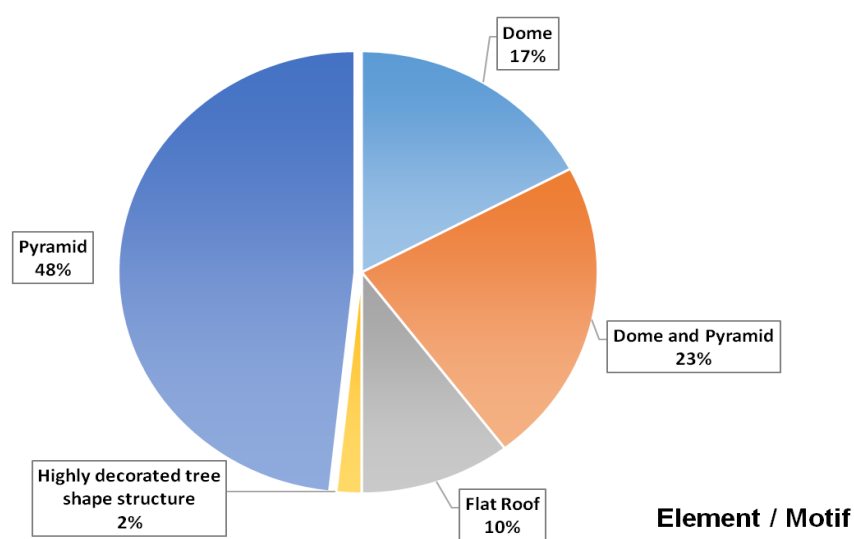


Figure: 6.29– Element / Motif of Elevational form. Source: (Author)

Almost half of the temples have pyramidal element on the upper part of superstructure, also called as *Shikhara*. As shown in the above chart, 17% temples have domes, while 23% temples have a combination of dome and pyramid.

### 6.3.7 Elevational form of Temple

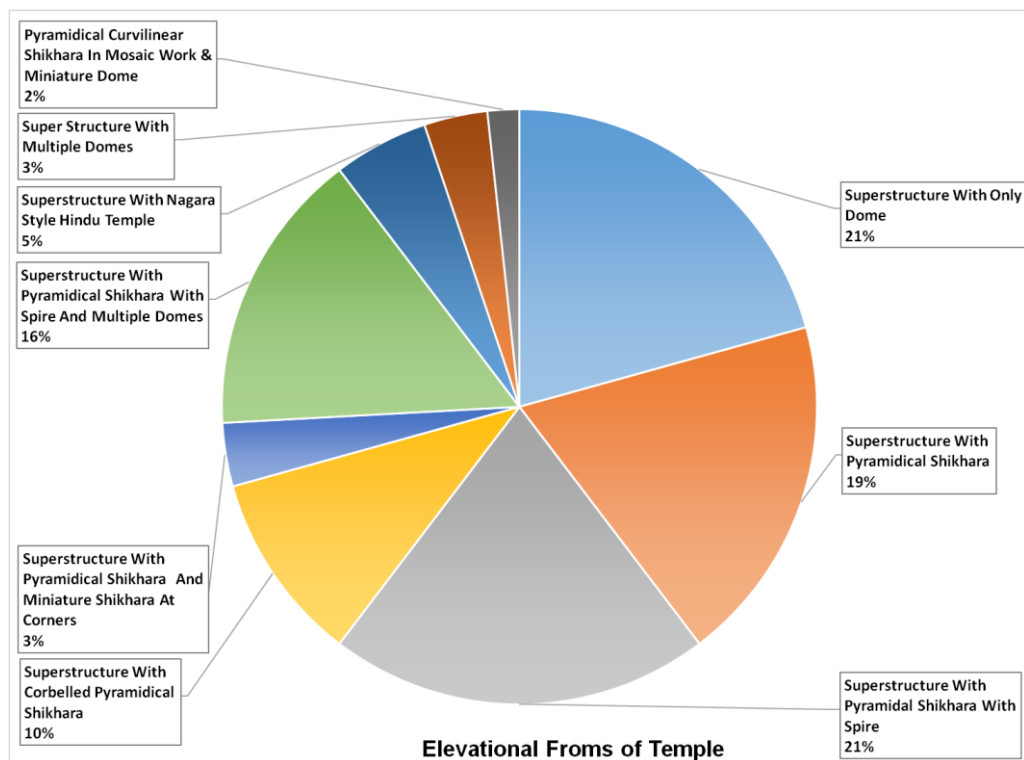


Figure: 6.30– Elevational Form of Temples. Source: (Author)

As shown in above chart, almost 71% of the temples have some or the other form of pyramidal elevation. Several variations of pyramid is achieved in these temples - with the help of additional elements like - spire, domes, corner *Shikhara*, corbelling, etc. Various elevational forms and their occurrence in these temples is shown in above chart.

### 6.3.8 Principal Building Material and Finish

All these temples were built using brick as main building material. Lime mortar was used as binding material in 90% of the temples. Only rest 10% had cement mortar as substitute. A third of the temples had marble finish. Other finishes found here were - decorative plaster, carving on mortar and mosaic cladding.

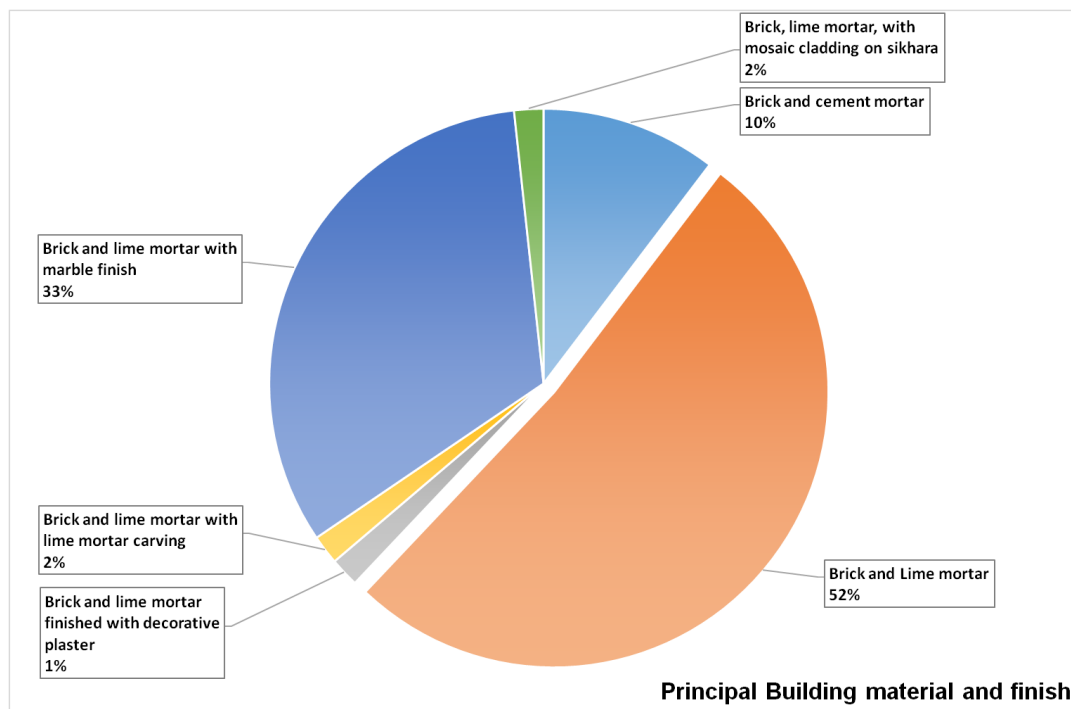


Figure: 6.31:– Principal Building Material and Finish. Source: (Author)

## 6.4 Dimensional Analysis

To arrive at conclusion for the special features and uniqueness with the *Jain* Architecture for the *Bihar* region fifty-eight temples are selected as a sample for the Dimensional Analysis. The following characteristics were analysed for *Jain* temple sample data of fifty-eight temples.

- I. Relation and comparison between the time of construction and the height of *Jain* Temples in *Bihar* region.

- II. Relation and comparison between the time of construction and the area of *Jain Temples in Bihar* region.
- III. Relation and comparison between the height and ground coverage of *Jain Temples in Bihar* region.
- IV. Relation and comparison between the time of construction and the percentage of wall area of *Jain Temples in Bihar* region.
- V. Relation and comparison between the time of construction and the length width ratio of *Jain Temples in Bihar* region.
- VI. Relation and comparison between the time of construction and Height to length ratio of the *Jain Temples in Bihar* region.

The *Jain* temple sampled in the region of *Bihar* belongs to 9<sup>th</sup> century to 20<sup>th</sup> century. Majority of these temples belong to 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> century. The details of date of these temples are attached as annexures IV.

#### 6.4.1 Relation and comparison between the time of construction and the height of *Jain Temples in Bihar* region.

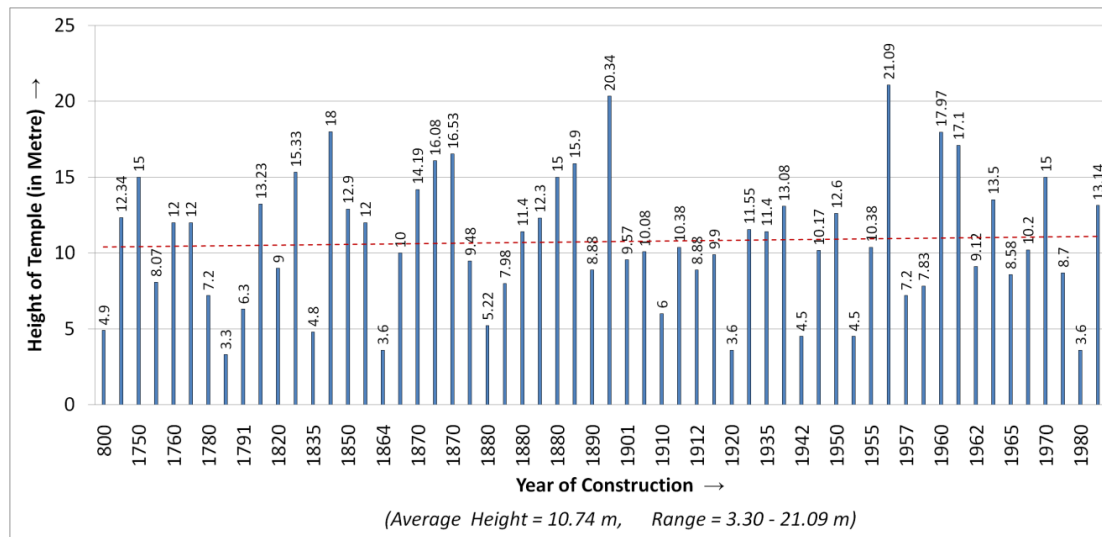


Figure: 6.32: – Graph 1- Time and Height graph of *Jain* temples of *Bihar* region.

Source: (Author)

The average height of fifty-eight temples studied in this report is 10.74M. Shri *Stulbhadra Sadhana Sthal* with least height of 3.3 M. was constructed in 1791 AD, while *Sri Swetamber Jain Temple Lachhuar*, which is the highest with 21.09 M. height, was constructed in 1955 AD. From the timeline graph shown above, it is observed that

the mean average height of these temples slightly increased during 800 AD to 1980 AD. The average height in case of north Indian style of temple is 15.79 M and in case of south Indian style of temple is 12.99M. If the height profile compared with *Hindu* temple, the average height of the *Jain* temple in this region of *Bihar* is 10.63 M, which is less than *Hindu* style of temple although the style matching with the *Hindu* Temple style (Vardia, 2008).

#### 6.4.2 Relation and comparison between the time of construction and the area of Jain Temples in Bihar region.

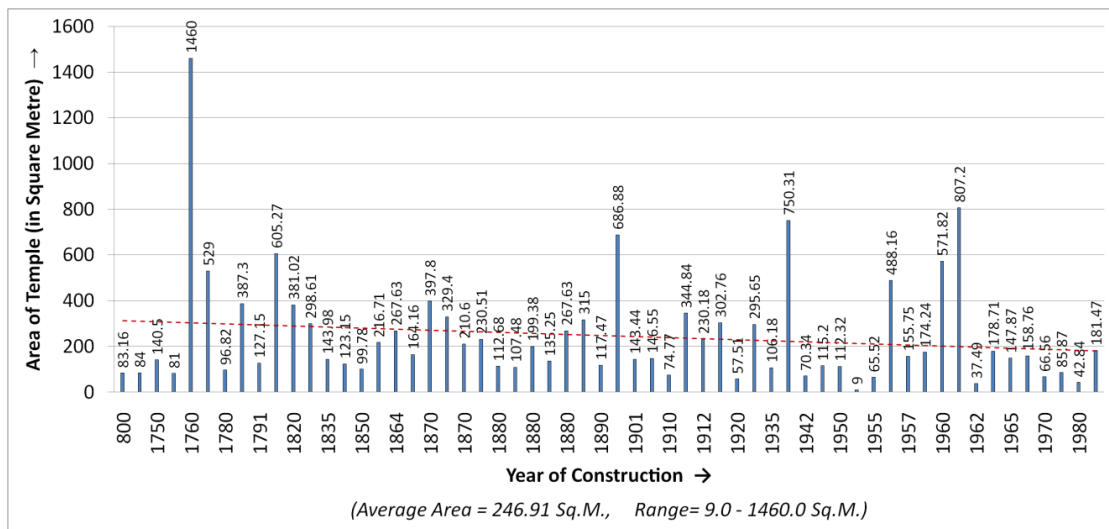


Figure: 6.33:– Graph 2- Time and Area graph of Jain temples of Bihar region.

Source: (Author)

It is observed that, overall temple area has decreased over a period of 12 centuries, as regards these 58 temples under our study. The average area is 249.91 Sq.M. The *Tunks* at *Parasnath* are the smallest in size, average size being 9.0 Sq.M. *Sri Champapur Digamber Jain Siddha Kshetra Bada Mandir, Nathnagar* is the largest temple, with area of 1460 Sq.M. Declining trend of the area is due to the less number of temple constructed in this region in recent time. As the population of *Jain* Community is lesser in these area but number of pilgrimage site are present. During the case study, number of new temples were under construction and number of temples is proposed at the sites *Barakar, Parasnath, Patna, and in Vaishali*.

### 6.4.3 Relation and comparison between the height and ground coverage of Jain Temples in Bihar region.

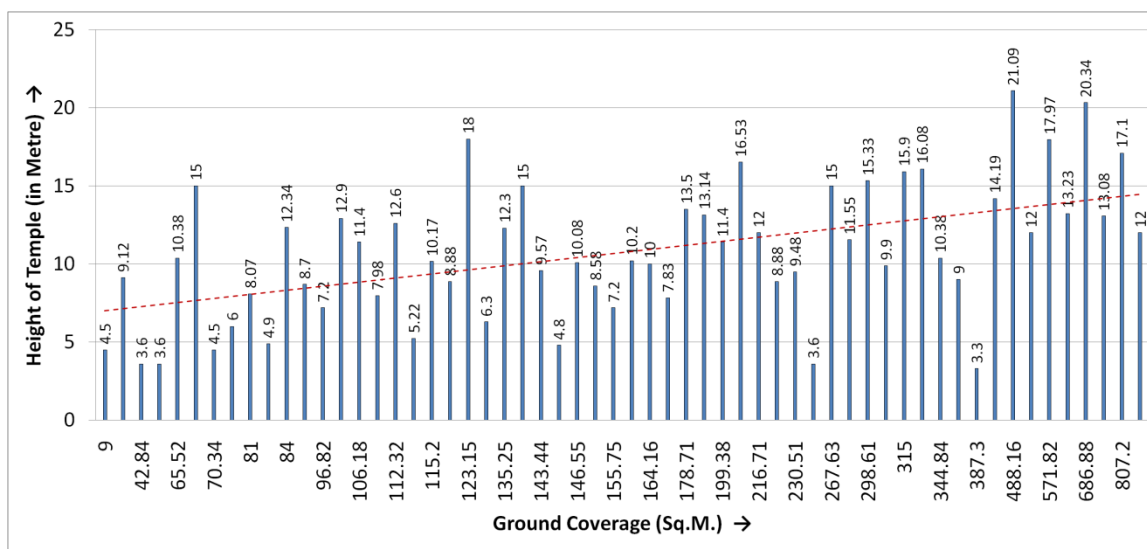


Figure: 6.34:– Graph 3- Height and Ground Coverage graph of Jain temples of Bihar region. Source: (Author)

There is a direct relationship between the ground coverage and the height of the temple, as seen from the trend-line of the above graph plotted for the sampled temples. It shows that the as the ground coverage of the temple is increased, their height is also increased.

### 6.4.4 Relation and comparison between the time of construction and the percentage of wall area of Jain Temples in Bihar region.

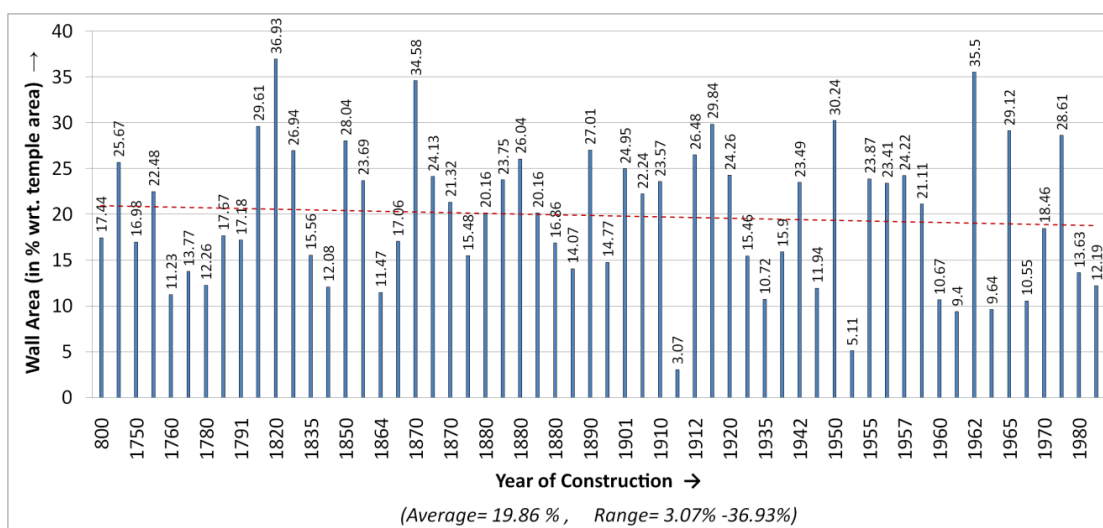


Figure: 6.35:– Graph 4- Time and Percentage of wall area graph of Jain temples of Bihar region. Source: (Author)

There is a slight decrease in wall percentage with respect to the overall temple area during the construction of the first temple to the latest. *Samosaran Temple, Pawapuri* has least wall area percentage (3.07%), while *Sri Muni suvaratswami Mukhya Jinalaya, Vaibhargiri* has the highest wall area percentage (36.93%). the reason behind the least wall percentage (3.07%) for *Samosaran Temple, Pawapuri* is, it is an open circular auditorium temple. It is symbolic temple represented as the *Tirthankar* giving sermon to the gathering. Slight decrease in graph trend is due to use of modern material and technology. The average value 19.86% indicates the common value for the religious building constructed in India. Which indicate uses of the uniform building material and technology in all types of religious building in India (Vardia, 2008).

#### 6.4.5 Relation and comparison between the time of construction and the length width ratio of Jain Temples in Bihar region.

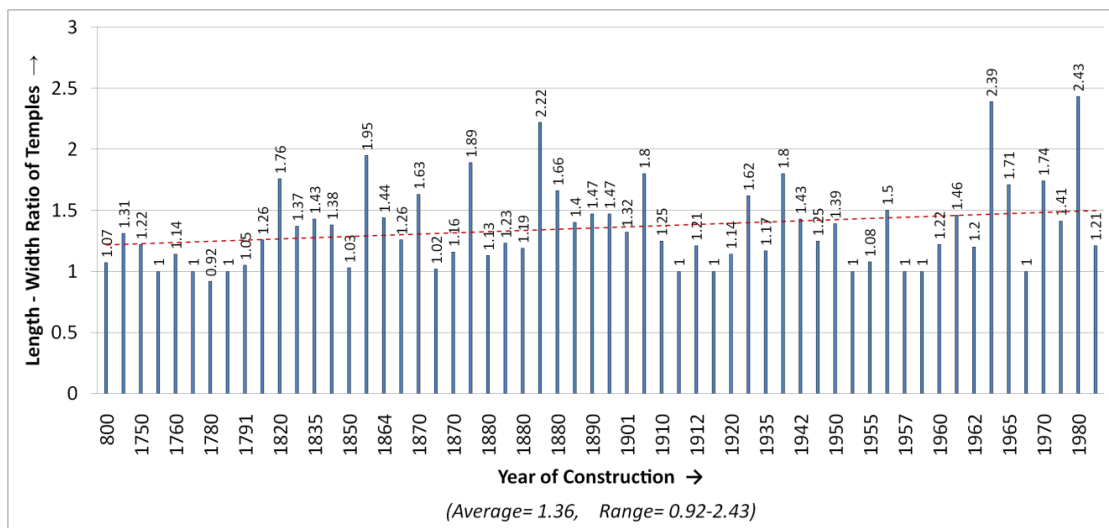


Figure: 6.36:– Graph 5- Time and length-width ratio graph of Jain temples of Bihar region. Source: (Author)

The ratio of overall length and overall width of the temple is seen to be slightly increasing in the last twelve centuries during which these temples were constructed / erected. *Sri Dadawari, Begampur, Patna City* has the least Length-Width ratio (0.92) constructed in 1780 and *Sri Parshavanath Digamber Jain Chaityalaya, Nalaroad, Patna* has the highest length-width ratio (2.43) constructed in 1980. It indicates that there is increasing trend of constructing rectangular buildings rather than square.

#### 6.4.6 Relation and comparison between the time of construction and Height to length ratio of the *Jain* Temples in *Bihar* region.

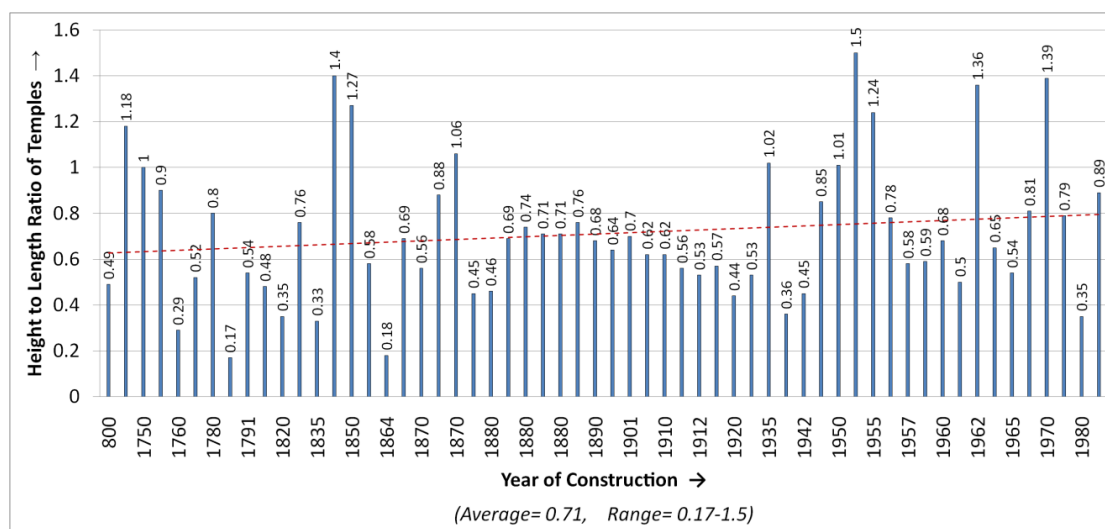


Figure 6.37: – Graph 6- Time and height to length ratio graph of *Jain* temples of *Bihar* region. Source: (Author)

The ratio of overall height and overall length of the temple is seen to be slightly increasing with time in the twelve century period during which these temples were constructed. *Shri Sthulbhadra Sadhana Sthal* has the least Height-Length ratio (0.17), and average Tunk at *Parshavanath Hill* has the highest length-width ratio (1.5). Average length to width ratio is 0.71. the trend line represents that the height of the temple is increased with the time due to advancement of building material and technology.

### 6.5 Conclusion

In this chapter, various parameters are analysed for *Jain* caves and *Jain* temples of *Bihar* region with respect to annexures I to V. The main idea for analysis is to establish co-relation with the *Jain* Architecture and other contemporary religious buildings.



## CHAPTER 7

### **Influence of Jain Architecture on Traditional Architecture in Bihar region**

#### **7.1 INTRODUCTION**

The *Jain* Art and Architecture like decorated Indian Art in the early century's stupas out of appreciation for their holy people with their adornments of stone railings, enlivened gateways, stone umbrellas, pillars, and statues were raised. Lovely *Jain* statues are found in *Bihar*, *Rajgir* and *northern Bihar*.

The statue of *Bahubali* called *Gomatesvara* at *Sravan Belgola* and *Karkal* in *Karnataka* are examples of superb *Jain* Architecture. The statue of *Bahubali* metered high, cut out of a mass of granite was raised in 984 A.D. by *Chamundaraya*, the clergyman of *Ganga Dynasty*, *Rachamalla* (*Vasantharaj*, 1985).

Numerous *Jain* focuses of Pilgrimage, for example, the *Parsvanath Hills*, *Pavapuri* and *Rajgir* in *Bihar* and *Girnar* and *Palitana* in *Kathiawar* have temples and other Architectural monuments.

*Jainism* is more seasoned than '*Buddhism*'. It raised its voice against the *Brahmanical* dominance of *Hinduism*. *Mahavira's* own case of simplicity, *penance* and *austerity* popularized *Jainism*. *Jainism* can't turn into a dominant religion in India.

*Jainism* couldn't be spread abroad. Be that as it may, it remained as a powerful order in the nation. Today the *Jains* are a small however well off group, dwelling generally in *Bihar* region. *Jainism* has left its effect on Art, Architecture and sculpture of India. Despite everything, it remains as one of the critical all India religion.

*Jainism* that today boasts that a considerable number of followers were first incited. The fundamental safeguard of the *Jain* religion, *Mahavira* was born near *Patna*, capital of *Bihar*, in 599 BC. In the particularly youthful age, he became a self-sacrifice and considered for a long time before clearly enlightened and from there it went on long until he got *nirvana* or *salvation*. Today *Bihar* region is immersed in relics and Jain temples. However, despite everything, a number of these temples and relics has

darkened in the darkness of time. In any case, these remain are a declaration of the strong *Jain* tradition of Bihar.

The Jalmandir, a temple of white marble, in the middle of a lotus pond, is the place where Lord *Mahavira* was cremated. There is another *samosaran* temple is constructed near this site.



Figure: 7.1- Samosaran Temple. Source: - (Author)

*Pawapuri* and *Nalanda*, accumulate many reasons to make it a sacred place of fundamental importance for the *Jains*. It is recognized that, the Lord *Sri Mahavira* spend here fourteen rainy seasons, he stayed here for many years; Furthermore, *Muni Suvaratanath*, the twentieth *Jain Tirthankar*, was born here. The contemporary Rajgir is a remarkable pilgrimage for *Jainism*. There are five hill, these are *Bipulachal*, *Ratnagiri*, *Udaygiri*, *Swarna giri* and *Vaibhargiri*. On the *Bipulachal* hill Lord *Sri Mahviara* given his first sermon after, enlighten. These hills have numbers of *Jain* temples on the top. The temples of *Swetamber* and *Digamber* sect were constructed in the city of Rajgir.

Ara, 61 km from Patna, is another *Jain* destination in Bihar. Several relics, antiques and ancient temples of *Jain* revealed that *Jainism* flourished here since after the 600 BC.

Between the last two decades, the *Jains* of Ara have been freely religious and, in light of its commitments, this area now delights with more than forty *Jain* temples, which act as a countless coherent environment. Some of these *Jain* temples are proliferations of ancient *Jain* temples elsewhere. The image of Bhagwan *Bahubali*, fifteen feet tall, *Shri Bahubali Mandir* of Ara, is a duplicate of the statue of *Sri Bahubali Swami* in *Karnataka*. The statue is presented on an artificial mound, and the area around is deliberately landscaped with plants of flowers.

*Nalanda*, about 90 km from *Patna* has given several archaeological diamonds, which helps to record the important links of the current city with *Jainism*.

In *Patna* there are thirteen *Jain* temples belongs to both the sects. Out of these, two are the *chaityalayas* and two new temples are proposed for the construction. *Patna's* historical approach is superior to normal. To discover *Jain* religion curiosities, relics and portraits of ancient *Jain* revealed in various archaeological excavations in Bihar has transversal influences.

## **7.2 INFLUENCES ON ARTS AND ARCHITECTURE**

The *Jains* have reliably contributed to advance expressions of human experience in the country. *Jains* have exhausted their varmint by modifying India's distinction in a couple of branches of expressions. Differentiated and their number, their commitments appear, from all angles, particularly interesting and specific (Norton).

### **7.2.1 Architecture**

It must be remembered that *Jainism* did not influence its extraordinarily exceptional Architecture, for anywhere the *Jains* went they obtained the neighboring construction conventions. The *Jains* stupas are ill defined by those of the *Buddhists*, and a curvilinear bell tower of *Jain* is not defined on the map with that of a *Brahmanical* temple.

### **7.2.2 Stupas**

Like the *Buddhists*, *Jains* also brought stupas to appreciate his blessed individuals, with their ornaments of stone grilles, planned portals, stone umbrellas, clear columns and rich statues. The first cases of these were found on the *Kankali* hill near *Mathura* in *Uttar Pradesh*, and should have a place in the century BC.

### 7.2.3 Cave temples

Once again, the *Jains* like the *Buddhists* have developed a pair of temples with buckles cut into the rocks from the first circumstances. However, to the extent, the construction of the *Jain* temples was smaller than *Buddhists*. In light of the way in which the *Jain* religion offered a customs of unmistakable individualistic rather than congregational quality. The most diverse cave temples are found in the hills of *Udaygiri* and *Khandgiri* in *Odisha*. The cordiality of its structures, the character of its figures, and building together intrigue with its incredible make them stand out among the most important structure. *Odisha* has a place in the second century BC.

### 7.2.4 Temples

Since the *Jain* religion thinks of temple development as a reputable exhibit. The *Jains* constructed an abnormally greater number of temples through out India. About ninety percent of the *Jain* temples are enriching individuals and, at that limit, one senses that the *Jain* temples explain discrete components and make complete decisions. The two temples are exceptional as fantastic models of the architectural style of northern Bihar, which is depicted through the free use of segments cut with all possible lavishness, sections of pillars and bright marble roofs with suspended slopes and design (Laidlaw, 1995).

*James Laidlaw* comments that:

"The measure of incredible detail clarified that extends over these temples of the carefully trimmed ornament ceilings, columns, pedestrian crossings, leaves and distinctive strengths. It is basically wonderful: the new, thin, translucent marble treatment in the shape of a shell surpasses any what is seen elsewhere and some of the plans are true dreams of greatness, the work is delicate, so much that a standard illustration would have been terrible."

The largest Jain temple with identity and wide in India and the most complete custom group in *Mewar (Rajasthan)*. The temple typically covers about 48,000 square meters of land and in the benefits of its surroundings, the unmistakable apprentice of history,

*Dr. Fergusson* comments that:

"The huge number of parts under construction, and diminutividad general maintains its advance as a guard for something similar compositional height. However, their mixture, the enormity of details. There are no two columns around the construction are quite similar. The brilliance with which they were designed. The rich mix of domes of different sizes with level ceilings, and how the light is shown, fuse to convey an overwhelming influence. Certainly, I do not know any other work in India, of an equivalent class leaving such a satisfactory impression, or bringing such an imperative amount of information bits for rich piece methodologies into an interior."

The light and columnar style of the temples, *Jain* did not provided materials that were more suitable for *Muslim* purposes, but also provided evidence that *Muslim* architects did not withdraw for profit. A mosque thus acquired was, for comfort and glory, unmatched by something that *Muslims* some time later raised their specific diagrams of one kind. Therefore, the large mosques of *Rajgir*, *Odisha*, *Jharkhand* and *Bhagalpur* are only reproductions in the temples of *Hindus* and *Jains*.

#### **7.2.5 Temperate urban areas**

Furthermore, the assembly of their temples in what might be called 'urban temples community' is a registered trademark that the *Jains* have developed more significantly than the disciples of some other religion in *India*. Such prominent urban areas of the temple are found, among several points, in Bihar.

#### **7.2.6 Mana-stambhas**

Another surprising commitment of the *Jains* in the field of Architecture is the development of numerous stambhas or pillars of the satisfactory plan and of the specific good taste. These were discovered to add vast series of temples (H. Sompura, 1996).

There is a certification that shows that, separated by the columns, the *Jains*, especially from the north of India, produced a marvelous number of exquisite towers for their *Tirthankars*. There is such a peak that, in a not too distant past, it improves *Bihar*, and it is considered a standout among other points of reference in *India*.

### 7.2.7 Model

The unlimited examples of the models of *Jain* found primarily in all parts of *India* show that the *Jains* enlisted the artisans organizations with particularly ancient circumstances. His most basic model to date is to show images or statues of his *Tirthankars*. In any case, alive and well for these figures were not granted titles for the free play of the imaginative vitality of individual stone specialists. Since the general measures, concerning the shape and position of the *Tirthankar* statues had been prescribed by the *Jain* Religion of the phase of more timely start. Subsequently, all the images of *Jain* are linked to a class, and in this way, images of *Jain* from any part of the nation can not be seen by their style despite the way they have a place with various ages of complete. In addition, note that the images of *Jain* were created equal and all substances, and often have a stable mentality, regardless of whether they are arranged or standing (Kumar N. , 2003).

The largest single statues in Asia, which are three in total, orchestrated in the state of *Karnataka* (created in 981 AD and height 56.5 feet). All three images of Lord *Bahubali*, the descendants of the first *Tirthankar Adinatha*, which are most important, are visible from kilometers away, and the movement of his formalism becomes aware of their gigantic mass and the articulation of the majestic silence.

### 7.2.8 Update of the sculpture

Regarding the rival *Jains* progress without resuscitation model, as seen by specific statues, Dr. Vincent Smith says that, "The *Jains* retained an interest in glory. They splendor, used to update the greatest exceptional and pillar. It was its nothingness, on the planet and it able to overcome the magnificence and delicacy of the details of the marble with the ceilings of the temples, and it is undoubtedly not difficult to fill a huge volume with performances of works virtually indistinguishable in several points."

### 7.2.9 Painting

Together with the Architecture and the figure, the *Jains* contributed immensely to the improvement of painting in India. The *Jain* painting convention is as old as *Buddhist* painting. It is an essential to note that *Jains* have, for the most part, a fortune of unique duplicate artistic creations, designed in the style of early Western Indians, sometimes called or in particular the "*Jain style*" or "*Gujarat Style*".

### 7.2 Trend of Jain Architecture on upcoming religious buildings in Bihar Region

Lord *Mahavira* was born close to Patna, the capital of Bihar, in 599 BC. In young age, he became a self-sacrifice and meditated long before got enlightened. After he spend in *Bihar* for a long time until he achieved nirvana or salvation.

*Rajgir*, which implies a "magnificent arrangement of living", the capital of *Magadha* of the Empire in the 6th BC. Master piece near *Pawapuri* and *Nalanda*, credible reasons that make it a celestial place of great importance for the *Jain*. It is known that Sri *Mahavira* spend here fourteen rainy seasons, many of his best teachings transmitted here; in the same way, *Sri Munisuvrata*, the twentieth *Jain Tirthankar*, was born here.



Figure: 7.2 - Jal Mandir at Pavapuri, Bihar. Source: (Author)

### ***Paras Nath Hills***

*Sammed Shikharji* or *Parshvanath Pahad*, twenty Tirthankars of this *Chowbeese* (twenty-four Tirthankars), obtained salvation in this sacred land.

On the hill, there are *Tirthankars* tunks those have achieved salvation from here. The entire route covers the distance of 18 miles.

*Jain's* workforce commitment to standard craftsmanship in *India* has been expansive. Every moment of *Indian* work is assisted by a *Jain* framework, and each of them justifies careful examination and intuition. The impressive *Jain* temples and the points of interest formed by *Bihar* region are acclaimed.

*Jain's* Architecture cannot testify with his particular style, since it was around a branch of *Hindu* and Buddhist styles. At first, these temples were generally cut with shaky faces, and the use of the squares was tolerably unimportant. However, in recent years, the *Jain* began to build territories of urban sanctuaries on the hills in the light of the deposits of eternal state.

According to the measure of *Hindu* temples in India, the *Jain* temples are few and disconnected. The latter used to break down their decayed and more serrated temples and collect new ones in a nearby place. Of course, the *Jain* temples had an air of specific aggressor around them, almost in light of the marauders who could possess riches. The reason is that, the *Jain* temples are the richest temples on the planet, even surpassing the *Mughal* structures to the point of material wealth and wealth.

*Jainism* is a basic religion that has supporters of just over two million or more. His commitment to the Indian legacy is more objective, generally appreciated the actual support, and has made great priests and laymen of people in general can be cheerful.

### **7.3 Conclusion**

The India had very rich history for the *Jain* Architecture starting from the Indus valley civilization to till date. As the religion is movement against the *Hindu* religion and it parallelly grow. It is almost supported by the all the dynasty throught out the time. The region of *Bihar* having number of pilgrimage site, all these have its own importance. All these places are related with the important event of twenty - four *Tirathankars*.



In *Odisha*, *khandgiri* and *udaygiri* hill have thirty - two caves still existed build during 200 BC by *kharvela king*. Influenced by that time of prevailing *Budhhist* cave Architecture style.

*Parasnath* known for the *nirvana* place of twenty *Tirthanakars*, there are in total twenty-nine *tunk* one *Jain* temple and one *Jal mandir* situated on the hill, also there are number of temples existing at the base of *Parasnath* hill. The other nearby places of great importance are *Rijubalika tirtha*, *Barakar*, *Palganj*, *Ishari bazar*. These places are properly developed and attract the tourist throughout the year.

*Bihar* have number of important sites related to *Jain* religion. Such as *Patna – nirvana* place of *Sri Sudarsana muni*, *Ara – the Lord Sri Mahavira* taken rest here during the religious visits, *Vaishali-* The birth place of Lord *Sri Mahavir*, *Jamui – this place* considered as birthplace of *Lord Sri Mahavir* by *Swetamber* sect, *Bhagalpur-* The place associated with *Sri Vasupujya Swami*, *Banka - Nirvana* Place of *Sri Vasupujya Swami*, *Nalanda – Nirvana* place for *Sri Mahavir*, *Rajgir – associated with Sri Munisubratnath* and *Sri Mahavir*, *Nawada- Nirvana* place for *Sri Gautam Swami*. All these places are of great importance and *pilgrimage* site for the *Jains*. At all these locations, there are number of temples existed in their own style, which reflect the richness of *Jain* Architecture of the region.

At the time of site visit author found number of temple existed and number of new ongoing construction of temples, all those inheritate *Jain* temple architectural style. All those have one very common features as the carving and decoration of the interior that reflect inner richness of *Jain* religion. The style of temple construction techniques inheritate by the *Jain* Architecture tradition style such as *Jal mandir*, *Samosaran* and *Manastambha* is maintained, and keep on growing.

## CHAPTER 8

### 8.1 INFERENCE

The *Jain* religion has its long and lively history dating back to 2500 BC. As per *Jain* tradition, Lord *Sri Mahavir* was the last and twenty-fourth *Tirthankar* (*Spiritual teacher of Jain Religion*). All the twenty-four *Tirthankars* gave message for the path of liberation - *moksha* to the world. Out of these twenty-four *Tirthankars*, twenty-two had attained *nirvana* from the holy land of *Bihar* and *Jharkhand*. In addition, many saints attained *nirvana* in this region. In this regard this region has a number of pilgrimage sites like *Khandgiri hill*, *Udaygiri hill*, *Patna*, *Vaishali*, *Ara*, *Jamui*, *Bhagapur*, *Banka*, *Nalanda*, *Rajgir*, *Nawada*, *Barakar*, *Palganj*, *Sammed Shikharji*, *Parasnath*, *Kolua pahad*. The uniqueness of *Jain* religion is that, they worship the living being who came to this world, lived like a common person and got enlightened and attained *nirvana*. They all are known as *Tirthankars*. As per the *Jain* literature, in life of a *Tirthankar* five chief auspicious events are believed to occur. These are known as *Chyavan kalyanak*, *Janma kalyanak*, *Diksha Kalyanal*, *Kevala Janana Kalyanak*, *Nairvana Kalyanak*.

As per *Jain* literature, the tradition of worshiping statue has existed in *Jainism*, as evidenced from the “torso” found in Indus Valley Civilization in 2000 BC and in *Kumharar*, *Patliputra* dating back to 300 BC. In *Jain* Architecture, it's a practice of constructing an enclosure for worshiping the statue, which lead to construction of temple with timber or in brick.

As per literature review, no exhaustive work in the area of *Jain* Architecture was found. Different scholars have concluded that, *Jain* Architecture grew parallel with contemporary Architecture style of India. All the religion and culture have its distinct feature and style. Therefore, there is unique style of Architecture with the *Jain* Architecture also. It is the first attempt to analyse the features of *Jain* caves and temples through the case study of thirty-two caves of *Udaygiri*, *Khandgiri* and fifty-eight *Jain* temples of *Bihar* and *Jharkhand*.

In present research work all the places were identified, which are pilgrimage site or otherwise important to *Jain* religion in the *Bihar*, *Jharkhand* and *Odisha*. As per *Hathi*

*Gumpha* inscription, caves of *Khandgiri-Udaygiri* hill was constructed in 200-170 BC by King *Kharavela* for *Jain* monks as living space and religious activity spot. There are in total thirty- two caves still existing at this location giving strong message for the existence of *Jain* Architecture in those eras. The construction time of these caves is later from the *Lomas Rishi caves* built by *Ashoka* in 300 BC at *Jahanabad, Bihar*. It was contemporary with *Ajanta* caves constructed during in 200 BC - 480 CE. As the cave Architecture appeared in the *Budhhist* Architecture first, these *Khandgiri - Udaygiri* caves are evidently inspired from those *Budhhist* caves. The cells of caves have the plan form either square or rectangular and height at reduced scale lower than human height. The interior of caves have raised surfaces used as pillow for the monks to rest. It shows that, these were constructed for the monk's meditation and living space. The interior had rock cut artwork carvings on the walls, telling the story of that period and the twenty-four *Thirtankars*. Some of the caves are double storey. These aspects clearly show that, the *Jain* caves are more engineered and have artistic qualities at that point of time. The scale of the *Jainism* caves is less than human scale, which shows that they believe in inner spiritual qualities and it was reflected in the future *Jain* temple Architecture also, in which the height of *Jain* temple is less than other religious buildings.

The Lord *Sri Mahavir* born in *Vaishali (Bihar)* got enlightened at *Barakar* and gave his first sermon at *Bipulachal* hill *Rajgir*. In 527 BC, *Sri Mahavir* got *Nirvana* at *Pawapuri, Bihar*. At the same location *Lord Mahvira* was cremated, there came a huge crowd to collect the ashes of his mortal remains, which resulted in removal of huge volume of soil from that place, creating a pond there. Later on a *Samadhi* temple with footprint idol *vedi* known as *Jal Mandir* was constructed as a distinct style. It still exists there, though in a new form. Later this concept of *Jal Mandir* was adopted in the other religious building also e.g. *Golden Temple Amritsar* (in *Sikh* Architecture).

To understand the *Jain* temple Architecture of Bihar region, fifty- eight temples were selected which were constructed during the time period of 9<sup>th</sup> century to 20<sup>th</sup> century AD. All these temples have been documented under standard format. The oldest temple in its existing state is at *Bamapur, Vaishali*, built during the 800 AD. The temple has plan form of three-side opening with circumambulatory path a pattern very commonly found at other places of sampled data. The *Shikhara* form is simple pyramidical.

Comparing this temple with other temple of same time period, it is seen that the *Hindu* temple Architecture had reached at very advance stage, for example Bhitargaon temple, 500 AD and Lad khan temple, 675-725 CE. All the fifty - eight temples were classified under different plan forms and elevational forms for the purpose of analysis and checking the resemblance with their contemporary Architectural style.

Most of the temples have very simple plan form with only *garbhagriha*, generally with the footprints idol of *Tirthankar*. This type of structure is generally known as “*tunk*” and is constructed with marble. The second type of temple has *garbhagriha* with a circumambulatory path. It is very similar to typical *Hindu* temple. The third type of temple is with three-side opening and a circumambulatory path was found as a prominent plan form, next prominent style of form was typical *Hindu Nagara* style. It clearly reflects that there is influence of *Hindu* temple *Nagara* style plan form in which the hierarchy of spaces are *garbhagriha* followed by *antarala* followed by *mandapa* followed by *ardhamandapa*. Similar pattern is found on third type of *Jain* temple plan form. In the elevation form, the temple with dome was prominent in most of the *Jain* temples. Next prominent style was pyramidal *Shikhara* with spire and multiple domes. It reflects that there is influence of *Hindu* temple *Nagara* style elevational form and *Islamic* Architectural form on the *Jain* temple elevational form. It is total amalgamation of both the *Hindu* and *Islamic* Architectural style.

Unlike *Hindu* temple Architecture, where male deity is placed in square *garbhagriha* and the female deity is placed in square or rectangular *garbhagriha*, In *Jain* temple both the square and rectangular shape *garbhagriha* is very common for *Tirthankars* with majority of temples with square form.

As per the *Hindu* temple Architecture, the deity should face towards east direction, if not possible in that case, it should face west direction. In *Jain* temple, the face of the deity is in east in the most of cases followed by north. In some of the cases, it faces west. No temple have been found in which deity faces south direction.

Concept of temple around pond is a unique style belonging to the *Jain* religion; the examples are *Jal mandir* at *Pawapuri* and *Jal mandir* at *Nawada*. Other distinct style of temple is observed as *Samosaran* and freestanding pillar “*Manastambha*”. It is a unique style of temple, in which *Tirthankar* sitting in the center at the top faces all

cardinal directions. The sitting arrangement is like circular auditorium. *Manastambha* is a freestanding pillar in front of *Jain* temple, *Samosaran* and *Tirthankar* statue. On the top of *Manastambha Jain Tirthankar* idol is placed facing in cardinal directions. An important feature of the *Jain* temple for which it is well known throughout in the world is intricate carving. *Dilwara* temple is a well-known example of such type of carvings. The same type of features have been found in the *Jain* temples at *Lachhuar*, *Kakan*, and *Rajgir* belonging to *Bihar* region. Size of doors and windows in *Jain* temples is on human scale. It resembles the temples and other secular buildings of India.

There are total thirty-one religious structures were constructed during various time periods at pilgrimage site Sammed *Shikhar*. The site has one *Jal Mandir*, one *Jain* temple and twenty-nine "*tunk*". *Tunk* is a small structure with the footprint idols of the *Tirthankar* or the saint. It is an enclosure made of intricately carved marble, and its top consists of a *Shikhara* either dome or pyramidal in form.

The conclusion drawn from the study is that the *Jain* Architecture has been influenced by the Architecture of other contemporary religions in the plan form as well as elevational form through the course of time. Despite that, it has unique style of Architecture, which is concluded from following characteristic features of Jain Architecture:

- a. Earliest *Jain* Architecture dates back to 200 BC when *Udaygiri* and *Khandgiri* were cut- when *Buddhism* was flourishing in India. The first rock cut cave was *Barabar* Hill at *Jahanabad*, *Bihar* in 300 BC, and it was *Buddhist* in nature. The comparison between these two contemporary religions is objectively shown below:-

<b>Table:- 8.1</b>		
<i>Comparison between Buddhist and Jain Caves</i>		
<i>Description</i>	<i>Buddhist</i>	<i>Jain</i>
<i>Plan form</i>	<ul style="list-style-type: none"> <li>• Square</li> <li>• Rectangular</li> <li>• Circular</li> </ul>	<ul style="list-style-type: none"> <li>• Square</li> <li>• Rectangular</li> </ul>
<i>Storey</i>	<ul style="list-style-type: none"> <li>• Single</li> </ul>	<ul style="list-style-type: none"> <li>• Single</li> <li>• Double</li> </ul>
<i>Height of cave</i>	<ul style="list-style-type: none"> <li>• Human scale</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced scale lower than human height</li> </ul>
<i>Art work</i>	<ul style="list-style-type: none"> <li>• Exterior carving</li> </ul>	<ul style="list-style-type: none"> <li>• Interior &amp; exterior carving</li> </ul>

From the table it is observed and we come to the conclusion that:-

- The *Jainism* caves were more engineered and have artistic qualities at that point of time.
  - Scale of the *Jain* caves size is less than human scale, which follows *Jainism's* belief in inner spiritual qualities, and it got followed in the future temple Architecture also. Scale of *Jain* temples is comparatively lesser than that of other religious buildings.
- b. The concept of *Jal mandir* came from the reference of creation of pond due to removal of soil by devotees from where Lord *Mahaviar* had cremated. After that, a *Jain* temple was constructed in the middle of the pond appropriately named as '*Jal-Mandir*'. The style was later adopted in *Sikh* religion (Golden Temple).
- c. The circular open-air theatre of *Samosaran temple* evolved from the *Jain* practice of oral preaching regularly conducted by the *Tirthankars*, with devotees sitting all around Him. The central statue installed in name of the *Tirthankar* faces all the cardinal points. Such a structure is not found in any other religion and is native to *Jain* religion as symbolism.
- d. *Manastambha*, a free-standing pillar with the idols of four-faced *Tirthankar* is unique and distinct feature of *Jain* Architecture.
- e. *Tunk* is a small enclosure constructed with marble. Inside the *tunk* footprint idols of *Tirthankar* is installed. This is a unique architectural feature - "enclosure with intricately carved marble" is present in *Jain* Architecture.
- f. Intricate carving with marble and plaster in the interior and exterior of temples is an inherent characteristic of *Jain* Architecture.

From the above, it can be said that there is no impact of *Jain* religion on *Jain* Architecture. It moved on a parallel way with the other contemporary Indian religious Architecture for its style. Therefore, other contemporary religious Architecture influenced the style of *Jain* Architecture. A number of pilgrimage sites are available in the region with the examples like *Jal Mandir*, *Samosaran*, *Manastambha* and intricate carving in the temples. All such structures are result of religious belief and unique in nature but their elements are borrowed from the contemporary *Indian* Architecture. It

clearly shows that, *Jain* Architecture has influenced the Architecture of the *Bihar* region in the form of *Caves, Chaityalaya, Temples, Jal Mandir, Samosaran and Manastambha* at various pilgrimage sites. The kind of uniqueness that the *Jain* religion holds in terms of its distinct Architectural types such as *Jal Mandir, Samosaran, Manastambha* and intricate carving has to be maintained, preserved and glorified.

## 8.2 Scope of future research

The *Jain* temples in India have been the subject of reflection for various historical features compiled by authorities such as technocrats, religious analysts, classical artists, historians, archaeologists and other experts. There is a requirement of in-depth research of *Jain* temples in various parts of India, not only in the light of iconography and change, but also for the innovation in temple form and its auxiliary elements. It is understood that various temples have fallen down from time to time due to various disaster, invasion, and natural decay. However, there are examples of *Jain* temples well preserved from storm and other recorded disasters. It is to be noted that, these temples have been filled as an interlaced structure as indicated in the obsolete manuals. Therefore, these temples had ability to sustain during various calamities. From now on there is need of expansion to include the structural features of these *Jain* temples. It can be a more basic subject of research such as the safety examination and the examination of the structures of good disposition, including the most notable concern of these temples, its various elements, *Shikhara*, lintel, arches, domes etc.

Due to the presence of a number of pilgrimage sites in the *Bihar* region, present study focuses only on the *Jain* temples of *Bihar, Jharkhand* and caves of *Odisha* as a case study. As the *Jain* community belongs to business class people, they have established themselves all over the India and the world. They have a number of temples and temple-cities like *Dilwara, Shantrunjaya, Rankapur, Lal Mandir* in *New Delhi, Karnataka*, and *Mathura* etc. the present work can be extended to next level to examine their architectural characteristics, structural qualities and other features.

# References

- Achal Sahib Gurdwara, Batala*. (2017, 11 16). Retrieved from <https://amritsartemples.in/about-achal-sahib-gurdwara-batala/#.W7TpqPZuLIU>.
- Adina-mosque-malda*. (2017, 9 13). Retrieved from <https://1001things.org/adina-mosque-malda/>.
- Alfieri, B. M. (2000). *Islamic Architecture of the Indian Subcontinent*. London: Laurence King.
- Al-Naghsh, M. M. (2001). *Mosque, the Portrayal of the Art of Islamic Architecture*. Culture and Art Magazine.
- Anandpur sahib*. (2018, 1 4). Retrieved from <http://www.sikhtourism.com/anandpur-sahib.htm>.
- Atala-mosque-jaunpur-1408*. (2017, 9 15). Retrieved from <http://www.muslimheritage.com/article/atala-mosque-jaunpur-1408>.
- Badami*. (2016, 6 9). Retrieved from <https://www.karnataka.com/badami/>.
- Banerjea, J. N. (1941). *The Development Of Hindu Iconography*. Kolkata: University of Calcutta.
- Banerjee, Jitendra Nath. (1941). *Iconography, The Development of Hindu*. University of Calcutta.
- Bara\_ Imambara*. (2017, 9 13). Retrieved from [https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Bara\\_Imambara.html](https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Bara_Imambara.html).
- Barabar-caves*. (2017, 10 16). Retrieved from <https://www.rvatemples.com/listings/barabar-caves/>.
- Basic Architectural components*. (2017, 12 12). Retrieved from <https://islamic-arts.org/wp-content/uploads/2012/03/fig1.jpg>.
- Beck, E. (2006). *Pallava Rock Architecture and Sculpture*. Pondicherry: Sri Aurbindo Society.
- Bhaktipada, K. S. (1989). *The Illustrated Ramayana*. New Vrindaban, West Virginia: Palace Publishing.
- Bharhut*. (2017, 10 16). Retrieved from [https://www.revolvy.com/topic/Bharhut&item\\_type=topic](https://www.revolvy.com/topic/Bharhut&item_type=topic).
- Bhitargaon*. (2017, 8 14). Retrieved from <https://www.ancient.eu/image/3873/bhitargaon/>.
- Bhutanatha-group-of-temples*. (2017, 8 14). Retrieved from <https://www.karnataka.com/badami/bhutanatha-group-of-temples/>.



- Brahma Jinalaya*. (2016, 5 16). Retrieved from <https://www.karnataka.com/gadag/lakkundi-brahma-jinalaya/>.
- brihadeeswarar-temple*. (2015, 6 18). Retrieved from <https://www.hellotravel.com/india/brihadeeswarar-temple>.
- Brihadeeswarar-temple*. (2015, 8 15). Retrieved from <https://www.hellotravel.com/india/brihadeeswarar-temple>.
- Brihadisvara temple Thanjavur*. (n.d.). Retrieved 8 14, 2017, from <https://www.revolvy.com/page/Brihadisvara-Temple%2C-Thanjavur>.
- Brown. (1942). *Indian Architecture: Jain Period*. Bombay: Taraporevala and Sons.
- Buddhadatta, E. A. (1980). *Saddhamma - Pajjotika - Comm, on Mahaniddesa* (Vol. 2). London: R T. S.
- Charminar*. (2017, 9 13). Retrieved from <http://www.hyd.co.in/charminar/>.
- Chennakesava-temple*. (2017, 8 16). Retrieved from <https://www.karnataka.com/belur/chennakesava-temple/>.
- Cheraman-juma-masjid*. (2017, 9 12). Retrieved from <https://keralam.com/cheraman-juma-masjid/>.
- Chidambaram temple*. (2017, 8 14). Retrieved from [http://www.chidambaramnataraja.org/about\\_temple.html](http://www.chidambaramnataraja.org/about_temple.html).
- Chidambaram-northgopuram-navalingashrine*. (2016, 5 12). Retrieved from <http://www.chidambaramhiddentreasure.com/chidambaram-northgopuram-navalingashrine/>.
- Cowell, E. B. (1973). *Stories of the Buddha's Former Births Trans* (Vol. 3). London.
- Cunningham, A. (1963). *Ancient Geography of India* (Vol. I). Delhi: Genises Publishing Private Limited.
- David's, T. (1969). *Mahaparinibbana-Sutta' In Buddhist Suttas, In Sacred Books of The East Series* (Vol. XI). (F. M. Muller, Ed.) Delhi: Motilal Banarsidass Publishers Private Limited.
- Davison, J. (2003). *Introduction to Balinese Architecture*. Hong Kong: Periplus.
- Deglurkar, G. B. (n.d.).
- Dehejia, V. (1994). *The Legend of Rama*. Bombay: Marg Publications.
- Desai, Z.-d. (1970). *Indo-Islamic Architecture*. Government of India. Ministry of Information and Broadcasting.

- Development of the Buddha Image*. (2017, 11 2). Retrieved from <http://education.asianart.org/explore-resources/background-information/buddha-image>.
- Dhamek Stupa*. (2017, 10 17). Retrieved from <https://www.culturalindia.net/monuments/dhamekh-stupa.html>.
- Dilwara Jain Temple*. (2016, 5 24). Retrieved from [http://www.mountabu.com/tourist\\_attractions/dilwara\\_jain\\_temple.html](http://www.mountabu.com/tourist_attractions/dilwara_jain_temple.html).
- Durga temple*. (2015, 3 6). Retrieved from <https://www.ancient.eu/img/r/p/500x600/3966.jpg?v=1485681423>.
- Dutt, R. (1908). *Civilisation in the Buddhist Age*. Calcutta.
- Dwivedi, O. P. (1989). *World Religions and the Environment*. New Delhi: Gitanjali Publishing House.
- Dwivedi, R. C. (1975). *Contribution of Jainism*. Banaras: Motilal Banarsidass.
- Eisenstadt, S. N. (1984). *Dissent, heterodoxy and civilisational Dynamics: some analytical and comparative indications*. Berlin: Mouton.
- Eliade, M. (1961). *The Sacred and the Profane*. New York: Harper and Row.
- Eliot, C. (1962). *Hinduism and Buddhism* (Vol. I). London: Routledge and Kegan Paul.
- Fatehgarh Sahib*. (2017, 11 23). Retrieved from <http://www.sikhtourism.com/fatehgarh-sahib.htm>.
- Fischer, E., Jain, & Jyotindra. (1977). *Art and Rituals: 2500 Years of Jainism in India*. New Delhi: Sterling Publishers.
- Fischer, K. (1957). *Caves and Temples of the Jain*. Aliganj.
- Flugel, P. (1999). Jainism and the Western World. *Jain Journal*, XXXIV(1), 1-11.
- Flugel, Peter. (1995-96). The Ritual Circle of the Teraparth Shvetambara Jains. *Bulletin d'Etudes Indiennes*, 13, 117-76.
- Flügel, Peter. (1995-96). The Ritual Circle of the Teraparth Shvetambara Jains. *Bulletin d'Etudes Indiennes* 13, 117-76.
- Flugel, Peter. (2003). *The Code of Conduct of the Terapanth Saman Order*. South Asia Research.
- Flugel, Peter. (2006). Jainism and Society. *Bulletin of SOAS*.
- Flugel, Peter. (2007). A Short History of Jain Law. *Jain Studies Newsletter*, 24-27.
- Flugel, Peter. (2008). *The Unknown Lonka: Tradition and the Cultural Unconscious*. (C. a. Balbir, Ed.) Delhi: Motilal Banarsidass.

- Fohr, S. E. (2001). *Gender and Chastity: Female Jain Renouncers. Ph.D.Thesis.* . University of Virginia.
- Foot, R., & Brown, J. (n.d.). *Migration: The Asian Experience*. London: Macmillan.
- Forester, T. (1973). *Pariah Capitalism and Traditional Indian Merchants: Past and Present*. (M. Singer, Ed.) Entrepreneurship and Modernization of Occupational Cultures in South Asia. Durham, NC: Duke University Press.
- Ghosh, A. (1974). *Jain Art and Architecture* (Vol. I). (A. Ghosh, Ed.) New Delhi, India: Bharatiya Jnanpith.
- Glaser, H. v. (1999). *Jainism, An Indian Religion of Salvation*. (S. B. Shrotri, Trans.) Delhi: Motilal Banarsidass Publishers.
- Golden Temple*. (2017, 12 12). Retrieved from <https://www.lonelyplanet.com/india/amritsar/attractions/golden-temple/a/point-of-interest/1150764/356445>.
- Great Mosque Budaun*. (2017, 9 13). Retrieved from <https://www.revolvy.com/topic/Great%20Mosque,%20Budaun>.
- Grover, S. (1996). *Islamic Architecture In India*. New Delhi: Galgotia Publishing.
- Gurdwara Bhatta Sahib*. (2017, 12 23). Retrieved from [http://www.sikhiwiki.org/index.php/Gurdwara\\_Bhatta\\_Sahib](http://www.sikhiwiki.org/index.php/Gurdwara_Bhatta_Sahib).
- Gurdwara Hazoor Sahib*. (2018, 2 14). Retrieved from <http://sikhyatra.in/GurdwaraHazoorSahib.htm>.
- Gurudwara Patna Sahib*. (2017, 12 12). Retrieved from <http://www.sikhtourism.com/patna-sahib.htm>.
- Gurudwara Sri Katalgarh Sahib, Chamkaur Sahib*. (2017, 12 6). Retrieved from <http://www.historicalgurudwaras.com/GurudwaraDetail.aspx?gid=4275>.
- H. Sompura. (1996). *Temple Architecture*. Retrieved from <http://www.sompura.com>
- Hampi*. (2017, 8 14). Retrieved from <http://hampi.in/virupaksha-temple>.
- Hardy, A. (2007). *The Temple Architecture of India*. Great Britain: Wiley.
- Hegewald, J. A. (2009). Jaina Temple Architecture: The Development of a Distinct Language in Space and Ritual. *Monographien zur indischen Archäologie, Kunst und Philologie Band 19*.
- Hind\_eng*. (2017, 9 25). Retrieved from [http://www.kamit.jp/01\\_introdctn/3\\_hindu/hind\\_eng.htm](http://www.kamit.jp/01_introdctn/3_hindu/hind_eng.htm).
- History of Shatrunjay tirth*. (2016, 06 23). Retrieved from [http://jainsite.com/jainism\\_post/history-of-palitana-jain-temple/](http://jainsite.com/jainism_post/history-of-palitana-jain-temple/).

- History of temple.* (2017, 8 16). Retrieved from <http://www.maduraimeenakshitemple.com/article/id/182/history-of-temple>.
- History-of-jagannath-puri-temple.* (2017, 8 14). Retrieved from <https://www.jagannathpuri.in/index.php/history-of-jagannath-puri-temple>.
- Hoysaleswara-temple.* (2017, 8 14). Retrieved from <https://www.karnataka.com/halebidu/hoysaleswara-temple/>.
- <https://www.hellotravel.com/india/brihadeeswarar-temple>. (2015, 5 21). Retrieved from Brihadeeswarar-temple.
- Hutheesing Jain temple.* (2016, 6 17). Retrieved from <http://www.gujaratexpert.com/hutheesing-jain-temple/>.
- I.B.Horner, E. (1975-77). *The Middle length Sayings- Majjhima Nikaya* (Vol. 3). London: RT.S.
- Images.* (2017, 10 16). Retrieved from <https://cdn.kastatic.org/ka-perseus-images/47a377eee969c3e22bfb1f9053057f79bcd54a57.jpeg>.
- Imeni, A. (2011). *Symbolic Expression in Ornamentation of Islamic Architecture*. Mah-e-Honar Book.
- Into the Glory of Ghantasala.* (2017, 10 16). Retrieved from <http://www.kostalife.com/heritage/into-the-glory-of-ghantasala/>.
- Intro.* (2017, 10 16). Retrieved from <http://www.ancientindia.co.uk/buddha/explore/intro.html>.
- Jacobi, H. (1884). *Jain Sutras the Sacred Books of the East* (Motilal Banarsidass ed.). Delhi: Oxford University Press.
- Jain Tirtha, Shravanabelagola.* (2018, 3 10). Retrieved from [https://en.wikipedia.org/wiki/Jain\\_temple#/media/File:Aerial\\_view\\_of\\_Bahubali,\\_Gomateswara\\_Jain\\_temple,\\_Karkala.jpg](https://en.wikipedia.org/wiki/Jain_temple#/media/File:Aerial_view_of_Bahubali,_Gomateswara_Jain_temple,_Karkala.jpg).
- Jain, B. K. (2012). *Jain Pilgrimage of Undivided Bihar*. Patna, Bihar: Jain, B. K.
- Jain, N. (2010). *Songarh Sameeksha (in Hindi)*. Lucknow: Bharatvarshiya Digambar Jain Mahasabha.
- Jama-masjid.* (2017, 9 13). Retrieved from <https://www.culturalindia.net/monuments/jama-masjid.html>.
- Kailasanathar-temple.* (2017, 8 14). Retrieved from <http://www.kancheepuramonline.in/city-guide/kailasanathar-temple>.
- Kak, S. (2005). Early Indian Architecture and Art.Migration and Diffusion. *An international journal*, 6(23), 6-27.

- kandariya-mahadev-temple*. (2017, 8 14). Retrieved from <http://www.khajuraho-india.org/khajuraho-temples/western-group-temples/kandariya-mahadev-temple.html>.
- Kashyap, B. J. (1960). *Nalanda Devaanagari Pali Series*. Bihar: R R B.
- Kashyap, E. B. (1958). *Nalanda Devanagari Pali series (NDPS)* (Vol. 3). Bihar: Pali Publishing Board (RRB.).
- Kazimar-Big-Mosque-in-Madurai-India*. (2017, 9 13). Retrieved from <https://www.beautifulmosque.com/Kazimar-Big-Mosque-in-Madurai-India>.
- kilakarai the oldest mosque in india*. (2017, 9 13). Retrieved from <http://www.heritageonline.in/kilakarai-the-oldest-mosque-in-india/>.
- Kolapen , M., & Kolapen , S. (2002). *Hindu Temples In North America, A Celebration of Life*. (T. G. Publications, Ed.) Orlando, Florida, U.S.: Hindu University of America, Council of Hindu Temples of North America.
- Konark*. (2017, 8 16). Retrieved from <http://www.templenet.com/Orissa/konark.html>.
- Kothi, S. J. (2018, August 04). *Shri Samet Shikar Tirth*. Retrieved from jinalaya.com: <http://www.jinalaya.com/india/samet.htm>
- Kshetra, S. K. (2018, August 05). *SHRI KOLHUA PAHAD DIGAMBAR JAIN TEERTH KSHETRA*. Retrieved from Jainteerth: <http://jainteerth.com/jharkhand-jain-teerth/shri-kolhua-pahad-digambar-jain-teerth-kshetra/>
- Kumar, N. (2003, May ). *The Hindu Temple-Where Man Becomes God*. Retrieved from <http://www.exoticindiaart.com>
- Kumar, S. (2001). *A Thousand Petalled Lotus: Jain Temples of Rajasthan : Architecture & Iconography*. New Delhi: Indira Gandhi National Centre for The Art.
- Lad-khan-temple-in-aihole*. (2017, 8 14). Retrieved from <https://www.nativeplanet.com/travel-guide/lad-khan-temple-in-aihole-002921.html>.
- Laidlaw, J. (1995). *Riches and Renunciation: Religion, Economy, and Society among the Jains. Oxford Studies in Social and Cultural Anthropology*.
- Lakshmana+Temple*. (2017, 8 14). Retrieved from <https://www.thousandwonders.net/Lakshmana+Temple>.
- Lingaraja*. (2017, 8 14). Retrieved from <http://www.templenet.com/Orissa/lingaraja.html>.
- Mahabalipuram*. (2017, 8 14). Retrieved from <https://www.ancient.eu/Mahabalipuram/>.
- Mahabodhi temple*. (2017, 10 16). Retrieved from <http://www.sacred-destinations.com/india/bodhgaya-mahabodhi-temple>.

- Masjidfatehpuri*. (2017, 9 13). Retrieved from <http://www.masjidfatehpuri.in/>.
- Meghal, A. P. (2018). Development of Jain Architecture from Caves to Temple Architecture in Maharashtra. *International Journal of Engineering Research*, 7(2), 188-194.
- Michell, G. (2000). *Hindu Art and Architecture [World of Art Series]*. London: Thames and Hudson.
- Mookerjee, A. (1985). *Ritual Art of India*. London: Thames and Hudson.
- Mukteshvara-temple-bhubaneswar-odisha-3735*. (2017, 8 14). Retrieved from <https://www.apnisanskriti.com/temple/mukteshvara-temple-bhubaneswar-odisha-3735>.
- Nahar, P., & Ghosh, K. (1988). *An Encyclopaedia of Jainism*. Delhi: Sri Satguru Publications.
- Nahar, P., & Ghosh, K. (1988). *Jainism, Precepts and Practice*. Delhi: Caxton Publications.
- Nalanda (Mahavihara)*. (2017, 10 16). Retrieved from <https://www.culturalindia.net/monuments/nalanda.html>.
- Nasiyan Temple*. (2016, 6 12). Retrieved from <https://www.culturalindia.net/indian-temples/nasiyan-temple.html>.
- North Indian temple*. (2016, 23 5). Retrieved from <https://www.britannica.com/topic/North-Indian-temple-architecture/media/419263/3555>.
- Norton, A. W. (n.d.). *The Survival of Jainism in a Pluralistic Society*. Archive, New York.
- Nyaya vijaya ji, M. S. (1998). *Jain Philosophy And Religion*. (N. J. Shah, Trans.) Delhi: Motilal Banarsidass.
- Pal, P. (1996). *Jain Art from India*. Los Angeles, California: Los Angeles County Museum of Arts and Thames and Hudson Inc.
- parashurameshvara-temple-bhubaneswar-odisha-3740*. (2017, 8 14). Retrieved from <https://www.apnisanskriti.com/temple/parashurameshvara-temple-bhubaneswar-odisha-3740>.
- Parihar, S. (1999). *Some Aspects of Indo-Islamic Architecture*. New Delhi: Abhinav Publications.
- Patil, C. S. (n.d.). *Temples of Raichur and Bellary Districts, 1000-1325 A.D.*
- Pattadakal-temples*. (2017, 8 14). Retrieved from <https://lakshmisharath.com/pattadakal-temples-built-by-queens-not-kings/>.
- Plan\_ba*. (2017, 8 12). Retrieved from [http://www.kamit.jp/01\\_introductn/3\\_hindu/plan\\_ba.jpg](http://www.kamit.jp/01_introductn/3_hindu/plan_ba.jpg).

- Pourjafar, M. (2014, March). Role of bazaars as a unifying factor in traditional cities of Iran: The Isfahan bazaar. *Frontiers of Architectural Research*, 3(1).
- Prambanan temple compounds*. (2018, 2 23). Retrieved from <https://whc.unesco.org/en/list/642>.
- Rajan, K. S. (1972). *Indian Temple Styles, the Personality of Hindu Architecture*. New Delhi: Munshiram Manoharlal .
- Rajan, K. V. (1981). *Cave Temples of the Deccan*. New Delhi: Archaeological Survey of India.
- Rajarani-temple*. (2017, 8 14). Retrieved from <http://www.bharatonline.com/orissa/bhubaneswar/rajarani-temple.html>.
- Ranakpur temple*. (2016, 5 5). Retrieved from <http://www.indianmirror.com/temples/ranakpur-temple.html>.
- Rao, S. (1993). *Art and Architecture of Indian Temples* (Vol. 1). Bangalore: Kalpatharu Research Academy.
- Saavira Kambada Basadi*. (2016, 7 1). Retrieved from <https://www.karnataka.com/mangalore/story-thousand-pillar-temple-moodabidri/>.
- Samet-Shikhar*. (2018, 7 21). Retrieved from <http://sametshikhar.in/About.html>: <http://sametshikhar.in/About.html>
- Sanchi*. (2017, 10 16). Retrieved from <http://www.buddhanet.net/sanchi.htm>.
- Sangave, v. A. (2006). *Aspects of Jaina Religion* (5 ed.). New Delhi: Bhartiya Jnanpith.
- Sangh, Sri Jain Svetambar. (2018, July 30). *Sri Rujuvaluka Tirth*. Retrieved from [Jinalaya.com: http://www.jinalaya.com/india/rujuvaluka.htm](http://www.jinalaya.com/india/rujuvaluka.htm)
- Schubring, W. (1962). *The Doctrine Of The Jains, Described After The Old Sources*. (W. Beurlen, Trans.) Delhi: Motilal Banarsidass.
- Sect division*. (n.d.). Retrieved 4 4, 2016, from <http://jwolhandbook.pbworks.com/f/1178364214/jain%20sects.gif>.
- Shah, U. P. (1998). Studies in Jain Art. In S. Jain (Ed.). Varanasi, India: Parsvanatha Vidyapitha.
- Shri Digambar Jain Lal mandir*. (2016, 6 5). Retrieved from <https://www.bhaktibharat.com/mandir/shri-digambar-jain-lal-mandir>.
- Siddi-saiyed-mosque*. (2017, 9 13). Retrieved from <https://www.holidify.com/places/ahmedabad/siddi-saiyed-mosque-sightseeing-1042.html>.
- Sim\_eng*. (2018, 1 21). Retrieved from [http://www.kamit.jp/06\\_himalaya/simpson/sim\\_eng.htm](http://www.kamit.jp/06_himalaya/simpson/sim_eng.htm).

- Smith, E. H. (1966-72). *Paramatthajotika II, Commentary on Suttanipata* (Vol. 3). London: R T S.
- Society, Shri Jain Swetamber. (2018, August 01). *KAKANDI TIRTH*. Retrieved from jainsite.com: <https://jainsite.com/jain-tirth/kakandi-tirth/#ixzz5MvCqpiM2> visited on 01/08/2018
- South Asian arts*. (2018, June 15). Retrieved from Encyclopædia Britannica: <https://www.britannica.com/art/South-Asian-arts>
- South Indian temple*. (2016, 2 25). Retrieved from <https://www.britannica.com/topic/South-Indian-temple-architecture/media/556260/3558>.
- Stevenson, S. (1915). *The Heart of Jainism*. New Delhi: Munshiram Manoharlal.
- Stupa at sanchi*. (2017, 10 16). Retrieved from <https://anitasan.files.wordpress.com/2015/03/the-grand-stupa-at-sanchi-2.jpg>.
- Takht Sri Damdama Sahib*. (2017, 12 24). Retrieved from [http://www.discoversikhism.com/sikh\\_gurdwaras/takht\\_sri\\_damdama\\_sahib.html](http://www.discoversikhism.com/sikh_gurdwaras/takht_sri_damdama_sahib.html).
- Takht-i-Bahi*. (2017, 10 16). Retrieved from <https://www.worldheritagesite.org/list/Takht-i-Bahi>.
- Taran Taran*. (2017, 12 14). Retrieved from <https://www.tourmyindia.com/pilgrimage/taran-taran.html>.
- Tirthankar*. (2014, 5 31). Retrieved from <https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLWHCnL72vedxjQkDDP1mXWo6uco/wiki/Tirthankar.html>.
- Tulasi. (2011, Nov. 26). Panaji: Then Navhind Times.
- Udaygiri caves bhubaneshwar*. (2016, 6 7). Retrieved from <http://www.bhubaneswaronline.in/city-guide/udaygiri-caves-bhubaneshwar>.
- Vardia, S. (2008). *Building science of Indian Temple Architecture- A master Thesis*. Universidade do Minho .
- Vasantharaj, M. D. (1985). Puja or Worship as Practised among the South Indian Jains. *Perspectives in Jain Philosophy and Culture*, 98-105.
- Vishvanath*. (2017, 10 5). Retrieved from <https://web.njit.edu/~delano/vishvanatha.htm>.
- Volwahren, A. (1970). *Living Architecture, Islamic India*. New York: Grosset and Dunlap.
- Welcome to Ajanta Caves*. (2017, 10 16). Retrieved from <http://ajantacaves.com/>.
- Xpid\_eng*. (2017, 9 23). Retrieved from [http://www.kamit.jp/01\\_introdctn/3\\_hindu/xpid\\_eng.htm](http://www.kamit.jp/01_introdctn/3_hindu/xpid_eng.htm).



## ANNEXURES

### Annexure-I

UDAYGIRI CAVES													
Time of Construction:- 209 BC to 170 BC													
S. no.	Name	Cave no	No of storeys	No. Of cells	Shape of plan	Cell size		Area of single cell	Total area of cave	Roof height		Type of roof	Internal / External feature
						Length (in M)	Breadth (in M)	SqM	SqM	Verandah	Cell		
1	Rani Gumpha	1	2	27	Rectangular	4.2	2.4	10.08	1832	1.875	1.05	Flat	Carving and Sculpture on Exterior and Interior of Cave
2	Bajaghara Gumpha	2	1	2	Square	2.4	2.4	5.76	6		Varies from 1.65 to 1.95	Gable	Exterior features and carvings
3	Chota Hanthi Gumpha	3	1	1	Rectangular	2.4	1.8	4.32	5		1.05	Flat	Exterior features and carvings
4	Alkapuri Gumpha	4	1	1	Rectangular	1.8	1.8	3.24	14		Varies from 1.65 to 1.95	Gable	Carving and Sculpture on Interior of Cave
5	Jaya Vijya Gumpha	5	1	4	Rectangular	8.1	2.1	17.01	48	1.875	Varies from 1.65 to 1.95	Gable	Carving and Sculpture on Interior of Cave
6	Panash Gumpha	6	1	1	Rectangular	1.8	1.8	3.24	17	1.875	1.95	Flat	Simple cell
7	Thakurani Gumpha	7	1	1	Rectangular	2.4	1.8	4.32	8	1.875	1.05	Flat	Carving and Sculpture on Interior of Cave
8	Patalpuri Gumpha	8	1	3	Rectangular	9.6	2.1	20.16	38	1.875	Varies from 1.65 to 1.95	Gable	Carving and Sculpture on Interior of Cave

UDAYGIRI CAVES													
Time of Construction:- 209 BC to 170 BC													
9	Manchapuri Gumph	9	2	5	Rectangular	6.3	2.1	13.23	40	1.875	1.05	Flat	Carving and Sculpture on Interior of Cave
10	Ganesha Gumph	10	1	2	Rectangular	2.4	1.8	4.32	15	1.875	1.05	Flat	Carving and Sculpture on Interior of Cave
11	Jambesvara Gumph	11	1	2	Rectangular	3	2.1	6.3	14	1.875	1.05	Flat	Simple cave
12	Singh Gumph	12	1	1	Rectangular	2.4	2.1	5.04	6	1.875	1.05	Flat	Exterior features and carvings
13	Sarpa Gumph	13	1	1	Square	2.4	2.4	5.76	6	1.875	1.05	Flat	Exterior features and carvings
14	Hathi Gumph	14	1	4	Rectangular	4.5	2.4	10.8	122	varies	1.05	Natural topography	Exterior features and carvings
15	Dhanghara Gumph	15	1	1	Rectangular	4.2	2.1	8.82	17	1.875	1.05	Flat	Exterior features and carvings
16	Haridasha Gumph	16	1	2	Rectangular	4.2	2.1	8.82	17	1.875	1.05	Flat	Simple cave
17	Jagannatha Gupha	17	1	1	Rectangular	5.4	2.1	11.34	23	1.875	1.05	Flat	Simple cave
18	Rasui Gumph	18	1	1	Rectangular	2.1	1.8	3.78	4	1.875	1.05	Flat	Simple cave

## Annexure-II

KHANDGIRI CAVES													
Time of Construction:- 209 BC to 170 BC													
S. no.	Name	Cave no.	No of storeys	No. Of cells	Shape of plan	Cell size		Area of single cell	Total area of cave	Roof heig ht		Type of roof	Internal / External feature
						Length (IN M)	Breadth (INM)	SQM	SQM	Vera ndah (IN M)	Cell (IN M)		
1	Tatowa Gumpha-1	1	2	1	Rectangular	6.3	1.8	11.34	17	1.9	1.05	flat	Exterior carving and features
2	Tatowa Gumpha-2	2	1	1	Rectangular	4.2	1.8	7.56	26	1.9	1.05	flat	Exterior carving and features
3	Ananta Gumpha	3	1	1	Rectangular	5.4	1.8	9.72	19	1.9	1.65 TO 1.95	gable	Carving and Sculpture on Interior of Cave
4	Tentuli Gumpha	4	1	1	Rectangular	3	1.8	5.4	14	1.9	1.05	flat	Simple cave
5	Khandgiri Gumpha	5	2	5	Rectangular	1.8	1.8	3.24	13		1.05	flat	Simple cave
6	Dhyana Gumpha	6	1	1	Rectangular	4.8	3.2	15.36	21		1.95	flat	Simple cave
7	Navamuni Gumpha	7	1	1	Rectangular	8.4	3	25.2	36		1.05	flat	Carving and Sculpture on Interior of Cave
8	Barabhuji Gumpha	8	1	1	Rectangular	5.4	1.8	9.72	22	1.9	1.05	gable	Carving and Sculpture on Interior of Cave
9	Trusula Gumpha	9	1	1	Rectangular	5.4	1.8	9.72	22	1.9	1.05	flat	Simple cave
10	Ambika Gumpha	10	1	1	Rectangular	3.6	1.8	6.48	15	1.9	1.05	flat	Simple cave

KHANDGIRI CAVES													
Time of Construction:- 209 BC to 170 BC													
11	Lalatendukesari Gumphā	11	1	1	Rectangular	5.4	1.8	9.72	24	1.9	1.05	flat	Simple cave
12	Lalita Gumphā	12	1	1	Rectangular	5.4	1.8	9.72	18	1.9	1.05	flat	Simple cave
13	Cave 13	13	1	1	Rectangular	5.4	1.8	9.72	23	1.9	1.05	flat	Carving and Sculpture on Interior of Cave
14	Ekadashi Gumphā	14	1	1	Rectangular	1.8	1.8	3.24	12	1.9	1.05	flat	Simple cave

### Annexure-III

Date of construction of the various temples, Sect, Orientation of *Mula Nayak* and Plan form

S. No.	Name of Temple and place	Year of Constructi on (circa)	Sect	Orientation of <i>Mula Nayak</i>	<i>Garbhagriha</i> Plan form
<b>Jharkhand</b>					
1	Sri Rijubalika Tirtha, Barakar	1865	Swetamber	East	Square
2	Sri Parshavanath Digamber Jain Temple, Palganj	1970	Digamber	East	Square
3	Sri Digamber jain Temple, Isari Bazar, Jharkhand	1924	Digamber	East	Square
4	Sri Parshavanath Digamber Jain Temple, Kolhua Mountain	1625	Digamber	East	Rectangular
<b>Samed Shikhar , Madhuban, Parashnath</b>					
5	Tunk at Parshavanath Hill - 29 Nos.	1955	Digamber	East	Square
6	Jal Mandir, Samed Shikhar	1768	Digamber	East	Rectangular
7	Sri Digamber Jain Parshavanath Temple, Samed Shikhar	1750	Digamber	North	Square
<b>Patna</b>					
8	Sri Sudarshan Kamaldahn Ji Temple, Gulzarbagh	1791	Swetamber	East	Square
9	Sri Sthulbhadra Sadhana Sthal, Gulzarbagh	1791	Swetamber	East	Square
10	Sri Kamaldah Sidhakshetra, Gulzarbagh	1910	Swetamber	East	Square
11	Sri Parshavanath Digamber Jain Gurara Temple, Haziganj, Patna City	1864	Digamber	North	Rectangular
12	Sri Aadinath Digamber Jain Temple, Kalibibi ka Katra, Patna City	1942	Digamber	East	Rectangular
13	Sri Digamber Jain Temple, Kachauri Gali, Patna City	1880	Digamber	North	Rectangular

S. No.	Name of Temple and place	Year of Constructi on (circa)	Sect	Orientation of Mula Nayak	Garbhagriha Plan form
14	Sri Parshavanath Swetamber Jain Temple, Bare ki Gali, Patna City	1880	Swetamber	West	Rectangular
15	Sri Digamber Jain Panchayati Temple, Macharahatta, Patna City	1860	Digamber	East	Rectangular
16	Sri Dadawari, Begampur, Patna City	1780	Swetamber	East	Rectangular
17	Sri Digamber Jain Temple, Mithapur	1962	Digamber	North	Rectangular
18	Sri Parshavanath Digamber Jain Chaityalaya, Nalaroad, Patna	1980	Digamber	East	Rectangular
19	Sri Digamber Jain Chaityalaya, Muradpur	1920	Digamber	East	Rectangular
20	Sri SuParshavanath Digamber Jain Temple, Naubatpur, Patna	1950	Digamber	East	Square
<b>Vaishali</b>					
21	Bamapur Jain Temple	800	Digamber	East	Rectangular
<b>Ara</b>					
22	Sri 1008 Parshavanath Digamber Jain Temple	1880	Digamber	East	Rectangular
23	Sri 1008 Thirthkar Shantinath Digamber Jain Temple	1894	Digamber	East	Square
24	Sri Chandra Prabhu Digamber Jain Temple	1870	Digamber	East	Square
25	Sri Digamber Jain Chandraprabhu Chaityalaya	1965	Digamber	East	Rectangular
26	Sri Digamber Jain Mahavir Swami Chaityalaya	1962	Digamber	North	Square
27	Sri Digamber Jain Prabhudas Temple	1870	Digamber	Cardinal Directions	Square
28	Sri Parswanath Digamber Jain Temple, Masadh	1819	Digamber	East	Square

S. No.	Name of Temple and place	Year of Constructi on (circa)	Sect	Orientation of Mula Nayak	Garbhagriha Plan form
<b>Bisram, Dhanupura, Ara</b>					
29	Bahubali Statue Temple and Manastambha	1955	Digamber	North	Rectangular
30	Sri Mahavir Swami Temple	1850	Digamber	East	Square
31	Sri Adinath Temple	1870	Digamber	East	Square
<b>Jamui</b>					
32	Sri Swetamber Jain Temple Kshatriyakund	1970	Swetamber	North	Square
33	Sri Swetamber Jain Temple Lachhuar	1955	Swetamber	East	Square
34	Sri Swetamber Jain Temple Kakan	1980	Swetamber	East	Rectangular
<b>Bhagalpur</b>					
35	Sri Champapur Digamber Jain Siddha Kshetra Bada Mandir, Nathnagar	1760	Digamber	East	Square
36	Sri Vasupujya Swami Jain Temple, Nathnagar	1960	Digamber	East	Square
37	Sri Vasupujya Swami Swetamber Jain Temple, Champanagar	1936	Swetamber	West	Square
<b>Banka</b>					
38	Sri Digamber Jain Siddha Kshetra	1820	Digamber	East	Square
39	Sri Digamber Jain Temple	1880	Digamber	North	Square
40	Sri Vasupoojya Swami Jinalaya	1977	Digamber	East	Square
<b>Nalanda</b>					
41	Jal mandir, Pawapuri	1760	Digamber	East	Square
42	Samosaran Temple, Pawapuri	1910	Swetamber	Cardinal Directions	Circular
43	Sri Swetamber Jain Temple, Pawapuri	1880	Swetamber	East	Square
44	Sri Digambar Jain Tirtha Kshetra Prachin Mandir Kundalpur (Kalyanak Kshetra)	1840	Digamber	North	Square

S. No.	Name of Temple and place	Year of Constructi on (circa)	Sect	Orientation of Mula Nayak	Garbhagriha Plan form
<b>Rajgir</b>					
45	Sri Digamber Jain Temple, Ratnagiri	1935	Digamber	North	Octagonal
46	Sri Swetamber Jain Temple, Ratnagiri	1960	Swetamber	North	Square
47	Sri Digamber Jain Temple , Udaygiri	1942	Digamber	North	Square
48	Sri Swetamber Jain Sanwaliya Parshavanath Temple, Udaygiri	1957	Swetamber	North	Octagonal
49	Sri Parshavanath Swetamber Jain Jinalaya, Vaibhargiri	1908	Swetamber	East	Square
50	Sri Dhanna Shalibhadra Swetamber Jain Temple, Vaibhargiri	1901	Swetamber	East	Square
51	Sri Digamber Jain Temple , Vaibhargiri	1890	Digamber	East	Square
52	Sri Mahavirswami Swetamber Jain Temple , Vaibhargiri	1912	Swetamber	East	Octagonal
53	Sri Munisuvratswami Mukhya Jinalaya , Vaibhargiri	1820	Swetamber	East	Square
54	Sri Gautamswami Nirwan Temple , Vaibhargiri	1835	Swetamber	North	Square
55	Sri 1008 Mahavir Swami Jinalaya	1919	Digamber	East	Square
56	Sri Swetamber Jain Temple	1961	Swetamber	West	Square
<b>Nawada</b>					
57	Sri Digamber Jain Sidha Kshsetra, Gunawaji	1880	Digamber	East	Square
58	Jal Mandir, Gunawaji	1876	Digamber	East	Square



## Annexure-IV

Dimensional Analysis (All Dimensions are in meters)

S. No.	Name of Site / Temple	Size of Garbhagriha (In SqM)	Length of Temple (In M)	Width of Temple (In M)	Height of temple (In M)	Area of Temple (In SqM)	Wall Area (In SqM)	Wall Area %age	Length to width ratio	H/L
<b>Jharkhand</b>										
1	Sri Rijubalika Tirtha, Barakar	9.24	14.4	11.4	10	164.16	28	17.06	1.26	0.69
2	Sri Parshavanath Digamber Jain Temple, Palganj	9.24	12.6	12.6	10.2	158.76	16.75	10.55	1.00	0.81
3	Sri Digamber jain Temple, Isari Bazar, Jharkhand	5.76	21.9	13.5	11.55	295.65	45.72	15.46	1.62	0.53
4	Sri Parshavanath Digamber Jain Temple, Kolhua Mountain	17.82	10.5	8	12.34	84	21.56	25.67	1.31	1.18
<b>Samed Shikhar , Madhuban, Parashnath</b>										
5	Tunk at Parshavanath Hill - 29 Nos.	2.25	3	3	4.5	9	0.46	5.11	1.00	1.50
6	Jal Mandir, Samed Shikhar	19	23	23.00	12	529	72.86	13.77	1.00	0.52
7	Sri Digamber Jain Parshavanath Temple, Samed Shikhar	16.8	15	12.3	15	140.5	23.86	16.98	1.22	1.00
<b>Patna</b>										
8	Sri Sudarshan Kamaldahn Ji Temple, Gulzarbagh	8.13	11.58	10.98	6.3	127.15	21.84	17.18	1.05	0.54
9	Sri Sthulbhadrha Sadhana Sthal, Gulzarbagh	1.17	19.68	19.68	3.3	387.3	68.44	17.67	1.00	0.17
10	Sri Kamaldah Sidhakshetra, Gulzarbagh	9	9.66	7.74	6	74.77	17.62	23.57	1.25	0.62

S. No.	Name of Site / Temple	Size of Garbhagriha (In SqM)	Length of Temple (In M)	Width of Temple (In M)	Height of temple (In M)	Area of Temple (In SqM)	Wall Area (In SqM)	Wall Area %age	Length to width ratio	H/L
11	Sri Parshavanath Digamber Jain Gurara Temple, Haziganj, Patna City	33.87	19.65	13.62	3.6	267.63	30.69	11.47	1.44	0.18
12	Sri Aadinath Digamber Jain Temple, Kalibibi ka Katra, Patna City	17.14	10.02	7.02	4.5	70.34	16.52	23.49	1.43	0.45
13	Sri Digamber Jain Temple, Kachauri Gali, Patna City	5.18	11.52	9.33	7.98	107.48	25.53	23.75	1.23	0.69
14	Sri Parshavanath Swetamber Jain Temple, Bare ki Gali, Patna City	35.08	17.34	7.8	12.3	135.25	27.26	20.16	2.22	0.71
15	Sri Digamber Jain Panchayati Temple, Macharahatta, Patna City	18.9	20.58	10.53	12	216.71	51.34	23.69	1.95	0.58
16	Sri Dadawari, Begampur, Patna City	5.54	9	9.78	7.2	96.82	11.87	12.26	0.92	0.80
17	Sri Digamber Jain Temple, Mithapur	53.45	20.66	8.65	13.5	178.71	17.23	9.64	2.39	0.65
18	Sri Parshavanath Digamber Jain Chaityalaya, Nalaroad, Patna	37	10.2	4.2	3.6	42.84	5.84	13.63	2.43	0.35
19	Sri Digamber Jain Chaityalaya, Muradpur	43.56	8.1	7.1	3.6	57.51	13.95	24.26	1.14	0.44
20	Sri SuParshavanath Digamber Jain Temple, Naubatpur, Patna	5.76	12.48	9	12.6	112.32	33.97	30.24	1.39	1.01
<b>Vaishali</b>										
21	Bampur Jain Temple	9	9.0	8.4	4.9	83.16	14.5	17.44	1.07	0.49
<b>Ara</b>										
22	Sri 1008 Parshavanath Digamber Jain Temple	74.13	21.09	12.69	15	267.63	45.13	16.86	1.66	0.71
23	Sri 1008 Thirthkar Shantinath Digamber Jain Temple	23.04	31.8	21.6	20.34	686.88	101.43	14.77	1.47	0.64
24	Sri Chandra Prabhu Digamber Jain Temple	9	25.5	15.6	14.19	397.8	137.54	34.58	1.63	0.56

S. No.	Name of Site / Temple	Size of Garbhagriha (In SqM)	Length of Temple (In M)	Width of Temple (In M)	Height of temple (In M)	Area of Temple (In SqM)	Wall Area (In SqM)	Wall Area %age	Length to width ratio	H/L
25	Sri Digamber Jain Chandraprabhu Chaityalaya	22.68	15.9	9.3	8.58	147.87	43.06	29.12	1.71	0.54
26	Sri Digamber Jain Mahavir Swami Chaityalaya	5.76	6.72	5.58	9.12	37.49	13.31	35.50	1.20	1.36
27	Sri Digamber Jain Prabhudas Temple	12.96	15.6	13.5	16.53	210.6	44.89	21.32	1.16	1.06
28	Sri Parswanath Digamber Jain Temple, Masadh	12.96	27.6	21.93	13.23	605.27	179.25	29.61	1.26	0.48
<b>Bisram, Dhanupura, Ara</b>										
29	Bahubali Statue Temple and Manastambha	12.6	8.4	7.8	10.38	65.52	15.64	23.87	1.08	1.24
30	Sri Mahavir Swami Temple	12.96	10.14	9.84	12.9	99.78	27.98	28.04	1.03	1.27
31	Sri Adinath Temple	12.96	18.3	18	16.08	329.4	79.48	24.13	1.02	0.88
<b>Jamui</b>										
32	Sri Swetamber Jain Temple Kshatriyakund	3.24	10.77	6.18	15	66.56	12.29	18.46	1.74	1.39
33	Sri Swetamber Jain Temple Lachhuar	19.18	27.03	18.06	21.09	488.16	114.26	23.41	1.50	0.78
34	Sri Swetamber Jain Temple Kakan	7.2	14.79	12.27	13.14	181.47	22.12	12.19	1.21	0.89
<b>Bhagalpur</b>										
35	Sri Champapur Digamber Jain Siddha Kshetra Bada Mandir, Nathnagar	15.21	40.83	35.76	12	1460	163.96	11.23	1.14	0.29
36	Sri Vasupujya Swami Jain Temple, Nathnagar	10.89	26.4	21.66	17.97	571.82	60.99	10.67	1.22	0.68
37	Sri Vasupujya Swami Swetamber Jain Temple, Champanagar	17.64	36.78	20.4	13.08	750.31	119.33	15.90	1.80	0.36

S. No.	Name of Site / Temple	Size of Garbhagriha (In SqM)	Length of Temple (In M)	Width of Temple (In M)	Height of temple (In M)	Area of Temple (In SqM)	Wall Area (In SqM)	Wall Area %age	Length to width ratio	H/L
<b>Banka</b>										
38	Sri Digamber Jain Siddha Kshetra	36	20.19	14.79	15.33	298.61	80.45	26.94	1.37	0.76
39	Sri Digamber Jain Temple	5.76	15.42	12.93	11.4	199.38	51.91	26.04	1.19	0.74
40	Sri Vasupoojya Swami Jinalaya	4.41	11.01	7.8	8.7	85.87	24.57	28.61	1.41	0.79
<b>Nalanda</b>										
41	Jal mandir, Pawapuri	12.96	9	9	8.07	81	18.21	22.48	1.00	0.90
42	Samosaran Temple, Pawapuri	14.28	18.57	18.57	10.38	344.84	10.58	3.07	1.00	0.56
43	Sri Swetamber Jain Temple, Pawapuri	9	21	15	15.9	315	44.31	14.07	1.40	0.76
44	Sri Digambar Jain Tirtha Kshetra Prachin Mandir Kundalpur (Kalyanak Kshetra)	29.16	12.83	9.3	18	123.15	14.88	12.08	1.38	1.40
<b>Rajgir</b>										
45	Sri Digamber Jain Temple, Ratnagiri	28.4	11.13	9.54	11.4	106.18	11.38	10.72	1.17	1.02
46	Sri Swetamber Jain Temple, Ratnagiri	29.16	13.2	13.2	7.83	174.24	36.79	21.11	1.00	0.59
47	Sri Digamber Jain Temple , Udaygiri	9	12	9.6	10.17	115.2	13.75	11.94	1.25	0.85
48	Sri Swetamber Jain Sanwaliya Parshavanath Temple, Udaygiri	10.11	12.48	12.48	7.2	155.75	37.72	24.22	1.00	0.58
49	Sri Parshavanath Swetamber Jain Jinalaya, Vaibhargiri	9	16.23	9.03	10.08	146.55	32.59	22.24	1.80	0.62
50	Sri Dhanna Shalibhadra Swetamber Jain Temple, Vaibhargiri	7.29	13.74	10.44	9.57	143.44	35.79	24.95	1.32	0.70

S. No.	Name of Site / Temple	Size of Garbhagriha (In SqM)	Length of Temple (In M)	Width of Temple (In M)	Height of temple (In M)	Area of Temple (In SqM)	Wall Area (In SqM)	Wall Area %age	Length to width ratio	H/L
51	Sri Digamber Jain Temple , Vaibhargiri	5.76	13.14	8.94	8.88	117.47	31.73	27.01	1.47	0.68
52	Sri Mahavirswami Swetamber Jain Temple ,Vaibhargiri	9	16.68	13.8	8.88	230.18	60.96	26.48	1.21	0.53
53	Sri Munisuvratwami Mukhya Jinalaya ,Vaibhargiri	5.76	25.92	14.7	9	381.02	140.7	36.93	1.76	0.35
54	Sri Gautamswami Nirwan Temple ,Vaibhargiri	5.76	14.37	10.02	4.8	143.98	22.41	15.56	1.43	0.33
55	Sri 1008 Mahavir Swami Jinalaya	5.76	17.4	17.4	9.9	302.76	90.34	29.84	1.00	0.57
56	Sri Swetamber Jain Temple	18.66	34.32	23.52	17.1	807.2	75.86	9.40	1.46	0.50
<b>Nawada</b>										
57	Sri Digamber Jain Sidha Kshsetra, Gunawaji	5.76	11.28	9.99	5.22	112.68	22.72	20.16	1.13	0.46
58	Jal Mandir, Gunawaji	9	20.88	11.04	9.48	230.51	35.68	15.48	1.89	0.45

## Annexure-V

Vedi of Tirthankar, Superstructure of temple, Element/ motif and Principal Building material and finish

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
	<b>Jharkhand</b>						
1	Sri Rijubalika Tirtha, Barakar	Kshatriya style dome in Marble with Sitting Statue posture	Four side opening with enclosed circumambulatory path	Pyramid and dome	Intricate Carving	Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar with Inticrate marble carving on Shikhara, Arches and dome
2	Sri Parshavanath Digamber Jain Temple, Palganj	Kshatriya style dome in Marble with Sitting Statue posture	Three side opening with circumambulatory path	Pyramid	Simple Carving	Octagonal Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar with lime mortar carving on Shikhara, Arches and dome
3	Sri Digamber jain Temple, Isari Bazar, Jharkhand	Kshatriya style dome in Marble with Sitting Statue posture	Three side opening with circumambulatory path	Pyramid	Simple Carving	Octagonal Pyramidal Shikhara with Pyramid at at front corners	Brick and lime mortar
4	Sri Parshavanath Digamber Jain Temple, Kolhua Mountain	Kshatriya style dome in Marble with Statue in Sitting posture	one side opening with enclosed circumambulatory path	Pyramid	Intricate Carving	Pyramidal Shikhara with spire	Brick and lime mortar

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevation form of Temple	Principal Building material and finish
<b>Samed Shikhar , Madhuban, Parashnath</b>							
5	Tunk at Parshavanath Hill - 29 Nos.	Decorative Arch Nich with foot idols	one side opening with enclosed circumambulatory path	Dome	Intricate Carving	Marble grooved dome	Brick and lime mortar with marble cladding
6	Jal Mandir, Samed Shikhar	Kshatriya style dome in Marble with Statue in Sitting posture	Hindu Nagara style	Dome and Pyramid	Intricate Carving	Pyramidal Shikhara with spire and Dome	Brick and lime mortar with marble cladding
7	Sri Digamber Jain Parshavanath Temple, Samed Shikhar	Miniature in marble with combination of Dome and Pyramidal Shikhara	Hindu Nagara style	Dome and Pyramid	Intricate Carving	Pyramidal Shikhara with grooved Dome	Brick and lime mortar with marble cladding
<b>Patna</b>							
8	Sri Sudarshan Kamaldahn Ji Temple, Gulzarbagh	Foot idol	Three side opening with circumambulatory path	Dome	Simple Carving	Flower pattern dome	Brick and Lime mortar
9	Sri Sthulbhadra Sadhana Sthal, Gulzarbagh	Foot idol	one side opening with enclosed circumambulatory path	Dome	Simple Carving	Dome	Brick and Lime mortar
10	Sri Kamaldah Sidhakshetra, Gulzarbagh	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with	Dome	Simple Carving	Flower pattern dome Battlement Parapet	Brick and Lime mortar

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevation form of Temple	Principal Building material and finish
			circumambulatory path			and dome at all four corners of roof	
11	Sri Parshavanath Digamber Jain Gurara Temple, Haziganj, Patna City	Sitting posture Thirtnakar statue	Hindu Nagara style	Flat	Moderate Carving	Decorative facade	Brick and Lime mortar
12	Sri Aadinath Digamber Jain Temple, Kalibibi ka Katra, Patna City	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Flat	Simple Carving		Brick and Lime mortar
13	Sri Digamber Jain Temple, Kachauri Gali, Patna City	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Dome	Simple Carving	Decorative facade	Brick and Lime mortar
14	Sri Parshavanath Swetamber Jain Temple, Bare ki Gali, Patna City	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Intricate Carving	Pyramidal Shikhara	Brick and Lime mortar in old temple. New temple constructed in Brick and cement mortar with Marble exterior finish
15	Sri Digamber Jain Panchayati Temple, Macharahatta, Patna City	Kshatriya style dome in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Decorative facade	Brick and Lime mortar
16	Sri Dadawari, Begampur, Patna City	Foot idol	Three side opening with	Dome	Moderate Carving	Flower pattern dome	Brick and cement mortar



S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
			circumambulatory path				
17	Sri Digamber Jain Temple, Mithapur	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Flat	Simple Carving	Decorative facade	Brick and cement mortar
18	Sri Parshavanath Digamber Jain Chaityalaya, Nalaroad, Patna	Kshatriya style in Marble with Statue in Sitting posture	Chaityalaya	Flat	Simple Carving		Brick and cement mortar
19	Sri Digamber Jain Chaityalaya, Muradpur	Kshatriya style in Marble with Statue in Sitting posture	Chaityalaya	Flat	Simple Carving		Brick and cement mortar
20	Sri SuParshavanath Digamber Jain Temple, Naubatpur, Patna	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Simple Carving	Octagonal Pyramidcal Shikhara	Brick and lime mortar
	<b>Vaishali</b>						
21	Bamapur Jain Temple	Staue on a platform	Three side opening with circumambulatory path	Pyramid	Simple Carving	Pyramidal Shikhara	Brick and lime mortar
	<b>Ara</b>						

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevation form of Temple	Principal Building material and finish
22	Sri 1008 Parshavanath Digamber Jain Temple	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick and lime mortar
23	Sri 1008 Thirthkar Shantinath Digamber Jain Temple	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid and dome	Moderate Carving	Pyramidal roof with Dome at all four corners	Brick and lime mortar
24	Sri Chandra Prabhu Digamber Jain Temple	Kshatriya style in Marble with Statue in Sitting posture	Four side opening with enclosed circumambulatory path	Pyramid and dome	Intricate Carving	Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar
25	Sri Digamber Jain Chandraprabhu Chaityalaya	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Flat	Moderate Carving		Brick and lime mortar
26	Sri Digamber Jain Mahavir Swami Chaityalaya	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick and lime mortar

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
27	Sri Digamber Jain Prabhudas Temple	Samosaran Temple standingposture of Tirthankar in marble	Four side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara with spires	Brick and lime mortar
28	Sri Parswanath Digamber Jain Temple, Masadh	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid and dome	Moderate Carving	Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar
<b>Bisram, Dhanupura, Ara</b>							
29	Bahubali Statue Temple and Manastambha	Standing Posture statue in marble with chatriya style dome	Three side opening with circumambulatory path	Dome	Moderate Carving	Dome	Brick and cement mortar
30	Sri Mahavir Swami Temple	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick and lime mortar

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
31	Sri Adinath Temple	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid and dome	Moderate Carving	Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar
<b>Jamui</b>							
32	Sri Swetamber Jain Temple Kshatriyakund	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Intricate Carving	Pyramidal Shikhara	Brick and Lime mortar in old temple. New temple constructed in Brick and cement mortat with Marble exterior finish
33	Sri Swetamber Jain Temple Lachhuar	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid and dome	Intricate Carving	Pyramidal Shikhara with Dome at all four corners	Brick and lime mortar
34	Sri Swetamber Jain Temple Kakan	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid and dome	Intricate Carving	Pyramidal Shikhara with spire and dome	Brick and lime mortar finished with decorative plaster

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
	<b>Bhagalpur</b>						
35	Sri Champapur Digamber Jain Siddha Kshetra Bada Mandir, Nathnagar	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid and dome	Intricate Carving	Pyramidal Shikhara and dome with manastabha	Brick and lime mortar
36	Sri Vasupujya Swami Jain Temple, Nathnagar	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara with spire	Brick and lime mortar
37	Sri Vasupujya Swami Swetamber Jain Temple, Champanagar	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Intricate Carving	Pyramidal Shikhara with spire	Brick and lime mortar with marble finish
	<b>Banka</b>						
38	Sri Digamber Jain Siddha Kshetra	Samadhi	Hindu Nagara style	Pyramid and dome	Moderate Carving	Pyramidal Shikhara and dome	Brick and lime mortar
39	Sri Digamber Jain Temple	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed	Pyramid and dome	Moderate Carving	Pyramidal Shikhara and dome	Brick and lime mortar

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
			circumambulatory path				
40	Sri Vasupoojya Swami Jinalaya	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick and lime mortar
<b>Nalanda</b>							
41	Jal mandir, Pawapuri	Foot idol	Three side opening with enclosed circumambulatory path	Dome	Intricate Carving	Decorative Dome	Brick and lime mortar with marble caldding
42	Samosaran Temple, Pawapuri	Samosaran Temple standing posture of Tirthankar in marble	Circular Auditorium	Highly decorated tree shape structure	Intricate Carving	Circular audiotorium	Brick and lime mortar with marble caldding
43	Sri Swetamber Jain Temple, Pawapuri	Kshatriya style in Marble with Statue in Sitting posture	Three side opening with enclosed circumambulatory path	Pyramid	Intricate Carving	Pyramidal Shikhara	Brick, lime mortar, with marble caldding

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
44	Sri Digambar Jain Tirtha Kshetra Prachin Mandir Kundalpur (Kalyanak Kshetra)	Kshatriya style in Marble with Statue in Sitting posture	One side opening with circumambulatory path	Pyramid	Intricate Carving	Pyramidal Shikhara with spire	Brick, lime mortar, with marble caldding
<b>Rajgir</b>							
45	Sri Digamber Jain Temple, Ratnagiri	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Octagonal Pyramidal Shikhara	Brick and lime mortar
46	Sri Svetamber Jain Temple, Ratnagiri	Kshatriya style in Marble with Statue in Sitting posture	One side opening with circumambulatory path	Pyramid	Moderate Carving	corbelled Pyramidal Shikhara	Brick, lime mortar, with marble caldding
47	Sri Digamber Jain Temple , Udaygiri	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Octagonal Pyramidal Shikhara	Brick and cement mortar
48	Sri Svetamber Jain Sanwaliya Parshavanath Temple, Udaygiri	Kshatriya style in Marble with Statue in Sitting posture	one side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Octagonal Pyramidal Shikhara	Brick, lime mortar, with marble cladding
49	Sri Parshavanath Svetamber Jain Jinalaya, Vaibhargiri	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick, lime mortar, with floral pattern marble cladding

S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
50	Sri Dhanna Shalibhadra Swetamber Jain Temple, Vaibhargiri	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick, lime mortar, with floral pattern marble cladding
51	Sri Digamber Jain Temple , Vaibhargiri	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Moderate Carving	Pyramidal Shikhara with spire	Brick, lime mortar, with mosaic cladding on Shikhara
52	Sri Mahavirswami Swetamber Jain Temple , Vaibhargiri	Kshatriya style in Marble with Statue in Sitting posture	one side opening with enclosed circumambulatory path	Dome	Moderate Carving	Flower pattern dome	Brick, lime mortar, with marble cladding
53	Sri Munisvaratswami Mukhya Jinalaya , Vaibhargiri	Kshatriya style in Marble with Statue in Sitting posture	one side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	corbelled Pyramidal Shikhara	Brick, lime mortar, with marble cladding
54	Sri Gautamswami Nirwan Temple , Vaibhargiri	Foot idol	one side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	corbelled Pyramidal Shikhara	Brick, lime mortar, with marble cladding
55	Sri 1008 Mahavir Swami Jinalaya	Kshatriya style in Marble with Statue in Sitting posture	one side opening with enclosed circumambulatory path	Pyramid	Moderate Carving	Pyramidal Shikhara	Brick, lime mortar



S. No.	Name of Temple and place	Vedi of Tirthankar	Overall Plan Form	Element / Motif	Type of Carving	Elevelational form of Temple	Principal Building material and finish
56	Sri Swetamber Jain Temple	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid	Intricate Carving	Pyramidal Shikhara	Brick, lime mortar, and marble cladding
	Nawada						
57	Sri Digamber Jain Sidha Kshsetra, Gunawaji	Kshatriya style in Marble with Statue in Sitting posture	Hindu Nagara style	Pyramid Dome	Moderate Carving	Octagonal Pyramidal Shikhara	Brick and lime mortar
58	Jal Mandir, Gunawaji	Foot idol	one side opening with enclosed circumambulatory path	Dome	Moderate Carving	Plain and groove dome	Brick and lime mortar

## Annexure-VI

### Inventory for Jain Religion Cave / Temple under study in Bihar Region

1		<b>Location</b>				
	a	city				
	b	longitude				
	c	latitude				
	d	local name of Temple / Cave				
	e	Address				
	f	period of construction				
	g	Uses		key photograph		
2		<b>Historical Importance</b>				
		a	Early Period of construction			
		b	Time of renovation			
		c	Jainism sects	Name of God / Tirthankar / Saint		
				Swetamber		
				Digamber		
		d	Historical Significance			
3		<b>Architectural Description</b>				
	A	Plot Area				
	B	Shape of garbhagriha				
				Size (in metre)		
				Length	Breadth	
		a	Rectangular			
		b	Square			
		c	Others			
	C	Height				
	D	Plan Form	<b>Code</b>			
		a	Example	SRC		
		b	Square	S		
		c	Rectangle	R		
		d	Cylindrical	C		
		e	Dome	D		
		f	Pyramid	P		
		g	Cone	Co		
		Elevational Form				
		a	Motif			
	E	Orientation of Mool Nayak				
	F	Material				
		a	Superstructure		In Early construction	In Renovation
			Wood, Stone, Mud Brick,	Wall		
			Fire Brick, RCC, Rock,	Column		
			Mortar	Roof		
			(Cement/Mud/lime/surkhi),	Shikhara		
			Others	Jointing Material		
		b	Unfinish			
		c	Finishing			
			Wood, Stone, Fire Brick,	Floor		
			Marble, Sand stone, Granite,	Wall		
			Rock,Plaster,Pointing,	Column		
			Paintings, Others	Roof		
				Shikhara		
				Jointing Material		
4		<b>Special Features</b>				
			Close to the historical method of construction ( description)			
	a	Arch/Lintel				
	b	Sculptures				
	c	Internal Carving				
	d	External Carving				
	e	Vedi				
	f	Other				

## Annexure-VII

### Glossary

<b><i>Abhinandanath</i></b>	The forth Thirthankar of Jain religion
<b><i>Adinath or</i></b>	The first Thirthankar of Jain religion
<b><i>Rishabhadev</i></b>	
<b><i>Agamas</i></b>	Original texts of Jainism based on Mahavira's teachings.
<b><i>Ahimsa</i></b>	Non-voilence, A principle propagated by Thirthankar, for the live life
<b><i>Ajitnath</i></b>	The Second Thirthankar of Jain religion
<b><i>Aksata</i></b>	Holy rice used during worshipof Jain Tirthankar
<b><i>Anantnath</i></b>	The fourteenth Thirthankar of Jain religion
<b><i>Aparigraha</i></b>	Concept of non-possessiveness
<b><i>Aranath</i></b>	The eighteenth Thirthankar of Jain religion
<b><i>Ardh Mandapa</i></b>	Entry porch to the temple
<b><i>Arhat or Arihant</i></b>	A Sanskrit word: "one who is worthy" in Jainism, a perfected person, one who has gained insight into the true nature of existence and has achieved nirvana (spiritual enlightenment)
<b><i>Arhat dharma</i></b>	The religion propagated by Arhat or Thirthankar
<b><i>Astapratiharyas</i></b>	Stone with carving of Jain Tirthankars images
<b><i>Ayagapaṭas</i></b>	Stone with depicting the Jain religion and features
<b><i>Balanaka</i></b>	entrance campaign on four sides
<b><i>Basadi</i></b>	Word used for Jain Temple in Karnataka
<b><i>Bharat</i></b>	The name of country India and as per Jain literature it is believe that, this name came from the elder son of Lod Rishav dev
<b><i>Bhattarak</i></b>	Head of Jain religion
<b><i>Brahmanism</i></b>	The religion of Vedic period
<b><i>Buddha</i></b>	The founder of Budhhism religion
<b><i>Buddhism</i></b>	An Indian religion started by Budhha in 5th Century BC
<b><i>Chaiya</i></b>	A Budhhist assembly hall
<b><i>Chaityalaya</i></b>	A residential temple in Jain religion
<b><i>Chandprabha</i></b>	The eighth Thirthankar of Jain religion
<b><i>Chaturmukha or</i></b>	Four faced
<b><i>Chaumukh</i></b>	
<b><i>Chaturyam</i></b>	Religious concept propagated by Tirthankar Mahavir
<b><i>Dharma</i></b>	

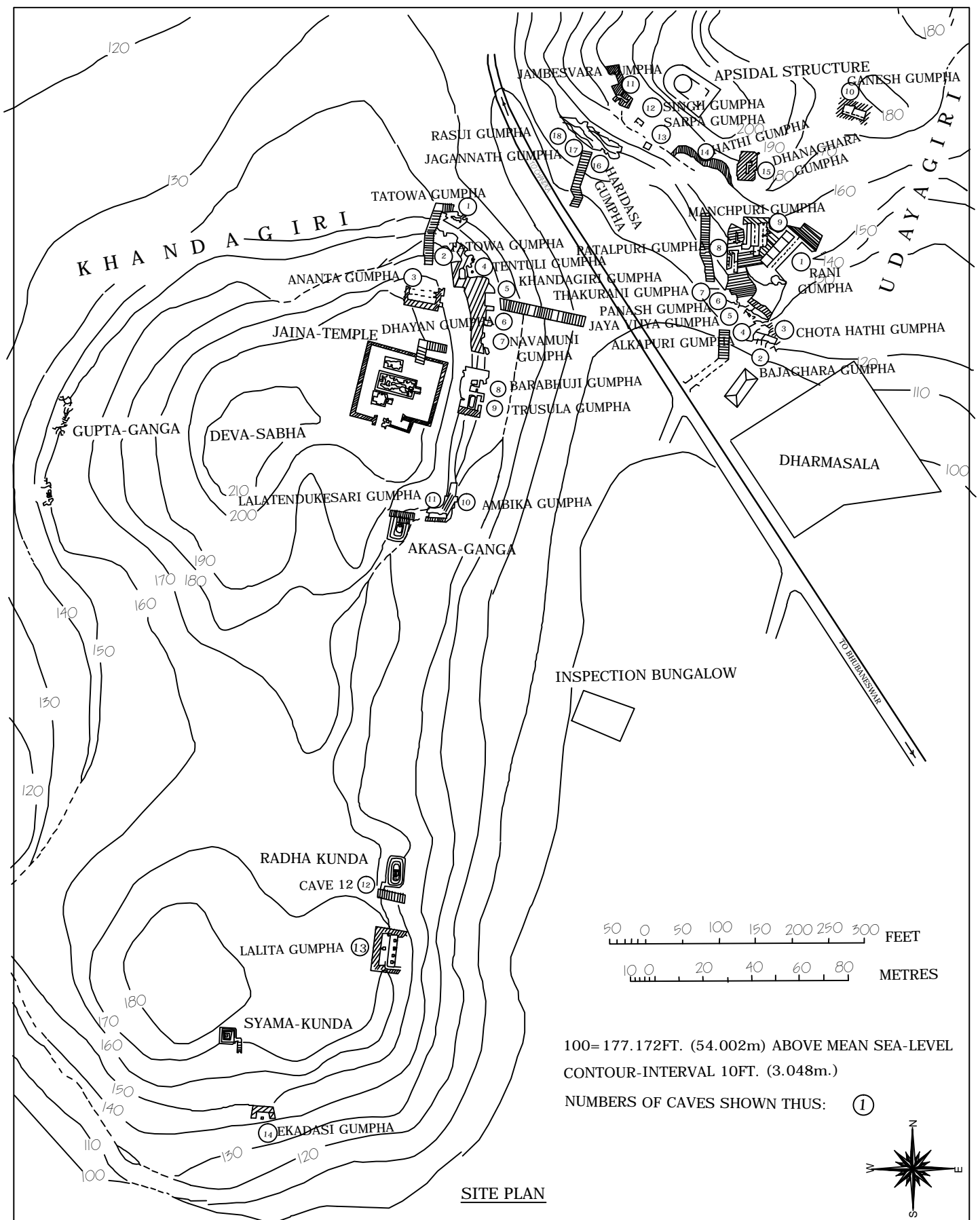
<b><i>Chowbeese</i></b>	The Twenty – four Tirthankars of Jain tradition
<b><i>Christianity</i></b>	Religion based on the teaching of Jesus
<b><i>Derasar</i></b>	Word used for Jain Temple in Gujarat or Rajsthan
<b><i>Dhamma</i></b>	Use of stone as a means of presenting the bill and resilience by Mauryan ruler Ashoka
<b><i>Dharmanath</i></b>	The fifteenth Thirthankar of Jain religion
<b><i>Dhyana mudra</i></b>	Hand gesture used by Tirthankar
<b><i>Digamber</i></b>	Sect of Jain religion
<b><i>Dravida</i></b>	South Indian Temple style of Architecture
<b><i>Dwarapala</i></b>	Gate keeper or Guard
<b><i>Garbhagriha</i></b>	The innermost sanctum of Jain temple
<b><i>Gujarat</i></b>	A Indian state
<b><i>Gumpha</i></b>	Rock cut shelter for the Jain monks
<b><i>Hindu</i></b>	Follower of Hinduism religion
<b><i>Hinduism</i></b>	Indian religion or a way of life, practised in the Indian subcontinent
<b><i>Islam</i></b>	an Abrahamic monotheistic religion
<b><i>Jagti</i></b>	Portico or entryway to temple
<b><i>Jain</i></b>	Follower of Jainism religion
<b><i>Jaindharma</i></b>	Jain Religion
<b><i>Jain</i></b>	The follower of Jain religion
<b><i>Jainism</i></b>	An ancient Indian religion, originated parallelly with the Hindu Religion
<b><i>Janmotsava</i></b>	The celebration of birth
<b><i>Janpada</i></b>	The republic
<b><i>Jin</i></b>	Thirthankar of Jain religion known as Jin
<b><i>Jesus</i></b>	first-century Jewish preacher and religious leader
<b><i>Jharkhan</i></b>	A Indian state
<b><i>Kalpa vriksh</i></b>	Wishing tree as imagined in Jain religion
<b><i>Karma</i></b>	Basic principle within an overarching psycho-cosmology in Jainism.
<b><i>Karnataka</i></b>	A Indian state
<b><i>Khandgiri</i></b>	A place in state Odisha, India
<b><i>Kharvela</i></b>	King of Odisha, India during 200 BC
<b><i>Karma-bhumi</i></b>	The development of the social life as taught by Lord Rishav first Jain Thirthankar
<b><i>Kunthunath</i></b>	The seventh Thirthankar of Jain religion

<b><i>Lakshmi</i></b>	The Goddess of wealth
<b><i>Lucknow</i></b>	A city in state Uttar pradesh India
<b><i>Mahavir</i></b>	The twenty forth Thirthankar of Jain religion
<b><i>Mallinath</i></b>	The nineteenth Thirthankar of Jain religion
<b><i>Mandapa</i></b>	A pillared hall in temple
<b><i>Mantra</i></b>	Word or sentence with psychological and spiritual power
<b><i>Manastambha</i></b>	A free standing pillar with four faced Tirthankar facing cardinal direction
<b><i>Matsyapurana</i></b>	one of the eighteen major Puranas, and among the oldest and better preserved in the Puranic genre of Sanskrit literature in Hinduism
<b><i>Mauryan</i></b>	An Indian empire founded by Chandragupta Maurya
<b><i>Meru</i></b>	Sacred mountain in Jain religion
<b><i>Moksha</i></b>	Freedom from the cycle of death and rebirth
<b><i>Mula Nayak</i></b>	Main diety of a Jain temple
<b><i>Muni</i></b>	The twenthThirthankar of Jain religion
<b><i>Subratonath</i></b>	
<b><i>Nagara</i></b>	North Indian Temple style of Architecture
<b><i>Naminath</i></b>	The twenty first Thirthankar of Jain religion
<b><i>Navagrahas</i></b>	Astrological figure in the Jain religion
<b><i>Navchowki</i></b>	Nine delicately designed ceilings as in Dilwra Jain temple, Mountabu
<b><i>Neminath</i></b>	The twenty second Thirthankar of Jain religion
<b><i>Nirgranth</i></b>	Sermon by the Tirthankar
<b><i>Pravachan</i></b>	
<b><i>Nirvana</i></b>	Final release of soul from bondage
<b><i>Odisha</i></b>	An Indian state
<b><i>Padmapurana</i></b>	A Hindu religious text
<b><i>Padmaprabha</i></b>	The sixth Thirthankar of Jain religion
<b><i>Pap</i></b>	Sin
<b><i>Panch Kalyanak</i></b>	Five auspicious event in the life of Tirthankar
<b><i>Parshvanath</i></b>	The twenty third Thirthankar of Jain religion
<b><i>parikara</i></b>	The casing of the images
<b><i>pilgrimage</i></b>	Sacred place
<b><i>Pradaksina path</i></b>	Circumambulatory path

<b><i>Pari Nirvana</i></b>	Nirvana after death
<b><i>Paridikshina path</i></b>	Circumcumbulatory path
<b><i>Punya</i></b>	Virtue, concept used in Jain religion
<b><i>Purana</i></b>	The Puranas are ancient Hindu texts eulogizing various deities, primarily the divine Trimurti God in Hinduism through divine stories
<b><i>Pushpadanta</i></b>	The ninth Thirthankar of Jain religion
<b><i>Rang Mandap</i></b>	Central portion of temple just before Garbhagriha for gathering and worship
<b><i>Rishabh or Rishav Dev</i></b>	The first Thirthankar of Jain religion
<b><i>Salvation</i></b>	Freedom from the cycle of birth and death
<b><i>Samosaran</i></b>	A four face Tirthankar temple in form of circular open air theatre
<b><i>Sambhavnath</i></b>	The third Thirthankar of Jain religion
<b><i>Sangh</i></b>	Assembly or congregation
<b><i>Saraswati</i></b>	The Goddess of knowledge
<b><i>Satya</i></b>	Sanskrit word for truth
<b><i>Shikh</i></b>	Follower of Shikh religion
<b><i>Shikhism</i></b>	An Indian religion, that originated in Punjab, India
<b><i>Shaiv</i></b>	Followers of God Shiva
<b><i>Shantinath</i></b>	The sixteenth Thirthankar of Jain religion
<b><i>Shikhara</i></b>	Rising tower superstructure in Hindu temple
<b><i>Shiva</i></b>	Main deity of Hinduism
<b><i>Shiv Purana</i></b>	The Shiva Purana is one of eighteen Purana genre of Sanskrit texts in Hinduism
<b><i>Shitalanatha</i></b>	The tenth Thirthankar of Jain religion
<b><i>Shreyanasanatha</i></b>	The eleventh Thirthankar of Jain religion
<b><i>Simhasana</i></b>	Personalized tool in Jain religion
<b><i>Sthanakas</i></b>	Dormitory or rest room or prayer room
<b><i>Stotras</i></b>	Prayer or poem or description
<b><i>Sumatinath</i></b>	The fifth Thirthankar of Jain religion
<b><i>Suparshavanath</i></b>	The seventh Thirthankar of Jain religion
<b><i>Swetamabher</i></b>	Sect of Jain religion
<b><i>Tala</i></b>	Storey in building or temple
<b><i>Torana</i></b>	Ceremonial Gateway

<b><i>Thirthankar</i></b>	A person who has conquered saṃsara
<b><i>Tunk</i></b>	Small enclosure for foot print idol worship in Jain religion
<b><i>Udaygiri</i></b>	A place in state Odisha, India
<b><i>Upanishad</i></b>	Series of Hindu sacred treatises written in Sanskrit c.800–200 BC
<b><i>Vaidika</i></b>	Collection of spiritual and devotional literature
<b><i>Vaishnav</i></b>	Followers of God Vishnu
<b><i>Vastu shastra</i></b>	Traditional literature of Architecture in Hindu religion
<b><i>Vastu purusa mandala</i></b>	Indispensable part of Indian Vastu shastra
<b><i>Vishnu</i></b>	Main deity of Hinduism
<b><i>Vasupujya</i></b>	The twelfth Thirthankar of Jain religion
<b><i>Vedi</i></b>	The sitting platform for Jain Tirthankar
<b><i>Vihara</i></b>	Monastery for Buddhist monks
<b><i>Vimalnath</i></b>	The thirteenth Thirthankar of Jain religion
<b><i>Viman</i></b>	Tower above worship place
<b><i>Yaksha</i></b>	Popular male celestial beings Jain religion
<b><i>Yakshi or Yakshini</i></b>	Popular female celestial beings Jain religion
<b><i>Yantra</i></b>	Mystical diagram used for worship
<b><i>Yogis</i></b>	Saint

# KHANDGIRI - UDAYAGIRI CAVES

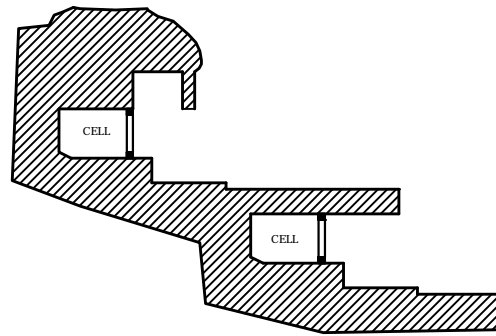




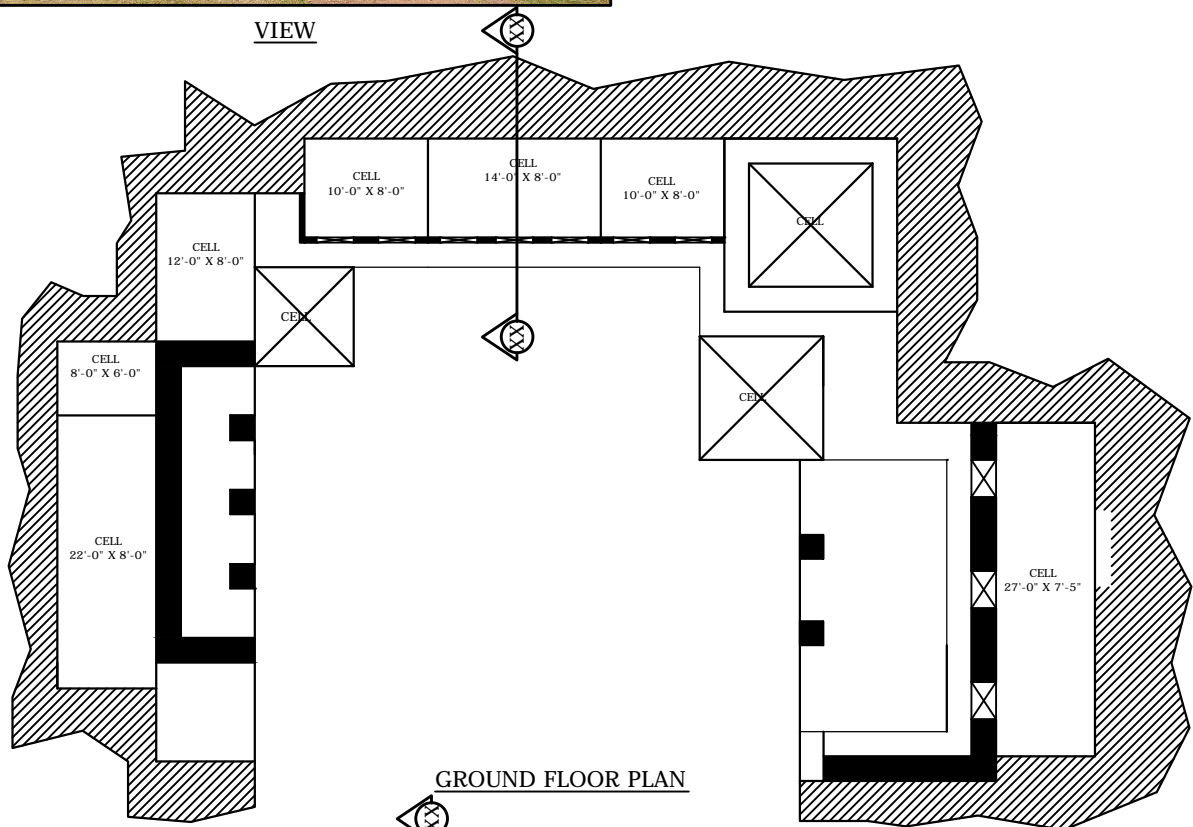
## CAVE-1 (RANI GUMPHA)



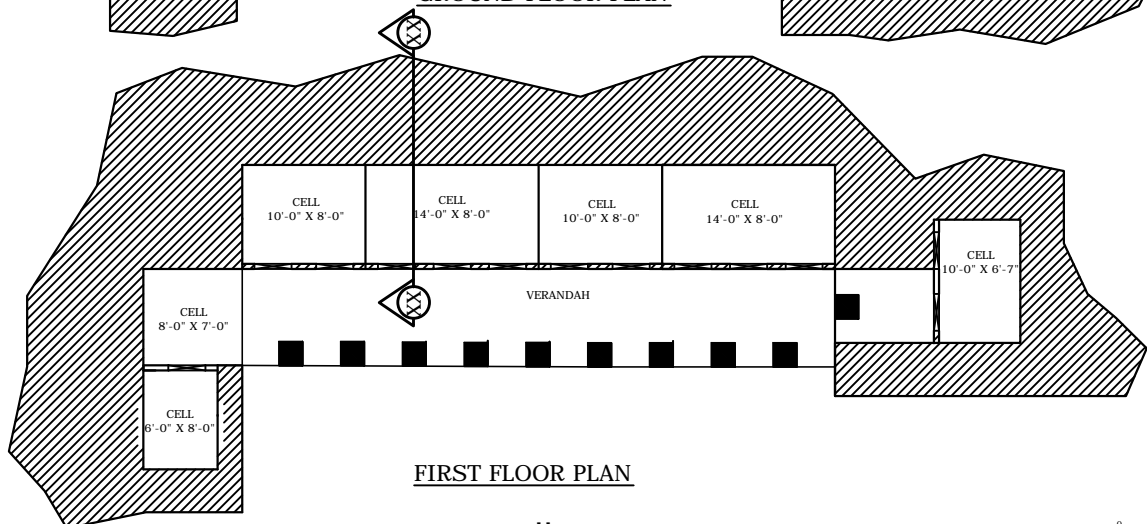
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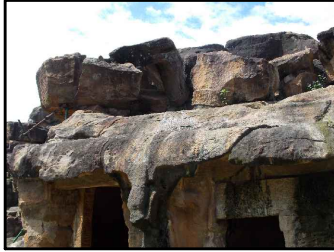


GROUND FLOOR PLAN

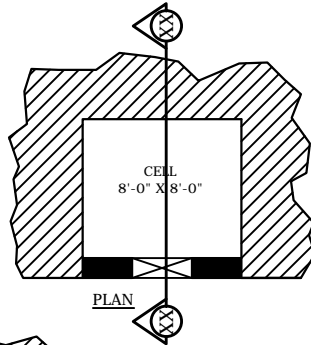


FIRST FLOOR PLAN

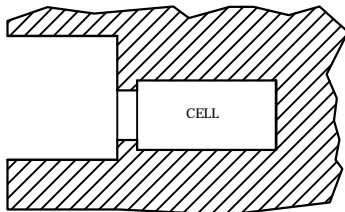
CAVE-2 (BAJAGHARA GUMPHA)



VIEW

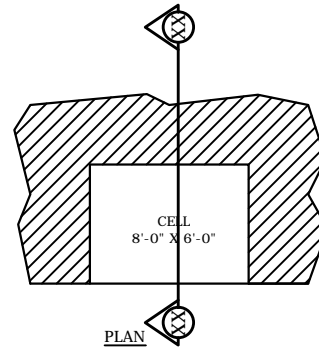


PLAN

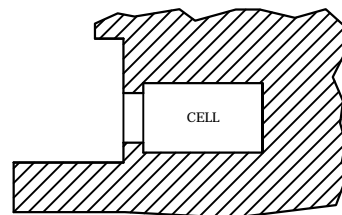


SECTION-XX

CAVE-3 (CHOTA HATHI GUMPHA)

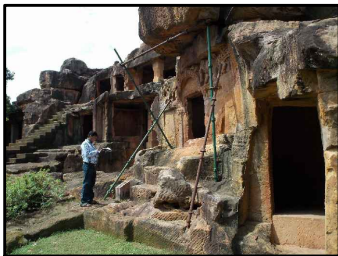


PLAN

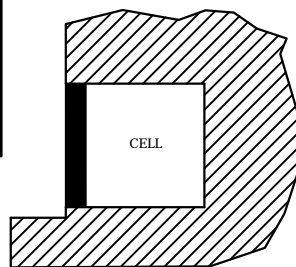


SECTION-XX

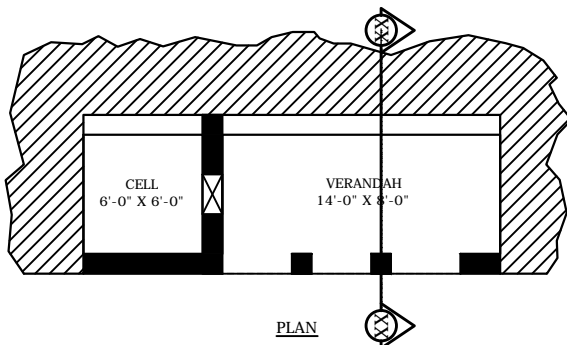
CAVE-4 (ALKAPURI GUMPHA)



VIEW

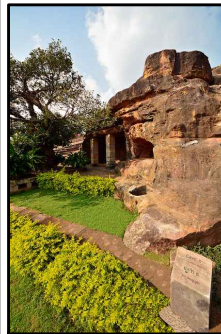


SECTION-XX

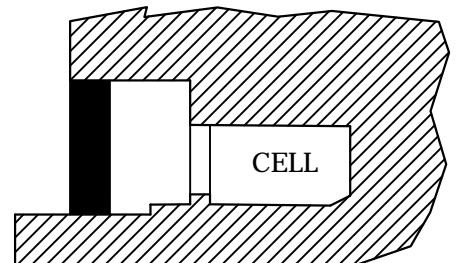


PLAN

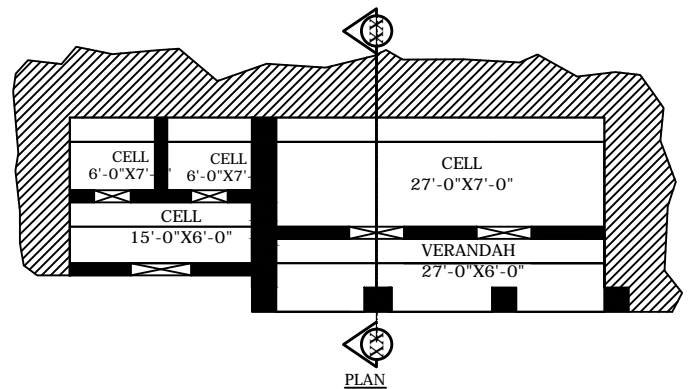
CAVE-5 (JAYA VIJYA GUMPHA)



VIEW

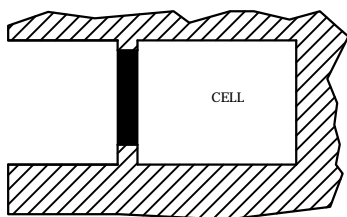


SECTION-XX

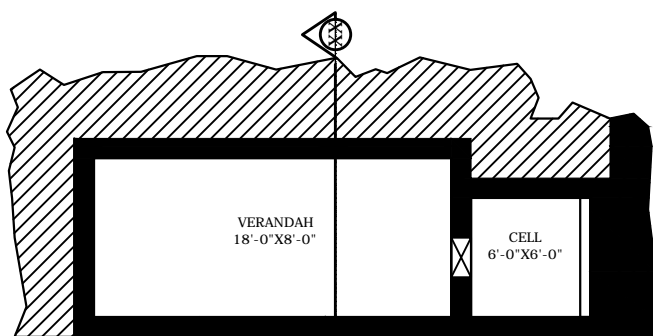


PLAN

CAVE-6 (PANASH GUMPHA)

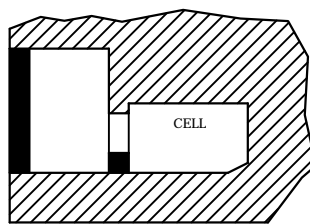


SECTION-XX

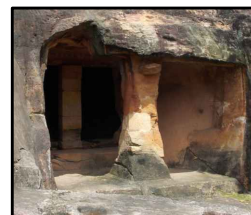


PLAN

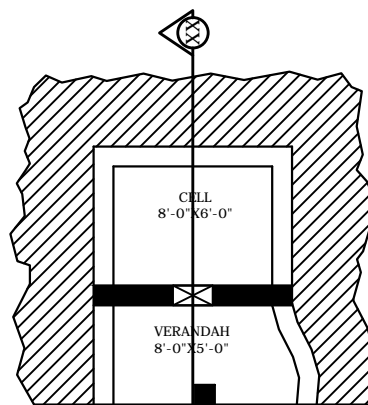
CAVE-7 (THAKURANI GUMPHA)



SECTION-XX



VIEW

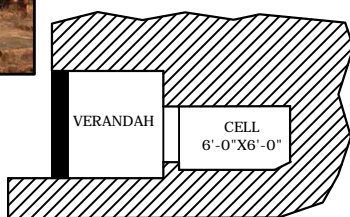


PLAN

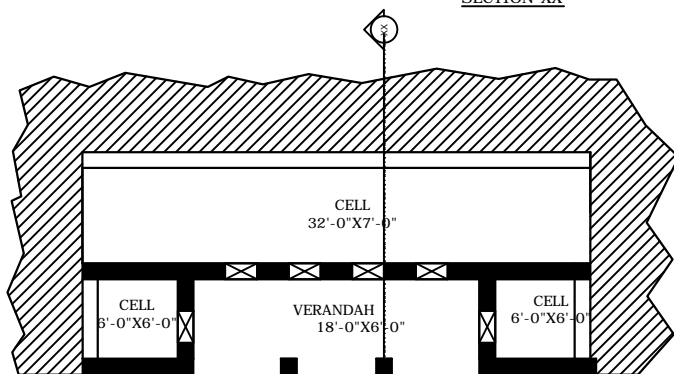
CAVE-8 (PATALPURI GUMPHA)



VIEW

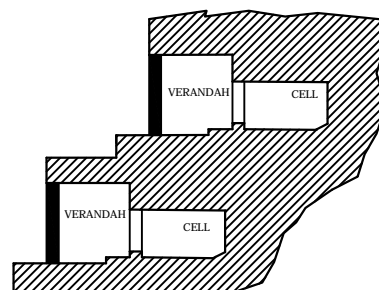


SECTION-XX

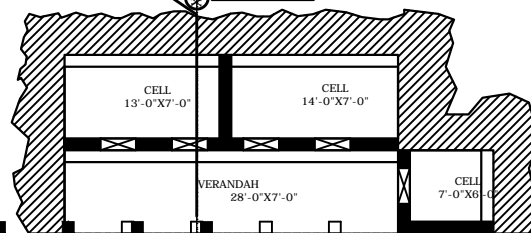


PLAN

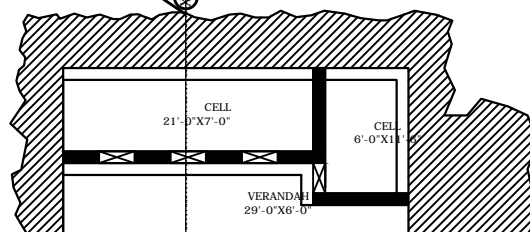
CAVE-9 (MANCHPURI GUMPHA)



SECTION-XX



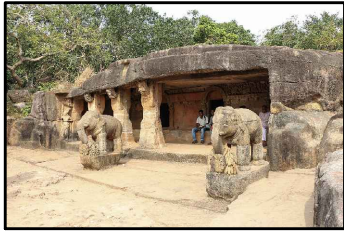
GROUND FLOOR PLAN



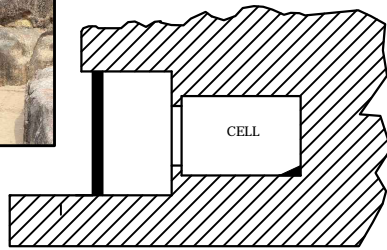
FIRST FLOOR PLAN



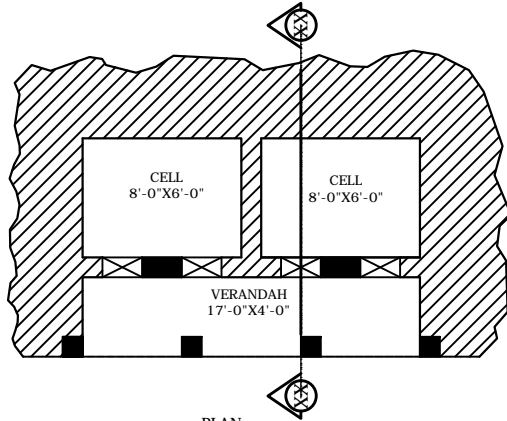
CAVE-10 (GANESH GUMPHA)



VIEW

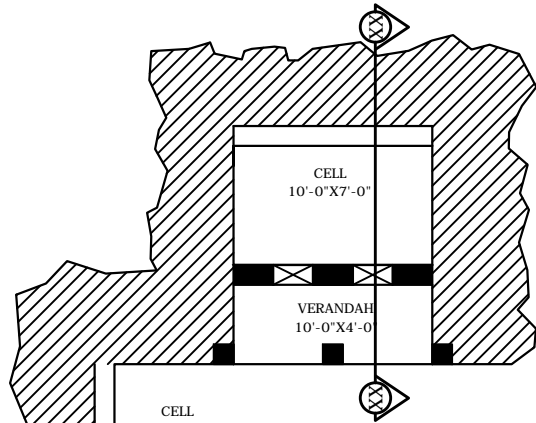


SECTION-XX

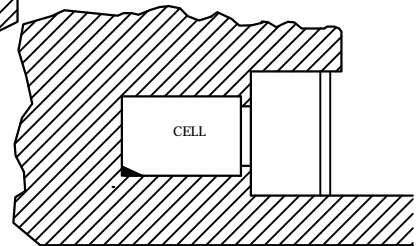


PLAN

CAVE-11 (JAMBESVARA GUMPHA)

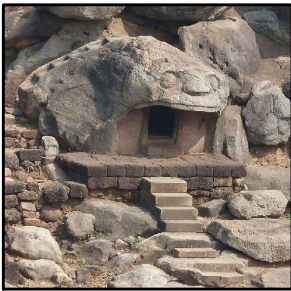


PLAN

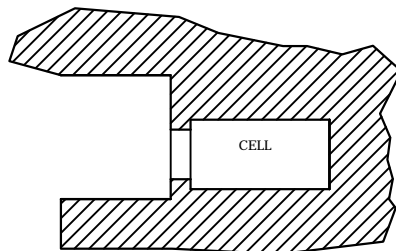


SECTION-XX

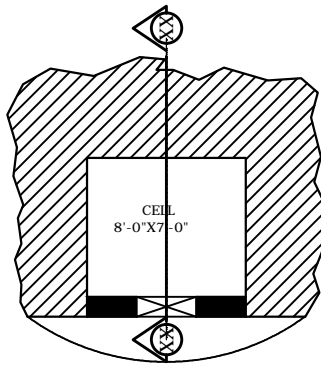
CAVE-12 (SINGH GUMPHA)



VIEW



SECTION-XX

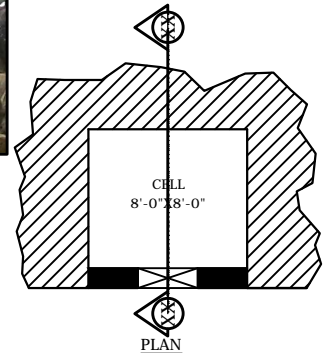


PLAN

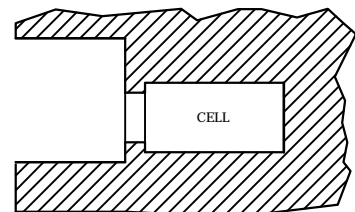
CAVE-13 (SARPA GUMPHA)



VIEW

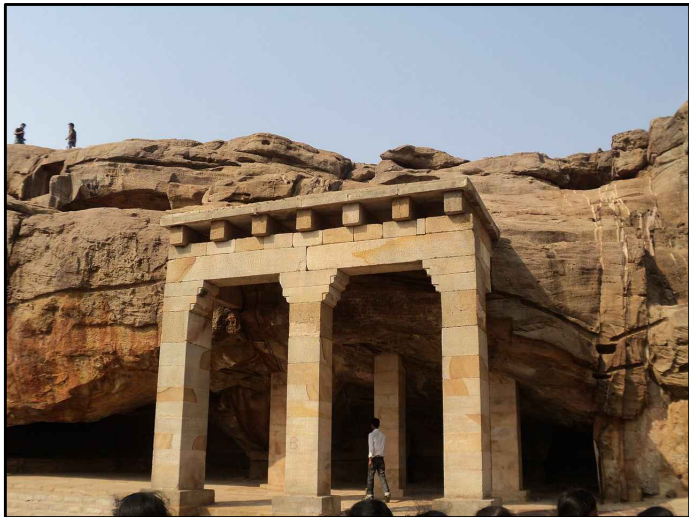


PLAN

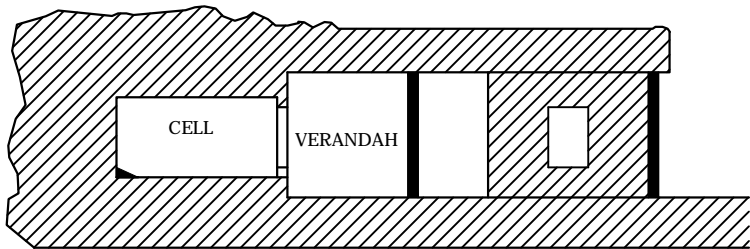


SECTION-XX

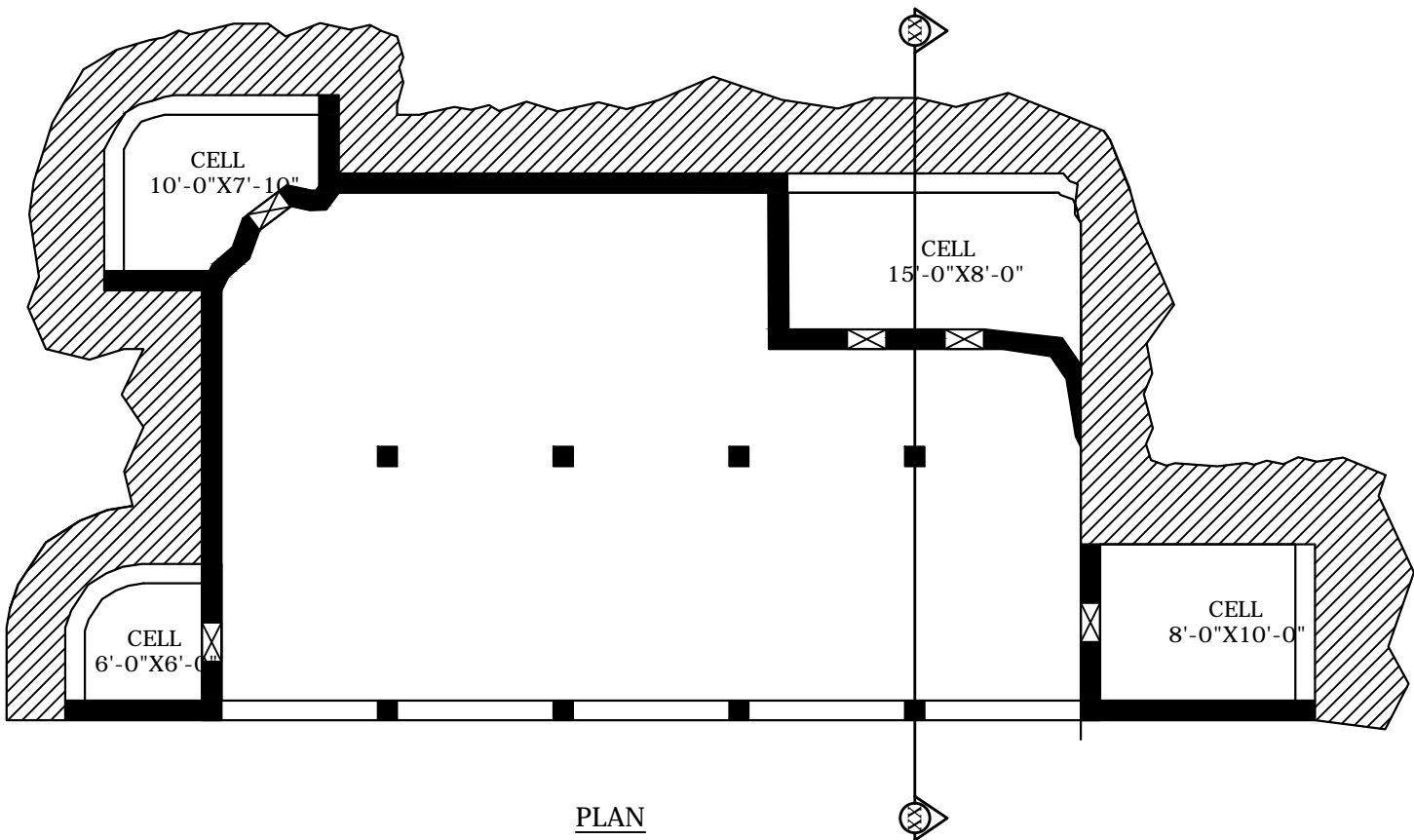
CAVE-14 (HATHI GUMPHA)



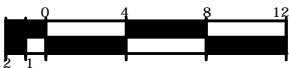
VIEW



SECTION-XX

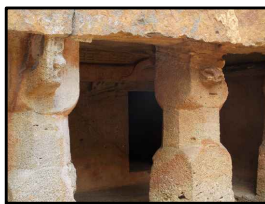


PLAN

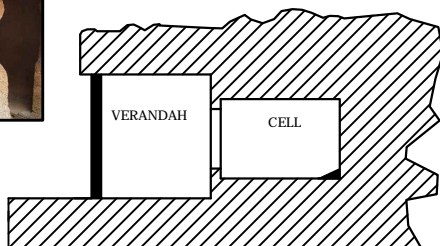




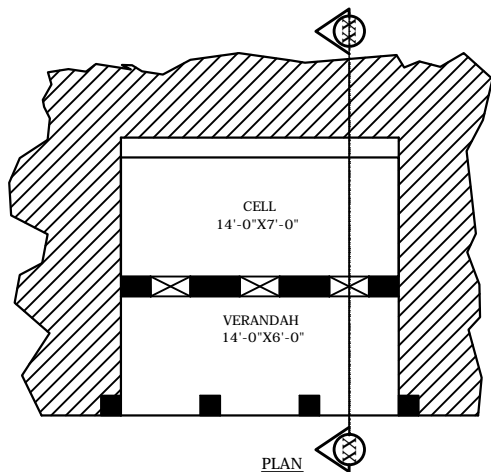
CAVE-15 (DHANGHARA GUMPHA)



VIEW

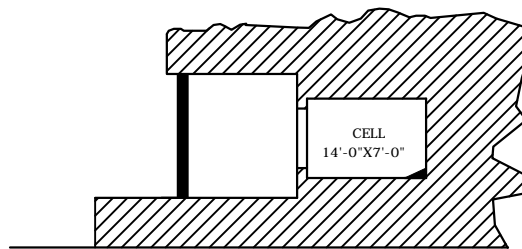


SECTION-XX

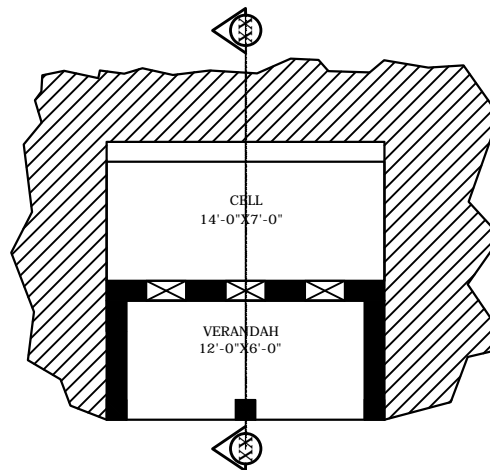


PLAN

CAVE-16 (HARIDASHA GUMPHA)

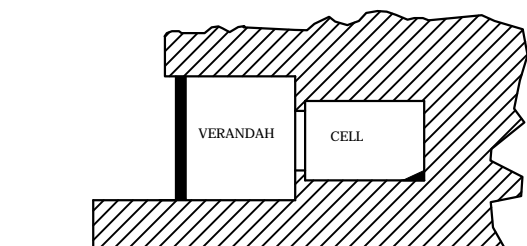


SECTION-XX

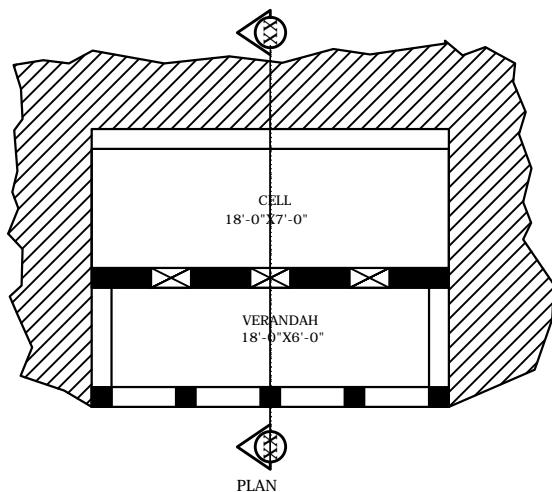


PLAN

CAVE-17 (JAGANNATH GUMPHA)



SECTION-XX

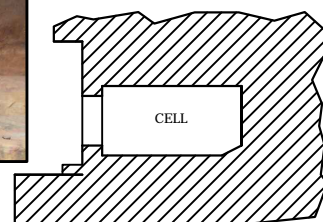


PLAN

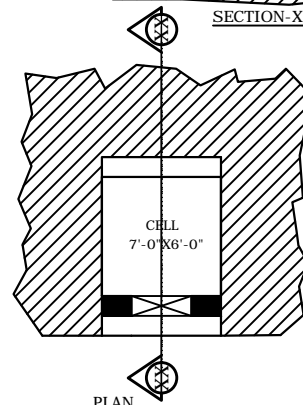
CAVE-18 (RASUI GUMPHA)



VIEW



SECTION-XX

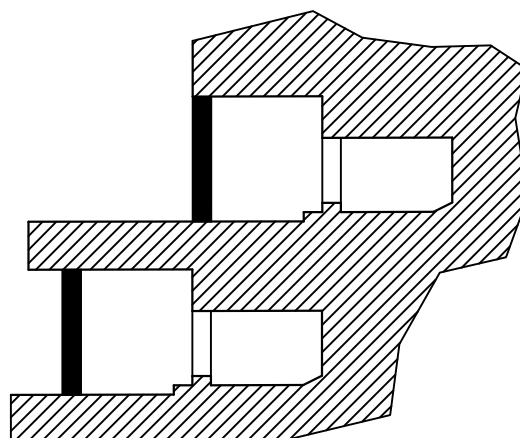


PLAN

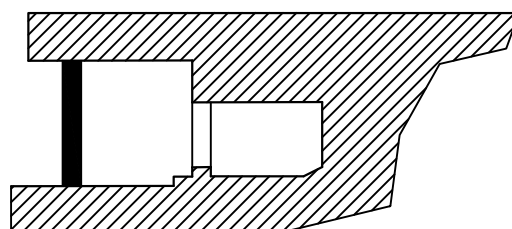
# CAVE-1,2(TATOWA-GUMPHA)



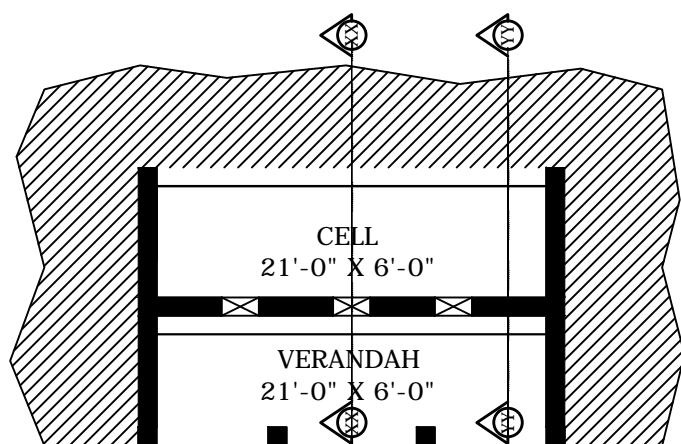
VIEW



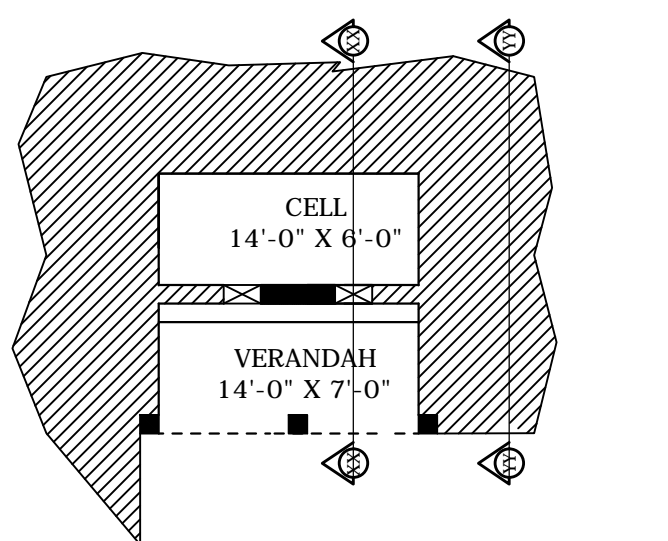
SECTION: - XX



SECTION: - YY



GROUND FLOOR PLAN



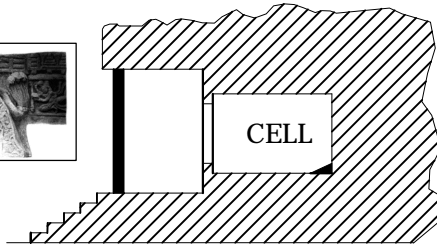
FIRST FLOOR PLAN



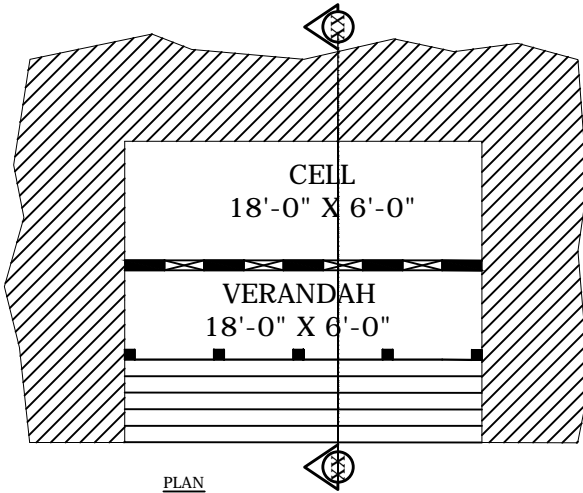
CAVE-3 (ANANTA GUMPHA)



VIEW

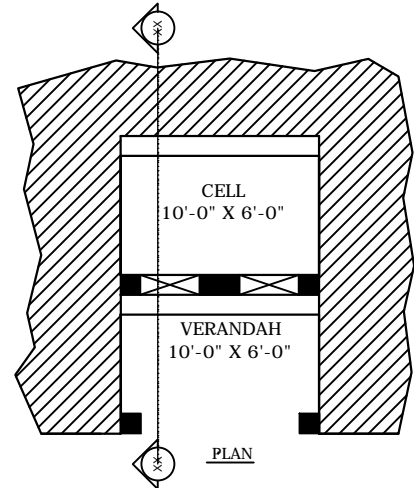


SECTION:- XX

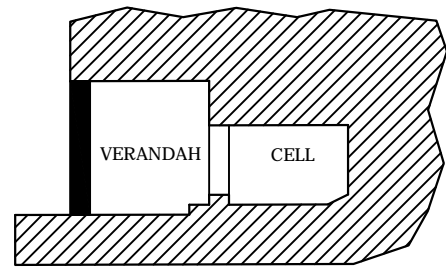


PLAN

CAVE-4 (TENTULI GUMPHA)



PLAN

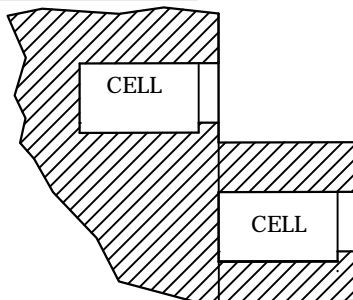


SECTION-XX

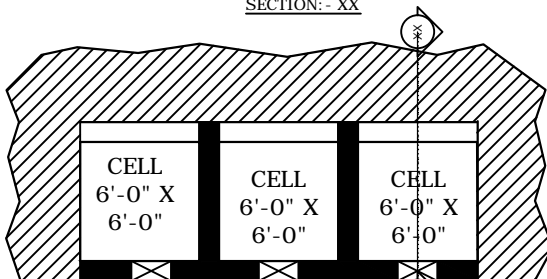
CAVE-5 (KHANDAGIRI GUMPHA)



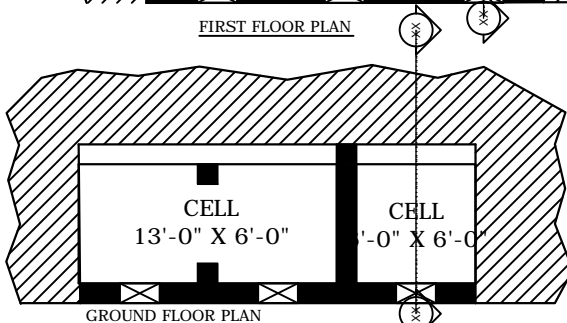
VIEW



SECTION:- XX



FIRST FLOOR PLAN

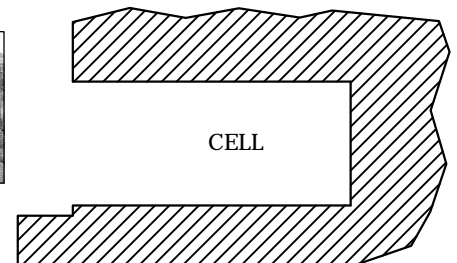


GROUND FLOOR PLAN

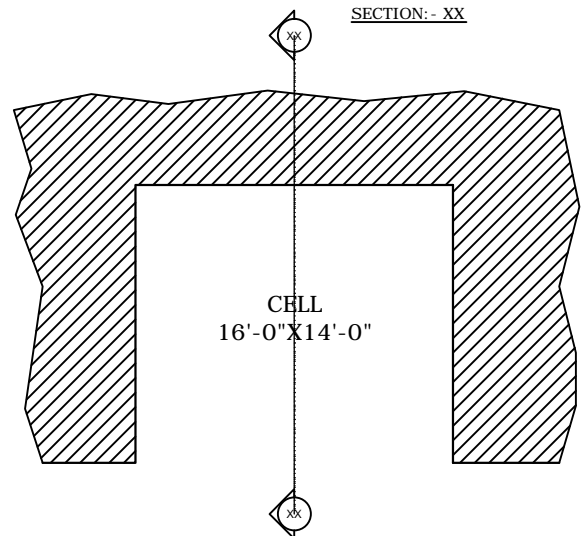
CAVE-6 (DHAYAN GUMPHA)



VIEW



SECTION:- XX



PLAN

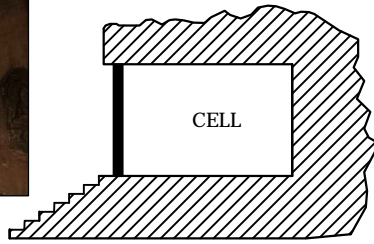




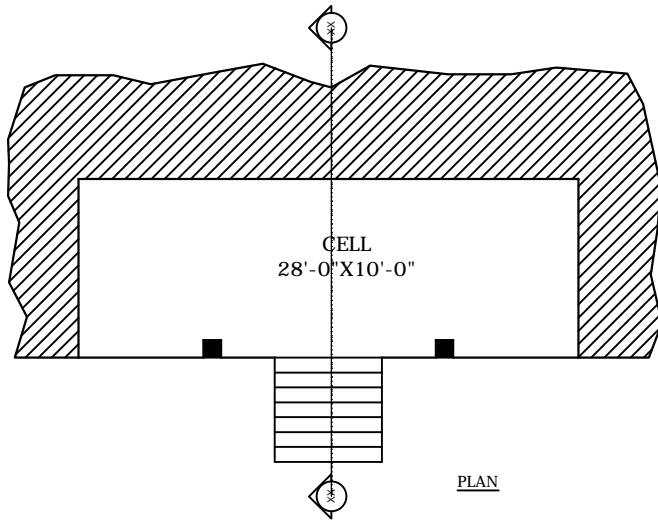
CAVE-7 (NAVAMUNI GUMPHA)



VIEW



SECTION-XX

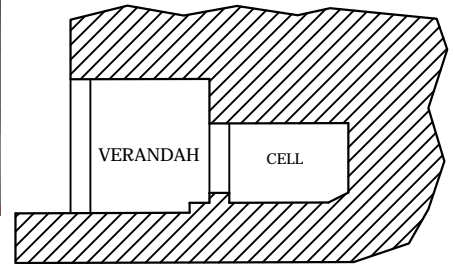


PLAN

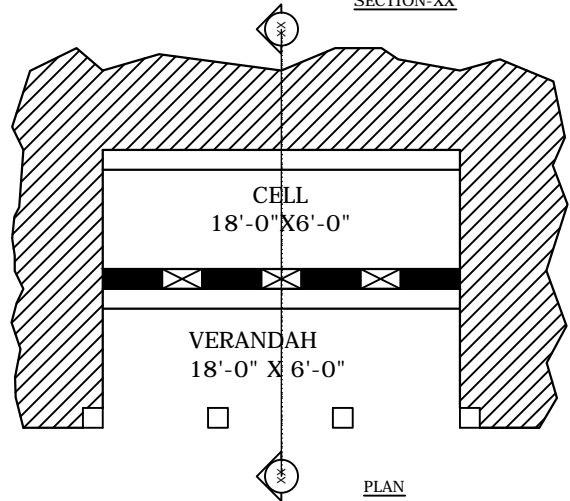
CAVE-8 (BARABHUJI GUMPHA)



VIEW

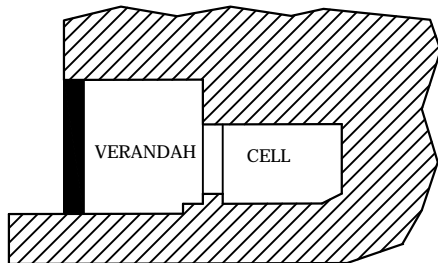


SECTION-XX

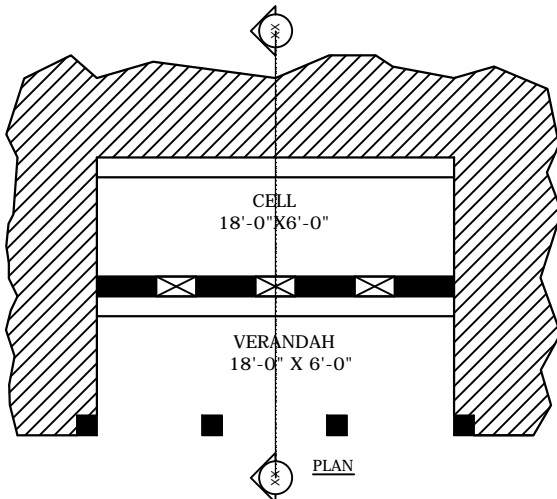


PLAN

CAVE-9 (TRUSULA GUMPHA)



SECTION-XX



PLAN

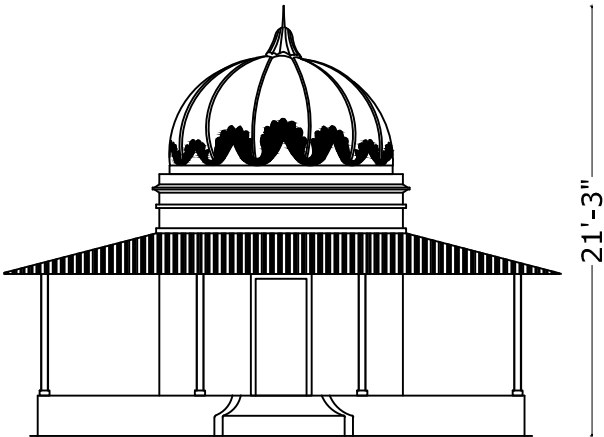
X



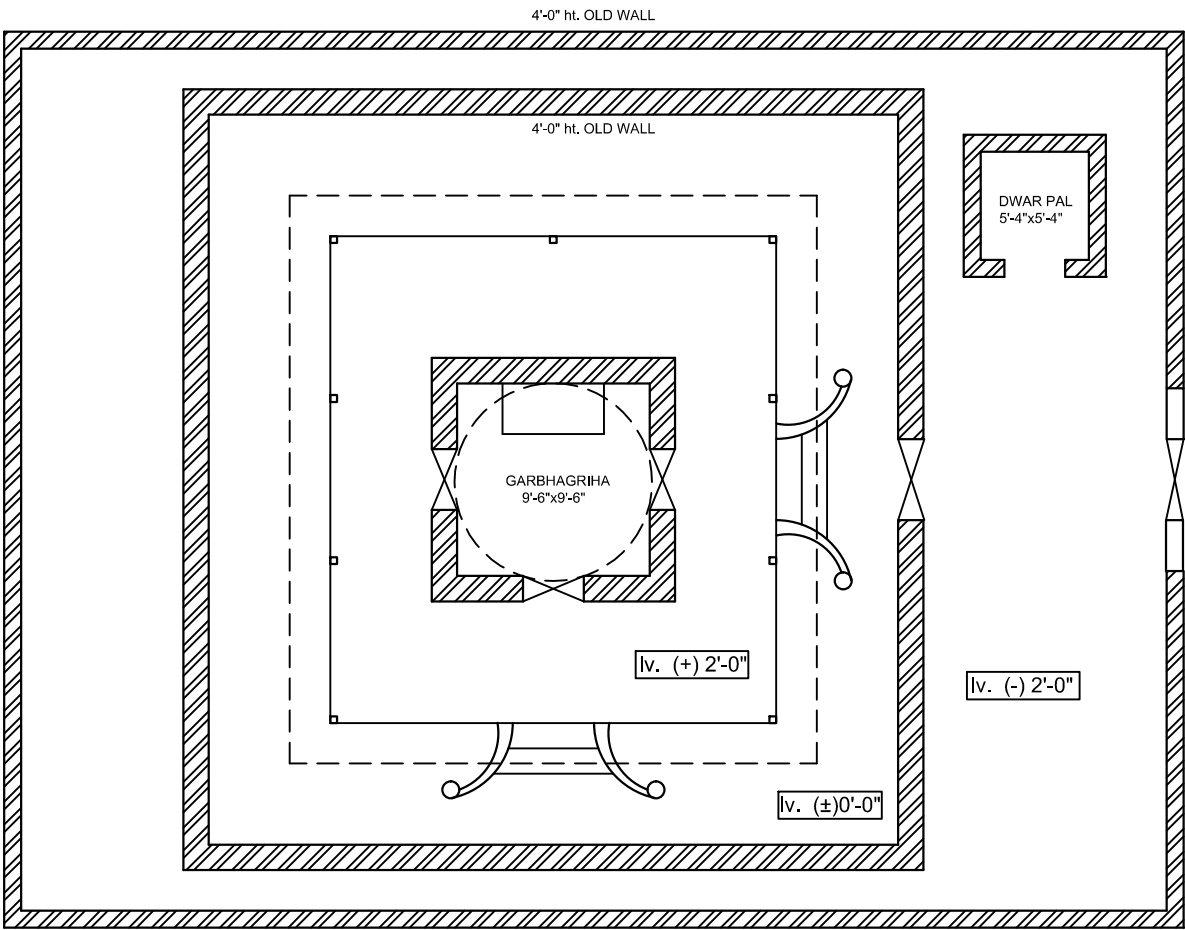
SRI SUDARSHAN KAMALDAH JI TEMPLE (GULJARBAGH)



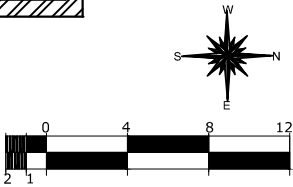
VIEW



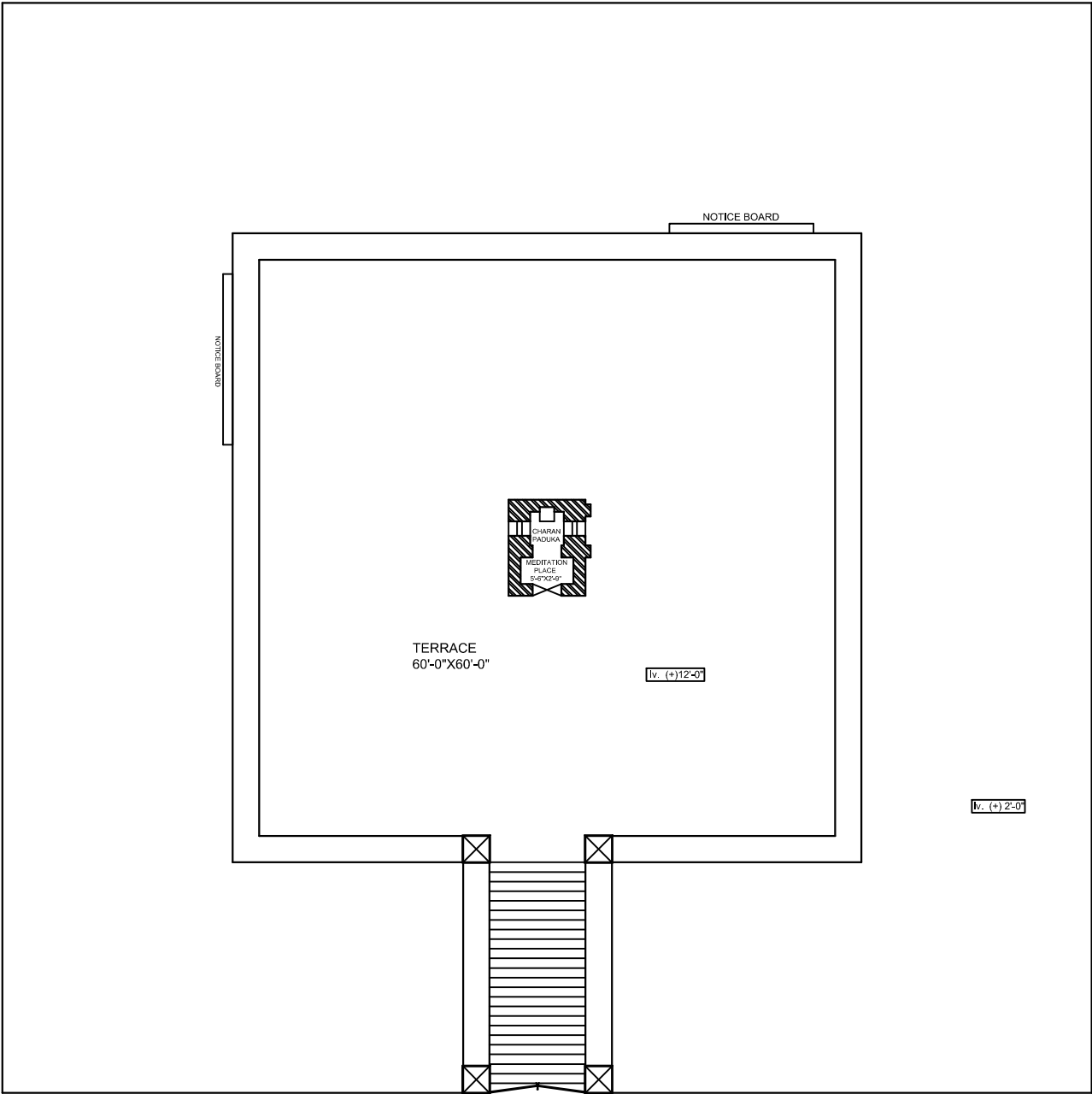
ELEVATION



GROUND FLOOR PLAN



SRI STHULIBHADRA SHADHNA STHAL (GULJARBAGH )



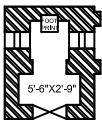
SITE PLAN



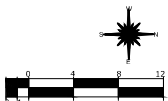
VIEW



ELEVATION



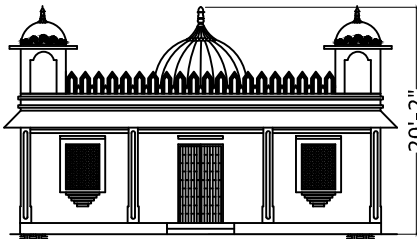
PLAN



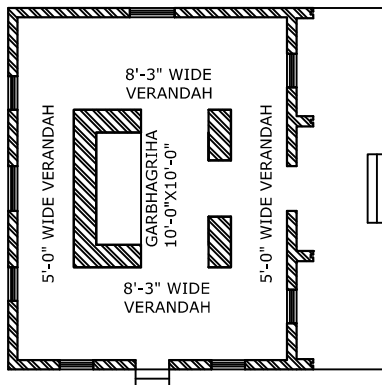
SRI KAMALDAH JI SIDHAKSHETRA (GULJARBAGH)



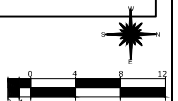
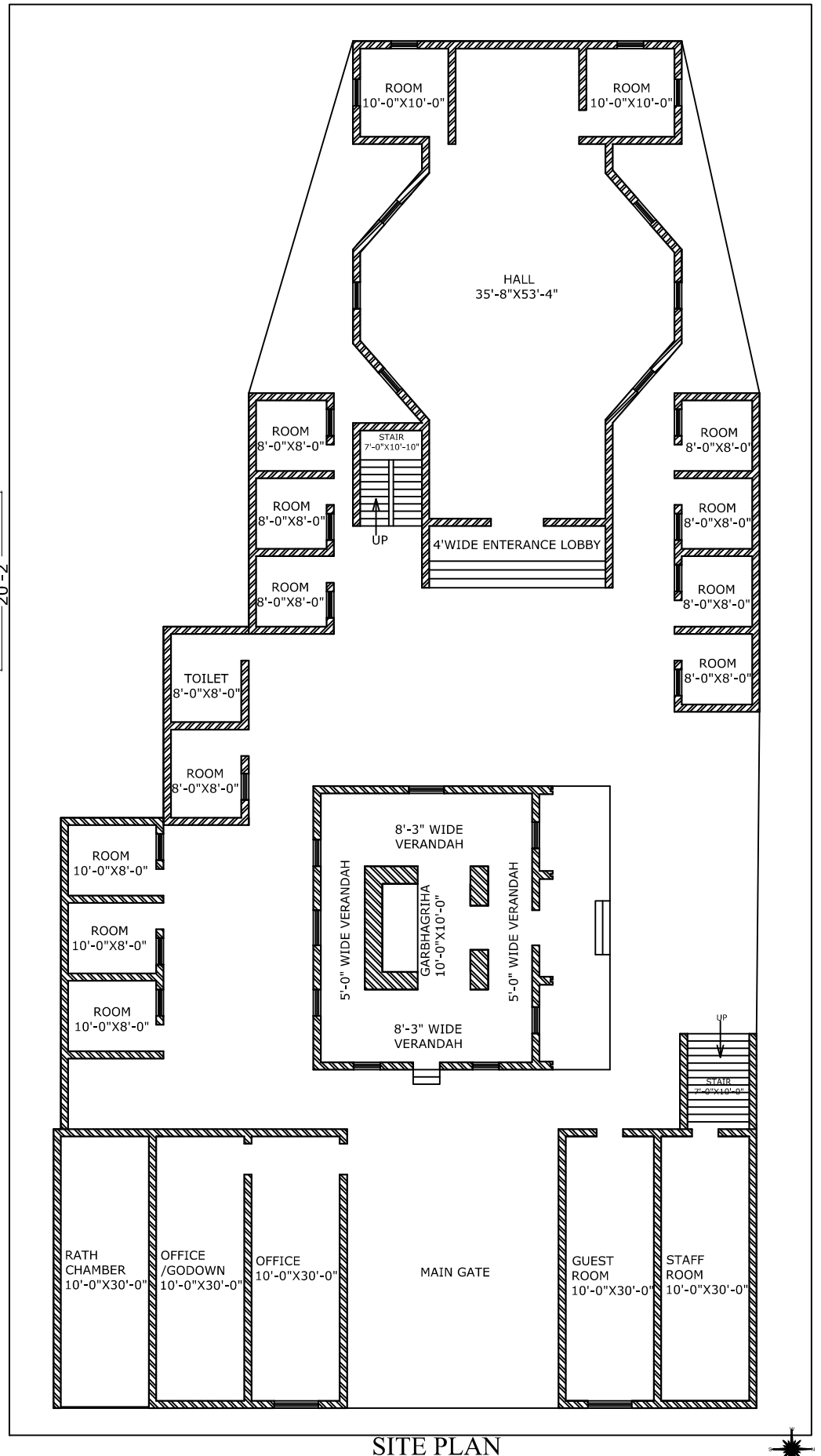
VIEW



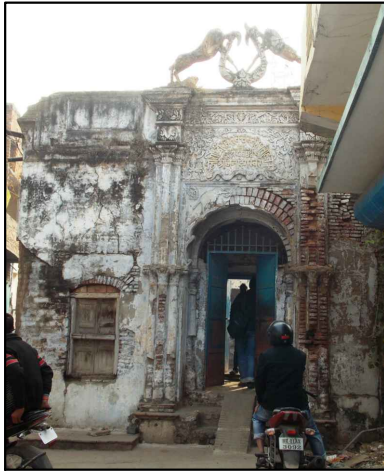
FRONT ELEVATION



## TEMPLE PLAN



SRI PARSHAVNATH DIGAMBAR JAIN GURARA TEMPLE, HAJIGANJ,  
PATNA CITY

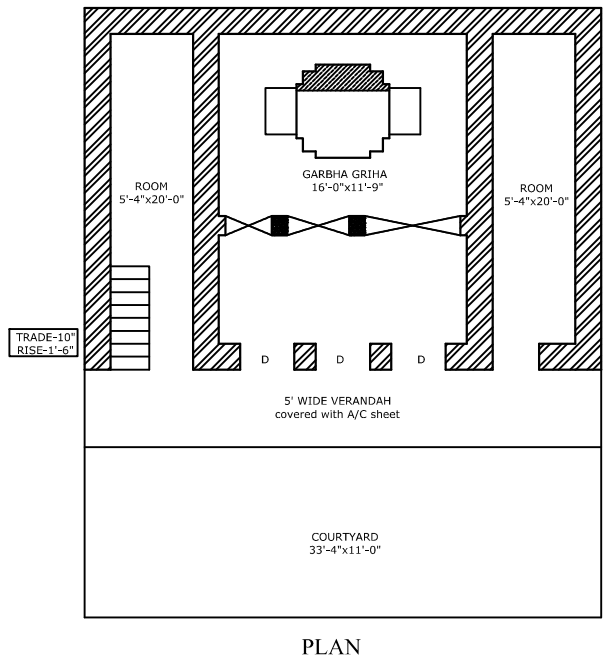
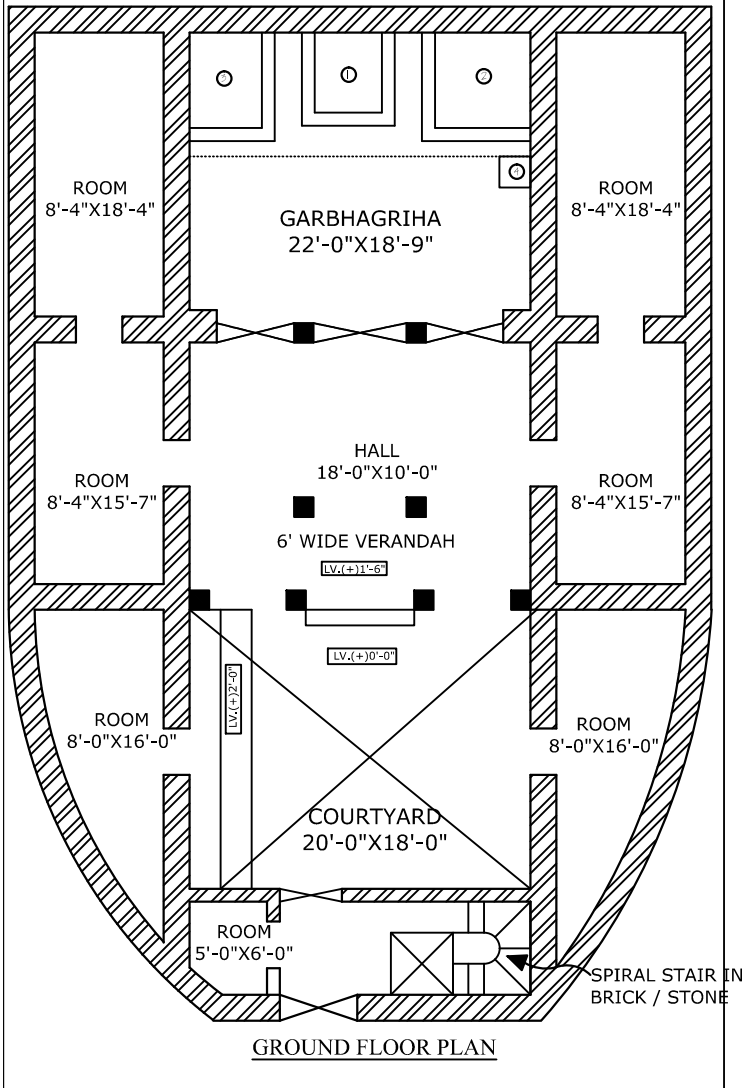


VIEW

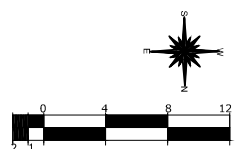
SRI AADINATH DIGAMBAR JAIN TEMPLE, KALIBIBI KA KATRA,  
PATNA CITY



VIEW OF INTERIOR



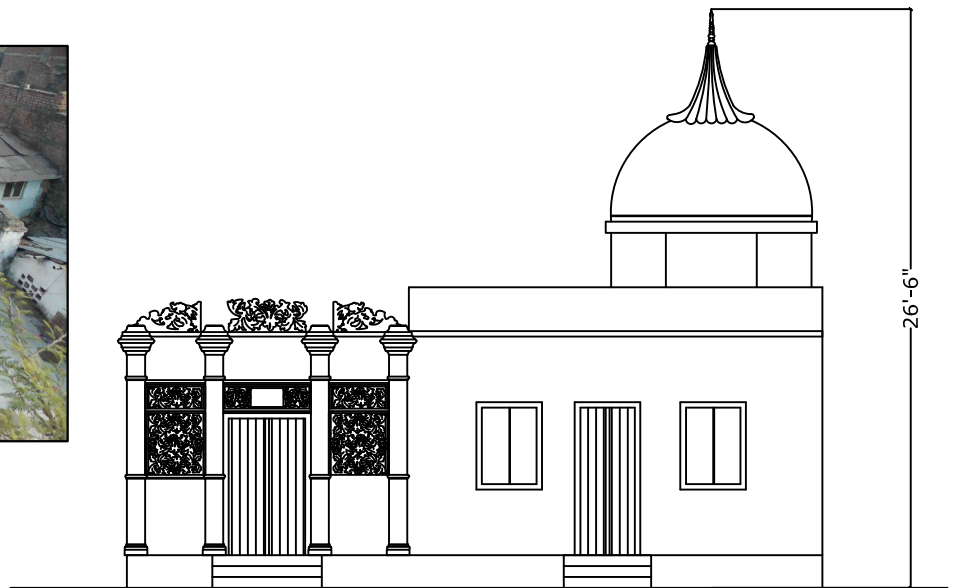
PLAN



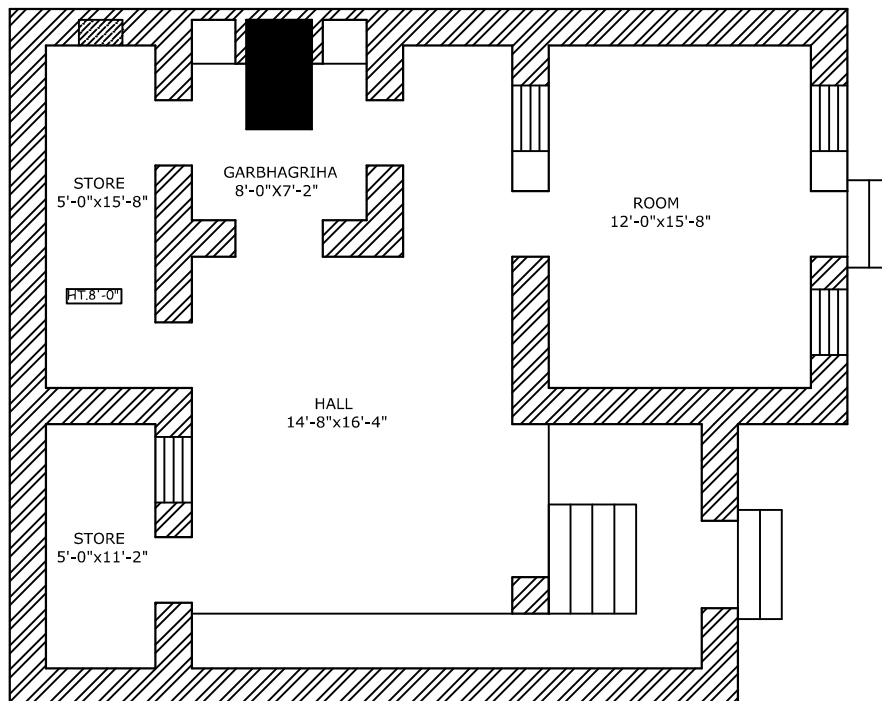
# SRI DIGAMBAR JAIN TEMPLE, KACHAURI GALI, PATNA CITY



VIEW

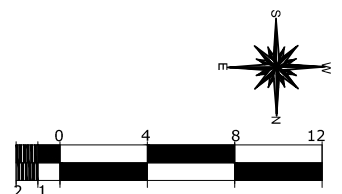


FRONT ELEVATION

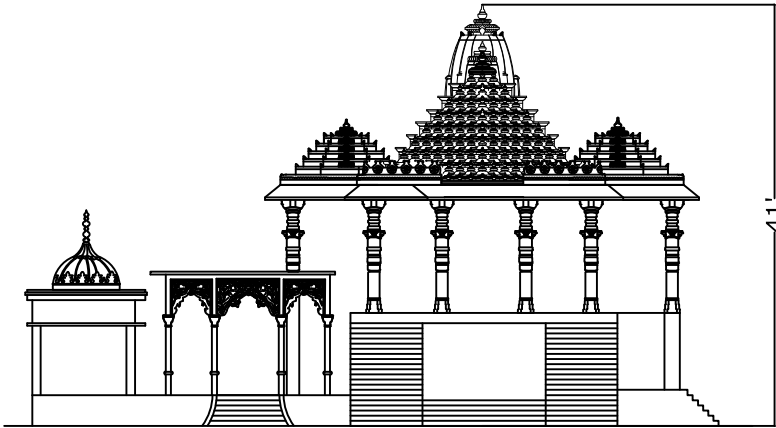


PLAN

XV



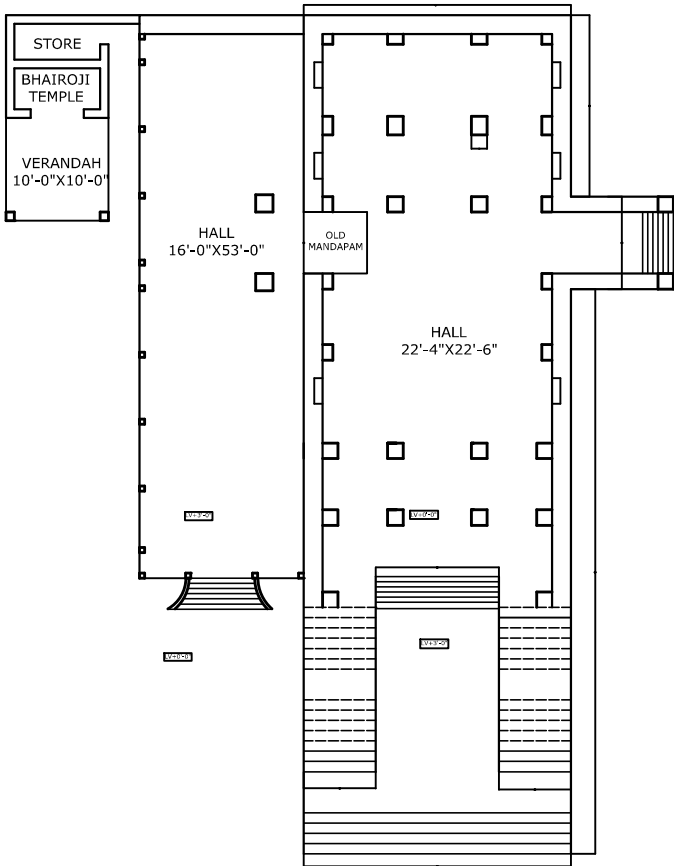
SRI PARSHAVNATH SWETAMBAR JAIN TEMPLE, BARE KI GALI, PATNA CITY



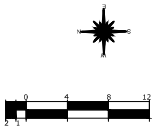
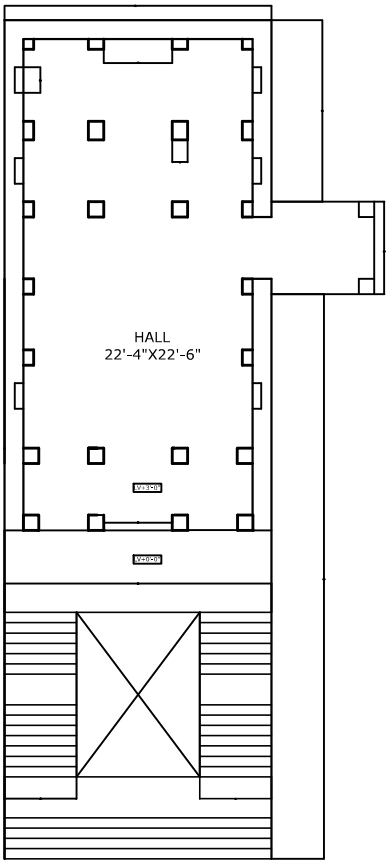
ELEVATION



VIEW

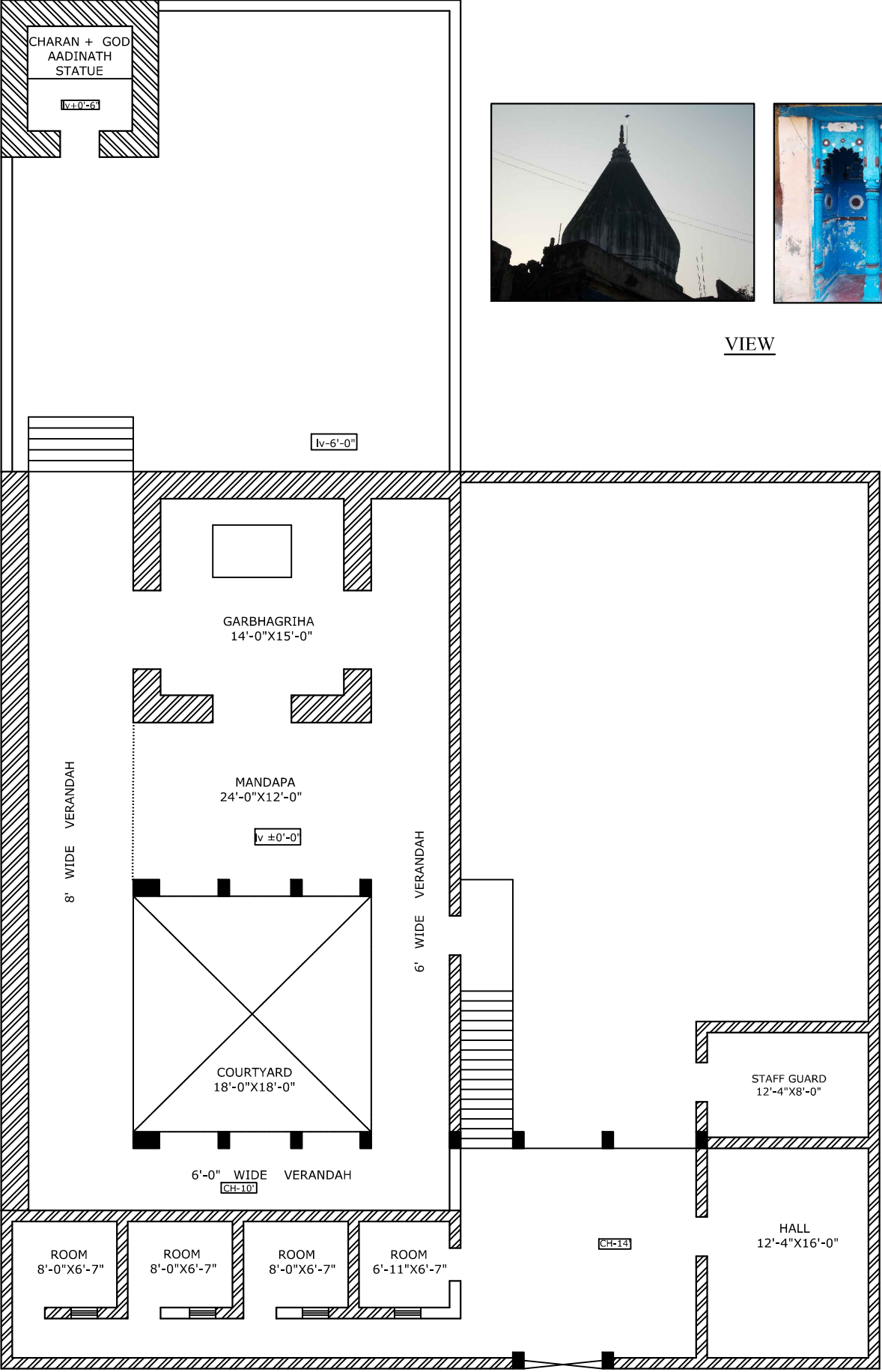


PLAN





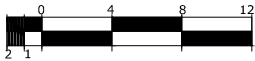
SRI DIGAMBAR JAIN PANCHAYAT TEMPLE, MACHARAHATTA, PATNA CITY



VIEW

GROUND FLOOR PLAN

XVII

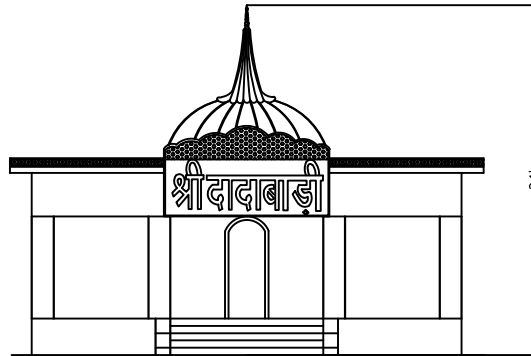




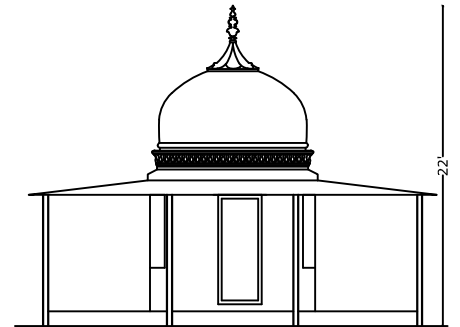
# SRI DADAWARI, BEGUMPUR, PATNA CITY



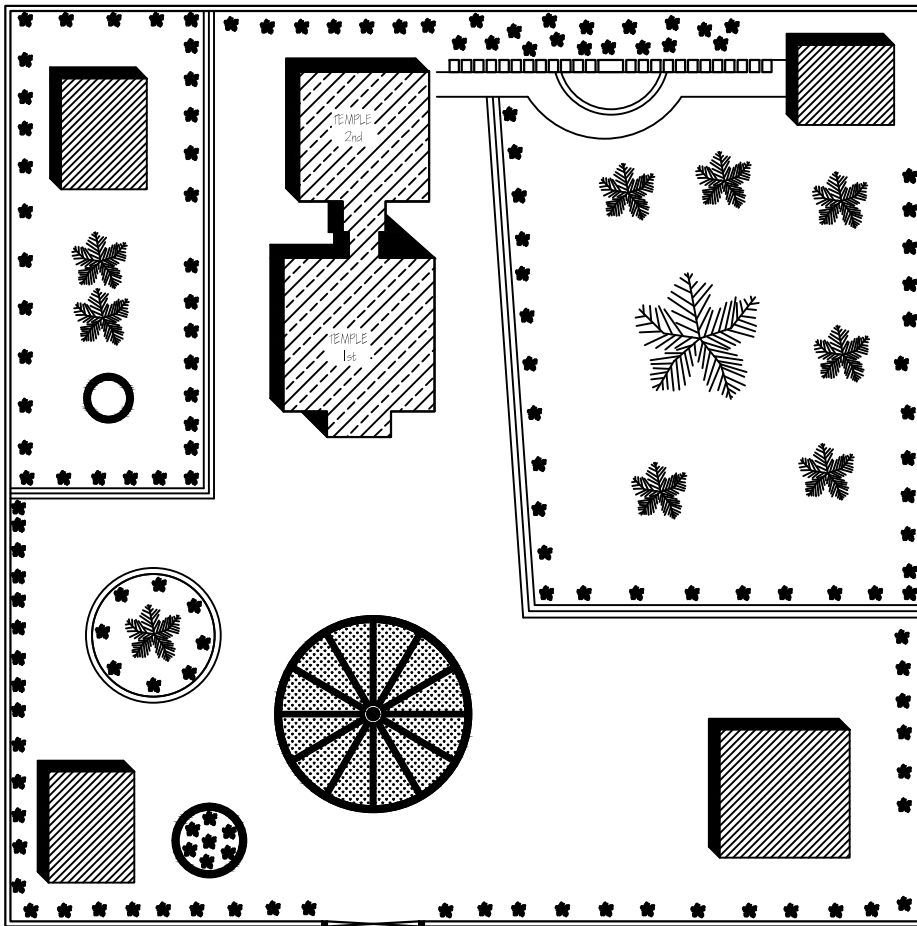
VIEW



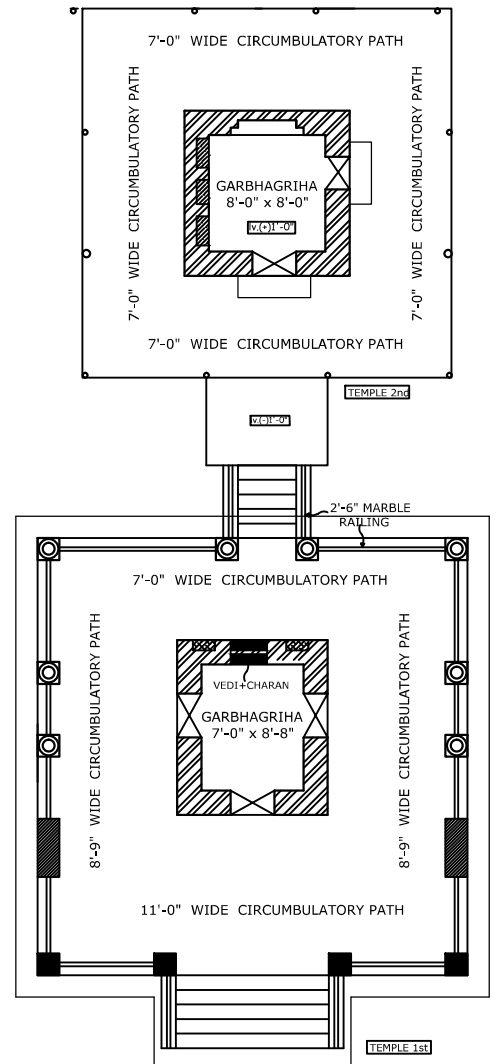
FRONT ELEVATION OF FRONT TEMPLE



FRONT ELEVATION OF BACK TEMPLE



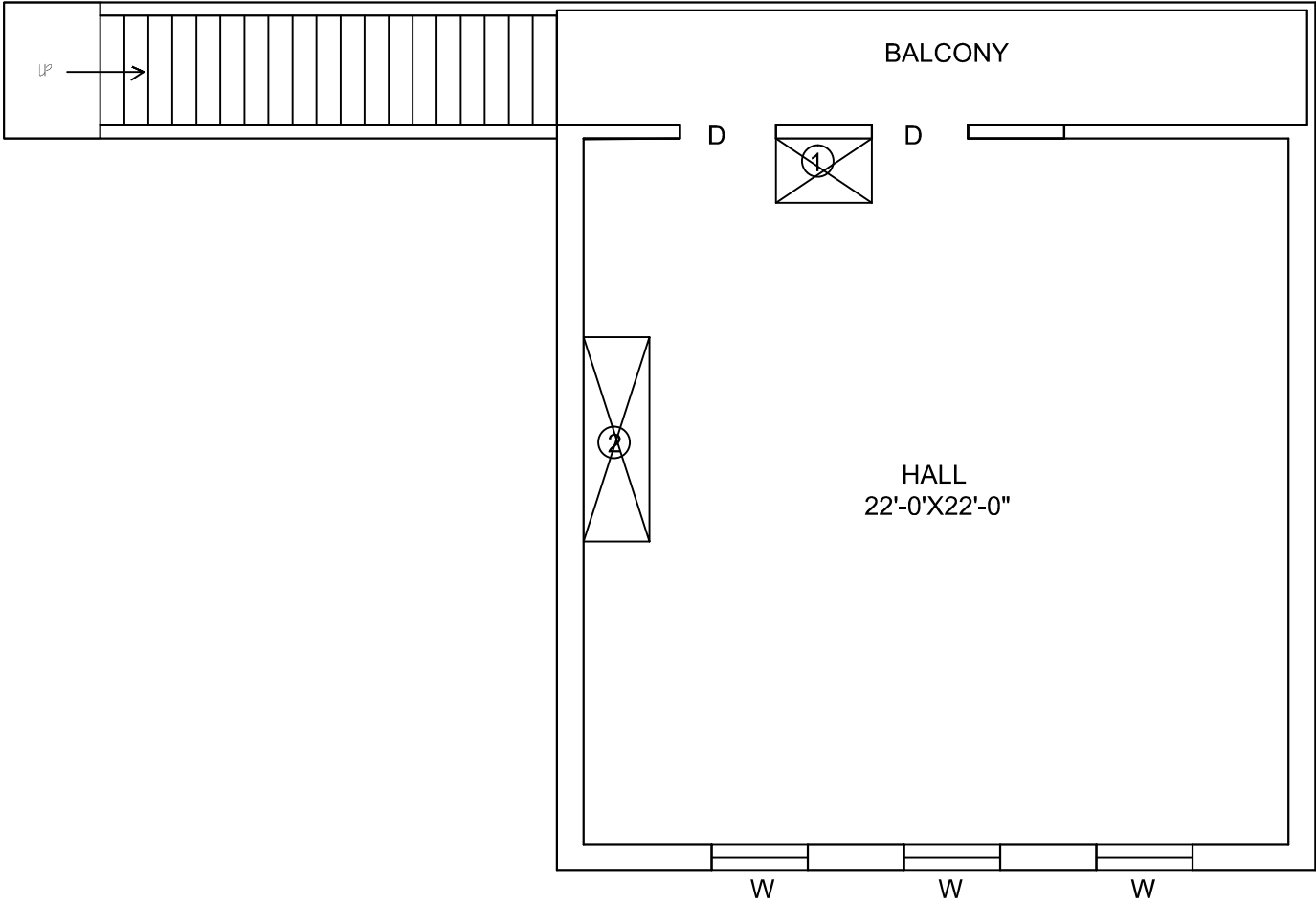
SITE PLAN



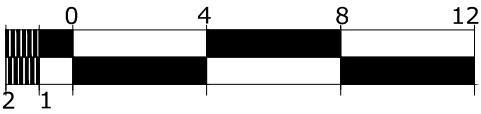
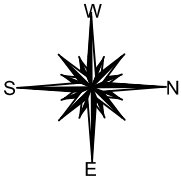
GROUND FLOOR PLAN



SRI DIGAMBAR JAIN CHAITYALAYA, MURADPUR



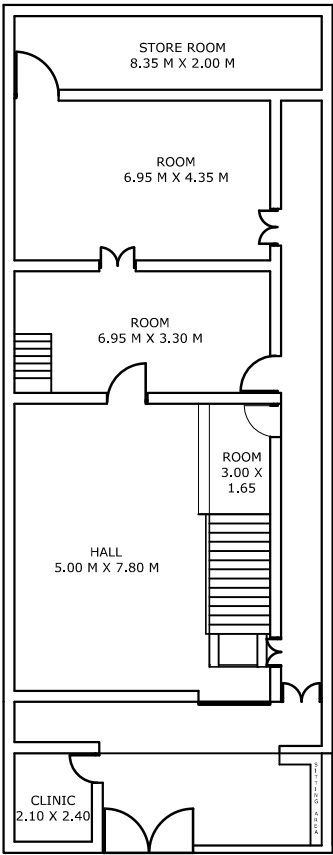
CHAITYALAYA FLOOR PLAN



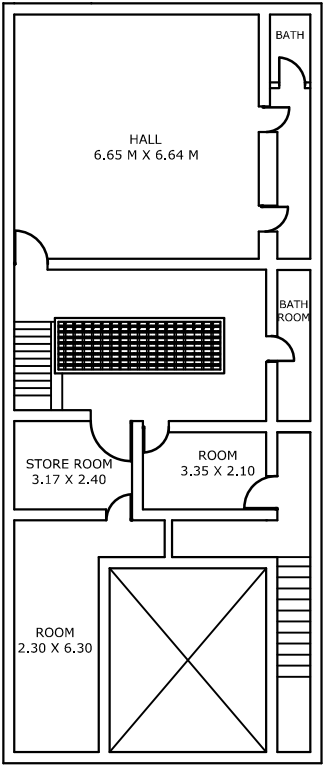
SRI DIGAMBAR JAIN TEMPLE, MITHAPUR



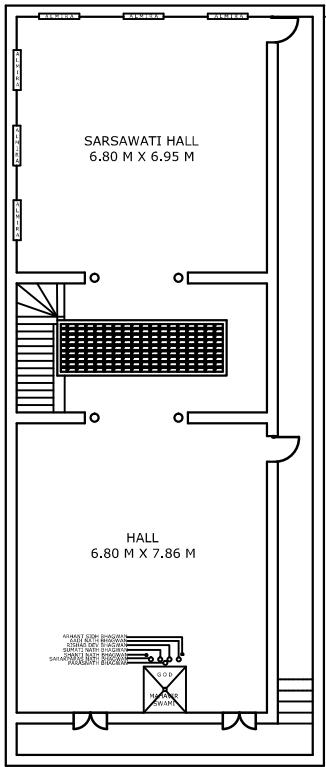
VIEW



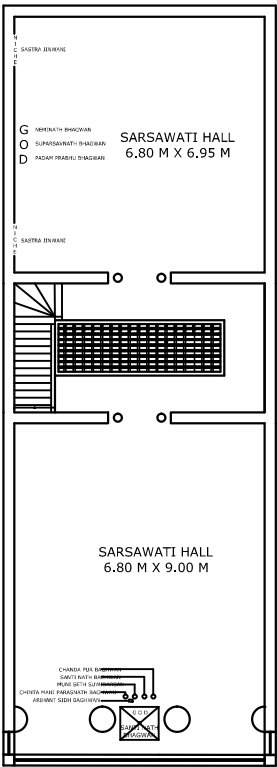
GROUND FLOOR PLAN



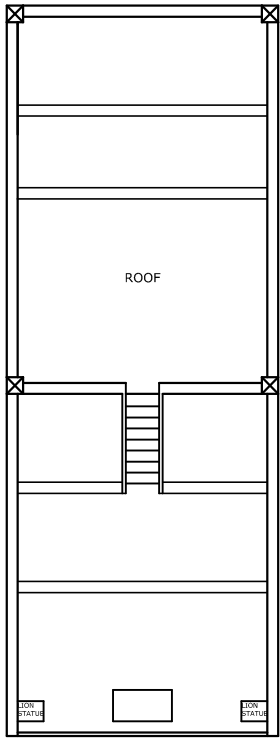
FIRST FLOOR PLAN



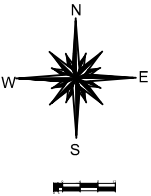
SECOND FLOOR PLAN



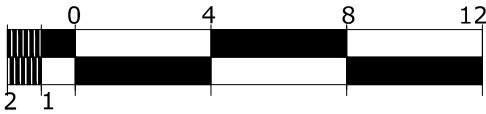
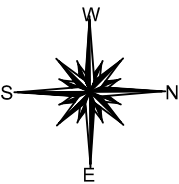
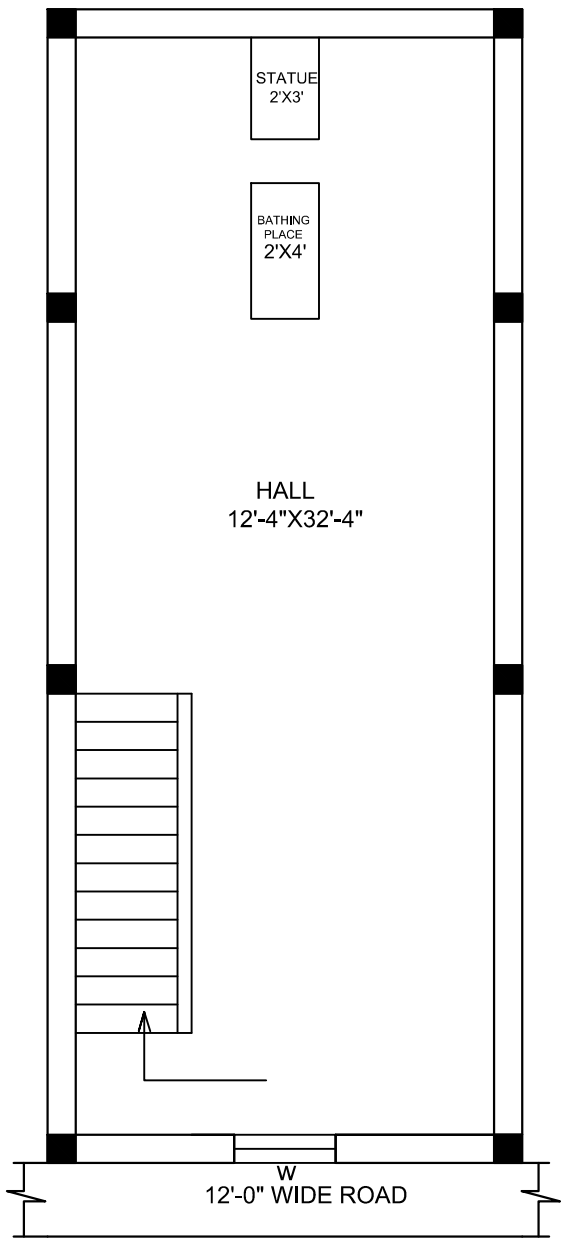
THIRD FLOOR PLAN



TERRACE FLOOR PLAN



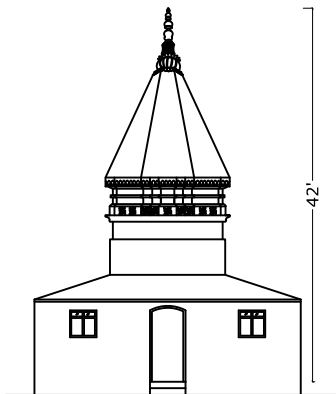
SRI PARSHAVANATH DIGAMBAR JAIN CHAITYALAYA, NALAROAD, PATNA



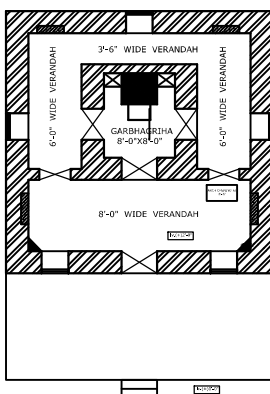
# SRI SUPARSHAVNATH DIGAMBAR JAIN TEMPLE, NAUBATPUR, PATNA



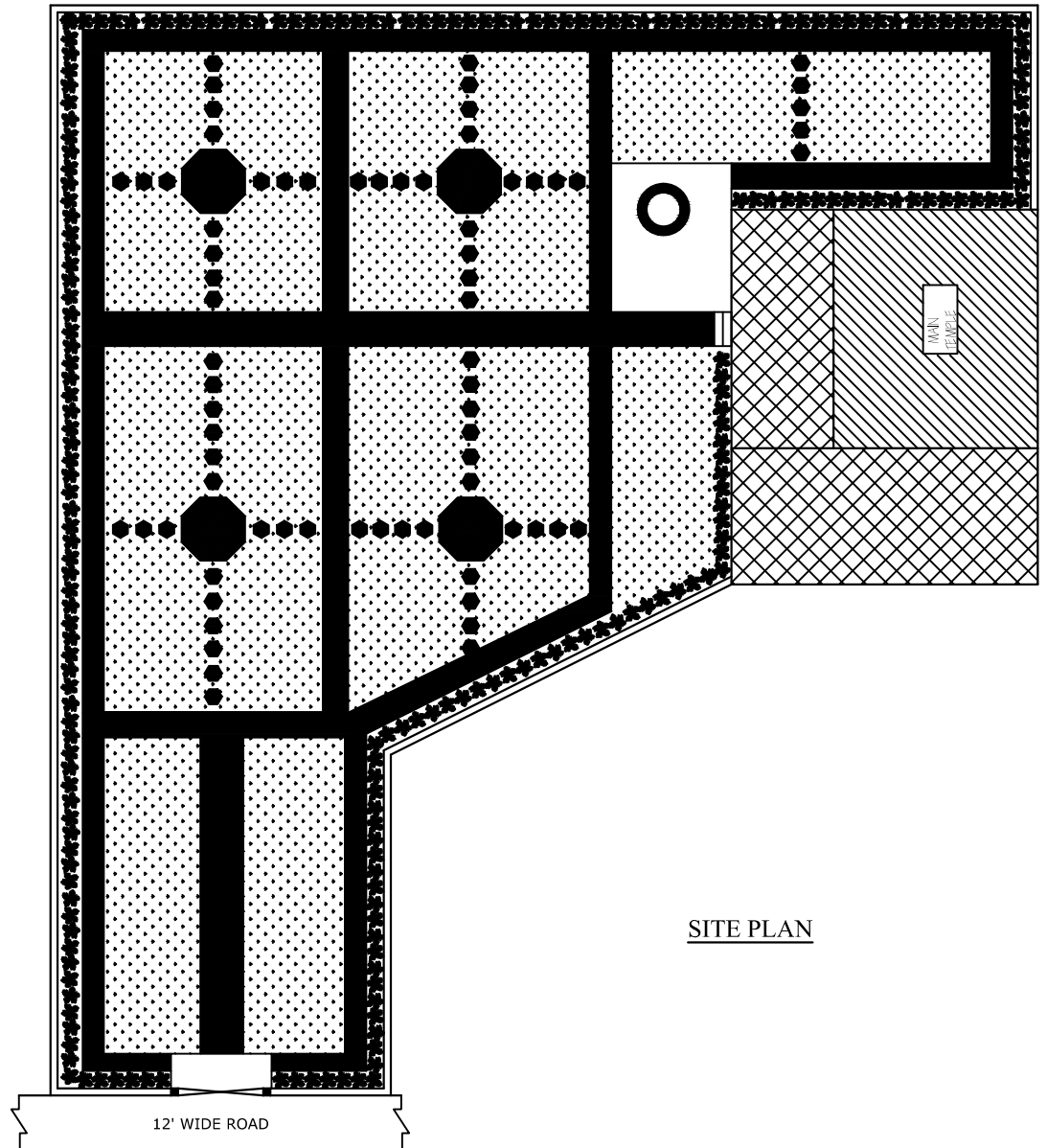
VIEW



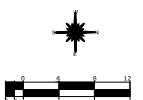
FRONT ELEVATION



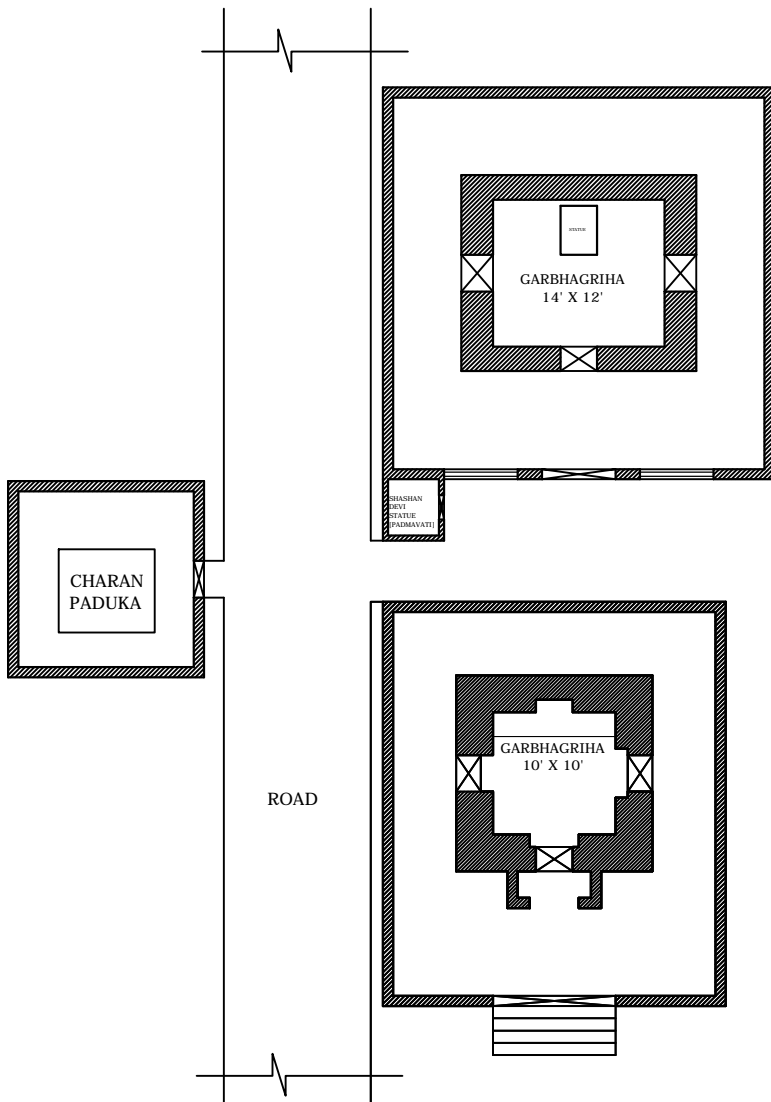
GROUND FLOOR PLAN



SITE PLAN



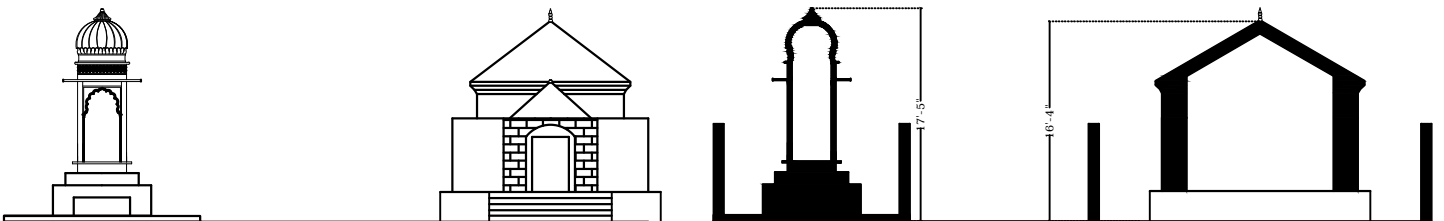
# BAMAPUR TEMPLE, VAISHALI



PLAN

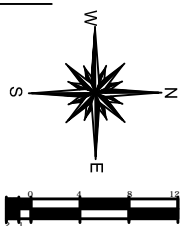


VIEW



ELEVATION

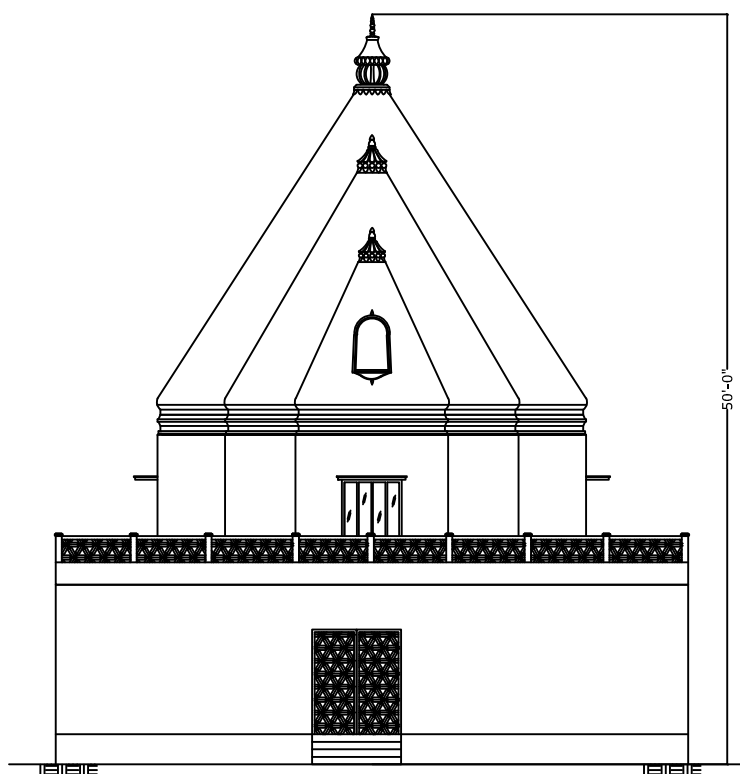
TYPICAL SECTION



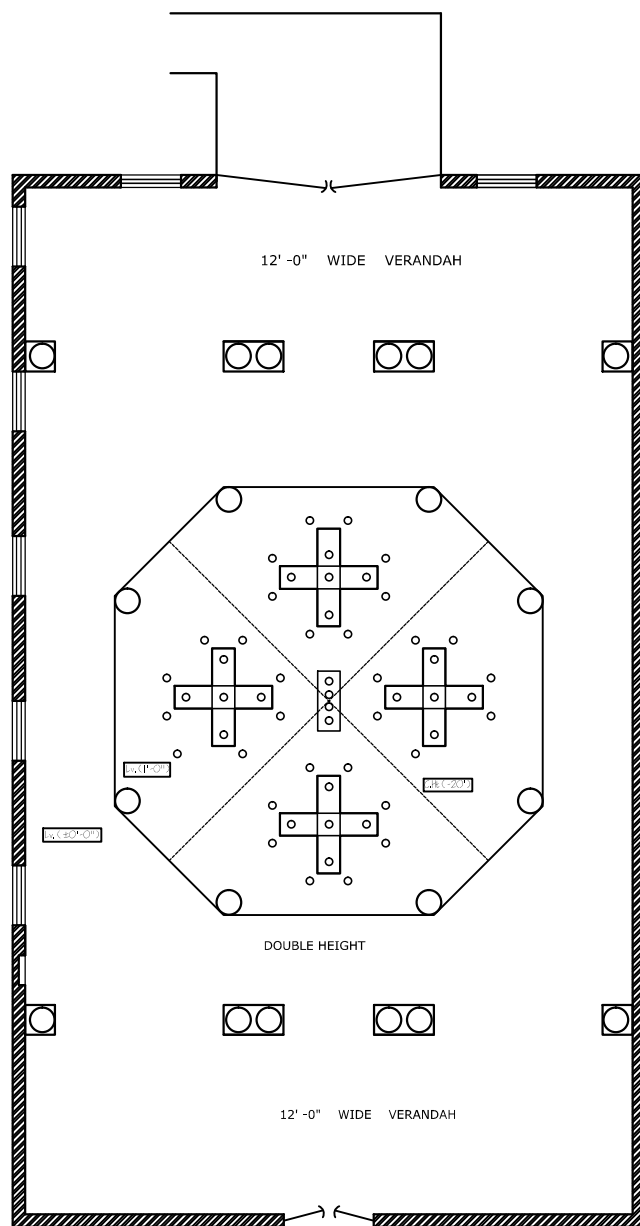
SRI 1008 PARSHAVNATH DIGAMBAR JAIN TEMPLE, ARRAH



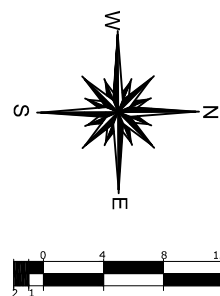
VIEW



ELEVATION



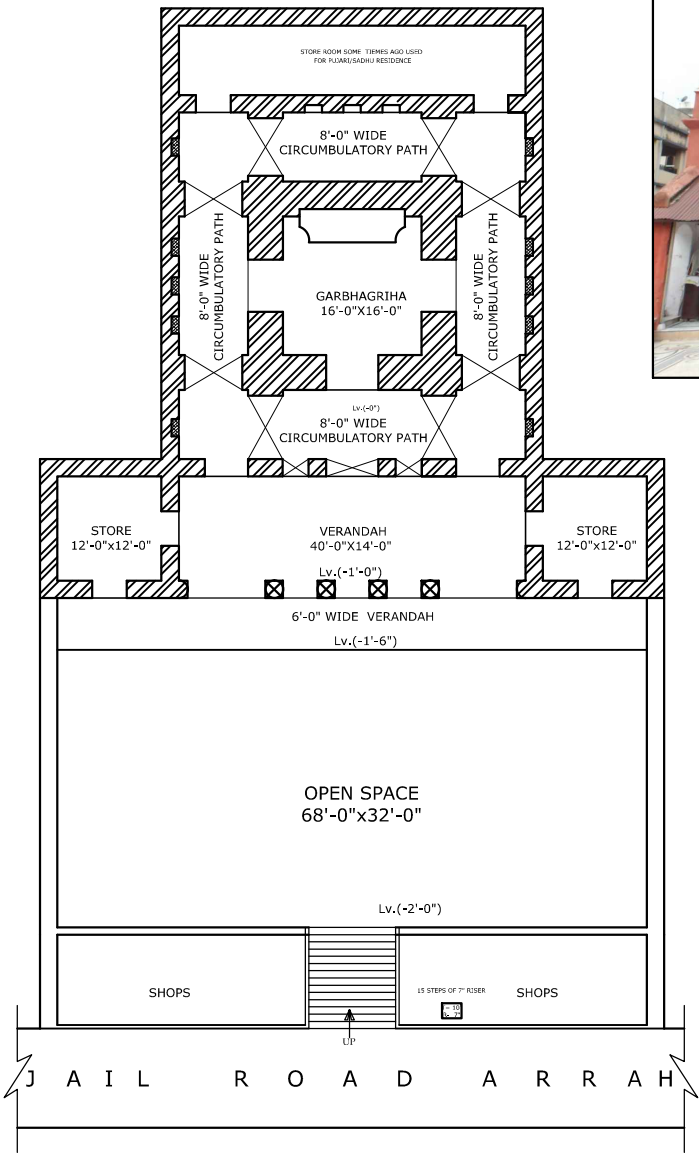
PLAN



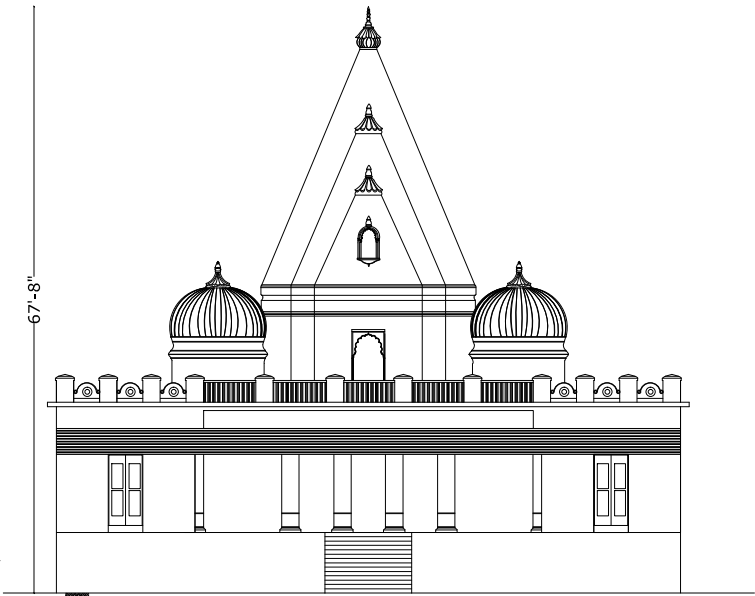
SRI 1008 THIRTHKAR SHANTINATH DIGAMBAR JAIN TEMPLE, ARRAH



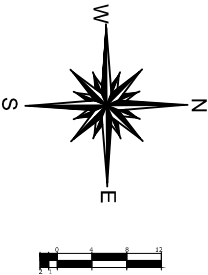
VIEW



PLAN

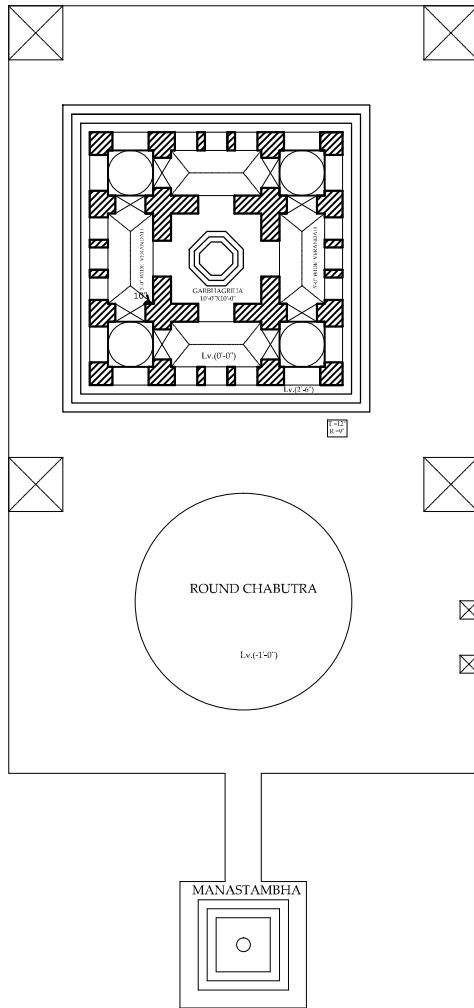


ELEVATION





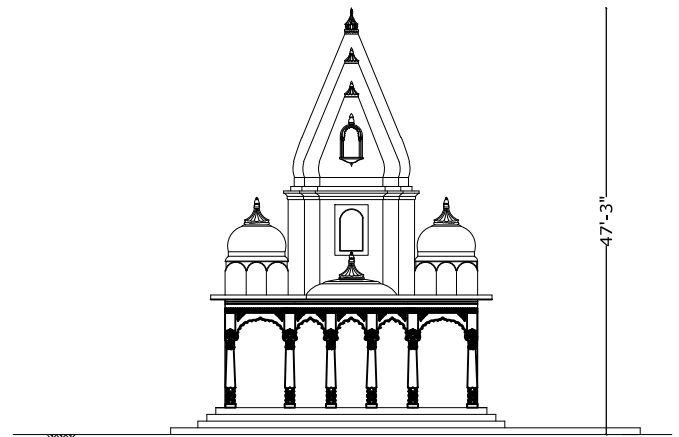
# SRI CHANDRA PRABHU DIGAMBAR JAIN TEMPLE, ARRAH



PLAN

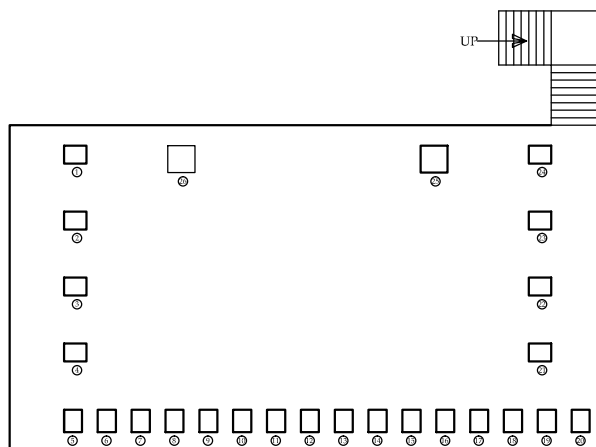


VIEW

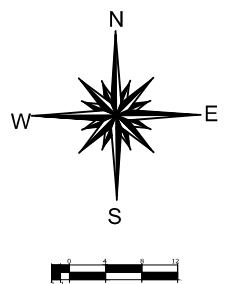


ELEVATION

- (1). - Sri Rishabhdev ji
- (2). - Sri Ajitnath ji
- (3). - Sri Shambhnath ji
- (4). - Sri Abhinandannath ji
- (5). - Sri Sumatinath ji
- (6). - Sri Padamprabhu ji
- (7). - Sri Supaswarnath ji
- (8). - Sri Chandra Prabhu ji
- (9). - Sri Puspduktnath ji
- (10). - Sri Shitalnath ji
- (11). - Sri Shrayanshnath ji
- (12). - Sri Vasupujyanath ji
- (13). - Sri Vimalnath ji
- (14). - Sri Anantnath ji
- (15). - Sri Dharmnath ji
- (16). - Sri Santinath ji
- (17). - Sri Akununath ji
- (18). - Sri Arashnath ji
- (19). - Sri Mallinath ji
- (20). - Sri Munisubratnath ji
- (21). - Sri Naminath ji
- (22). - Sri Neminath ji
- (23). - Sri Paswaranath ji
- (24). - Sri Mahavir Swami ji



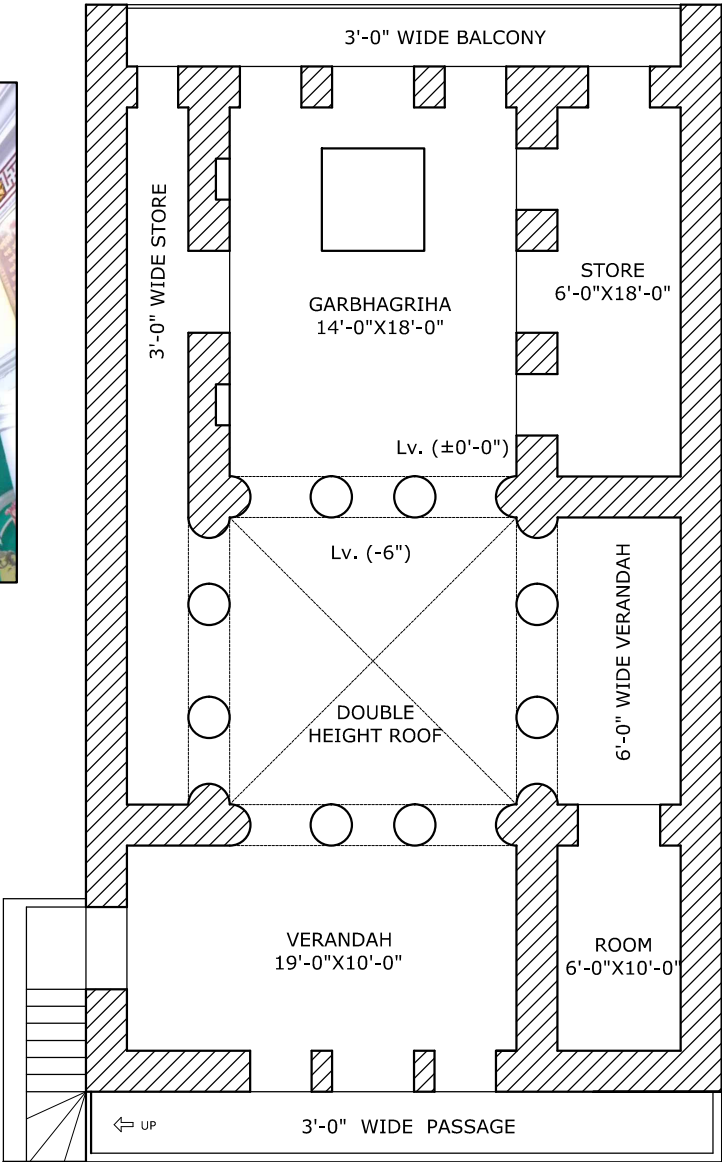
PLAN



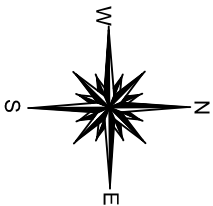
SRI DIGAMBAR JAIN CHANDRAPRABHU CHAITYALAYA, ARRAH



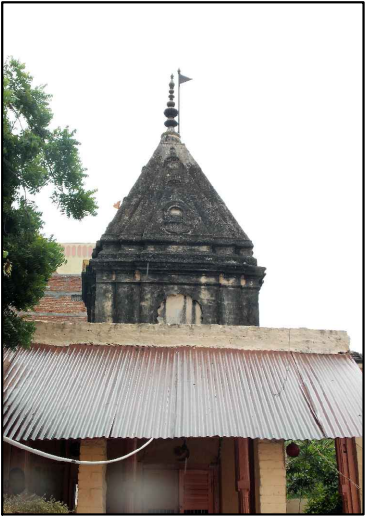
INTERIOR VIEW



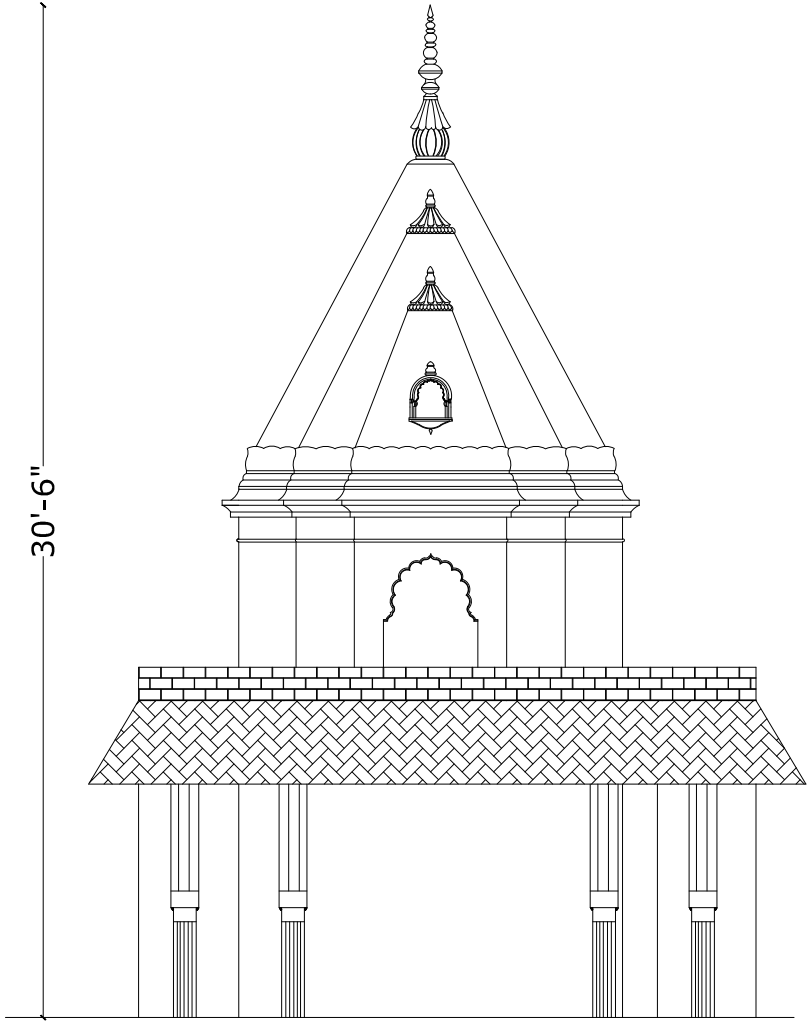
FIRST FLOOR PLAN



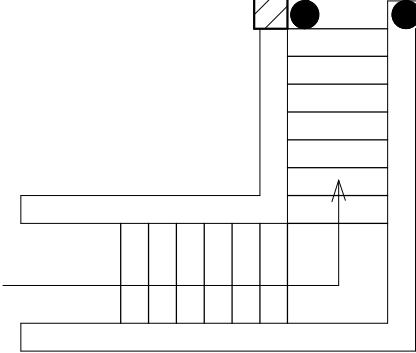
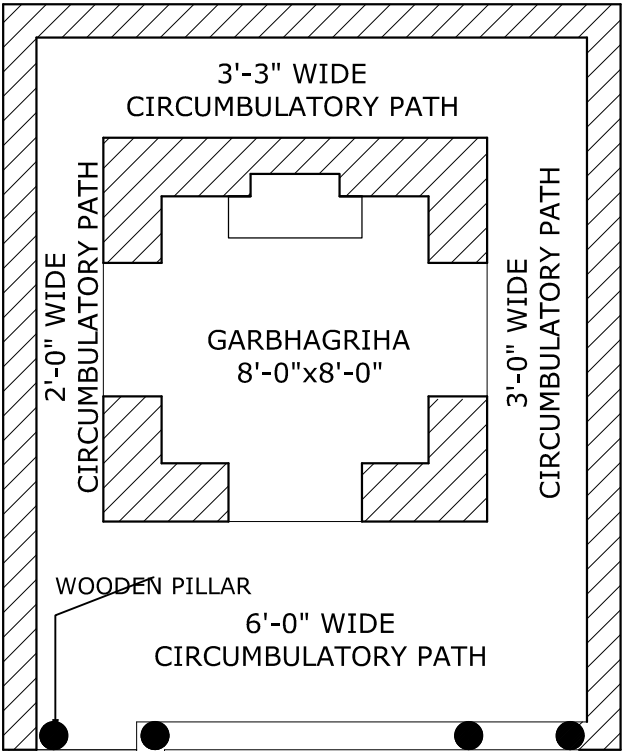
SRI DIGAMBAR JAIN MAHAVIR SWAMI CHAITYALAYA, ARRAH



VIEW

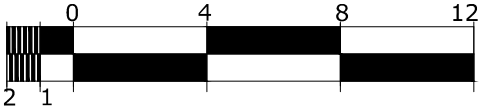
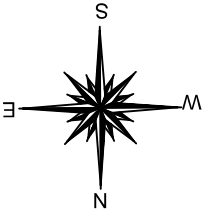


ELEVATION



TERRACE

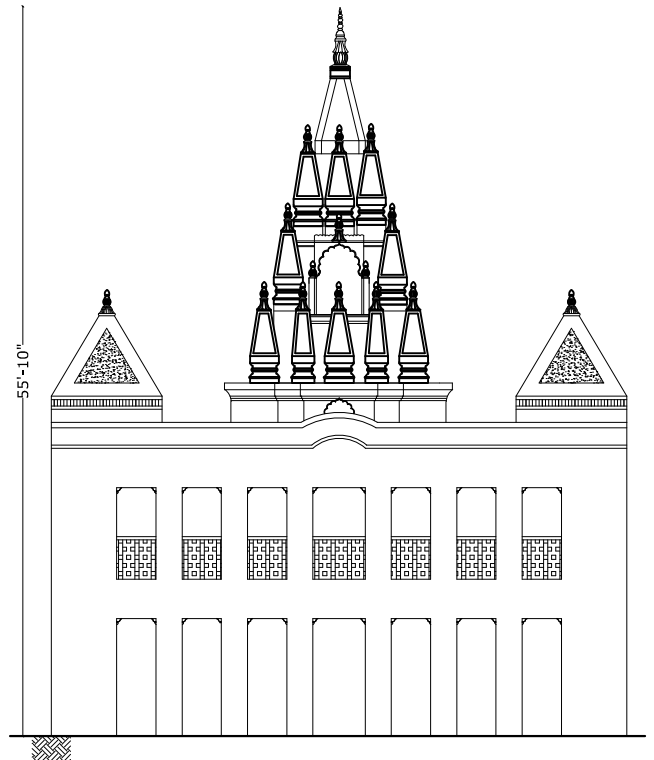
PLAN



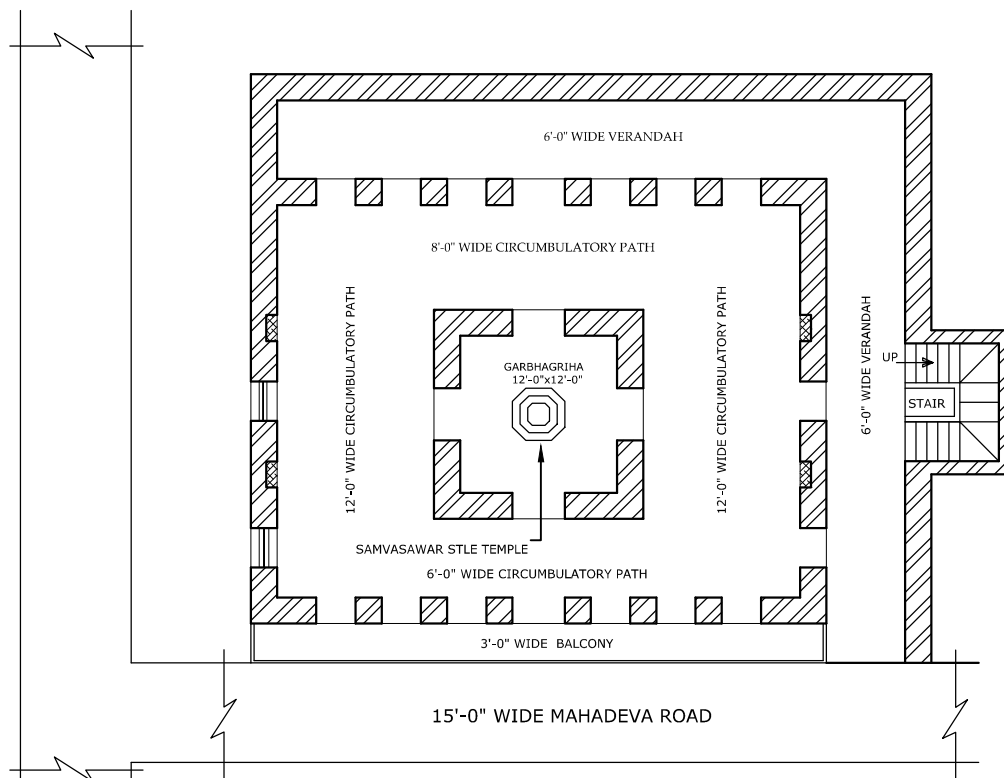
# SRI DIGAMBAR JAIN PRABHUDAS TEMPLE, ARRAH



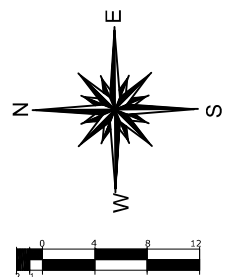
VIEW



ELEVATION



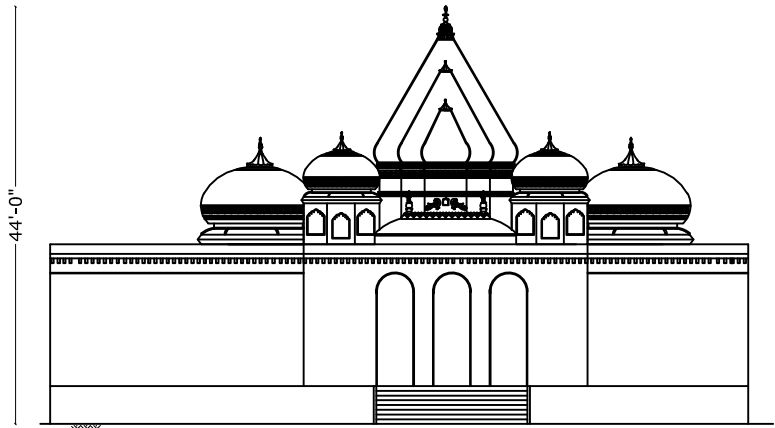
FIRST FLOOR PLAN



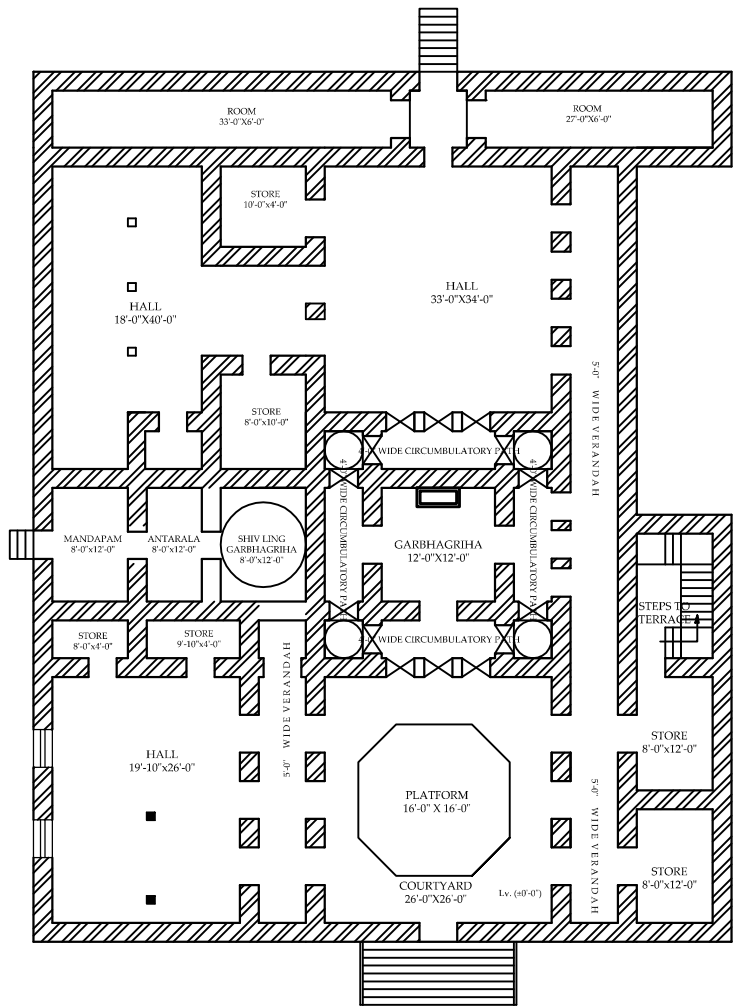
SRI PARSWANATH DIGAMBER JAIN TEMPLE, MASADH, ARRAH



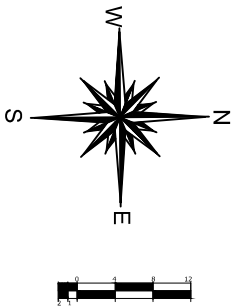
VIEW



ELEVATION



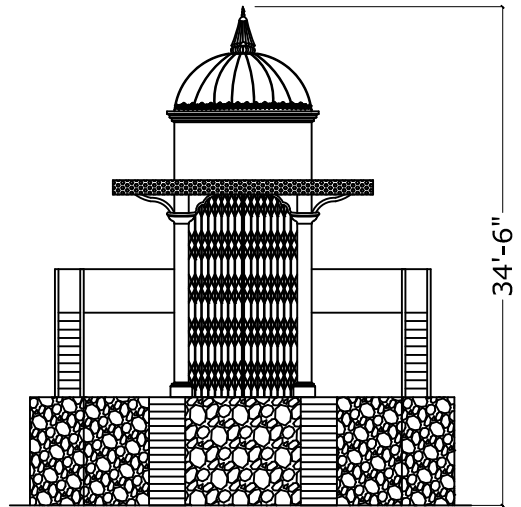
PLAN



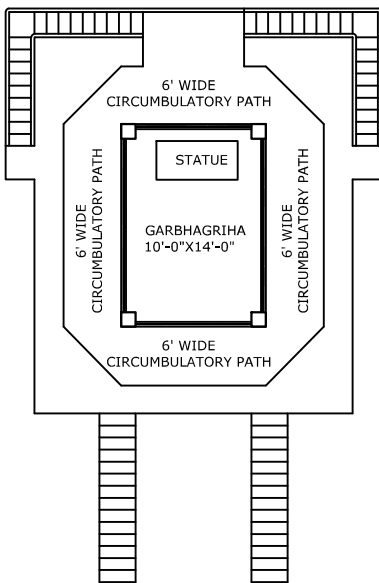
# SRI JAIN BALA TEMPLE, BISRAM, ARRAH



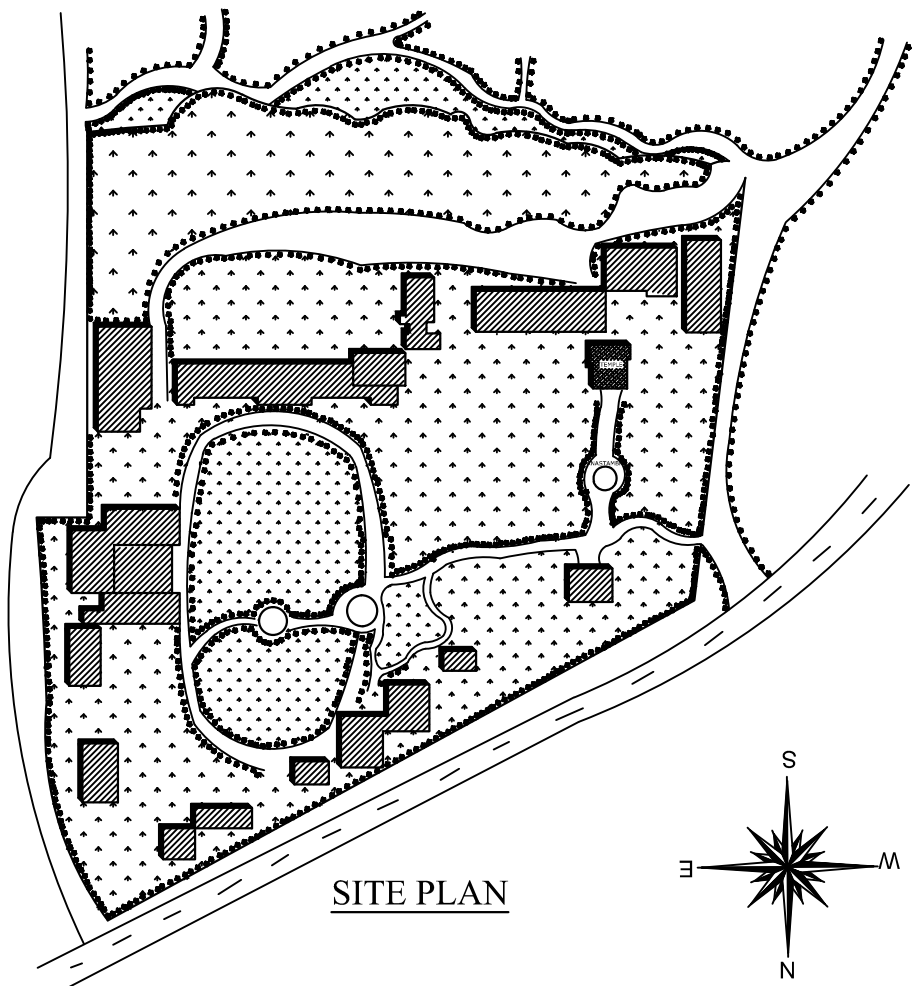
VIEW



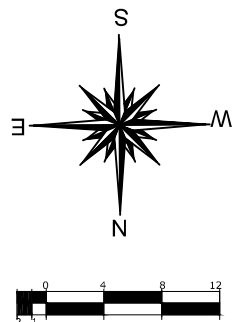
ELEVATION



PLAN



SITE PLAN

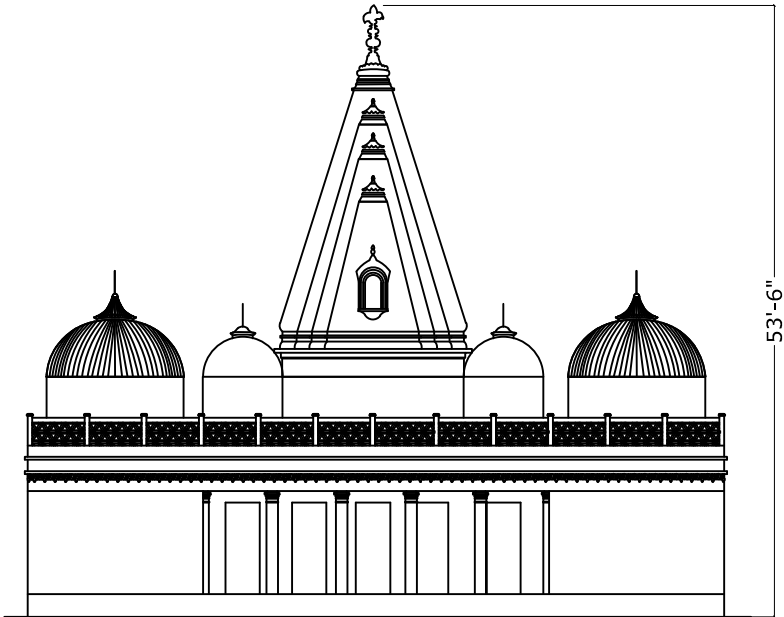




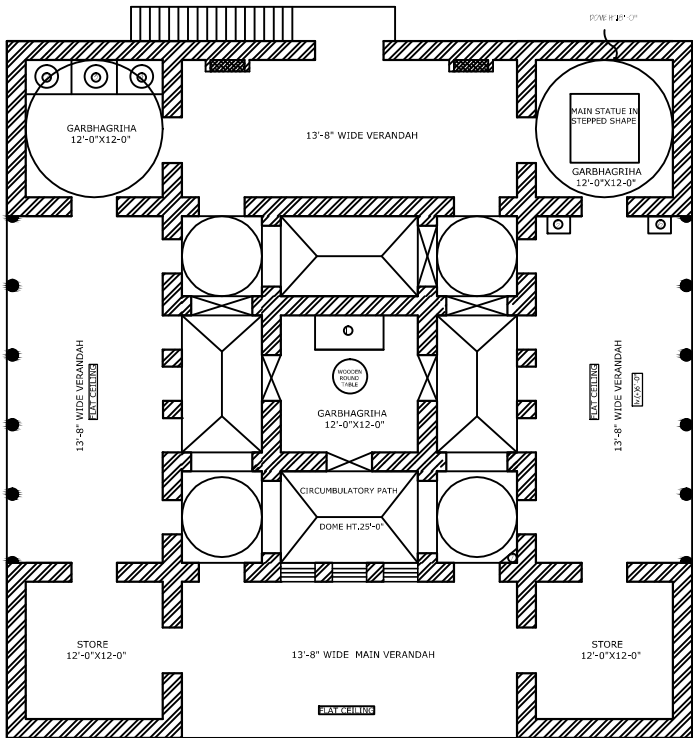
SRI ADINATH DIGAMBER JAIN TEMPLE, DHANUPURA, ARRAH



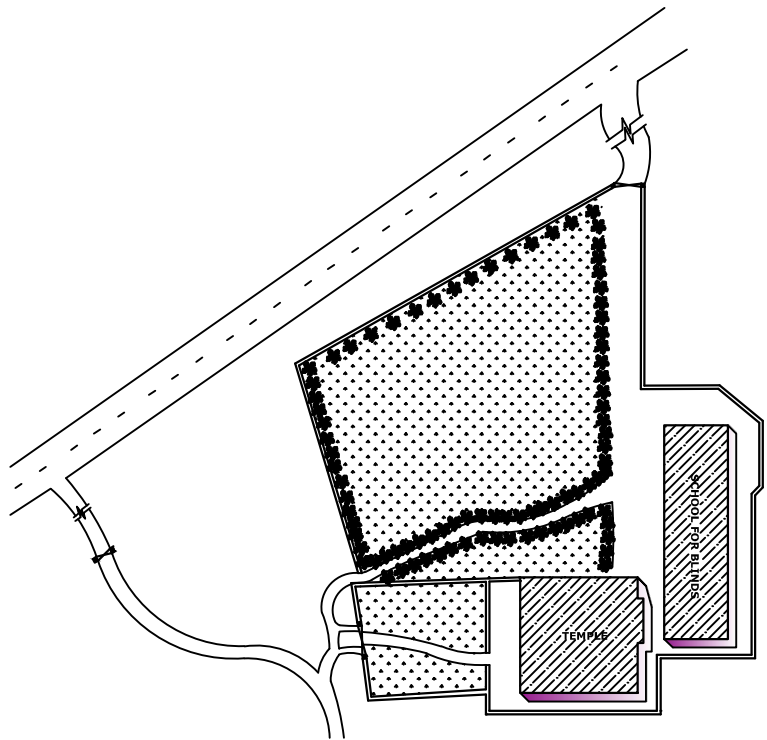
VIEW



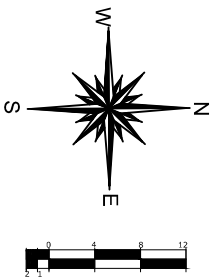
FRONT ELEVATION



PLAN



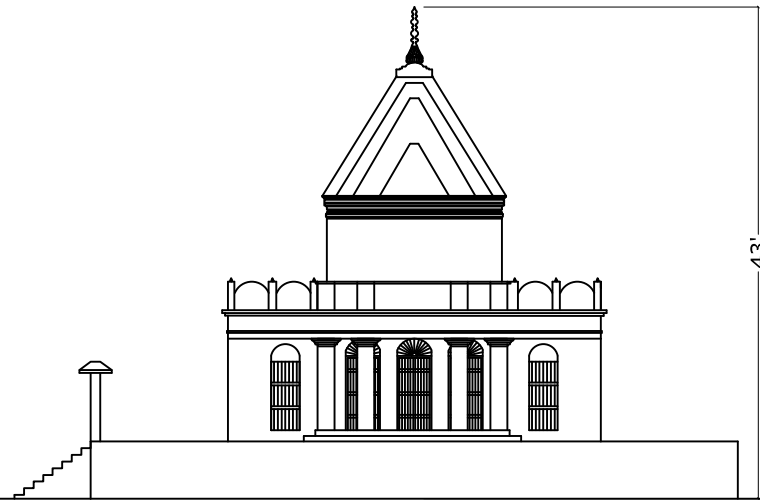
SITE PLAN



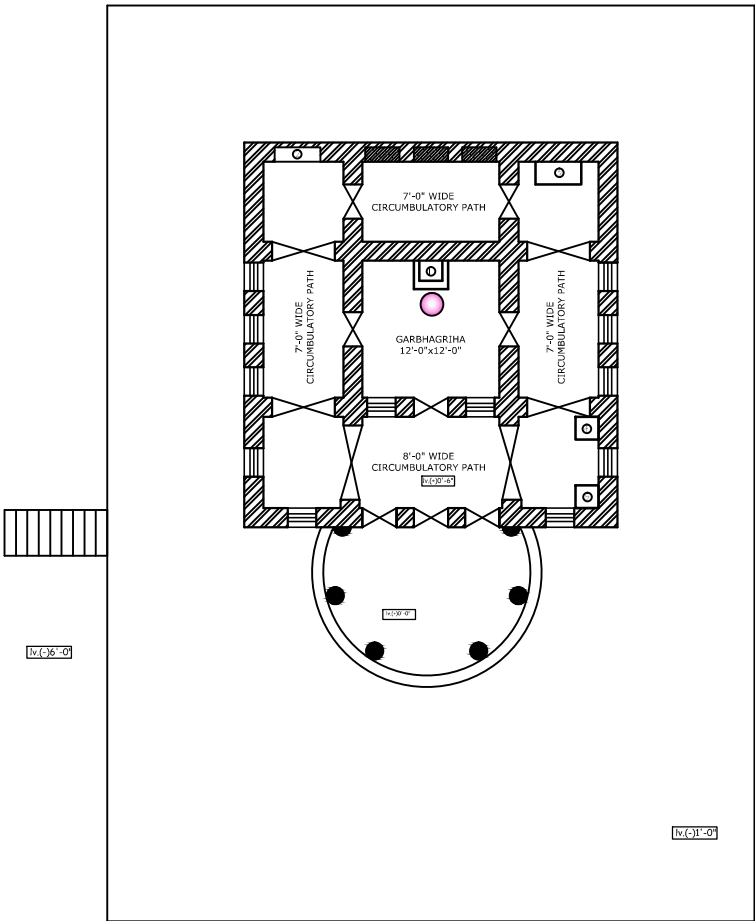
SRI MAHAVIR SWAMI DIGAMBER JAIN TEMPLE, DHANUPURA, ARRAH



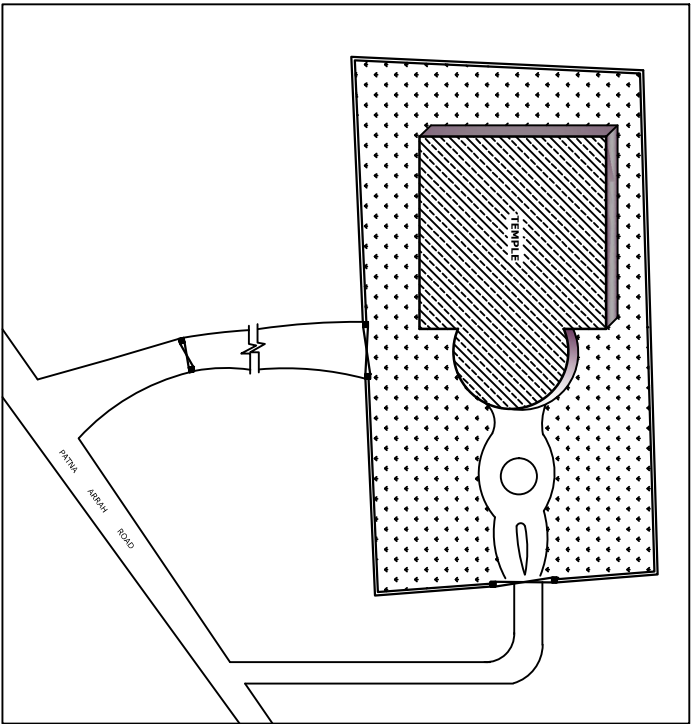
VIEW



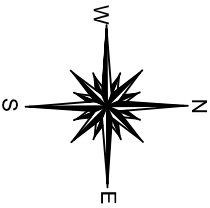
ELEVATION



PLAN



SITE PLAN





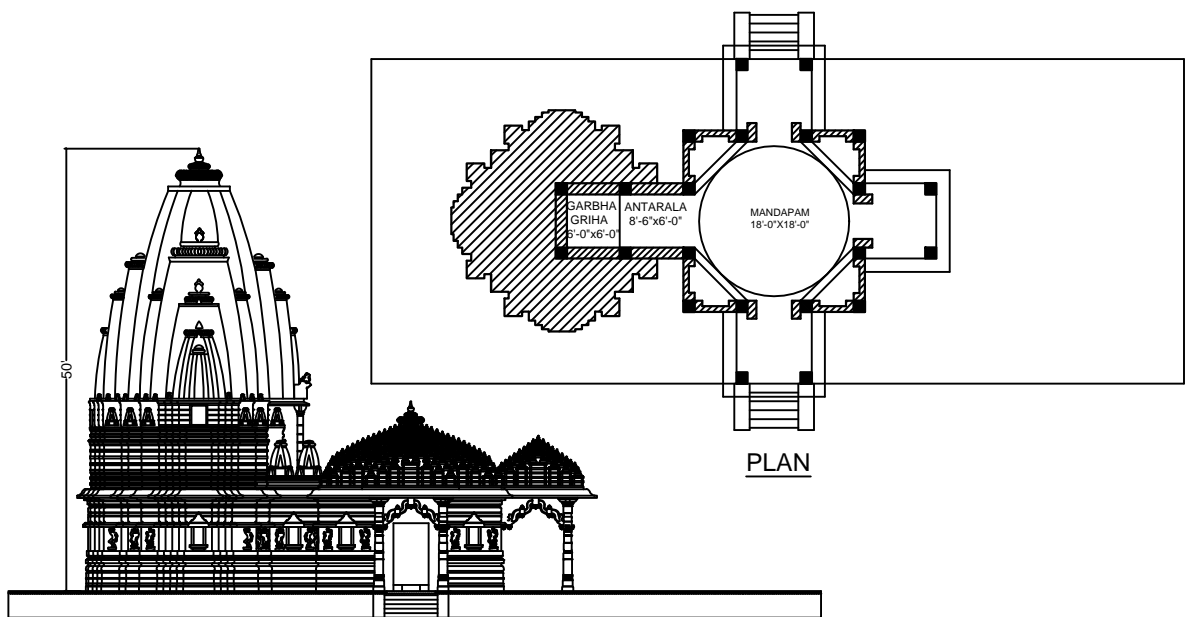
# SRI SWETAMBER JAIN TEMPLE, KSHATRIYAKUND, LACHHUAR



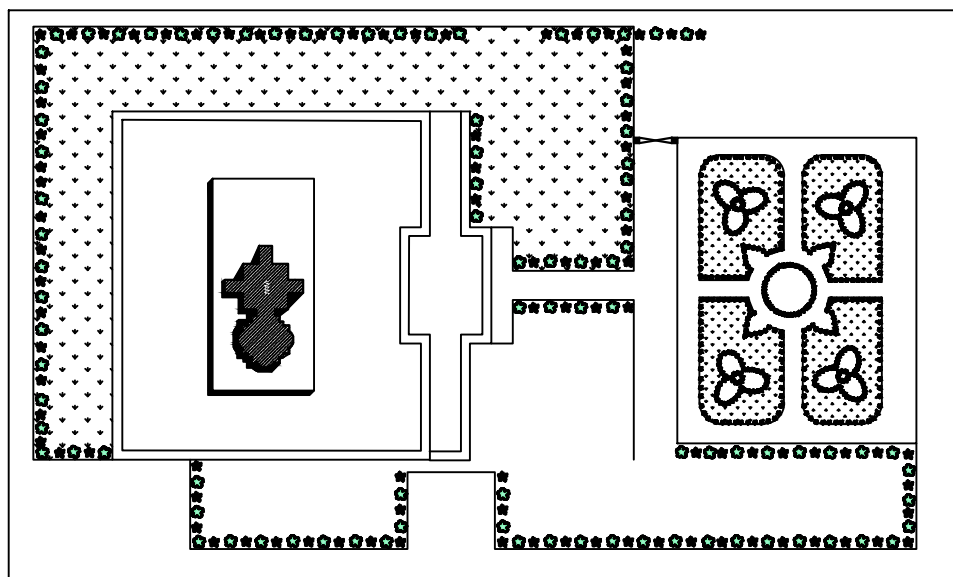
VIEW



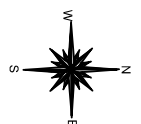
VIEW



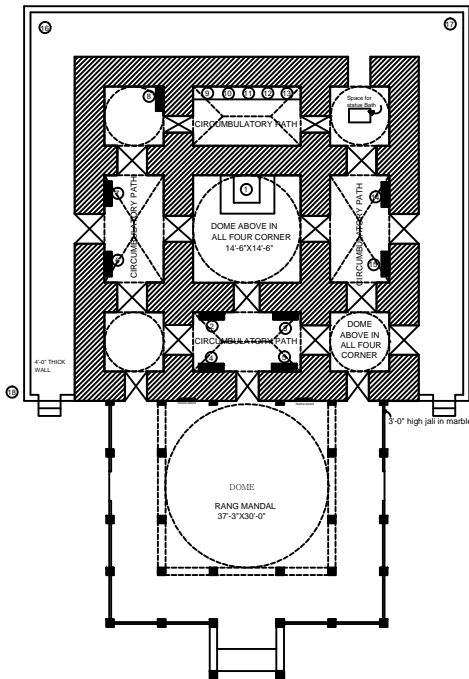
SIDE ELEVATION



SITE PLAN



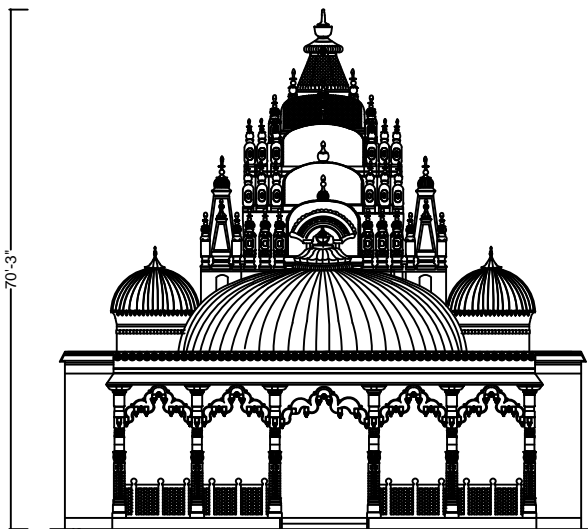
# SRI SWETAMBER JAIN TEMPLE, LACHHUAR



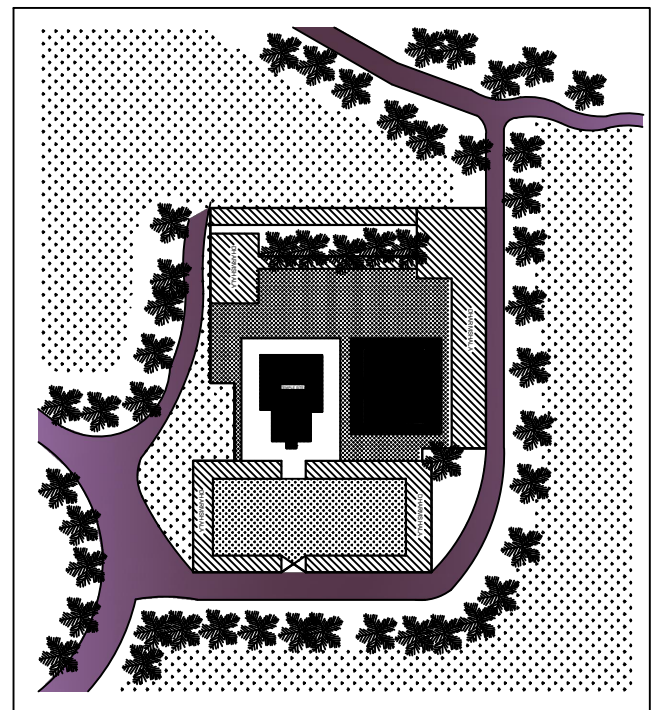
PLAN



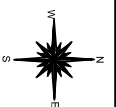
VIEW



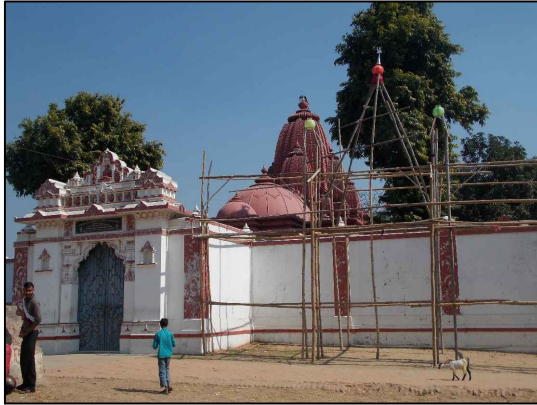
FRONT ELEVATION



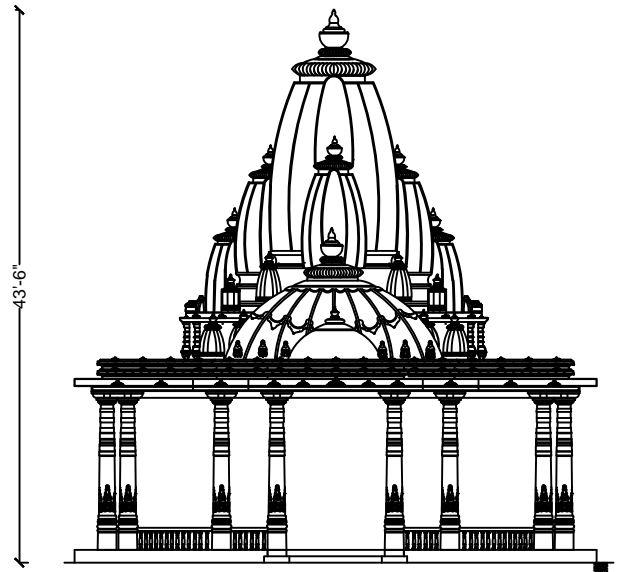
SITE PLAN



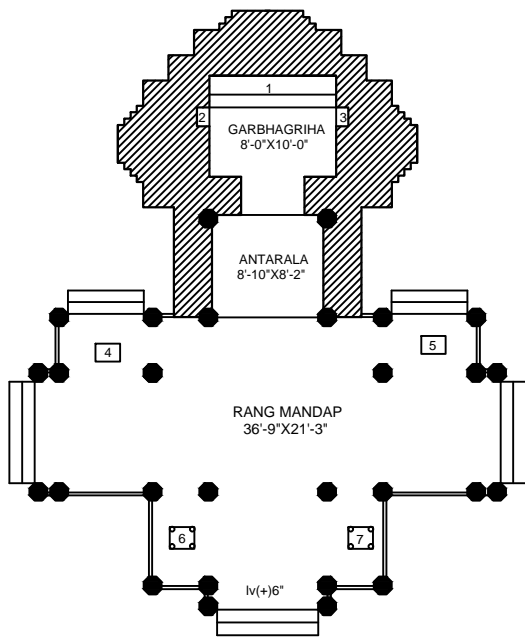
# SRI SWETAMBER JAIN TEMPLE, KAKAN



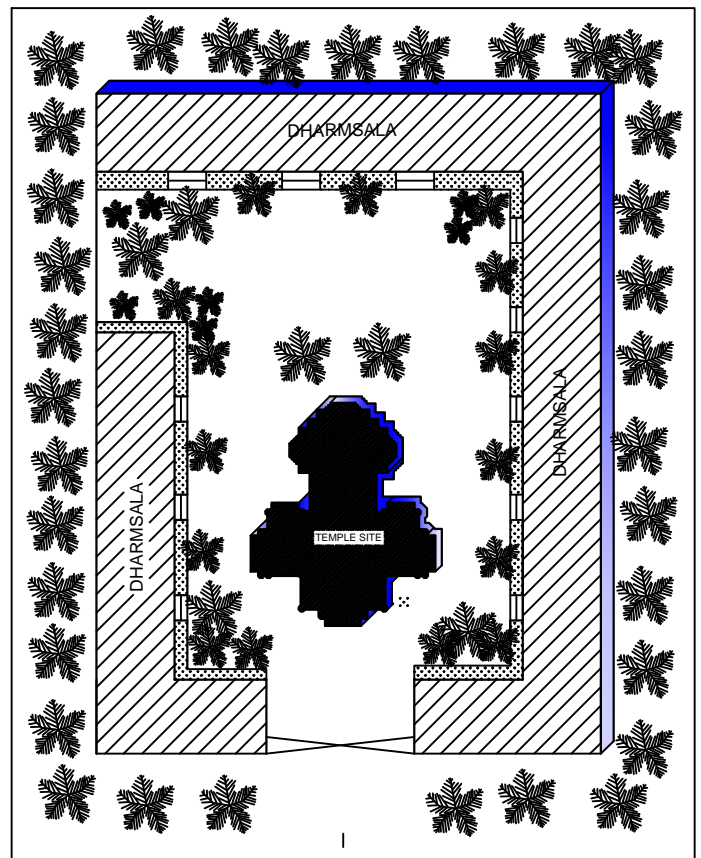
VIEW



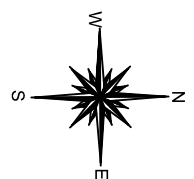
FRONT ELEVATION



PLAN



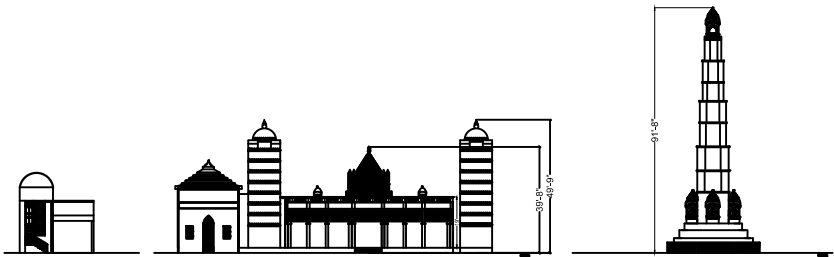
SITE PLAN



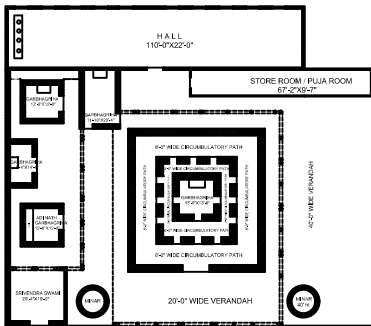
SRI CHAMPAPUR DIGAMBAR JAIN SIDDHA KHETRA BADA MANDIR, NATHNAGAR, BHAGALPUR



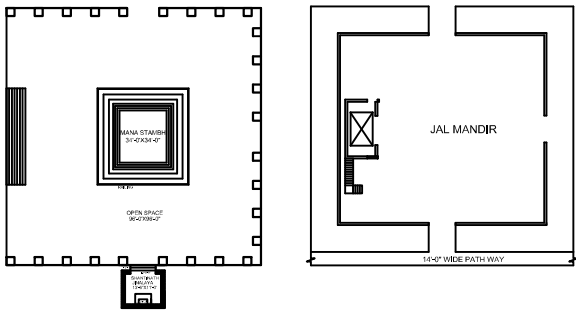
VIEW



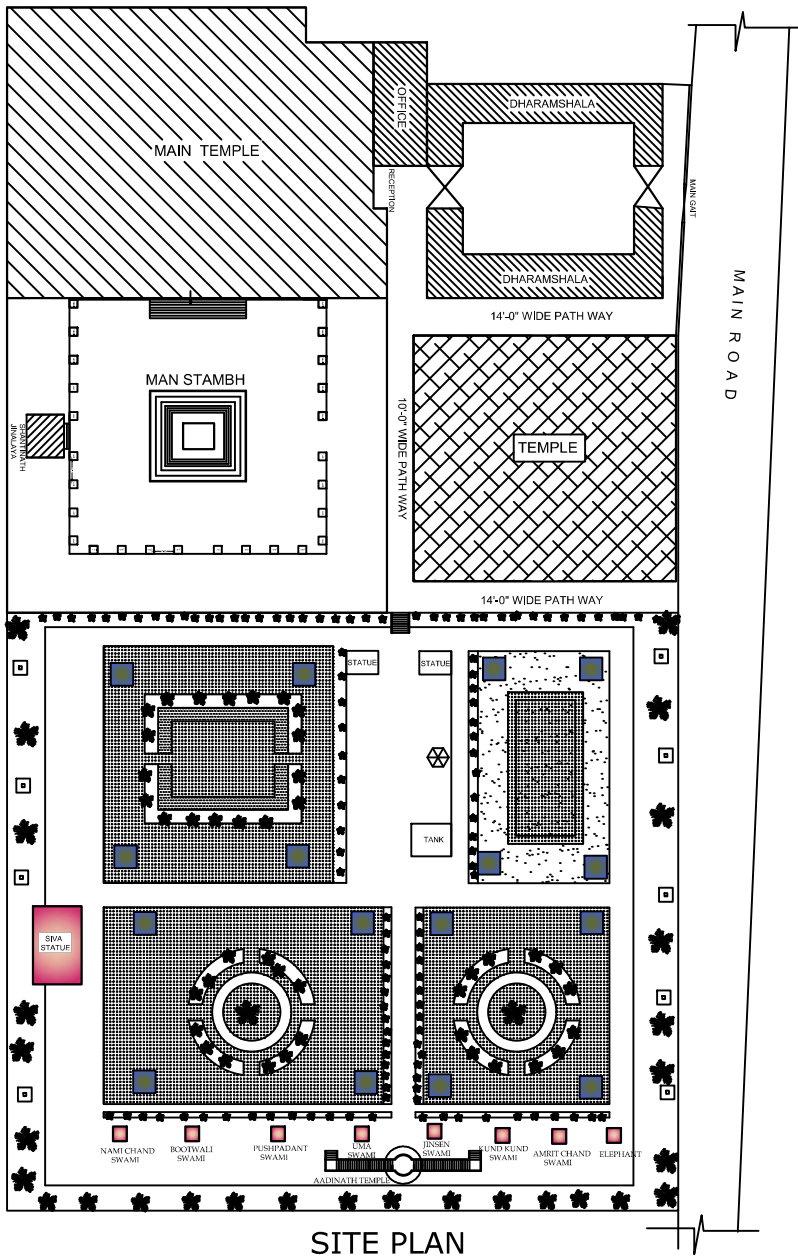
ELEVATION



MAIN TEMPLE PLAN



PLAN OF MANASTAMBHA & JAL MANDIR



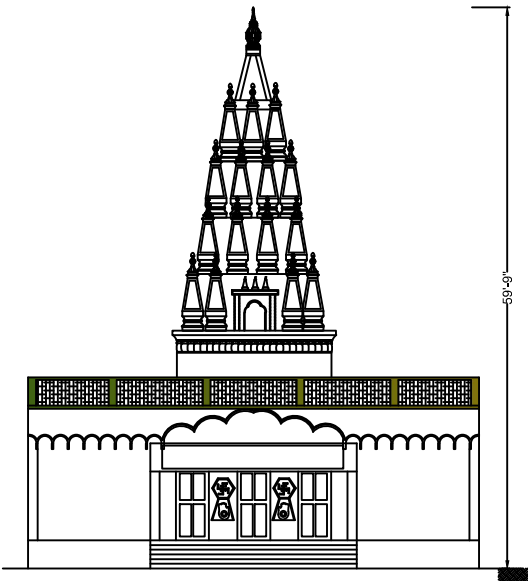
SITE PLAN



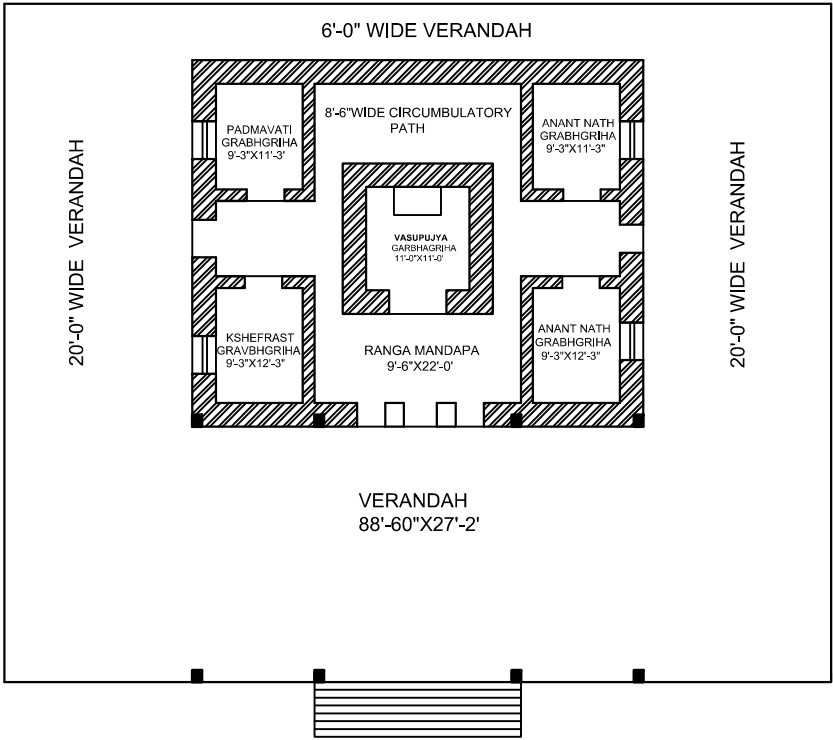
SRI VASUPUJYA SWAMI JAIN TEMPLE, NATHNAGAR, BHAGALPUR



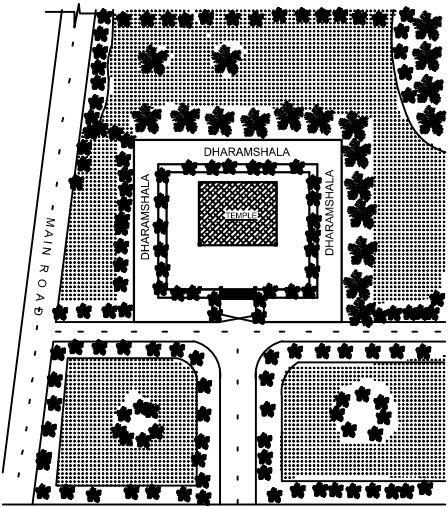
VIEW



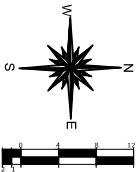
FRONT ELEVATION



PLAN



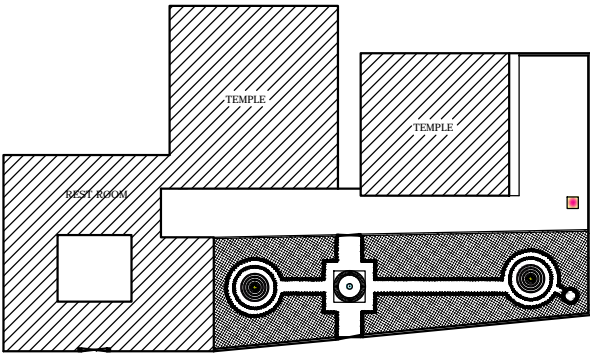
SITE PLAN



SRI VASUPUJYA SWAMI SWETAMBAR JAIN TEMPLE, CHAMPANAGAR, BHAGALPUR



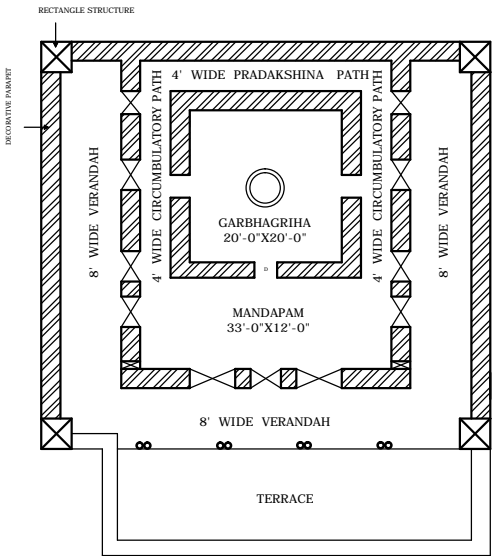
VIEW



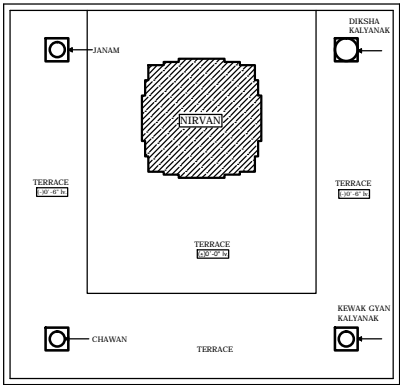
SITE PLAN



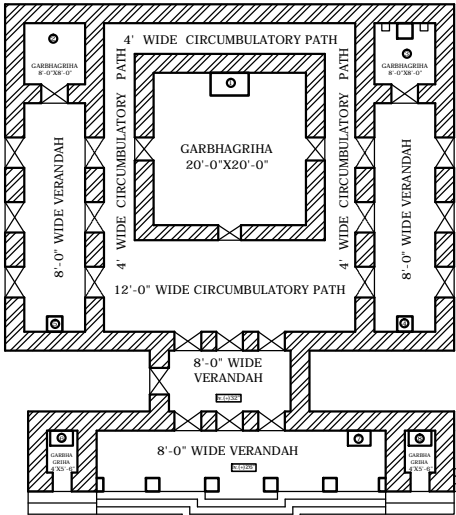
ELEVATION



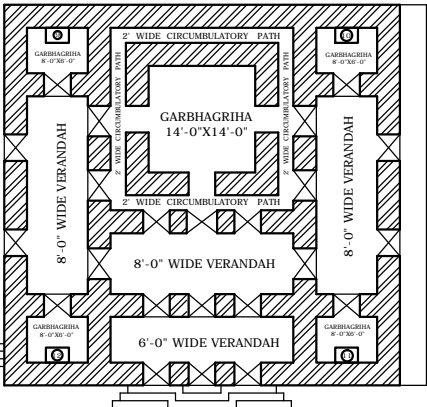
FIRST FLOOR PLAN SAMVARSHAN TEMPLE (FRONT TEMPLE)



ROOF PLAN  
(REAR TEMPLE)

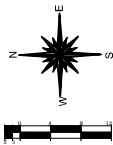


GROUND FLOOR PLAN  
FRONT TEMPLE

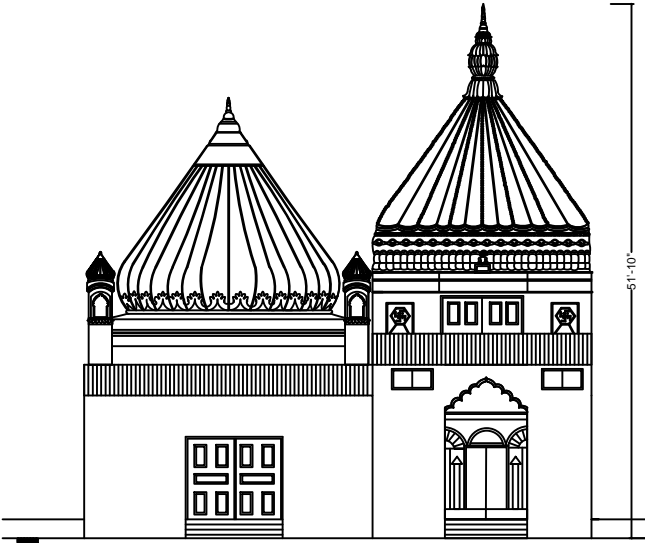


GROUND FLOOR PLAN  
REAR TEMPLE

XXXIX



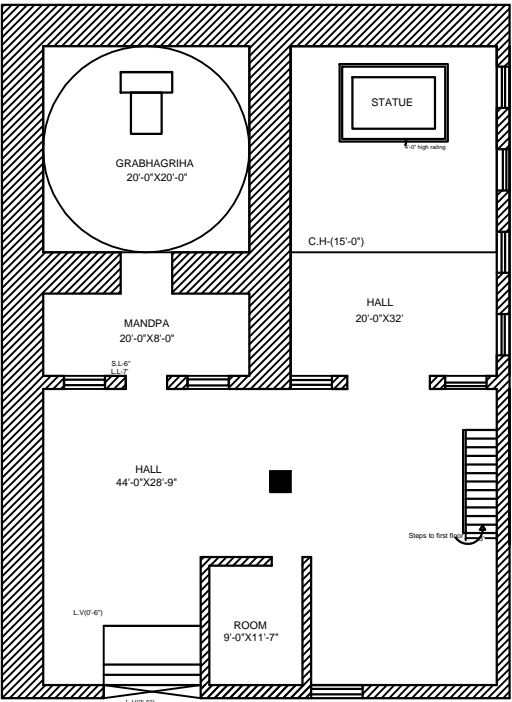
SRI DIGAMBAR JAIN SIDDHA KSHETRA MOKSHA KALYANAK TEMPLE, BANKA



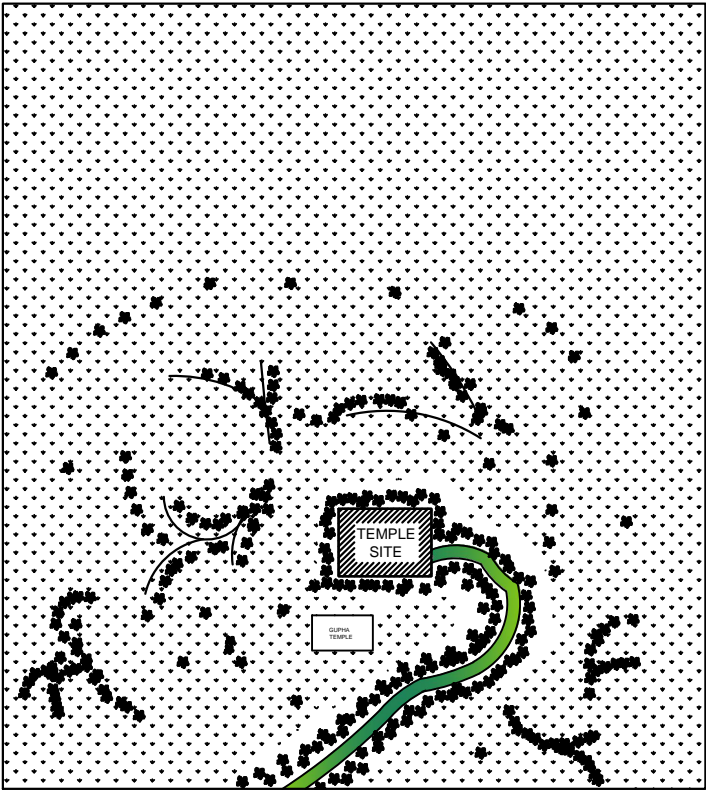
FRONT ELEVATION



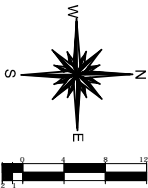
VIEW



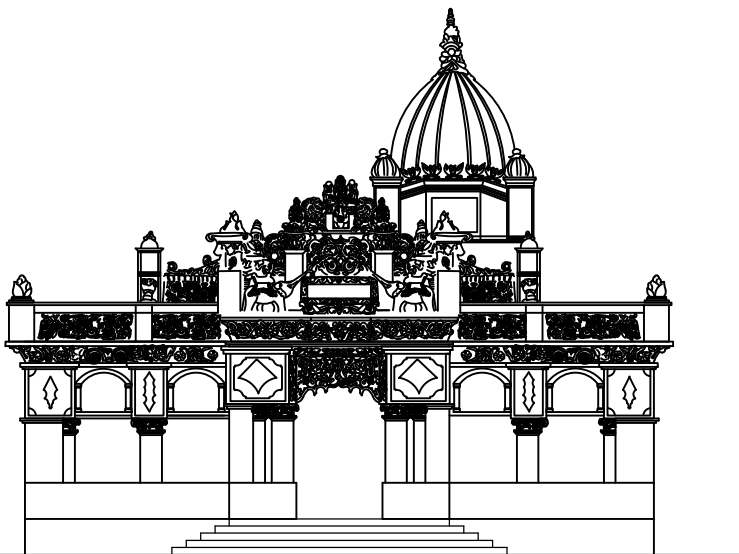
GROUND FLOOR PLAN



SITE PLAN



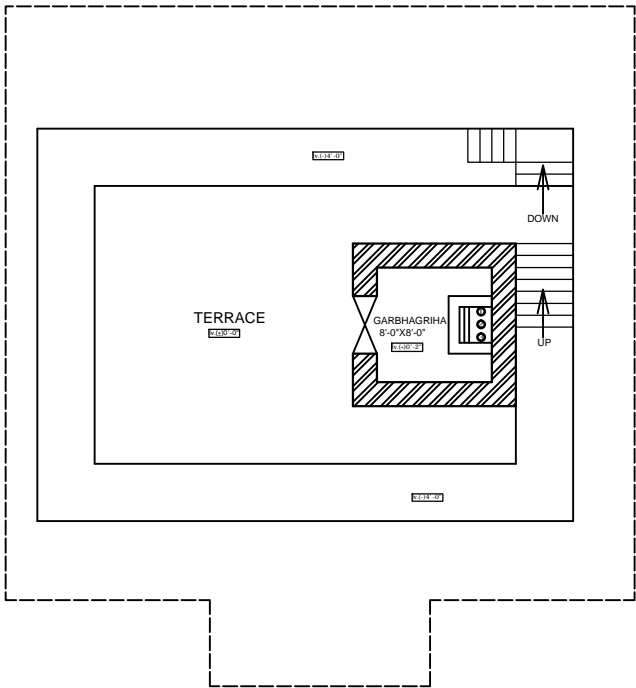
SRI DIGAMBAR JAIN TEMPLE, BANKA



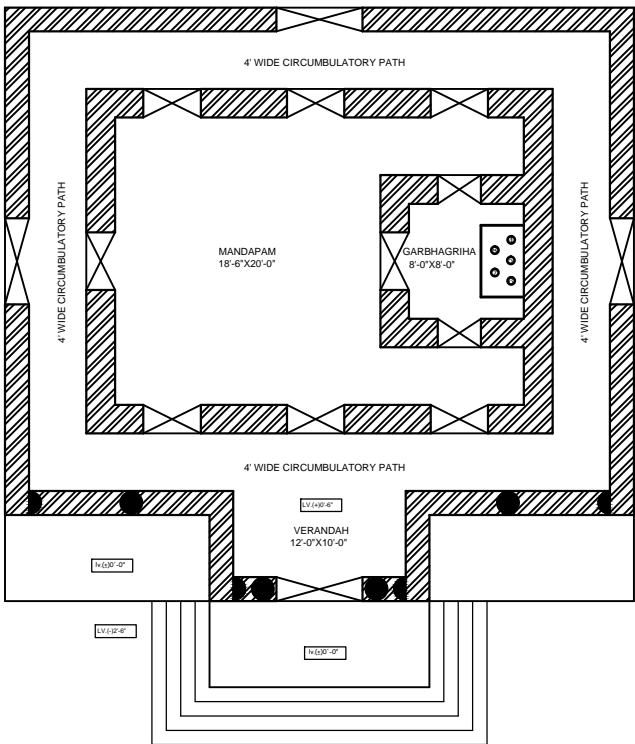
ELEVATION



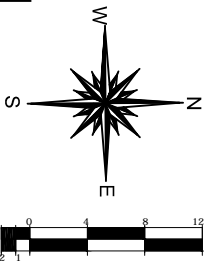
VIEW



FIRST FLOOR PLAN



GROUND FLOOR PLAN

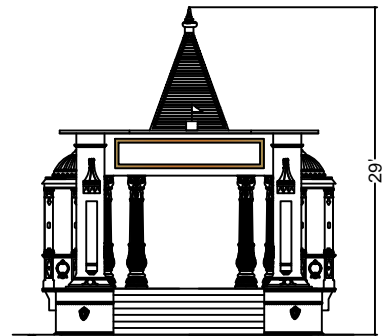




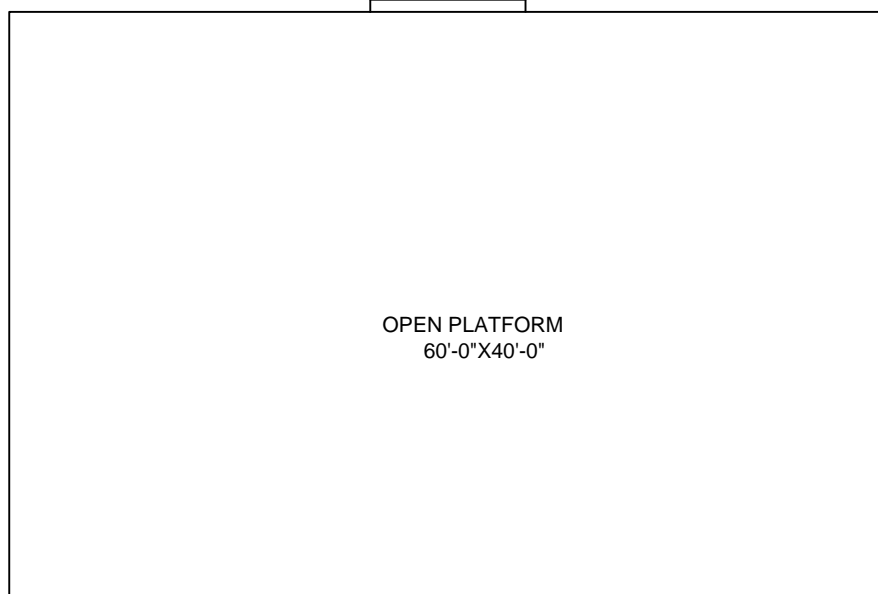
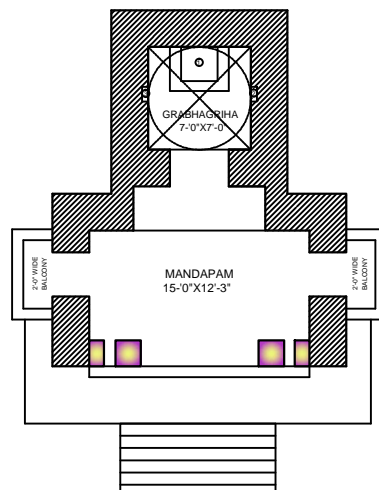
## SRI VASUPOOJYA SWAMI JINALAYA, BANKA



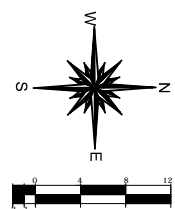
VIEW



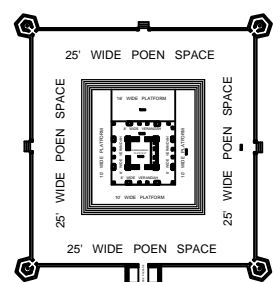
ELEVATION



PLAN



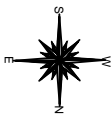
JAL MANDIR, PAWAPURI, NALANDA



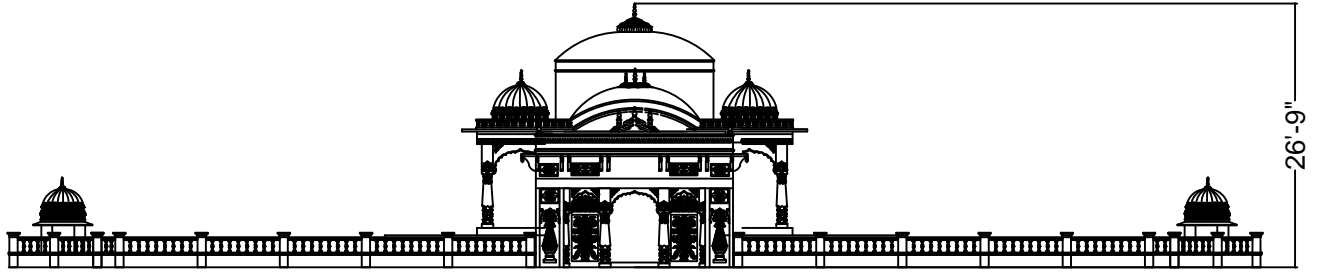
VIEW



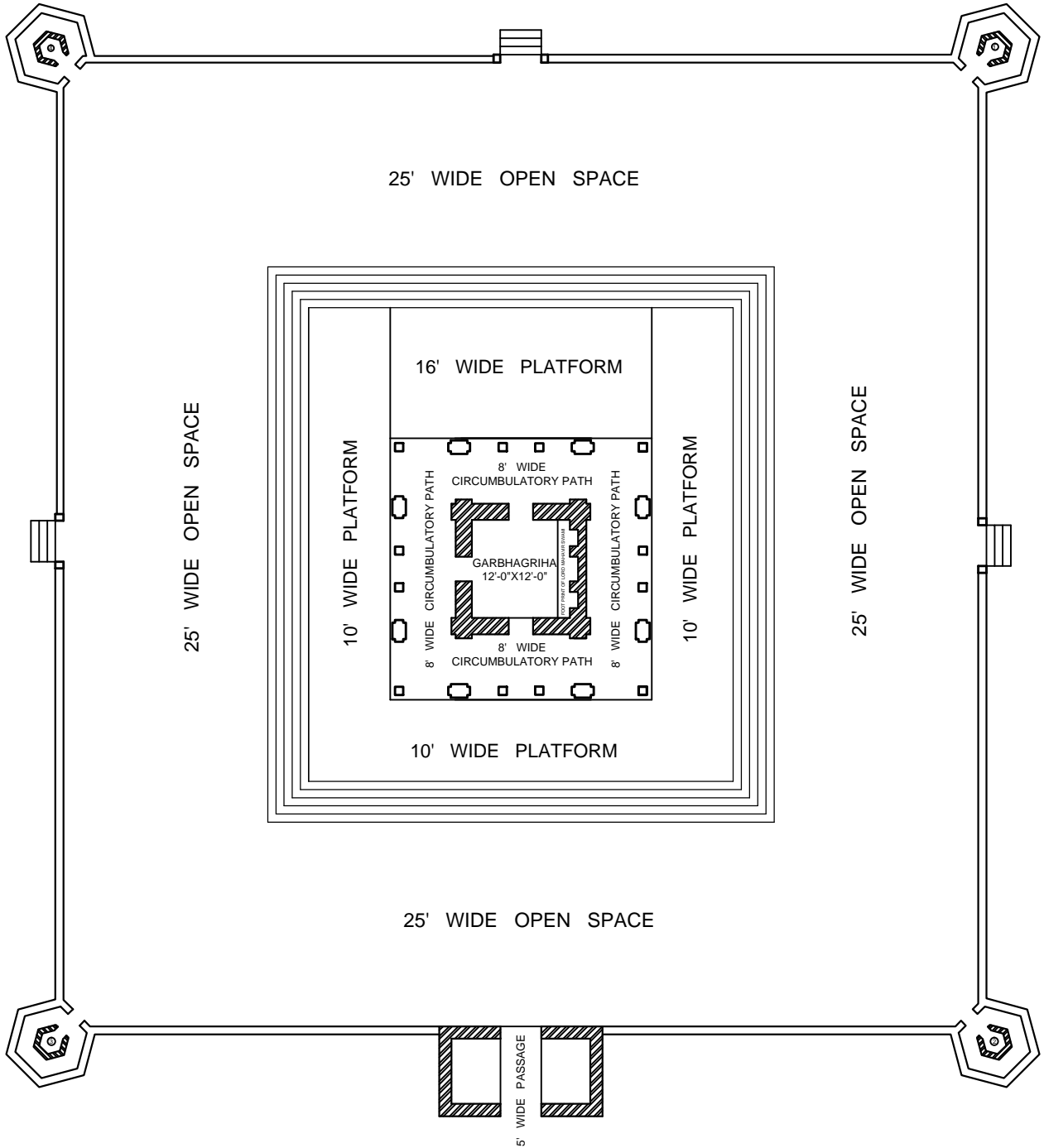
SITE PLAN



# JAL MANDIR, PAWAPURI, NALANDA

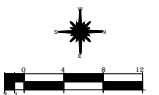


FRONT ELEVATION



PLAN

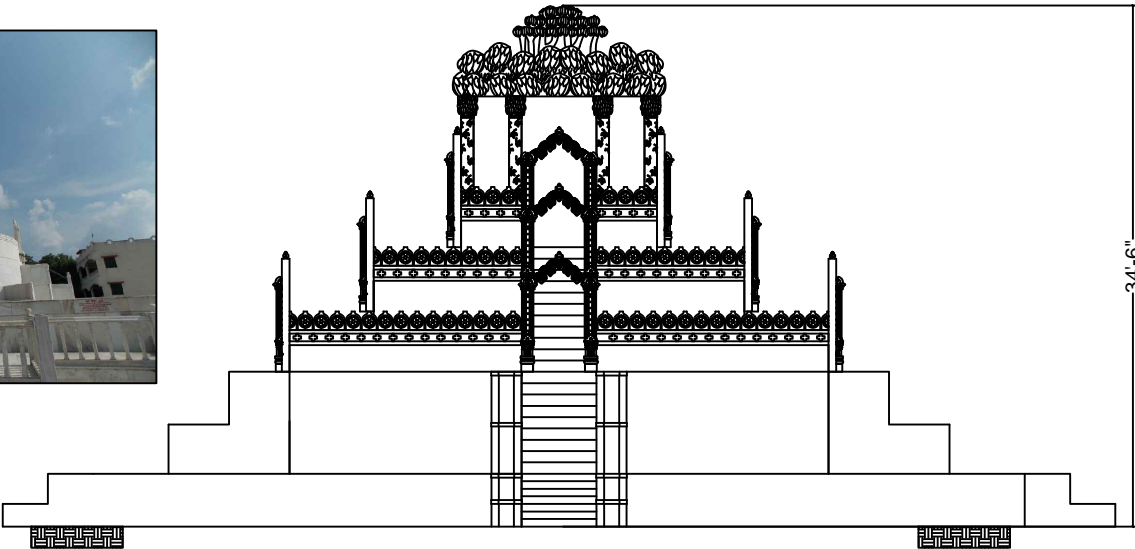
XLIII (B)



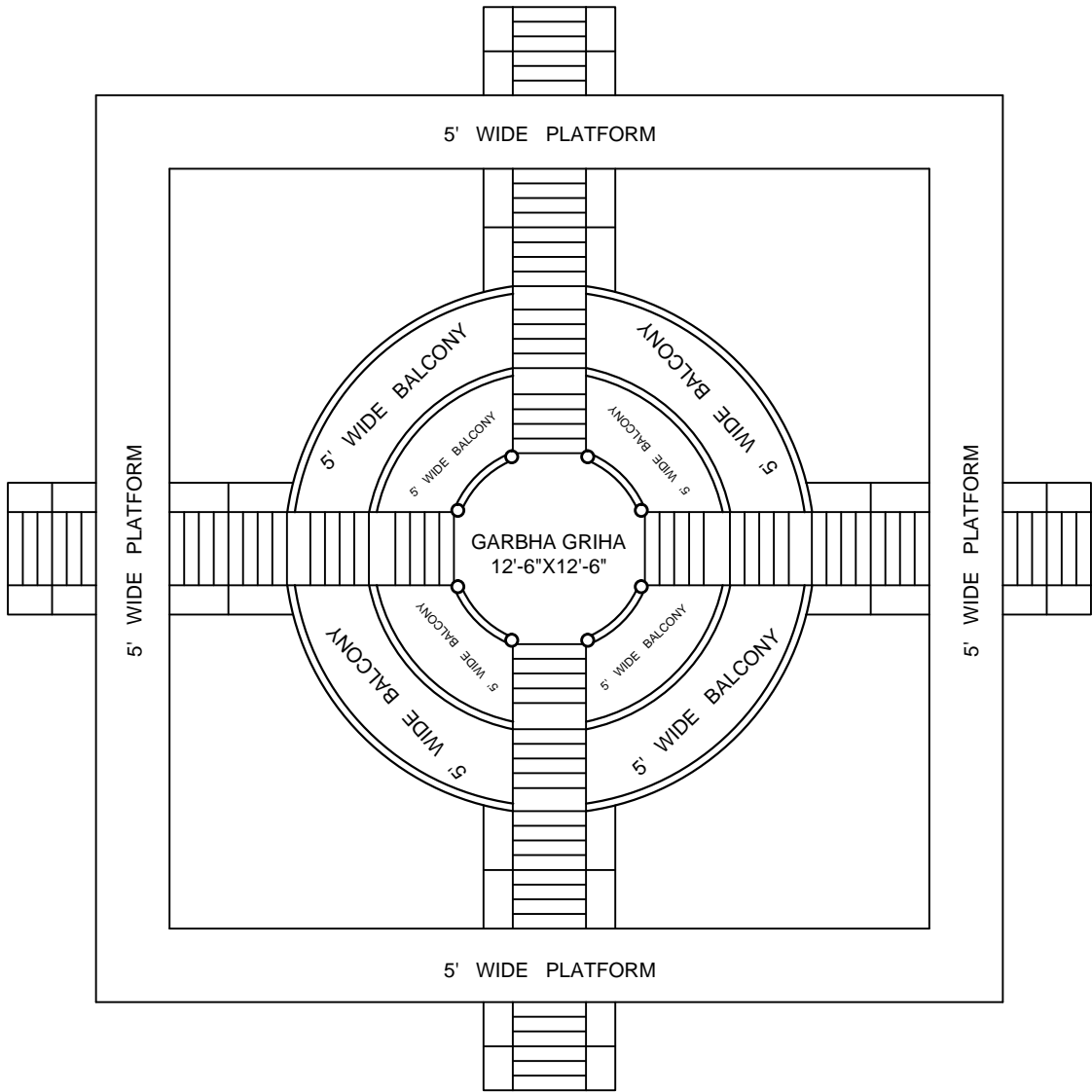
SAMOSARAN TEMPLE, PAWAPURI, NALANDA



VIEW

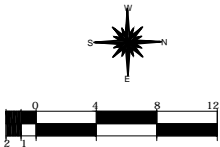


ELEVATION



PLAN

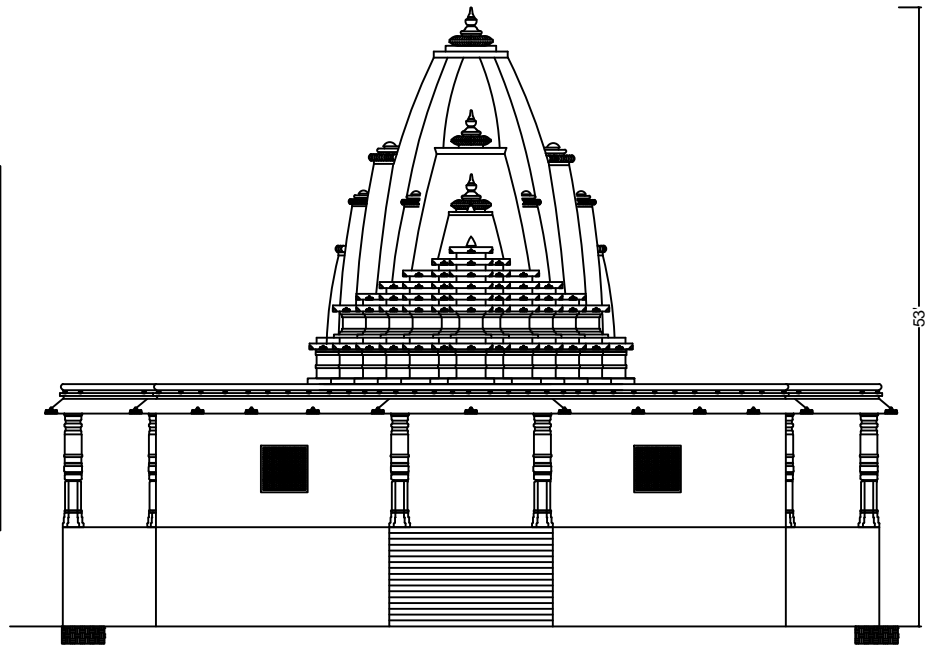
XLIV



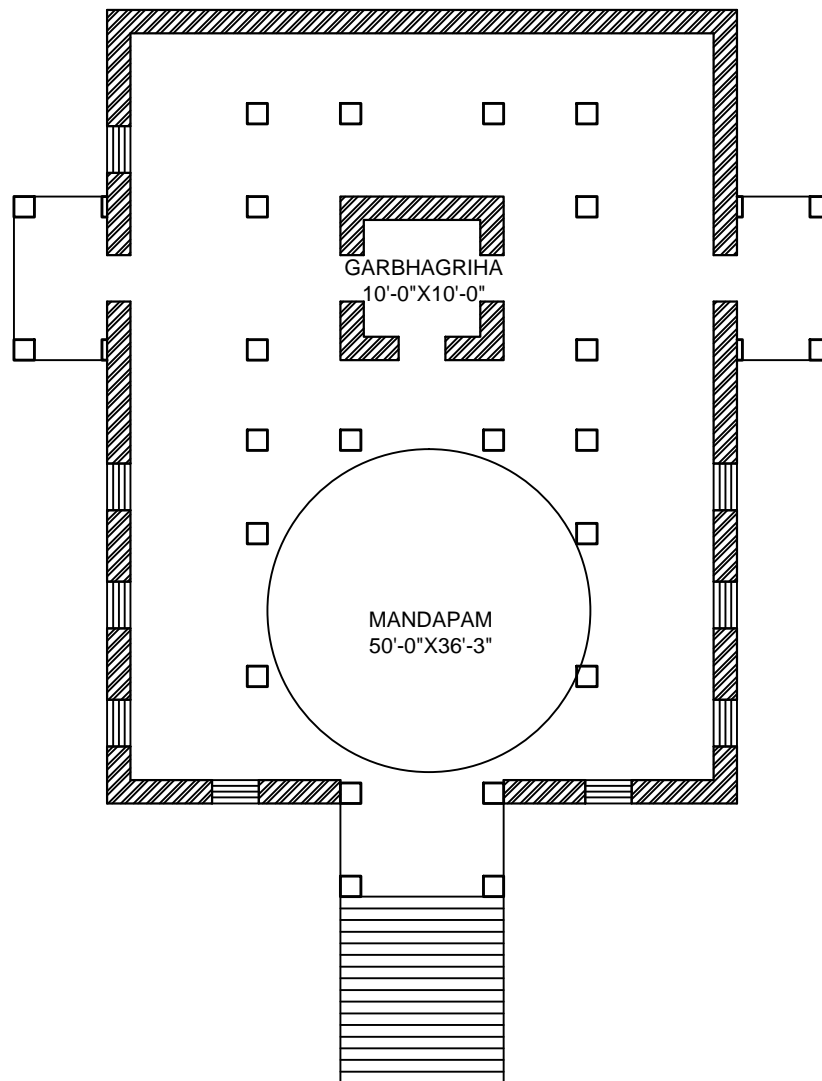
# SRI SWETAMBAR JAIN TEMPLE, PAWAPURI, NALANDA



VIEW

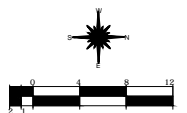


ELEVATION



PLAN

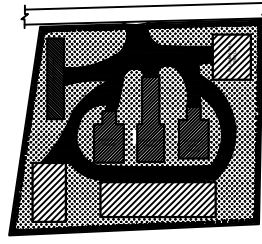
XLV



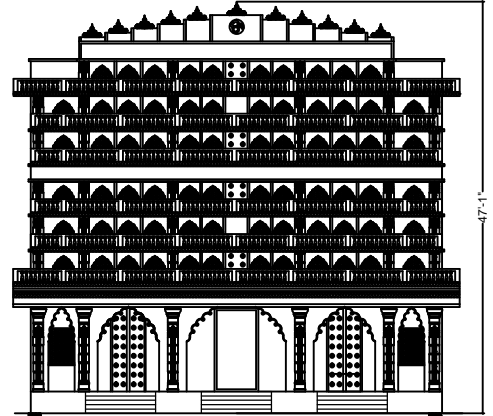
# SRI DIGAMBER JAIN TIRTH KSHETRA PRACHIN MANDIR, KUNDALPUR (KALYANAK KSHETRA) NALANDA



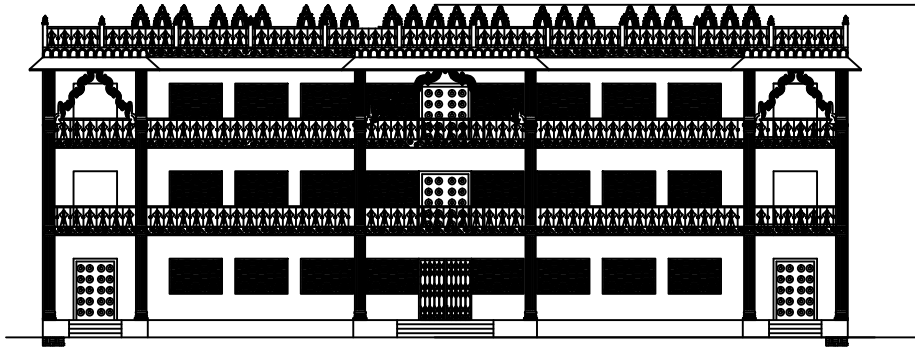
VIEW



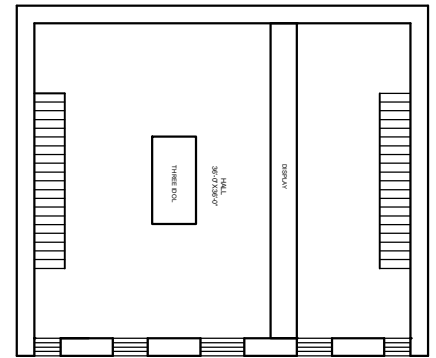
SITE PLAN



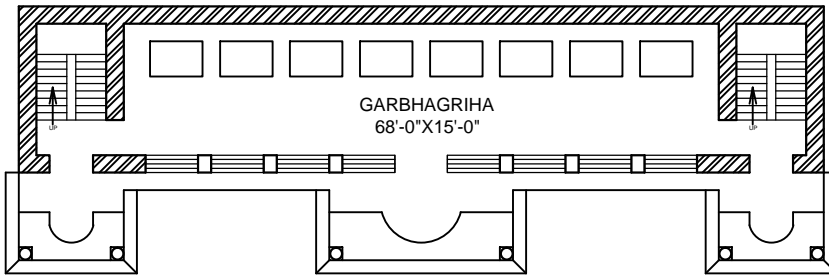
FRONT ELEVATION (SRI JANM STHALI TEMPLE)



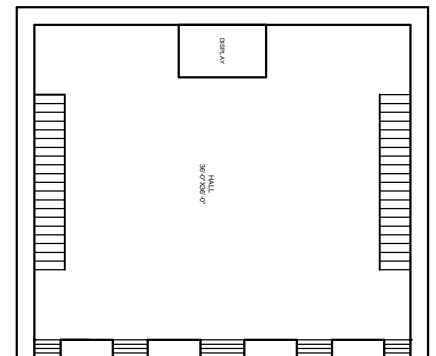
FRONT ELEVATION (TRIKAL CHAUBISI TEMPLE)



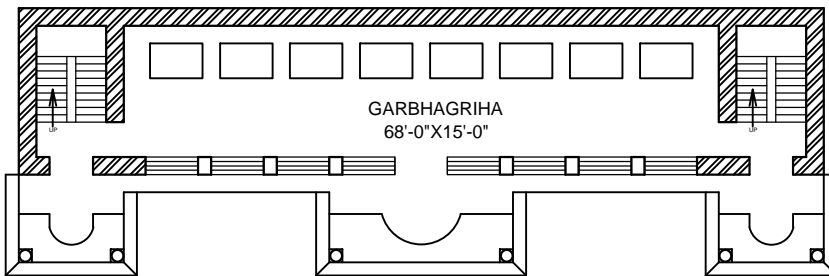
SECOND FLOOR PLAN (SRI JANM STHALI TEMPLE)



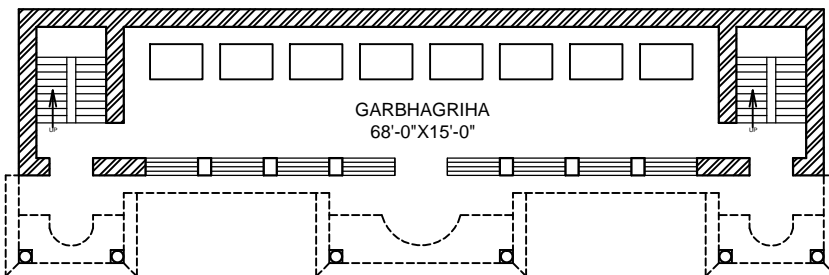
SECOND FLOOR PLAN (TRIKAL CHAUBISI TEMPLE)



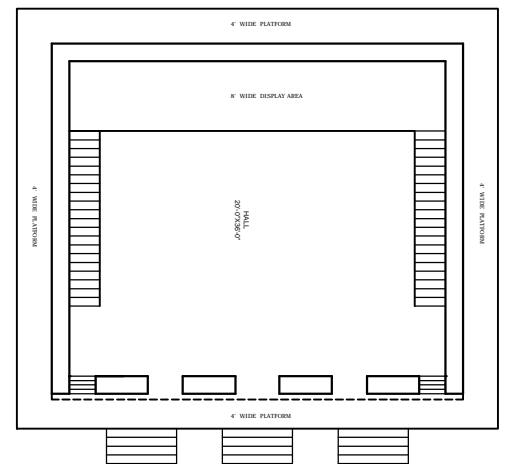
FIRST FLOOR PLAN (SRI JANM STHALI TEMPLE)



FIRST FLOOR PLAN (TRIKAL CHAUBISI TEMPLE)



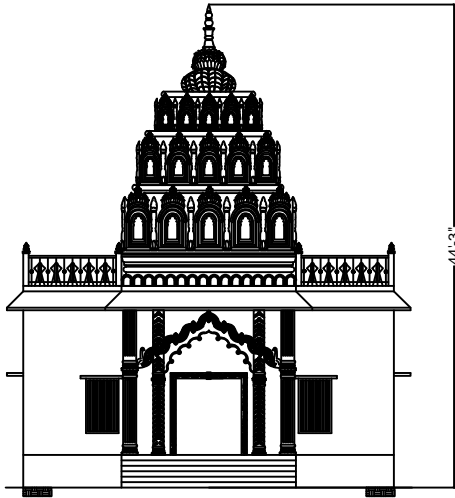
GROUND FLOOR PLAN (TRIKAL CHAUBISI TEMPLE)



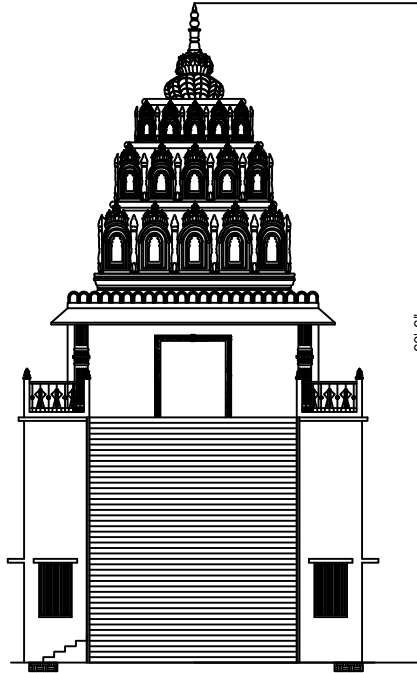
GROUND FLOOR PLAN (SRI JANM STHALI TEMPLE)



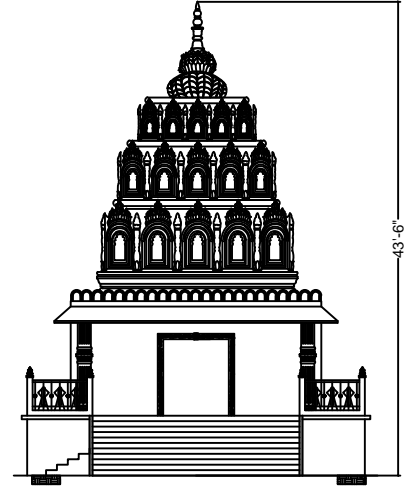
**SRI DIGAMBER JAIN TIRTH KSHETRA PRACHIN MANDIR, KUNDALPUR  
(KALYANAK KSHETRA) NALANDA**



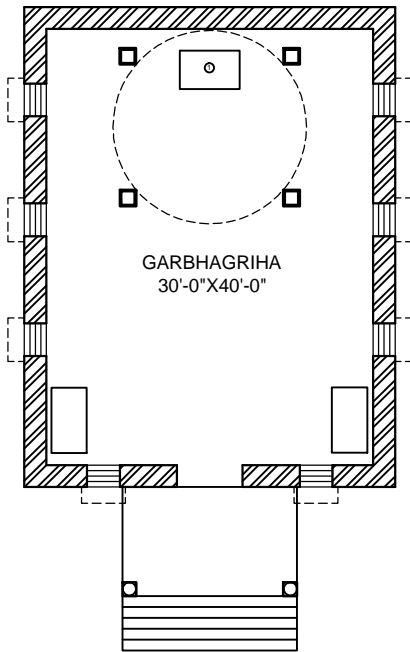
**FRONT ELEVATION  
(SRI NAVAGRAH TEMPLE)**



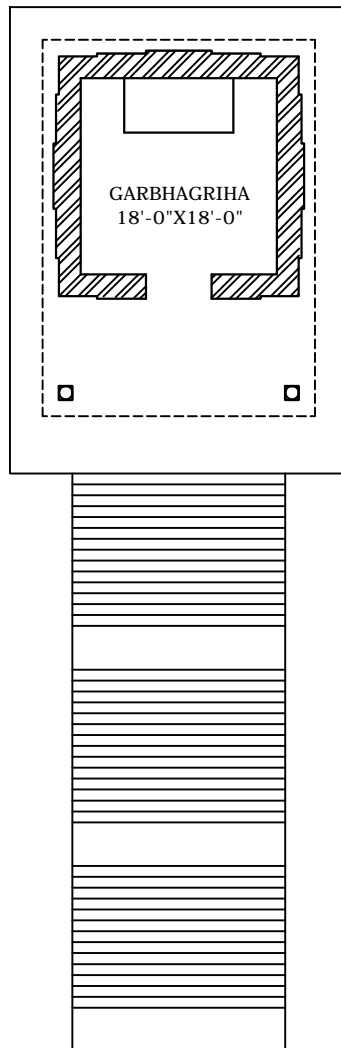
**FRONT ELEVATION  
(SRI MAHAVIR TEMPLE)**



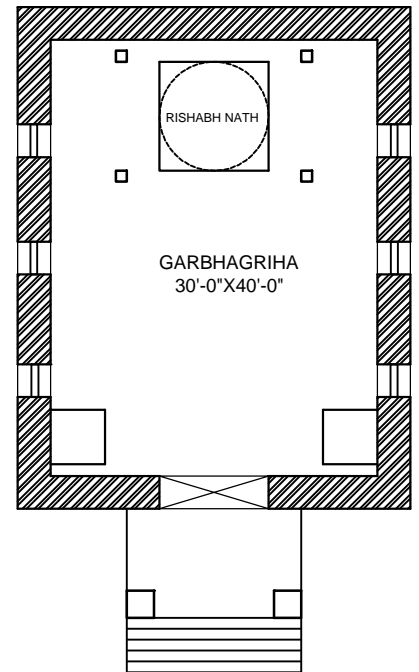
**FRONT ELEVATION  
(SRI RISHAV NATH TEMPLE)**



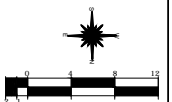
**PLAN (SRI NAVAGRAH TEMPLE)**



**PLAN (SRI MAHAVIR TEMPLE)**



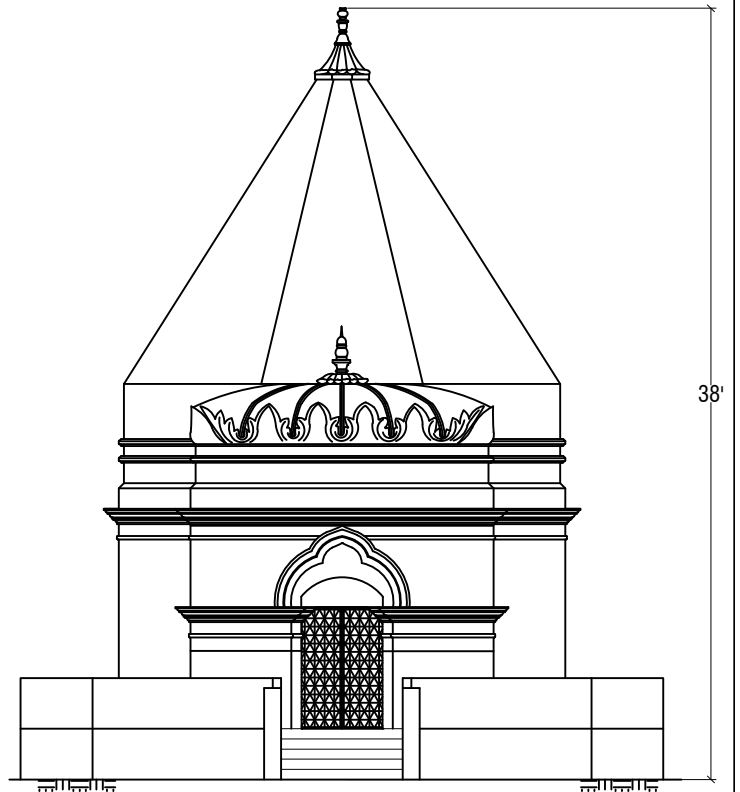
**PLAN (SRI RISHAV NATH TEMPLE)**



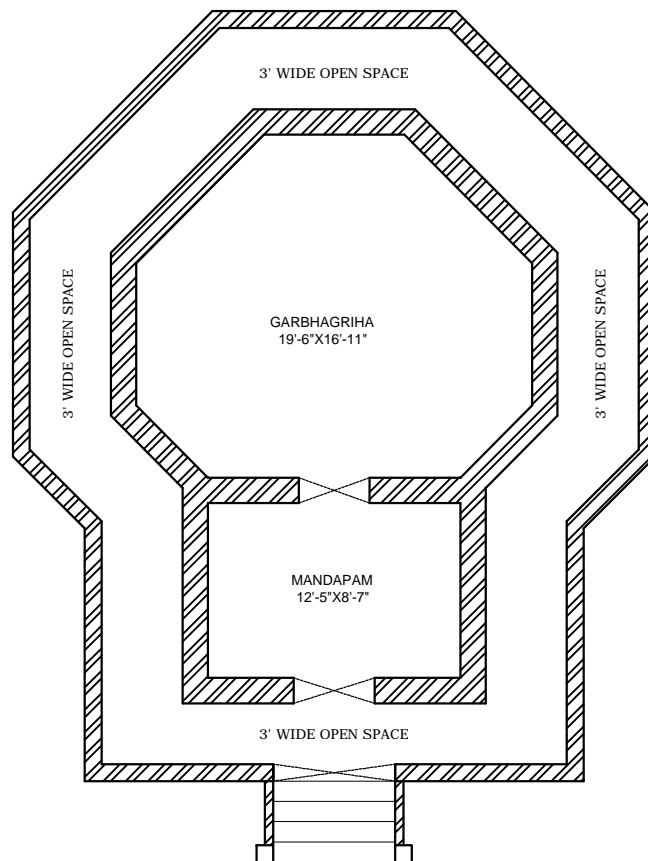
# SRI DIGAMBER JAIN TEMPLE, RATNAGIRI, RAJGIR



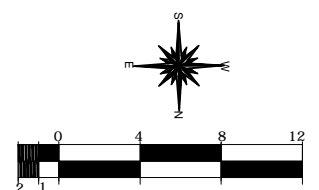
VIEW



ELEVATION



PLAN

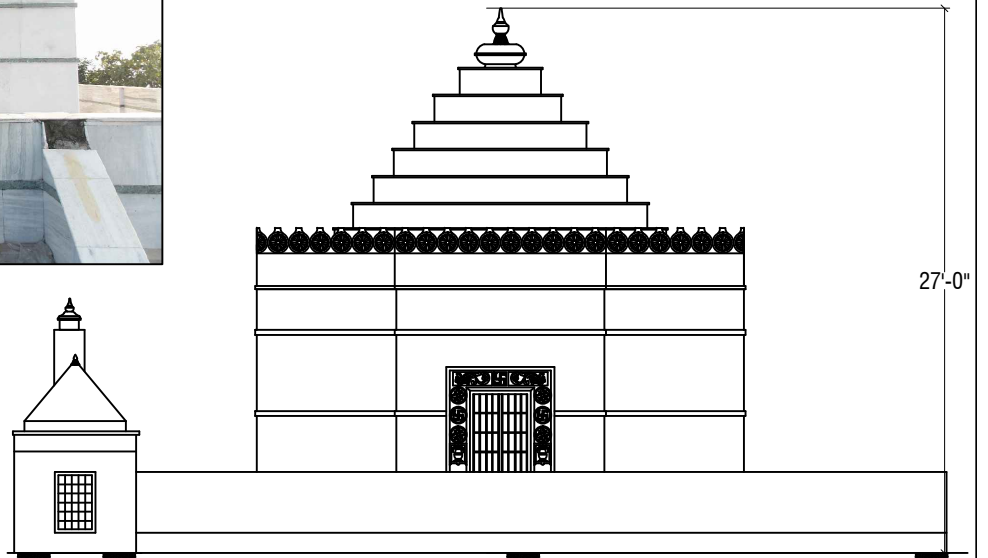




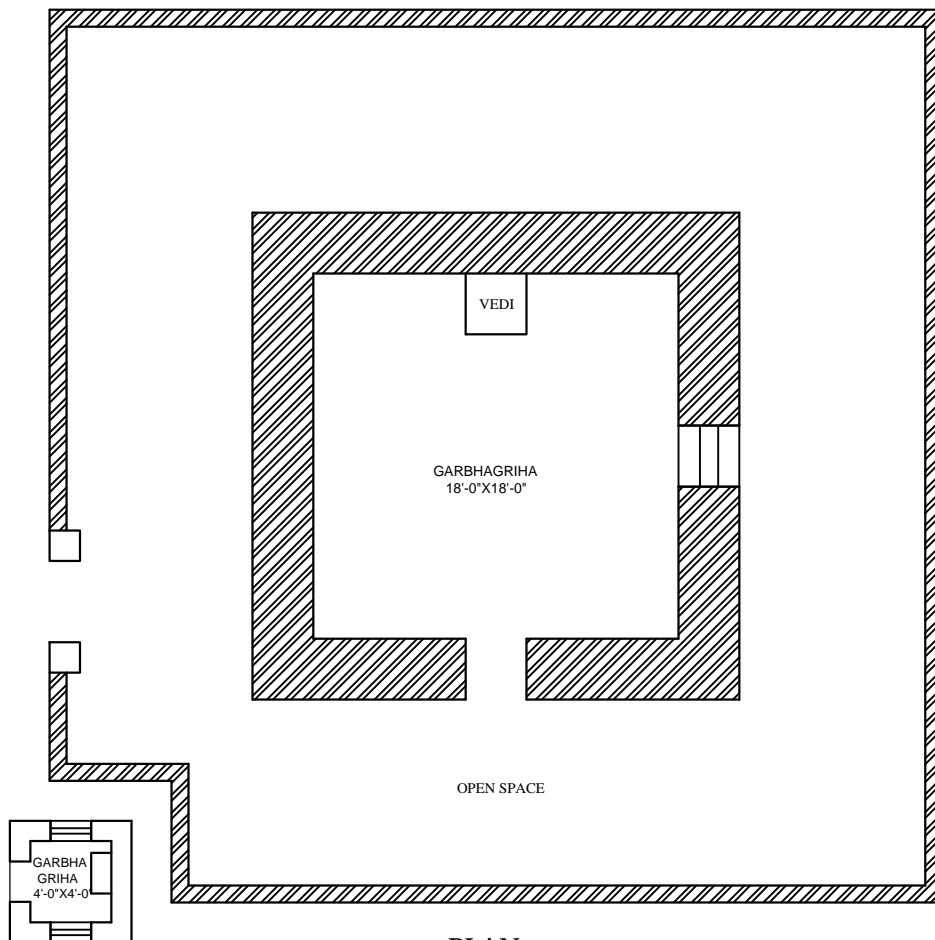
# SRI SWETAMBAR JAIN TEMPLE, RATNAGIRI, RAJGIR



VIEW

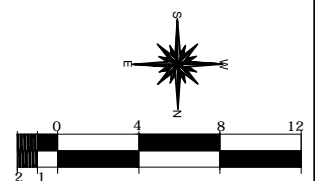


ELEVATION



PLAN

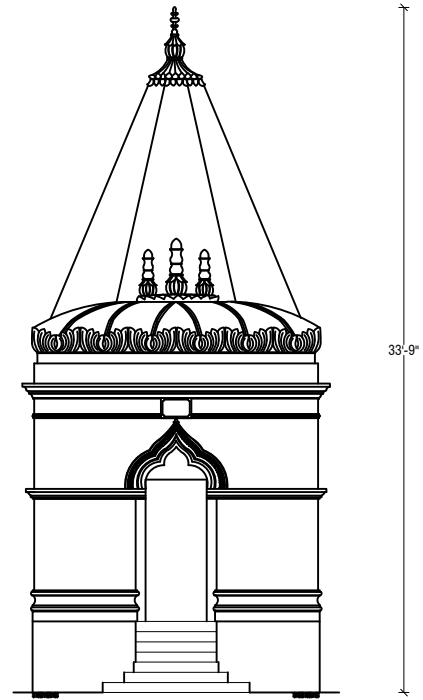
XLVIII



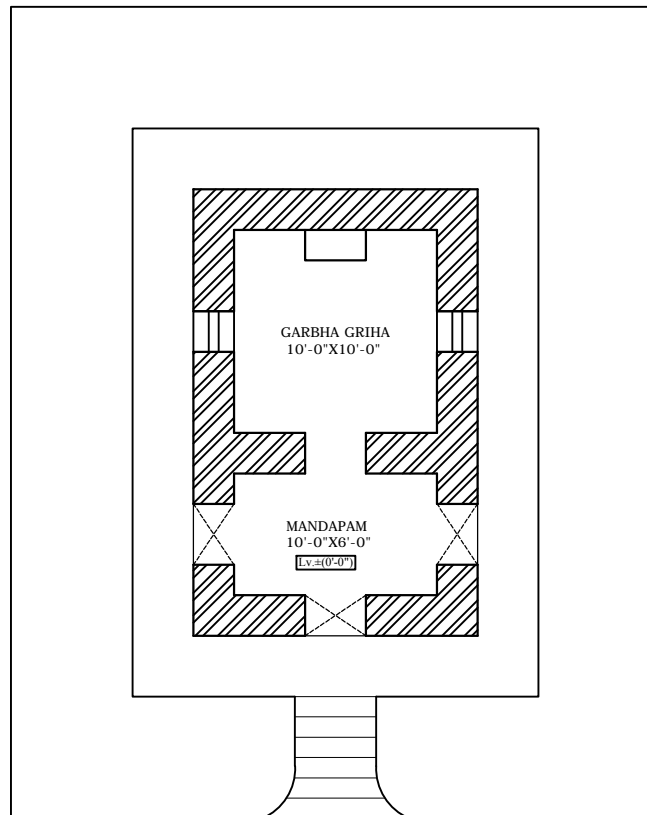
# SRI DIGAMBAR JAIN TEMPLE, UDAYAGIRI, RAJGIR



VIEW

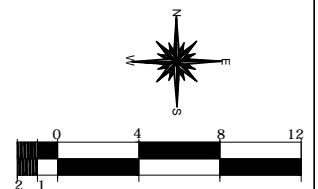


ELEVATION



PLAN

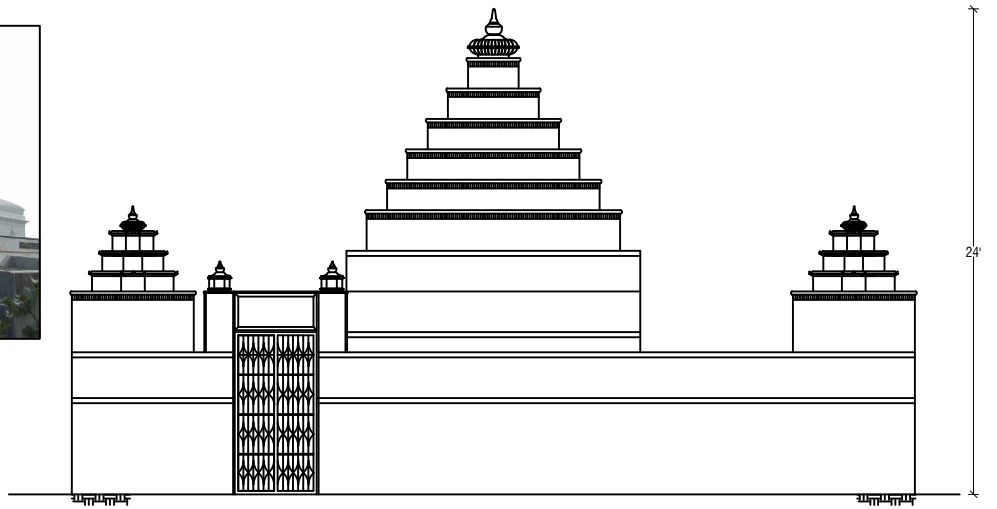
XLIX



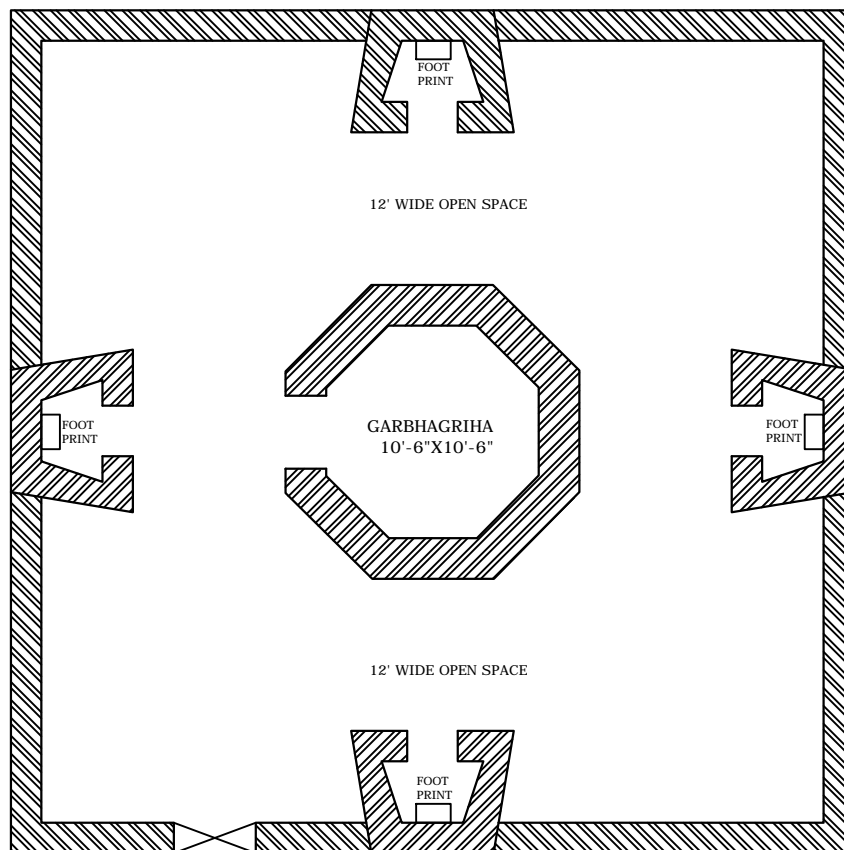
# SRI SWETAMBAR JAIN SANWALIYA PARSHAVNATH TEMPLE, UDAYAGIRI, RAJGIR



VIEW

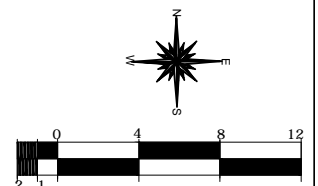


ELEVATION



PLAN

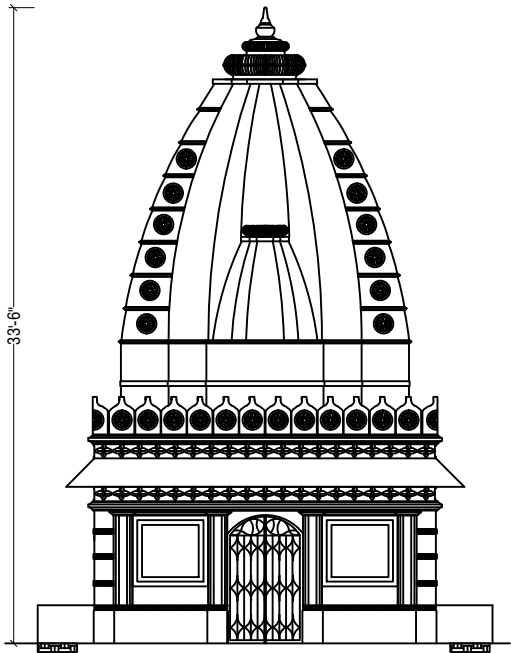
L



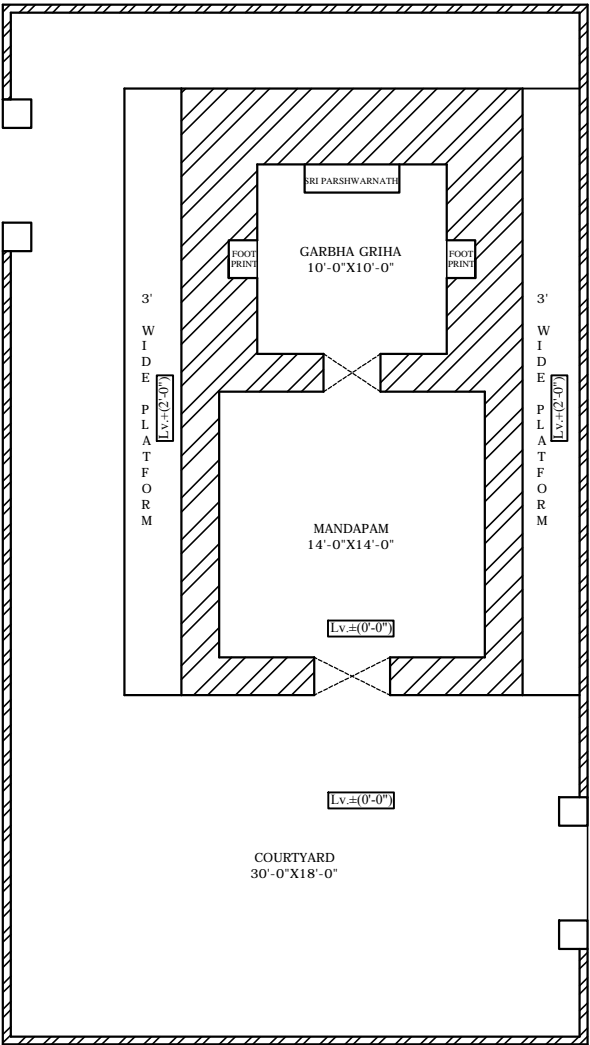
SRI PARSHAVNATH SWETAMBAR JAIN JINALAYA, VAIBHARGIRI, RAJGIR



VIEW

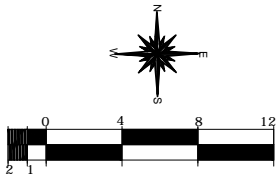


ELEVATION

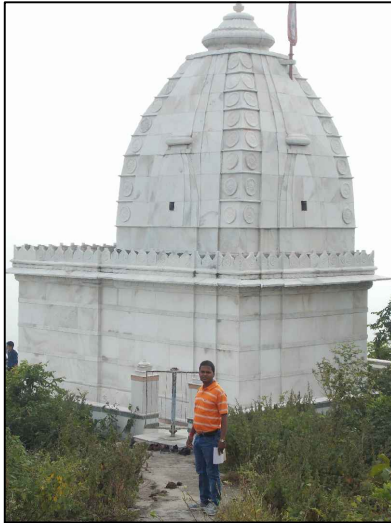


PLAN

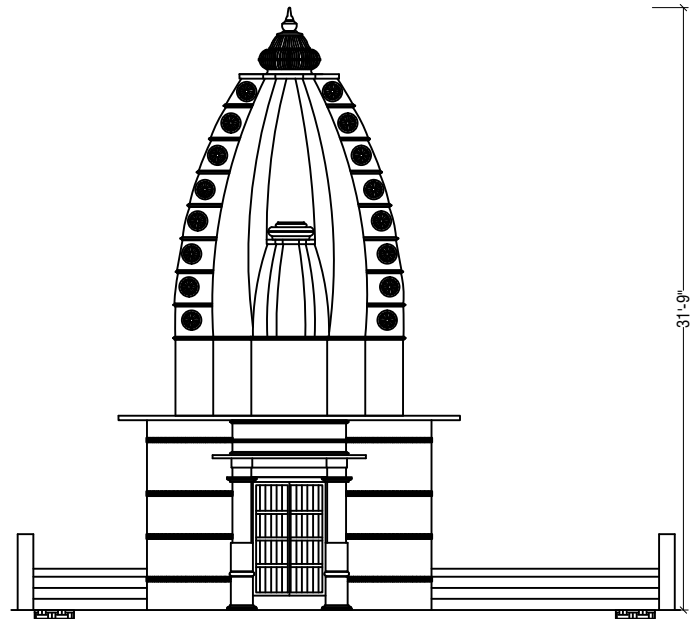
LI



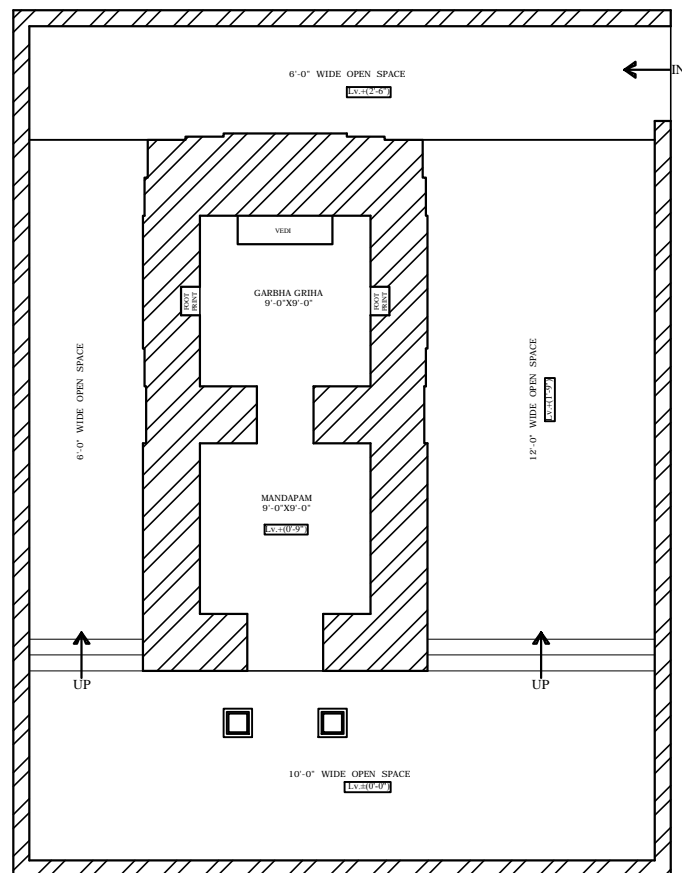
# SRI DHANNASHALIBHADRA SWETAMBAR JAIN TEMPLE, VAIBHARGIRI, RAJGIR



VIEW

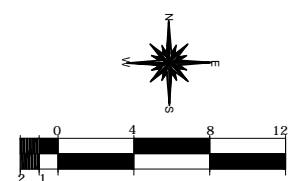


ELEVATION



PLAN

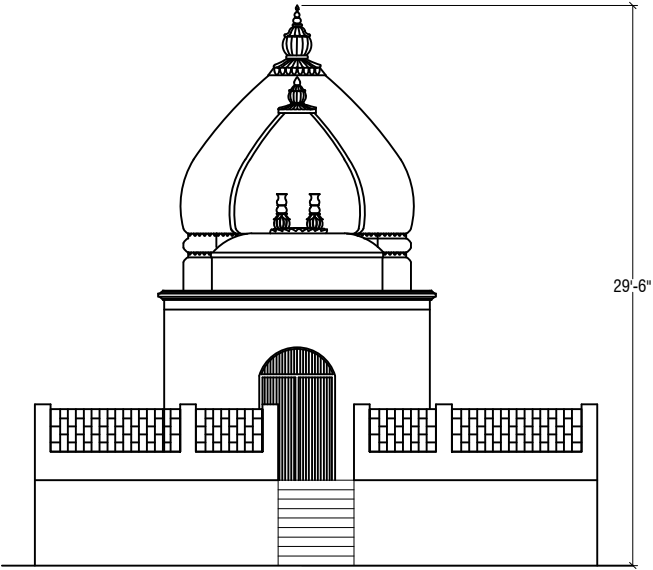
LII



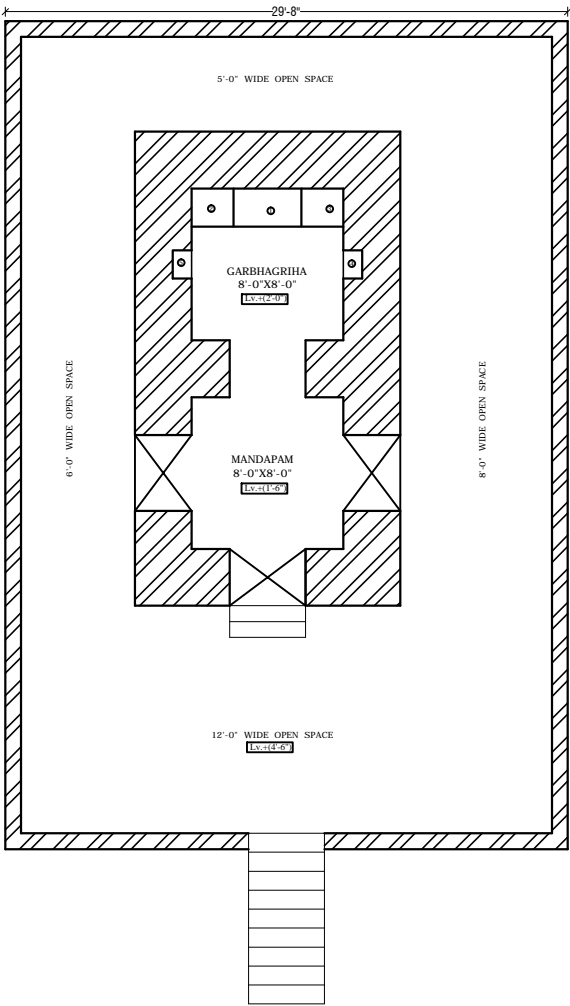
SRI DIGAMBAR JAIN TEMPLE, VAIBHARGIRI,RAJGIR



VIEW

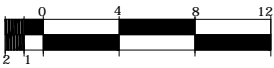


ELEVATION



PLAN

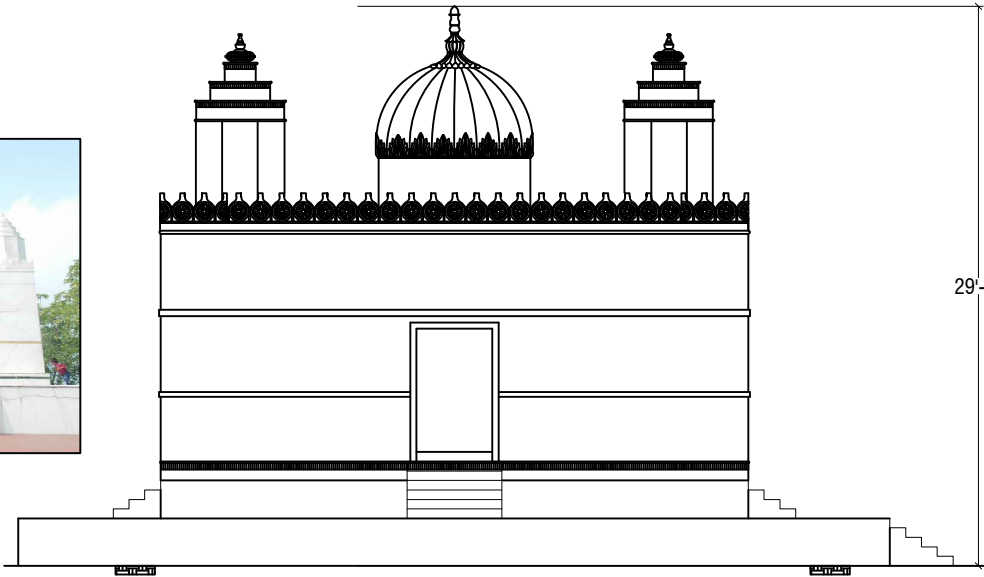
LIII



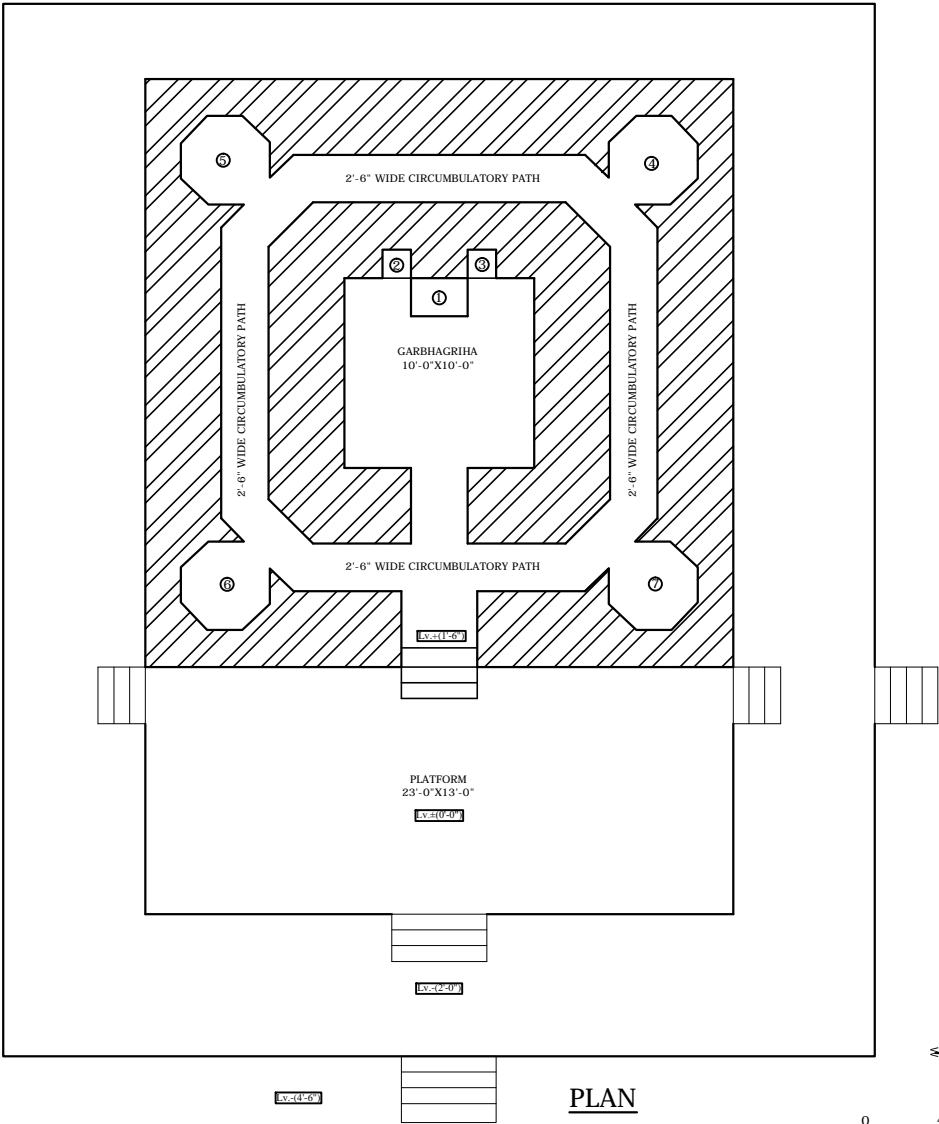
SRI MAHAVIRSWAMI SWETAMBAR JAIN TEMPLE, VAIBHARGIRI,RAJGIR



VIEW

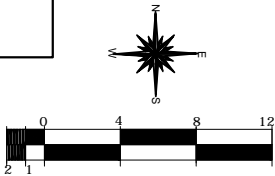


ELEVATION



PLAN

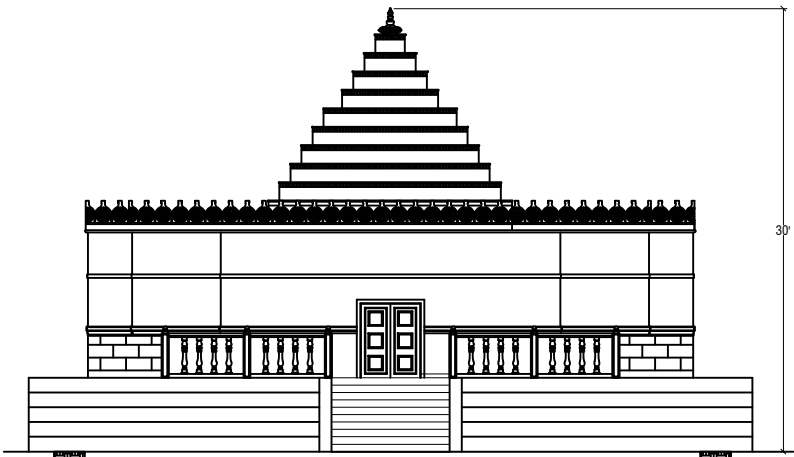
LIV



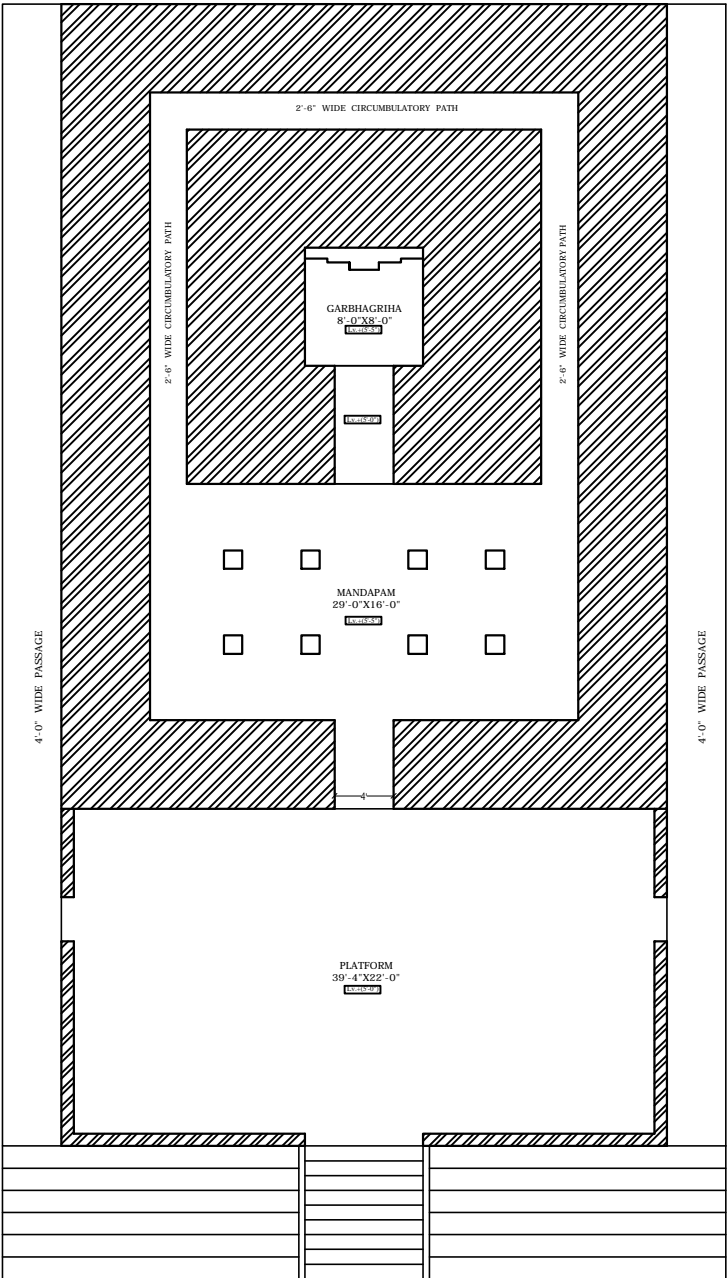
SRI MUNISUVARATSWAMI MUKHYA JINALAYA, VAIBHARGIRI, RAJGIR



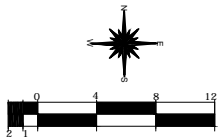
VIEW



ELEVATION



PLAN  
LV

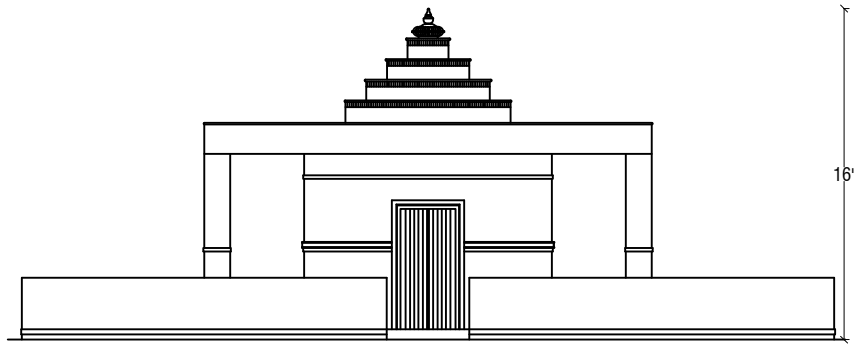




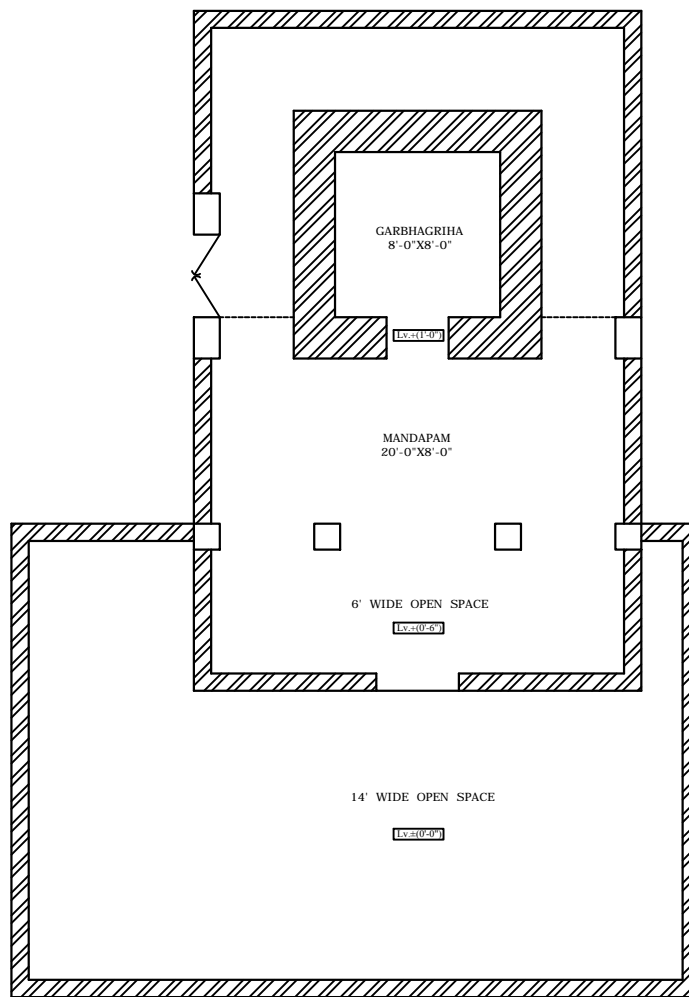
# SRI GAUTAMSWAMI NIRWAN TEMPLE, VAIBHARGIRI, RAJGIR



VIEW

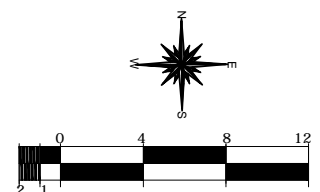


ELEVATION

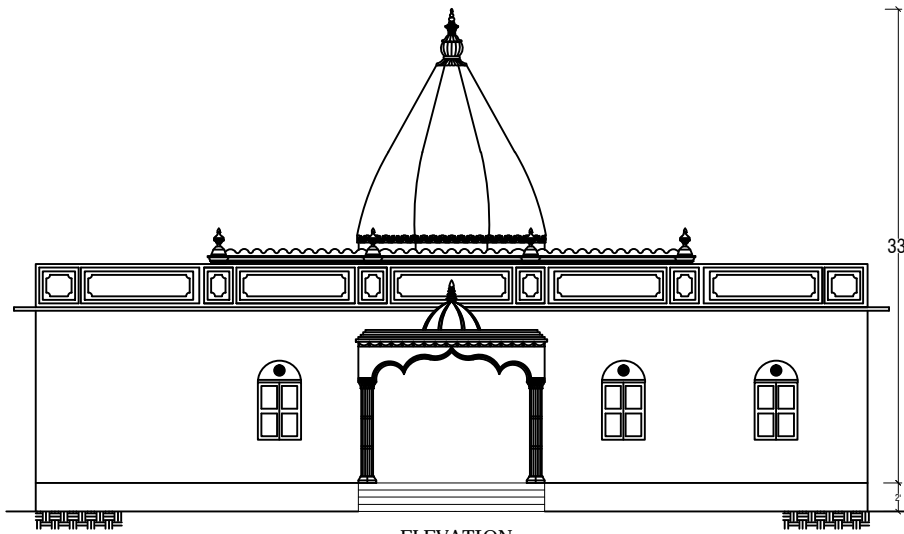


PLAN

LVI



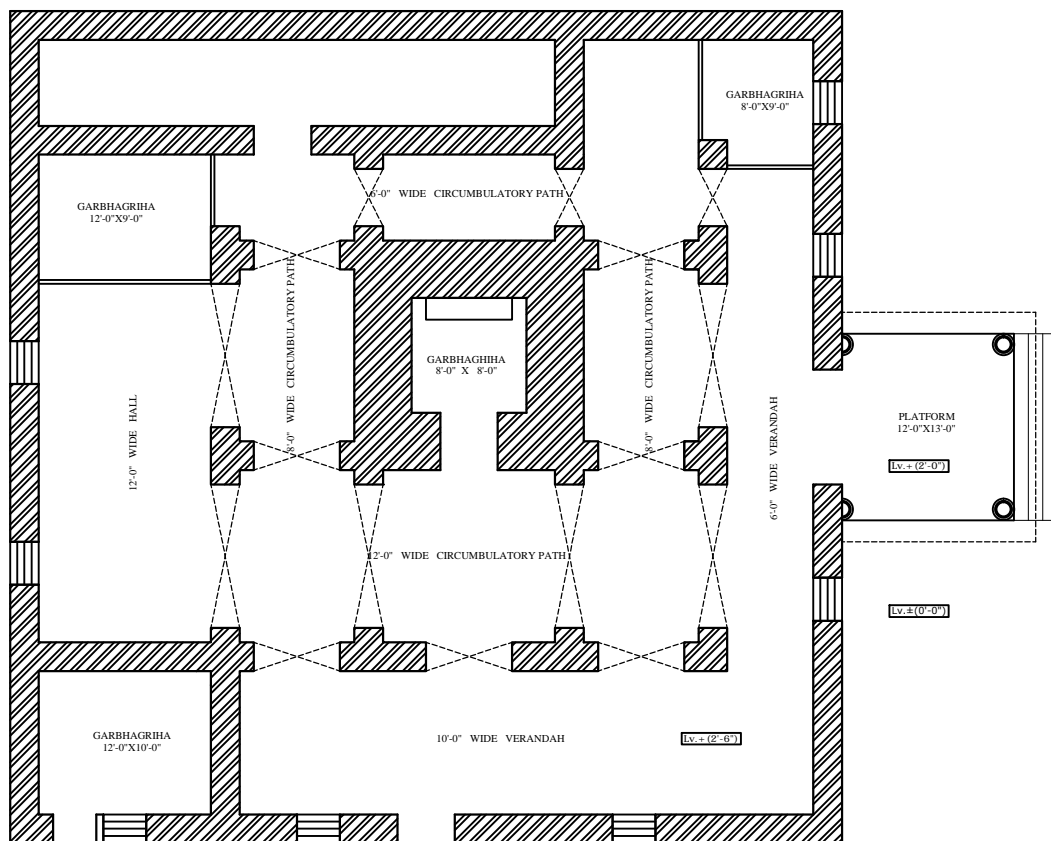
# SRI 1008 MAHAVIR SWAMI JINALAYA, RAJGIR



ELEVATION

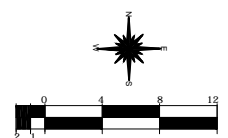


VIEW

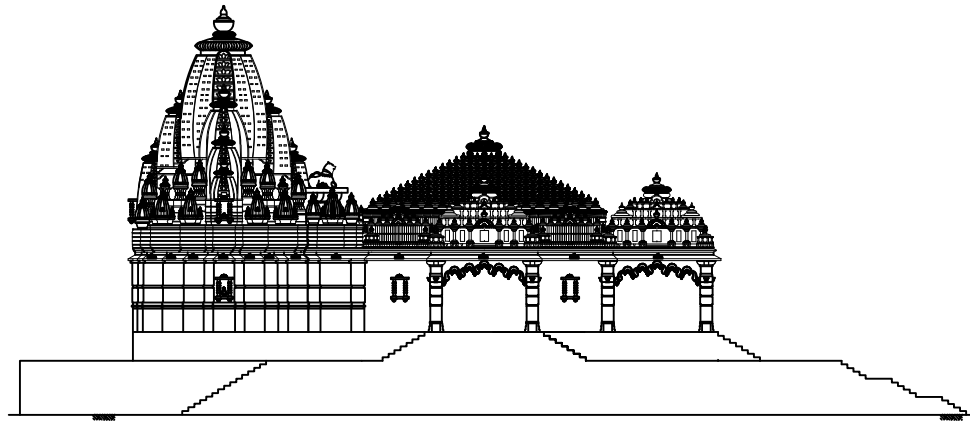


PLAN

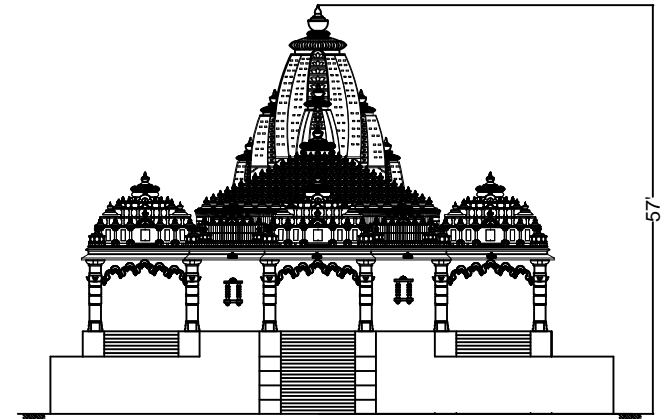
LVII



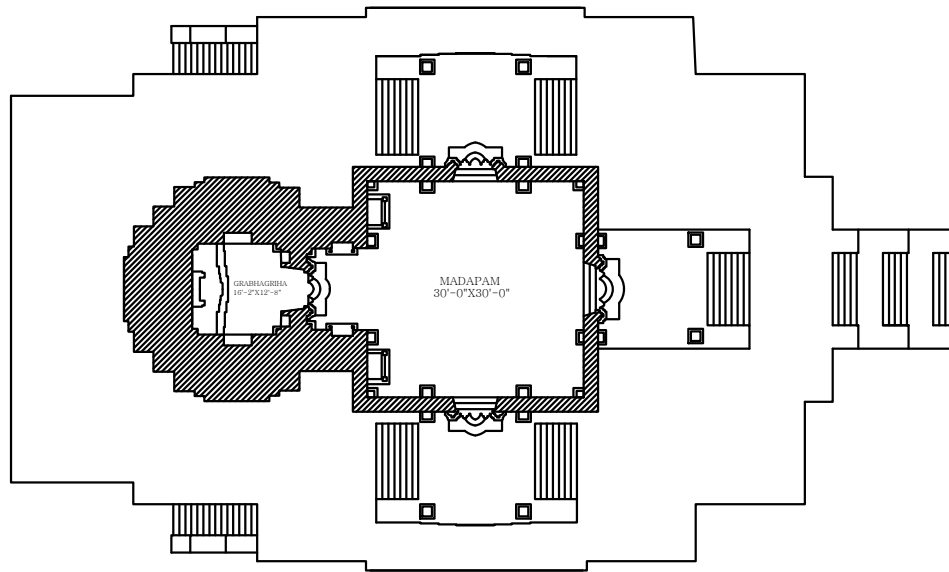
# SRI SWETAMBAR JAIN TEMPLE, RAJGIR



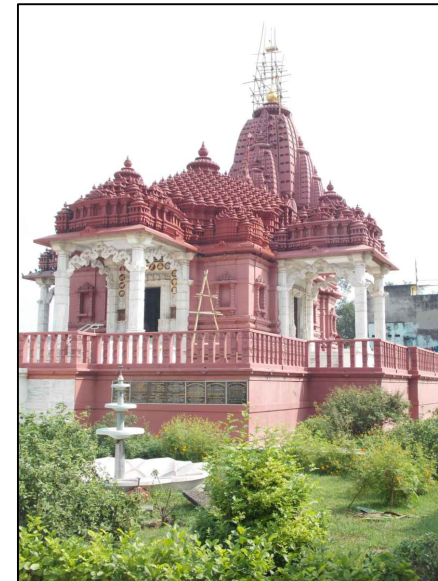
ELEVATION



ELEVATION



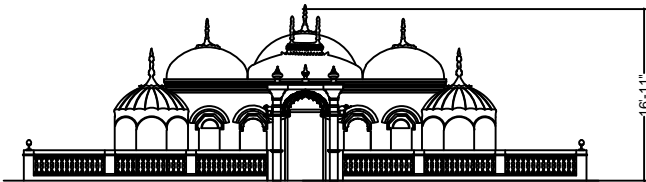
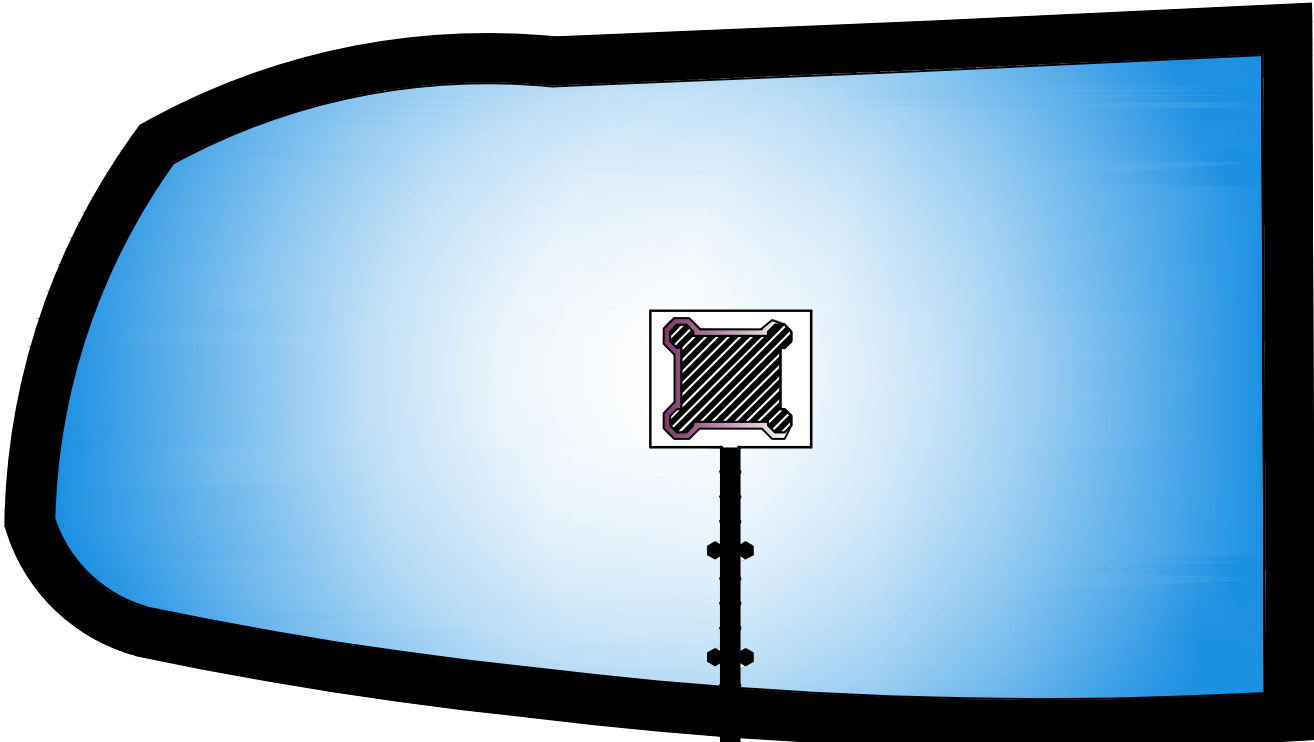
PLAN



VIEW



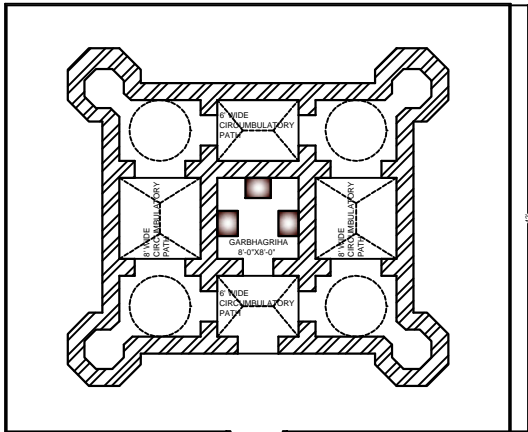
SRI DIGAMBAR JAIN SIDHA KSHSETRA, GUNAWAJI, NAWADA



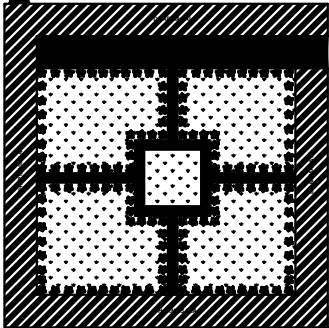
ELEVATION



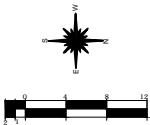
VIEW



PLAN



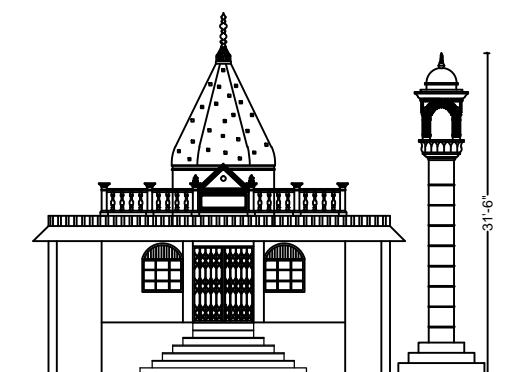
SITE PLAN



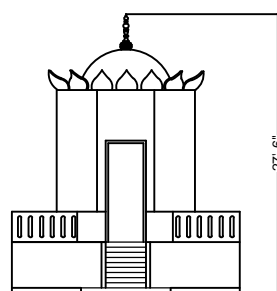
# SRI DIGAMBAR JAIN SIDHA KSHSETRA, GUNAWAJI, NAWADA



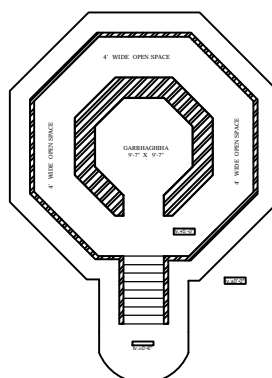
VIEW



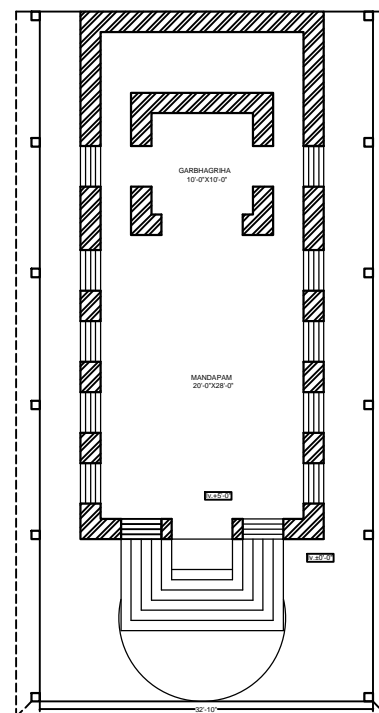
FRONT ELEVATION



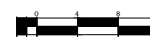
FRONT ELEVATION



PLAN

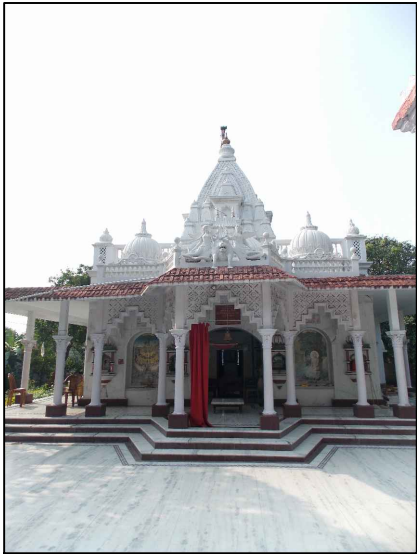


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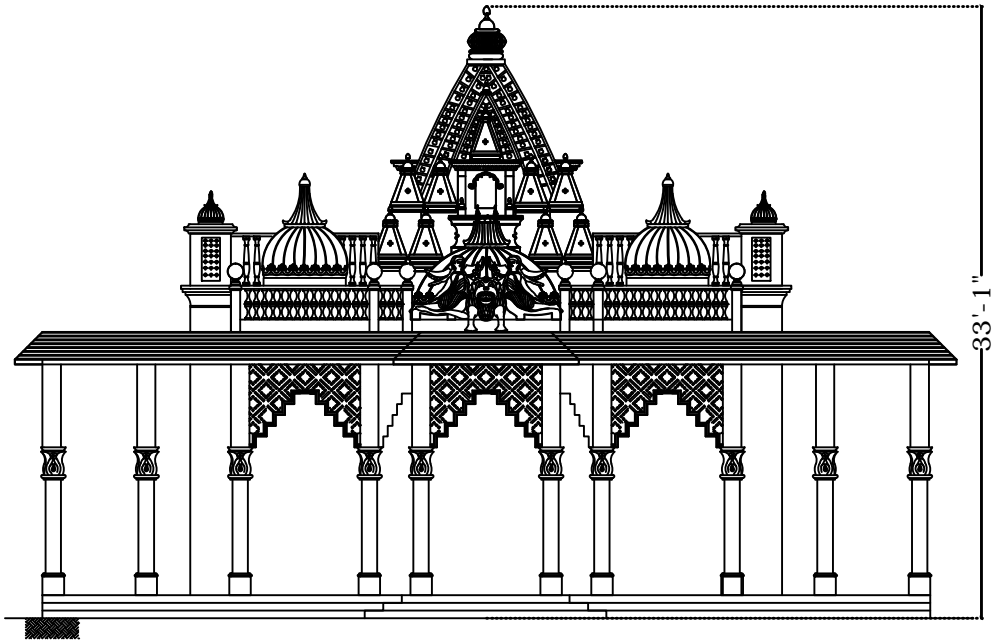


LIX (B)

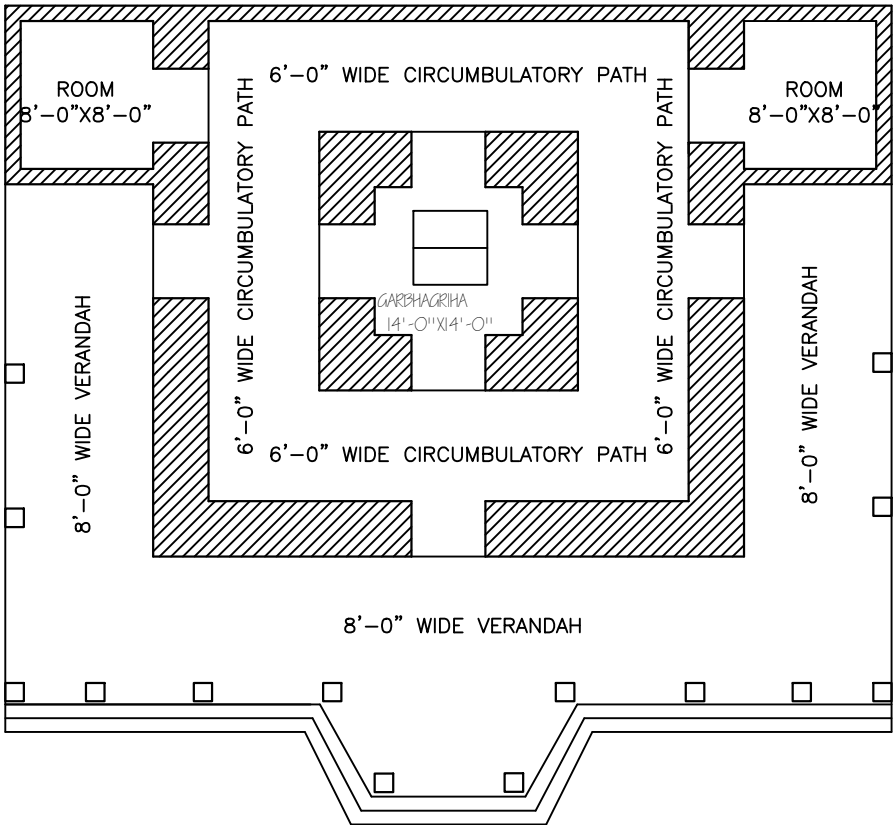
SRI RIJUBALIKA TIRTH, BARAKAR, JHARKHAND



VIEW

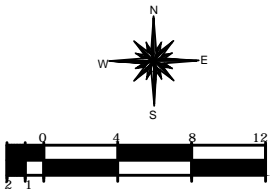


FRONT ELEVATION



PLAN

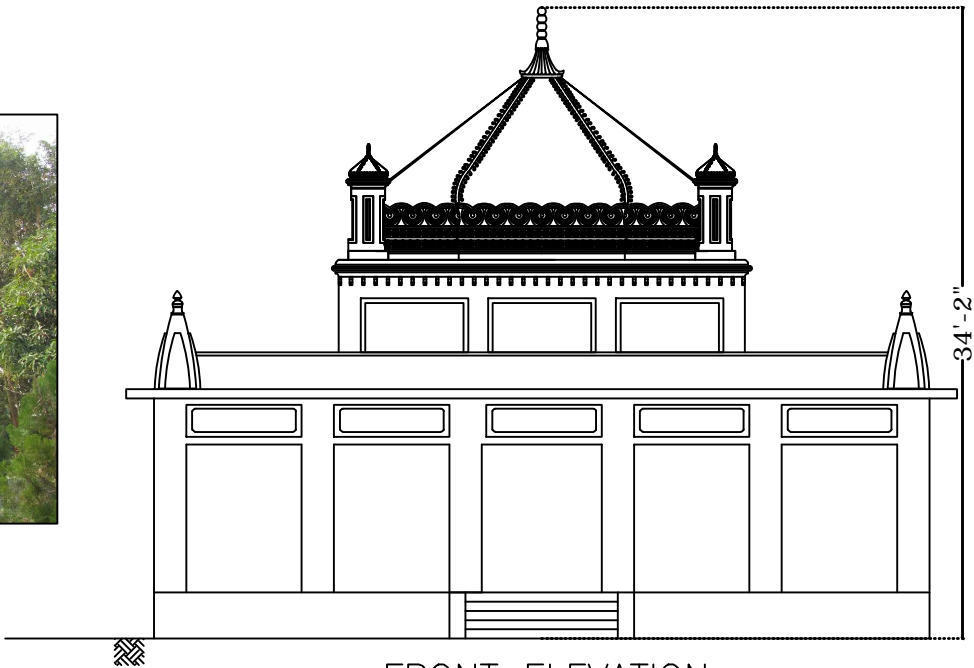
LX



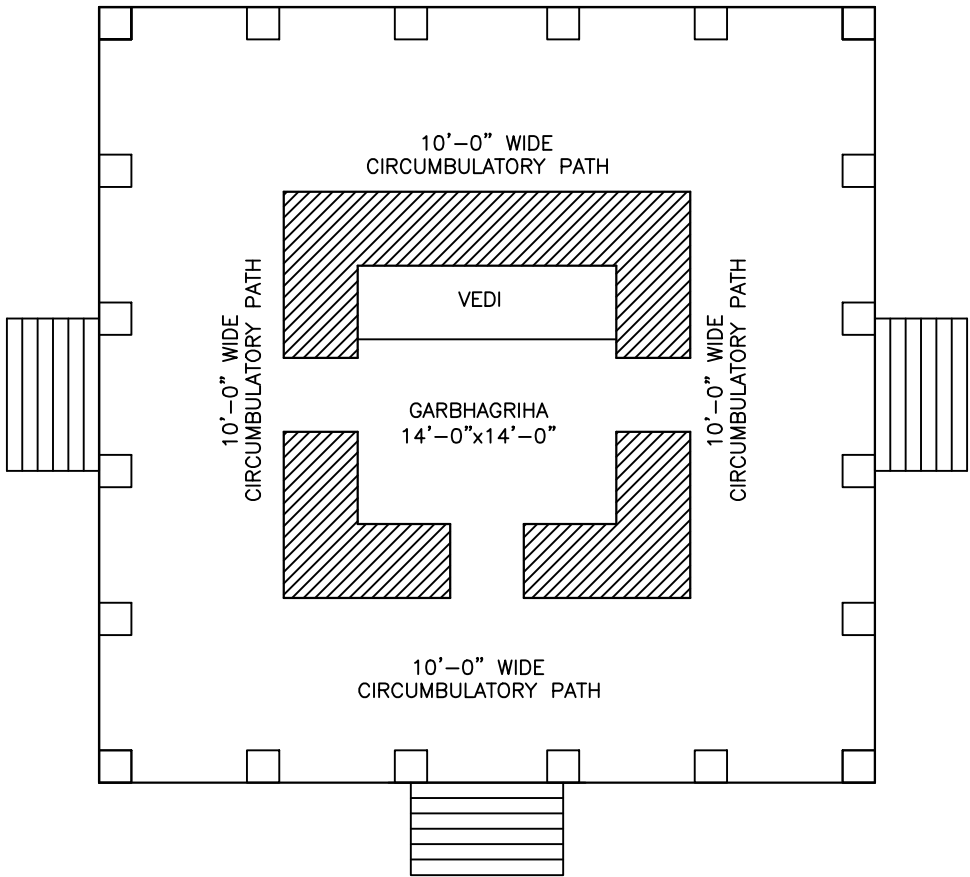
SRI PARSHVANATH DIGAMBAR JAIN TEMPLE, PALGANJ, GIRIDIH,  
JHARKHAND



VIEW



FRONT ELEVATION

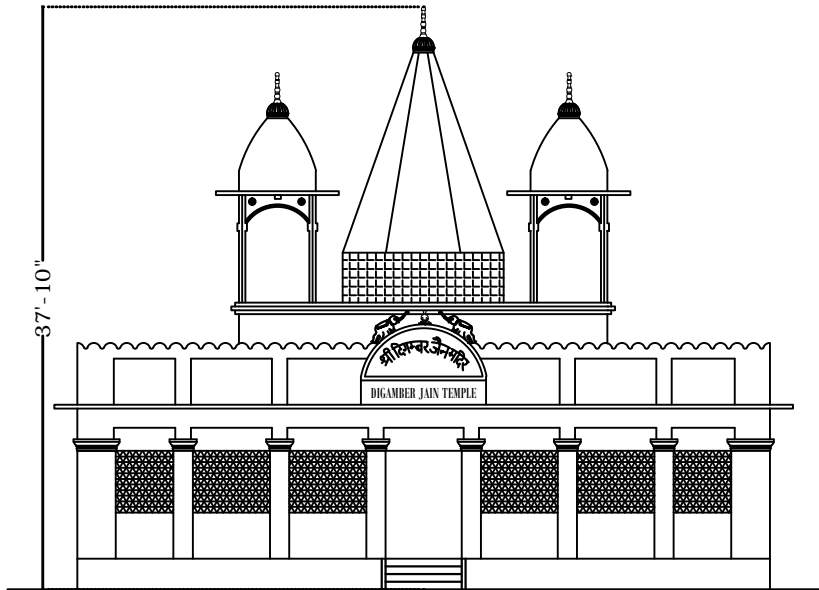


PLAN





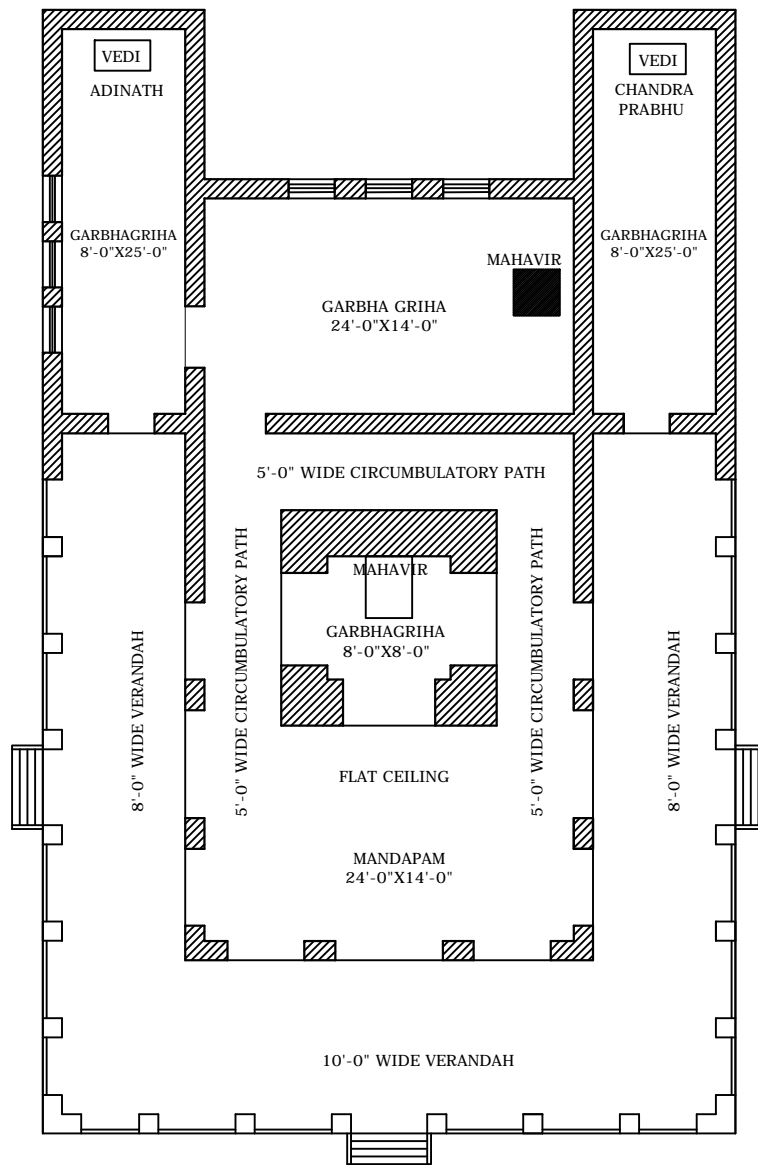
# SRI DIGAMBAR JAIN TEMPLE, ISHARI BAZAR, PARASHNATH, JHARKHAND



ELEVATION



VIEW



PLAN

LXII

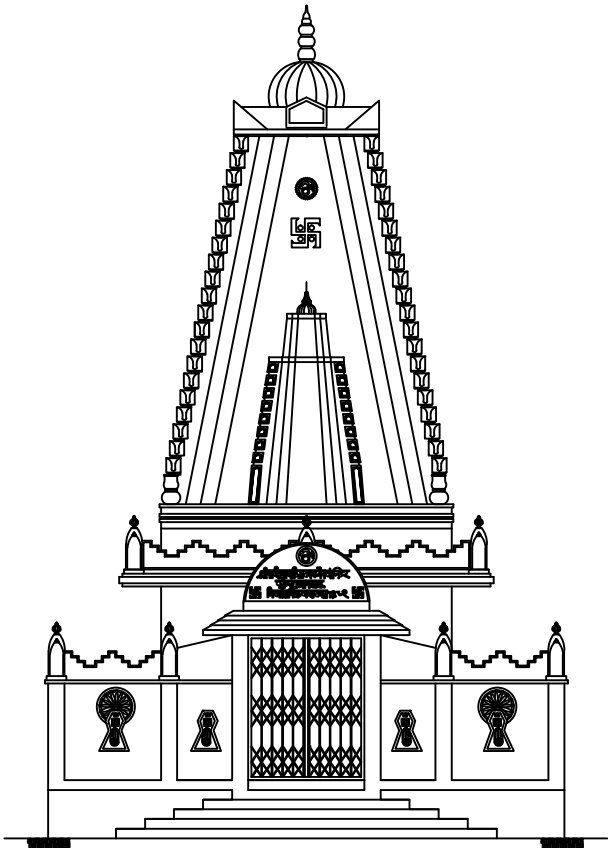




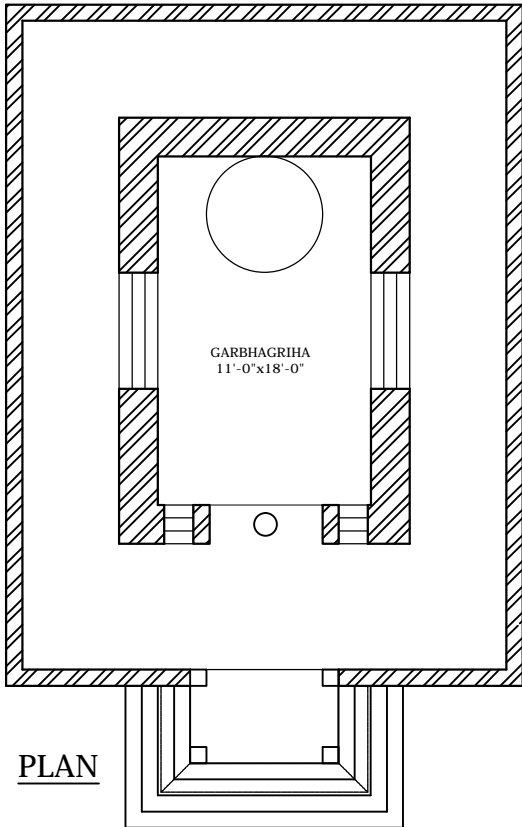
SRI PARSHAVNATH DIGAMBAR JAIN TEMPLE, KOLHUA MOUNTAIN,  
JHARKHAND



VIEW

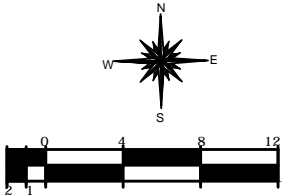


FRONT ELEVATION

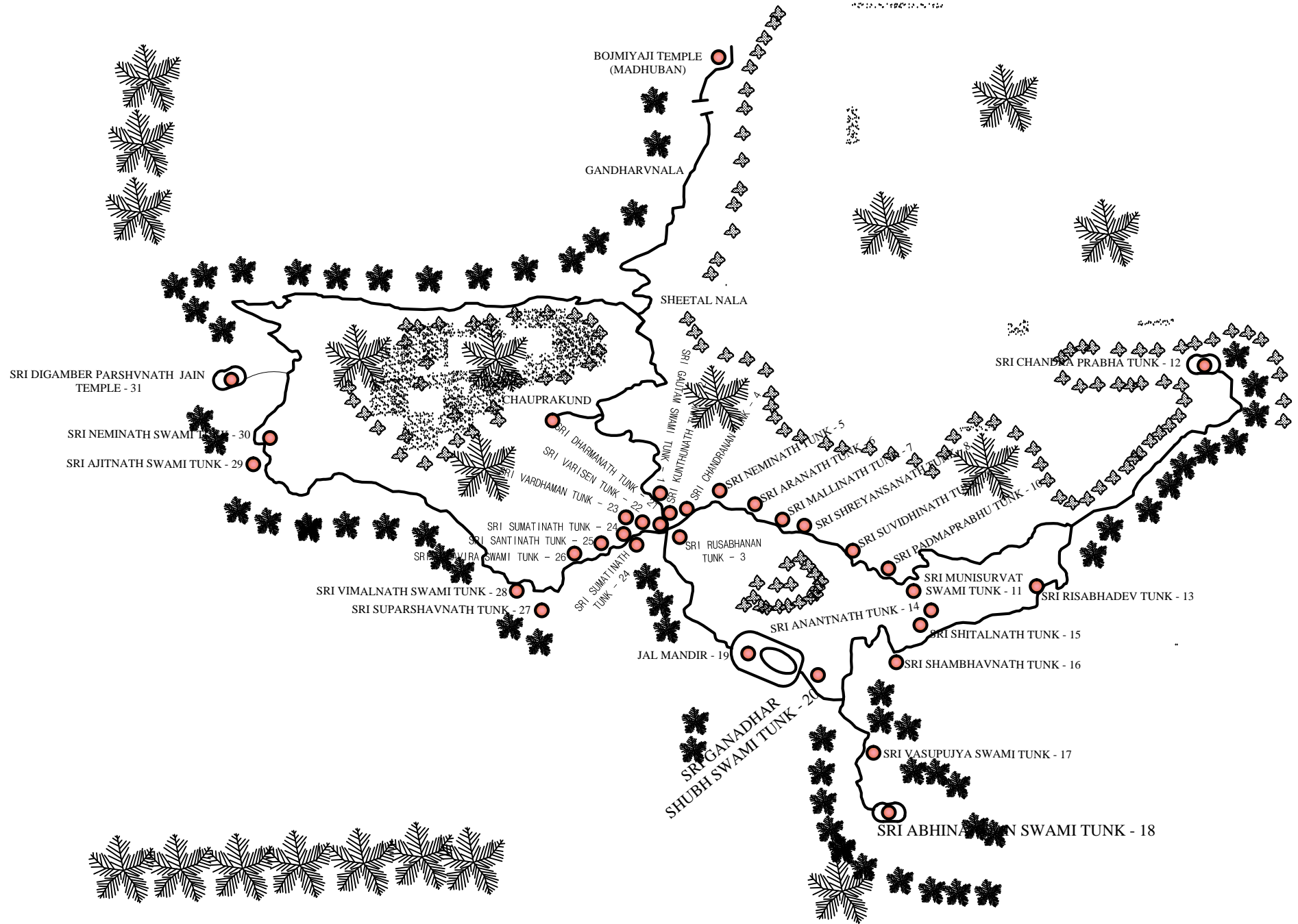


PLAN

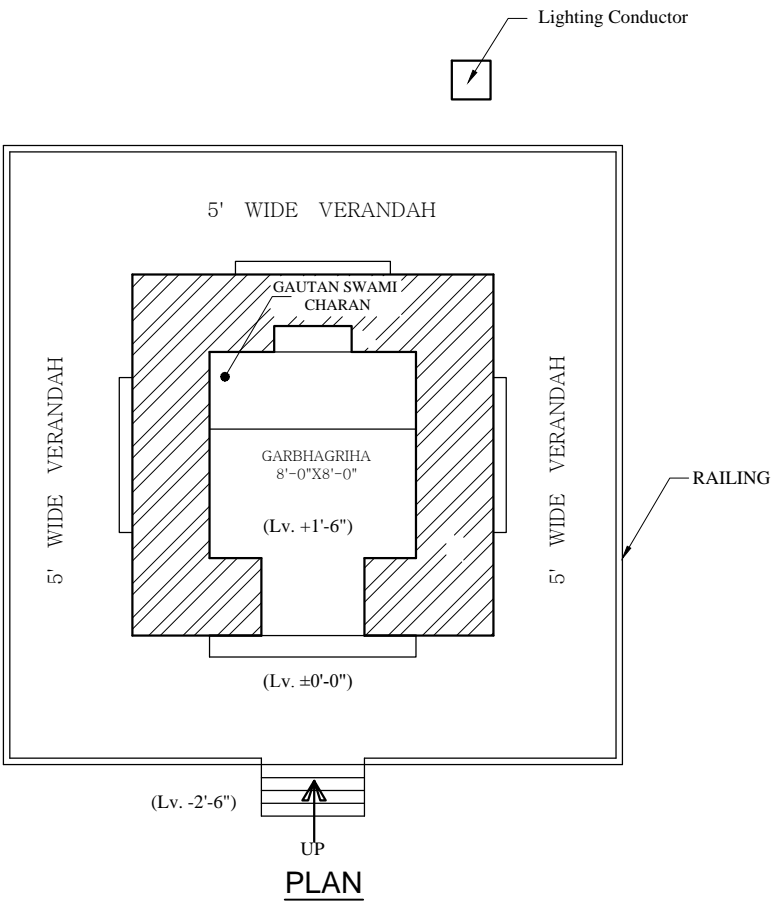
LXIII



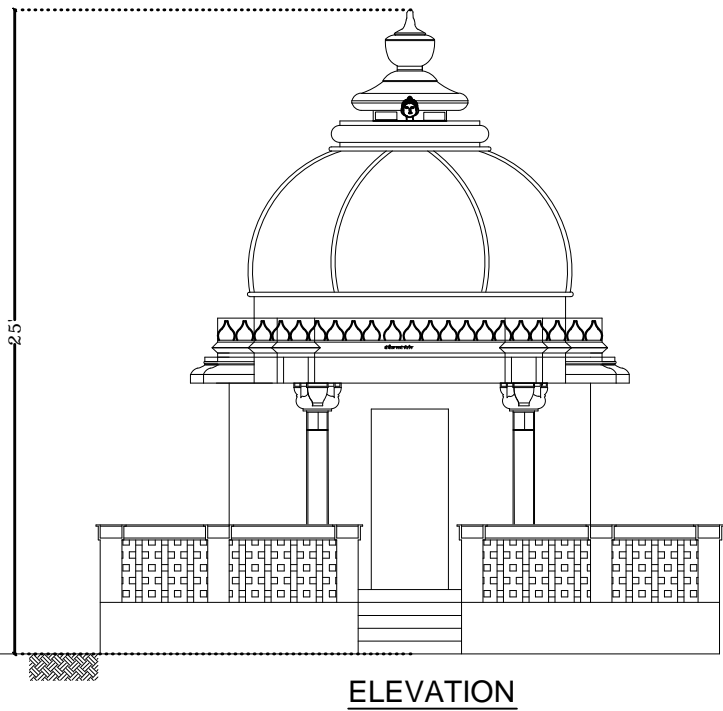
# SITE PLAN SAMED SHIKHAR, MADHUBAN, PARASHNATH



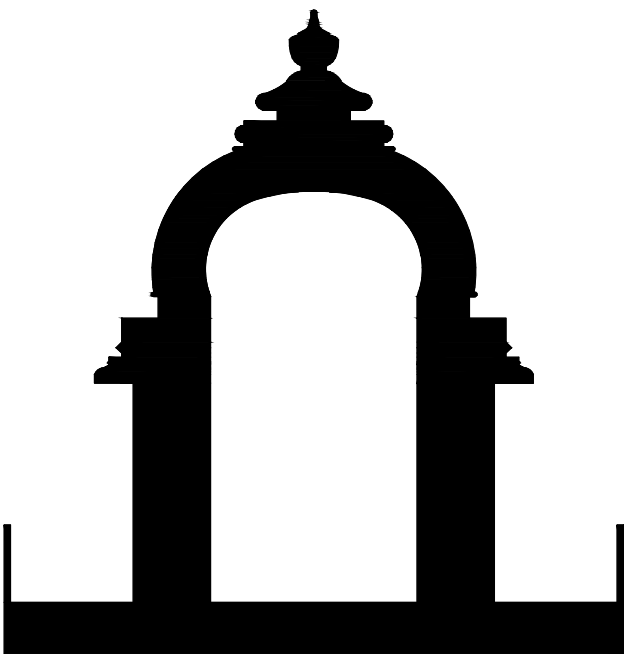
SRI GAUTAM SWAMI TUNK - 1



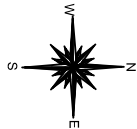
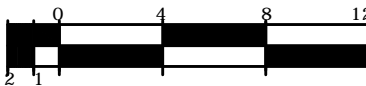
VIEW



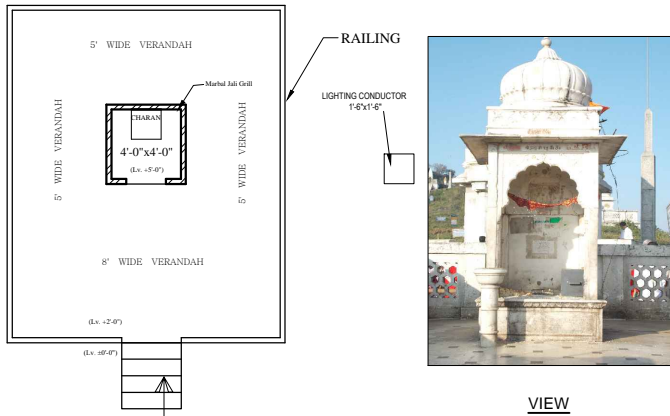
ELEVATION



TYPICAL SECTION

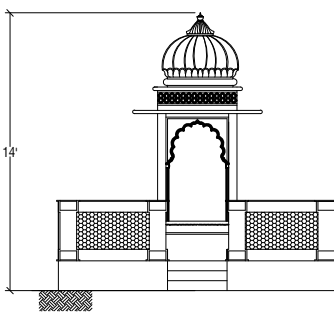


### SRI KUNTHUNATH TUNK - 2

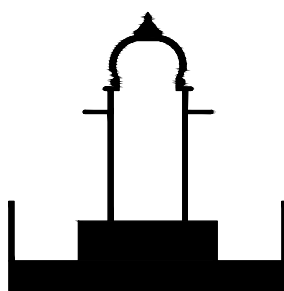


VIEW

PLAN

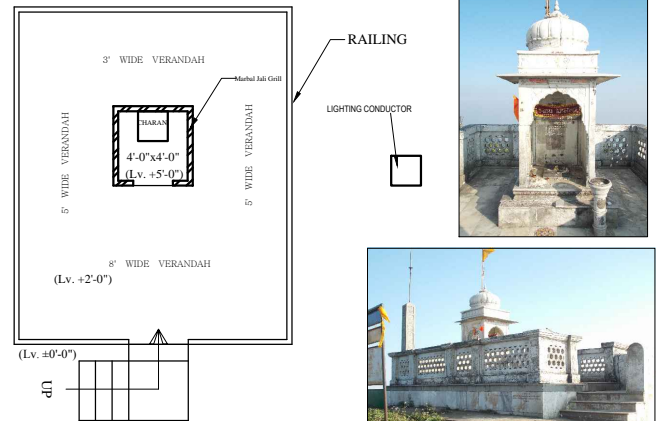


ELEVATION



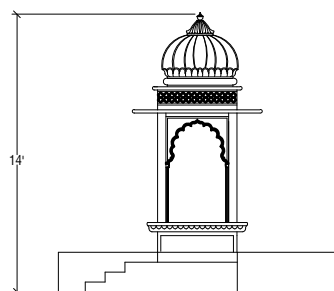
TYPICAL SECTION

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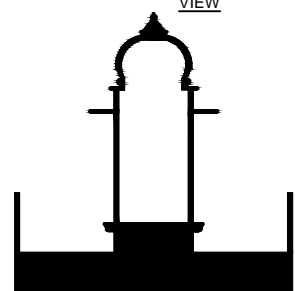


VIEW

PLAN

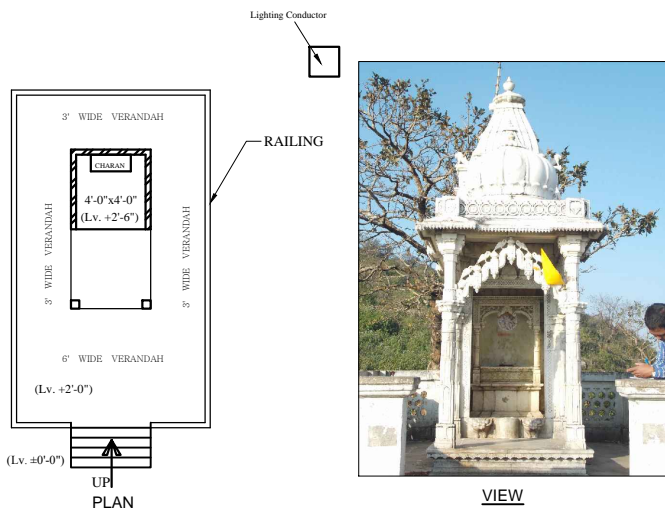


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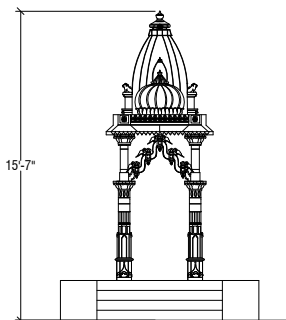
TYPICAL SECTION

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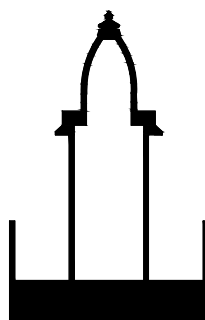


VIEW

PLAN

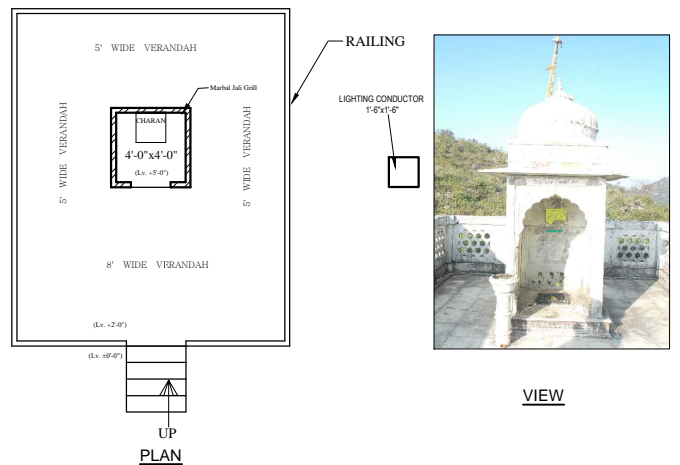


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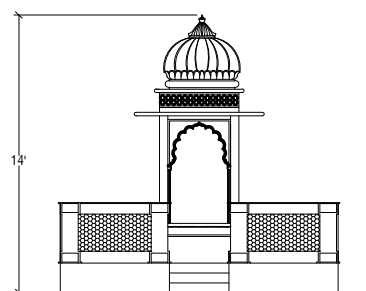
TYPICAL SECTION

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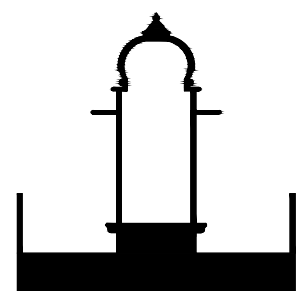


VIEW

PLAN

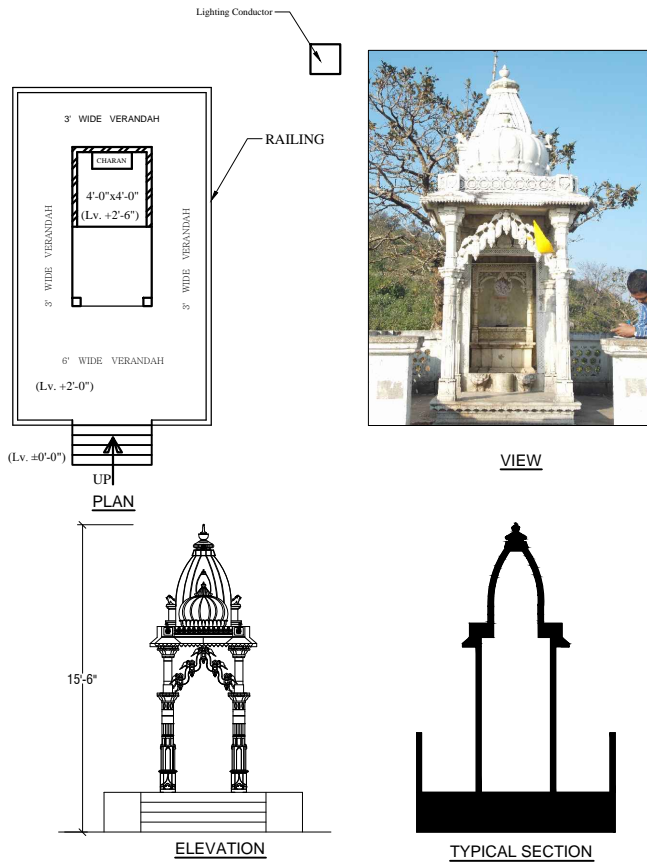


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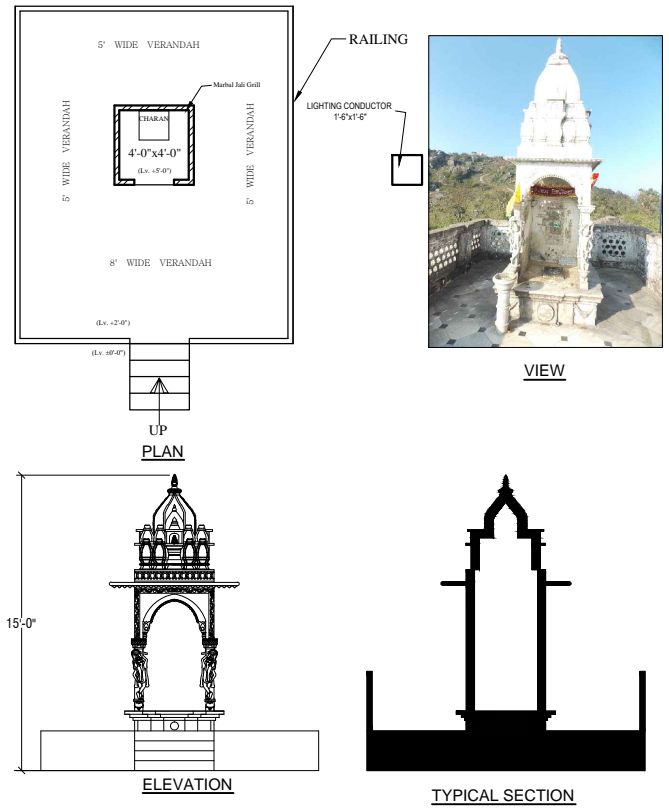


TYPICAL SECTION

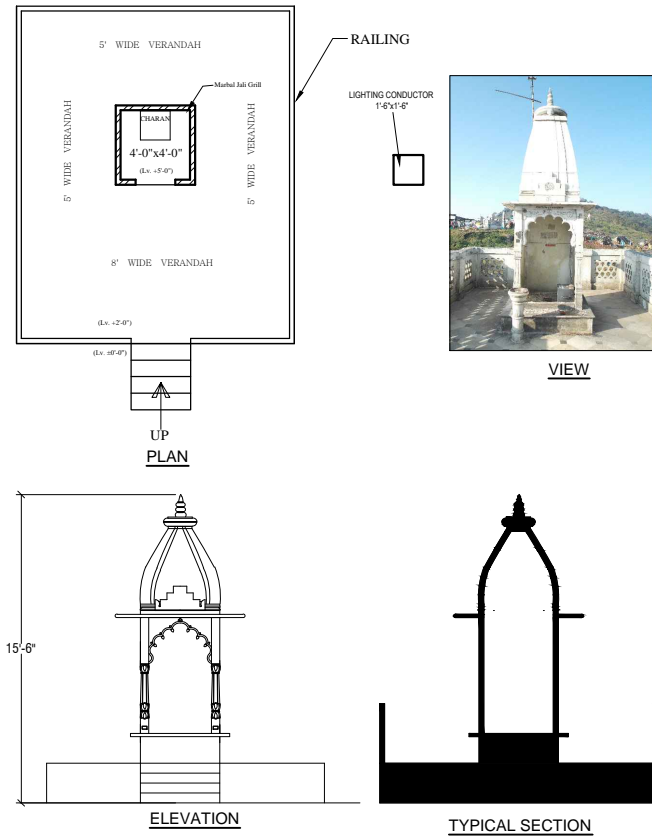
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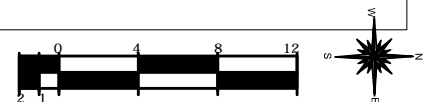
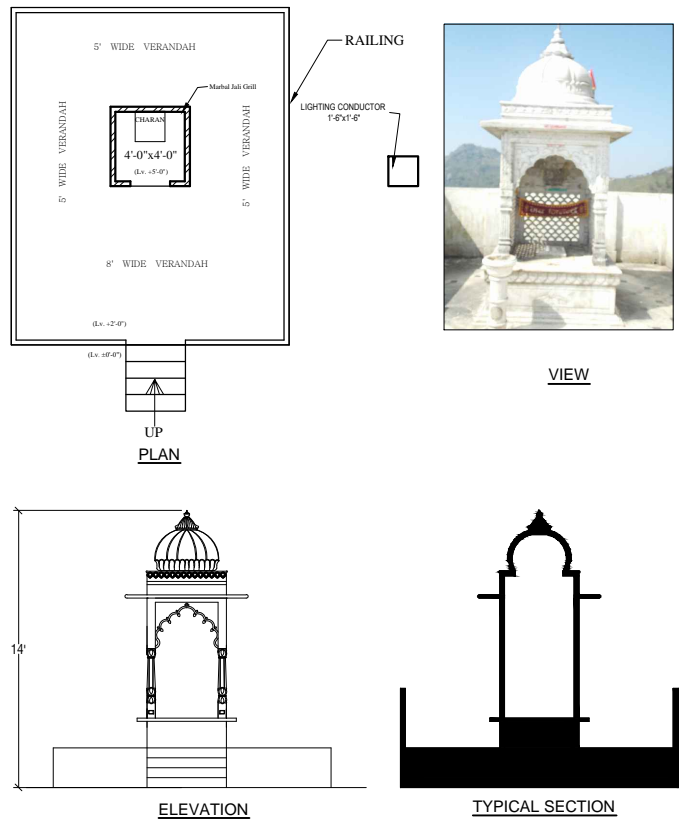
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### SRI SHREYANSANATH TUNK - 8

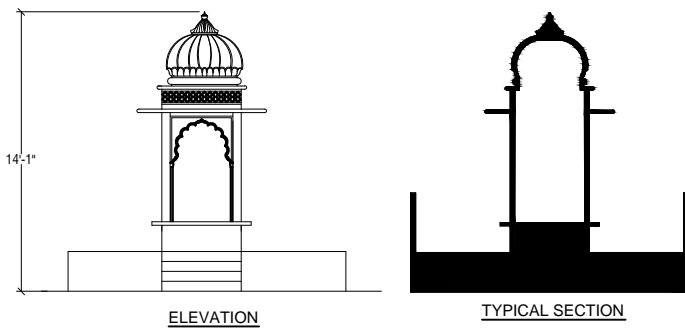
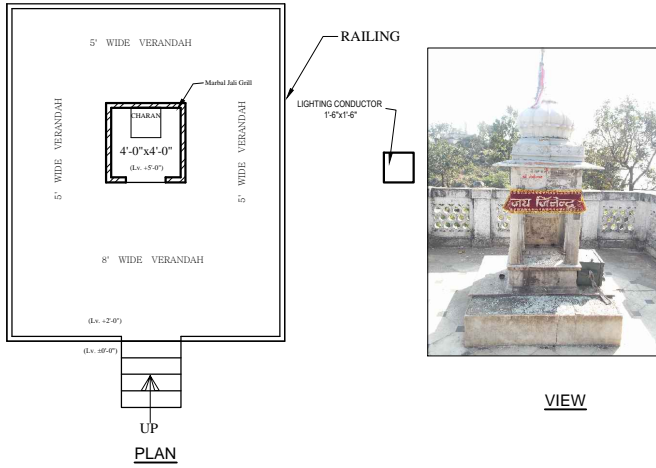


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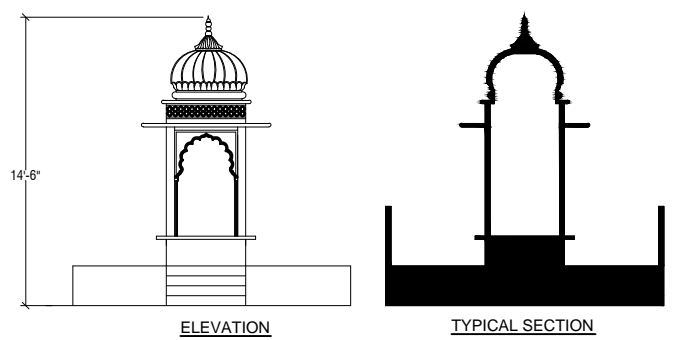
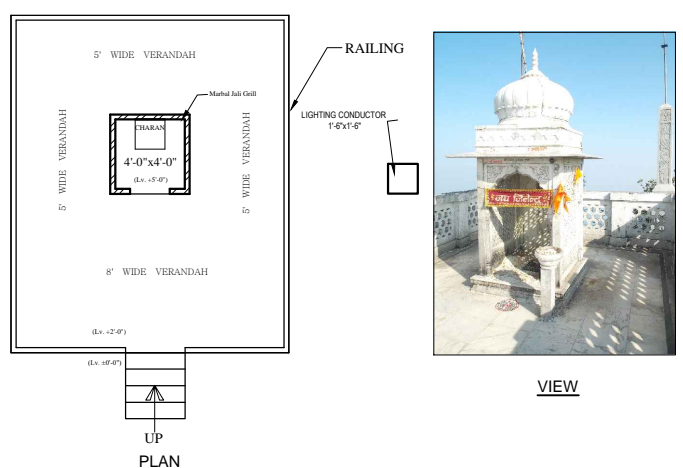




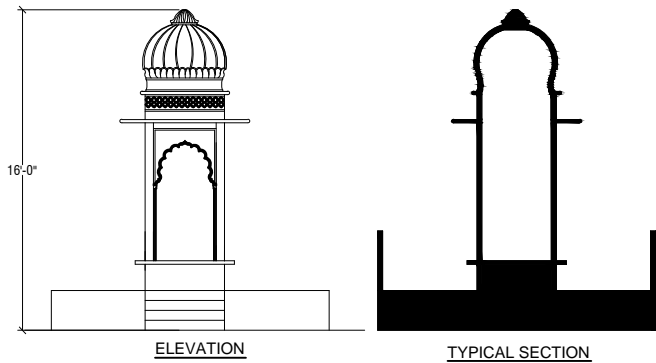
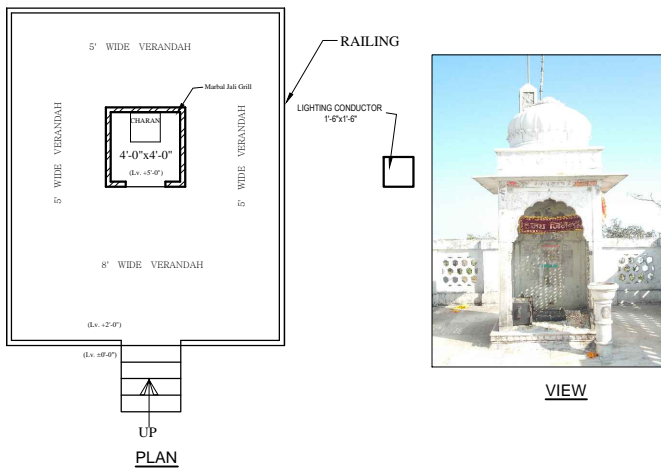
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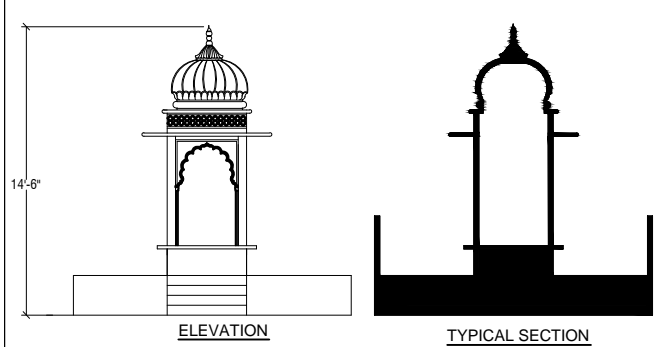
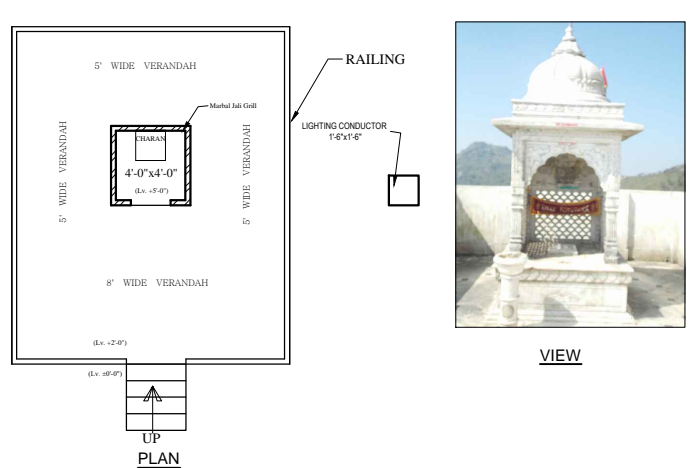
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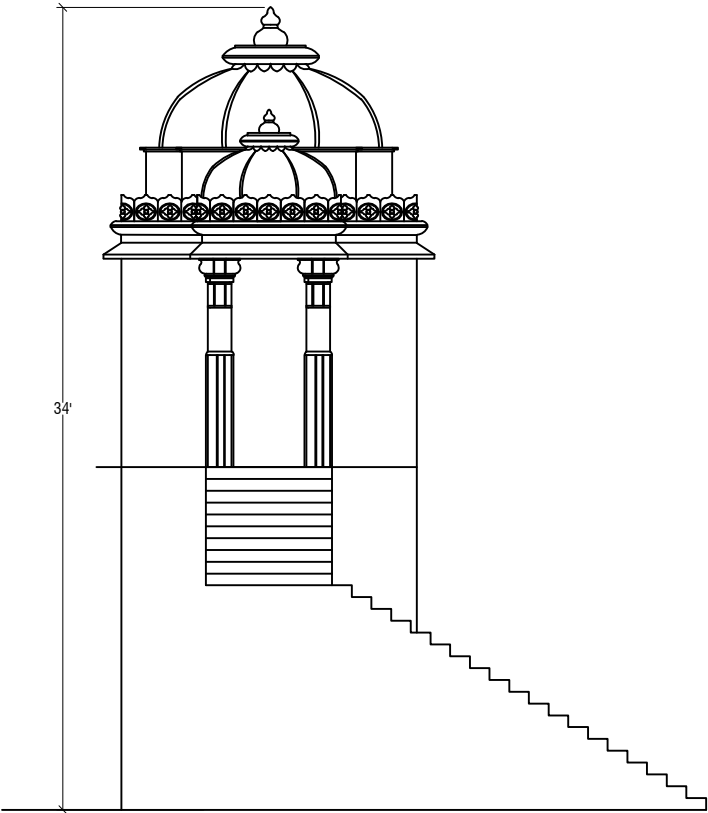
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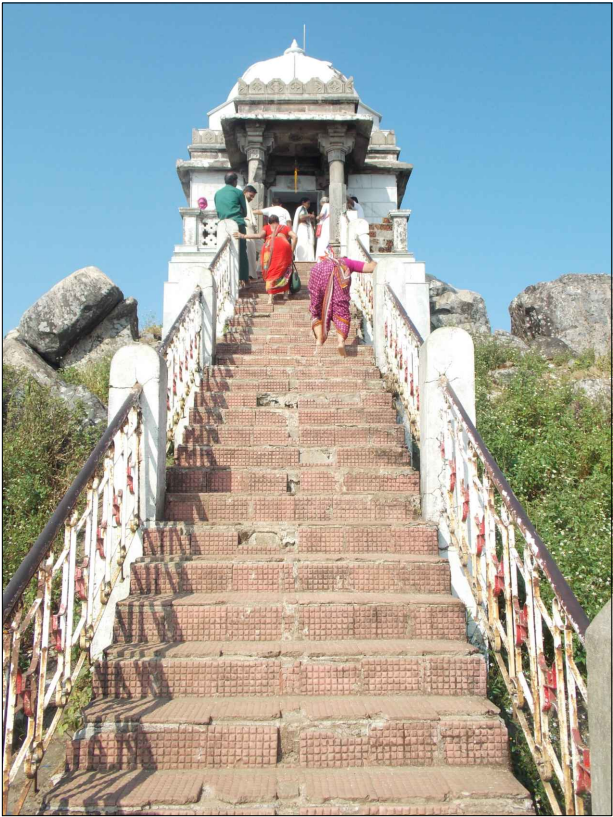
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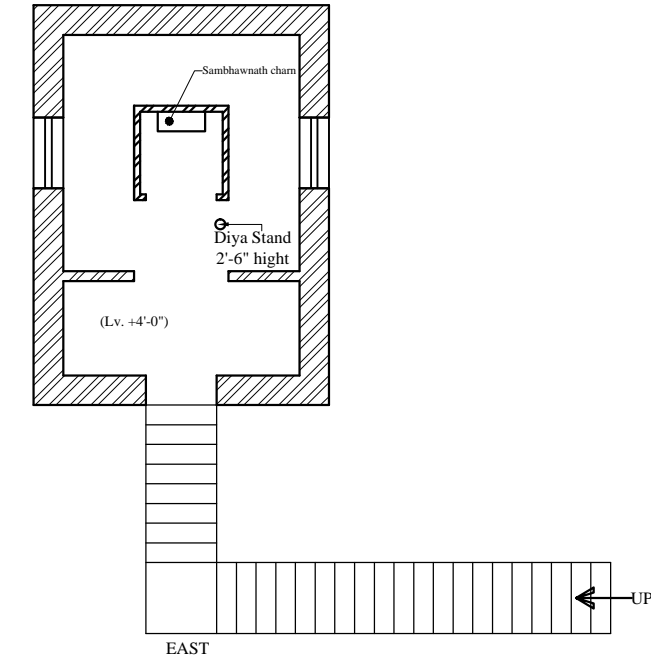
SRI CHANDRA PRABHA TUNK - 12



ELEVATION

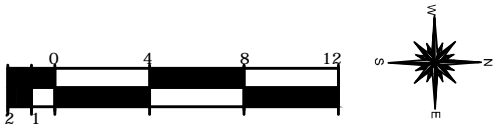


VIEW

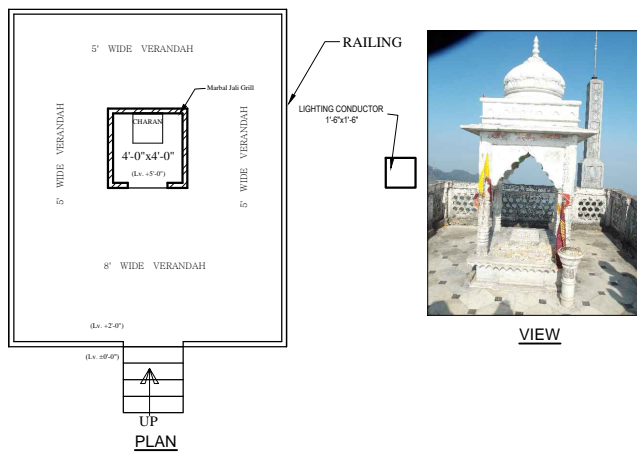


PLAN

LXIV (F)



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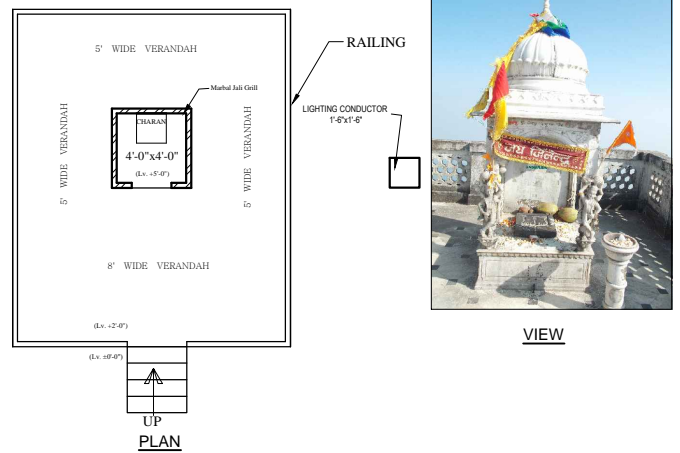


VIEW

ELEVATION

TYPICAL SECTION

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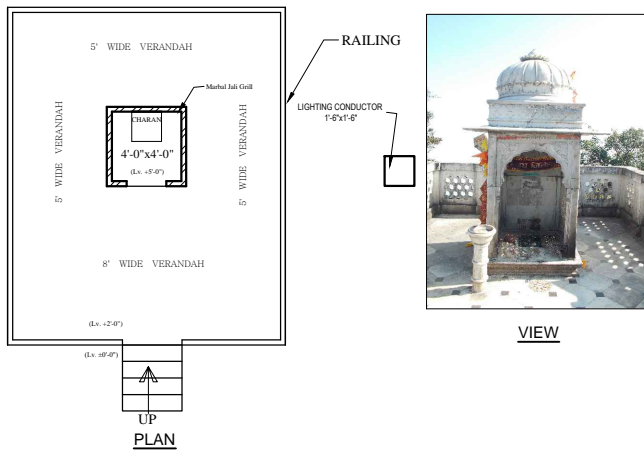


VIEW

ELEVATION

TYPICAL SECTION

### SRI VASUPOJYA SWAMI TUNK - 17

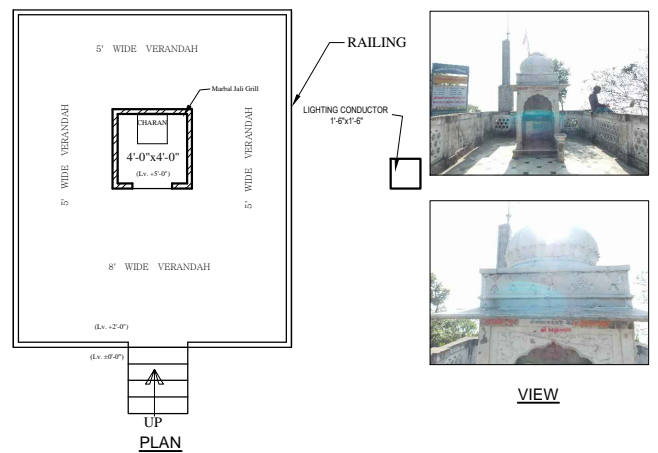


VIEW

ELEVATION

TYPICAL SECTION

### SRI ABHINANDAN SWAMI TUNK - 18

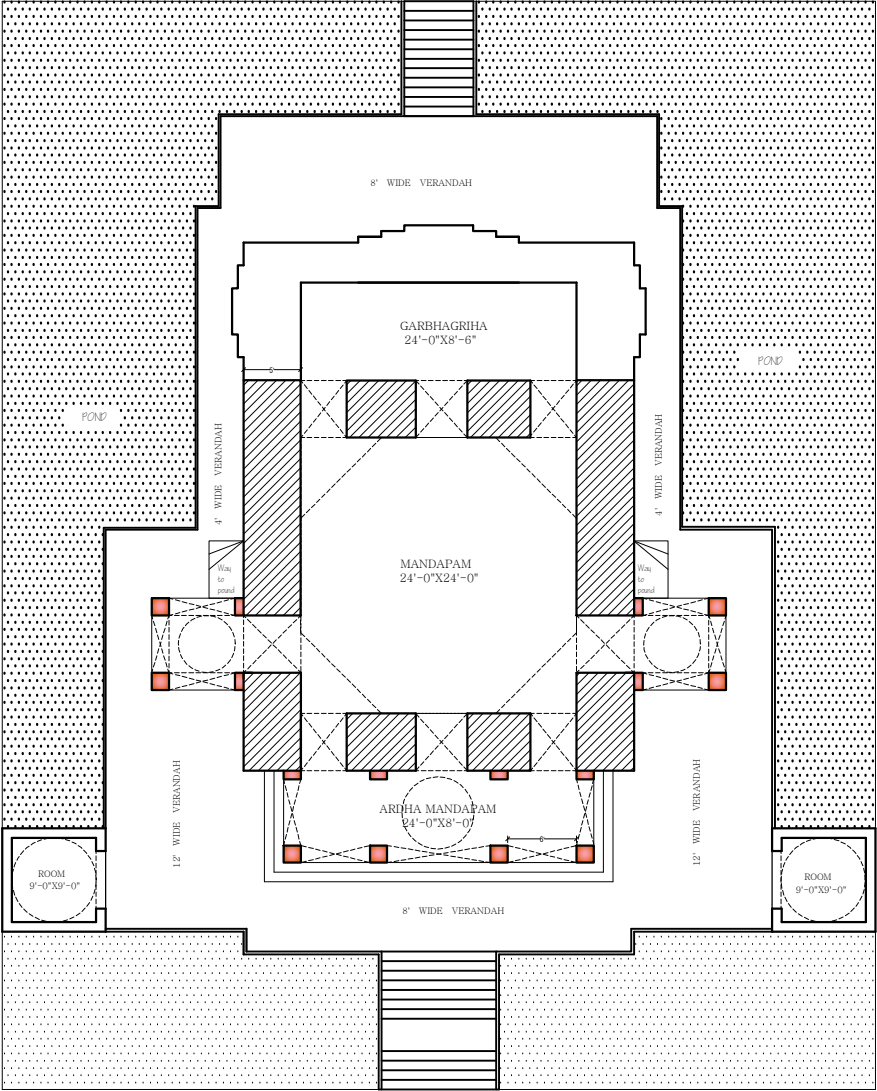


VIEW

ELEVATION

TYPICAL SECTION

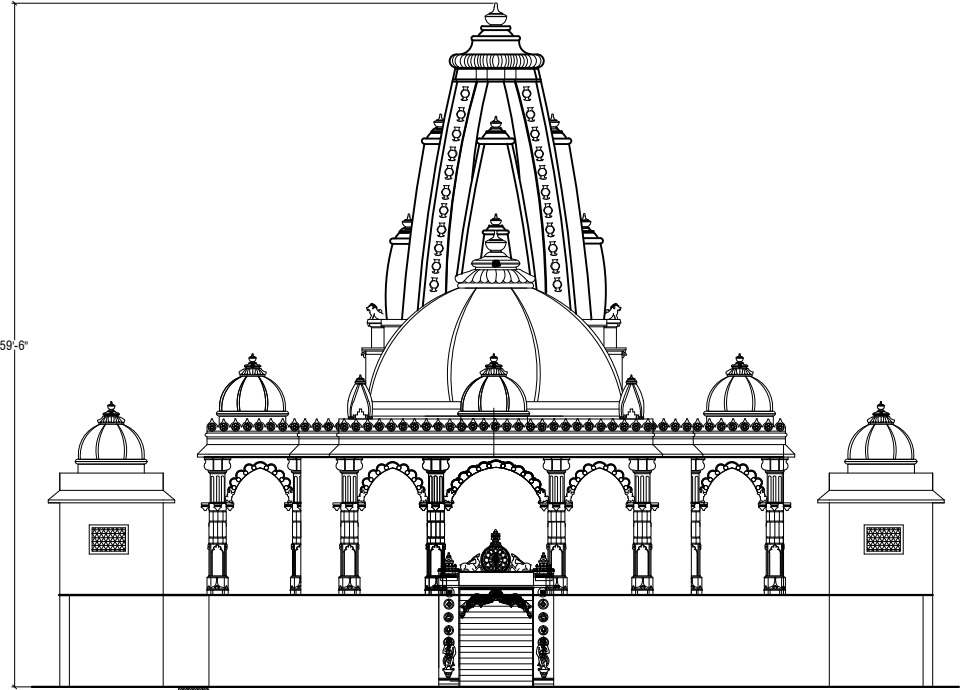




PLAN



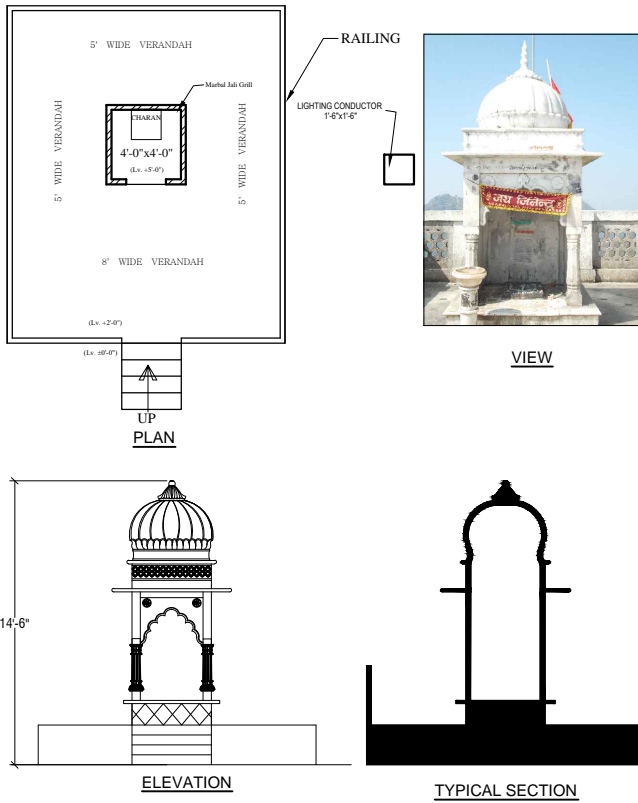
VIEW



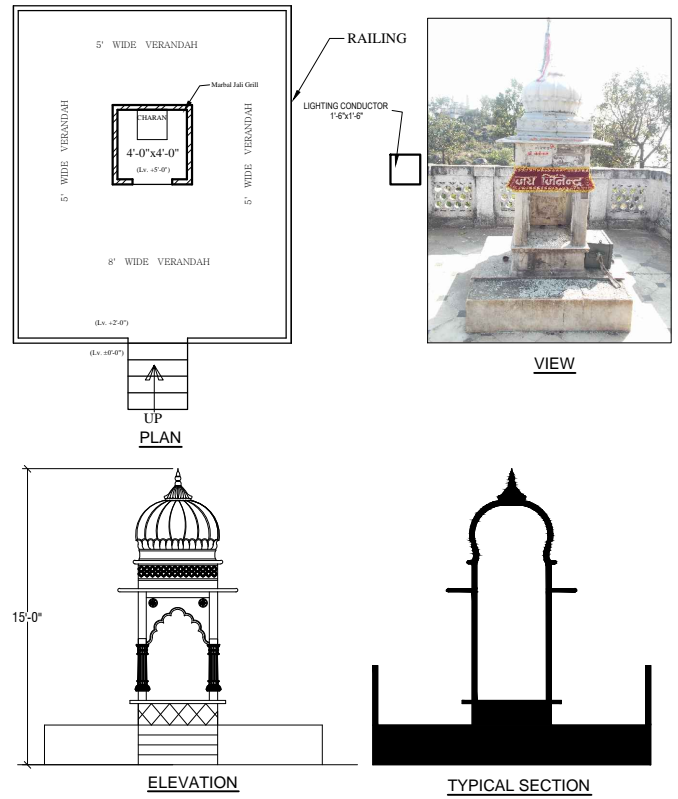
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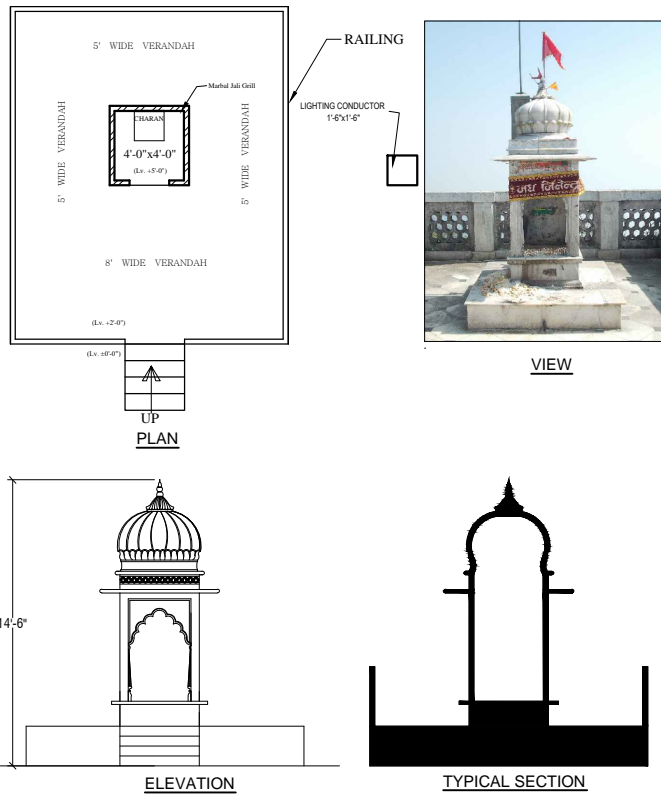
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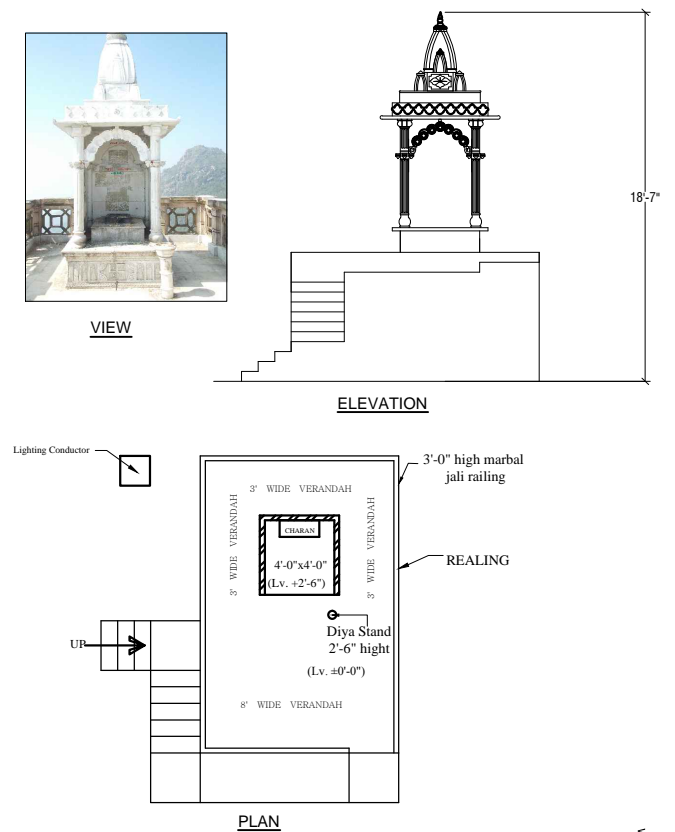
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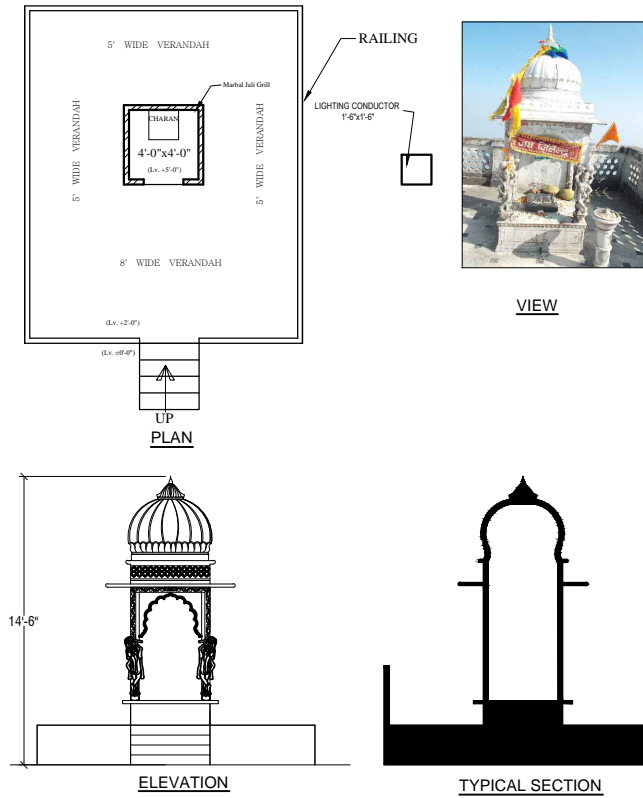
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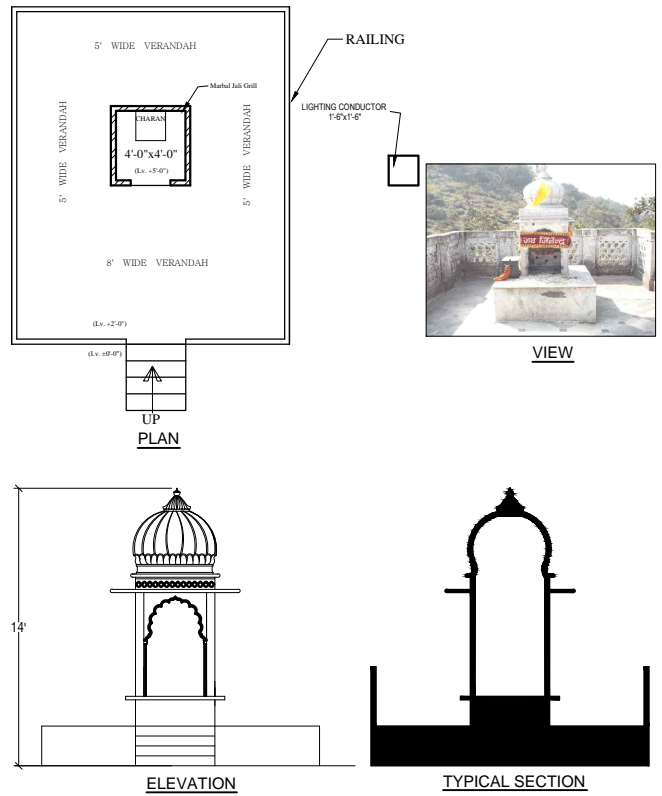
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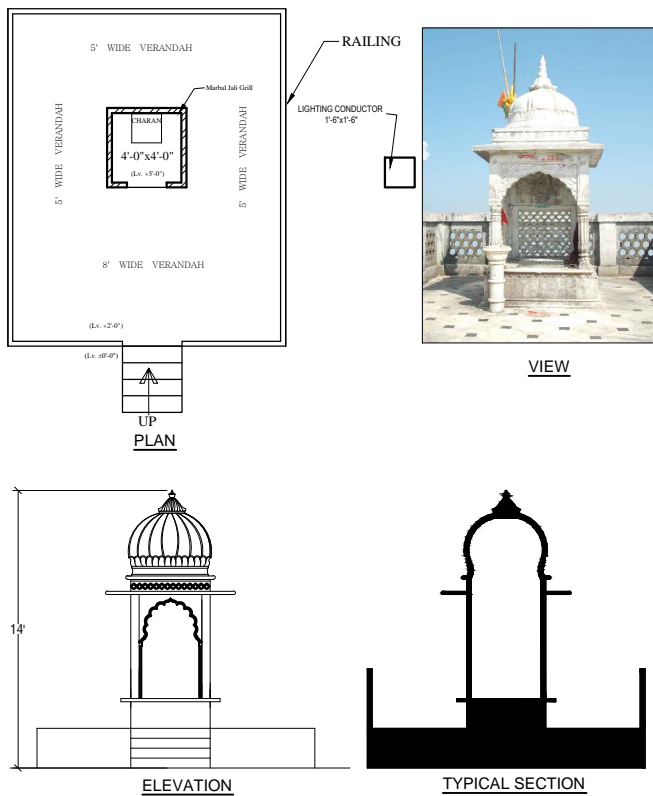
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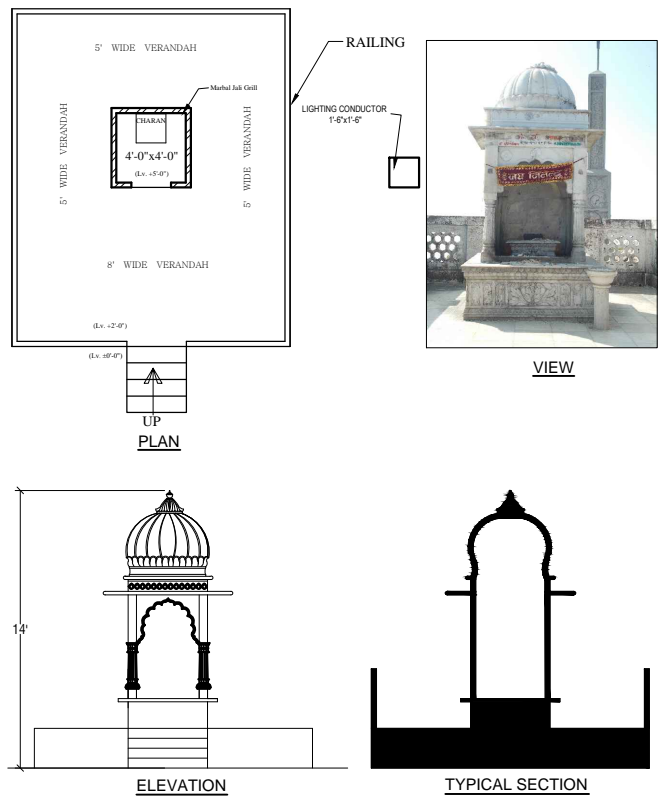
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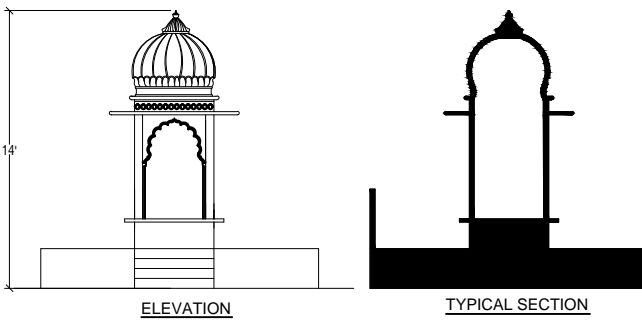
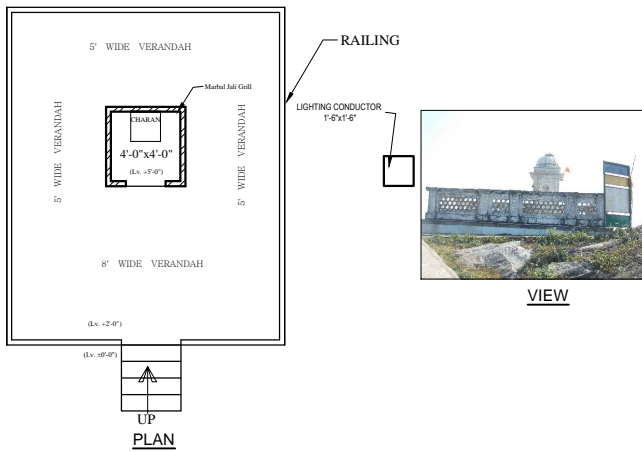
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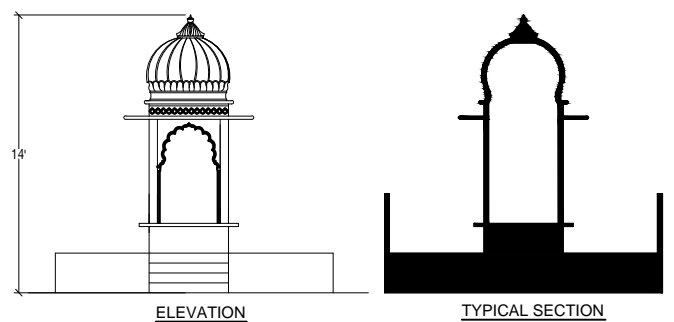
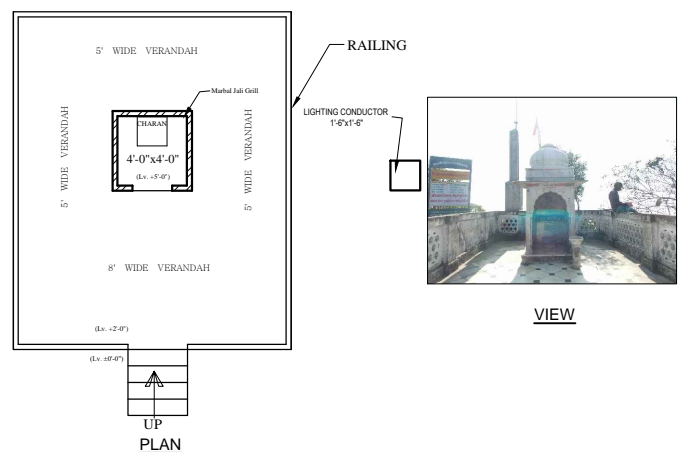
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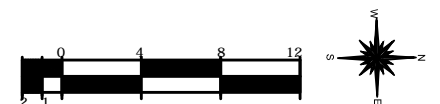
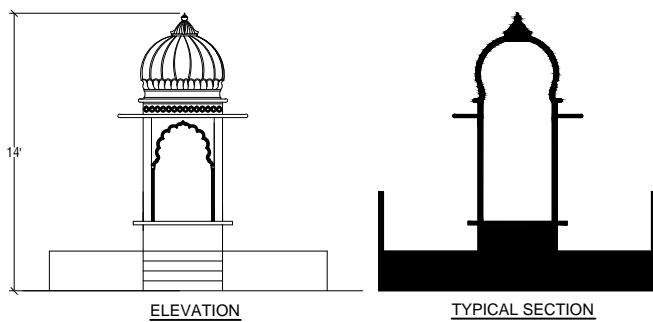
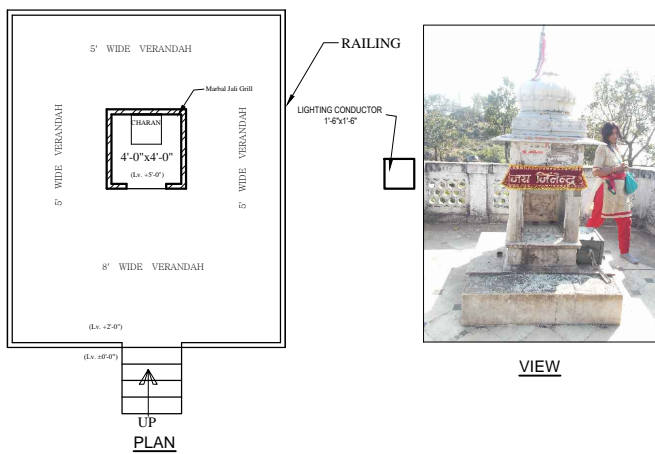
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### SRI AJINATH SWAMI TUNK - 29



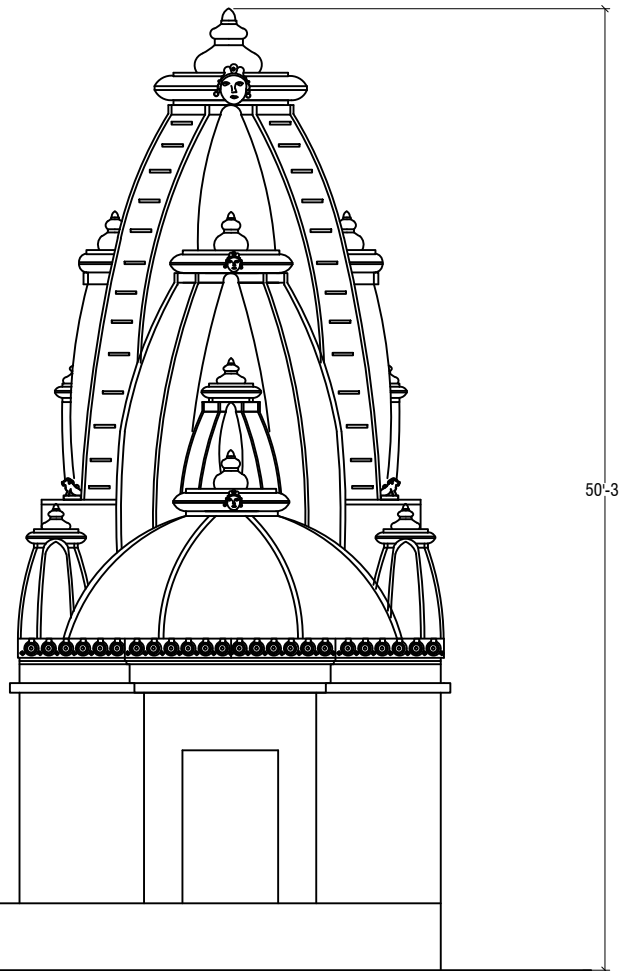
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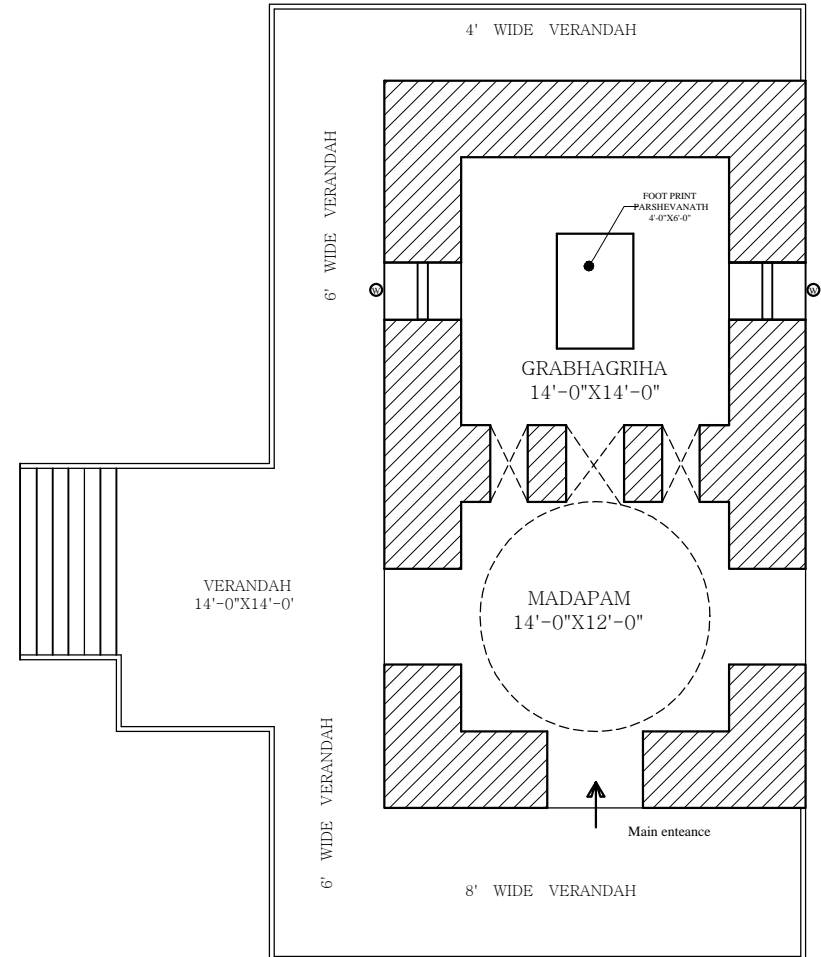
# SRI DIGAMBER PARSHVANATH JAIN TEMPLE - 31



VIEW

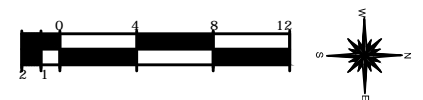


ELEVATION



PLAN

LXIV (L)



# PhD thesis

*by* Ravish Kumar

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