

SPIRITUAL REJUVENATION CENTER

A THESIS

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Architecture degree

By

POORVISH B

(39210060.)



DEPARTMENT OF ARCHITECTURE

SCHOOL OF BUILDING AND ENVIRONMENT

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
Accredited with Grade "A++" by NAAC | 12B Status by UGC | Approved by AICTE
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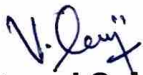
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This is to certify that Thesis Report is the bonafide work of **POORVISH B(39210060)** who carried out the Thesis entitled "**SPIRITUAL REJUVENATION CENTER**" under our supervision from December 2023 to May 2024


Internal Guide
Ar. Guruji


Internal Review Member
Ar. Juvilasri Vignesh


External Guide
Ar. Ranjan Daniel

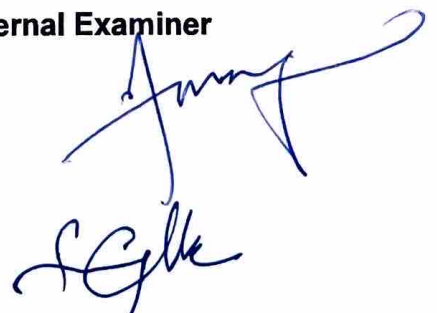


Dean and Head of the Department
Dr. DEVYANI GANGOPADHYAY

Submitted for Viva voce Examination held on


Internal Examiner

External Examiner



DECLARATION

I, **POORVISH B** hereby declare that the Thesis Report entitled "**SPIRITUAL REJUVENATION CENTER**" done by me under the guidance of **Ar.Guruji** (Internal Guide), **Ar.Juvilasri Vignesh** (Internal Review Member) and **Ar.Ranjan Daniel** (External Guide) Sathyabama Institute of Science and Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of Architecture Degree.



DATE:

SIGNATURE OF THE CANDIDATE

PLACE: Chennai

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THESIS SYNOPSIS

Our increasingly fast-paced world creates a need for spaces dedicated to spiritual renewal. This thesis proposes the design of a spiritual rejuvenation center, a sanctuary fostering inner peace and growth. By incorporating elements of nature, mindfulness practices, and diverse spiritual traditions, the center will cater to a wide range of seekers. Sustainable design principles will be employed to create a harmonious environment that respects the natural world. The spatial layout will encourage both individual reflection and facilitated group activities. The center's program will offer a variety of programs like meditation, yoga, and workshops on different spiritual paths. Accessibility will be a priority, ensuring the center welcomes people from all walks of life. Through its design and programming, this spiritual rejuvenation center aims to be a haven for those seeking a deeper connection to themselves and the world around them.

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Definitions & Abbreviations

Contemplative – Expressing or Involving Prolonged Thought.

Contemplative Space - Allowing your occupants to have a space where they can think, pray, meditate, or simply just be in the present moment.

Spiritual Environment –The spiritual environment is an open environment available to all humankind to access, irrespective of their attitude to religion or to religious beliefs.

Bio Geometry - Bio Geometry is a Science that deals with the energy of shape; it uses shapes, colors, motion, orientation and sound to produce a vibrational quality that balances energy fields.

1 INTRODUCTION

1.1 Background of the study

Spirituality, derived from the word "spirit," is a broad concept with many perspectives; in general, it includes a sense of connection to something bigger than ourselves, and typically involves a search for meaning in life; it may be described as a sacred or transcendent experience, or simply a deep sense of aliveness. Individual descriptions of spirituality may evolve over time as people get more acclimated to their own experiences..

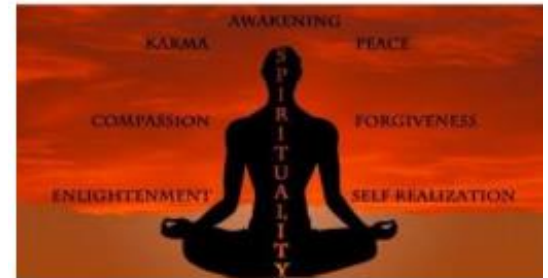


Fig 1.1 Spirituality

It takes time to become aware of and analyse one's own awareness. Only in such situations can the significance of self-healing and self-awakening be understood. The current generation, of which we are all members, has outgrown the significance of conserving what has been passed down to us. Humans are drawn to what is outside of them rather than what is inside them.

To fill the emptiness that has caused such profound alteration in the human race, spiritual spaces are vitally needed. Despite the fact that tranquilly may be found anywhere and at any time, the calm and stillness that surrounds us are alienating people from true spirituality, i.e., "connection with your inner self."

As a result of the resulting imbalance, the wide study of architecture must apply its brains in creating settings that will attract individuals for their own advantage while keeping them away from the commercial world.

Architecture is a phenomenon that increases the built environment's quality while tolerating diverse activities. Architecture entails more than only the construction of physical enclosures such as buildings. On the contrary, it is a fabricated manifestation of thoughts, wants, beliefs, and emotions that interacts symbolically with its consumers. Spiritually, it is targeted at all civilizations, and individuals from all groups are invited to join in on the voyage.

Spiritual architecture therefore benefits the larger society by bringing diverse cultures together in one area to undertake spiritual rituals. The spirit of a location or environment in which man engaged in his everyday activities is addressed by architecture. A setting like this has cosmic, spiritual, and natural qualities.



Fig 1.2 Church if the Light-Todao Ando providing open slits in the wall and allowing

1.2 Criteria of Selection

Contemplative place provides an environment in which meditation becomes easier for the user.. Contemplation architecture is concerned with the design of constructed environments that serve as a location for direct and deliberate meditation.

In the case of Vipassana Centers, the meditation practice compels participants to concentrate in enclosed surroundings. The quality of the constructed environment will be critical for such centers.

As a result, a thorough examination of the form, geometry, shape, and volume of a space capable of creating an environment conducive to contemplation is necessary. A detailed comparative study of diverse meditation centers is required to understand the nature of constructed and unbuilt settings.

1.3 Research Questions

How can the spatial qualities of a built place contribute to the creation of a spiritual atmosphere and a pleasant experience?

1.3.1 Sub Questions

- 01 Why do open places seem to be favored for meditation?
- 02 What exactly is spiritual architecture, and what are its characteristics?
- 03 How can architecture inspire contemplation?
- 04 What are contemplative environments and what characteristics characterize them?
- 05 How does nature create a contemplative environment?
- 06 Can the environment have an impact on contemplative practices?
- 07 What function do geometry and shape play in the spiritual environment?
- 08 What architectural characteristics would be beneficial to spiritual practices?
- 09 Why is it easier to meditate in nature?
- 10 Do structural size and proportion matter in spiritual spaces?

1.4 Aim

To design a center in connection with surrounding nature which facilitates in developing and healing the body, mind and spirit of people and also helps in achieving inner peace.

1.5 Objectives

- To enhance a design program that would be beneficial and useful for all the religions and age groups.
- Understanding spaces for multi uses and activities and designing accordingly to the user behavior.
- A design that would satisfy and provide all the amenities for users visiting from various places.
To provide spaces for multi-faith visitors and users.
To come up with an overall design that would be a mixture of open, semi-open and closed spaces and will satisfy the needs of different users.
To provide a solution on achieving spiritual energy by combining the built environment with the nature.
To provide special attention for the mental and physical health revival through design of spacecuts

1.6 Hypothesis

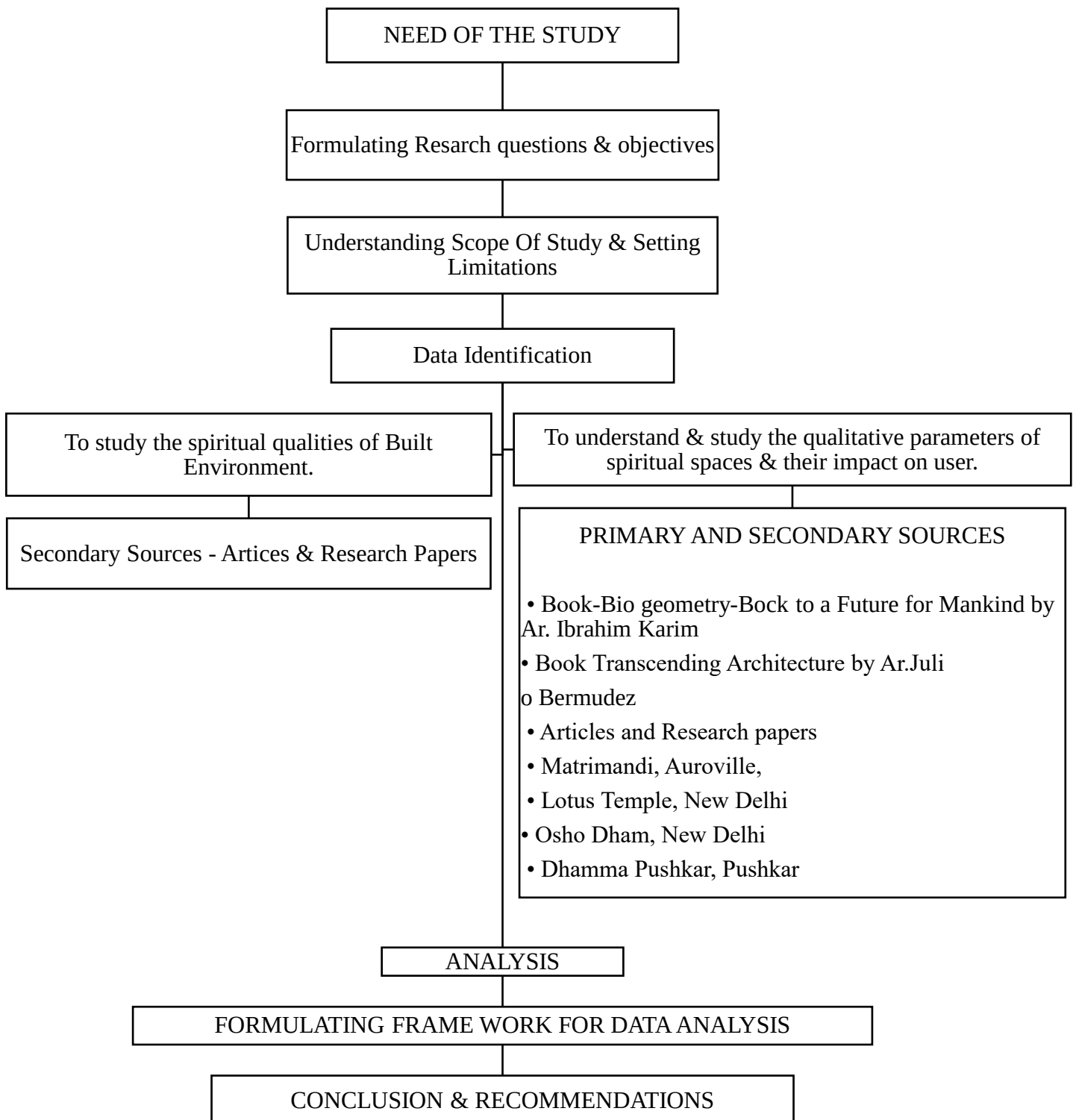
Mindfulness is dependent on the spatial qualities of a location, whether it is built or unbuilt.

1.7 Scope and Limitation

1.7.1 Scope

- The building will be an attempt to create the spirit of place rather than a concrete enclosure,
- Architecture is an enabler for better spiritual health rather than being the focus of attraction.
- The architecture would also explore the philosophies and science of pyramid energy and would try to integrate the same.
- Different types of spaces based on different Chakras would be explored: group spaces, solitary spaces, recreational and therapy spaces.

1.8 Research Methodology



2 Contemplative Spaces and Elements

2.1 Contemplation

- Contemplative Elements and Spaces
- The act or state of thinking.
- In-depth observation or research.
- Spiritual meditation, especially as a kind of devotion.
- Deep reflective thought.

The term contemplate comes from Latin and means "to observe, especially in a location (temple) designated for observation." With the term space interwoven into the word's true origin, a concern for the relationship between the created space and the act of contemplation occurs. The dictionary defines contemplation as "reflection on spiritual subjects," yet contemplation is not the same as meditation. Meditation focuses on something or someone in particular: a subject.

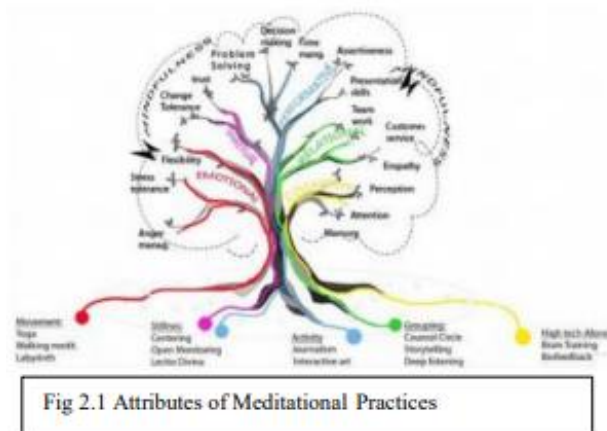
In contrast, contemplation is a relationship between two equal subjects. By just being in the presence of the other topic (typically God), the human subject attempts to expose oneself to it. Contemplation is frequently employed in non-religious contexts in modern life. It is regarded to as a style of serious self-reflection, and the devotion is directed towards the essence of the subject's own soul rather than a supra mundane force. Only religious expressions are included in this study.

2.2 Contemplative Spaces

Contemplation spaces are spaces created for the act of contemplation.

The goal of these rooms is to create an environment in which individuals may easily attain a state of contemplation. Various design aspects are employed to improve the surroundings and the visitors' experience.

Contemplative environments may be found anywhere, including hospitals to help patients heal, schools to help students learn, and offices to help employees function. However, when a divine or religious element is imparted to a contemplative area, it transforms into a spiritual environment. Thus, every Spiritual Space is also a Contemplative Space, but not every Contemplative Space is spiritual.



2.2.1 Types Of Contemplative Spaces

Physical design has an unquestionable impact on mental state and social interaction. According to Bermudez, architecture has the ability to "move us from the commonplace to the spectacular, from the profane to the holy."

The physical design responsible for such movement may be found in a variety of situations, ranging from holy places such as religious structures to tranquil gardens to refuge zones in bustling metropolitan centers.

There are three distinct ways of thinking about the relationships between architectural forms and the process of contemplation.

1. Theatrics Mode

It includes architectural businesses that create the stage or provide the backdrop for theatrical spiritual events. The architectural forms themselves are rarely the objects of the ritual in this context. In these circumstances, it is more true to state that individuals perceive the ritual acts enabled by the architecture rather than the design itself.

Ar. John Pawson's St. Moritz Church, 2013

The Church's interior is designed in a simple style:

For diffused sunlight, put transparent white stone on windows and glass.



The inside is all white, with dark stained wooden furnishings and Portuguese limestone floors.

At night, LED lights hidden in the choir apse, at the foot of columns in the nave, and in rings around the cupola domes atop provide illumination.

This architectural sculpture is an excellent example of theatrical...

With its strong concentration on the altar and the spectacle of the mass, the structure serves a clear theatrical purpose, providing meaning and spirituality by its grandeur and spectacular but modest design, which does not constitute an object of devotion in and of itself.



Figure 2.4 Theatric mode of Contemplative Spaces.

Fig 2.4 theatrics mode of contemplative space

2. Sanctuary Mode

This style includes architectural forms that offer boundaries between the general world and something more unique, so creating a "holy space" in which a contemplative experience is generally had.

Ar. Van der Laan's Roosenberg Abbey, 1975

The abbey was initially designed to house twelve nuns and twenty-five visitors. The complex was created for contemplation, quiet, or even passionate engagement; it goes beyond the concept of usefulness and may be used in a variety of ways.

The Christian abbey or monastery is a prime example of a sanctuary structure. Most monasteries follow the introvert archetype, isolating the inner spiritual environment from the outer world and establishing a contemplative mood at the centre of the monastery; the courtyard. Monks and nuns living in monasteries in several orders have traditionally lived entirely behind the domain's walls, with no interaction with the outside world.



Fig 2.5 closing of a spiritual place from a prosaic world

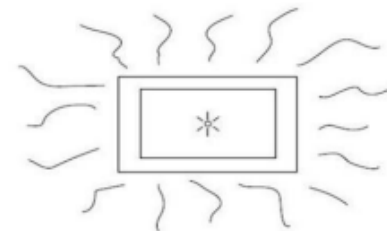


Fig 2.6 sanctuary mode of contemplative spaces

3. Contemplation Mode

Architectural contemplation was the third way to think about the link between architecture and contemplative experience. This entails the construction of structures that serve as the real focus of direct and deliberate, meditative attention. This is when architecture not only aids but also initiates a meditative experience.

Hajj in Mecca

The pilgrimage follows a counter-clockwise circular circuit around the Kaaba.

The Kaaba (Ka'bah), a cube-shaped building wrapped in black silk, is Islam's most revered site and the pilgrimage's main purpose.

The most well-known example of the meditative mode is the Hajj in Mecca, where architectural aspects are not only useful but also critical in initiating the ensuing religious experience.

Contemplative temples of Cambodia, such as Angkor Wat and Borobudur, are also excellent examples.



Fig 2.7 architectural object focussed

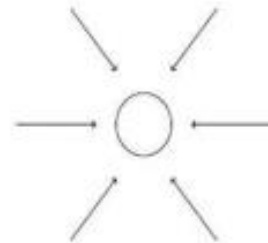


Fig 2.8 contemplative mode of contemplative spaces

2.2.2 Types Of Contemplative Spaces



Figure 2.9 Natural light through funnels from south facade.



Figure 2.10 Plan showing the funnels for natural

Chappelle Notre-Dame-du-Haut, France - Le Corbusier (1953)

The architectural elements used by Le Corbusier in the design principally comprise the south facade wall, which allows natural light to penetrate the internal area.

The changing treatment of the windows in form, best visible in plan, has an influence on the architecture as it channels light into the space and affects the people who use it.



Figure 2.11 Church elevational view

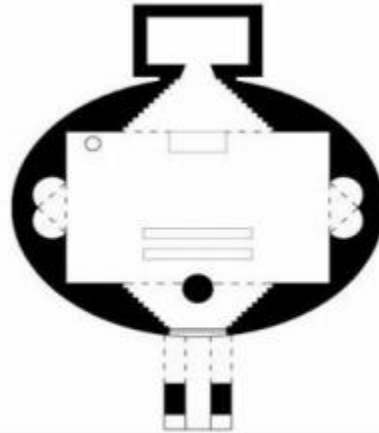


Figure 2.12 Plan showing use of geometry

Church of San Giovanni Battista, Switzerland - Mario Botta (1996)



Figure 2.13 The walls were specifically designed as a backdrop for the paintings



Figure 2.14 The landscape enhances the contemplative environment.

Botta's design is based on a circular layout that represents man's uneasiness. As the church rises and meets a perfect circular roof, it represents the perfection of the skies and universe.

Geometry, proportion, size, and interior landscapes are used in architectural techniques to generate a spiritual experience.

Windhover Contemplative Centre, Stanford University - Aidlin Darling Design

A synthesis of art, landscape, and architecture to both refresh and energize users.

The use of rammed earth, large native rock walls, louvred skylights, water in connection with landscape, fountains within the main gallery and the courtyard all contribute to a deep sense of tranquility and quieten the outside commotion.

2.3 Attributes of Spiritual Spaces

Architecture is the first to pave the road for the proper realization of one's inner self. For this reason, it creates space for self-realization, informs his external world, and constructs a suitable location for the gathering of individuals with similar religion, as a defense from tempest, rain, and violent animals. Aside from the many architectural and design techniques used in the quest to create a space where man may feel spirituality, there are several common design tools that aid in the creation of a soul-stirring experience.

2.3.1 Threshold

The Threshold is the entrance to the holy area that serves to distinguish it from the larger surrounding environment and welcomes you to enter. It represents the worshiper's transition from the boredom of ordinary life into a more liminal condition in religious facilities. It is entering the holy grounds of the spiritual sphere from the outside.



Figure 2.15 Dhamma Giri, Igatpuri Figure 2.16 Threshold-Bagan Pagoda, Myanmar

2.3.2 Pathways

Along the way, the Path inspires exploration and discovery. It meanders across areas, piques one's interest, and entices one to follow it. The walkways leading to places of worship exemplify this concept of travel. Sidewalks from parking lots can help attendees navigate their way from one place to another before arriving at the worship centre. These passageways transport individuals from the outer world to the inner precincts, where they may find a feeling of the sacred.



Figure 2.17 Lotus Temple, New Delhi



Figure 2.18 Walking Path of Philosophy, Kyoto

2.3.3 Plazas

A plaza's primary function is to encourage big crowds to congregate. Many spiritual venues have such outdoor meeting areas. Participating in public liturgy may be a wonderful experience. This sensation may be fostered by the space in front of a worship place's main entrance. These Plazas might be open green spaces that help to create a spiritual experience.



Figure 2.19 Art of Living, Bangalore



Figure 2.20 Taj Mahal, Agra

2.3.4 Natural Light

The regular cycles of day and night, or light and darkness, represent the never-ending cosmic conflict. With the rise of the sun each day, light represents hope and allows us to witness the changing environment. It represents the passing of time in spiritual settings. In a sacred area, light is often delivered from above and helps to offer orientation and contrast to the surrounding darkness.



Figure 2.21 Pantheon, Rome
the space



Figure 2.22 Natural Light in
the space

2.3.5 The Door

Anything is conceivable on the other side of the threshold to a spiritual place, according to Joseph Campbell. There is also the possibility of a spiritual encounter, when disease, loneliness, hunger, and despair are replaced with health, company, nutrition, and hope. As a result, the entrances to a spiritual centre hold a great deal of duty. These heavenly doors enrich the spiritual experience and should not be missed.



Figure 2.23 Shwedagon. Pagoda
Temple.

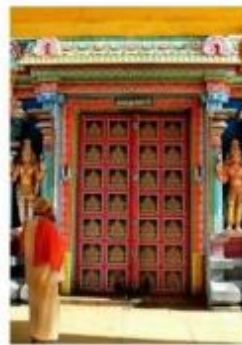


Figure 2.24 Hindu
Temple.

2.3.6 Sacred Flower

Symbol-Lotus

This stunning artwork represents harmony, spiritual illumination, and limitless possibility. The lotus is a water lily that grows from dirty water sludge. It strengthens the idea of resurrection. Use to remind yourself that "this, too, will pass." It represents forgiveness, thanks, and compassion, and it encourages a healthy balance of humility and pride.

The Lotus flower is revered as a symbol of purity, enlightenment, self-regeneration, and rebirth in many civilizations, particularly in eastern faiths.

2.3.7 Water

Water is a natural feature that has been a focal point of spiritual symbolism and religious ritual in human cultures for thousands of years. With astonishing regularity, water has been used to impart the sacred worth of life, the spiritual component of purification, protection, and healing, and the profound meaning of suffering and redemption in human existence.

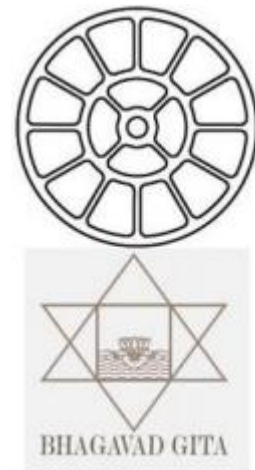


Figure 2.25 Sacred Symbol



Figure 2.26 Presence of Pond in Osho Center Figure 2.27 Presence of water in Pyramid Valley

2.3.8 Sacred Geometry

Holy geometry refers to sacred universal patterns that are employed in the creation of everything in our world, most notably sacred architecture.

Sacred geometry is a universe of pattern recognition, a sophisticated system of religious symbols and patterns incorporating space, time, and shape. According to this viewpoint, the fundamental patterns of reality are sacrosanct. A believer considers the Great Mysteries and the Great Design through connecting with these.

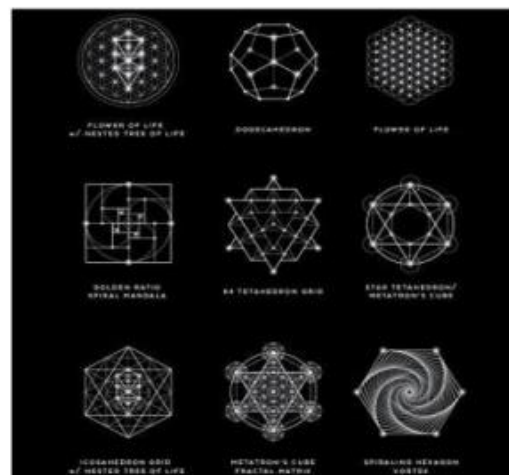
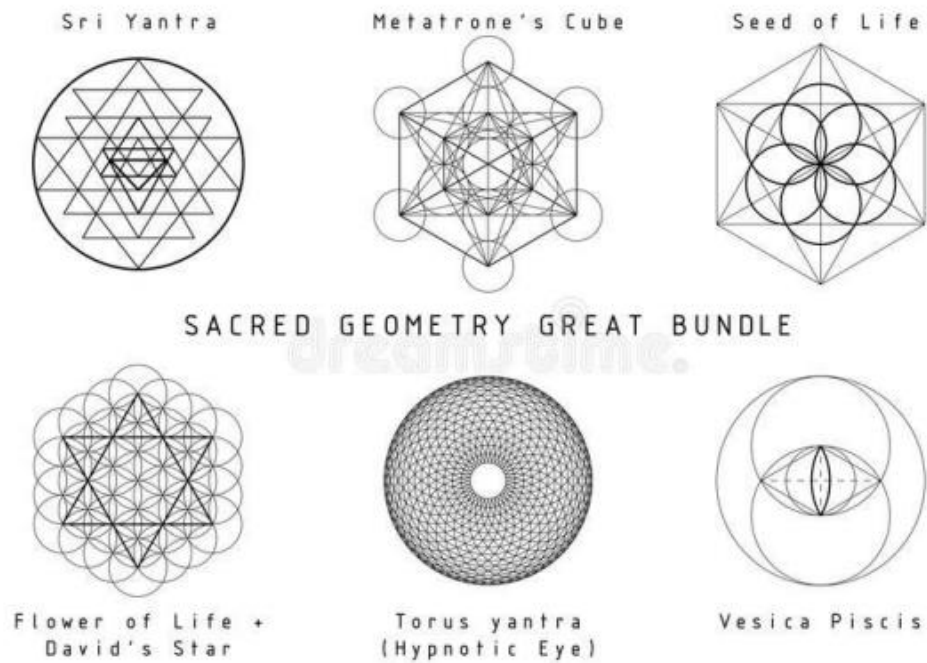


Figure 2.28 Sacred Geometry

3 Spiritual Characteristics of Identified Cases

3.1 Bio Geometry – Geometry's Influence on User Brain

Bio geometry is the science that investigates the effect of geometric forms and sizes on human bioenergy, with the goal of decreasing bad energies while boosting good attributes. Space quality is influenced by geometric design and structural components such as air quality and ventilation.

The goal of bio geometry is to achieve a balance between architectural space and the energy quality created inside it. This equilibrium has the ability to increase architectural surroundings' quality. One of the aims of this discipline is to establish a geometric design language that interacts with the energy of forms to provide spaces with the necessary balance for their users' comfort.

Certain studies were conducted in spiritual places to evaluate the impact of geometric forms on user consciousness status:

Type 1 Maitreya Buddha Pyramid, Bengaluru

In December 2011, a study was conducted to evaluate the effect of a pyramid-shaped structure on the brain waves of a group of meditators. The electroencephalograph recordings of fifteen meditators' brain electrical activity were studied (EEG).

Type 2 El-Sultan Hassan Mosque, Cairo

Another study published in 2014 employed the same technique to analyse the impact of staying within a historic building space with a vault ceiling shape on users' consciousness status, by measuring the brain electrical signals (EEG) of a number of volunteers both inside and outside the structure.

Other studies were carried out with the help of CST Microwave Studio to discover the resonance frequency that occurred inside different geometric forms formed of different materials, and then to separate the linked user's brainwaves that effect his/her conscious state. This may assist architects and designers in locating suitable geometric shapes for the goals and functions that necessitate specific awareness states.

The results of these investigations show that geometric forms and construction materials have different effects.



Figure 3.1 Maitreya Buddha Pyramid, Bengaluru



Figure 3.2 El-Sultan Hassan mosque, Cairo

Geometric shape/material		Brainwave	
		Wave type	Consciousness status
	Concrete	Delta	Stress reduction
	Steel	Delta	Brain reduction
	Wood	Delta	Brain reduction
	Glass	Delta	Relaxation and comfort sleep
	Concrete	Beta	Attention, focus and activity
	Steel	Beta	Attention, focus and activity
	Wood	Alpha	Relaxation and comfort
	Glass	Alpha	Focus and receive information
	Concrete	Alpha	Learn depending on memorize
	Steel	Delta	Brain reduction
	Wood	Alpha	Focus and receive information
	Glass	Alpha	Relaxation and comfort
	Concrete	Alpha	Learn depending on memorize
	Steel	Theta	Showman waves—activity and balance
	Wood	Theta	Meditation and inner peace
	Glass	Theta	Creativity
	Concrete	Delta	Brain reduction
	Steel	Theta	Showman waves—activity and balance
	Wood	Theta	Meditation and inner peace
	Glass	Beta	Attention, focus and activity
	Concrete	Theta	Stress reduction
	Steel	Theta	Creativity
	Wood	Alpha	Relaxation and comfort
	Glass	Theta	Creativity

Table 3.1 Experiment results - Users' consciousness status for the investigated geometric forms.

According to the findings of the research, it is clear that the geometric shapes and building materials of architectural spaces have varied impacts on the users' awareness status.

3.2 Case Studies: Form and Geometry

3.2.1 Matrimandir, Auroville.

Auroville is located in Tamil Nadu.

Year: Begun in February 1971 Finished in February 2008

Roger Anger is the architect of The Mother (Vision) (French Architect)

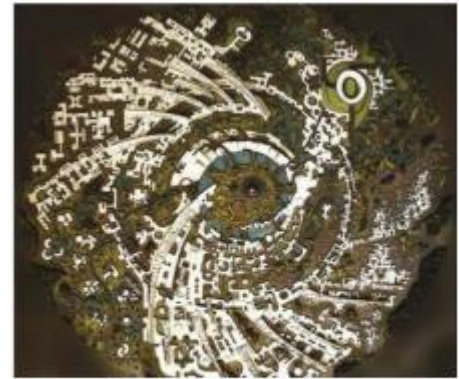


Figure 3.3 Master Plan of Auroville (The galaxy concept of the city)

Why Matri mandir?

The 'soul of the city,' the Matri mandir, is located in the heart of Auroville, in a huge open space known as the 'Park of Unity,' from which the future township would radiate outward. It is a world-renowned spiritual meditation center. It is famous for its unique shape and construction, which draws tourists from all over the world. It contains various features that make this site a superb illustration of spirituality in architecture, spreading the principles of Sri Aurobindo's teaching regarding the notion of 'Universal Mother.'

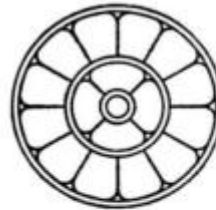


Figure 3.4 Mother's symbol-paying homage to a lotus in full bloom. The plan form of Matri mandir is inspired by this symbol.



Figure 3.5 The Golden Sphere

Inner Chamber

The enormous Inner Chamber in the Matrimandir's top hemisphere is all white, with white marble walls and lush, white carpeting. A pure crystal-glass globe lies in the middle, suffusing a ray of electronically directed sunlight that falls on it via a hole at the top of the sphere. In the Inner Chamber, this luminous globe emits natural lighting.

The steel pillars in the room are twelve in number. They stand upright around the mother's sign and abruptly cease in the center of the chamber, their open ends



Figure 3.6 Inner Chamber



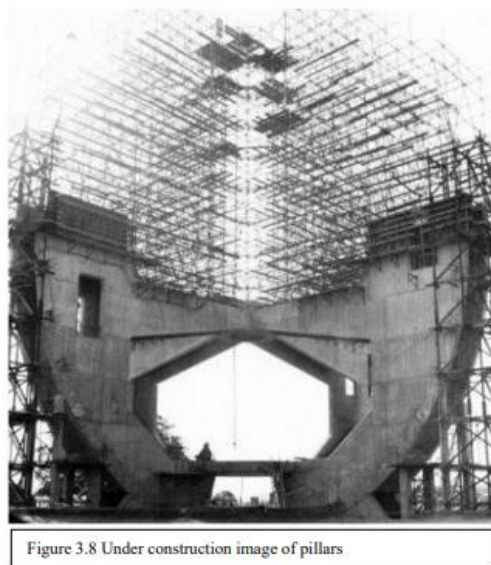
Figure 3.7 Prototype model showing Inner Chamber

pointing towards the ceiling, symbolizing the continuity of their lengths. Thus, the room with twelve pillars in Matrimandir reflects Heaven's "A Thousand-Pillared Home."

The Four Pillars

The four pillars that support the framework of the Matrimandir and carry the Inner Chamber have been placed in the four cardinal directions.

They represent the mother's four facets or personalities.



Sacred Geometry

The Great Pyramid's Golden Section and proportions are exactly included in its cross section (Figure 3.10).

It was also revealed that Sri Aurobindo's emblem perfectly fit into the Shaligram, the shape in which the Matrimandir was erected (Figure 3.11). In other words, there are two triangles within that have the same dimensions as the Great Pyramid.

The Great Pyramid's energy field is placed at one-third of its height. When we apply this to the two triangles inside the Shaligram, we obtain a ring of around 110 cm where the energy field will be focused. This group will perform in the Inner Chamber, where the audience will be seated.. (See Figure 3.12.)

The holy geometry of the plan shape and vertical proportions, as well as the notion of the Universal Mother, make Matrimandir a perfect site for contemplation.



Figure 3.14 Level 1 - Spiral Staircase



Figure 3.15 Level 2 - Ramp



Figure 3.16 Entrance of Meditation Cell



Figure 3.17 Open Air Theatre

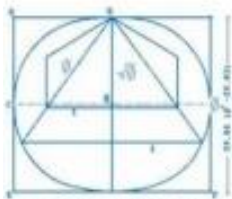


Figure 3.9 Golden section and proportions of great pyramid



Figure 3.10 Two triangle of same proportions



Figure 3.11 Inner Chamber of one-third of its height



Figure 3.12 The Park of Unity - Plan

- Meditation rooms**
1. Serenity
 2. Humility
 3. Gratitude
 4. Perseverance
 5. Aspiration
 6. Hospitality
 7. Progress
 8. Courage
 9. Goodness
 10. Generosity
 11. Equality
 12. Peace

- Gardens**
- A. Existence
 - B. Consciousness
 - C. Bliss
 - D. Light
 - E. Life
 - F. Power
 - G. Wealth
 - H. Utility
 - I. Progress
 - J. Youth
 - K. Harmony
 - L. Perfection

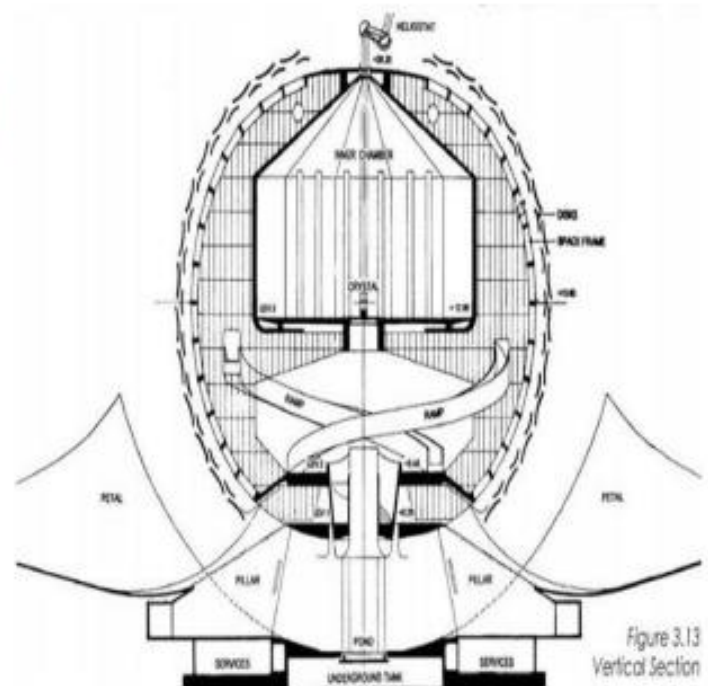


Figure 3.13 Vertical Section

3.2.2 Lotus Temple, New Delhi

Location: New Delhi, India

Year: Started - 1976 Completed - 1986

Architect: Ar. Fariboz Sahba

Site Area: 24 acres

Why Lotus Temple?

The Lotus Temple is globally famous and the simplest location to communicate the genuine essence of spirituality. It is consistent with Bahai beliefs that believe in the Oneness of God, the Oneness of Religions, and the Oneness of Mankind. People of all religions and ethnicities are welcome in the temple since it is a place to worship the creator of the universe rather than a specific god. There is no idol to worship, and visitors of any faith, sect, or creed are welcome. This temple's shape and enormous construction make it an outstanding case study.



Figure 3.18 Aerial View of Lotus Temple



Figure 3.19 Front View



Figure 3.20 Top View

Concept and Philosophy

Despite exterior disparities across temples, one feature in Hindu architecture is that they all offer significant and sacred symbolism common to all religions in India, symbols that have spread to other nations and religions. The holy flower of the Indians, 'The Lotus,' is one of nature's emblems. The lotus is a symbol of purity and gentleness, as well as the manifestation of God. Its importance is profoundly ingrained in Indian thoughts and hearts. There is a deep and international veneration for the lotus, which is seen as a terrified flower and has long been connected with religion. The Baha'i faith is considered to embody the world's nine great faiths, and each component of the temple is repeated nine times to reflect this.

The architect was conceptually motivated to create this flower because it represents purity and sanctity in Hindu culture. This notion has to be translated into definable geometric shapes like spheres, cylinders, toroids, and cones, which translate into equations that are then utilised as the foundation for structural analysis and engineering drawings.

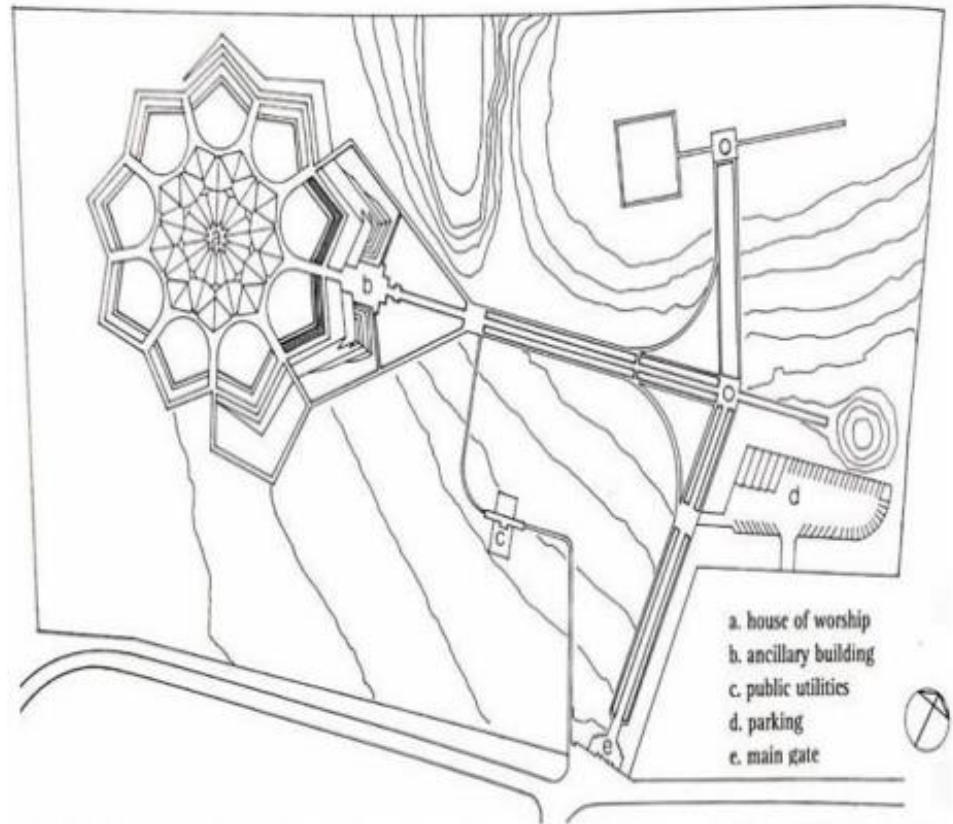


Figure 3.21 Master Plan

Temple Complex

The temple complex consists of the main House of Worship, the ancillary block which houses the reception center, the library and the administrative building and the restrooms block.

The temple rises from a massive foundation cum plinth in the centre of a broad sweeping lawn to a lotus-shaped superstructure that houses the assembly hall.



Figure 3.22 Information Center



Figure 3.23 Connecting bridge over pond

The Lotus Temple

The Lotus Temple resembles a half-opened lotus flower floating in space, encircled by its leaves. Each temple component is repeated nine times.

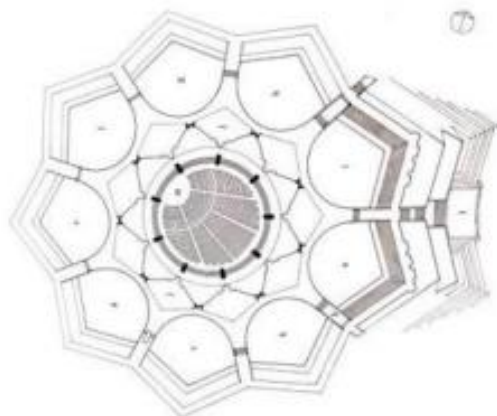
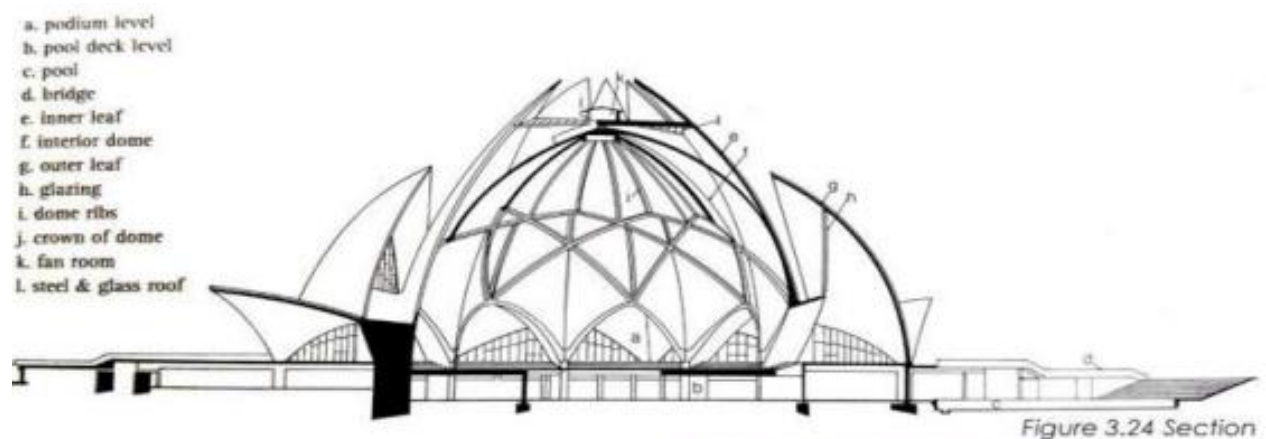
It is made up of 27 massive marble petals that encircle the inner area, adhering to the round alignment of Baha'i architecture. The interior has a seating capacity of 2500 people.

It is reached through nine bridges that cross nine ponds that encircle the temple and lead to nine doorways.

The doors lead to a central space with a height of 40 meters but no obvious supports.

The temple is surrounded by gardens, and its placement in the middle of the ponds gives the image of a massive lotus flower floating on the water.

The building's white marble exterior assures visibility from afar and glows with the sun's rays, turning violet at sunset.



Geometry

From the outside, the lotus features three sets of leaves or petals, all of which are formed of thin concrete shells.

- The outermost nine petals, known as the 'entry leaves,' expand outwards to form the nine entrances that round the outer circular hall.
- The next nine petals, known as the 'outer leaves,' point inwards. The outer hall is covered by the entrance and outer leaves.
- The third group of nine petals, known as the "inner leaves," seems to be partially closed. Only the tips open, similar to a partially opened bud. The center hall is housed in the main structure, which rises above the rest of the edifice.
- Because the lotus is open at the top, a glass and steel roof at the height of the radial beams protects against rain and allows natural light into the auditorium.
- Nine huge arches rise in a ring beneath the entryway and outer leaves. The main hall is reached through a set of steps passing through each arch.
- The inner leaves encircle the interior dome in a canopy of intricately patterned crisscrossing ribs and shells.



Figure 3.27 Seating in circular pattern



Figure 3.28 Steel and glass roof skylight

3.2.3 Maitreya Buddha Pyramid

Location: Harohalli, , Bangalore.

Architect: Ar. Bharathi prem

Area: 28 acres

Year: 2005

Site Description: 45 kms from Bangalore.

Pyramid Valley International is the site of the world's largest meditational pyramid, which serves individuals, societies, and organisations on their path to self-realization.



Pyramid Valley International is a spiritual centre on 38 acres of land surrounded by hills and woods. On the outskirts of Bangalore, a lovely quiet, tranquil campus combines instinctive tranquilly and serenity with a big Meditation Pyramid.

Why Pyramid as a Structure?

Pyramids are energy storage structures. Their geometric structure gathers, radiates, and stores Cosmic Energy. Pyramids aid in the reduction of stress and tension in the physical body. Pyramid Meditation is three times more potent than regular meditation since it is performed inside or beneath a pyramid.

During their meditation sessions inside the pyramids, many visitors report experiences ranging from peace to tremendous pleasure. Most people who have tried Pyramid Meditation report feeling a thorough relaxation of their body, then shutting off unneeded external stimuli and irrelevant thoughts, and ultimately reaching an altered state of consciousness that allows them to concentrate on deeper interior levels.



Pyramids are the most effective high-energy locations for meditation novices. Pyramids aid in the reduction of stress and tension in the physical body. The journey from the entrance to the Pyramid is surrounded by a stunning panorama of rocks, rich green gardens, calming water bodies, and paths that transport the mind to a state of tranquilly. The serene contemplative Buddha at the Pyramid's entry is an ideal place for being one with oneself. This is a paradise for relaxation, meditation, or simply being one with nature, or for experimenting with new life skills, where spiritual and emotional requirements are addressed. It is also a location where you may meet world spiritual gurus and create a holistic approach to life and study.

ABOUT THE SITE:

The 28-acre plot is located near Harohalli, on the outskirts of Bangalore. The location is in a valley flanked on three sides by hillocks.

The location features a variety of curves, with a central low spot where the Rain Water Lake is formed. On the banks of this lake, we have a lovely Amphitheatre, a conference hall that is designated as a public zone, a cafeteria, and a Zen Garden. The Pyramid-shaped edifice houses a large meditation hall that can hold up to 3000 people.



SITE CONSIDERATIONS:

1. The buildings are built in such a way that the contours do not change. The site conditions were kept.
2. The natural environment is preserved and groomed by reusing previously used layers of locally accessible stone labs, gravel beds, and open grid pavements, which minimise heat.

DESIGN:

1. The roofing is comprised of a cement concrete slab reinforced with filler. A hollow clay tile serves as the filling material. This contributes to the design being incredibly cost effective.
2. Air circulation and the usage of natural materials have been prioritised.

By placing verandahs on two opposing sides of the structure, the quality of the internal air is increased.

ENERGY CONSUMPTION:

1. By constructing extensive verandas, the sun's rays are kept out of the cottage's interior. The use of overhangs on the veranda helps to keep the air at bay.
2. The flow of the convectional wind current is aided by high ceilings and split-level ventilation. This, in turn, pushes heated air out of the Jali on top, where it is lighter and rises.
3. Even during the warmest months, there is adequate cross ventilation throughout the cottage.

The Maitreya-Buddha Pyramid, with a capacity of 5,000 people, is the World's Largest Pyramid erected only for practicing intensive meditation. It has a base area of 160ft. 160ft. and is as tall as a ten-story structure at 102ft. height. The outside surface of the Pyramid is decorated by stunning paintings showing diverse parts of nature. Its spiral and vivid King's chamber, the Pyramid's most active place, measures 34ft. tall and can accommodate 40 people for meditation at the same time.

This Pyramid is built on the principles of the Giza Pyramid, with the golden angle of inclination at $52^{\circ} 51'$ on all sides and the King's Chamber positioned in the centre to $\frac{1}{3}$ rd the height of the Pyramid.

Inside the Pyramid meditation hall, over 640 genuine Himalayan crystals have been installed to intensify the Pyramid energy and aid in more intense meditational experiences.

The bottom chamber of the Pyramid has exquisite Buddha paintings and art work, reminding us of the great meditation practises that Buddha discovered and offered.

LANDSCAPE

It is located on Kanakapura road, 35 kilometres south of Bengaluru, and is surrounded by natural rocks, lovely hills, and water bodies.

The majestic Maitreya- Buddha Pyramid, rising 102 feet tall like a solid rock and flanked by hillocks in the developing landscape of the twenty-six-acre Valley campus, is where Art, Science, and Spirituality mix harmoniously, leaving one spellbound.



3.3 Case Studies: Meditation Centers

3.3.1 Osho Dham, New Delhi

Location: Jhatka Road, Najafgarh, Delhi

Architect: Ar. Snehanshu Mukherjee

Area: 9 acres

Year: 1996

Site Description: 35 kms from New Delhi

Introduction

Osho Dham has grown on the outskirts of Delhi in Nazafergarh, providing a clean, green, artistic, and serene atmosphere for individuals on the inner journey, as well as weekend meditation workshops. Osho Dham is a meditation centre with residential amenities for both long and short-term visits. People come to practice the excellent meditation methods taught by Osho.



Figure 3.40 Google Map image showing location of Osho Dham



Figure 3.41 Meditation Hall



Figure 3.42 Entrance of the Center

Concept and Philosophy

The principal sponsor, Swami Atul Anand, wished to create a new habitat for living in the twenty-first century based on Osho's discourse on everyday life and spiritualism. It expanded and flourished to create an environment that met the unique needs of the commune. The conversations with Swami centered on the 'worldly and spiritual,' which led in the initial sketch of a spiral route, the design's heart. The spiral walk leads inward to the meditation hall, which is located within a grove of trees. It fulfils both a metaphorical and a practical purpose. A journey through time, spiraling inwards to self-discovery via meditation, it



Figure 3.46 Organic Roof form



Figure 3.47 Meditation Hall View

is also a method for the site's economical and effective management. The spiral, rather than a modest planted space, was chosen.



Figure 3.43 Conceptual Sketch of planning



Figure 3.44 Landscape

Site Zoning and Circulation

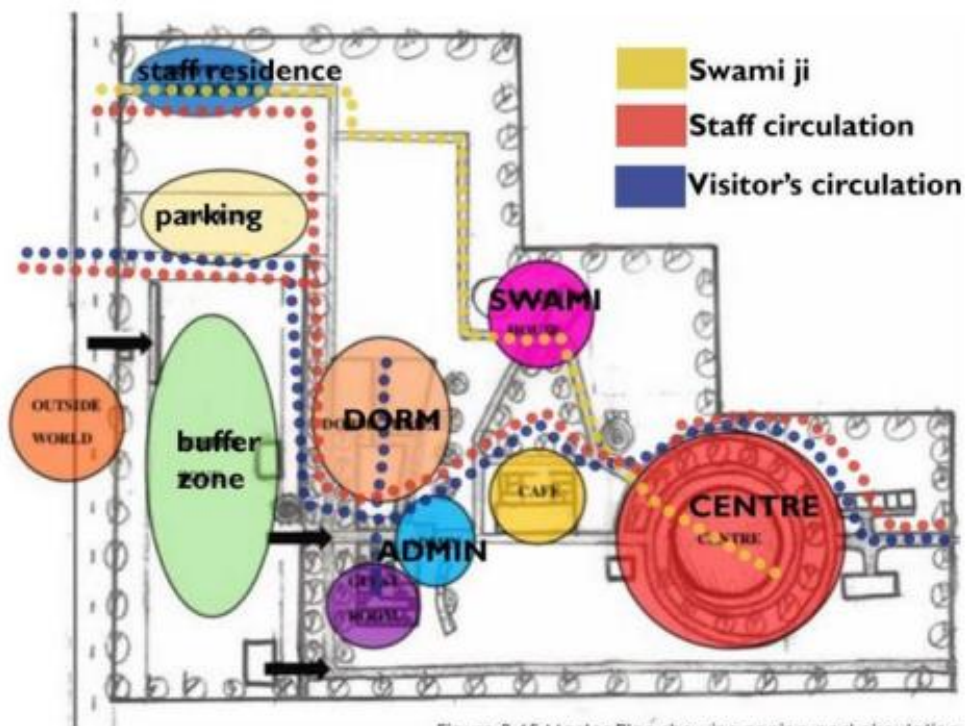


Figure 3.45 Master Plan showing zoning and circulation

Meditation Hall

The spiral walk leads to the meditation hall, the main emphasis of the design and the commune's first structure, which was built in 1994. The metaphorical form and function of the meditation hall can be compared to the vast canopy of a banyan tree. It holds the commune's main function, which is to hold daily meditation sessions throughout the year. To get there, walk through a specifically created grove of trees, similar to a forest hermitage.

The broad, seemingly simple construction of the Hall, consisting of a double curved shell dome supported on four columns, was planned to be surrounded on all sides by ponds and woods. One may see through the trees while walking along the trail.

Other Spaces

1. The spiral walk (primary and first building) snakes inward towards the Meditation Hall, which is nestled among the woods. The use of a spiral rather than a limited manicured area is transversal over time, producing the sense of more space.
 2. The reception, dining, and residential buildings are integrated into a 4-acre landscaping space at the commencement of the spiral walk.
 3. The Dorms and the dining hall with kitchen are located at the foot of the meditation hall and are aligned with the axis of the short cut that leads straight to the Hall for regular usage.
 4. The Dining Hall is designed like a pavilion.
 5. Swamiji's meeting room, a Ferro cement roofed structure, which has a ventilated inner roof and is perfectly aligned climatically, which allows it to remain cool even during the hottest period of the year.
 6. The campus incorporates 100% waste water recharge and recycle system which is passive and non-chemical.
 7. The majority of living quarters and service facilities, such as kitchens, are partially sunk into the ground and meant to blend in with the terrain, producing backgrounds and stairs.
- Reinterpreting the construction of developed and open pathways

The incorporation of outdoor areas into the construction of inside rooms generates a strong connection between the guests to this Meditation Centre.

Features



Figure 3.48 View of the Kitchen and dining area



Figure 3.49 Path towards Meditation Hall

Osho Dham has flourished with its clean, green, beautiful, and serene atmosphere for those seeking inner connection and calm. A lovely environment for group and individual meditation, yoga, and other dance and physical exercises has been created in harmony with nature.

The Meditation Centre is located deep inside a wonderful garden, away from the tumult of everyday life.

The path to the hall is helical, giving the impression of a much longer trek through a big forest, with no view of the destination until one is very close.



Figure 3.50 Views of Other Spaces

3.3.2 Dhamma Pushkar Vipassana Center

Location: Village Rewat (Kadel) near Pushkar in District Ajmer, Rajasthan.

Site Area: 12 acres

Year: 2009



Figure 3.51 Location Map

Introduction

Dhamma Pushkar, which translates as "Lotus of Dhamma," is located in the village of Rewat (Kadel) near Pushkar in the district of Ajmer, Rajasthan. Throughout the year, residential meditation classes are offered here. The Centre is flanked on one side by the ancient Aravalli hills, and on the other by the sacred lake of Pushkar and huge sand dunes. The surroundings are tranquil and calm.



Figure 3.52 Pagoda for Meditation



Figure 3.53 Entrance of the center

Site Zoning

The center's general design was divided into two zones: female and male zones. The teacher's quarters were scattered throughout the Dhamma Halls. The centre was designed to house all of the communal areas.

Legend

	Pagoda Cells & Dhamma Halls
	Male Accommodation
	Female Accommodation
	Teacher's Residences
	Dining Hall
	Administration Block
	Services



Figure 3.54 Site Zoning

Site Circulation

To some extent, the center's entry was shared by all users. The layout of male and female zones segregated the circulation of male and female meditators. All communal areas, including the dining hall, Dhamma Halls, and Pagoda Cells, have separate circulation for both meditators.

Legend

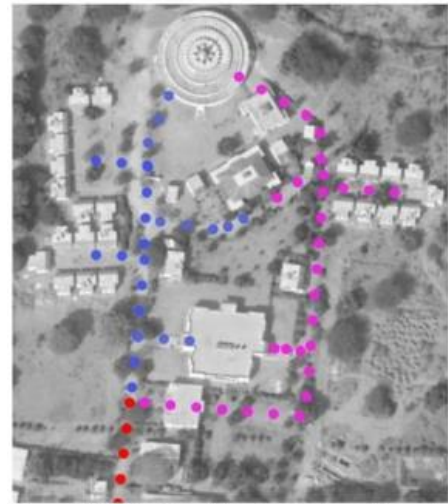
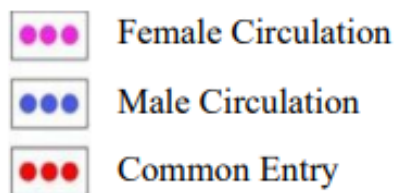


Figure 3.55 Site Circulation for Male and Female Meditators

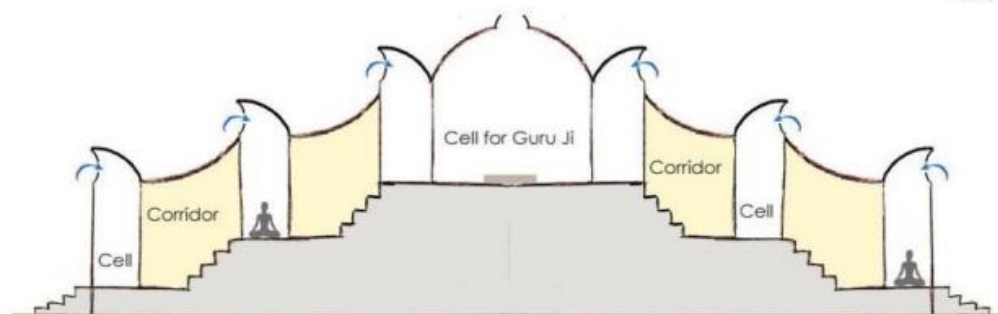


Figure 3.56 Conceptual section of the pagoda complex showing the arrangement of cells and the vents for ventilation in meditation cells



Figure 3.57 Entrance of Pagoda complex



Figure 3.58 Pathway towards Pagoda Complex

Various resource-saving strategies were included:

- Solar Heating System
- Solar Panels
- Rainwater Harvesting System



Padoga Complex containing 62 cells for individual meditation. The complex is in form of concentric circles with alternate cells and corridors. The central room is left for the Guru.



Female Accommodation with 20 rooms. Every room is for double sharing with attached bathroom.

Every room has small porch and green space and space for drying clothes.

Dimension-3.5m by 3m

There is a ramp provided for two rooms.



Teacher's Residence for 2 male and 2 female teachers. Their residences were close to Dhamma Hall.



Male Accommodation with 30 rooms in 2 cluster of 15 rooms.

Every room is for double sharing with attached bathroom.

Every room has a small porch and green space and space for drying clothes.

Dimension-3.5m by 3m
There was proper cross ventilation in rooms.



Service Area and Staff Quarters were near the entrance. There were proper residence for their families.

Entrance of the Center

Dinning hall for both male and female meditators. There were 5 entrances - male teacher, female teacher, male meditators, female meditators and staff. There was a movable partition in between.



Dhamma hall with a capacity of 120 meditators with proper cross ventilation.

There are four entrances in the hall - male teacher, female teacher, male meditators and female meditators.

Every entrance has a buffer space for shoe rack and belongings. There are two store rooms for keeping the aasan.

4 The Interpretations

Table 4.1 Analysis and inference of the Respective case studies.

Case study 1 Matrimandir, Auroville	Case study 2 Lotus Temple, New Delhi	Case study 2 Maitreya Buddha Pyramid, Bangalore	Analysis	Inference
1. CONCEPT AND PHILOSOPHY				
Based on Shri Aurobindo's Teaching-Universal Mother concepts. The mother's emblem influenced the planning.	The Lotus Flower, which represents purity and sanctity in Hindu tradition, inspired the concept.	The pyramid is built on the same principles as the Great Pyramid of Giza. Maitreya is the future Buddha who will be born to teach enlightenment in the next age.	There is a significant philosophical notion associated to the Lotus Temple, Matrimandir, and Maitreya Buddha Pyramid that is tied to faith.	The design idea and philosophy should convey the core of that faith and religion.
2. FORM AND GEOMETRY				
Lotus Flower in full bloom in plan form. Cosmic Egg in geometric form (shaligram).	Lotus half-opened with 9 outer petals ponds around it.	The angle of the four triangles (four sides) from the base is 51 degrees and 51 minutes.	The Lotus Temple and Matrimandir were inspired by the Lotus Flower, while the Maitreya Buddha Pyramid was inspired by the ideas of the Great Pyramid.	The geometry and design of the spiritual environment should have some symbolism and significance so that people may readily connect with it and associate it with emotional/religious worth.
3. SACRED SYMBOL				
Lotus Flower, Mother Symbol, Shri Aurobindo Symbol	Lotus Flower	The sculptures also depict Maitreya Buddha holding a lotus blossom in each hand.	In all of these circumstances, Sacred Symbols are present, which convey religious feelings of that faith and have mystical importance.	Sacred symbols should be present because they may affect a person's awareness, behaviour, understanding, and well-being.

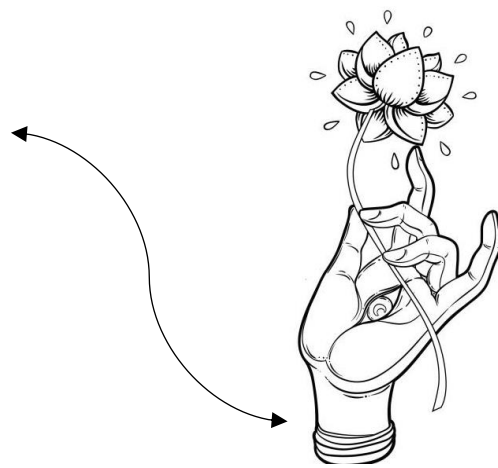
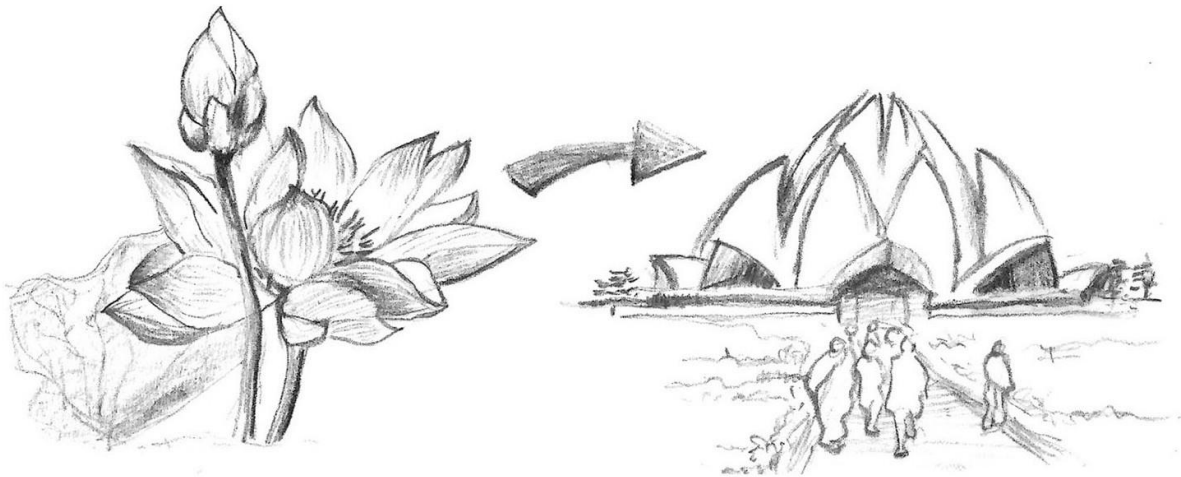
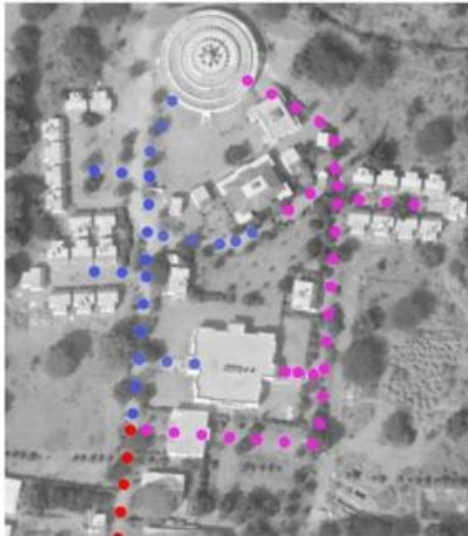
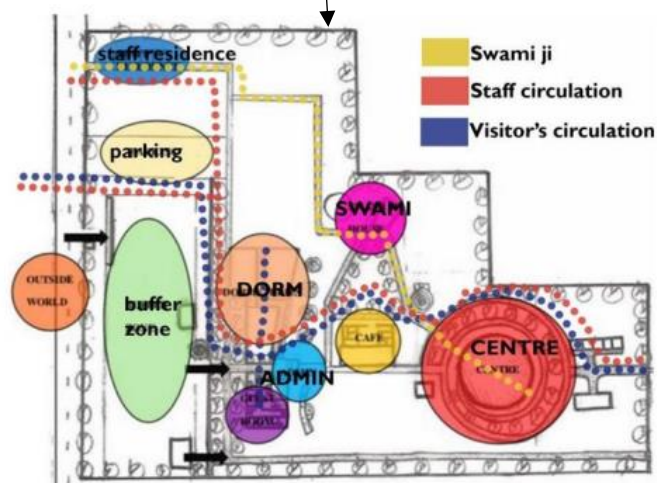
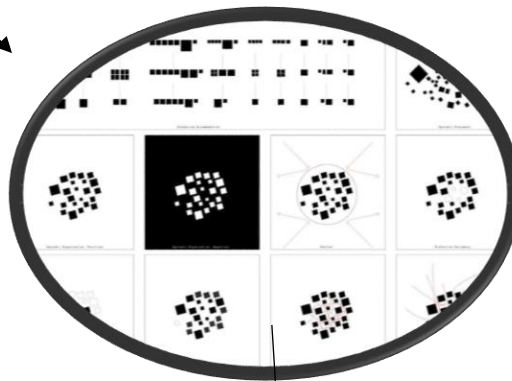


Table 4.2 Analysis and inference of the Dhamma Pushkar and Osho Dham

Case Study 1 Pushkar, Dhamma Pushkar	Case Study 2 Delhi Osho Dham	Analysis	Inferences
1.CIRCULATION AND ZONING The circulation was orderly, and all places were easily accessible. It was created with varied users in mind. Male and fusibility zones were separated. Men who meditate. The common areas were all in the center.	The circulation and zoning of the center were determined by the different users. The main Meditation Hall was towards the back and easily accessible.	Both centers' circulation and zoning were created with varied users in mind, and all spaces were easily accessible.	There should be no pandemonium in the circulation, and all of the different sections in the center should be easily accessible.
2.MEDITATION SPACE Padoga Complex has 62 separate meditation cells. Dhamma hall with 120 meditators capacity and good cross ventilation.	The Hall's vast, seemingly simple construction, consisting of a double curved shell dome supported by four columns. The hall is completely open on all sides.	Both centers' meditation areas were created with enough ventilation and natural light. These aspects improve the user experience.	Meditation places should be constructed with natural light and ventilation in mind.
3.OPEN BUILT ENVIRONMENT There is no connection between the outside and inside environments.	This is where outdoor and interior environments are combined. Outdoor places are designed with this in mind.	The user feels a strong connection as a result of the open relationship. The incorporation of such areas aids the user in improving their experience.	In such centers, open and constructed areas should be integrated.

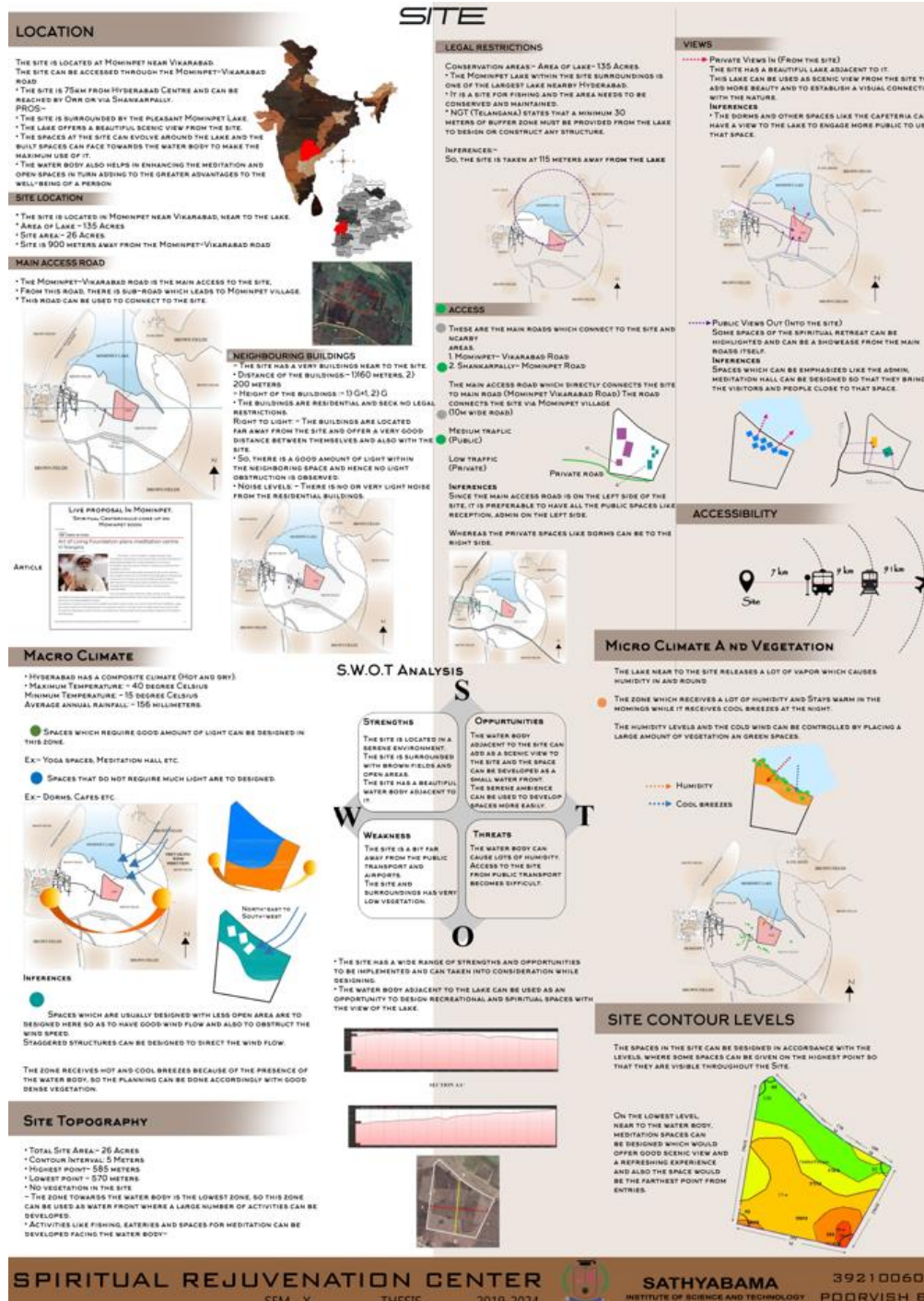


CIRCULATION AND ZONING



5 Plate

5.1 Site Analysis



5.2 Introduction

INTRODUCTION

WHY A SPIRITUAL REJUVENATION CENTRE? (JUSTIFICATION)



INTRODUCTION

• THE BODY, MIND AND SPIRIT ARE ONE. IF THE BODY IS PEACEFUL IN ITS BUILT ENVIRONMENT, THEN SO WILL THE MIND AND SPIRIT.

• BY STUDYING THE WORKING OF MIND AND SPIRIT, AND HOW TO DESIGN TO APPEAL TO A PERSON'S SUBCONSCIOUS, AN INNOVATIVE WAY OF HEALING CAN BE DISCOVERED.

• THIS HAS BEEN PROVEN WITH THE FACTORS SUCH AS EXPOSURE TO NATURE, PHYSICAL ACTIVITIES USE OF COLOURS, LIGHT.

• INTEGRATION WITH ALL THESE FACTORS MY THESIS AIMS TO EXPOSE HUMANS IN A FACILITY WITH:-

"ARCHITECTURE AS AN ENABLER FOR DEVELOPING SPIRITUAL HEALTH BY ACKNOWLEDGING, RESONATING AND CONNECTING WITH THE ENVIRONMENT AROUND (OPEN AND BUILT)."

NEED OF A SPIRITUAL RETREAT

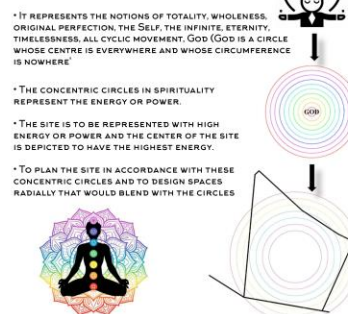
THERE IS A GROWING BODY OF EVIDENCE INDICATING THAT SPIRITUAL PRACTICES ARE ASSOCIATED WITH BETTER HEALTH AND WELLBEING FOR MANY REASONS.

• FOR GENERATIONS, PEOPLE HAVE GONE ON SPIRITUAL RETREATS TO ENCOUNTER GOD AND EXPERIENCE SPIRITUAL RENEWAL. RETREATS REMOVE US FROM NOISE AND DISTRACTION, AND INTO A PLACE OF SPIRITUAL REFRESHING AND RENEWING. IT IS A WAY OF ENTERING INTO THE PRESENCE OF GOD AND ALLOWING HIM TO NOURISH OUR SOUL.



CONCEPT

THE ENERGY OR POWER IN SPIRITUALITY IS REPRESENTED IN CONCENTRIC CIRCLES.



THE SEVEN CHAKRAS OF MEDITATION

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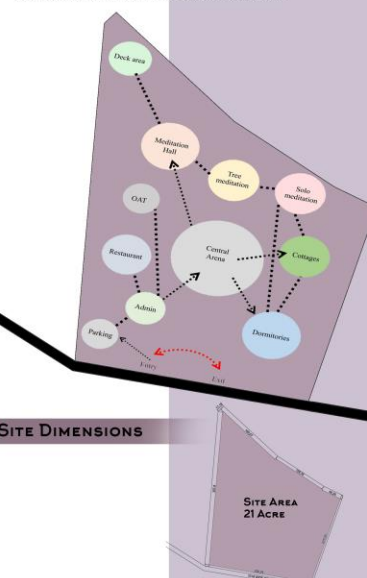
BUBBLE DIAGRAM

TO PROPOSE A LARGE CENTRAL ARENA

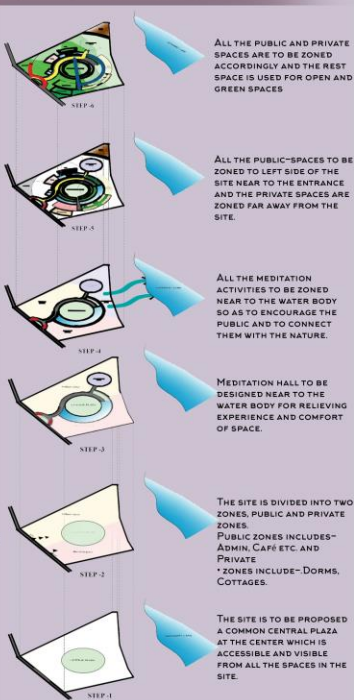
TO DESIGN ALL THE PUBLIC SPACES TO THE LEFT SIDE OF THE SITE NEAR THE ENTRY.

TO DESIGN ALL THE PRIVATE SPACES TO THE RIGHT SIDE OF THE SITE, WHICH IS FAR AWAY FROM THE ENTRY.

ALL THE MEDITATION SPACES TO BE ZONED AWAY FROM THE ENTRY POINTS AND TO PLACE THEN NEAR TO THE WATER BODY



SITE ZONING PROCESS



AIM

TO DESIGN A CENTRE IN CONNECTION WITH SURROUNDING NATURE WHICH FACILITATES IN DEVELOPING AND HEALING THE BODY, MIND AND SPIRIT OF PEOPLE AND ALSO HELPS IN ACHIEVING INNER PEACE.

STUDY OBJECTIVE

- UNDERSTANDING THE FUNCTIONING AND USER BEHAVIOUR OF DIFFERENT SPACES IN THE SPIRITUAL RETREAT.
- ANALYSIS OF DIFFERENT ZONES AND DESIGNING IN ACCORDANCE TO VARIED ZONES LIKE PUBLIC, PRIVATE ETC.
- UNDERSTANDING THE USER USAGE OF SPACE FOR DIFFERENT ACTIVITIES AND THE MULTI-USE OF SPACES.
- TO IDENTIFY THEIR DEFICITS AND UNDERSTAND THE ROLE PLAYED BY ARCHITECTURAL ELEMENTS IN THEIR INTERVENTION.
- TO UNDERSTAND ENVIRONMENTAL IMPLICATIONS ON THE PEOPLE AND THE USER GROUP.
- TO STUDY THE IMPORTANCE OF SPIRITUAL HEALTH ON COVID PATIENTS

DESIGN OBJECTIVE

- TO ENHANCE A DESIGN PROGRAM THAT WOULD BE BENEFICIAL AND USEFUL FOR ALL THE RELIGIONS AND AGE GROUPS
- "UNDERSTANDING SPACES FOR MULTI USES AND ACTIVITIES AND DESIGNING ACCORDINGLY TO THE USER BEHAVIOUR"
- "A DESIGN THAT WOULD SATISFY AND PROVIDE ALL THE AMENITIES FOR USERS VISITING FROM VARIOUS PLACES. TO PROVIDE SPACES FOR MULTI-FAITH VISITORS AND USERS."
- "TO PROVIDE FOR AN OPEN AND CLOSED SPACE THAT WOULD BE A MIXTURE OF OPEN, SEMI-OPEN AND CLOSED SPACES AND WILL SATISFY THE NEEDS OF DIFFERENT USERS."
- TO PROVIDE A SOLUTION ON ACHIEVING SPIRITUAL ENERGY BY COMBINING THE BUILT ENVIRONMENT WITH THE NATURE.
- TO PROVIDE SPECIAL ATTENTION FOR THE MENTAL AND PHYSICAL HEALTH REVIVAL THROUGH DESIGN OF

Score

- THE BUILDING WILL BE AN ATTEMPT TO CREATE THE SPIRIT OF PLACE RATHER THAN A CONCRETE ENCLOSURE.
- ARCHITECTURE IS AN ENABLER FOR BETTER SPIRITUAL HEALTH RATHER THAN BEING THE FOCUS OF ATTRACTION.
- THE ARCHITECTURE WOULD ALSO EXPLORE THE PHILOSOPHIES AND SCIENCE OF PYRAMID ENERGY AND WOULD TRY TO INTEGRATE THE SAME
- DIFFERENT TYPES OF SPACES BASED ON DIFFERENT CHAKRAS WOULD BE EXPLORED: GROUP SPACES, SOLITARY SPACES, RECREATIONAL AND THERAPY SPACES.



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5.3 Case study

LIVE STUDY

MAITREYA BUDDHA PYRAMID

INTRODUCTION

Pyramid Valley International is the site of the world's largest meditational pyramid, which serves individuals, societies, and organisations on their path to self-realization. Pyramid Valley International is a spiritual centre on 38 acres of land surrounded by hills and woods. On the outskirts of Bangalore, a lovely quiet, tranquil campus combines instinctive tranquility and serenity with a big meditation pyramid.

LOCATION: HAROHALLI, BANGALORE.
ARCHITECT: AN BHARATHI PREM
AREA: 28 ACRES
YEAR: 2005
SITE DESCRIPTION: 45 KMS FROM BANGALORE.

ABOUT THE SITE:

The 28-acre plot is located near Harohalli, on the outskirts of Bangalore. The location is in a valley flanked on three sides by hillocks. The location features a variety of curves, with a central low spot where the Rain Water Lake is formed. On the banks of this lake, we have a lovely amphitheatre, a conference hall that is designated as a public zone, a cafeteria, and a Zen Garden. The Pyramid-shaped

WHY PYRAMID AS A STRUCTURE?

Pyramids are energy storage structures. Their geometric structure gathers, radiates, and stores Cosmic Energy. Pyramids aid in the reduction of stress and tension in the physical body. Pyramid Meditation is three times more potent than regular meditation since it is performed inside or beneath a pyramid. During their meditation sessions inside the pyramids, many visitors report experiences ranging from peace to tremendous pleasure. Most people who have tried Pyramid Meditation report feeling a thorough relaxation of their body, then shutting off unneeded external stimuli and irrelevant thoughts, and ultimately reaching an altered state of consciousness that allows them to concentrate on deeper interior levels.



SITE CONSIDERATIONS:

1. THE BUILDINGS ARE BUILT IN SUCH A WAY THAT THE CONTOURS DO NOT CHANGE. THE SITE CONDITIONS WERE KEPT.
2. THE NATURAL ENVIRONMENT IS PRESERVED AND GROOMED BY REUSING PREVIOUSLY USED LAYERS OF LOCALLY ACCESSIBLE STONE LABS, GRAVEL BEDS, AND OPEN GRID PAVEMENTS, WHICH MINIMISE HEAT.

DESIGN:

1. THE ROOFING IS COMPRISED OF A CEMENT CONCRETE SLAB REINFORCED WITH FILLER. A HOLLOW CLAY TILE SERVES AS THE FILLING MATERIAL. THIS CONTRIBUTES TO THE DESIGN BEING INCREDIBLY COST EFFECTIVE.
2. AIR CIRCULATION AND THE USAGE OF NATURAL MATERIALS HAVE BEEN PRIORITISED. BY PLACING VERANDAS ON TWO OPPOSING SIDES OF THE STRUCTURE, THE QUALITY OF THE INTERNAL AIR IS INCREASED.



It is located on Kanakapura road, 35 kilometres south of Bengaluru, and is surrounded by natural rocks, lovely hills, and water bodies. The majestic Maitreya-Buddha Pyramid, rising 102 feet tall like a solid rock and flanked by hillocks in the developing landscape of the twenty-six-acre valley campus, is where Art, Science, and Spirituality mix harmoniously, leaving one spellbound. The Maitreya-Buddha Pyramid, with a capacity of 5,000 people, is the World's Largest Pyramid erected only for practicing intensive meditation. It has a base area of 160ft. 160ft. and is as tall as a ten-story structure at 102ft. height. The outside surface of the Pyramid is decorated by stunning paintings showing diverse parts of nature. Its spiral and vivid King's chamber, the Pyramid's most active place, measures 34ft. tall and can accommodate 40 people for meditation at the same time. This Pyramid is built on the principles of the Giza Pyramid, with the golden angle of inclination at 52° 51' on all sides and the King's Chamber positioned in the centre to 1/3rd the height of the Pyramid. Inside the Pyramid meditation hall, over 640 genuine Himalayan crystals have been installed to intensify the Pyramid energy and aid in more intense meditational experiences. The bottom chamber of the Pyramid has exquisite Buddha paintings and art work, reminding us of the great meditation practices of Buddha discovered and offered.



MATRI MANDIR

INTRODUCTION

- At the very center of Auroville, one finds the 'soul of the city', the Matrimandir, situated in a large open area called 'Park of Unity', from where the future township will radiate outwards. It is a world renowned spiritual space for meditation. It is known for its iconic form and structure attracting tourists from all around the world. Propagating the ideas of Sri Aurobindo's teachings, about the concept of 'Universal Mother', it has many elements that make this place a perfect example of spirituality in architecture.
- The spacious inner chamber in the upper hemisphere of the structure is completely white, with white marble walls and deep, white carpeting. In the center sits a pure crystal-glass globe which suffices a ray of electronically guided sunlight that falls on it through an opening at the apex of the sphere. This luminous globe radiates natural lighting in the inner chamber.
- The twelve pillars in the chamber are made of steel surrounding the Mother's symbol. They stand erect and abruptly end in the middle of the chamber with their open ends pointing towards the ceiling, indicating the continuity of their lengths. Thus the chamber with twelve pillars in Matrimandir represents 'A Thousand-Pillared Home' in Heaven.

LOCATION: AUROVILLE, PONDICHERRY.
YEAR STARTED - 1971 COMPLETED - 2008
ARCHITECT: AN ROGER ANGER
SITE AREA: 9 HECTARES



INNER CHAMBER

The spacious inner chamber in the upper hemisphere of the Matrimandir is completely white, with white marble walls and deep, white carpeting. In the center sits a pure crystal-glass globe which suffices a ray of electronically guided sunlight that falls on it through an opening at the apex of the sphere. This luminous globe radiates natural lighting in the inner chamber. The twelve pillars in the chamber are made of steel surrounding the Mother's symbol. They stand erect and abruptly end in the middle of the chamber with their open ends pointing towards the ceiling, indicating the continuity of their lengths. Thus the chamber with twelve pillars in Matrimandir represents 'A Thousand-Pillared Home' in Heaven.

THE FOUR PILLARS

The four pillars that support the structure of Matrimandir, and carry the inner chamber, have been set at the four main directions of the compass. They depict the four aspects or personalities of the Mother.

- MAHESHWARI (South Pillar)
- MAHAKALI (North Pillar)
- MAHALAKSHMI (East Pillar)
- MAHASARASWATI (West Pillar)



SACRED GEOMETRY

The Golden Section and the proportions of the Great Pyramid are precisely incorporated in its cross section. It was also discovered that Sri Aurobindo's symbol fitted exactly into the Shaligram, the form in which Matrimandir has been built. In other words, there are two triangles with the same proportions as the Great Pyramid inside.

The energy field inside the Great Pyramid is located at one-third of its height. If we project this to the two triangles inside the Shaligram, we get a band of about 110 centimetres where the energy field will be concentrated. This band will be in the inner chamber, precisely where the people will sit. The Matrimandir is a great example having all the spiritual qualities such as natural light, scale and proportion of the hall, the pathway for the inner chamber, the colour and texture. The landscape, the presence of lotus flower and water body around. The plan form and vertical proportions are according to the sacred geometry and the concept of the Universal Mother makes Matrimandir an ideal place for contemplation.

WHY MATRIMANDIR?

At the very centre of Auroville one finds the 'soul of the city', the Matrimandir, situated in a large open area called 'Park of Unity', from where the future township will radiate outwards. It is a world renowned spiritual space for meditation. It is known for its iconic form and structure attracting tourists from all around the world. Propagating the ideas of Sri Aurobindo's teachings, about the concept of 'Universal Mother', it has many elements that make this place a perfect example of spirituality in architecture.



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5.4 Case study

LIVE STUDY

LOTUS TEMPLE

INTRODUCTION

THE LOTUS TEMPLE IS DUE TO ITS FLOWERLIKE SHAPE. LOTUS TEMPLE IS ALSO KNOWN BY THE "BAHÁ'Í HOUSE OF WORSHIP/ BAHÁ'Í FAITH". THE TEMPLE ARE WELL KNOWN FOR THEIR ARCHITECTURAL SPLENDOR AND THE TEMPLE CONSTRUCTED IN DELHI IS A CONTINUATION OF THIS RICH TRADITION. THIS IS PROMINENT ATTRACTION IN DELHI. IT WAS COMPLETED IN 1986 AND SERVES AS THE MOTHER TEMPLE OF THE INDIA SUBCONTINENT. THE TEMPLE STRUCTURE LIKE AS THE HALF OPEN LOTUS FLOWER, AFLOAT SURROUNDED BY ITS LEAVES. THE TEMPLE IS OPEN TO PEOPLE OF ALL CULTURES, FAITHS, AND LANGUAGES. IT IS THE SYMBOL OF A UNITED INDIA.

LOCATION: NEW DELHI, INDIA
YEAR: STARTED - 1976 COMPLETED - 1986
ARCHITECT: AR. FARIBOZ SAHBA
SITE AREA: 24 ACRES

DETAILS ABOUT LOCATION

THE TEMPLE WAS CONSTRUCTED IN THE VILLAGE OF BAHAPUR, KALKAJI, IN SOUTH OF NEW DELHI AND TO THE WEST OF CONNAUGHT PLACE IN MANDIR MARG, A SECLUDED AREA OF BUSTING CENTRE OF INDIA'S CAPITAL.

WHY LOTUS TEMPLE?

THE LOTUS TEMPLE IS WORLD RENOWNED AND THE EASIEST SPACE THAT EXPLAINS THE MEANING OF SPIRITUALITY IN ITS TRUE SENSE. IT IS IN LINE WITH THE TEACHINGS OF THE BAHÁ'Í FAITH BELIEVING IN THE ONENESS OF GOD, THE ONENESS OF RELIGIONS, AND THE ONENESS OF MAN- KIND. AS SUCH, PEOPLE OF ALL RELIGIONS AND RACES ARE WELCOME IN THE TEMPLE AS IT IS A PLACE TO WORSHIP THE CREATOR OF THE UNIVERSE AND NOT A PARTICULAR DEITY. THERE IS NO IDOL TO BE WORSHIPED AND PEOPLE OF ANY FAITH, CASE, CREED ARE WELCOME INSIDE. THE FORM AND THE MONUMENTAL STRUCTURE OF THIS TEMPLE MADE

TEMPLE COMPLEX

THE TEMPLE COMPLEX CONSISTS OF THE MAIN HOUSE OF WORSHIP, THE ANCILLARY BLOCK WHICH HOUSES THE RECEPTION CENTRE, THE LIBRARY AND THE ADMINISTRATIVE BUILDING AND THE RESTROOMS BLOCK. SET IN THE MIDDLE OF A LARGE SPRAWLING LAWN, THE TEMPLE RISES UP ON ITS LARGE BASEMENT CUM PLINTH TO A LOTUS SHAPED SUPERSTRUCTURE WHICH HOUSES THE ASSEMBLY AREA.

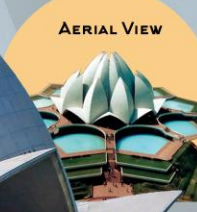


Figure 3.21 Information Center Figure 3.22 Connecting bridge over pond

CONCEPT AND PHILOSOPHY

IN HINDU ARCHITECTURE, DESPITE EXTERNAL DIFFERENCES BETWEEN THE VARIOUS TEMPLES, ONE FACTOR IS COMMON THAT THEY OFFER SIGNIFICANT AND SACRED SYMBOLS COMMON TO ALL RELIGIONS OF INDIA. SYMBOLS THAT HAVE EXTENDED EVEN TO OTHER COUNTRIES AND RELIGIONS. ONE OF THESE NATURE'S SYMBOLS IS THE SACRED FLOWER OF THE INDIANS, THE LOTUS. THE LOTUS REPRESENTS THE MANIFESTATION OF GOD AND IS ALSO THE SYMBOL OF PURITY AND TENDERNESS. ITS SIGNIFICANCE IS DEEPLY ROOTED IN THE MINDS AND HEARTS OF INDIANS. THERE IS A DEEP AND UNIVERSAL REVERENCE FOR THE LOTUS WHICH IS REGARDED AS A SACRED FLOWER, BEING ASSOCIATED WITH WORSHIP THROUGHOUT MANY CENTURIES. THE BAHÁ'Í FAITH IS SAID TO EMBODY IN ITSELF THE NINE MAJOR FAITHS OF THE WORLD AND IN ORDER TO SYMBOLISE THIS EACH COMPONENT OF THE TEMPLE IS REPEATED NINE TIMES.

AERIAL VIEW



THE LOTUS TEMPLE



CONCEPTUALLY INSPIRED THIS FLOWER SYMBOLIZES PURITY AND HOLINESS IN THE HINDU TRADITION IS THE REASON THAT THE ARCHITECT DEVELOPED IT TO THIS TEMPLE. THIS CONCEPT HAD TO BE CONVERTED TO DEFINED GEOMETRIC SHAPES SUCH AS SPHERES, CYLINDERS, TOROID'S AND CONES, WHICH TRANSLATE INTO EQUATIONS SUBSEQUENTLY USED AS A BASIS FOR STRUCTURAL ANALYSIS AND ENGINEERING DRAWINGS.

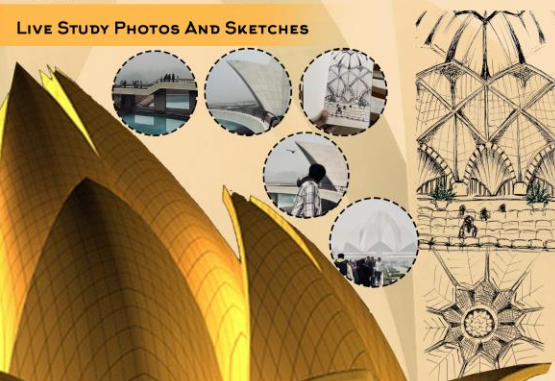
THE LOTUS TEMPLE GIVES THE IMPRESSION OF A HALF-OPEN LOTUS FLOWER, AFLOAT, SURROUNDED BY ITS LEAVES. EACH COMPONENT OF THE TEMPLE IS REPEATED NINE TIMES. IT IS FORMED OF 27 GIANT MARBLE PETALS WHICH ENVELOPE THE INTERIOR SPACE, RESPECTING THE CIRCULAR ALIGNMENT OF BAHÁ'Í ARCHITECTURE. THE INTERIOR HAS CAPACITY FOR 2500 PEOPLE. IT IS ACCESSED VIA NINE BRIDGES WHICH CROSS NINE PONDS SURROUNDING THE TEMPLE AND PROVIDE ACCESS TO NINE DOORS. THE DOORWAYS LEAD TO A CENTRAL AREA WHICH REACHES 40 METERS IN HEIGHT, THOUGH SHOWS NO VISIBLE SUPPORTS. THE TEMPLE IS SURROUNDED BY GARDENS AND ITS LOCATION IN THE CENTRE OF THE PONDS CREATES AN IMPRESSION OF A GIANT LOTUS FLOWER FLOATING ON THE WATER. THE EXTERNAL OF WHITE MARBLE ENSURES THE BUILDING IS VISIBLE FROM A DISTANCE AND THE RAYS OF THE SUN, TURNING VIOLET AT SUNSET.

GEOMETRY

THE LOTUS, AS SEEN FROM OUTSIDE, HAS THREE SETS OF LEAVES OR PETALS, ALL OF WHICH ARE MADE OUT OF THIN CONCRETE SHELLS.

- THE OUTERMOST SET OF NINE PETALS, CALLED THE 'ENTRANCE LEAVES', OPEN OUTWARDS AND FORM THE NINE ENTRANCES ALL AROUND THE OUTER ANNULAR HALL.
- THE NEXT SET OF NINE PETALS, CALLED THE 'OUTER LEAVES', POINT INWARDS. THE ENTRANCE AND OUTER LEAVES TOGETHER COVER THE OUTER HALL.
- THE THIRD SET OF NINE PETALS, CALLED THE 'INNER LEAVES', APPEARS TO BE PARTLY CLOSED. ONLY THE TIPS OPEN OUT, SOMEWHAT LIKE A PARTLY OPENED BUD. THIS PORTION, WHICH RISES ABOVE THE REST, FORMS THE MAIN STRUCTURE HOUSING THE CENTRAL HALL.
- SINCE THE LOTUS IS OPEN AT THE TOP, A GLASS AND STEEL ROOF AT THE LEVEL OF THE RADIAL BEAMS PROVIDES PROTECTION FROM RAIN AND FACILITATES THE ENTRY OF NATURAL LIGHT INTO THE AUDITORIUM.
- BELOW THE ENTRANCE LEAVES AND OUTER LEAVES, NINE MASSIVE ARCHES RISE IN A RING. A ROW OF STEPS THROUGH EACH ARCH LEAD INTO THE MAIN HALL.
- THE INNER LEAVES ENCLOSE THE INTERIOR DOME IN A CANOPY MADE OF CRISSCROSSING RIBS AND SHELLS OF INTRICATE PATTERN.

LIVE STUDY PHOTOS AND SKETCHES



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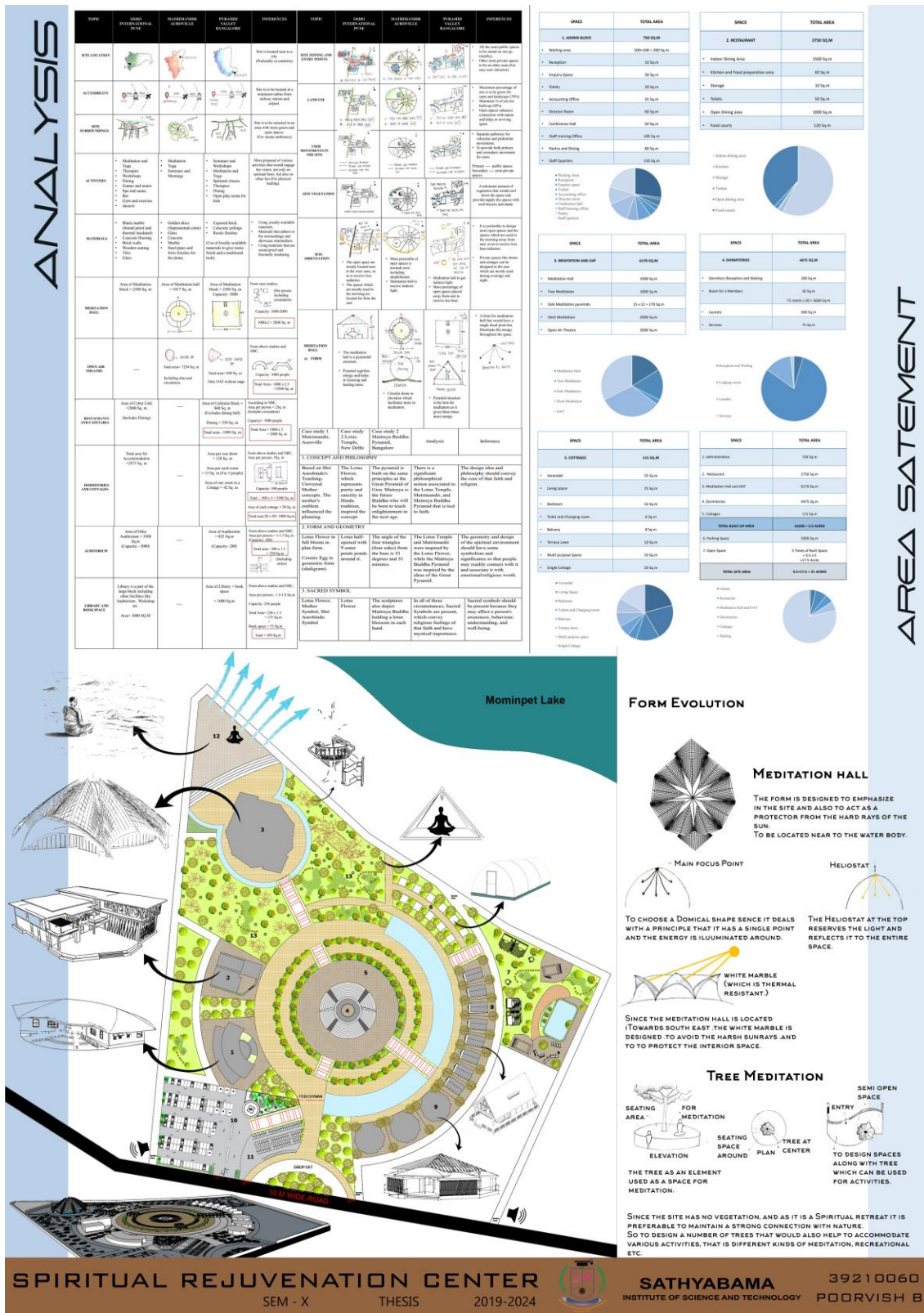
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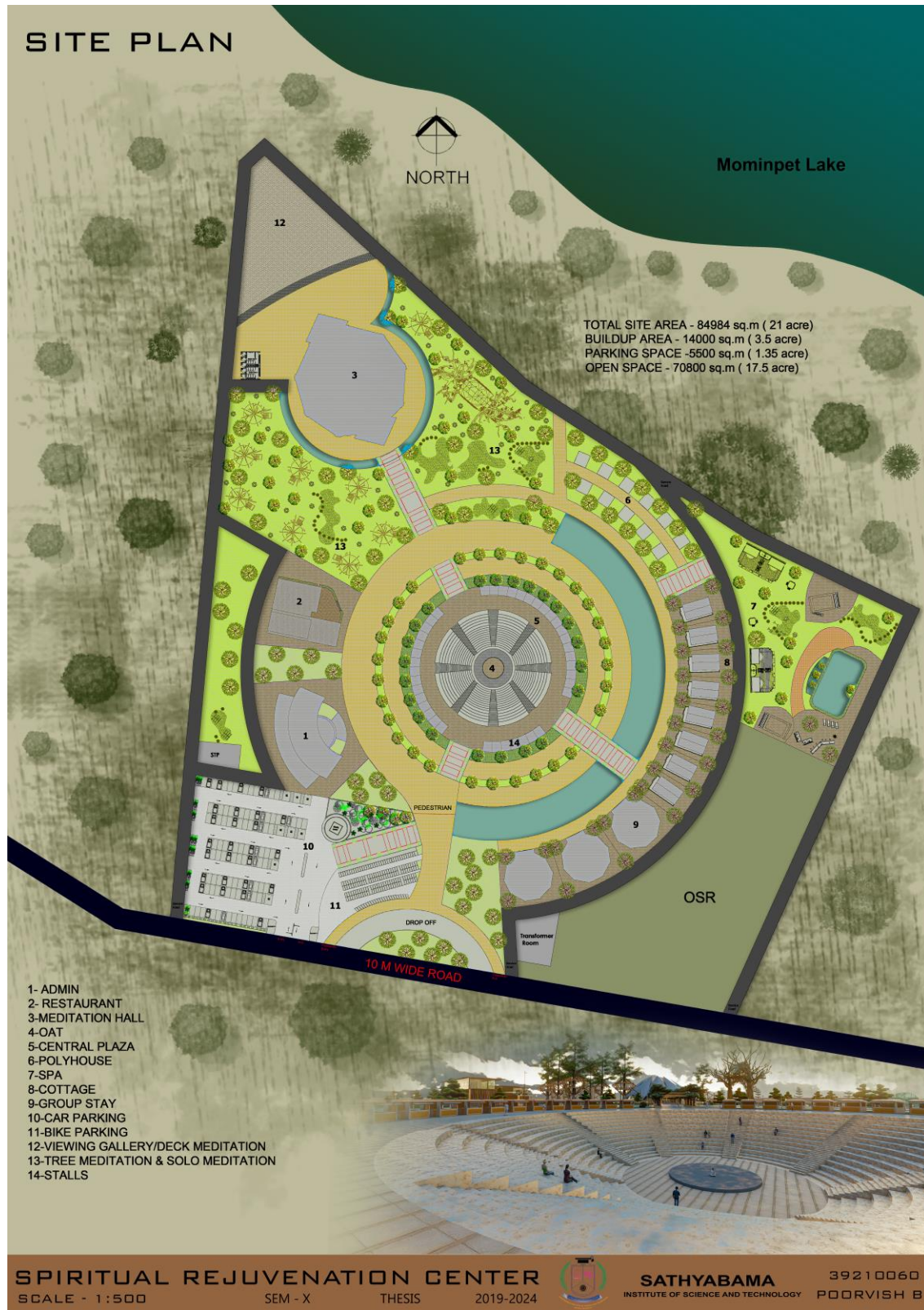
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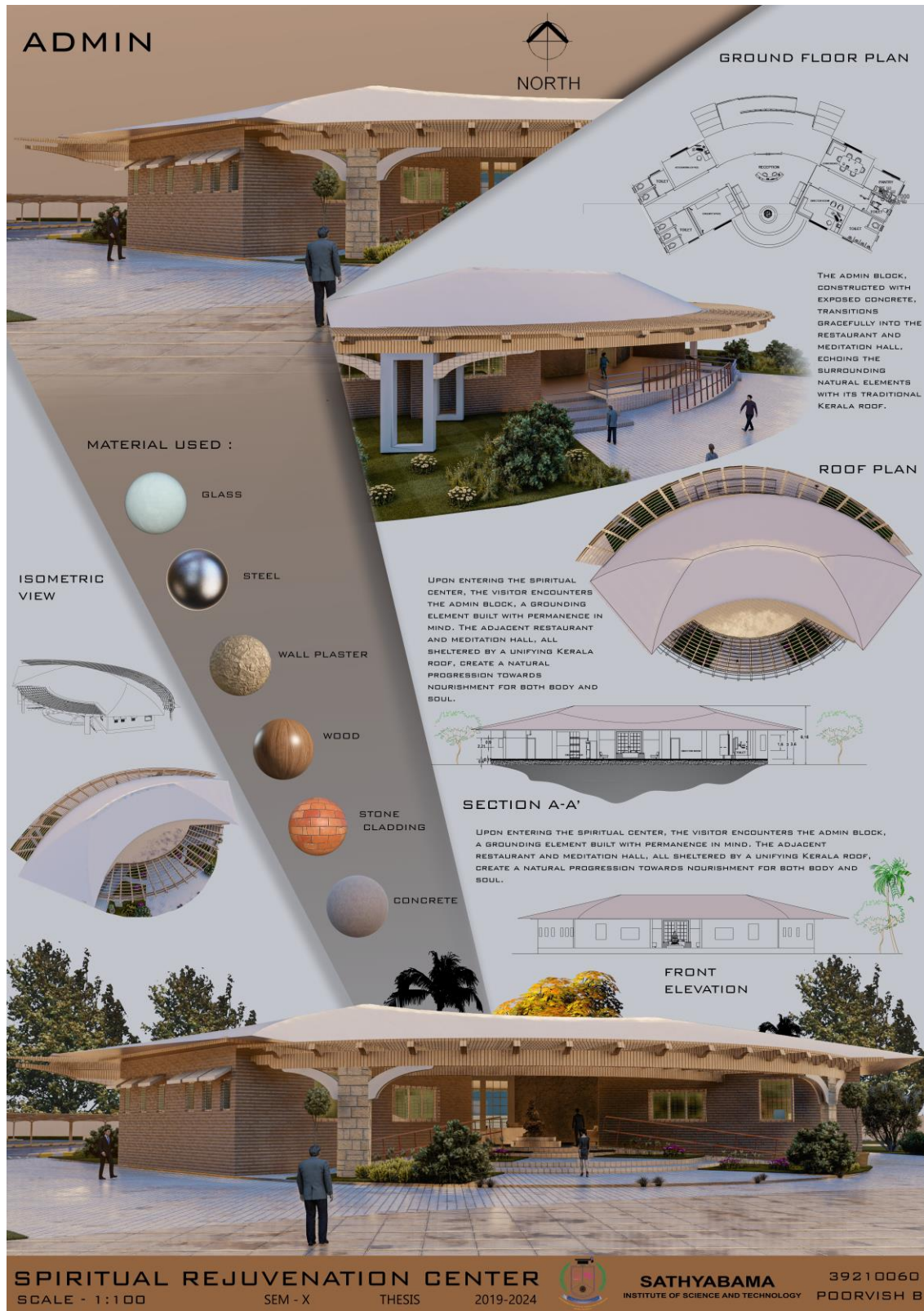
5.5 Analysis & Area Statement



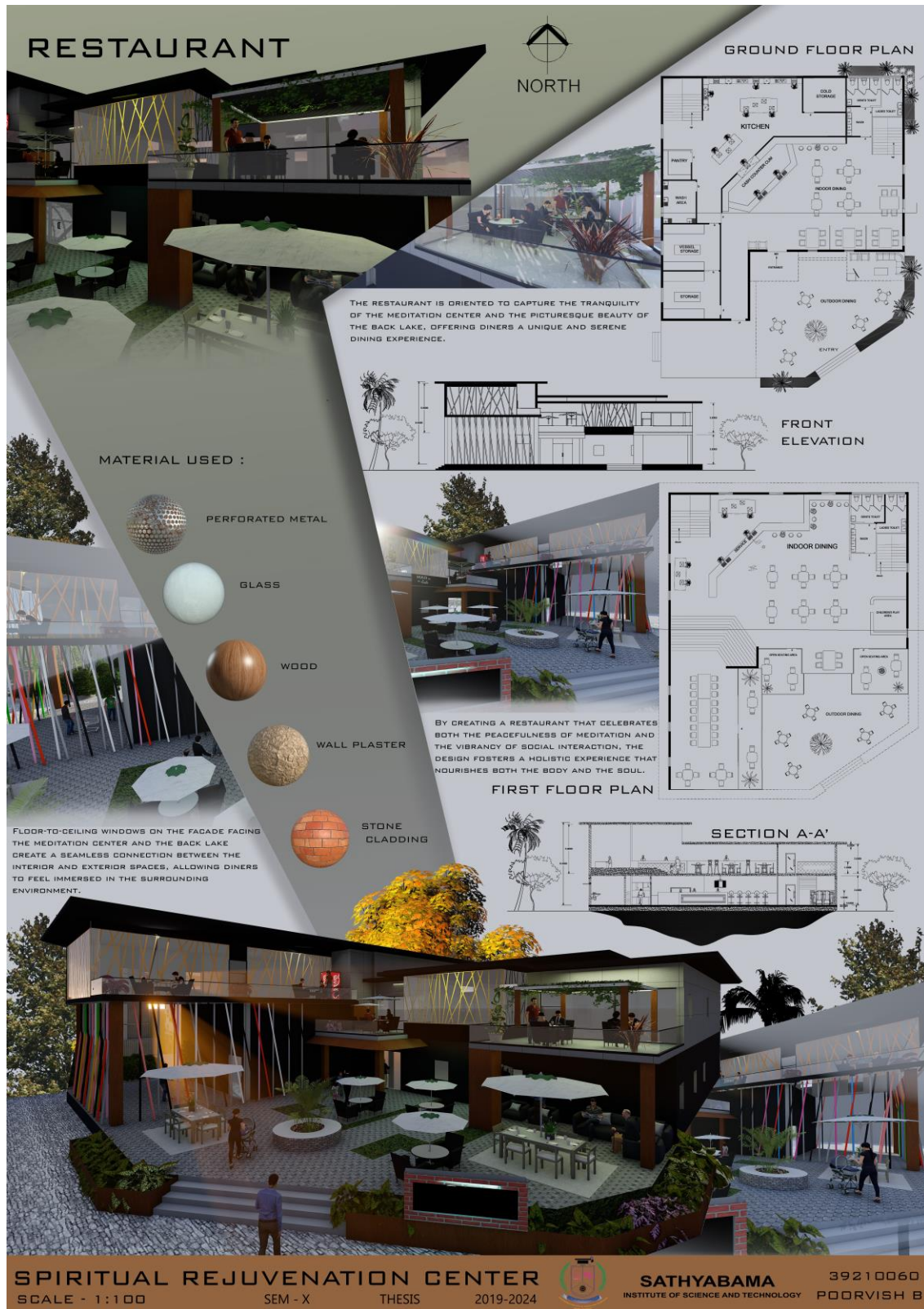
5.6 Site Plan



5.7 Admin



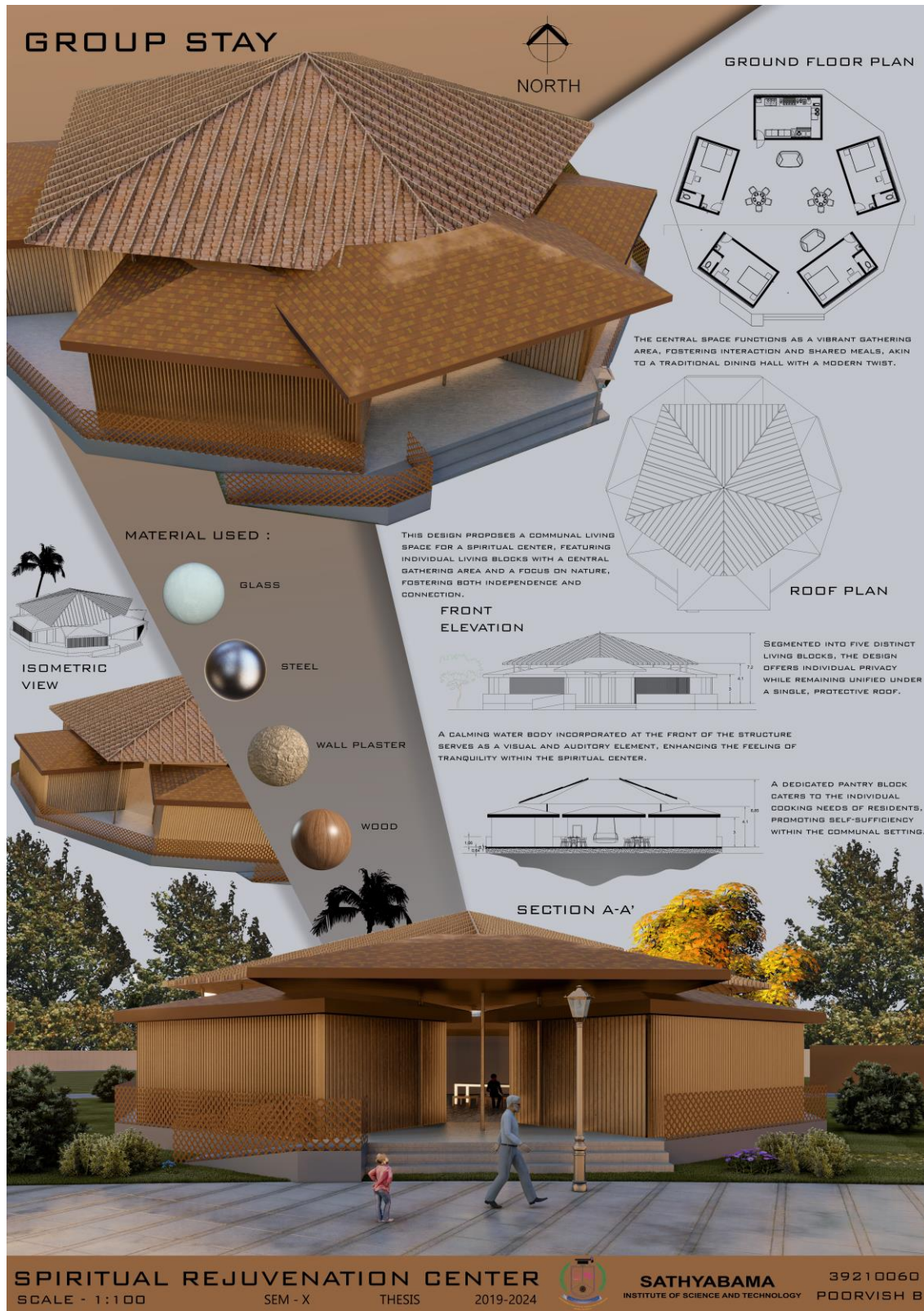
5.7.1 Restaurant



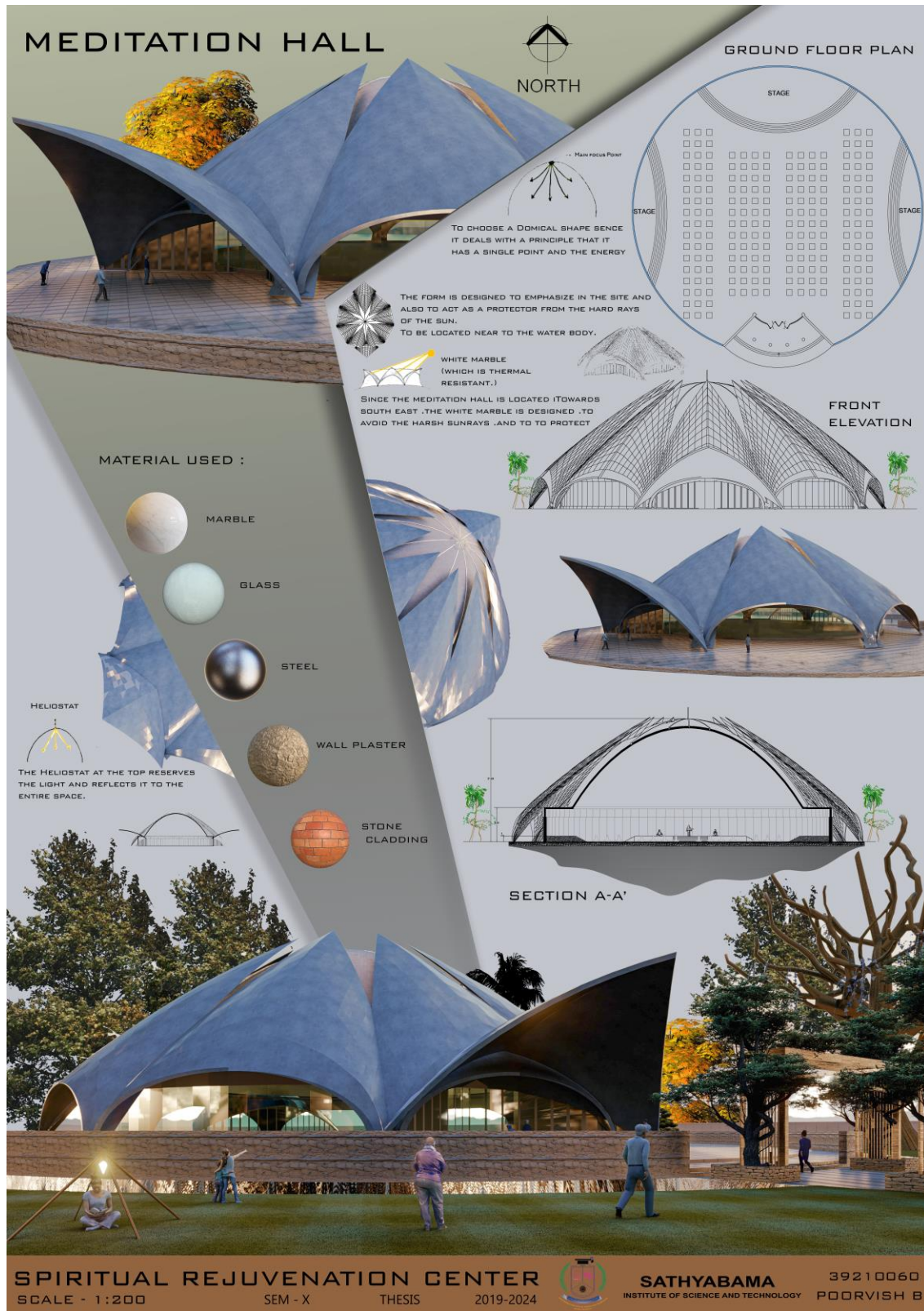
5.7.2 Cottage



5.7.3 Group Stay



5.7.4 Meditation Hall



5.7.5 3d Views



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