

An Architectural Exploration of Mandirs: A new temple for the  
Sudbury Hindu community

by  
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રિયા પટેલ

|Om Shri Ganeshaya Namah|

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## ABSTRACT

*He quickly becomes righteous and attains lasting peace. O son of Kuntī,  
declare it boldly that My devotee never perishes.  
— Bhagavad Gītā 9.31*

As the time changes, so do the methods of representation. Designs become intricate and complicated to the point where they need to return to the source of origin and start the search for a contemporary temple design. The evolution of Hindu temples from simple structure to complex structure and from timber to brick, brick to stone, and stone to concrete appears throughout history. To date, there are few Hindu temples that have been constructed according to the current time period. This thesis will examine the opportunities of designing a Hindu temple that is a combination of both modern elements and traditional beliefs, for the many Hindu sects that live in Sudbury, Canada. This will be attempted by studying the traditional methods of creating a *mandir* (Temple).

As Hinduism has many sects, and each of them have slightly different beliefs in religion, it becomes difficult to gather the entire community in these conditions and design a temple to one dedicated deity, especially in a foreign country. A temple becomes more than a place of worship when the *mandir* is located in a different country and environment; it becomes the center and

grounding point of the Hindu community. It would represent the traditional culture that has adapted to a new geography, climate and environment. As a result, this new *mandir* will aim to continue being a home for the gods and goddess that are being worshiped by the current Hindu community of Sudbury. It will house multiple gods, not just one as in a traditional temple, and this will become a method to keep everyone connected. As a temple in Sudbury would develop into something more than a place of worship, it will also integrate a place where cultural events such as *Diwali* (the Festival of Light), *Navratri* (Festival of Cultural Dances) and many other events could take place. The *mandir* will also become a place of traditional knowledge, for all ages and different religions. This *mandir* will be created by paying tribute to the traditional temples, traditional texts, and methods such as using *Vāstuśāstra*<sup>1</sup> as a basis for temple design and construction, adapting to the needs of the community and site.

<sup>1</sup> *Vāstuśāstra* means 'science of dwelling' in Sanskrit, Vas = "to dwell, live, stay, abide."

## THESIS QUESTION

*How to design a mandir that is both modern and traditional while following the customary principles of temple construction, for the many branches of Hinduism that exist in Sudbury?*

**Keywords:** *Traditional, Contemporary, Hindu Mandir, Sacred Place, Community, Northern Ontario*

## *ACKNOWLEDGEMENTS*

I have always had an interest in traditional Hindu temples, mainly as a result of how traditional my parents are. Each of my trips to India consisted of going to at least one famous temple. I would like to appreciate my parents who kept educating me about my culture and religion which strengthened my roots. I would not be who I am today without their love and constant support. Being brought up in a small community where no Hindus live, it would have been easy to forget my culture, if it were not for my parents. I have always been afraid of presenting myself and my culture in front of others, even though my parents always supported me. This fear started to go away when I joined the McEwen School of Architecture (MSoA). At the MSoA all cultures are welcomed and celebrated, this also includes the indigenous community. When I was in second year of my BAS, along with a few of my classmates I received an opportunity to work with an indigenous Elder to create a birch bark canoe. This started to build my understanding of how to be proud, confident and fearless of the strong and diverse religion that I come from. Since then, whenever I have the opportunity to do so, I have always done a project that relates to my culture. In my first-year of M.Arch I worked with the same indigenous Elder to create a new and larger birch bark canoe with a smaller group of my classmates. The values taught here were deeply understood more than before, helping me make a firm decision to do my thesis on Hindu temples. Saying that I would like to thank the Founding Director, Dr. Terrance Galvin, for creating a unique schooling experience that not only teaches students architecture, but also the values of welcoming and respecting other cultures. I wish to express my sincere appreciation to Terrance as my advisor, for supporting and guiding me through my thesis, especially during a global pandemic. I also wish to thank my second reader Dr. Libbie Mills, for being my guide through the textual parts of my thesis and helping me realize a different perspective of my religion. Lastly, I would like to show my gratitude towards my friends and family who have always been there for me, cheering and supporting me.

## KEY WORDS

Alpa vimāna = Minor shrine

Antarāla = Intermediate space

Ardhamaṇḍapa = Entrance porch or vestibule becoming a transitional space between the sacred and profane

Artha = Purpose, goal, meaning, wealth

Ārya Dharma = Religion of the Āryas (Āryas = 'noble ones')

Bhadra = Central wall-division; offset

Bhajan = A traditional and devotional song

Bhakti = Partaking in something, devotion

Bhūmi = Earth, (Bhūmi pūjā referring to purification of the land)

Bindu = Drop, spot

Darśan = Being seen by the deity

Dharma = Law, duty, religion

Drāviḍa = The Southern style of temples

Diwali = Festival of lights

Garbhagrha = Sanctum where the idol of the deity is placed

Goddess Śakti = The first female deity, also known as the feminine power behind the creation of the world. She has many forms including Parvati, Durga and Kali

Gopura = Gateway to temple

Gurukula = An ancient education system in India

Havan = Also known as Homa or Homam. This is a ritual where offerings are made to deities in a controlled fire

Henotheistic = Devoted to a single deity, with acceptance of the existence of other deities

Ittar = Or attar meaning natural fragrance, oils extracted from flowers, herbs of other natural elements

Jali = Perforated screen, normally has ornamental design

Kalasha = Pot full of water, cap on top of the *shikhara*

Kāma = Love, desire

Karma = Action

Linga or Lingam = A votary object that symbolizes the god Śiva and is revered as an emblem of generative power. The lingam appears in Shaivite temples and in private shrines throughout India

Lord Brahma = One of the main three deities in Hinduism, also known as the creator. Not worshiped as Lord Śiva, Lord Viṣṇu or Goddess Śakti

Lord Gāṇeśa = Son of Lord Śiva and Goddess Śakti, the elephant-headed Hindu god, worshipped at the beginning of every pūjā, removes obstacles and brings good luck

Lord Hanuman = The monkey Hindu god, protector

Lord Śiva = One of the main three deities in Hinduism, also known as the destroyer in order to re-create. The main god Shaivism

Lord Viṣṇu = One of the main three deities in Hinduism, also known as the caretaker or the preserver. He has many forms, but Ram and Krishna are widely known in the world. Head of Vaishnavism

Lotus = Symbol for renewal and enlightenment, also known for giving life

Mānava Dharma = Laws or duties of men

Mandala = Sacred geometric diagram of the essential structure of the universe

Maṇḍapa = A hall for rituals or small gatherings in front of the sanctum

Mandir = Temple

Mantra = Verbal formulas

Manthan = Churning

Māyā = Illusion, magic

Mokṣa = Liberation

Mount Kailasha = Home of Lord Śiva and his wife Parvati (Goddess Śakti)

Mount Meru = Also known as Sumeru, Sineru or Mahāmeru. It is believed to be the center of all the physical, metaphysical and spiritual universes

Mūrti = Figure, body

Mūrti pūjā = Worship of the figure

Nāgara = The Northern style of temples

Navratri = Festival that spans over nine nights, folk dancing

Parabrahman = Supreme being. Also known as Paramātmā, Parameshwara Nārāyana or Bhagwan

Pradakṣiṇā = Circumambulation

Prākāra = Walls enclosing a space

Prasāda = Food offered to the gods, which is later eaten by worshippers  
Pūjā = The ceremony of worship  
Pūjari = The person who performs rituals in the temple  
Purāṇas = A class of literature  
Purānic = Old, ancient  
Puruṣa = Man  
Puruṣārtha = The goals of mankind  
Rathas = Chariots  
Ṛṣi = Sage  
Rucaka = Square  
Sabhā = Public meeting or assembly  
Sanātana Dharma = One of older names of Hinduism meaning “eternal religion”  
Sampradāya = Tradition  
Shaivism = Devoted to Lord Śiva, and his manifestations including Rudra deva and Natarāja  
Shāktism = Worships the female power which are incarnations of Goddess Śakti  
Shikhara = Mountain peak or crest  
Skambha or stambha = Pillar, column  
Smārtism = Devotion to tradition (smṛti)  
Sūtradhāra = Creator / architect  
Syncretic = The combination of different forms of belief or practice  
Tilaka = A mark or symbol drawn on the forehead by vermilion, sandalwood or other substances  
Tīrtha = Place of pilgrimage  
Uru-Shikhara = Half spire  
Vaidika Dharma = Vedic law  
Vaishnavism = Worships Lord Viṣṇu and his many incarnations such as Lord Krishna and Lord Rama  
Vastu = Material  
Vāstu = Site for construction, and the construction itself  
Vāstupuruṣa = ‘site-man’ template used for the sacred construction of structures and buildings  
Vāstupuruṣamaṇḍala = The diagram of the Vāstupuruṣa as a metaphysical plan of a building

Vāstuśāstra = Traditions of construction  
Veda = A class of literature  
Vimāna = Spire  
Yantra = Magic diagrams

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Src = 'https://secure.gravatar.com/avatar/5261e7a23155026e2bce2a6ed1da6019?s=100, <img Alt="', #038;d=blank, #038;r=g' Srcset='https://secure.gravatar.com/avatar/5261e7a23155026e2bce2a6ed1da6019?s=200, #038;d=blank, and #038;r=g 2x' Class='avatar Avatar-100 Photo' Height='100' Width='100' />'. 'Shiv Temple in Wadeshwar / Sameep Padora & Associates'. ArchEyes (blog), 25 August 2020. <https://archeyes.com/shiv-temple-wadeshwar-sameep-padora-associates/>.

 **Figure - 71**  
BAPS Shri Swaminarayan Mandir  
Photo by Unknown  
'Blaaag Detail - BAPS Shri Swaminarayan Mandir (2007)'. Accessed 6 May 2021. <https://oaa.on.ca/whats-on/blaag/blaag-detail/BAPS-Shri-Swaminarayan-Mandir-2007>.

 **Figure - 72**  
Exploration of geometries for Faculty Research  
Seminar course  
Photo by Author

 **Figure - 73**  
Parti Diagram 1  
Drawn by Author

 **Figure - 74**  
Parti Diagram 2  
Drawn by Author

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Parti Diagram 3  
Drawn by Author

 **Figure - 76**  
Parti Diagram 4  
Drawn by Author

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Parti Diagram 5  
Drawn by Author

 **Figure - 78**  
Parti Diagram 6  
Drawn by Author

 **Figure - 79**  
Site linking to Maison McCulloch Hospice  
Drawn by Author

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Entrance to temole from parking  
Drawn by Author

 **Figure - 81**  
Gopura's barrel  
Drawn by Author

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Access to site from Maison McCulloch Hospice with new board-walk  
Drawn by Author

 **Figure - 83**  
Entrance to temole from Laurentian University parking  
Drawn by Author

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Bells going along the paths to the temple  
Created for Fabrication 2 course  
Drawn by Author

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Drawn by Author

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Drawn by Author

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Drawn by Author

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Drawn by Author

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Front doors of the temple  
Drawn by Author

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Drawn by Author

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Entrance hall view  
Drawn by Author

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Drawn by Author

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East-west section zoomed in  
Drawn by Author

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Drawn by Author

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Lord Viṣṇu's sanctum  
Drawn by Author

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Goddess Śakti sanctum  
Drawn by Author

 **Figure - 97**  
Lord Śiva's sanctum  
Drawn by Author

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Lingam channel  
Drawn by Author

 **Figure - 99**  
Circumambulation paths  
Drawn by Author

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Sanctum windows with jali  
Drawn by Author

 **Figure - 101**  
Outside on the plinth  
Drawn by Author

 **Figure - 102**  
Proposed program  
Drawn by Author

 **Figure - 103**  
Community hall plan arrangement 1  
Drawn by Author

 **Figure - 104**  
Community hall plan arrangement 2  
Drawn by Author

 **Figure - 105**  
Community hall plan arrangement 3  
Drawn by Author

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Material relations  
Drawn by Author

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Drawn by Author

 **Figure - 108**  
Interior materials 2  
Drawn by Author

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Drawn by Author

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Drawn by Author

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Perforated jali  
Drawn by Author

 **Figure - 112**  
Exterior materials  
Drawn by Author

 **Figure - 113**  
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Drawn by Author

 **Figure - 114**  
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Drawn by Author

 **Figure - 115**  
Community hall entrance  
Drawn by Author

 **Figure - 116**  
Community hall kitchen  
Drawn by Author

 **Figure - 117**  
Larger bell for entrance hall  
Created for Fabrication 2 course  
Drawn by Author

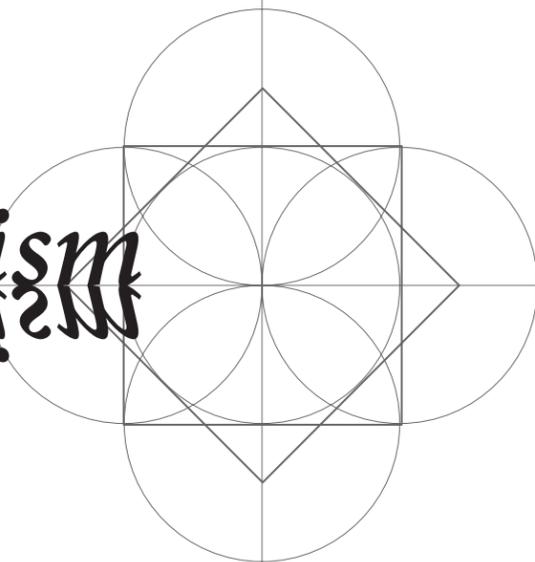
 **Figure - 118**  
Top view Temple  
Photo by Author

 **Figure - 119**  
Aerial View of Temple Precinct  
Photo by Author

 **Figure - 120**  
Exploration of geometries for Faculty Research  
Seminar course  
Photo by Author

“The working senses are superior to dull matter; mind is higher than the senses; intelligence is still higher than the mind; and he [the soul] is even higher than the intelligence.”  
 — *Bhagavad Gītā* 3.42

# Hinduism



Part. **1**

Figure - 1  
 Parivartanā Mandala Version 1  
 Faculty Research Seminar course  
 Drawn by Author

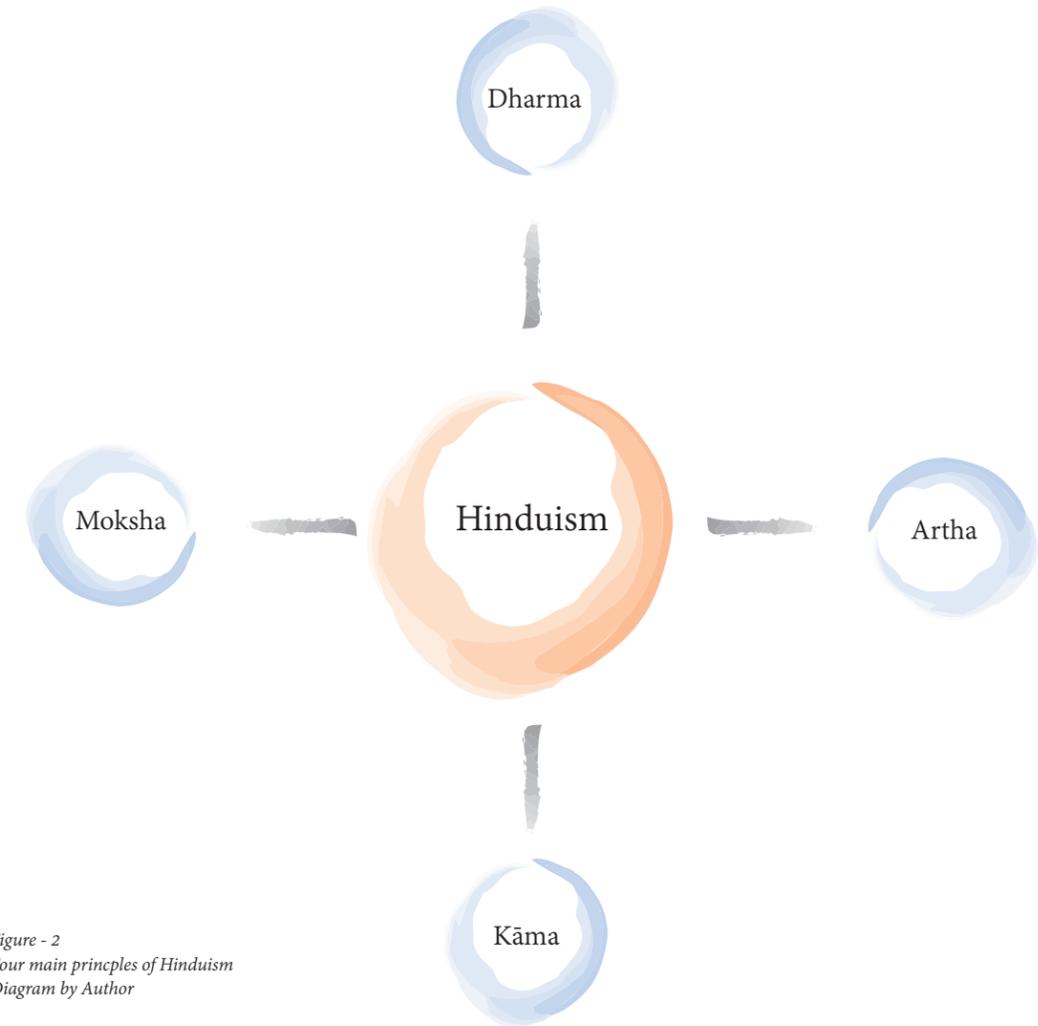


Figure - 2  
 Four main principles of Hinduism  
 Diagram by Author

According to the author’s understanding, in Hindu religion there are four major principles or goals that one should achieve to become one with the supreme being ‘*Parabrahman*’. These four *puruṣārtha* (objectives) are *Dharma*, *Artha*, *Kāma* and *Mokṣa* <sup>2</sup> (figure 2). *Dharma* means “righteousness, responsibility, and duty.”<sup>3</sup> *Artha* allows “for the fulfilment of desires for material objects, in particular wealth.”<sup>4</sup> *Kāma* permits “the regulated fulfilment of one’s personal and social desires.”<sup>5</sup> Lastly, *mokṣa* is the “liberation from *māyā*

(illusion) and cycle of birth and deaths, leading to experience of divine bliss.”<sup>6</sup> The religion has developed in multiple ways throughout the past centuries, in large part through *ṛṣi* (sages).<sup>7</sup> Now there are various *sampradāya* (tradition) that make up the Hindu religion. These traditions include the division of devotees into four major groups (explained later in the text) that either worship Lord Viṣṇu, Lord Śiva, Goddess Śakti and the last group that worships based on sacred texts. Each group of beliefs is influenced by knowledge, *karma*, meditation, and devotion.

<sup>2</sup> Vivekjivandas Sadhu, *Hinduism: An Introduction*, 2nd ed., vol. 1, 2 vols (Swaminarayan Aksharpath, 2011).pg. 9.

<sup>3</sup> Ibid. 351.

<sup>4</sup> Ibid. 348.

<sup>5</sup> Ibid. 353.

<sup>6</sup> Ibid. 354.

<sup>7</sup> Ibid. 2.

O Lord of the universe, O universal form, I see in Your body many, many arms, bellies, mouths and eyes, expanded everywhere, without limit. I see in You no end, no middle and no beginning.  
— *Bhagavad Gītā* 11.17

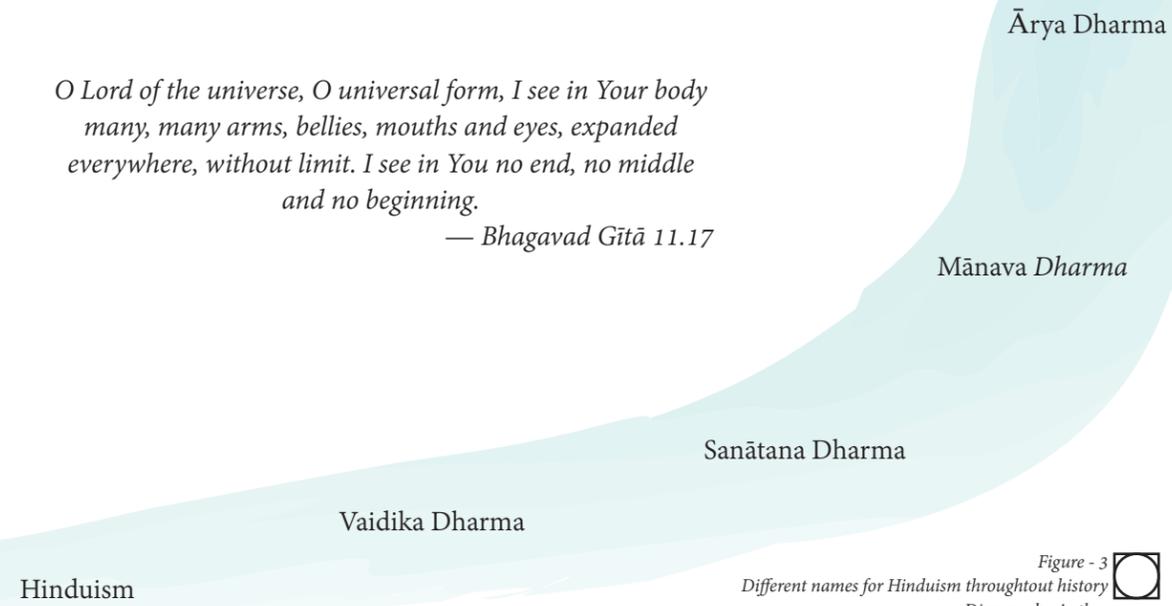


Figure - 3  
Different names for Hinduism throughout history  
Diagram by Author

## History

During the ancient world Hindus were called *Āryas* (the ‘noble’ ones). Throughout history Hinduism has been known by many names, “*Ārya Dharma* – Religion of the *Āryas*...*Mānava Dharma* – the religion of humankind based on human values; *Sanātana Dharma* – The Eternal Religion; and *Vaidika Dharma* – the religion rooted in the *Vedas*.”<sup>8</sup> (figure 3). The origins of Hinduism may be traced back to the shores of the Sindhu river in the Indus Valley. The words ‘Hindu’ and ‘Indos’ (later known as ‘Indus’ in English) arrive by the mispronunciations of the word ‘Sindhu’ by the Persians and the Greeks. Many changes have happened throughout history in terms of location and names, but this did not become a barrier for the religion. Instead, it adapted and evolved into the complex beliefs of Hinduism that are being practiced around the world today.

## Sanātana Dharma

*Sanātana Dharma*, also known as Hinduism, is among the oldest recorded religions in the world. *Sanātana* means “eternal” and “ancient” while *Dharma* means “religion”<sup>9</sup> By being a home to various cultures, traditions, beliefs, and millions of deities, “...Hinduism is a tradition of spiritual beliefs, disciplines and practices that are not only ancient but also eternal.”<sup>10</sup> holding onto ancient traditions while also evolving with time. The ultimate goal of *Sanātana Dharma* is to find enlightenment, become one with *paramātmā* (supreme being) and break through the illusions of the earthly life, “...Hindu thought dismisses the world as illusory; it aims at breaking through this illusion to discover an ultimate reality beyond.”<sup>11</sup> Other than the belief in one supreme being, which can be achieved through the worship of any deity, *Sanātana Dharma* believes in the *vedas* (sacred texts), incarnation, the existence of soul; *karma*, rebirth, having a physical form of the

<sup>9</sup> Ibid. 1.

<sup>10</sup> Ibid.

<sup>11</sup> George Michell, *The Hindu Temple: An Introduction to Its Meaning and Forms* (Chicago: University of Chicago Press, 1988).Pg. 14.

<sup>8</sup> Ibid. 15.



Figure - 4  
Lord Vishnu  
Diagram by Author

## Hindu Deities

deity to worship, and the four *Puruṣārtha*.<sup>12</sup> Such pluralistic beliefs created a religion which has many *sampradāyas* (traditions) that are influenced by knowledge, *karma*, meditation and devotion on various levels, making Hinduism a religion that welcomes every type of worshipper.<sup>13</sup>

The Hindu community in Sudbury believes in the concept of *Sanātana Dharma*, where everyone can come together under one roof and one meaning. As in any Hindu community, they are trying to teach its members the true meaning of Hinduism. This is complex, particularly as the Hindu community in Sudbury comes from different geographical regions in India as well as from different sects. This thesis respects the ideals of the Sudbury community and tries to create a temple that welcomes not only the local Hindu community but everyone who believes in the *Sanātana Dharma* philosophy.

Although there are millions of gods and goddesses worshipped in Hinduism, it is primarily a henotheistic religion. Henotheism means belief in one god but accepts the presence of other gods and goddesses. Hindus are all worshipping towards the one supreme *paramātmā*; “As all surrender unto Me, I reward them accordingly. Everyone follows My path in all respects, O son of Pṛthā.”<sup>14</sup> Through the worship of one or many manifestations of the supreme *paramātmā* (supreme being), the worshipper tries to achieve *mokṣa* (liberation). *Sanātana Dharma* allows the worshipper to choose which god or gods they want to worship. This creates different sects.

“Out of its many traditions four are most prominent: *Vaishnavism*, *Shaivism*, *Shāktism* and *Smārtism*.” *Vaishnavism* (figure 4) worships Lord Viṣṇu and his many incarnations such as Lord Krishna and Lord Rama. This is the largest Hindu tradition amongst the many. They believe

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> A. C. Bhaktivedanta Swami Prabhupada, *Bhagavad-Gita as It Is*, Second Edition (Bhaktivedanta Book Trust U.S.: Bhaktivedanta Book Trust, 1989). Pg. 197.



Figure - 5  
Lord Shiva  
Diagram by Author

Lord Viṣṇu is the *paramātmā*, the creator and destroyer of all and is a *mūrti pūjā* (worshipping a physical idol) based tradition.<sup>15</sup> This means that by worshipping the *mūrti* (idol) one's soul will attain *mokṣa* (liberation). Whereas in *Shaivism* (figure 5) that is devoted to Lord Śiva, and his manifestations including Rudra deva and Natarāja, those followers believe in "...detached asceticism, yoga and contemplation rather than *bhakti* or devotion."<sup>16</sup> Śiva is also considered as the ultimate yogi, and devotees see Śiva as the highest god and the supreme being or *parameshwara*. *Shāktism* is a *sampradāyas* (traditions) that believes the female form is the supreme being (figure 6).<sup>17</sup> Pārvatī is a reincarnation of Sati; both consorts of Śiva make up *Shāktism*, and her many incarnations include, Kālī, Ambā and Durgā. This is not to be confused with goddesses Saraswatī, Lakṣmī, Sītā and Rādhā who are not a part of *Shāktism*. Lastly, *Smārtism* worship is based on sacred texts such as "...Smṛuti shastras — Rāmāyana, Mahābhārata, Bhagavad

<sup>15</sup> Sadhu, *Hinduism*.Pg. 162.

<sup>16</sup> Ibid. 176.

<sup>17</sup> Ibid. 184.

Gitā, Purāṇas and Dharma Shastras."<sup>18</sup> There are five *purānic* (ancient) deities that *Smārtism sampradaya* (tradition) worship: Viṣṇu, Śiva, Devī (Shākti), Sūrya (sun god), and Gāṇeśa. Though these are different traditions and have their own methods, the ultimate goal remains to achieve *mokṣa* (liberation) and become one with the supreme *paramātmā*.

This brief overview outlines the complexity of Hinduism and its various paths of devotion. Although Hinduism emphasizes transcending the material world with the ultimate goal of achieving enlightenment, Hindus still need elements from the material world to guide them in finding the right path. Thus, a highly crafted idol that is the image of the god or goddess, and other materials that go along with the worship of the deity, are central to the meaning and design of the Hindu temple. This decorated place of worship becomes the earthly home of the deity.

<sup>18</sup> Ibid. 186.



Figure - 6  
Goddess Shakti  
Diagram by Author

The Sudbury Prarthana Samaj (the existing Hindu temple in Sudbury) currently has a large idol made from brass of Lord Viṣṇu, who is worshipped more than the other gods. They also have many small idols of other gods and goddesses, as each type of event, festival or ritual is dedicated to a specific deity and the whole community celebrates it together. When a survey was done, the community expressed wishes to have multiple deities in the new temple, so each sect feels welcome. In order to keep the ideals of the Hindu community in Sudbury intact while respecting their wishes, the new temple should have three sanctums. The central *garbhagrha* will be dedicated to Lord Viṣṇu, to the left will be Goddess Śakti, and on the right will be the sanctum for Lord Śiva. By dedicating separate sanctums to each of these three deities this thesis takes the wishes of the community into consideration while following major principles of designing a temple.

*If one offers Me with love and devotion a leaf, a flower, a fruit or water, I will accept it.*

— *Bhagavad Gītā* 9.26

There are principles to regulate attachment and aversion pertaining to the senses and their objects. One should not come under the control of such attachment and aversion, because they are stumbling blocks on the path of self-realization.”

— Bhagavad Gītā 3.34

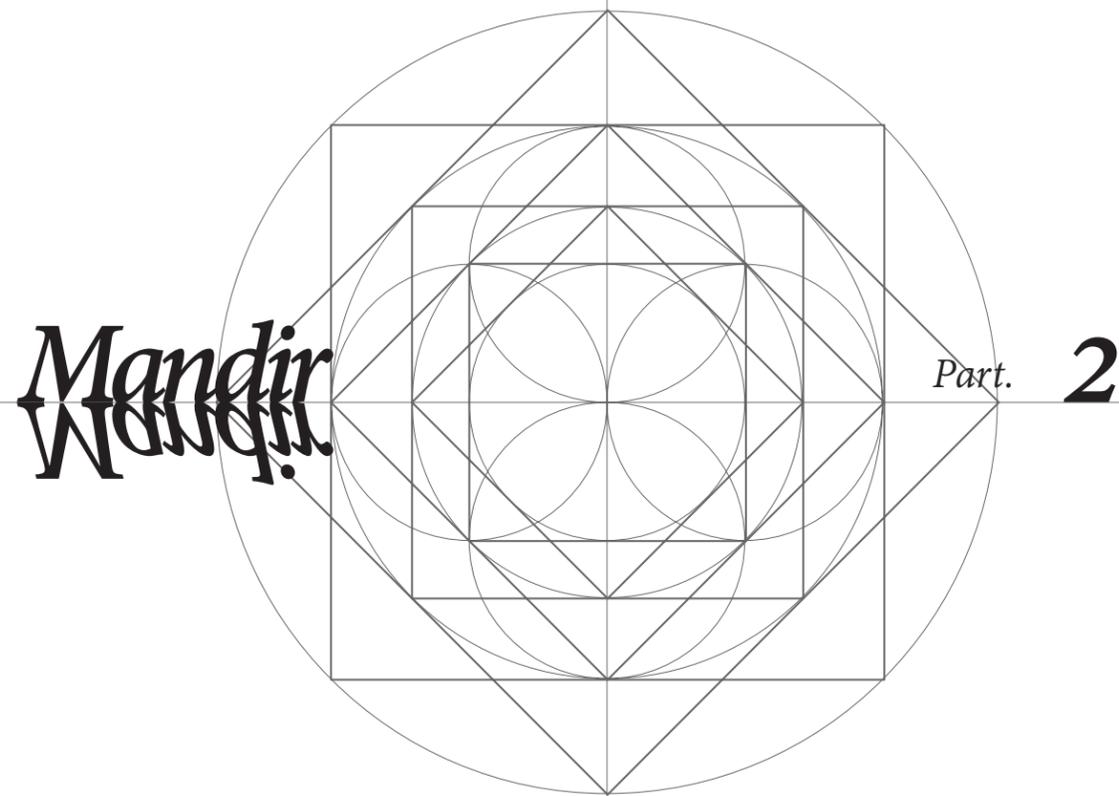


Figure - 7  
Parivartanā Mandala Version 2  
Faculty Research Seminar course  
Drawn by Author

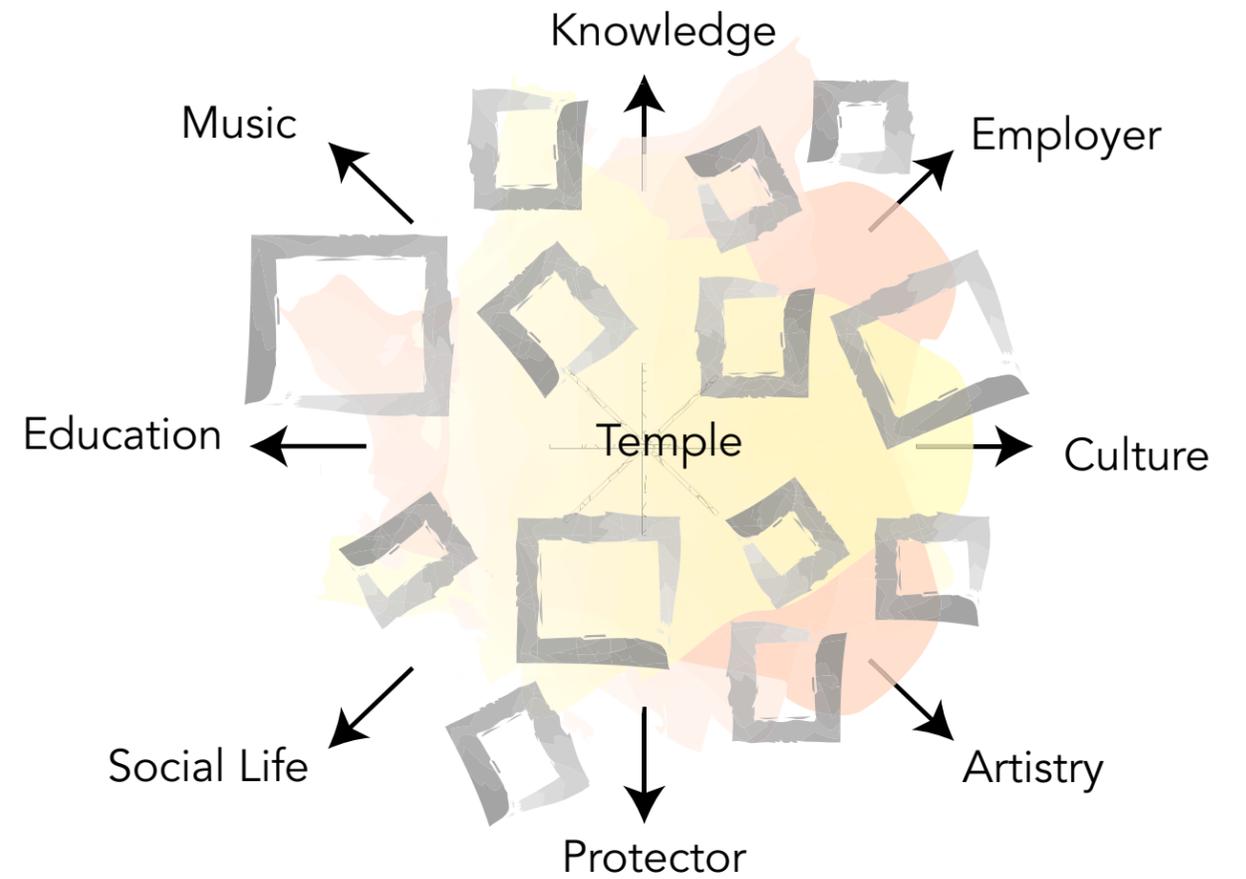


Figure - 8  
Meaning of Temple to the community  
Drawn by Author

What is a “Temple”? What does it mean to the community? (figure 8) A temple is a dwelling created amongst the humans by humans for gods. They are also seen as, “...symbols of the model of the cosmos and their form represents the cosmos symbolically.”<sup>19</sup> A temple means everything to a Hindu community, it is a place of worship, community gatherings, and knowledge. A place of worship where religion can flourish is one of the major *skambhas* (pillars) on which the function of a community rests. The temple can physically be placed in the center of the community or on the outskirts of the town without losing its importance.

19 Tanisha Dutta and V. Adane, ‘Symbolism in Hindu Temple Architecture and Fractal Geometry - “Thought Behind Form”, *International Journal of Science and Research (IJSR)* 3 (20 December 2014): 489–97.pg. 489.

“The temple has been the centre of the intellectual, social and artistic life of the Hindu community, functioning not only as a place of worship, but also as a nucleus around which all artistic and cultural activity is concentrated and flourishes.”<sup>20</sup>

These definitions of *mandirs* were strongly seen in history when the concept of *gurukula* (place of education) was present. In this education system the *śiṣya* (student) would live with or near the *guru* (teacher). These classes were held almost anywhere but sometimes they were held at the temple. This slowly stopped when the education system changed and as the areas around the temple started to get crowded. Throughout time temples

20 Ibid. 491.

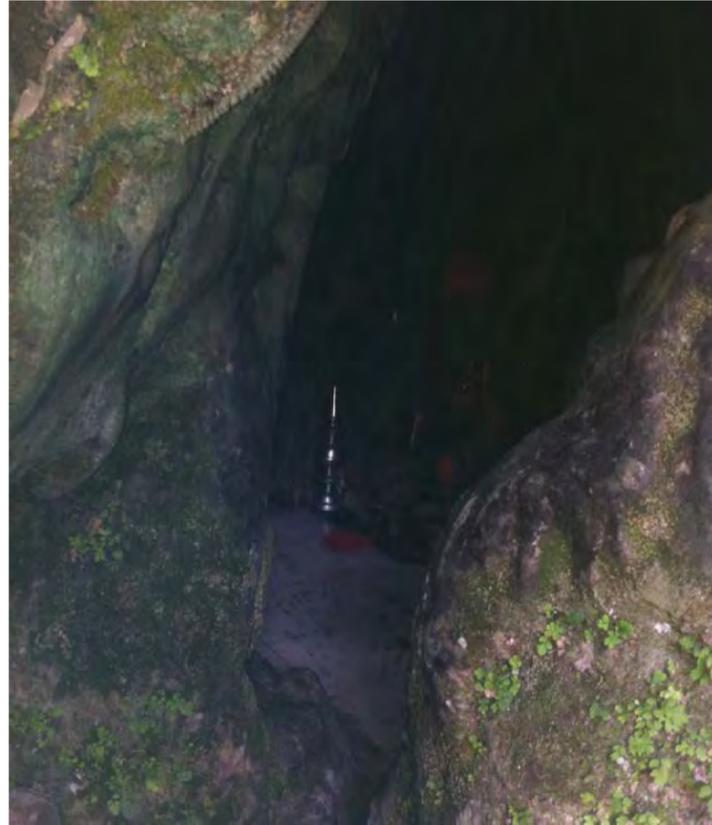


Figure - 9  
Temple in a cave  
Photo by Author

were not only meant as places of worship, but also as places to socialize and celebrate festivals in small groups. But temples in smaller villages or temples that are large still had multiple functions, such as community events happening in front of the temple, small size art, dance, music and many other classes. These concepts are coming back through many major Hindu organizations such as, Iskcon – The Hare Krishna Movement, BAPS Swaminarayan Sanstha, and many more. Other programs are integrated when a temple is located in a different country, such as language, reading and writing of native language, history, and cultural classes. These programs help the culture survive and educate the young generation, “as the centre of religious and cultural activities, the temple is the focus of all aspects of the life of the community it serves.”<sup>21</sup>

<sup>21</sup> Michell, *The Hindu Temple*.pg. 49.

It also teaches the true meanings of Hinduism, showing that no matter how different the paths are and no matter which deity they worship, the end goal is the same. There are variations of temples that exist in India from large scale to small shrines, yet the essence of worshipping at the house of the god stays the same.

*“Although I am unborn and My transcendental body never deteriorates, and although I am the Lord of all living entities, by My internal energy I still appear in every millennium in My or original transcendental form.”*  
— *Bhagavad Gītā* 4.6

## The Origin of Mandirs

Hindu gods love to go to places that are secluded and are as natural as possible, on mountains, near rivers, lakes or other bodies of water, gardens, and even caves.<sup>22</sup> With the fondness of natural spaces the origin of temples can be traced to caves and shrines under trees or out in the open. The cave is an important aspect in the creation of temples as they are a great “place of retreat and occasional habitation of the gods.”<sup>23</sup> Devotees made these temporary habitats into permanent places of worship (figure 9 -10). When gods would take shelter under the tree shade it became another place where shrines were created, “...every village and town has its sacred tree or grove. These shady locations are always considered to be places where

<sup>22</sup> Ibid. 68.

<sup>23</sup> Ibid. 69.

meditation is possible and at which contact with the divine may be successfully achieved.”<sup>24</sup> (figure 11). Caves, trees, and shrines in the open could be seen as an early form of temple. Later, caves were enlarged to provide space for worshippers to perform rituals in the caves. Then the thought of enclosing the shrine with a simple roof and walls came to be,<sup>25</sup> which became the beginning of temple architecture. Any temple that is created

<sup>24</sup> Ibid. 68.

<sup>25</sup> Adam Hardy, ‘Indian Temple Typologies’, in *Glimpses of Indian History and Art: Reflections on the Past, Perspectives for the Future*, Rome, Italy, 18-19 April 2011, ed. Tiziana Lorenzetti and Fabio Scialpi, vol. 19, Collana Convegni (International Congress Glimpses of Indian History and Art, Reflections on the Past, Perspectives for the Future, Rome: Sapienza Università, 2012), 101–26.

Figure - 10  
Amarnath Cave  
Photo by Amarnath Images





Figure - 11  
Shrine under a tree  
Photo by Deidi Von

has a cave-like feeling in the most sacred part of the temple. "In all Hindu temples the sanctuary is strongly reminiscent of a cave; it is invariably small and dark as no natural light is permitted to enter, and the surfaces of the walls are underdone and massive."<sup>26</sup>

As Hindu gods are mainly charmed by caves and mountains (figure 12), the resemblance of those elements are seen in almost all Hindu *mandirs*.<sup>27</sup> In the form of the *shikhara* (spire) which resembles the mountain shapes and peaks, the feeling of a cave is created in the sanctum that is a dark and cramped space (figure 13 - 14). Ancient temples were very simple in terms of design, they were built on a plinth with a few columns, an enclosed space for the sanctum, an open *mandapa* (hall for rituals) and a simple roof (figure 15).

Over millennia, temples have evolved into large sophisticated structures, such as the Kandariya Mahadev Temple in Khajuraho, that are based on geometry and symbolic relations to the universe. Over time, temple styles were also mainly classified into three major categories Nāgara, Drāviḍa and Vesara. Each of these styles are unique and respond to the demands of the geographical locations, cultural needs, design ideas of the patron and money. After learning about the origin of temples, it is important to recall the major principles that need to be looked at during the design phase of the *mandir*.

<sup>26</sup> Michell, *The Hindu Temple*.pg. 69.

<sup>27</sup> Ibid. 69.



Figure - 12  
Kedarnath Temple in the mountains  
Photo by Author



ಒಳಗಡೆ ಪ್ರವೇಶ ನಿಷೇಧಿತ No Entry

Figure - 13  
Lord Shiva Sanctum  
Photo by V R Vighnesh

Figure - 14  
Khajuraho Temple Shikhara  
Photo by Kevin Standage



Figure - 15  
Simple Temple Design  
Photo by Author



Figure - 16  
Temple on a mountain (Kedarnath)  
Photo by Author

## Principles

Many temples were built on the peaks of mountains where it became difficult - but not impossible - for humans to reach (figure 16). This is another symbolism where the worshipper has to face hardships and to cleanse him/herself at the same time in order to gain enough merit to see the deity. The other relation that can be made is the thought of leaving the profane world and walk to the sacred. Before the site is chosen there are key elements to remember, including having the temple orientation on an East-West axis, water around the temple, seclusion, and locating it either on a hilltop, mountain, or a plinth (figure 17).

Stella Kramrisch writes: "The gods are

installed not only in Tirthas, banks of rivers, lakes and on the seashore, add to the confluence of rivers and estuaries, but also on Hill-tops and mountain-slopes, in forests, Groves and gardens, near the abodes of the blest or Hermitages, in villages, towns and cities or in any other lovely place."<sup>28</sup> She mentions that these are the places where gods are present. Before starting construction, the site needs to be ritually prepared, cleansed and leveled each time, "...the ground from which the temple is to rise is regarded as being throughout on an equal intellectual plane."<sup>29</sup> Once the site is purified and the temple is constructed it naturally becomes a

<sup>28</sup> Stella Kramrisch, *The Hindu Temple Vol I 1946*, vol. 1, 2 vols (Motilal Banarsidass Publishers PVT. LTD. Delhi, 1976).pg. 5.

<sup>29</sup> Ibid. 7.

place for *tirtha* (place of pilgrimage)<sup>30</sup>

Water is an important element that needs to be present at or around the temple, "Water is also necessary for the successful functioning of the temple as it is required for ritual ablutions."<sup>31</sup> If a natural source of water is not available then the creation of an artificial pond or water element becomes necessary, "...but if it is neither available by nature nor by artifice it is present symbolically at the consecration of the temple or image."<sup>32</sup> When placing the water element it is most important that it is located in the front or the left side of the temple while still respecting the East-West axis.

The symbolic connections that are

<sup>30</sup> Ibid. 5.

<sup>31</sup> Michell, *The Hindu Temple*.Pg. 68.

<sup>32</sup> Stella Kramrisch, *The Hindu Temple Vol I 1946*.Pg. 5.

formed through the construction of a temple are connection to nature, sacred mountains, and the mapping of microcosm and macrocosm in re-creating the cosmos on earth through symbolic architecture (figure 18). These symbolic expressions will be discussed later in this thesis. Architectural principles include construction geometries and materials, carvings, art, and transition of space from public to private/ profane to sacred (figure 19). Traditionally, art and carvings are the ideal way of passing down knowledge and stories, as "Hindu art is dedicated to rendering the world of the gods visible; it's sacred images voice the message of the gods."<sup>33</sup> The transition from public to private is also an important element, as the worshipper needs to leave the profane world and prepare themselves to

<sup>33</sup> Michell, *The Hindu Temple*.pg. 36.

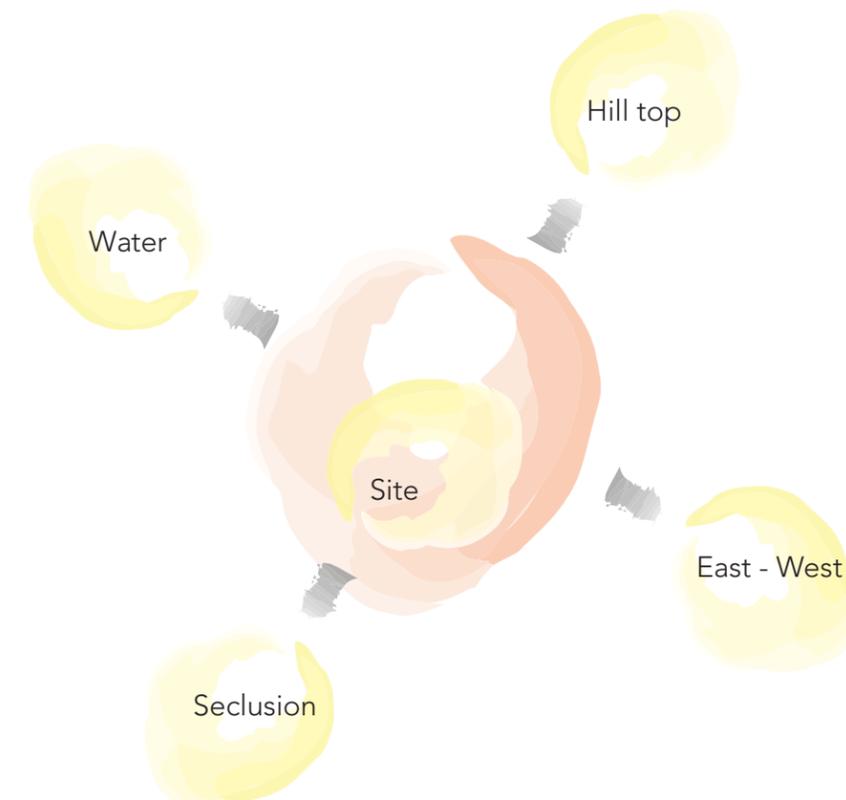


Figure - 17  
Site principles  
Drawn by Author

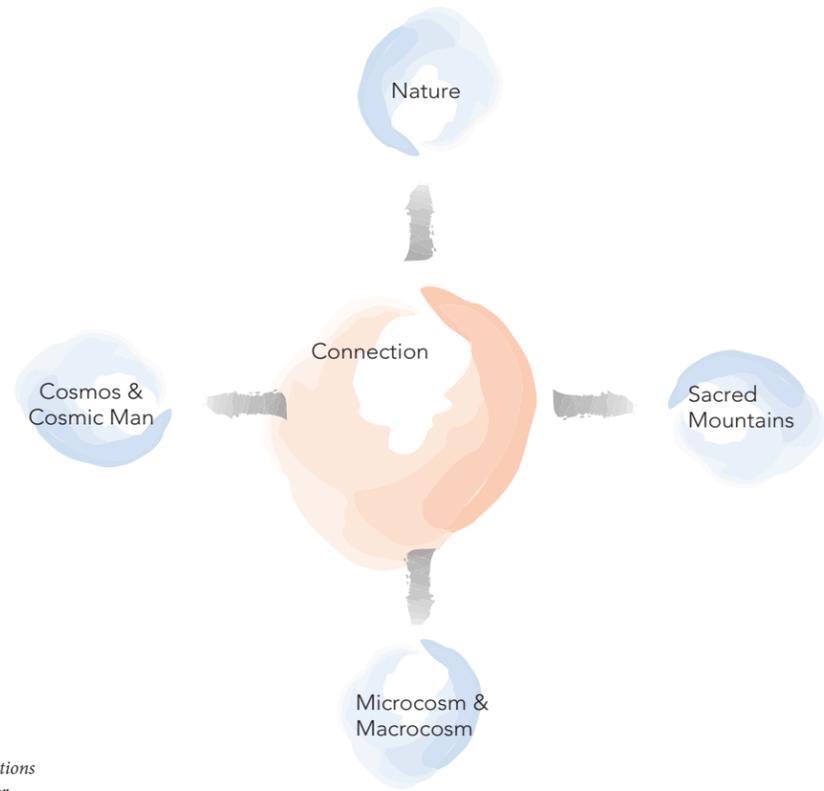


Figure - 18  
Symbolic connections  
Drawn by Author

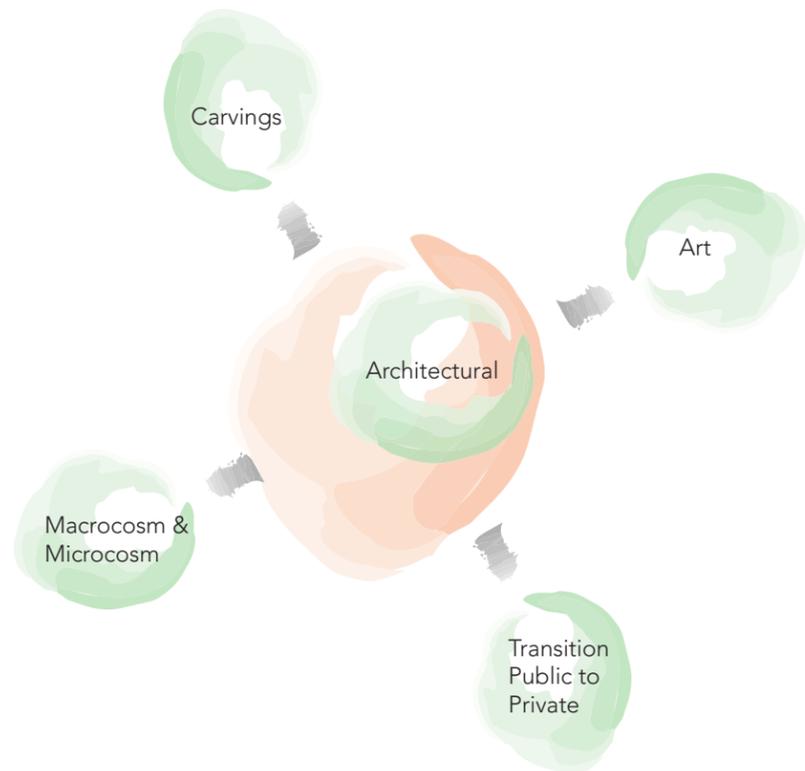


Figure - 19  
Architectural connections  
Drawn by Author

enter the sacred and stand before the deity. When these principles are combined, they form a significant starting point for the creation of a new temple (figure 20). These principles and the layout of the temple will be explained while investigating the differences between the Nāgara and Drāviḍa styles.

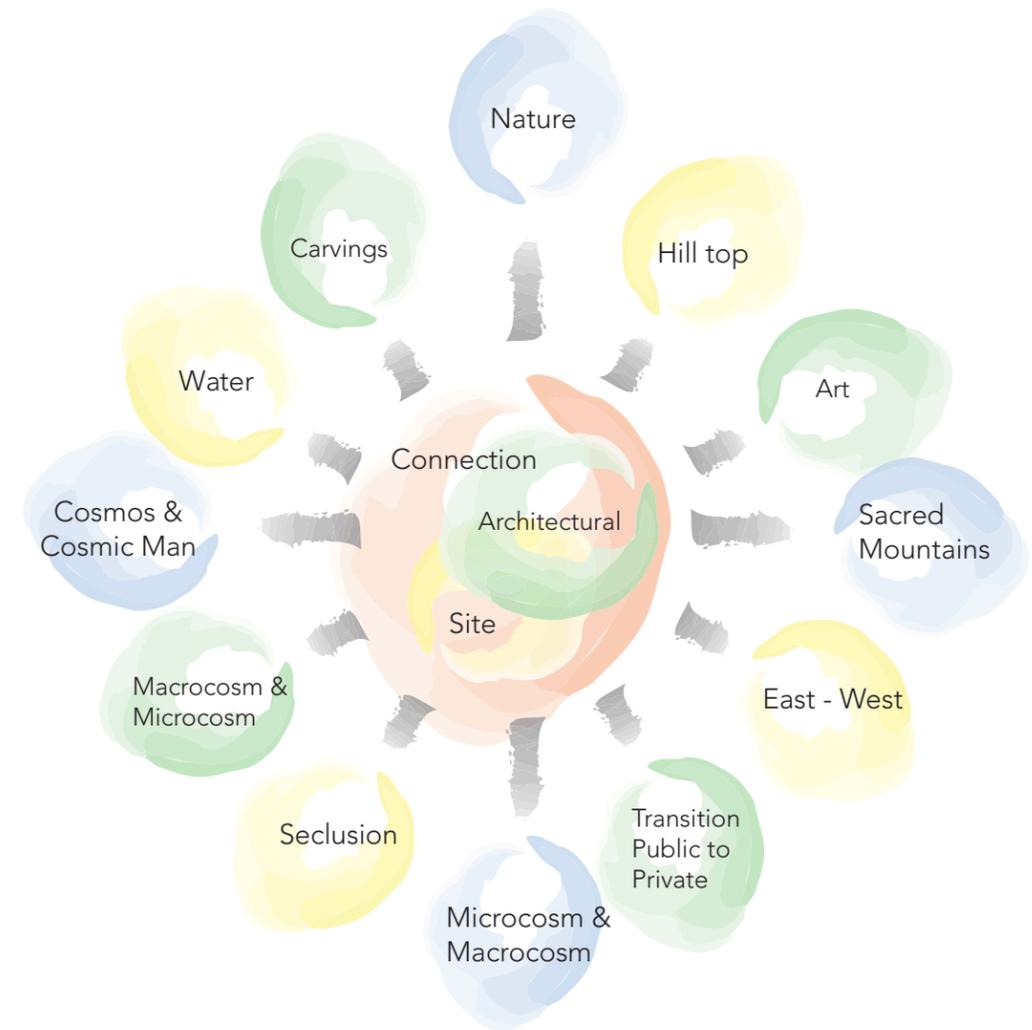


Figure - 20  
Merging symbolism  
Drawn by Author

“One who is in knowledge of the absolute truth, O mighty-armed, does not engage himself in the senses and sense gratification, knowing well the differences between work in devotion and work for fruitive results.”

— *Bhagavad Gītā* 3.29



Figure - 23  
Nāgara Style Temple  
Photo from Trawell

## Nāgara Temples

Temples that are located in the middle States of India (Maharashtra, Telangana, and Odisha) most of the states in upper India are called Nāgara which means ‘of the city’.<sup>34</sup> (figure 21) Then too some states in north India are influenced by the regional designs. A lot of the temple design was affected by the patrons which normally were the kings of that region and time period. Such as in the 5<sup>th</sup> – 7<sup>th</sup> century, when the Guptas were ruling, the *mandirs* had a square sanctum with a small pillared porch which was elevated by a plinth<sup>35</sup> (figure 22). By the 10<sup>th</sup> century under the rule of Pratiharas and Chandellas temples became more ornate like

the temples in Khajuraho<sup>36</sup> (figure 23). As more and more elements were added to the evolving temples the footprint of each temple started to expand and more *maṇḍapas* (halls) were added before the sanctum. “Another factor in the stylistic evolution of the Hindu temple was the tendency towards enlarging the scale of sacred buildings, accompanied by an increase in the complexity of architectonic forms and decoration.”<sup>37</sup> These elements are evident at the Kandariya Mahadev Temple in Khajuraho.

Despite changes, the sequencing of the layout was the same, first came the *ardha-*

<sup>34</sup> Hardy, ‘Glimpses of Indian History and Art’.  
<sup>35</sup> Michell, *The Hindu Temple*.pg. 94.

<sup>36</sup> Ibid.117.  
<sup>37</sup> Ibid.92.

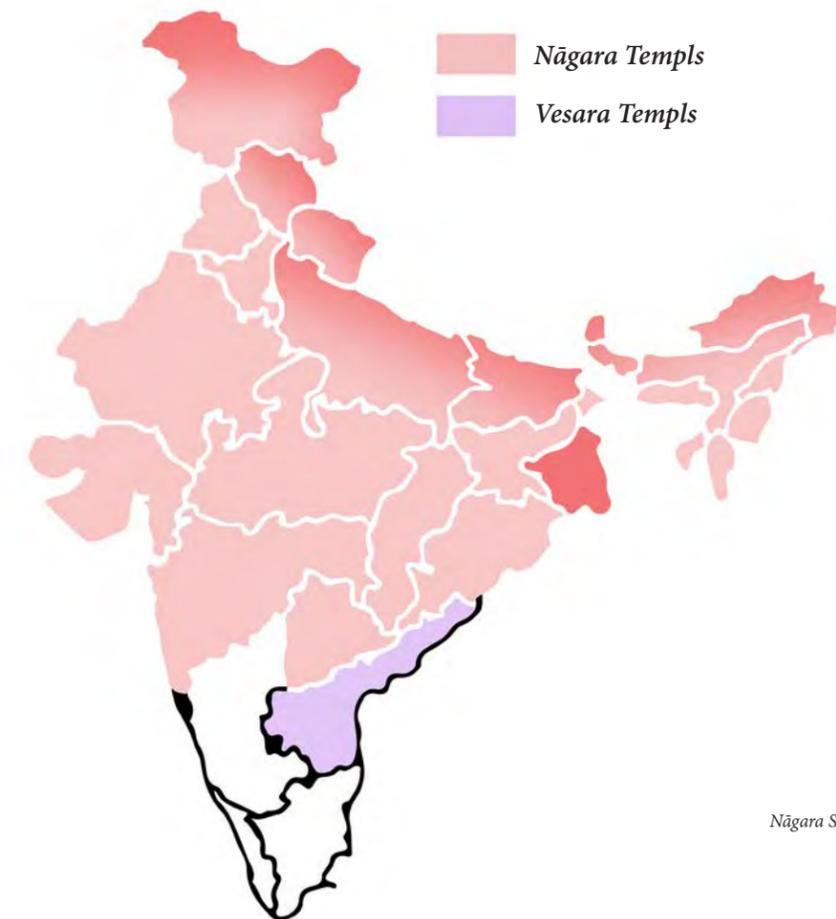


Figure - 21  
Nāgara Style Temples in India  
Drawn by Author



Figure - 22  
Simple Temple Form  
Photo by Author

Antarala

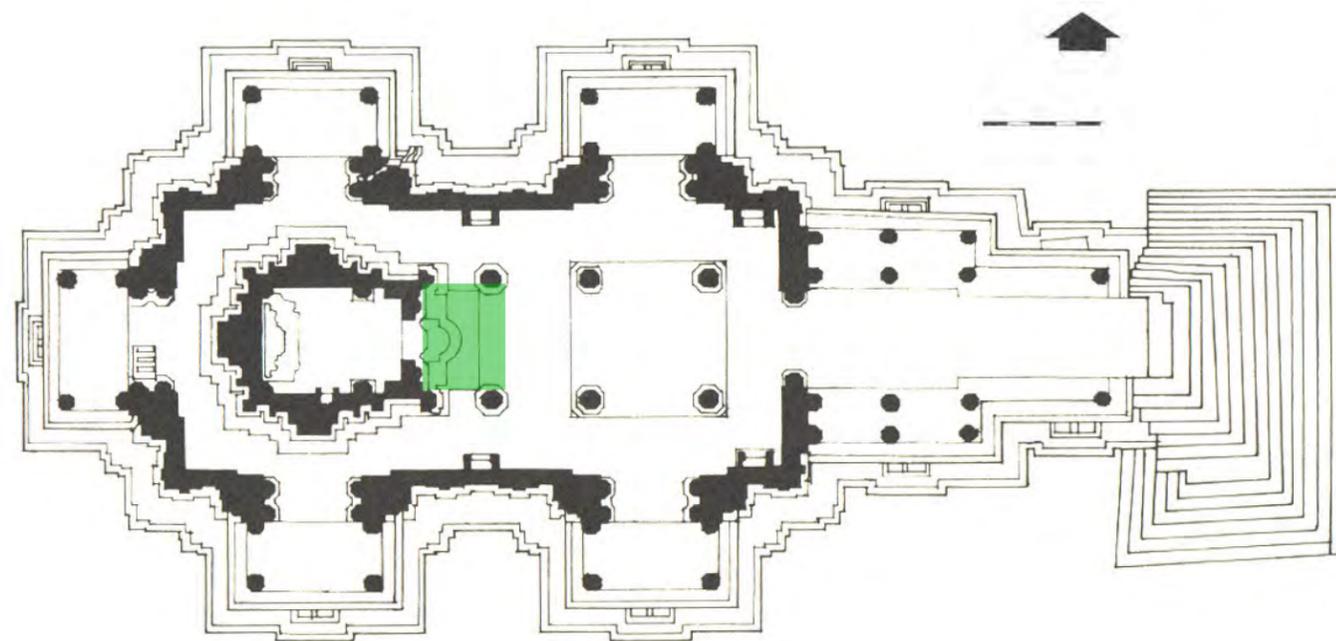


Figure - 25  
Antarāla (vestibule) Location  
Diagram by Author

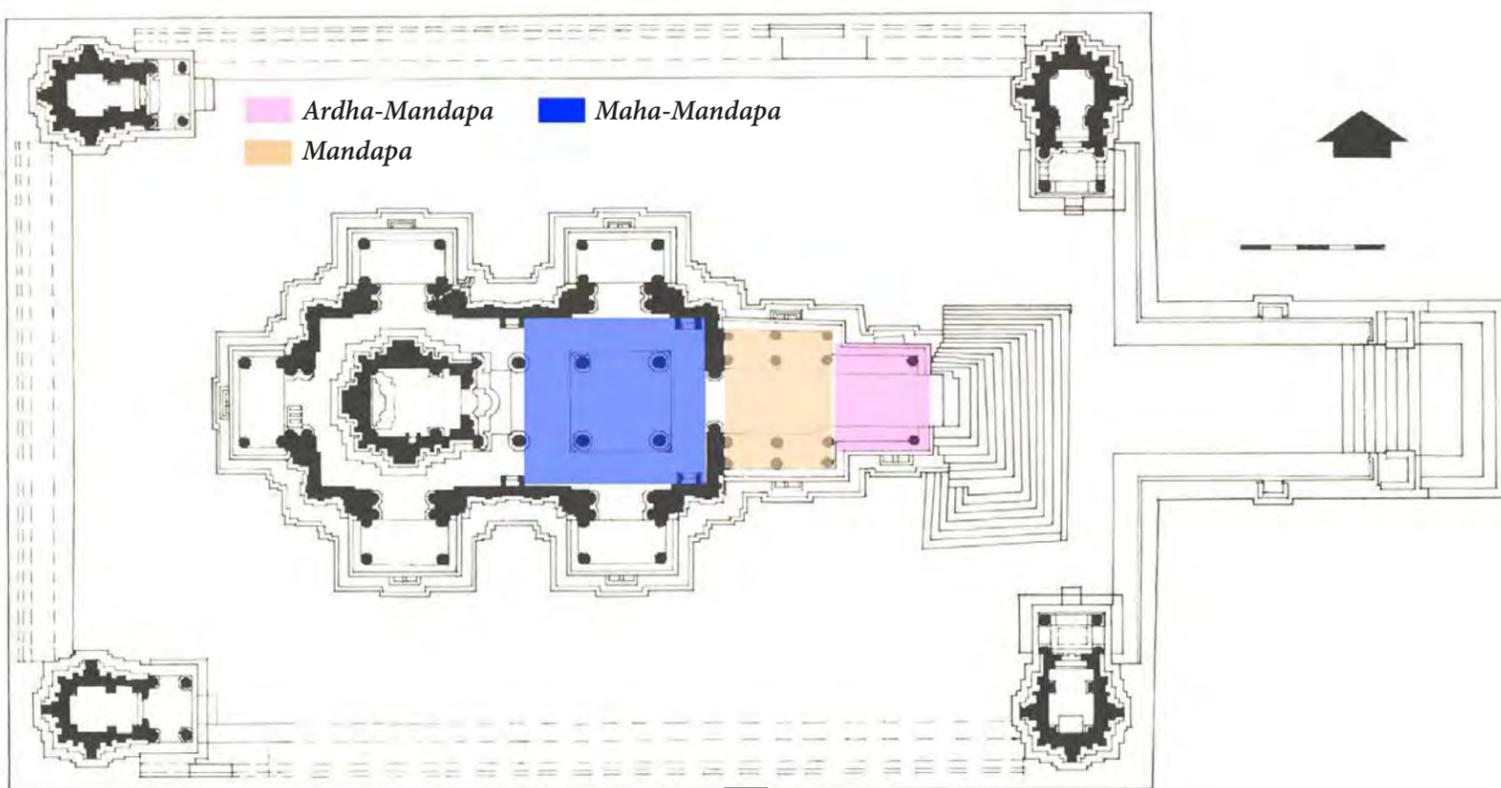


Figure - 24  
Temple Layout  
Diagram by Author

*maṇḍapa* (entrance porch) leading to the *maṇḍapa* (gathering hall) and lastly the *mahā-maṇḍapa* (a larger gathering hall) (figure 24). There only were three *maṇḍapas* when a temple was large enough that would need those spaces such as the Kandariya Mahadev Temple. Otherwise, it would just have the *ardha-maṇḍapa* (entrance porch) and the *maṇḍapa* (gathering hall). In early versions of the *mandir*, or in smaller temples, there would just be the *ardha-maṇḍapa* that would be used as a porch and as a gathering space. In the Kandariya Mahadev Temple between the *maṇḍapa* (gathering hall) and *garbhagrha* (sanctum) there is a space called the *antarāla* (vestibule) acting as the final phase of transition from profane to sacred (figure 25). Once this sequence of halls and vestibule is over then comes the *garbhagrha* (sanctum) - the reason the temple exists. In this space the *mūrti* (idol) of the deity is placed on a plinth in the exact center of the sanctum (figure 26). Around the *mūrti* (idol) there is space to perform *pūjā* (the ceremony of worship) and for *pradakṣiṇā* (circumambulation) in a clock-

wise direction (figure 27). Circumambulation space is also provided between the sanctum and the exterior wall. Besides the main sanctum around which a grand temple structure is extruded, in most *mandirs* many small shrines exist that are dedicated to other deities. Though these other shrines are not attached to the main temple they expand the footprint of the sacred space. Nāgara temples have many open areas - if the site permits - that are not covered to allow for other programs (figure 28).

The exterior of the Kandariya Mahadev *mandir* expands or emanates in both the vertical and horizontal directions. Horizontal expansion happens in the cardinal directions of each main square called the *bhadra* (transept) (figure 29). The expansion in both directions heavily depend on each other, as the superstructure or spire is full of symbolic implications, along with a strong visual effect.<sup>38</sup> “This impact was created by

<sup>38</sup> Ibid. 93.

Garbhagriha

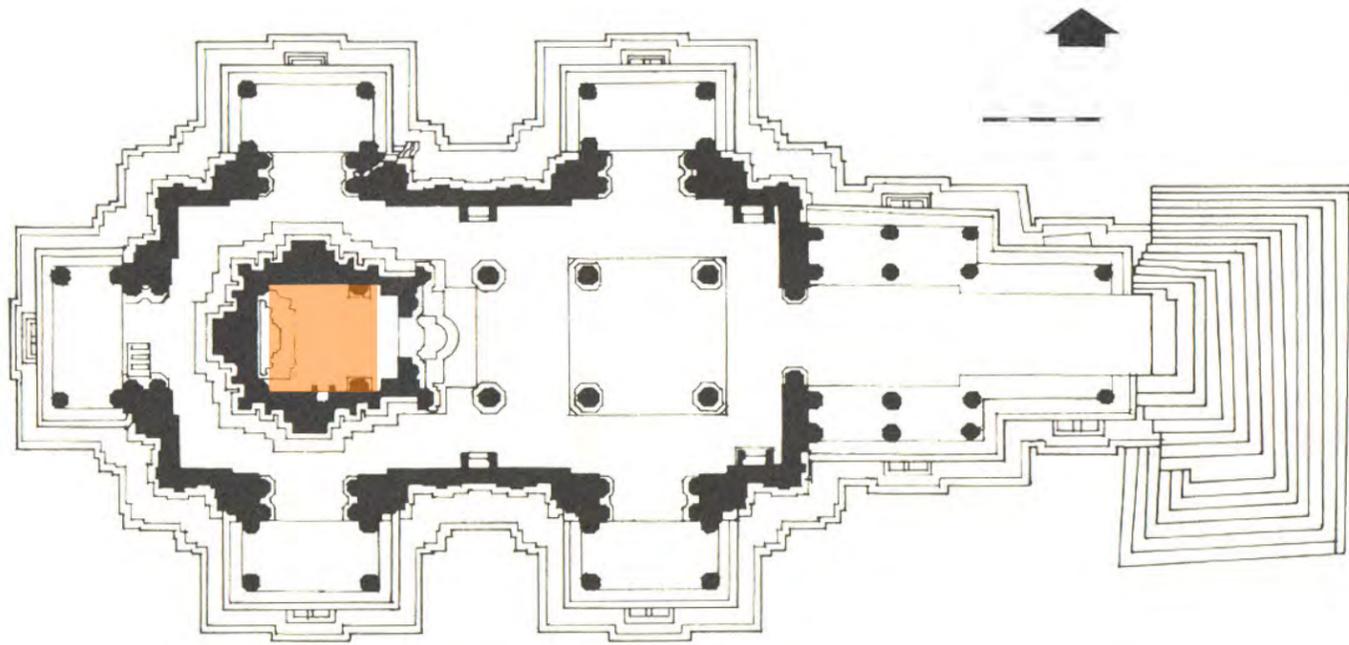


Figure - 26  
Garbhagriha (sanctum) Location  
Diagram by Author



Figure - 28  
Khajuraho Temple with other shrines  
Photo from Trawell

Circumambulation Path

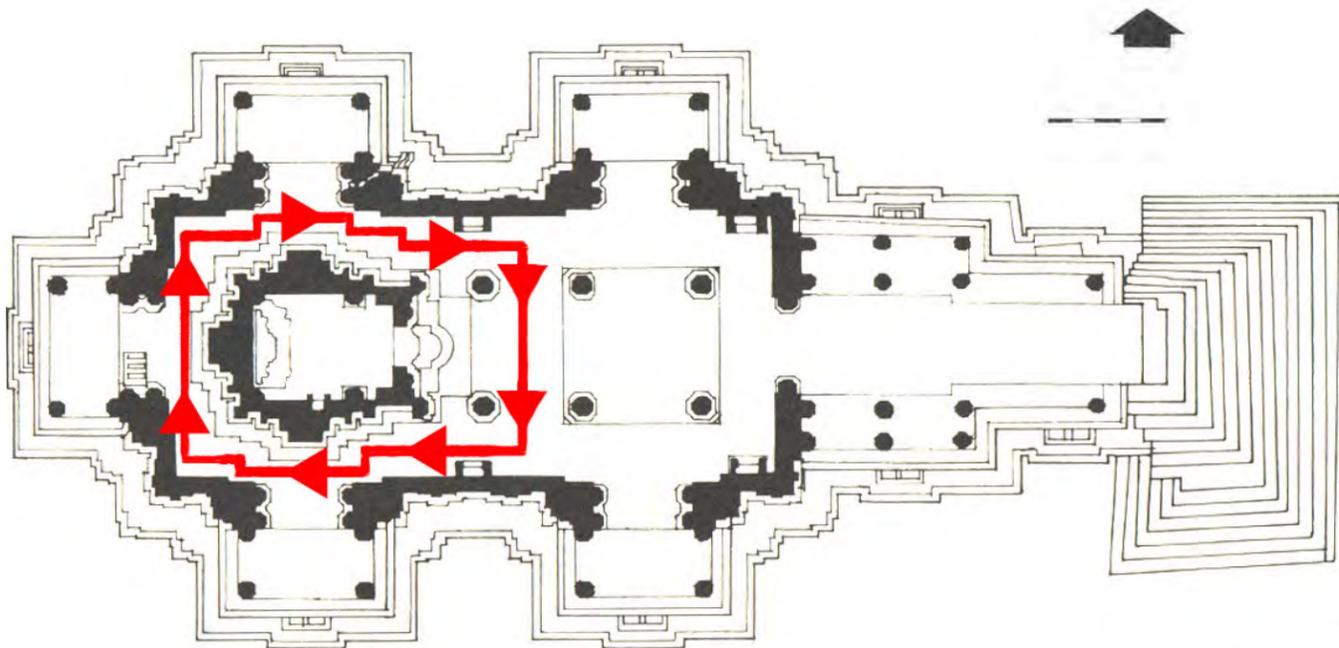


Figure - 27  
Circumambulation Path  
Diagram by Author

Bhadra

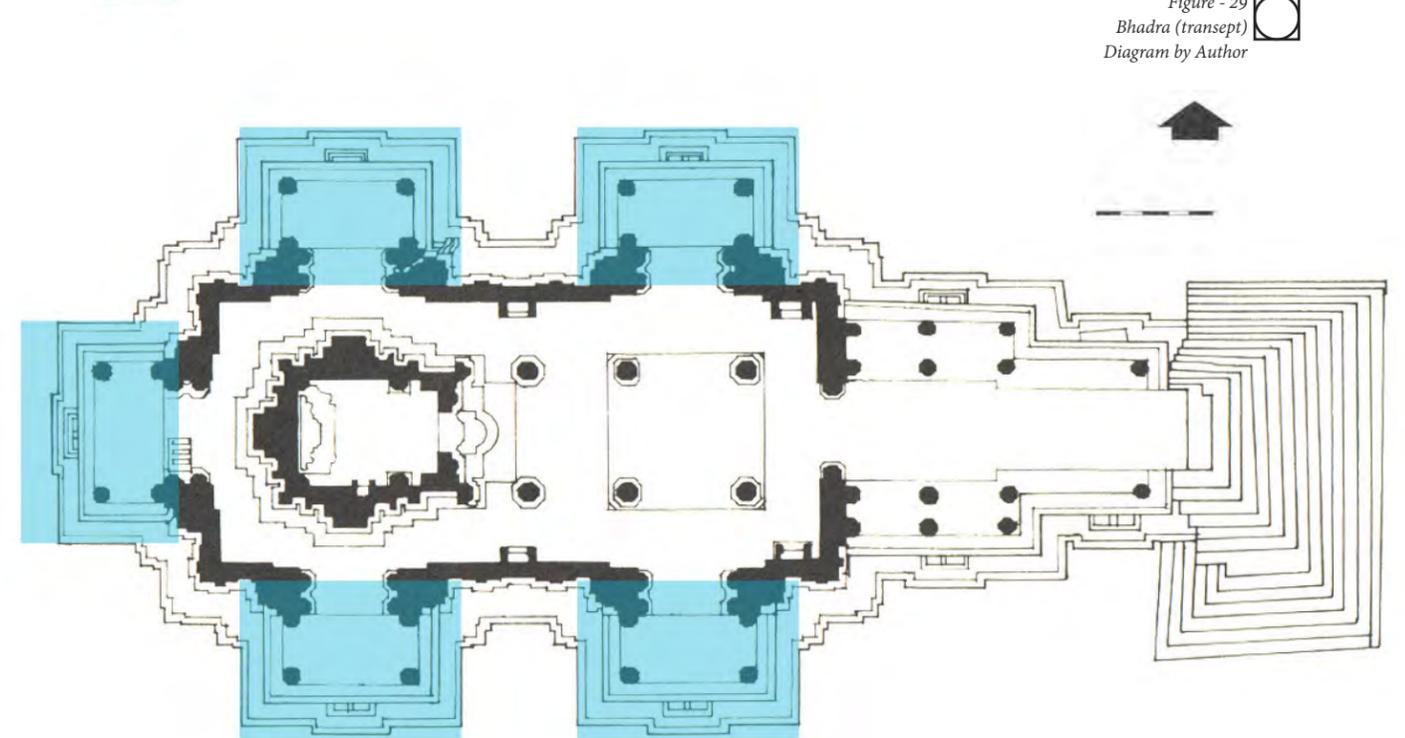


Figure - 29  
Bhadra (transcept)  
Diagram by Author

calculated manipulation of the supporting walls and transitional moldings in order to achieve the desired sweep upwards, which explains the care taken to achieve continuity between the horizontal divisions of the plinth, wall surface, cornices, and surmounting superstructure in the northern style temples.<sup>39</sup> The *shikhara* (spire) or superstructure goes on top of the sanctum creating a vertical axis. The spire is made up of several *shikharas* that have been scaled down and split in half, only to be attached to the superstructure (figure 30). Creating a complex *shikhara* that has, "...the urge and fullness of Indian nature; step by step, level by level they lead the eye and mind of the devotee from this world to the worlds above."<sup>40</sup> This supports the belief that the higher the *shikhara*, the closer the devotee is to god.

39 Ibid.  
40 Stella Kramrisch, *The Hindu Temple Vol I 1946*, pg. 6.

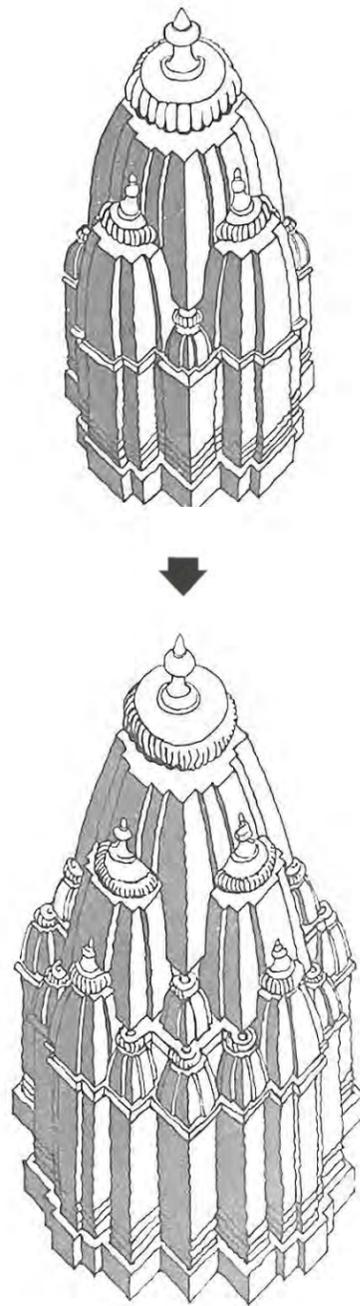


Figure - 30  
Multiplication of shikhara (spire)  
Photo from Adam Hardy text



Figure - 31  
Drāviḍa Temple  
Photo by Anudinam Volunteer

## Drāviḍa Temple

*Mandirs* in the southern parts of India (Karnataka, Andhra Pradesh, etc.) are called Drāviḍa, derived from what the people in southern India were called (figure 31). Similar to the Nāgara style there are places in the south that are affected by regional styles (figure 32). The south was not invaded as frequently as the north, so the stylistic evolution does not differ much since the 7<sup>th</sup> century when it was under the rule of the Pallavas. This was the beginning of creating rock-cut temples in the current state of Tamil Nadu.<sup>41</sup> In the second half of the 7<sup>th</sup> century various monolithic temples were created, which were known as *rathas* (chariots) (figure 33). These chariots were crafted with great detail and perfection providing, "...a veritable catalogue of the architectonic forms and sacred icons..."<sup>42</sup> in southern India. The Srirangam temple of Lord Viṣṇu, from the 15<sup>th</sup> century is a great example of the southern style, which will be used as a reference to explain the Drāviḍa style.

<sup>41</sup> Michell, *The Hindu Temple*.pg. 132.

<sup>42</sup> Ibid.

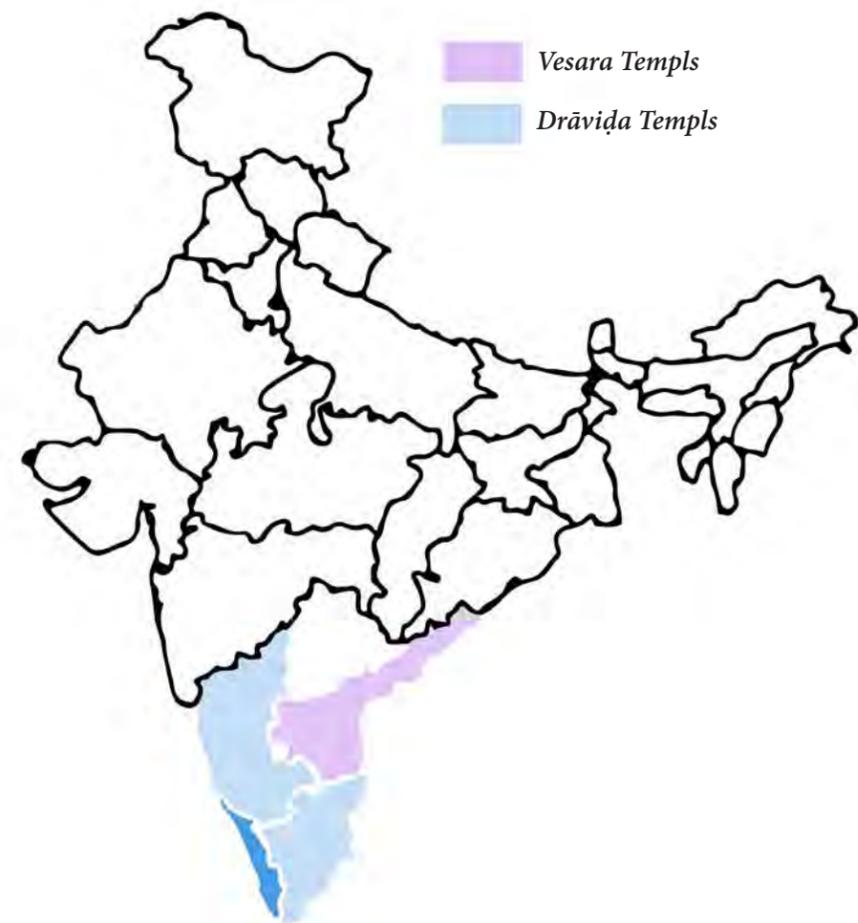


Figure - 32  
Drāviḍa Style Temples in India  
Drawn by Author

Figure - 34  
White Gopuram, Srirangam Temple, Tamil Nadu, India  
Photo by Author Terry Feuerborn





Figure - 33  
Shore Temple in Mahabalipuram, India  
Photo by Raghu Kumar



Figure - 35  
Barrel design, with gargoyles on gopura  
Photo by Unknown

The Drāviḍa style focuses on the *gopura* (gateway), the incline is in a stepping pyramid which is the tallest part in the whole temple. The *gopura* is not physically attached to the rest of the temple structure as seen at the Ranganatha temple (figure 34). At the very top it is capped with a barrel design, with gargoyles on both ends (figure 35). Drāviḍa *mandirs* are hidden behind many layers of walls that surround the whole perimeter. The entrance from one layer to another is only given through the *gopuras* (gateway), one in each cardinal direction (figure 36). These gates decrease in size as the worshipper gets close to the sanctum. Not only are they carved in various sizes of sculpture of deities from top to bottom, but also most gateways are painted in bright colours (figure 37).

After passing the threshold of the gate the devotee comes into the first layer of the *prākāra* (walls) that enclose the sanctum (figure 36). There is a whole city, “which include offices of the temple establishment, many subsidiary temples and shrines, and shops that catered to the needs of the large temple community and to pilgrims and devotees.”<sup>43</sup> The symbolic theory behind the *prākāra* (walls) is that each layer represent the various layers of the human being, “The outer walls represent the outer layers of the human being the most inner wall represents the housing of Viṣṇu himself which represents the man's eternal

<sup>43</sup> David R. Kinsley, *Hinduism: A Cultural Perspective*, 2 edition (Englewood Cliffs, N.J: Pearson, 1993).pg. 76.

unchanging soul.”<sup>44</sup> In other ways the levels of the wall could be seen to filter out the worshippers that are not there to visit the deity.<sup>45</sup> As there are many distractions along the way to see the deity, these are a way to test the devotees’ temptations, if they cannot avoid them then they are not ready to face the deity.

The layout of Drāviḍa temples are slightly different than the Nāgara (northern style) temples. Located in different regions, and not being influenced by other dynasties, their architectural evolution was limited. The terminology used to describe the different portions of the temples in the northern and southern styles varies from region to region, and text to text.<sup>46</sup> In some areas the same architectural words may be used but have a different definition. There are definitely more distractions along the way as mentioned earlier, than in Nāgara *mandirs*. Similar to Nāgara temples the Drāviḍa temples also have smaller

<sup>44</sup> Ibid.

<sup>45</sup> Ibid. 78.

<sup>46</sup> Adam Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja's Samaranganasutradhara and the Bhojpur Line Drawings)*, 2015th ed. (Dev Publishers and Distributors, n.d.).2015th ed. (Dev Publishers and Distributors, n.d.).pg. 5.

Figure - 36  
Srirangam Temple, Tamil Nadu, India  
Photo by Aravind Photography

shrines in their large vicinity, also having multiple *maṇḍapams* (*maṇḍapa* in northern temples, halls) that are detached from the central temple structure (figure 36). As described above all of these shrines and *maṇḍapams* are divided by layers of *prākāra* (walls). Upon entering the last layer the devotee finds themselves in the flat roofed *maṇḍapam* then to the *antarāla* (vestibule) which provides space for *pradakṣiṇā* (circumambulation) around the sanctum walls in which the deity resides.

On top of the *garbhagrha* (sanctum) is the *vimāna* (*shikhara* in northern temples, spire) these are not expressed on a grand scale as in the Nāgara style. In the Srirangam temple the *vimāna* is very small compared to the *gopuras*, and is capped with a *shikhara* (cap stone on the top of *vimānas*) that is covered in gold (figure 38). A huge part of the temple is flat roofed besides the *gopura* and *vimāna*. Both styles stay true to the, “...principle by which forms were repeated on different scales so that shapes which were large and indicative of structural context became small and ornamental...”<sup>47</sup> Nāgara and Drāviḍa temples create a similar religious and spiritual experience, while still portraying their uniqueness.

<sup>47</sup> Michell, *The Hindu Temple*.pg. 92.





Figure - 37  
Painted gopura in bright colours  
Photo by Rohini



Figure - 38  
Shikhara (cap stone) covered in gold  
Photo by Unknown



Figure - 39  
Khajuraho temple carvings (right image)  
Photo by Kevin Standage

### Approach to Sanctum

The method of approach to any building frames an image in one's mind of the experience they will have inside the building. Many times, this is not the case and the experience will be to accept the unexpected. The approach to the sanctum is supposed to resemble the journey to the sacred mountains such as mount Kailasha and mount Meru. Here the temple as a whole is thought of as a sacred mountain, "...the temple becomes an architectural facsimile of the sacred places of the gods, providing for the worshipper the merit that would be his through an actual visit to the mountains."<sup>48</sup>

Starting at the first step the devotee sees the *shikhara* and the immense temple form with intricate detailing of ornamentation. As the temple sits on a plinth the devotee would need to climb a few or many steps depending on the height of the

plinth. That climb from the ground to the entrance of the *ardha-mandapa* is a recreation of the experience that one would get if they were to climb the holy mountains. "Approaching a temple, the aspirations of a devotee are directed inwards and upwards, through layers and levels of increasing sacredness: inwards towards the *garbha-griha* where the deity's presence on earth is concentrated, and upwards towards the transcendent unity of the summit."<sup>49</sup> When going deeper into the temple towards the sanctum it feels as if walking into the cosmic mountain, where the light starts to weaken,

<sup>49</sup> Emily B. Lyle, *Sacred Architecture in the Traditions of India, China, Judaism and Islam*, vol. 8 (Edinburgh University Press, 1992).pg. 43.

<sup>48</sup> Michell.pg. 69.

and the decorations on walls start to fade, “until the devotee is confronted by the single image of the God enclosed in a dark room with unadorned walls.”<sup>50</sup>

Those were the physical transitions between the two spaces, the psychological change happens in the *maṇḍapa* just before going into the sanctum. Here devotee sees nothing but the temple walls that are carved with stories of the deity they have come to visit (figure 39), and the entrance of the sanctum with a glimpse of the deity. The smell of the incenses burning, *ittar* (natural fragrance) applied to the deity, sandalwood *tilaka* (mark on the forehead) for the deity and worshipper, the flowers which are offered to the gods, and the smell of *prasāda* (food consumed by devotees after offering it to god). Noise from the profane world fades with ringing of the bells upon entry, and the other sound would be the voice of the *pūjari* (priest) reciting the mantras. All of these combined prepare the devotee before they enter the sanctum to be in front of God.

### Ornamentation

Hindu *mandirs* are fully occupied with ornaments whether they be in architectural forms or additional elements. The well-crafted temples are completely covered in carvings, inside and out leaving no blank spaces on the walls (figure 39). These carvings tell parts of the mythical epics and project the message of god through their descriptive forms.<sup>51</sup> Other carvings are of specific poses and forms of deities while the floral carvings represent nature, “Sacred images in Hinduism are never mere effigies; their function is to make visible the world of truth.”<sup>52</sup> Traditionally these carvings were done by local sculptors under the guidance of a *pūjari* (priest). In this era only parts of them are hand carved, the rest are carved by CNC or robotic arms.

The other form of ornament can be experienced through the five senses: sight, hearing, touch, smell and taste. Sense of sight – the temple

as a whole may be perceived as an ornament from the deity’s realm. Their symbolism of the universe, nature and presence of god is expressed through the vivid structures, temple plan layouts and carvings. Such as the large *shikharas* (spires) in each *Nāgara mandir* mimicking the sacred mountains. Sense of hearing – there are two parts to this, the first being the sounds heard around the temple, and the other is the sounds perceived within the *mandir*. If the temple follows all of the site principals (explained later in text) and depending on where the temple is situated the worshipper can hear the sounds of nature prior to entering the home of god. They would hear the wind swerving through the trees, the birds and other animals that live on and around the site, water if nearby or if water is present through an artificial container, inside the temple one would hear the sounds of bells, conch shells, hand bells and *mantras* (verbal formulas) recited by the *pandit* (priest) (figure 40), if it is a lord Śiva temple then devotees would also hear the water dripping onto the *lingam* (idol form of lord Śiva). Next is sense of touch – as most traditional temples are created from blocks of stone thus, the roughness of the stone adds texture to the carvings and enhances the look of the image. When the stone is worn down then it becomes smooth, this shows the worshipper which parts of the temple were most used, while also adding to the characteristics of the *mandir*. This sense also helps the devotee explore the many different materials that are used in the temples such as, stone upon entering the *mandir*, brass when the bell is rung, copper through the plates and *kalasha* (pot) of *pūjās*, other instruments made from silver and gold, lastly, the idol which is made from stone. The *maṇḍapa* holds other idols of other gods such as lord Gāṇeśa and lord Hanuman, locating in niches along the path to the sanctum. The devotees are allowed to touch the idol’s feet and take their blessings before facing the deity they have come to visit. Inside the sanctum of the lord Śiva temple the worshipper is permitted to touch the *lingam* and perform the rituals, whereas in other temples the devotee may not be allowed to touch the idol of the goddess or deity. Sense of smell - created through many variants for example; the burning of incense, saffron and sometimes sandalwood is added to the water in which the deity is bathed, saffron is also added to the water that is given to devote as holy

water, sandalwood is not only used to bathe the idol but also to do *tilaka* (mark on the forehead) and decorate the idol by other marks. *Ittar* (natural fragrances) are applied to the deities clothes and body after they are bathed, the smell of burning *gee*<sup>53</sup> and oil *diyas* (lamps) and the smell of the flowers that are offered to the deity during worship. Lastly, the sense of taste is acquired through *prasāda* (food offered to gods, later eaten by worshippers). These offerings are either cooked by the devotee at home or they can buy them from the temple premises, which are prepared by the temple organization. While being true to all Hindu temples, whether traditional or contemporary, together these various ornaments create the magical abode of the deity.

<sup>53</sup> *Gee* = made from refined butter, used at times in place of oil.



Figure - 40  
Pandits in sanctum performing worship  
Photo from Department of Religious Affairs

<sup>50</sup> David R. Kinsley, *Hinduism: A Cultural Perspective*, 2 edition (Englewood Cliffs, N.J: Pearson, 1993).

<sup>51</sup> Michell, *The Hindu Temple*.pg. 36.

<sup>52</sup> Ibid. 20.

“Whatever action a great man performs, common men follow. And whatever standards he sets by exemplary acts, all the world pursues.”  
 — Bhagavad Gītā 3.21

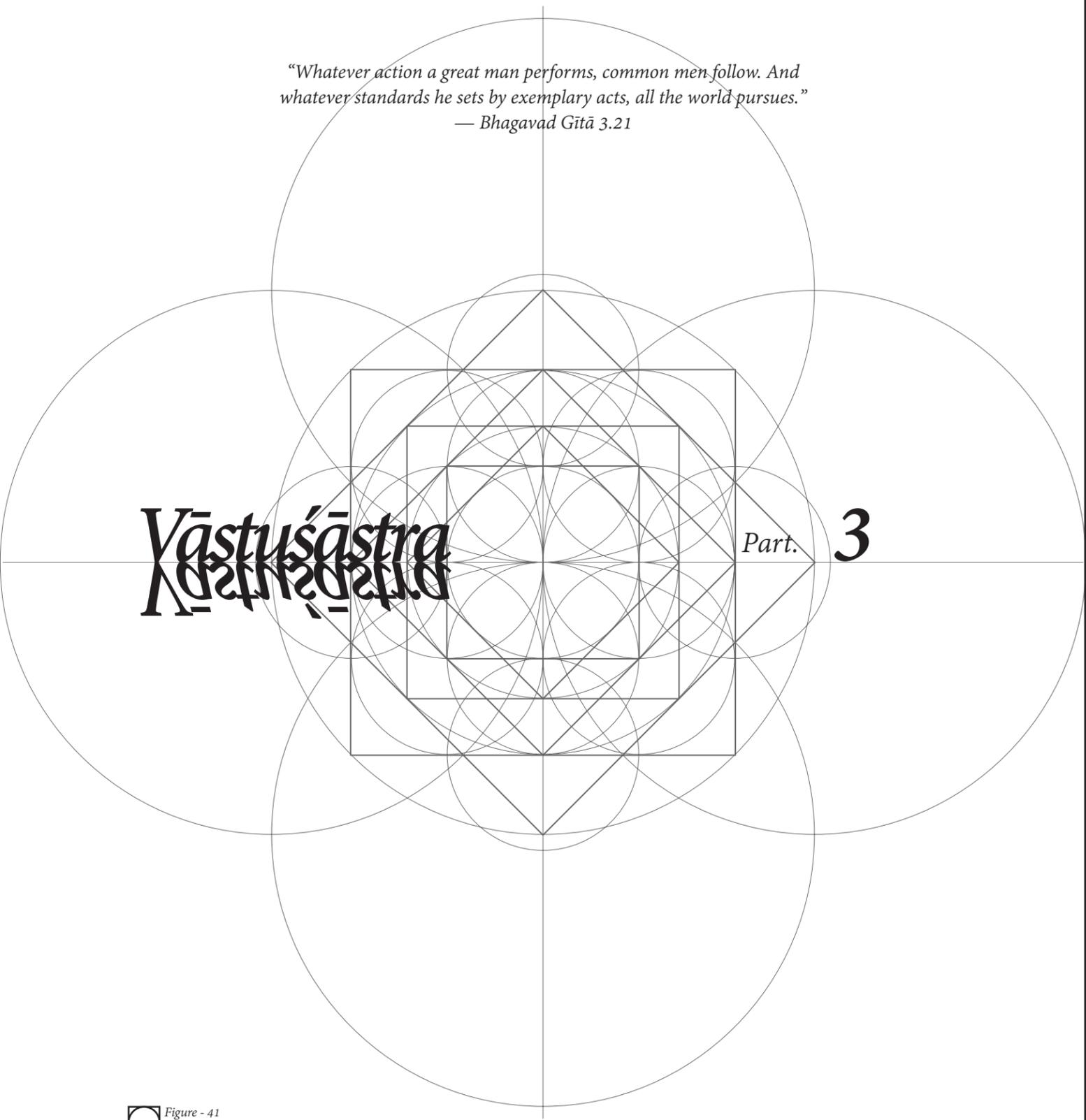


Figure - 41  
 Parivartanā Mandala Version 3  
 Faculty Research Seminar course  
 Drawn by Author

The theory of temple construction is based upon the texts *Vāstuśāstra* (Science of Architecture/Construction/Dwelling) which is a, “...text is conceived in terms of drawing and demands to be interpreted through drawing; but it is made only of words, and everything is to be gained in its translation into form.”<sup>54</sup> Adam Hardy states that texts and drawings must be created side by side, or else by trying to depict one or the other on its own and creating a temple from it, could turn into a disaster (figure 42).

Some ancient texts of Hinduism are *Purāṇas*, *Vedās*, *Vāstuśāstra* and others. These texts are so complex that depicting them without images is extremely tough, “A large portion of the text consists of technical terms, which makes it meaningless unless one can visualise what is being conveyed.”<sup>55</sup> There are many types and styles of temples, and they all follow some basic principles that are similar for design. Many art historical texts and architectural theories have presented *vāstuśāstra* as limitations and uncreative<sup>56</sup> but in reality, “It is not an ordinary temple mechanically built on *vāstuśāstra* dictums but one in which the architect-priest has creatively produced a monument symbolizing the cosmic order on earth”<sup>57</sup>

54 Adam Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja's Samaranganasutradhara and the Bhojpur Line Drawings)*, 2015th ed. (Dev Publishers and Distributors, n.d.)2015th ed. (Dev Publishers and Distributors, n.d., pg. 267.  
 55 Ibid. 29.  
 56 Ibid. 266.  
 57 Ibid.

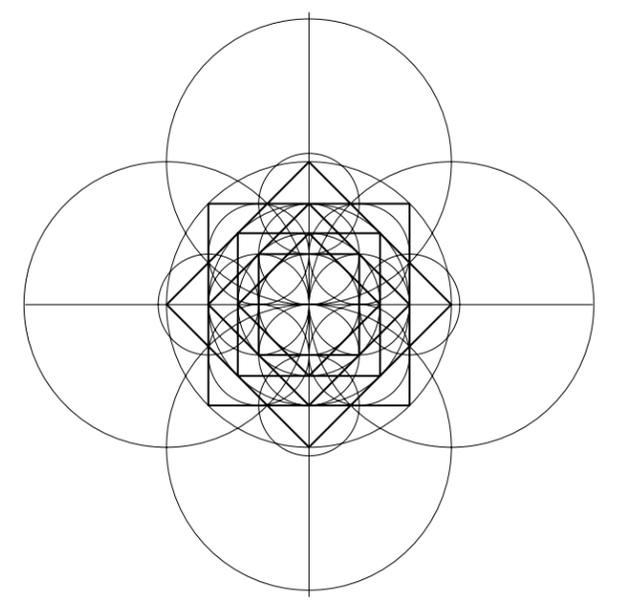


Figure - 42  
 Parivartanā Mandala text to drawing translation  
 Faculty Research Seminar course  
 Drawn by Author

“Reconnecting with the past, these temples use an eclectic architecture that staunchly adheres to ancient treaties of temple building but sometimes combines the components in new ways.”<sup>58</sup> The early versions of *vāstuśāstra* were seen, “in several of the Puranas, even though they are essentially mythological text.”<sup>59</sup> The deity that has mastered *vāstuśāstra* is Visvakarma<sup>60</sup> he is known as the

58 Ibid.  
 59 Ibid. 23.  
 60 Ibid.

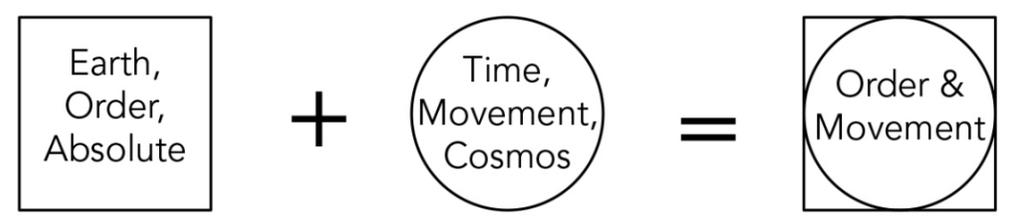


Figure - 43  
 Symbolism of square and circle and them combined  
 Drawn by Author

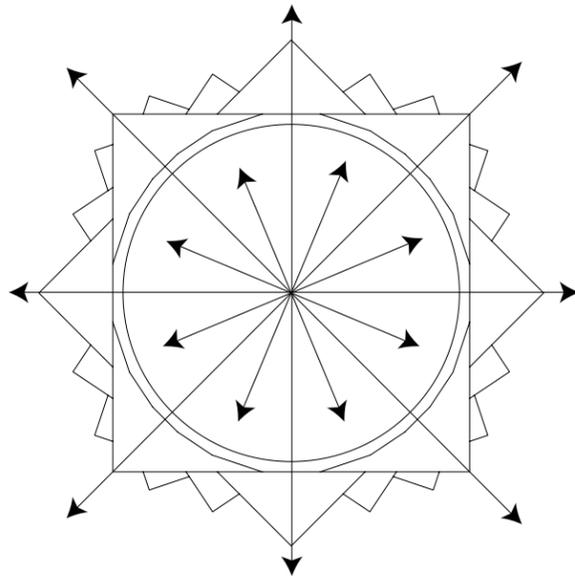


Figure - 44  
Experimentation of cardinal axis  
Drawn by Author

architect of the gods. In Sanskrit texts, *vāstuśāstra* is what one would equate with Vitruvius for the Romans in terms of symbolically preparing the microcosm for the act of construction. It is comprised of complex mathematical equations and proportions, energies, cardinal directions, and many more elements. *vāstuśāstra* is there to help design a temple that is familiar and follows the traditional essences of temples, not to make a mass-producing method. Texts and drawings are methods of passing down knowledge and traditions, however texts alone will never be able to portray a full story.<sup>61</sup> The procedure for temple design has to be enacted and performed in order to create a proper mandir.

### Geometry

Geometry plays many significant roles in Hindu architecture and text. Geometry is the basis of temple design in terms of floor plan and elevation. The square and circle are the most important shapes, as they represent earth and cosmic order. A square represents the earth, it also

61 Ibid. 265

signifies, “the completeness of endless life...the perfectness of life and death, order, unequivocal form, the celestial sphere and the absolute”<sup>62</sup>

The circle denotes movement, cosmos, and time. When both of them are combined, they create the dimensions for both space and time, and result in making order and movement “where eternal time is also the smallest moment.”<sup>63</sup> (figure 43) As the circle symbolically indicates the cosmos, “the process of making an architectural model of the cosmos involves the representation of a circle in a square grid in two-dimensional construction and of an ellipsoid (the cosmic egg) in a cubical grid in three-dimensional construction.”<sup>64</sup> The best way to understand the symbolic meanings hidden within the temple design is through geometry, forging a strong connection between the form and meaning. “In Hindu thought number is considered an expression of structure of the universe and a means of effecting the interplay between the universe and man.”<sup>65</sup> Geometry is ‘constructive’ in

62 Tanisha Dutta and V. Adane, “Symbolism in Hindu Temple Architecture and Fractal Geometry - “Thought Behind Form”, *International Journal of Science and Research (IJSR)* 3 (20 December 2014).Pg. 492.

63 Ibid.

64 Ibid.

65 Michell, *The Hindu Temple*.Pg. 73

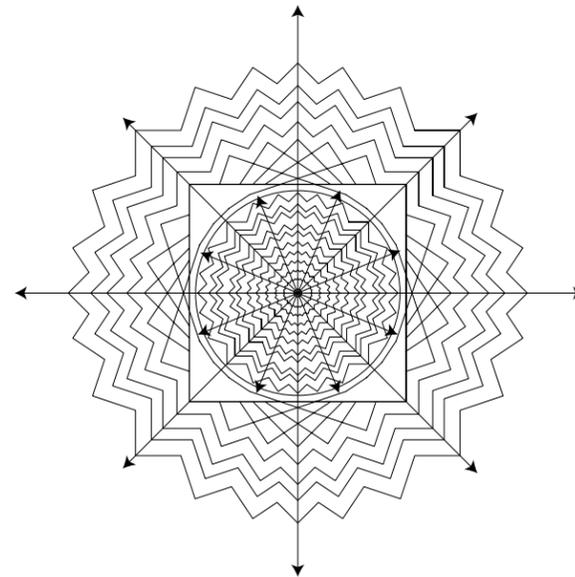
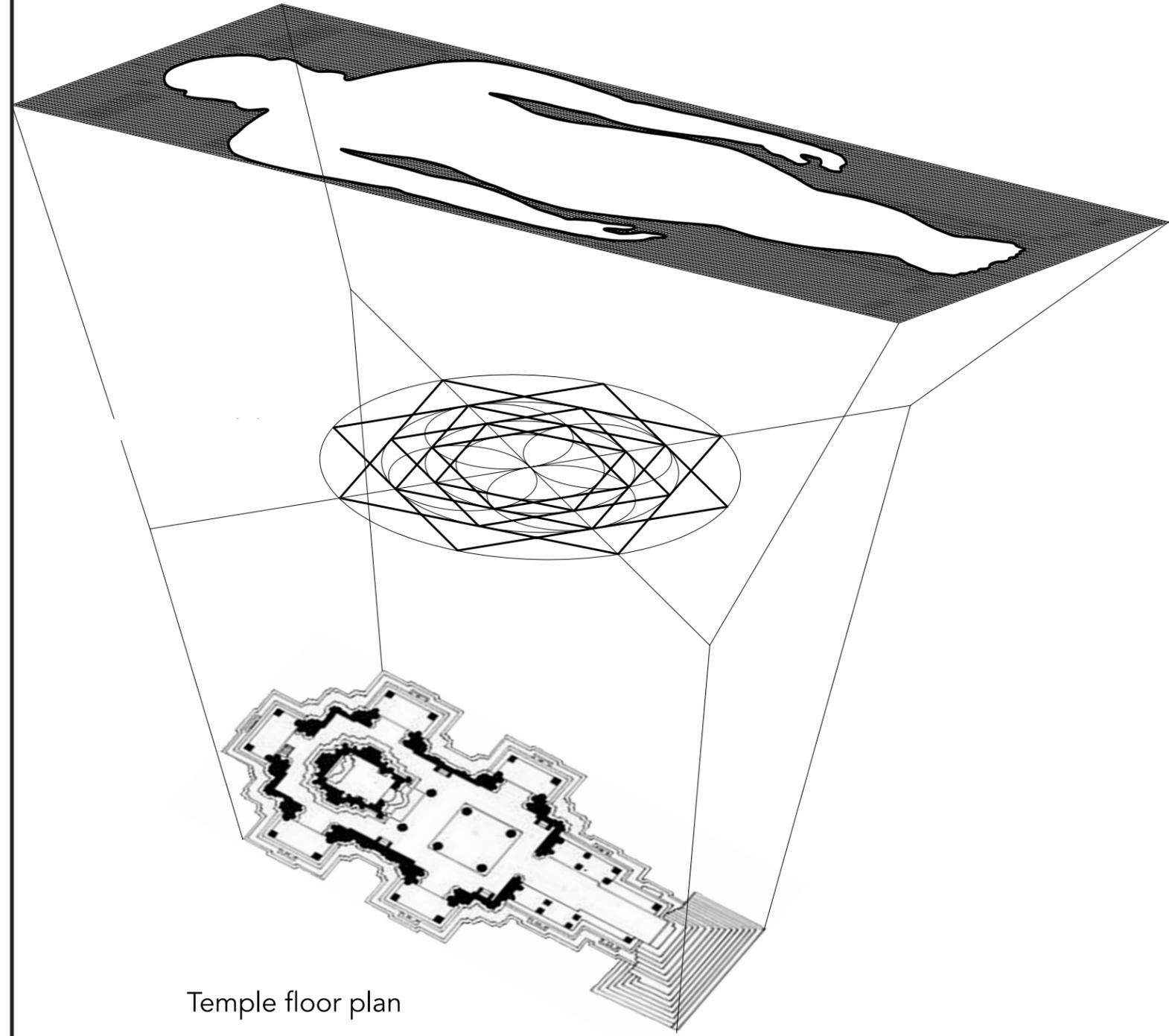


Figure - 45  
Experimentation of fractal geometry  
Drawn by Author

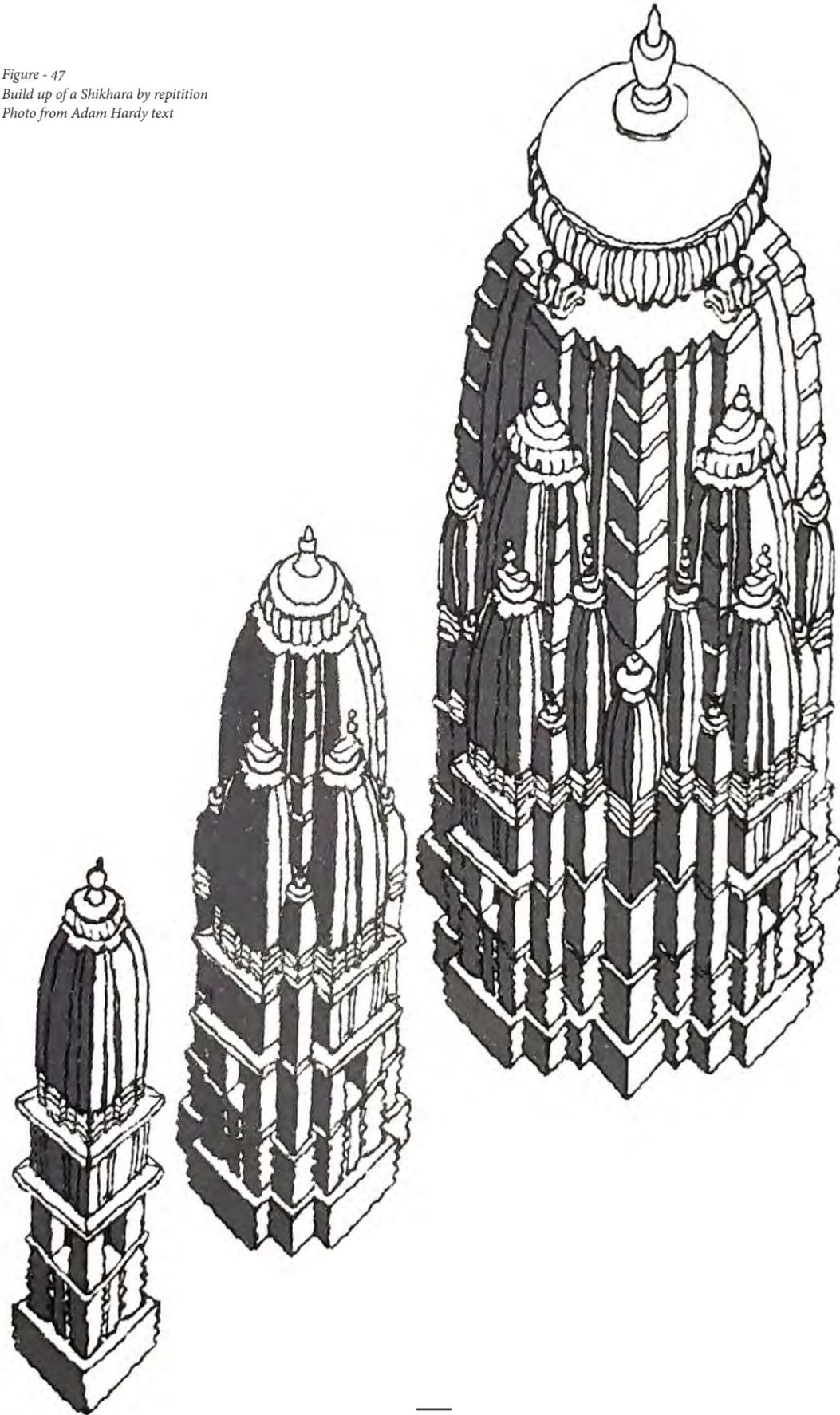
As is the universe, so is the physical body.  
As is the physical body, so is the universe.  
— Yajurveda



Temple floor plan

Figure - 46  
Representation of cosmos on earth through temples  
Drawn by Author

Figure - 47  
Build up of a Shikhara by repetition  
Photo from Adam Hardy text



temple architecture by giving shape and form to number. This, in turn, creates the earthly dwelling of the deity in the temple itself.

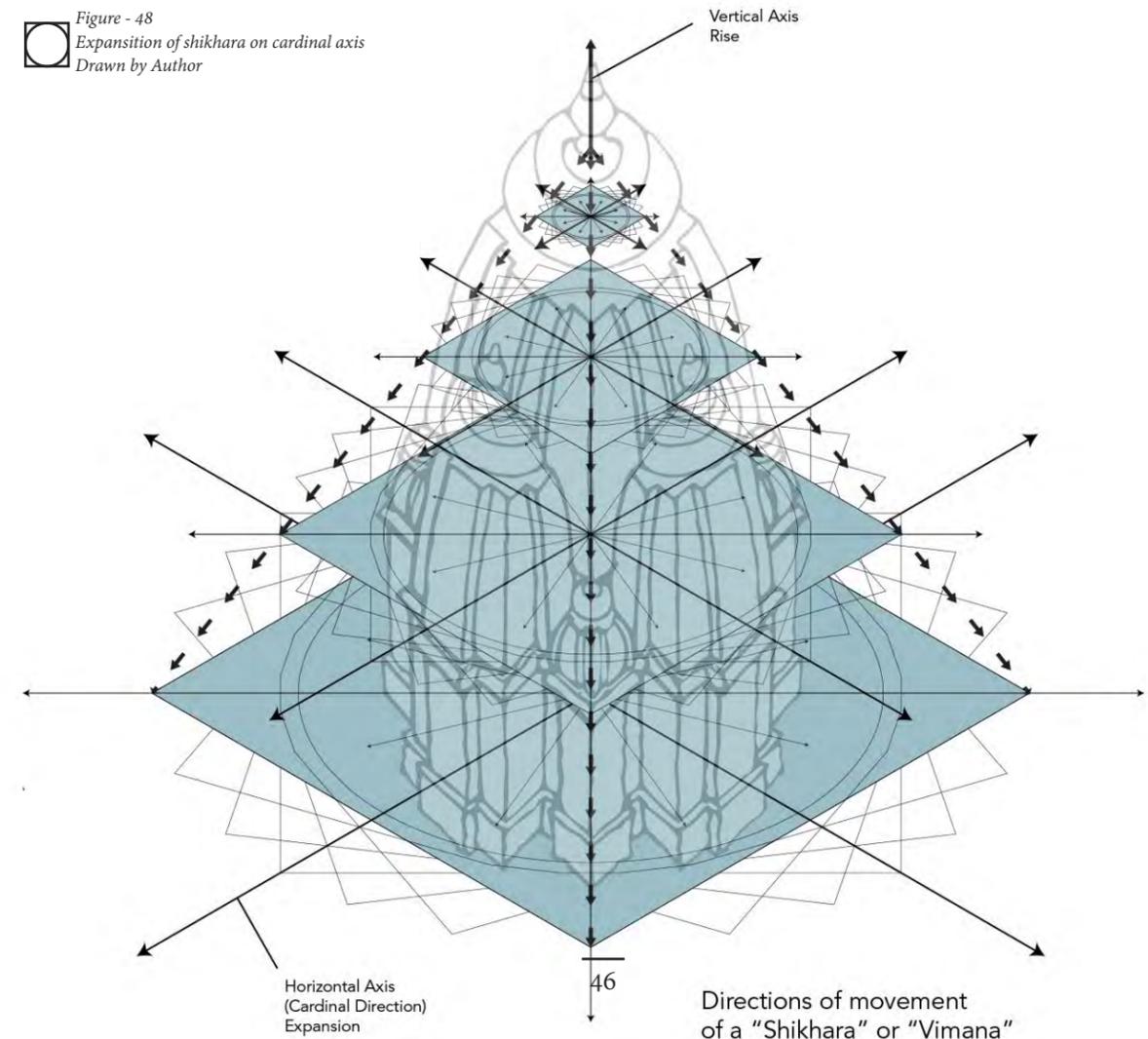
To make such a grand gesture of the *shikhara*, *vimāna* (different terms for spire according to regions) or *gopura* (gate or entrance tower) the temple employs a combination of elements such as geometry, repetition, representation of microcosm and macrocosm, and expansion on the cardinal axis. These methods compliment each other at every stage, they have a link that repeats in a cycle. It starts with the idea of the *maṇḍala* (geometric diagram), then the macrocosm is demonstrated through the use of geometry to symbolically recreate the microcosm. The perfect form of the circles and square are added to the *maṇḍala* (figure 44). Then the squares are orientated towards the cardinal directions; if the design needs to be

complex then the square is rotated 16 or more times (figure 45). This notion of repetition turns simple geometry into a complex geometry. Almost like it is radiating from a central *bindu* (point) which is the origin of creation and destruction.<sup>66</sup> This idea not only works in two-dimensions but also in three-dimensions, which makes a simple plan increasingly complex as it creates an *axis mundi*.

This relationship of microcosm and macrocosm is seen at various scales in temple architecture and is constantly present. The first major representation is the temple made by humans on earth as a symbolic illustration of the cosmos (figure 46). The next place where microcosm and macrocosm are seen is through repetition. When the larger structure (macrocosm) of the *shikhara*

<sup>66</sup> Stella Kramrisch, *The Hindu Temple Vol I* 1946, pg. 179.

Figure - 48  
Expansion of shikhara on cardinal axis  
Drawn by Author



Directions of movement of a "Shikhara" or "Vimana"

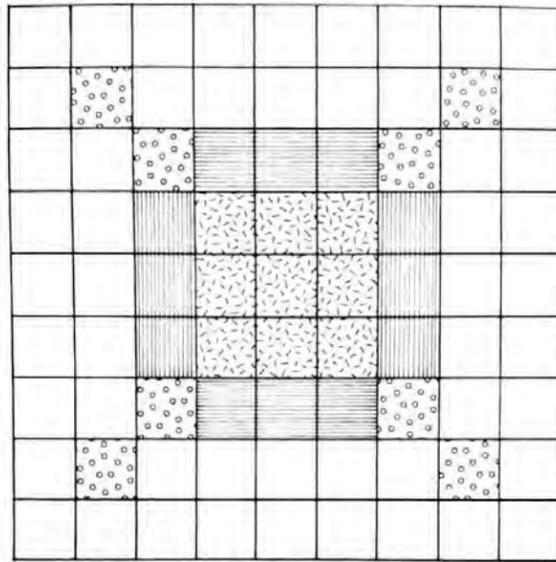


Figure - 49  
Mandala showing representation of the universe in the center  
Photo from Michell, George text

is taken and scaled down (microcosm) and split in half, then placed in the cardinal directions (figure 47), the repetition of the *shikhara* is, “not arbitrary, but follow certain rules and proportions for the comfort of the society as well as geometrical congruence with the universe.”<sup>67</sup> In this sense the repetition creates a detailed and complex temple form, in the end representing the cosmos it claims to symbolize.<sup>68</sup> During the expansion of the *shikhara*, repetition again plays a big role as each major gesture is echoed in the cardinal axis (figure 48).

### Vāstupuruṣamaṇḍala

Two sacred geometries in Hinduism involve the circle and the square. *Vāstu* translates as “the site” that has been occupied by the *vāstupuruṣa* and the deities through a series of rituals.<sup>69</sup> Texts outlining the *vāstupuruṣa* credit Lord Shiva with

67 Dutta and Adane, ‘Symbolism in Hindu Temple Architecture and Fractal Geometry - “Thought Behind Form”’,pg. 495.

68 Ibid.

69 Libbie Mills, *Temple Design in Six Early Saiva Scriptures*, 2019th edition (Paris, France : Pondicherry, India: Institut Francais De Pondichery, 2019). pg. 24.

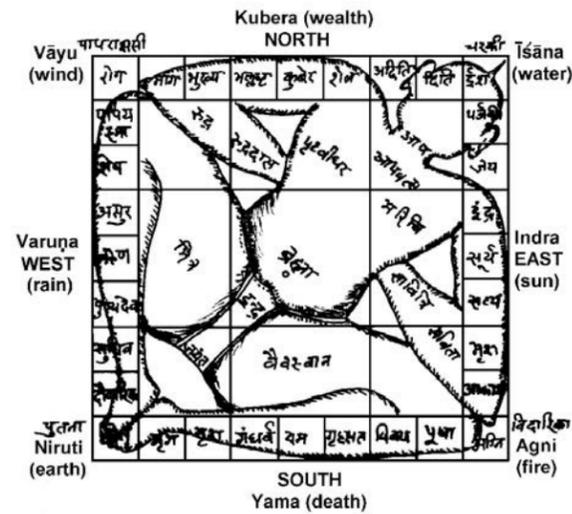


Figure - 50  
Vāstupuruṣamaṇḍala  
Photo by Kim Rana

capturing a demon. The demon was pinned to the ground by various deities that created a grid which had strong and weak points.<sup>70</sup> “These deities completely cover the *Vāstu*. It is on this area that construction, whether domestic, civic, or for a temple, is carried out.”<sup>71</sup> Further assisting in the creation of the *vāstupuruṣamaṇḍala*, these points also determine various points of construction. The *vāstupuruṣamaṇḍala* is a square that is divided into smaller squares by intersecting lines, which becomes a grid that encloses the layout of the cosmos.

When seeing *vāstupuruṣamaṇḍala* in a way that represents the cosmos it, “is the extent of existence in its ordered state and is beheld in the likeness of the *purusha*.”<sup>72</sup> *Puruṣa* (man) is the representation of cosmic man who is the source of the universe and existence. “In bodily existence, *Puruṣa*, the Essence, becomes the Form.”<sup>73</sup> Furthermore, the *maṇḍala* is a geometric figure representing the universe in Hindu and Buddhist symbolism. Though the essential form of the *Vāstupuruṣamaṇḍala* is a square, “It can be converted into a triangle, hexagon, octagon and

70 Ibid.Pg. 24.

71 Ibid.Pg. 24.

72 Stella Kramrisch, *The Hindu Temple Vol I 1946*.Pg. 21.

73 Ibid. 7.

circle of equal area and retain its symbolism.”<sup>74</sup> No matter where the temple is built, it is always built based upon the *vāstupuruṣamaṇḍala*, a symbolic plan that is drawn on site before the construction.

Kramrisch writes: “The temple building is the substantial, and the ‘plan’ (mandala) is the ritual, diagrammatic form of the *Puruṣa*. *Puruṣa* himself has no substance. He gives it his impress. The substance is of wood, brick or stone in the temple.”<sup>75</sup> By constructing the temple according to the *mandala*, it becomes a microcosmic home of the gods or goddess. This links the microcosmic home (*temple*) to the macrocosmic home (*universe*), creating a bridge for humans to connect with the Supreme Being (the *Parameshwara*).

The central part of the *vāstupuruṣamaṇḍala* (figure 49) diagram is a “microscopic image of the universe with its concentrically organized structure.”<sup>76</sup> This is normally represented by the Lord Brahma. Whereas each of the smaller squares around the larger square represents a seat for a specific deity. Normally referring to “planetary divinities, the guardians of the directions of space, and other astronomical deities. The *Mandala* is thus able to incorporate the course is of the heavenly bodies which are related to all recurring time sequences.”<sup>77</sup> As all this is mapped onto the earthly plane, the cosmic man is then laid onto the *mandala* where his head is in the corner of the North-East direction, his right elbow and knee points to the North-West direction, left elbow and knee faces the South-East and both of his feet point towards the South-West direction (figure 50). *Vāstupuruṣamaṇḍala* are typically comprised of 64 (8 x 8) or 81 (9 x 9) squares which are mapped out on a site, “accommodating a hierarchy of deities within different portions of its grid, and identifying certain sensitive points (*marmas*) not to be built on.”<sup>78</sup>

74 Ibid. 21.

75 Ibid. 7.

76 Michell, *The Hindu Temple*.pg. 71.

77 Ibid. 72.

78 Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja’s Samaranganasutradhara and the Bhojpur Line Drawings)*.“plainCitation”.:Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja’s Samaranganasutradhara and the Bhojpur Line Drawings*Pg. 25.

### Symmetrical Geometry

The temple structure relies on symmetrical and proportional design because, “Only if the temple is constructed correctly according to a mathematical system can it be expected to function in harmony with the mathematical basis of the universe.”<sup>79</sup> And vice versa. If the temple is proportionally perfect, then the universe will also be perfect. It could also be said that perfection in the temple design will bring happiness to the community.<sup>80</sup>

These “Proportions are specified to suit the design in hand, not to fit a numerical pattern; a given plan or a given set of height will serve a sequence of types and change when a new level of complexity demands it.”<sup>81</sup> Not only does the temple structure need to be proportional but the ornamentation, sculpture and *mūrti* s (idols that will be worshipped) need to be in perfect relation with these mathematical proportions. Builders and artists use iconometry, the geometry of image making, to assure harmony. “The *Shukranatisara*, an iconographical text, states that an image is ‘said to be lovely which is neither more nor less than the prescribed proportions’; another text warns that ‘the image not made with the prescribed rules...is fruitless and it’s worship is without any effect.’”<sup>82</sup> It is believed that the deity will only inhabit the *mūrti* if it is made flawlessly and with mathematical proportions.

79 Dutta and Adane, ‘Symbolism in Hindu Temple Architecture and Fractal Geometry - “Thought Behind Form”’,pg. 495.

80 Ibid.

81 Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja’s Samaranganasutradhara and the Bhojpur Line Drawings)*.“plainCitation”.:Hardy, *Theory and Practice of Temple Architecture in Medieval India (Bhoja’s Samaranganasutradhara and the Bhojpur Line Drawings*Pg.260.

82 Michell, *The Hindu Temple*.pg. 73.

“The working senses are superior to dull matter; mind is higher than the senses; intelligence is still higher than the mind; and he [the soul] is even higher than the intelligence.”  
 — Bhagavad Gītā 3.42

Part. 4

# Sudbury Prarthana Samaj

Figure - 51  
 Parivartanā Mandala Version 4  
 Faculty Research Seminar course  
 Drawn by Author

Temples in smaller communities outside of India normally rent or buy an existing building and convert it into a temple. Minor communities congregate at a mandir/community center regardless of which god they believe in.

This idea of a temple having multiple idols does not exist in India, where temples are strictly dedicated to one deity. The sanctum which is the most sacred part of a temple holds only one Idol, but temples often lose the essence of a single sanctum when they are created on foreign lands. The temples in Canada have adapted to the new

circumstances and multi-cultural environment. A mixture of families and students adds up to more than 500 Hindu people in Sudbury’s population.

To date, there is a small non-traditional space which the Hindus think of as a mandir in Sudbury. The Sudbury Prarthana Samaj (figure 52) *mandir* was founded in 1976 by Dr. Yogendra after he was approached to commence prayer meetings<sup>83</sup>. These *sabhās* (public meeting) were held every Tuesday. By 1975, about 30 families

<sup>83</sup> ‘Sudbury Prarthana Samaj’, accessed 9 November 2020, <http://www.sudburyprarthanasamaj.ca/>.

Figure - 52  
 Existing temple Sudbury Prarthana Samaj  
 Photo by Author





Figure - 53  
Hall of Sudbury Prarthana Samaj  
Photo by Author

attended the prayer meetings. When *sabhās* started to happen at various community members' homes, they used the old aluminum suitcases to carry *pūjā* and *sabhā* essentials. The goal of these *sabhās* was to, "practice and preserve the philosophy of Hindu religion, bring people of the same faith together, provide a forum for scholarly discussions of the Hindu philosophy, to preserve and embellish Hindu traditions and cultural heritage, and to teach the younger generation about Hindu philosophy and religion"<sup>84</sup> As it became impossible to hold

house *sabhās*, they relocated in August 1986 to a residential area in Sudbury's Donovan area. They bought an existing church on McNeil street and renovated the building into a temple. During renovations, they also created an open area for the idols and gatherings to take place (figure 53). This temple is still in function, however, as the community is growing the mandir is becoming too small for them.

Located on McNeil street in the Donovan area (figure 54) the temple follows no traditional principles that are listed throughout this essay, as it is a converted Christian church. The location of

84 'Sudbury Prarthana Samaj.'

the temple is not near water nor is it on an East-West axis (figure 55). Located in the center of a residential area creates a major issue of noise pollution and parking. Also, as its location is in a private area not many people know about the existence of the *mandir* or even if they know of it they do not visit.

The Sudbury Prarthana Samaj currently has *darśan* (seeing the idol in the temple) timings from 11 am to 1 pm every Sunday. The formal *pūjāis* (ceremony of worship) are normally where everyone gathers and prays for a while then they recite *mantras* (verbal formulas), sing *bhajans* (devotional song), and read some sacred texts and discuss them at length to understand the meanings of every word. This takes place from 11

am to 12:15 pm; the rest of the time is to mingle and have *prasāda* (food blessed by the gods). Food is prepared in multiple ways where females cook it at the temple, each family brings something from home, sometimes each family brings food one by one during each *pūjā*, and if it is a large *pūjā* or event the food is ordered from a restaurant. If a specific type of *pūjā* is requested by any of the community members, then it is up to the host of the *pūjā* to arrange for the food. This mandir, like many others, offers options for various types of *pūjās* that are directly related to the worshipper. Such as *bhūmi pūjā* (worshipping the land), *car pūjā* and *havans* (offerings submitted through fire). They gather and perform *pūjās* on holy days, such as Janmashtami and Maha Shivratri and also



Figure - 54  
Existing temple location  
Drawn by Author

celebrate festivals like Diwali, Holi, and Navratri in large numbers.

The sanctum is the most important part of the temple, which is normally in a confined space, but at the current temple it is located on a stage. The multiple idols are placed on a table, including the larger idol of Lord Viṣṇu that they mainly worship (figure 56). The boundary between *maṇḍapa* (worship hall) and *garbhagrha* (sanctum) is gone. The only way to close off the sanctum area is a stage curtain that is drawn when there is a performance going on during a celebration. The main purpose to create a new mandir in Sudbury is to bring the Hindu community closer together and help the dispersed Hindu culture survive.



Figure - 55  
Hindu temple in Sudbury  
Drawn by Author



Figure - 56  
Sanctum of Sudbury Prarthna Samaj  
Photo by Author

“One who knows the transcendental nature of My appearance and activities does not, upon leaving the body, take his birth again in this material world, but attains My eternal abode, O Arjuna.”  
 — Bhagavad Gītā 4.9

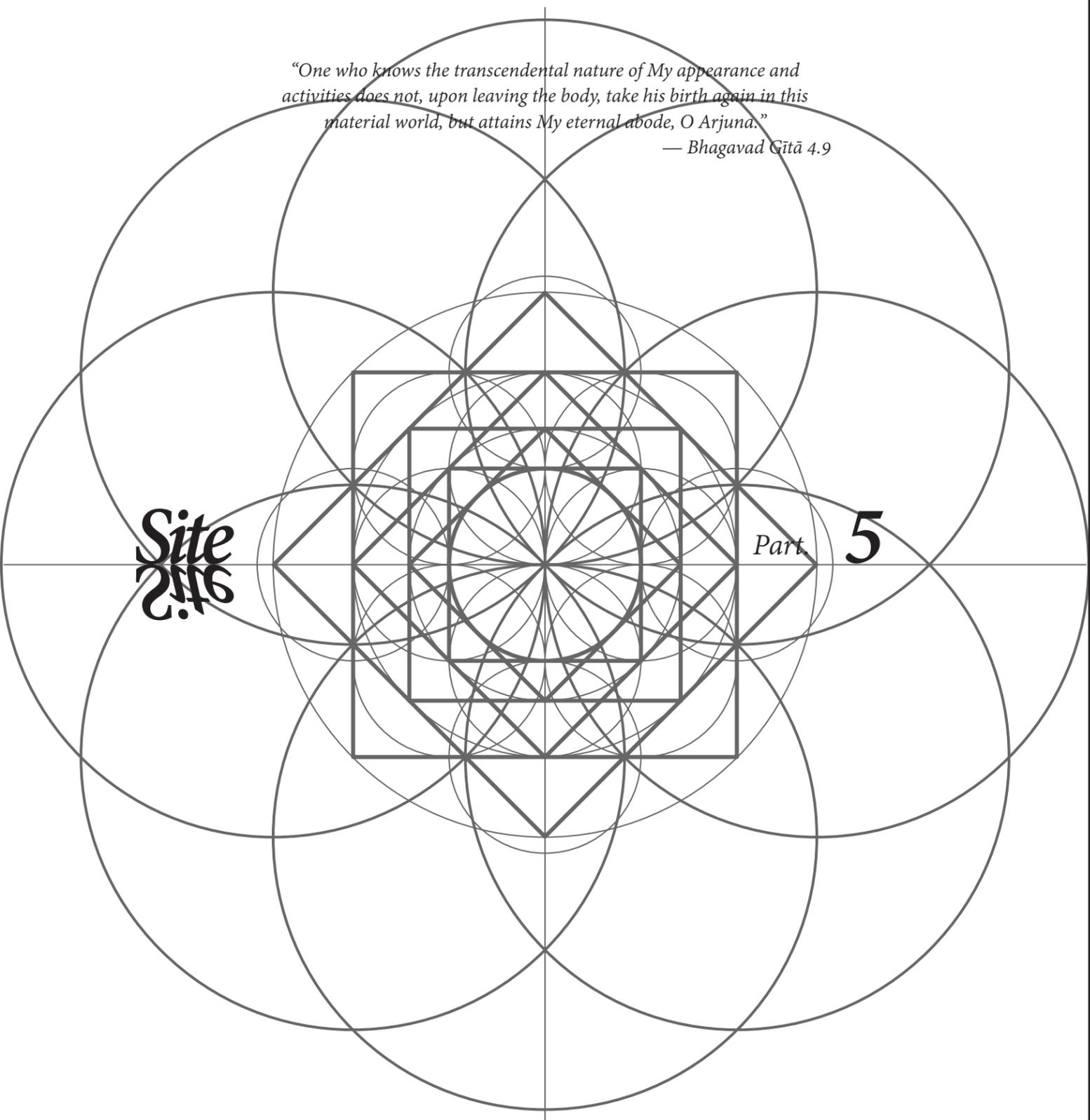


Figure - 57  
 Parivartanā Mandala Version 5  
 Faculty Research Seminar course  
 Drawn by Author

The construction of the Hindu temple is of the utmost importance in comparison to the site. The site is, after all, where the heavens and cosmos will be brought down to earth. Making a link between the sacred and the profane and forging the path to *paramātmā* for humans. This is the key ritual act in inscribing the home of the deities on the earth. “The principle features associated with these sites are water, shade and seclusion. The importance attached to these features indicates that they also came to be objects of worship.”<sup>85</sup> The site analysis also needs to include a study of the soil, in terms of colour, texture, smell and taste, animals and insects need to be considered, vegetation growth, water supply and drainage.<sup>86</sup> Once a site is chosen that follows some or all of these fundamentals, then cleansing of the site is necessary. The purifying process is done through a series of *pūjās*, that cleanse the area not only physically but also spiritually, “Those entities that were active in the site hitherto would be redundant; they are asked to leave, with the rhythmic formula (mantra): ‘Let spirits (bhūta), gods (deva) and demons (rākṣasa) depart and seek other habitations. From now this place belongs to the divinity whose temples will

<sup>85</sup> Michell, *The Hindu Temple*.Pg. 68.

<sup>86</sup> Mills, *Temple Design in Six Early Saiva Scriptures*.Pg. 24.

be built here.”<sup>87</sup> After the spiritual cleansing the site needs to pass a series of tests that determine the eligibility of the site, “A hole is dug and filled with water, to see how well the ground drains. A hole is dug and refilled, to see how densely packed the ground was. Lamps are left lit on the ground in the four cardinal directions, to see how long they stay alight. The ground is sown with seed to see how quickly it germinates.”<sup>88</sup> (figure 58) Once all of these rites are done, then through astrology an auspicious day is found, and the construction begins from that day.

### Site selection

As a part of the research, a survey was conducted with the Hindu community of Sudbury. Based on the current location of the existing temple and the survey that approximately maps the demographics of the Hindu community in Sudbury, three sites were chosen to analyze. As the proposed *mandir* site needs to be in an area that follows all of the principles stated earlier, questions such as, what location is most accessible by community members, while being secluded? These questions

<sup>87</sup> Stella Kramrisch, *The Hindu Temple Vol I 1946*.pg. 13.

<sup>88</sup> Mills, *Temple Design in Six Early Saiva Scriptures*.Pg. 24.

Figure - 58  
 Purification of site through rituals  
 Photo From Aishwaryambuilder



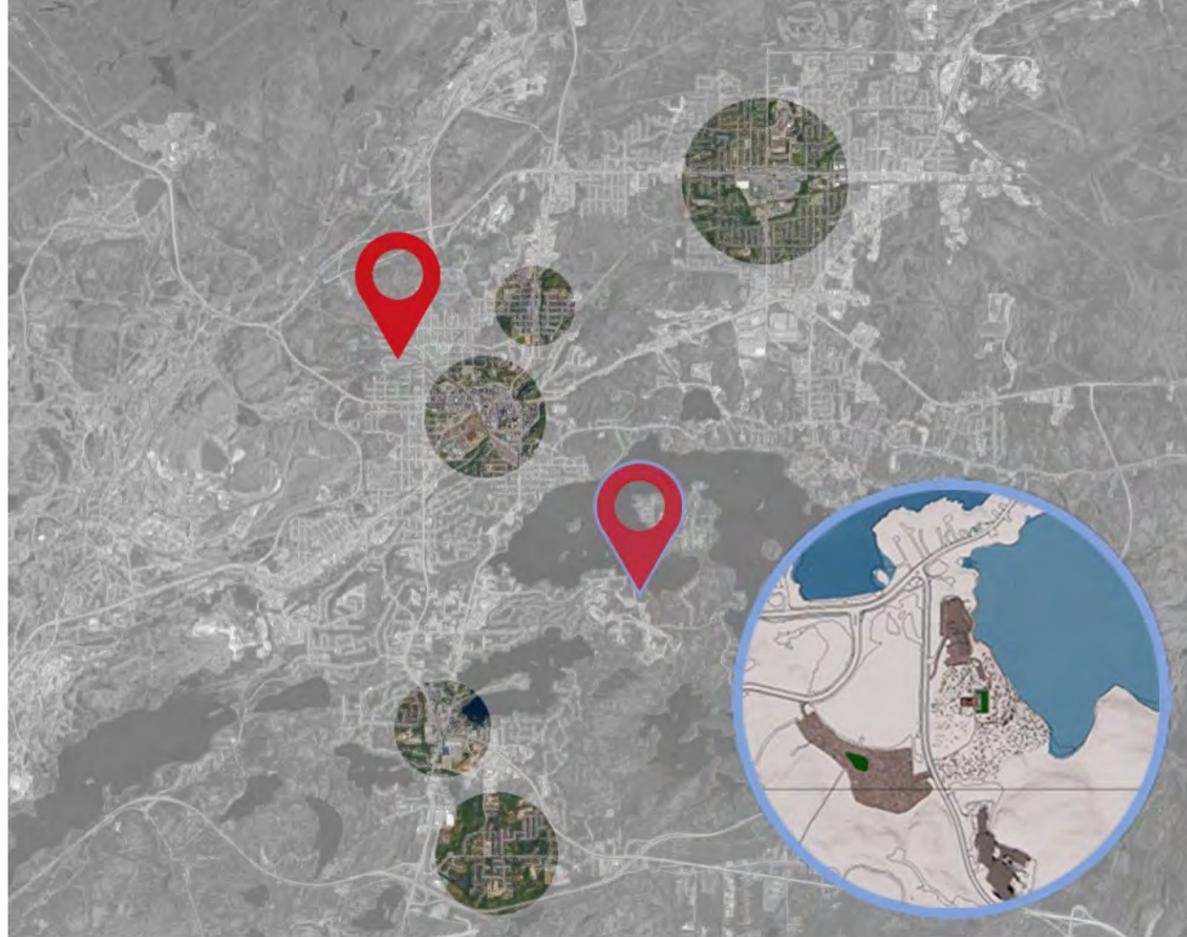


Figure - 59  
Proposed site on Bethel Lake  
Drawn by Author

Figure - 60  
Zoom in on proposed site on Bethel Lake  
Drawn by Author



were asked constantly to refine the search and help further understand the possible sites.

Each of the three sites investigated responded to the needs of constructing a *mandir*. Upon analysis, the site around Bethel Lake was a perfect fit in terms of textual requirements and the needs of the Hindu community (figure 59). Located on the shores of Bethel Lake the area is secluded and covered by dense trees. East-west orientation of a temple is also feasible, and the lake would be in front of the temple as mentioned in the texts. This location has continuous access by city transportation as it is right behind Laurentian University. It is closer to Paris Street and relatively in the center of the current demographics of the Hindu community. The topography of the site is very sloped, taking the form of a mountain that represents the sacred mountains. After careful consideration and comparison to sacred texts this site was chosen.

The site chosen for this study is located on South Bay Road, close to Laurentian parking lot 15 and on the shore of Bethel Lake, situated in an area where people of all ages can visit the Hindu Temple (figure 60). For example, the new temple aims to leave as much land as possible undisturbed, relating to how the Hindu Deities prefer to reside in places that are related to nature. In order to

increase access, the site incorporates Laurentian Universities parking lot 15. As this parking space is normally used on weekdays during classes, the parking lot becomes free to use after 5 pm at the latest. Even so the parking is large enough to hold both the normal flow of students and the devotees. In addition, a smaller parking space of 20 cars is created on site to accommodate for drop-offs or for people that are unable to walk up the hill. This parking is connected to the Maison McCulloch Hospice parking, as it would be accessed through the driveway of the Hospice. This is done to reduce the amount of disturbance to the land and to join the surrounding communities. A boardwalk runs from the shore in front of the temple to the existing boardwalk of the hospices (figure 61). This addition encourages the merging of different communities. Existing hiking trails that span in and around the site link St. Joseph's Continuing Care Center from the southern side of the temple. Once the site goes through the critical analysis phase and when the temple construction is completed, "and consecrated the potential sacredness of the site manifest itself and the distinction between artificially and naturally sacred places disappears."<sup>89</sup> The *mandir*, as the 'Cosmos on earth' statement will come true when that barrier between artificial and natural is lifted. This is done through careful inscription – in this study, through drawing and modelling the *mandir*.

89 Michell, *The Hindu Temple*.pg. 68.

Figure - 61  
Site plan  
Drawn by Author



*“Never was there a time when I did not exist, nor you, nor all these Kings;  
nor in the future shall any of us cease to be.”  
— Bhagavad Gītā 2.12*

# Visual Case Studies *Part. 6*

Figure - 62  
Exploration of geometries for Faculty Research Seminar  
course  
Photo by Author

The case studies presented in this thesis were viewed to understand the contemporary forms that traditional texts can create. These precedents are located in India and in Canada and have acted as visual guides. Though many principles are left behind, major ones such as the *shikhara* and incorporating water in or around the temple still exists. These new adaptations form new boundaries for contemporary temple design.

## Contemporary Temples



Name: Lotus Temple

Location: New Delhi, India

Architect: Fariborz Sahba

Completion date: November 13, 1986

Brief description: This is a Bahá'í house of worship. Though there are no images, idols or any indication of any figure of worship, it is a temple of worship for all religions and races. This temple is in the form of a lotus that is surrounded by artificial pools of water. The form also uses light as a method of ornamentation through a series of skylights.

Figure - 63  
Lotus Temple  
Photo by Unknown



Figure - 64  
Shirdi Sai Baba Temple  
Drawn by Shilpa Architects

Name: Shirdi Sai Baba Temple

Location: Koppur village on the outskirts of Chennai, Tamil Nadu, India

Architect: Shilpa Architects

Completion date: Scheduled for 2021- 2022

Brief description: The design is based on a hendecagon (11 sided polygon). It uses petals not only as structural elements but as a shading screen. The building has various openings to let natural light in, with an oculus that diffuses light coming from above. The architects took Vāstuśāstra and beliefs in numerology into account while designing the temple.



Figure - 65  
Narayantala Thakurdalan  
Photo by Abin Design Studio

Name: Narayantala Thakurdalan

Location: Bansberia, West Bengal, India

Architect: Abin Chaudhuri

Completion date: September 2018

Brief description: Made entirely from concrete, including the shade screen that represents the traditional *jali* in Hindu Temples. The *mandir* allows for different size openings depending on the flow of worshippers. It is a large unobstructed space that allows direct access to the deity.



Figure - 66  
Amalsad Shiva Temple  
Drawn by Sanjay Puri Architects

Name: Amalsad Shiva Temple

Location: Amalsad, Gujarat, India

Architect: Sanjay Puri

Completion date: Proposal phase

Brief description: The form of the temple was derived from a *diya* (small clay oil lamps), and the wave like pattern on the *shikhara* was taken from Shivas bun where he had trapped Ganga (name of the goddess that represents the Ganges river). The *mandir* is located on an artificial island created in the center of an existing lake. A bridge is drawn to connect the land and temple. The *shikhara* has *jali* like features that also allow natural light to enter the sanctum. From an aerial view the temple form looks similar to the Shiva Lingam.



Figure - 67  
Iskcon Temple  
Drawn by Sanjay Puri Architects

Name: Iskcon Temple

Location: Gandhinagar, Gujarat, India

Architect: Sanjay Puri

Completion date: Proposal phase

Brief description: The appearance of this *mandir* comes from the overall shape of the *shikhara*. Through the concept of repetition the form is multiplied in numbers and size, creating a large spread out *shikhara*. Each layer is spaced out to add in skylights with *jalis* surrounding each opening to keep the building cool during the 40° C months. Including the corridors, the outdoor spaces and pathways that enclose a pool of water also incorporate *jalis* for shading.



Figure - 68  
Iskon Temple  
Drawn by Sanjay Puri Architects



Figure - 69  
Balaji Temple  
Photo by Edmund Sumner

Name: Balaji Temple

Location: Nandyal, Andhra Pradesh, India

Architect: Sameep Padora & Associates

Completion date: 2019

Brief description: The temple is created by using a stepped formation, the first 11 steps are green and more spaced out so that the devotees may spend some time at the temple. The bleacher-like steps also allow for social congregations. The entire temple is constructed from black limestone including the plinth, which is surrounded by water.



Figure - 70  
Shiv Temple  
Photo by Edmund Sumner

Name: Shiv Temple

Location: Wadeshwar, Maharashtra, India

Architect: Sameep Padora & Associates

Completion date: 2010

Brief description: This Shiv temple only has the *shikhara* in built form; the rest of the spaces such as the *mandapa* are laid out through the use of landscaping. The *shikhara* is built from concrete blocks and the entrance opening is clad with wood. Different sized metal doors are added to control the flow of devotees. The landscape *mandapa* is outlined by concrete blocks creating a gradual stepped landscape.



Figure - 71  
BAPS Shri Swaminarayan Mandir  
Photo by Unknown

Name: BAPS Shri Swaminarayan Mandir

Location: Toronto, ON, Canada

Architect: Papadopoulos & Pradhan Architects Inc.

Completion date: July 2007

Brief description: BAPS Shri Swaminarayan Mandir is constructed completely from marble. This temple has qualities of a traditional Hindu temple, in terms of the carvings, the layout, and materials used to construct the temple, as they all fit together like pieces of a puzzle. As this temple is located outside of India and is in a colder environment, it becomes an important precedent. BAPS temple was referred to for multiple reasons especially for additional programs that keep the community involved with the temple, on a daily basis. The temple has a very large hall that can be divided into smaller halls for different sized events.

“For the soul there is neither birth nor death at anytime. He has not come into being, does not come into being, and will not come into being. He is unborn, eternal, ever-existing and primeval. He is not slain when the body is slain.  
— Bhagavad Gītā 2.20

# Project Design

## Part. 7

Figure - 72  
Exploration of geometries for Faculty Research  
Seminar course  
Photo by Author

### Parti

The design process begins with the exploration of two sacred shapes, the square and the circle. The square symbolises order, unambiguous form, and the absolute, and the circle represents cosmos, movement, and time. Instead of looking at these shapes in an individual manner, they were combined to create the dimensions of both space and time and order and movement. In search of the positive or negative space that is created by the multiplication of the shapes, the circles were copied in each of the cardinal directions. This positive or negative space would essentially create a base form for the design of the new temple. Through multiple iterations a shape in the form of a flower, finally emerged and was chosen to establish an origin point of the project design (figure 73). As this new temple houses three deities, based on the community’s practice, it meant that three separate sanctums are required. The *garbhagrha* (sanctum) is traditionally located in the center of each temple and the whole temple emanates from that one central point. The new temple needs to follow the same set of rules, as the goal of this *mandir* is to be designed in both a modern and traditional style. As traditional temples only house one deity and one sanctum, this idea of the forms emanating from one central point became difficult to achieve.

In plan, the resulting flower shape is replicated, while three sanctums are drawn. Each of the flowers are centered at each of the *garbhagrhas* (figure 74). The flower petals were rotated, additional petals were added or removed depending on the needs of a symmetrical design (figure 75). The texts mentioned one of the sacred forms being a hexagon, which then was added to the geometry of the square and circle. This helped to divide the petals into six equal parts, forming a proportional flower (figure 76). Layering the square, circle and the flower as one, they were overlaid in order, to reflect the traditional sequence of *ardhamandapa*, *mandapa* and *garbhagrha* (figure 77). The floral geometries were oriented each time to acquire the desired span and to create a void space between the petals and in order to attach a connecting element that forges a clear path from the entrance of the temple to the inner sanctums. The *ardhamandapa* (entrance hall) has four leaves as it is a smaller

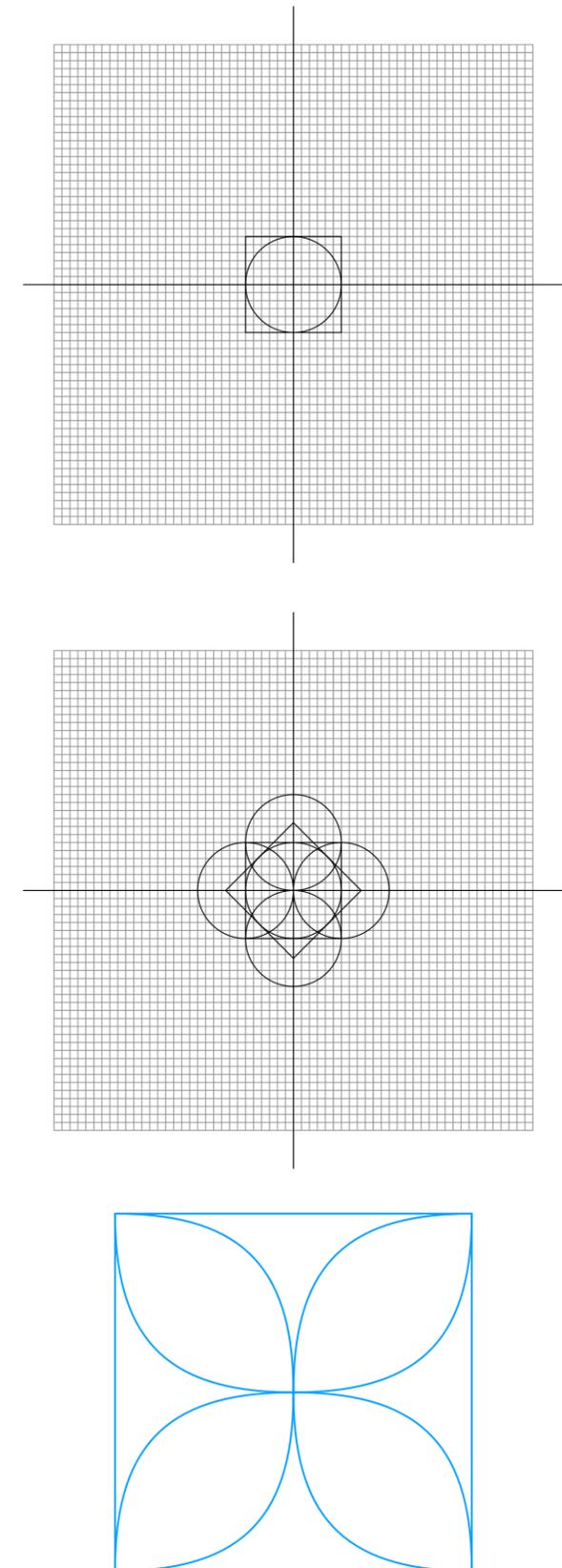


Figure - 73  
Parti Diagram 1  
Drawn by Author

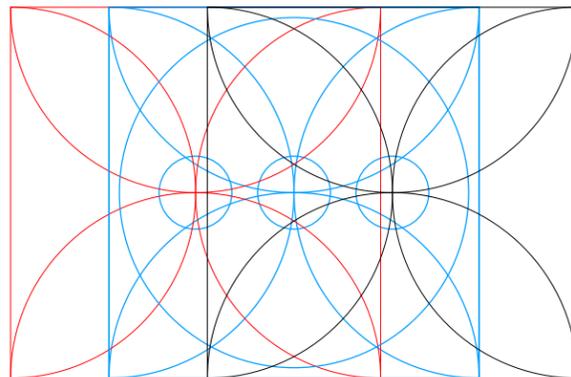
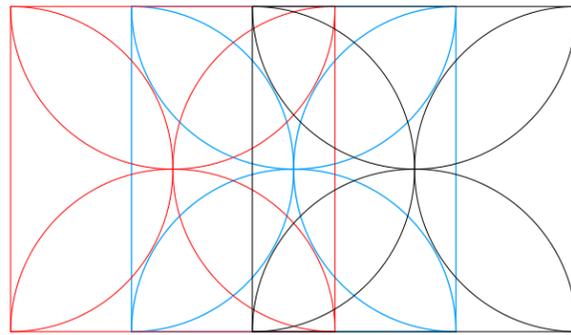


Figure - 74  
Parti Diagram 2  
Drawn by Author

area created by two reflecting squares in the north and south direction. The diameter of the flower was changed accordingly to keep the inside spacious and cover the required program under one roof. The *mandapa* (hall) adapts completely to the hexagon and its resulting form. While the *garbhagrha* (sanctum) is the most complex and layered component of the temple, it is fabricated in three layers: an exterior layer, the sanctum layer, and another surface layer in-between. These layers represent the several layers of *prakara* (walls) that are seen in Dravida temples.

In order to explain the complexity of the *shikhara* (spire) the parti diagram drawn must be looked at in section (figure 78). As the exploration of squares and circles created a floral geometry for the plan, a similar solution was sought to create a flower concept that ties the vertical and horizontal planes together. A lotus and a lotus bud was used as inspiration also because it is a symbol of life and purity. The lotus was then flipped upside down, resulting in conical shapes. The first diagram shows how each sanctum started at the same height with a parabola layer that tries to incapsulate all of the sanctums. Through more explorations the outer sanctums started to decrease in height, with one exterior layer and another layer separating the interior and exterior layers. Later, each sanctum was treated exactly the same in terms of layering. The heights needed to be different in order to add complexity to the multiple sanctum design while revealing that it is a Hindu temple. Lastly, two interior layers were reflected at the top to obtain the *Kalasha* (cap of the spire). This creates a reflecting plane between the heavens and the earth.

### Approach to the Temple

Hindu Temples have always been associated with nature, as the Hindu gods traditionally preferred to retreat to secluded and quiet places. Devotees created their own paths that led them to the shrine, creating a pilgrimage route. Similarly, three pilgrim paths are created on the proposed path, from the east, west and the north.

The north path starts from the parking lot that is created on the site, which is connected to the Maison McCulloch Hospice parking (figure 79). This path is connected to the parking through a *gopura* (gateway) that has been adapted and redesigned to respond to the regional needs and the objectives of this thesis (figure 80). This gateway is fabricated from concrete and wood. The *gopura* has similar features as the ones found in Dravida temples, in terms of the pyramid-like stepping. These pyramid formations are created from 2"x 2" vertical standing pieces of wood capped by a layer of weathered wood. Decreasing in size the last layer is capped with bent wood that creates an arc, giving

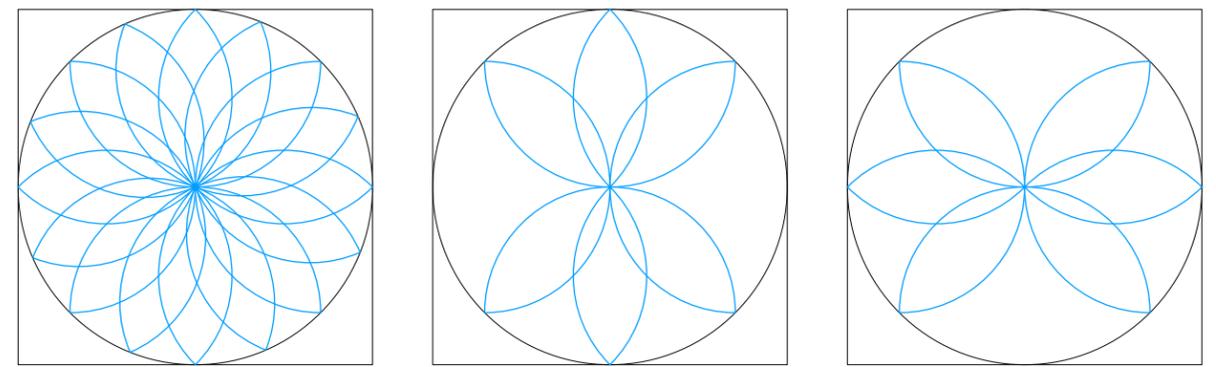
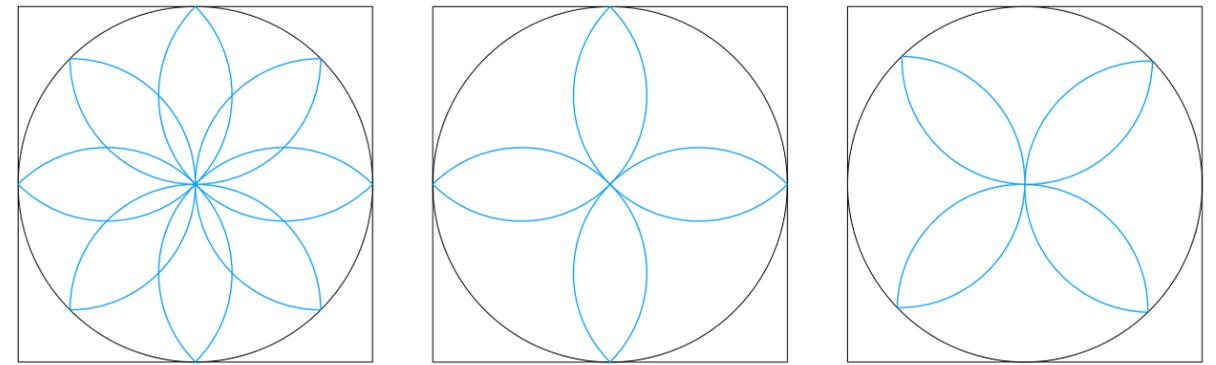


Figure - 75  
Parti Diagram 3  
Drawn by Author

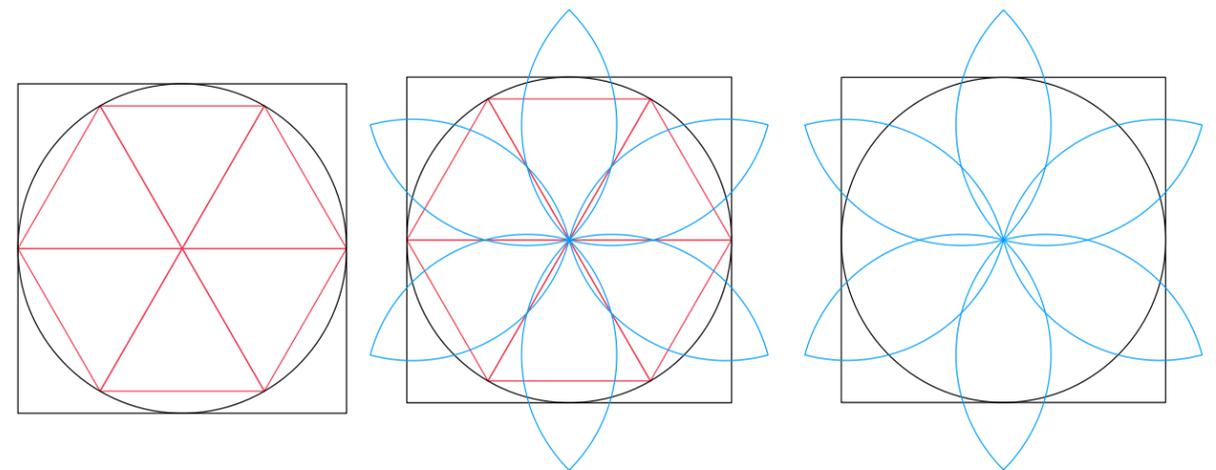
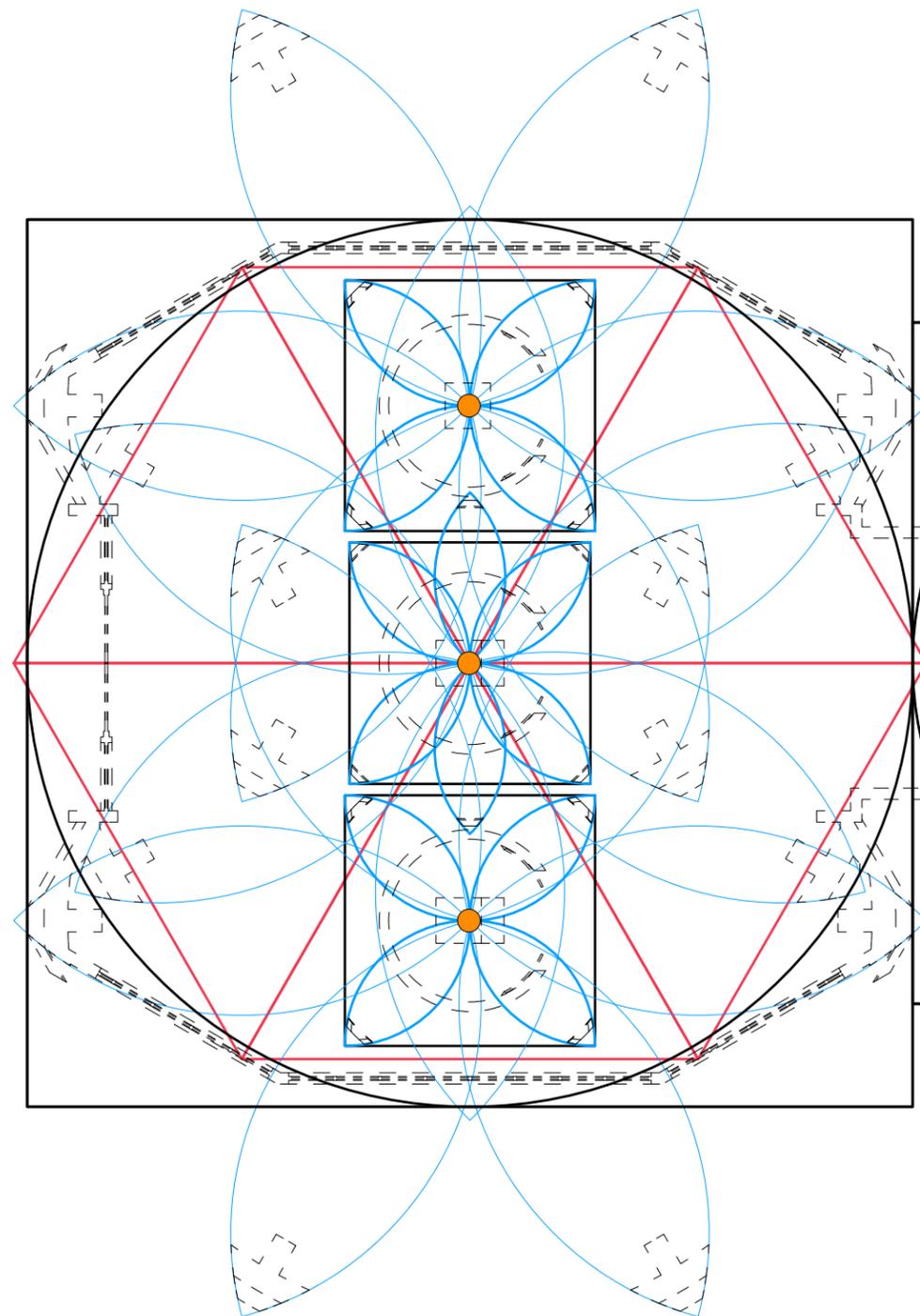
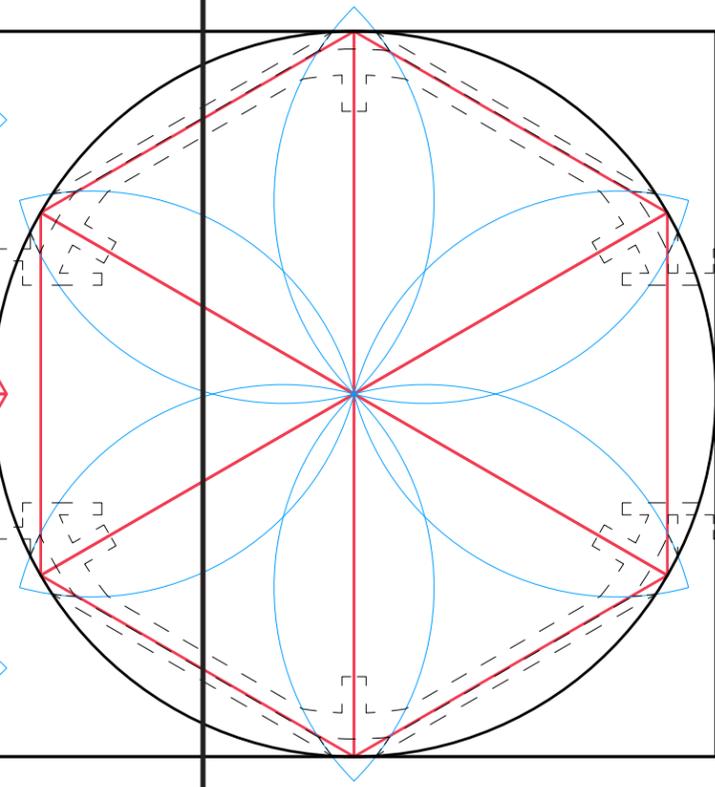


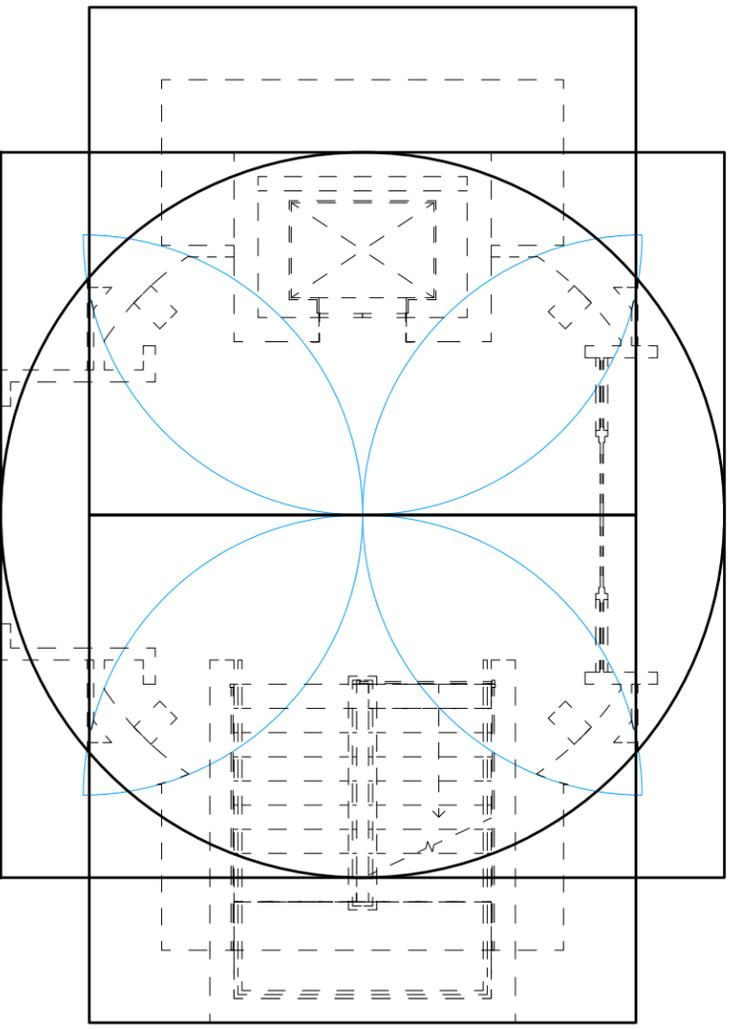
Figure - 76  
Parti Diagram 4  
Drawn by Author



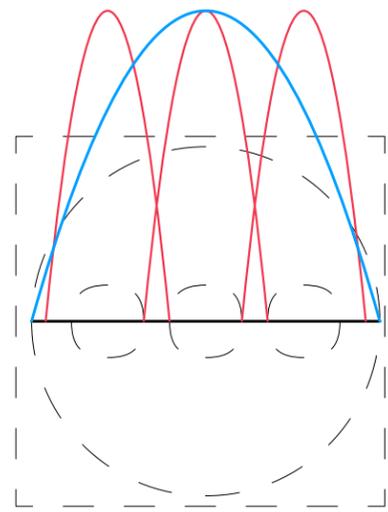
*Garbhagrha (sanctum)*



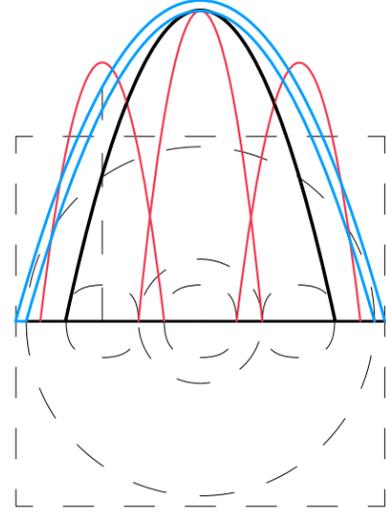
*Mandapa (hall)*



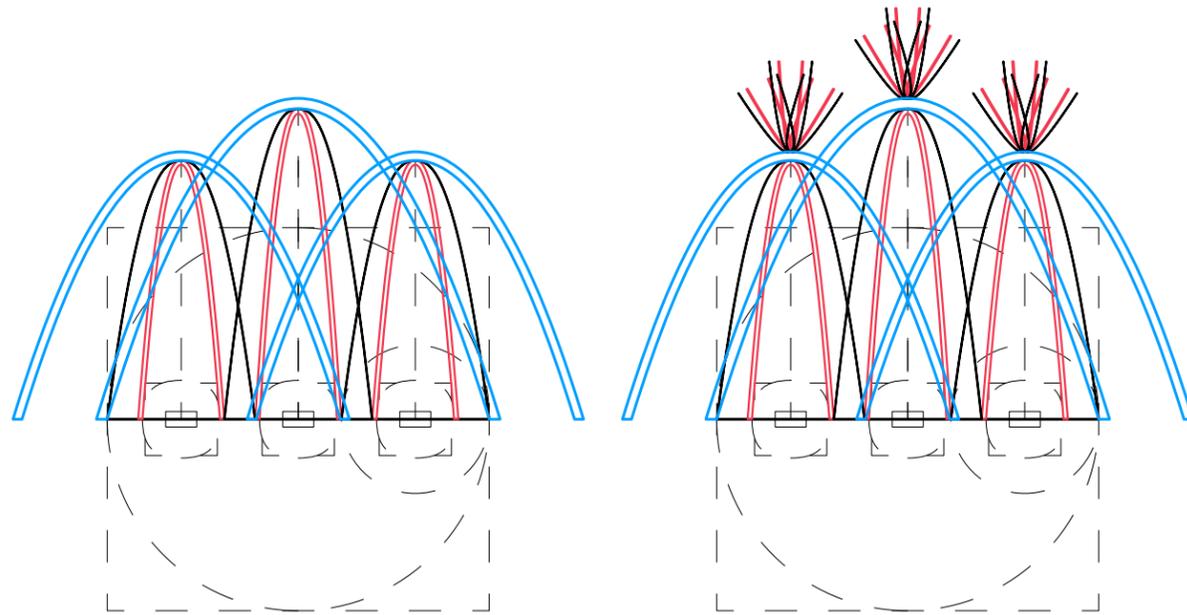
*Ardhamandapa  
(entrance hall)*



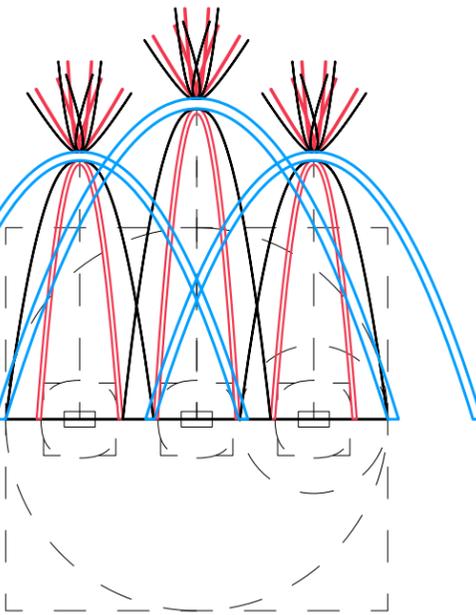
□ Sanctum  
Concrete layer



□ Thin screen (blanket  
around sanctum)  
Copper layer



□ Protective layer  
Cedar boards



Layers mirrored to  
create kalasha (top  
detail)

□ Figure - 78  
Parti Diagram 6  
Drawn by Author



□ Figure - 79  
Site linking to Maison McCulloch Hospice  
Drawn by Author



□ Figure - 80  
Entrance to temple from parking  
Drawn by Author



Figure - 81  
Gopura's barrel  
Drawn by Author

it the classic barrel look (figure 81). This is a paved pathway that addresses the needs of accessibility.

Access from the east is through a board walk on Bethel Lake, that is linked to the Maison McCulloch Hospice board walk (figure 82). This is a unique approach to the temple as it brings the worshipper from the lake where they get glimpse of the *mandir*, then they walk through the forest to reach the south entrance of the temple. No gate was placed on this route as the transition from water to land creates a natural *gopura*.

The final access to the temple is provided from the west side, across from the Laurentian University parking lot 15 (figure 83). A *gopura* is placed to notify the worshippers of the temple entry. This walkway takes the devotee on a small hike through the site. As the visitor walks to the temple they will hear a series of sounds, which will help them go through a transition mode, to prepare

themselves for *darśan*<sup>90</sup>. The worshipper firstly hears the bells that are attached to the surrounding trees, in addition the sounds of wind, water, and birds that can also be heard. These bells are small in size 3" x 7" and are made from copper (figure 84). Combined, these elements prepare the visitor or worshipper for the transition from the profane to the sacred.

### Landscape Design

Being an important factor in the location of Hindu temples, nature has been integral to the architectural design. The natural topography of the proposed site is a blessing as it creates a simple yet well integrated landscape design. As the site is located on the highest point of the hill and in the forest, it provides great opportunities for the paths

<sup>90</sup> *Darśan* = The moment when one sees a deity in a temple or a holy person like saints or gurus.



Figure - 82  
Access to site from Maison McCulloch Hospice with  
new board-walk  
Drawn by Author

Figure - 83  
Entrance to temple from Laurentian  
University parking  
Drawn by Author



to be incorporated into the landscape. The large open area in the front provides space for outdoor activities. From such heights a large vista is provided of surrounding areas. The rocks and soil that are removed during excavation will be used to raise the outdoor gathering area that is enclosed by retaining walls. On the (south-east) corner of the temple large grassy steps/bleachers are designed to create an outdoor social area (figure 85). Every second bleacher has grass planted to provide for cool sitting areas in the summer. Accessibility being an obvious integration, is often not found in traditional Hindu temples. In response, on the right corner (north-east) a series of ramps are carefully integrated to provide direct access to the plinth without going into the hall (figure 86). In the attempt of keeping the design symmetrical, every other level of the ramp also includes grass. Taking the path from the parking lot to the forecourt leads either to the main flight of steps that mount to the temple plinth, or the worshipper takes the series of ramps from the forecourt to the plinth before entering the temple's main doors. Upon return, the worshipper is standing on the plinth and looking out over the waters of Bethel Lake (figure 87).

### Mandir Plan

Oriented on an east-west axis the temple sits on the shores of Bethel Lake (figure 88). Upon the arrival to the temple as mentioned, the worshipper or devotee has several choices of how to approach the sanctum. Weather permitting, they are encouraged to use the front stairs or ramps leading up to the plinth. Once on the plinth they arrive at the front doors, leading them to the *ardhamandapa* (entrance hall) (figure 89). The entrance hall is constructed as a four-petal flower fabricated from cedar wood with squares on each side cast in concrete, providing clearance for the elevator shaft and the main internal stair. As the doors open, they provide a direct view to the central inner sanctum, which houses Lord Viṣṇu (figure 90). The entrance hall also has stairs on the left and an elevator on the right side leading to the community hall below (figure 91). Walking along the concrete corridor the devotee rings the temple bell, entering the *mandapa* (hall) (figure 92). Derived from the six-petal flower, the main



Figure - 84  
Bells going along the paths to the temple  
Created for Fabrication 2 course  
Drawn by Author



Figure - 85  
Outdoor social area created by grassy steps/bleachers  
Drawn by Author

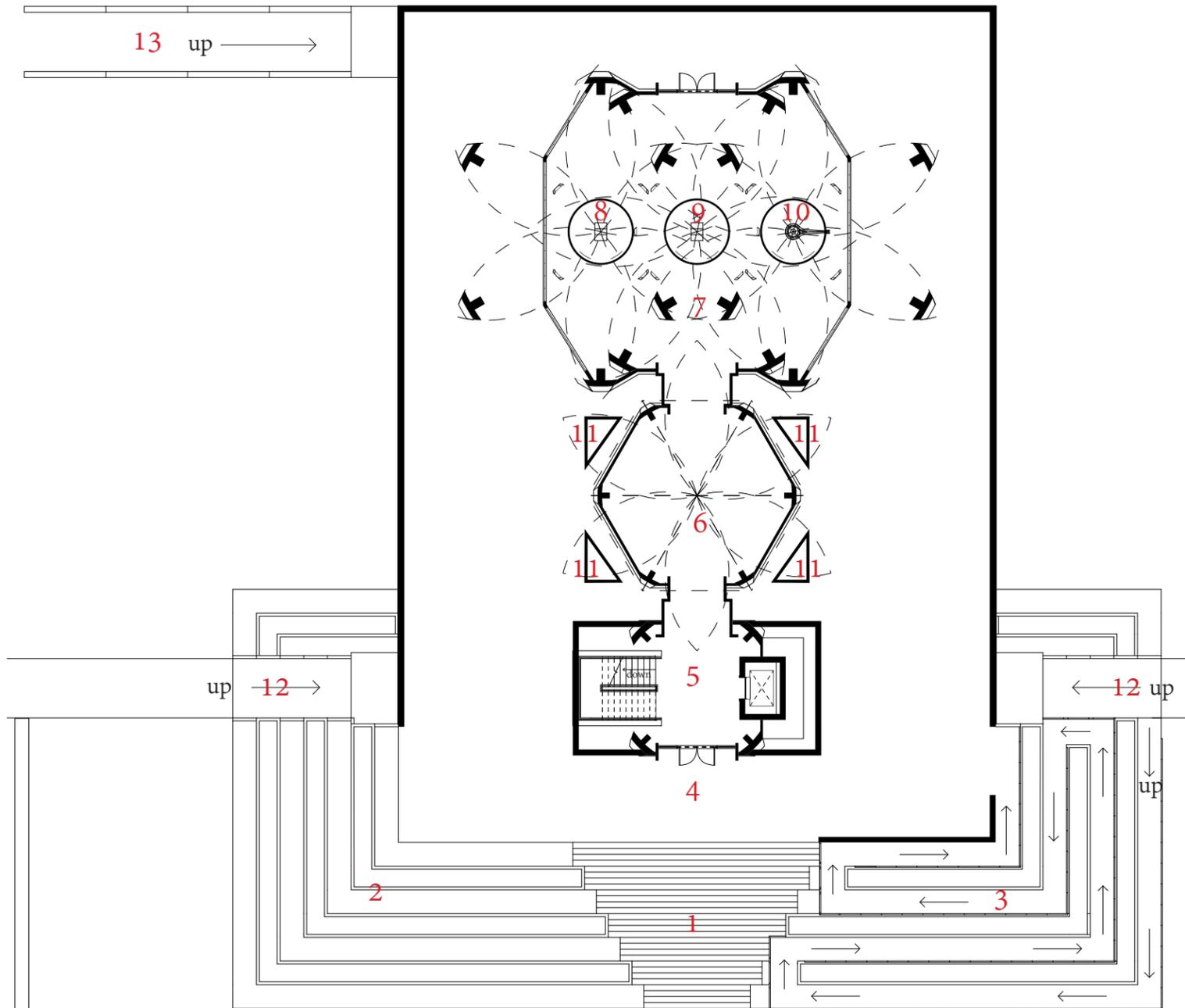


Figure - 86  
Ramp going up to the plinth  
Drawn by Author



Figure - 87  
View from plinth to Bethel Lake  
Drawn by Author

Figure - 89  
Front doors of the temple  
Drawn by Author



**Ledgend**

- 1 - Main Entrance Stairs
- 2 - Bleachers
- 3 - Ramp
- 4 - Plinth
- 5 - Ardhamandapa (entrance hall)
- 6 - Mandapa (hall)
- 7- Garbhagrha (sanctum)
- 8 - Goddess Shakti Sanctum
- 9 - Lord Vishnu Sanctum
- 10 - Lord Shiva Sanctum
- 11 - Skylight
- 12 - Community Hall Entrance
- 13 - Emergency Exit From Hall
- 14 - Outdoor Forecourt
- 15 - View to Bethel Lake

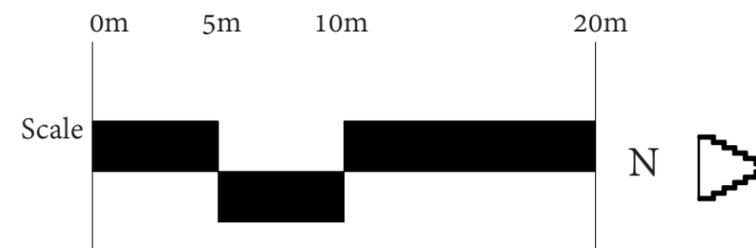


Figure - 88  
Temple plan  
Drawn by Author

82  
15  
↓



Figure - 90  
View of Lord Viṣṇu's sanctum  
Drawn by Author

Figure - 91  
Entrance hall view  
Drawn by Author



hall's dome has a mixture of wood and corten steel 'petals' that are supported by composite glulam beams. This space is normally used for meditation or small group prayer meetings (figure 94). The corten walls have figures of Lord Gāṇeśa and Lord Hanuman cut into them. As light passes through it will project these images onto the *maṇḍapa* floor.

Moving to the sanctum the devotee passes through another concrete passage that is inspired from the stepping forms of the *gopura* (gateway), and stands in front of the three sanctums. The central sanctum is of Lord Viṣṇu (figure 95), on the right sits Lord Śiva and on the left Goddess Śakti (figure 96) is situated. Here the worshipper has the choice to visit one deity or all of them. Lord Śiva's sanctum is planned slightly different as no plinth is provided and the Lingam sits on the ground (figure 97). The long channel of the Lingam penetrates through the concrete and pours any liquid offerings to Śiva into a floor drain (figure 98). There also is a *kalasha* (pot full of water) hanging right above

the lingam, constantly dripping water onto it. The deities are placed within their own sanctums which are made from wood formed concrete. As it is important to integrate circumambulation in the temple plan, each of these sanctums provide space for *pradakṣiṇā* (circumambulation) inside the sanctum around the idol and outside of the concrete layer (figure 99). The large sanctum has windows on its northern and southern side to let natural light in. To avoid distraction, the windows are translucent (not transparent) and there is a *jali* (perforated screen) behind the central windows (figure 100). Moving to the back side of the sanctum there is a door leading to the plinth outside, this door was placed there not only for the Ontario Building Code but to further highlight the four cardinal directions.

The temple plinth, which contains the community hall below, provides a clear opening for outdoor *pradakṣiṇā* (circumambulation) which is often very important as well during certain

Figure - 94  
Maṇḍapa dome  
Drawn by Author



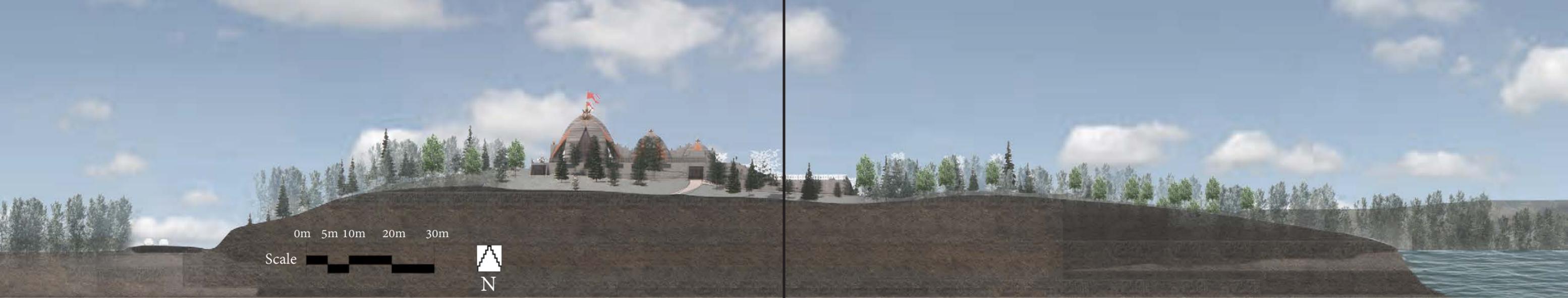


Figure - 92  
East-west elevation  
Drawn by Author

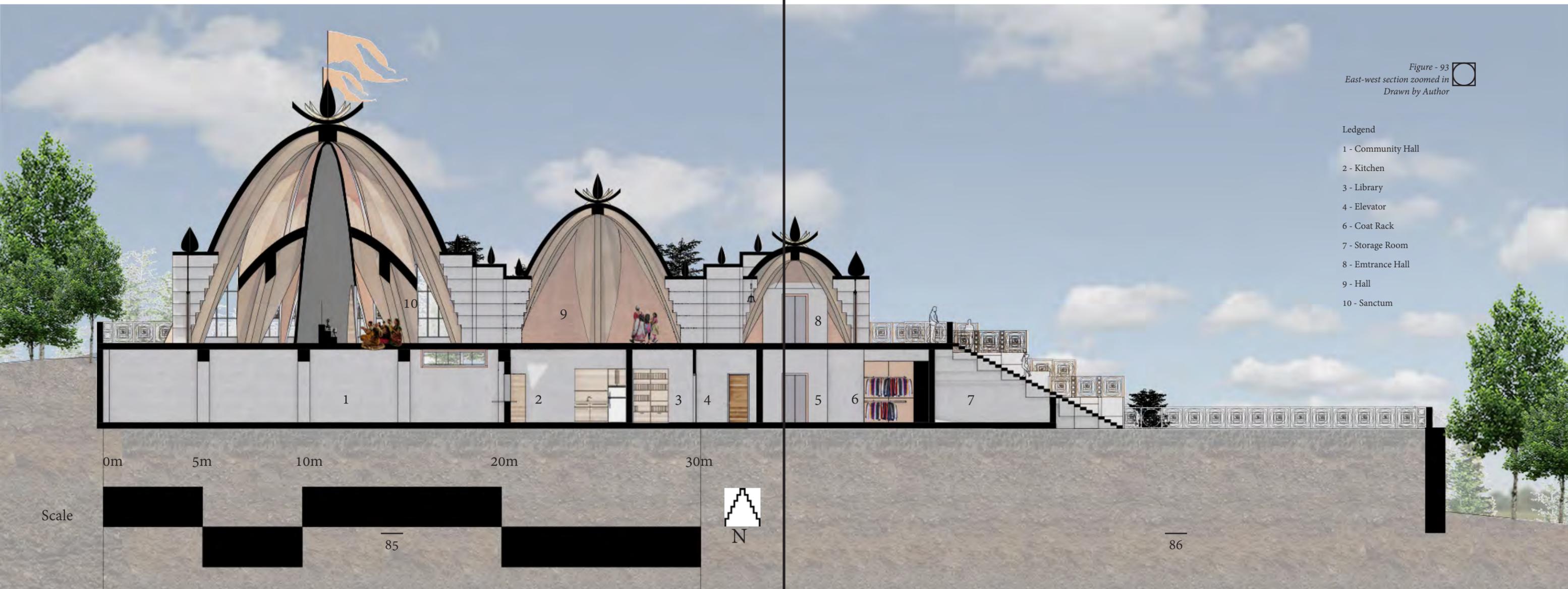


Figure - 93  
East-west section zoomed in  
Drawn by Author

- Ledgend
- 1 - Community Hall
  - 2 - Kitchen
  - 3 - Library
  - 4 - Elevator
  - 5 - Coat Rack
  - 6 - Storage Room
  - 7 - Emtrance Hall
  - 8 - Hall
  - 9 - Sanctum
  - 10 - Sanctum

Scale

85

86



Figure - 95  
Lord Viṣṇu's sanctum  
Drawn by Author



Figure - 96  
Goddess Śakti sanctum  
Drawn by Author

Figure - 97  
Lord Śiva's sanctum  
Drawn by Author



Figure - 98  
Lingam channel  
Drawn by Author

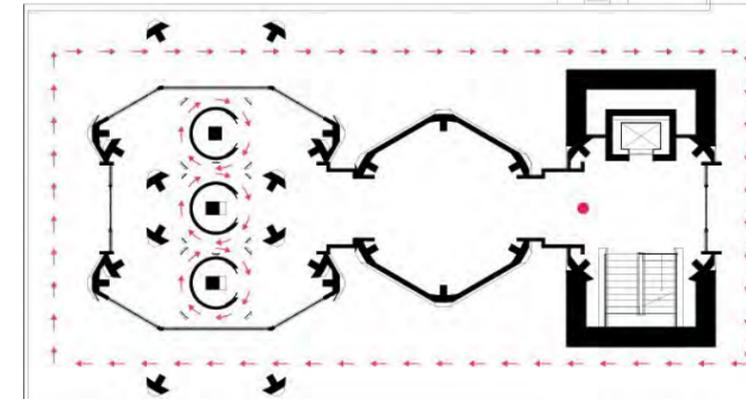
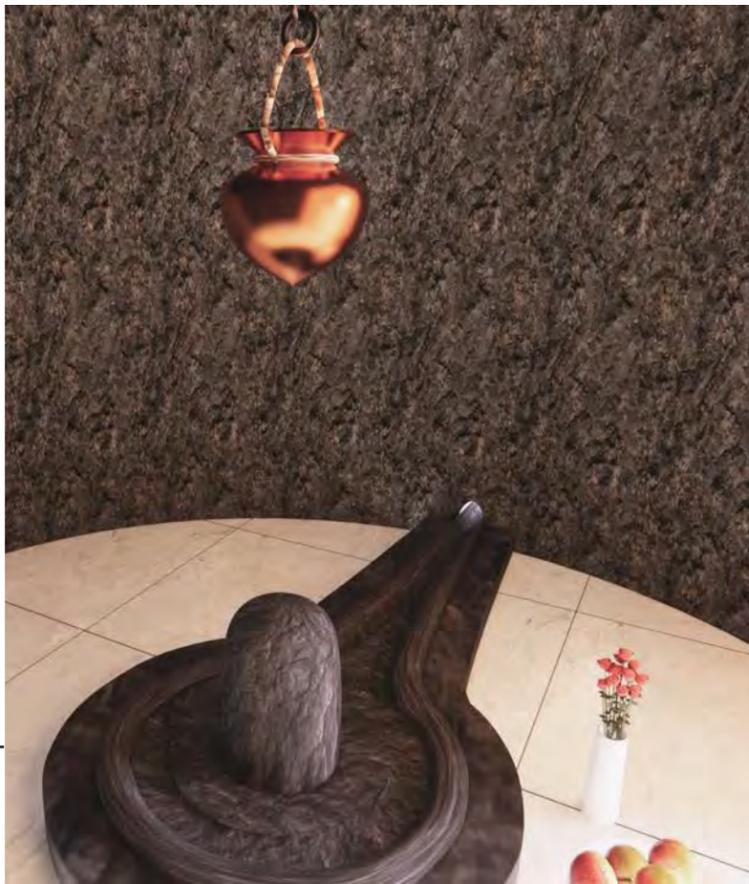


Figure - 99  
Circumambulation paths  
Drawn by Author

Figure - 100  
Sanctum windows with jali  
Drawn by Author

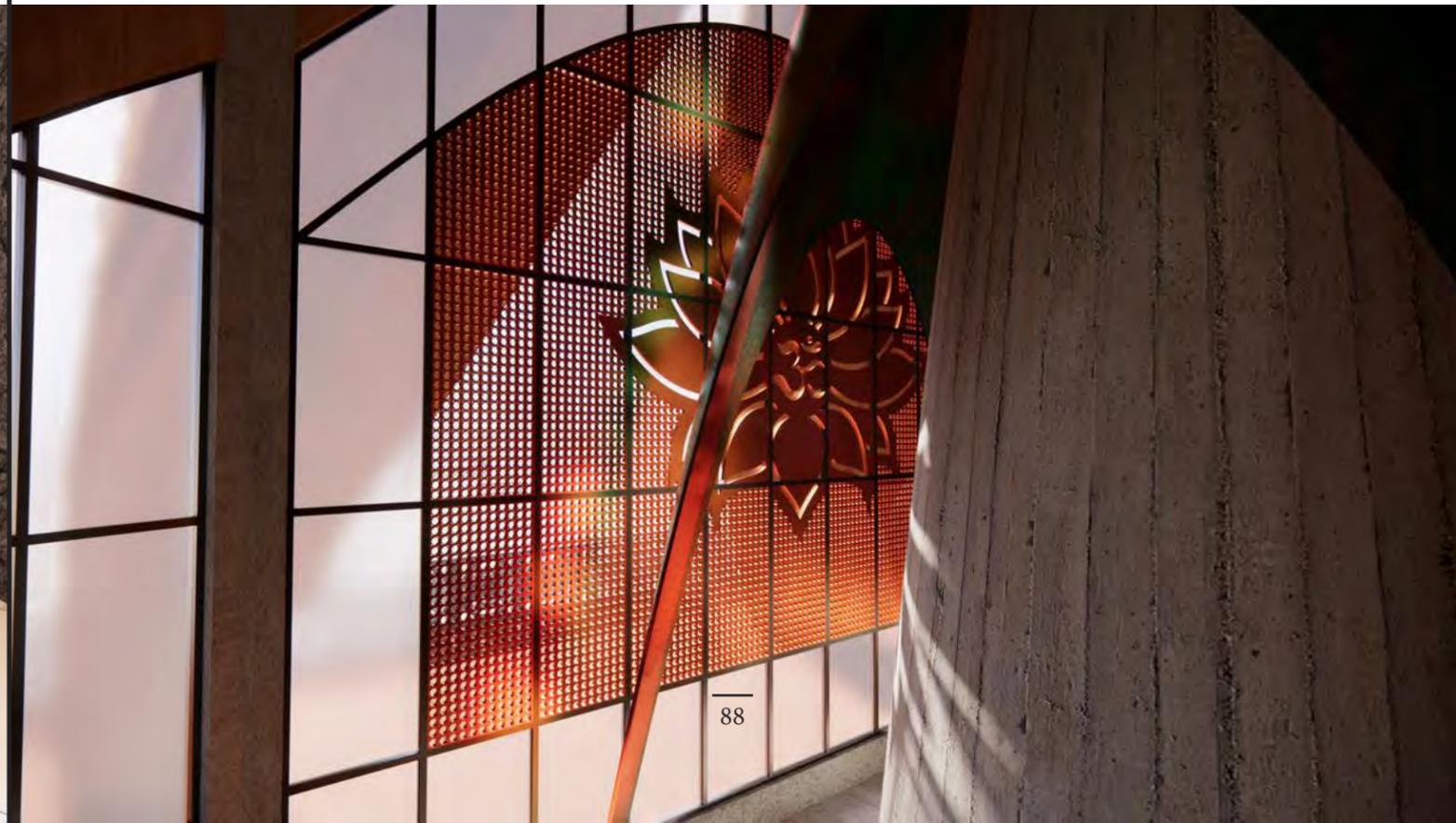




Figure - 101  
Outside on the plinth  
Drawn by Author



Figure - 102  
Proposed program  
Drawn by Author

festivals. The flower petals of the main structure spill out onto the plinth creating a nice shaded area (figure 101). The additional space around the plinth allows for a *rath yatra* (chariots festival), or many other types of festival celebrations.

### Program

This *mandir* has numerous programs, the primary function being a place of worship (figure 102). The temple also explores the idea of having multiple gods, while retaining a sanctum for each. Using the BAPS Shri Swaminarayan Mandir as a precedent and the results of the survey conducted in Sudbury, additional programs have also been incorporated into the program. The new *mandir* provides classes that offer to teach history, Hindi, cultural dance, and religion. These classes are primarily for the youth but are available to anyone who wishes to join. Below the temple, and taking advantage of the temple plinth buried into the land, there is a large hall that has the potential to hold substantial events during festivals and other communal events. This hall is 6500 sq. ft. and has the capacity to seat approximately 500 people. Through a combination of these programs the temple becomes more engaging and serves more than one purpose. To solve the issue of different sects not wanting to interact with one another, the temple could have different time slots for each of them. This way all Hindu individuals could give their support to keep the *mandir* in functional condition while it could be open for devotees on more than one day. This sacred place would not only be restricted to the Hindu religion, it would welcome others to understand its traditional ways. These additional programs increase the hours of the temple on a daily and a weekly basis throughout the year.

### Community Hall Program

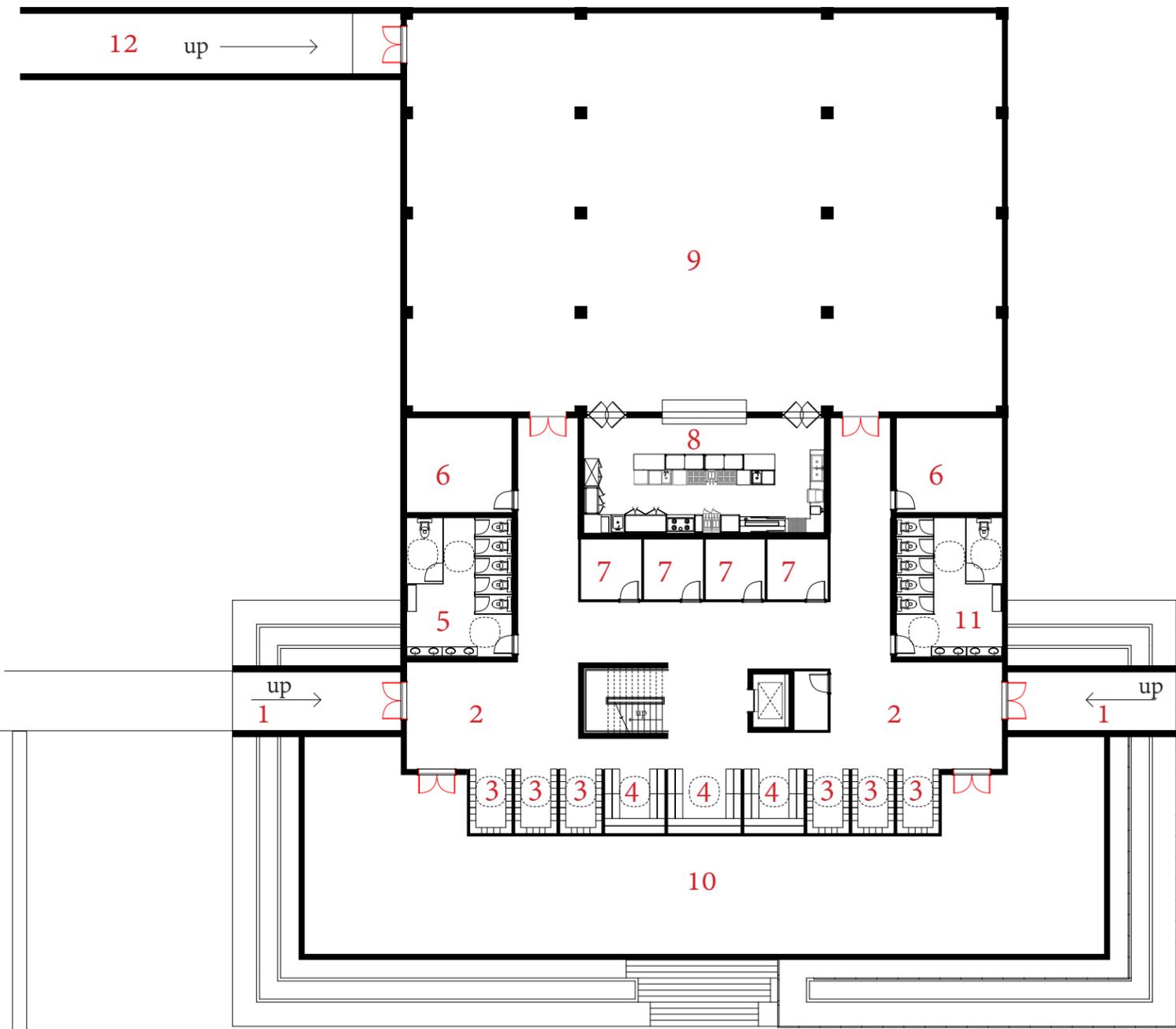
The community hall has an entrance from the north and south sides of the building, and an emergency exit at the back. The whole program of the hall is placed around the stairs and elevator. Upon entering one finds shoe and coat racks, with

a large storage area behind them. The four smaller rooms are provided which can be adapted to the needs of the community. For example, an office, library and study rooms. Two larger room are designed to accommodate feeding and napping areas for younger kids. There is a kitchen large enough to cook for 500 people and washrooms on both sides. Lastly, the community hall a flexible space to accommodate for large gatherings, dining and cultural events (figures 103-105). It can therefore be set up in different configurations depending on the event. The same general palette of materials is used in the special areas of the hall as in the temple above, although the community hall is a simple rectangular geometry with drywall, a series of columns to address the large span and weight of the temple above, and a gridded series of lights in the flat ceiling of the hall. Natural skylights and clerestory lighting along the walls of the plinth introduce natural light into the large hall, especially in the kitchen and serving area.

### Materials and Ornamentation

Materials chosen in this project aim to recreate the feelings of a traditional temple and nature, in doing so they also become a part of ornamentation. In addition to the five senses mentioned earlier, ornaments in this temple design are expressed through layering materials, which can either be expressed through simplicity or complexity. One of main instructions in the *vāstuśāstra* is to construct the temple without any mechanical fasteners. It has been attempted to follow this rule, thinking about the details and fasteners being a function of prefabricated and pre-cut wood structures, as well as poured concrete and the use of wooden-dowels for wood to wood connections. If built, this would involve craftsmen and the builders on the site executing the construction of the *mandir* according to this sacred process.

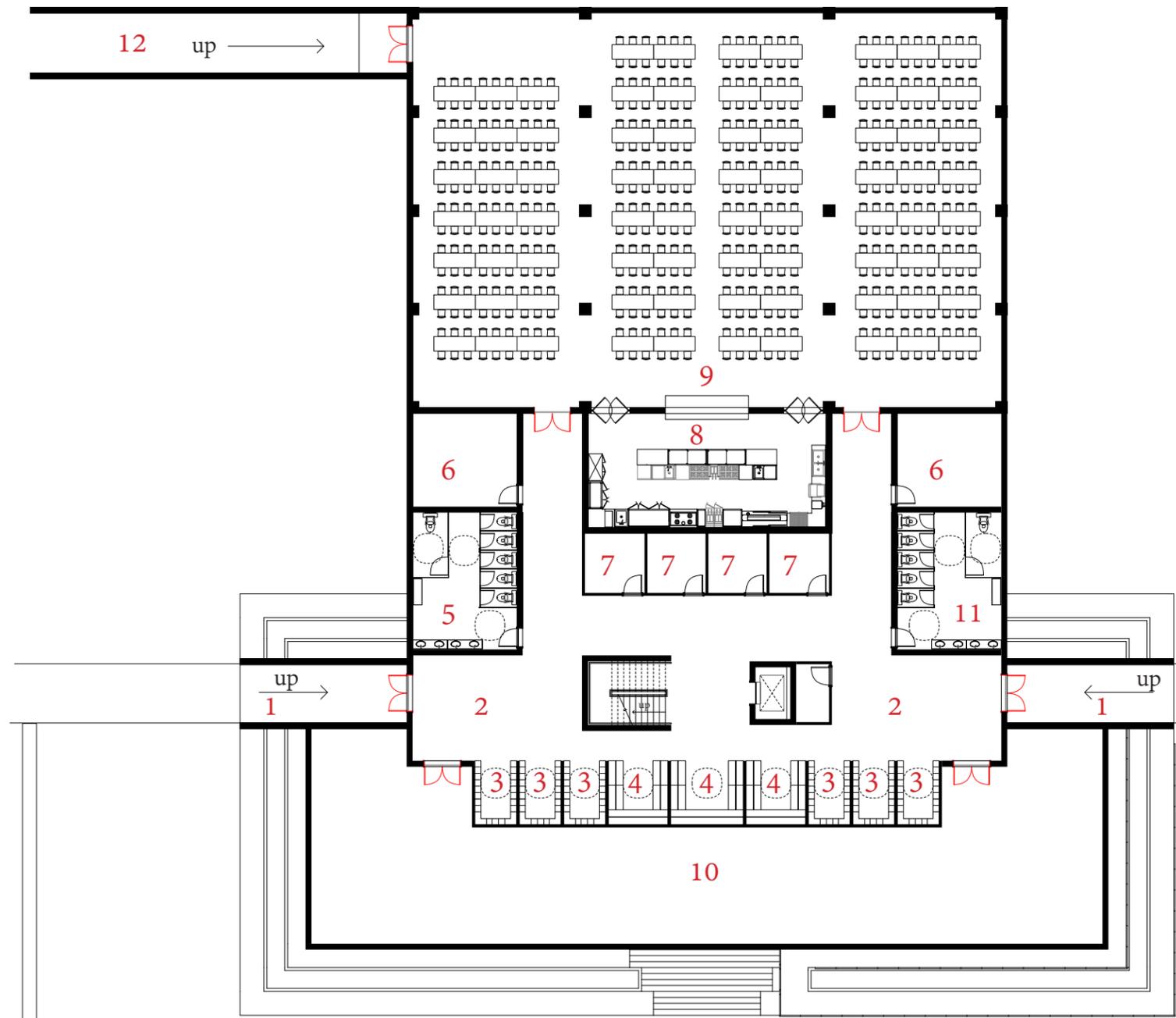
The following materials were inspired from nature and elements used during daily worship. The concrete used when poured in certain conditions relates to stone and caves. Using cedar wood mirrors nature, while the corten steels rusting effect resembles sandstone. Lastly, the copper used



**Ledgend**

- 1 - Hall Entrance
- 2 - Entrance Corridor
- 3 - Shoe Rack
- 4 - Coat Rack
- 5 - Female W/C
- 6 - Feeding/resting Area
- 7 - Additional Rooms
- 8 - Kitchen
- 9 - Large Hall (Flexible Space)
- 10 - Storage Room
- 11 - Male W/C

- 12 - Emergency Exit From Hall
- 13 - Outdoor Forecourt
- 14 - View to Bethel Lake



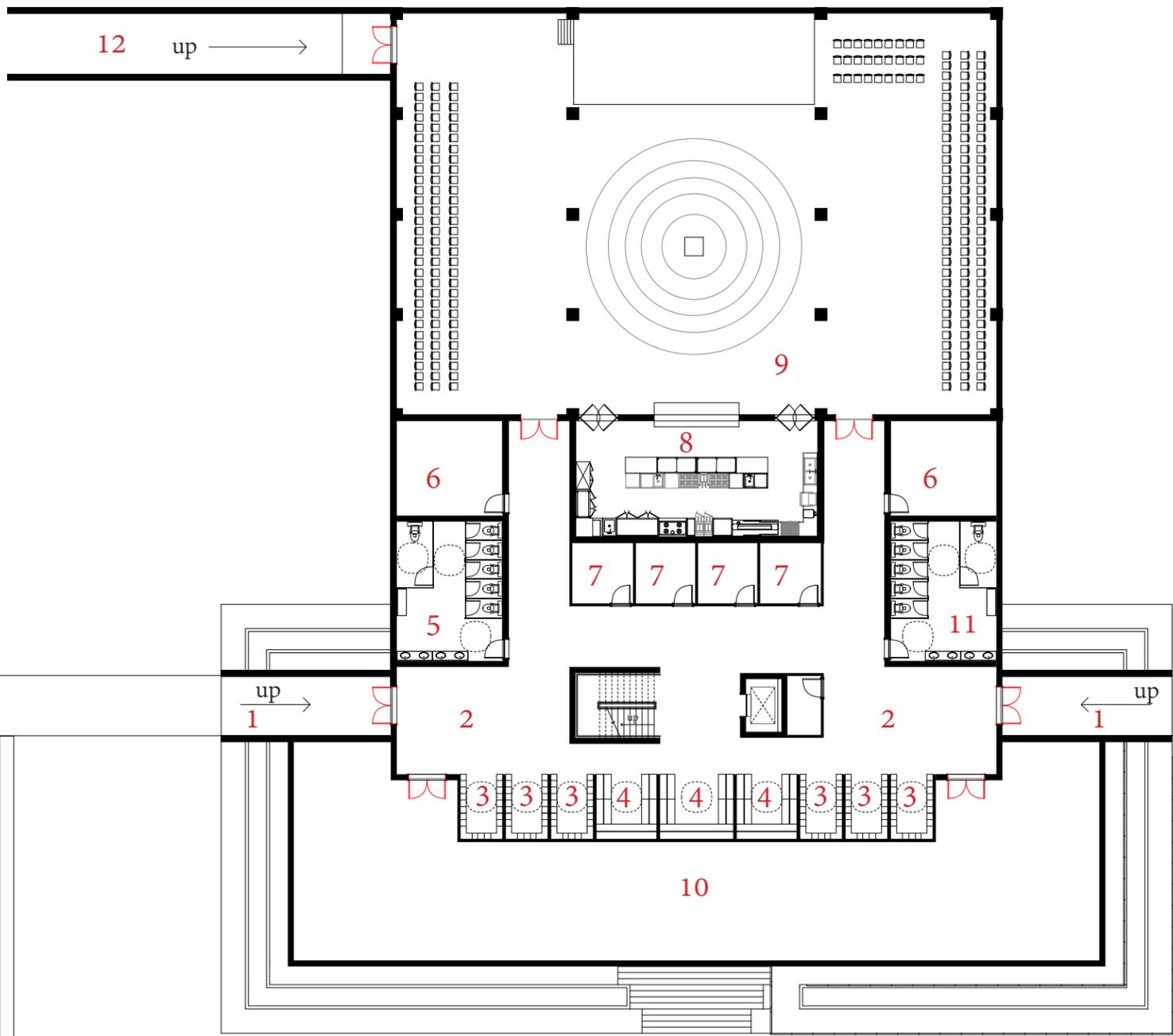
**Ledgend**

- 1 - Hall Entrance
- 2 - Entrance Corridor
- 3 - Shoe Rack
- 4 - Coat Rack
- 5 - Female W/C
- 6 - Feeding/resting Area
- 7 - Additional Rooms
- 8 - Kitchen
- 9 - Large Hall (Flexible Space)
- 10 - Storage Room
- 11 - Male W/C

- 12 - Emergency Exit From Hall
- 13 - Outdoor Forecourt
- 14 - View to Bethel Lake

Figure - 103  
Community hall plan arrangement 1  
Drawn by Author

Figure - 104  
Community hall plan arrangement 2  
Drawn by Author



**Ledgend**

- 1 - Hall Entrance
- 2 - Entrance Corridor
- 3 - Shoe Rack
- 4 - Coat Rack
- 5 - Female W/C
- 6 - Feeding/resting Area
- 7- Additional Rooms
- 8 - Kitchen
- 9 - Large Hall (Flexible Space)
- 10 - Storage Room
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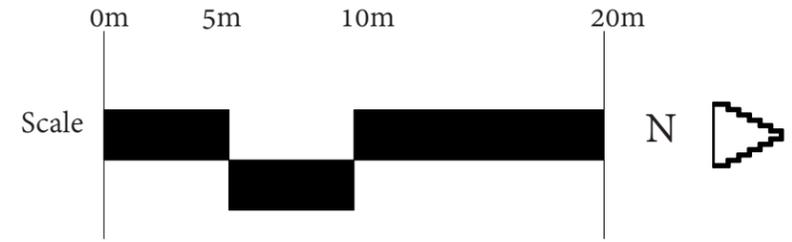


Figure - 105  
Community hall plan arrangement 3  
Drawn by Author

comes from the *kalasha* (pot full of water) that is normally used in *pūjās* (figure 106).

The Śiva Lingam is formed of black stone, while the idols of Lord Viṣṇu and Goddess Śakti are formed from white stone. Each of the idols sit on a marble plinth. The entrance hall and the sanctum have vitrified tiles on the floor, while the hall is layered with carpet. These tiles are designed to mimic the patterns of marble tiles. The carpet is added to provide warmth during prayer meetings as devotees sit on the floor. The first layer of the sanctum is created by board-formed concrete, to have an imprint of nature. In addition, inside the sanctum the concrete would have an exposed aggregate and the formwork would be stained in dark colors, prior to pouring the concrete. Once the form is removed, the concrete will be left rough, resembling a cave. The sanctum doors are made from cedar wood, that follow the inner curve of the sanctum (figure 107). These doors will be perforated, according to the wishes of the community. The next layer on top of the sanctum is comprised of copper and patinaed copper (figure 108). These layers span over the circumambulation area, and interact with each other, creating narrow yet accessible paths (figure 109). They not only represent the various petals of a lotus flower, but they also create a maze-like impression as seen in Drāviḍa temples. All of the frames that encapsulate glass are, stainless steel (local to the Nickel from Sudbury), while the trims are corten. The square and the circle are used to create a perforated *jali*, that also has a large lotus and the Hindu symbol 'Om' carved in the copper *jali* that is located in the large sanctum windows (figure 111).

Exterior materials include concrete, corten steel, translucent glass and cedar. As the cedar naturally ages it will create contrast with the corten, while also making the gold covered *kalasha* (cap piece) shine and can be seen from a distance (figure 112). The plinth is covered in red-brown colored pavers. Railings on the plinth and along the ramps can once again be seen using the symbolism of the square and the circle (figure 113). The stepping patterns which are carried from the Drāviḍa temples are present throughout the site, in terms of retaining walls, bleachers, canopy created in the front entrance and back exit, the squares which are present on either sides of the entrance

hall and lastly in the connecting passageway of the domes (figure 114). The community hall below has wooden doors that are framed in stainless steel, with reinforced concrete walls (figure 115). The bar counter at the kitchen is also framed in stainless steel, with a marble counter top (figure 116).

All Hindu temples have a bell. Just as any other temple the new *mandir* of Sudbury also incorporates bells into its design. A main brass bell (10" x 12") is hung in the passage between the entrance hall and the *maṇḍapa* (figure 117). This bell will be rung by each devotee as they enter the temple's hall of worship. Traditionally this bell would be hung in the *ardha-maṇḍapa* (entrance porch), which is not an enclosed space but has a roof over it. As this temple is located in the colder environment of Northern Ontario, the entrance porch is an enclosed space.



Figure - 117  
Larger bell for entrance hall  
Created for Fabrication 2 course  
Drawn by Author

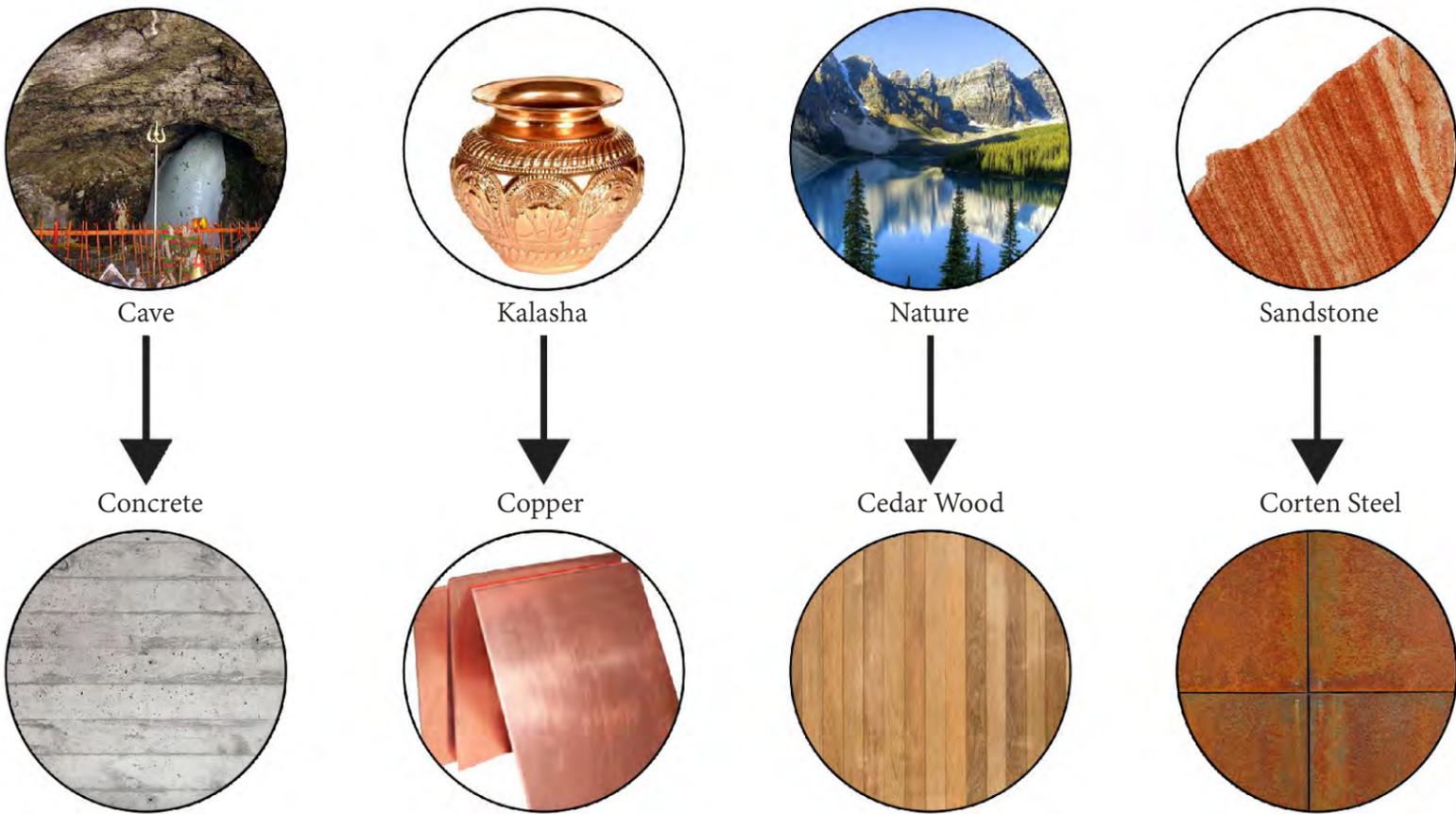


Figure - 106  
Material relations  
Drawn by Author

Figure - 107  
Interior materials  
Drawn by Author

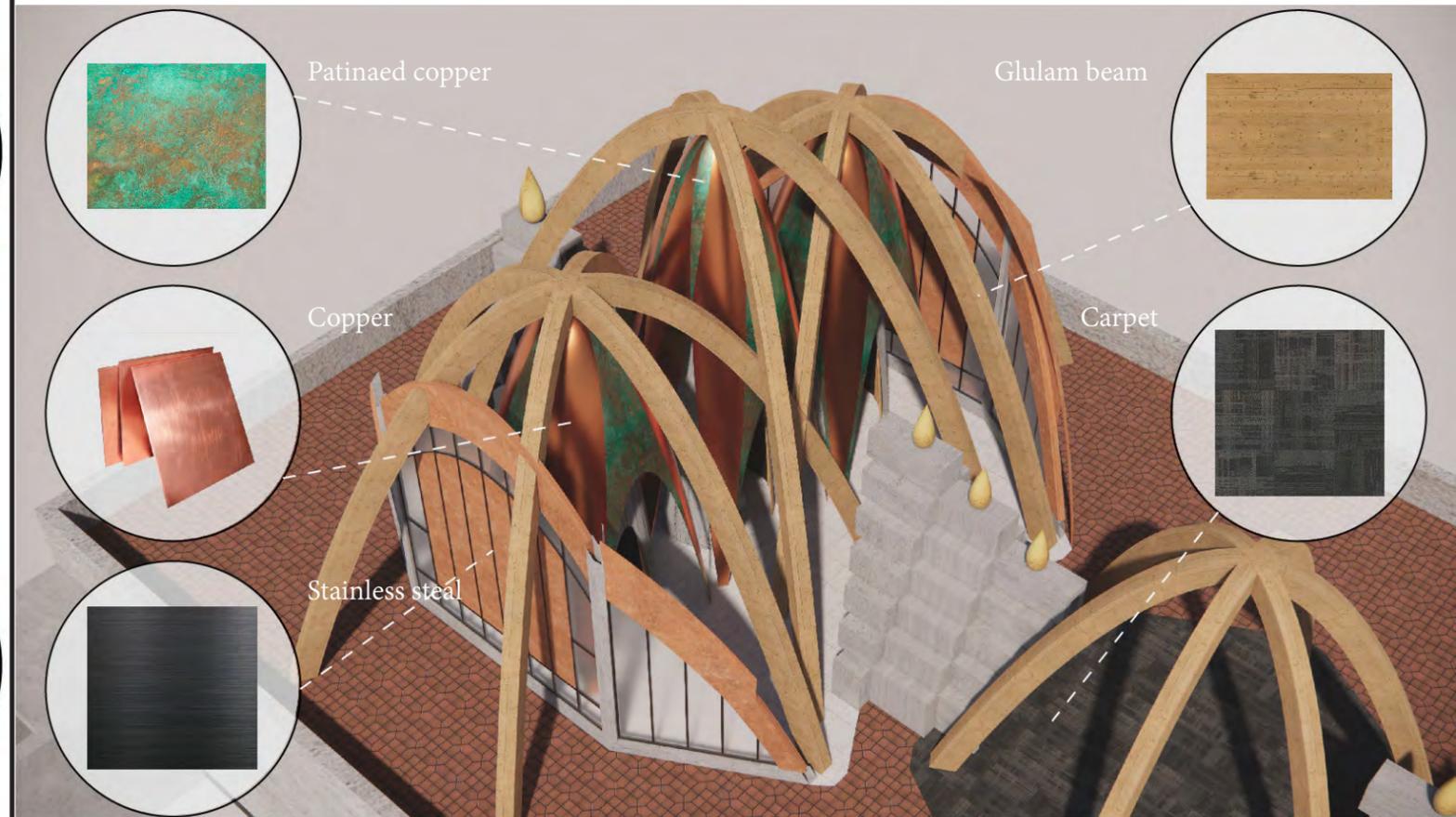


Figure - 108  
Interior materials 2  
Drawn by Author

Figure - 109  
Internal copper layers  
Drawn by Author

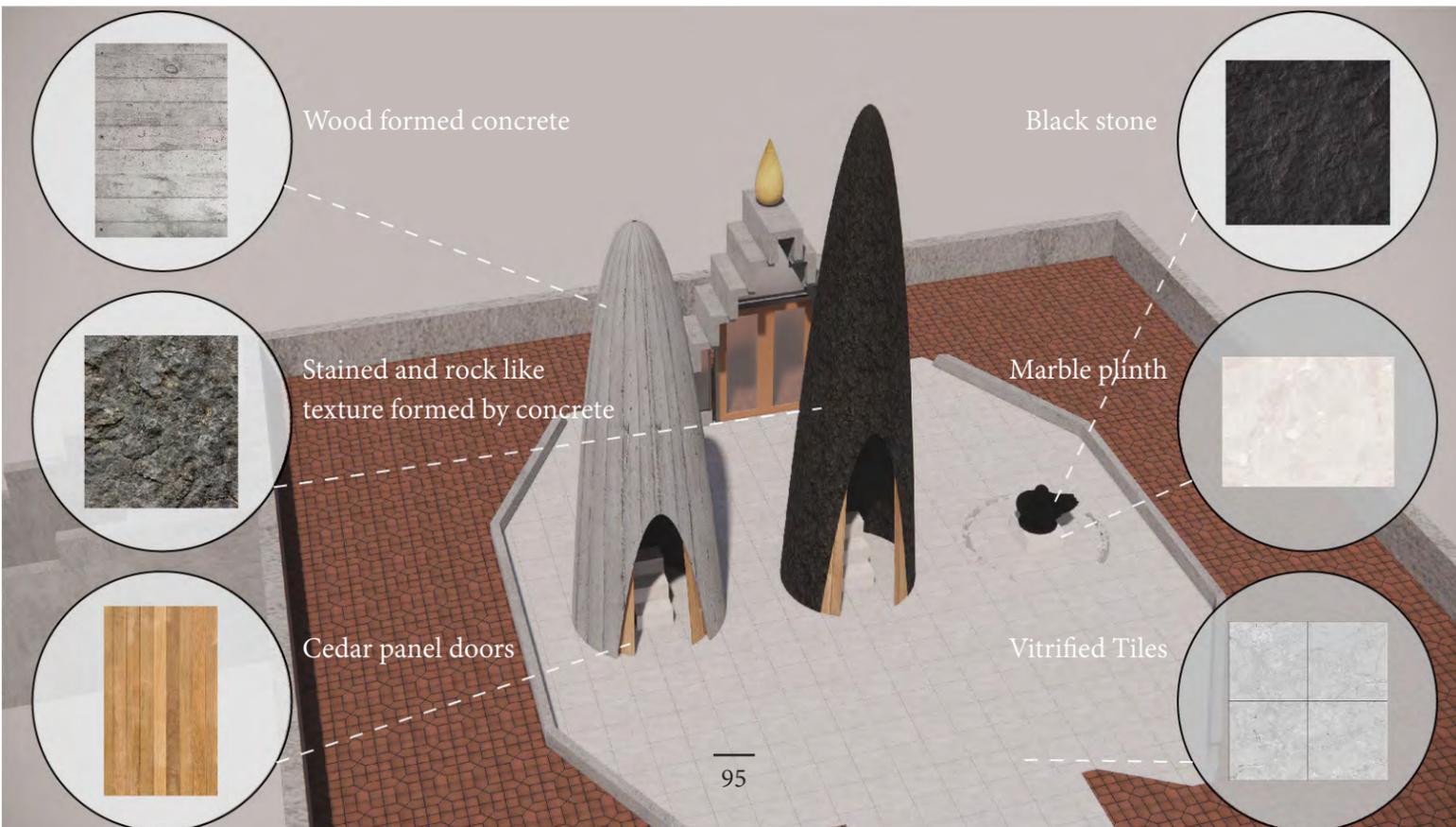


Figure - 110  
Glulam beams in sanctum  
Drawn by Author



Figure - 111  
Perforated jali  
Drawn by Author



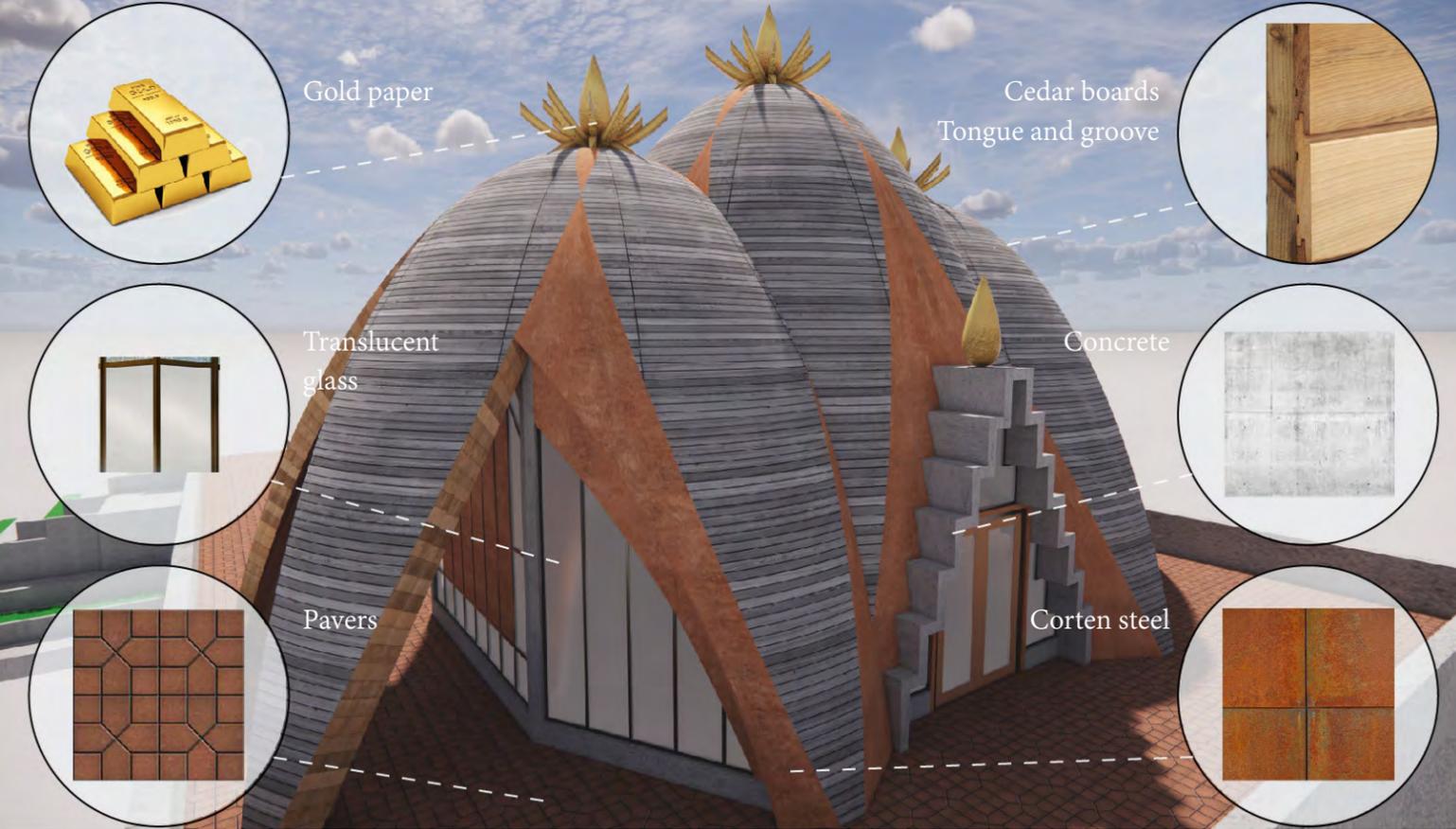


Figure - 112  
Exterior materials  
Drawn by Author

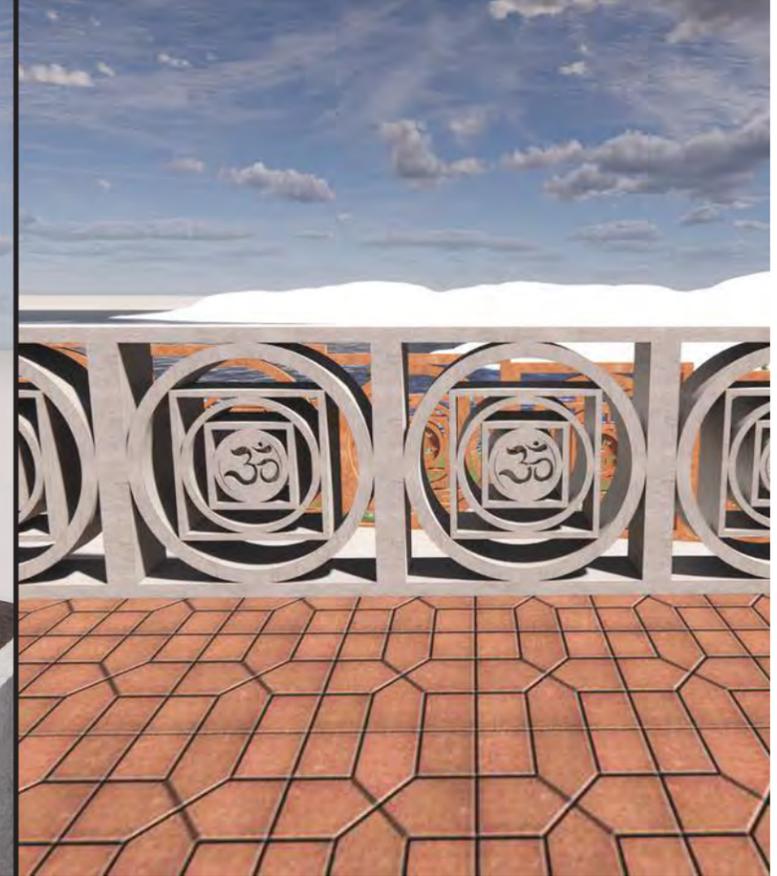


Figure - 113  
Railings that reflect the symbolism of the square and the circle  
Drawn by Author



Figure - 115  
Community hall entrance  
Drawn by Author

Figure - 114  
Passage connecting the domes  
Drawn by Author

Figure - 116  
Community hall kitchen  
Drawn by Author



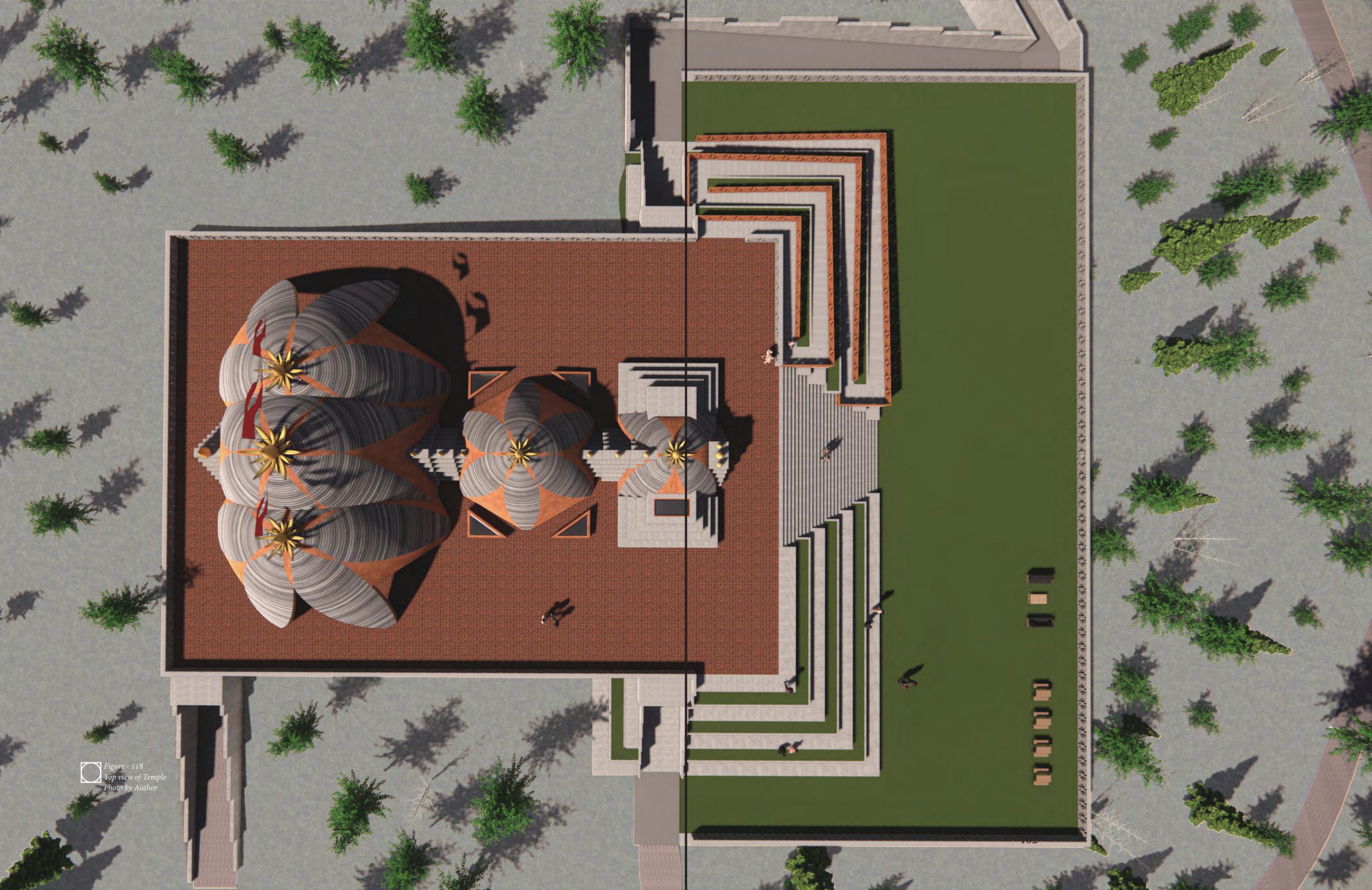
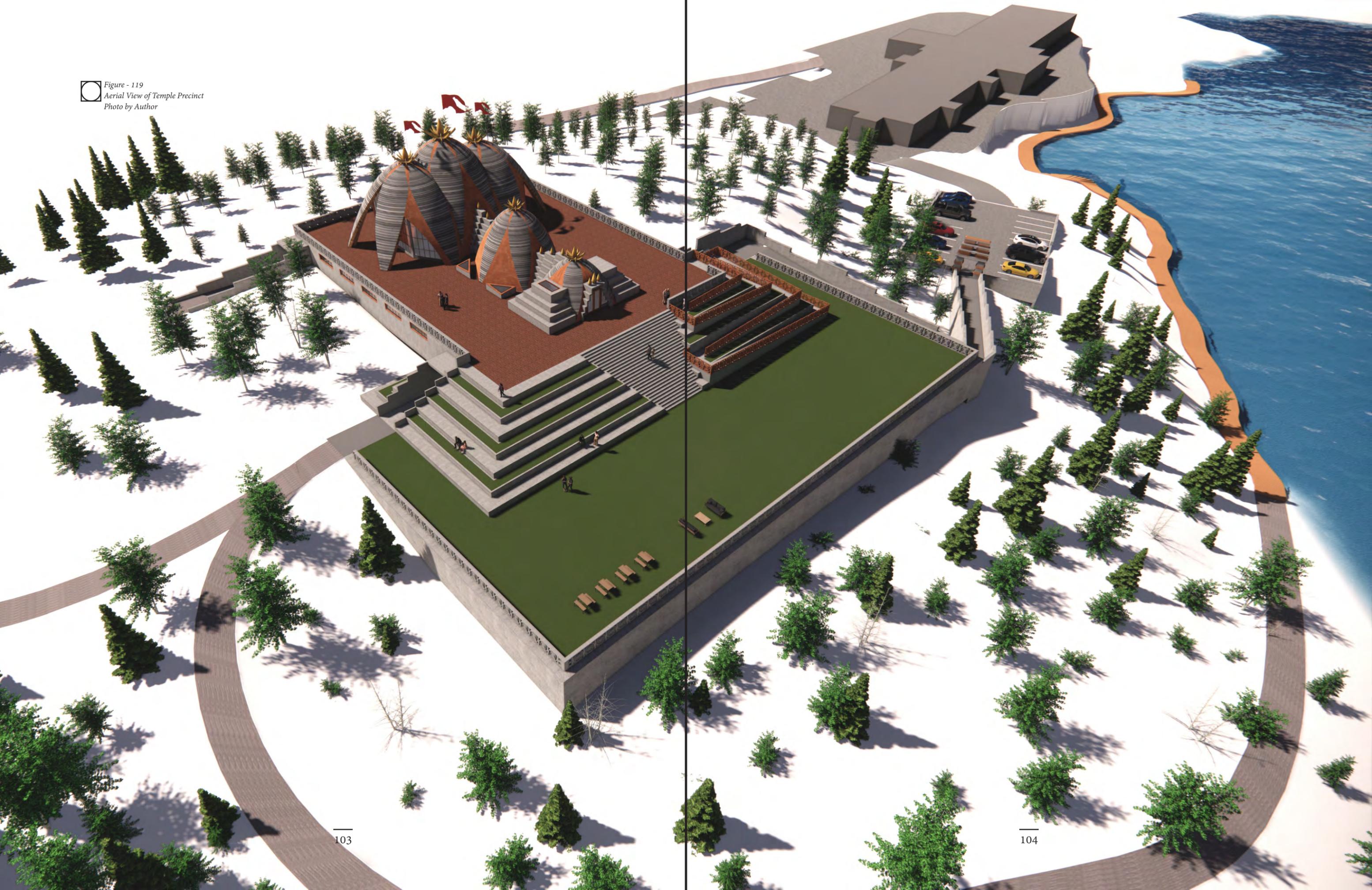


Figure - 118  
Top view of Temple  
Photo by Author

Figure - 119  
Aerial View of Temple Precinct  
Photo by Author



"To deliver the pious into annihilate the miscreants, as well as to re-establish the principles of religion, I Myself appear, millennium after millennium."

— Bhagavad Gītā 4.8

# Conclusion

## Part. 8

Figure - 120  
Exploration of geometries for Faculty Research  
Seminar course  
Photo by Author

The new Sudbury Prarthana Samaj *mandir* attempts to achieve the goal of being contemporary while clearly displaying traditional principles of sequence, temple geometry, overall massing and construction methods. Contemporary features are achieved through the overall design as individual *shikharas* create the entirety of the temple, with a temple plinth base that is nestled into the topography and has additional program. The overall program is thus temple and community hall, which would allow the existing Sudbury Hindu community to worship and celebrate in one place, as opposed to renting other halls as they do now. The material palette used, which responds to the geographical needs and the materials found within the region, furthers the notion of the temple being in a different climate and culture than in India. Whereas in traditional temples ornament is carved into the walls, columns, and ceilings, the ornamentation that is created by the use of local materials including cedar and nickel also responds to place. Many of the ancient principles discussed in this text have been addressed and creative solutions have been provided, including having three main sanctums that raise into three *shikharas*, viewing the water, site orientation and locating the temple on a high point with a magnificent view. This design is also establishing new boundaries of how traditional texts can still guide modern-traditional temple designs for Hindu Communities outside of India.

In one of the epics, 'Mahabharata' Arjuna becomes overly attached to the *māyā* (illusions) of this world, so Lord Krishna transforms into his supreme form and tells Arjuna the ultimate truth. In response Arjuna replies:

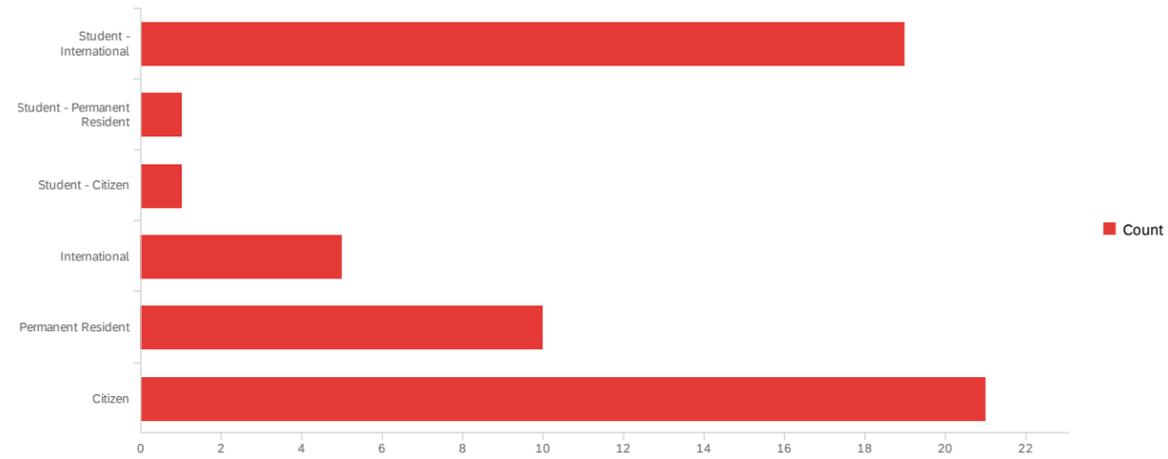
"You are the supreme primal objective. You are the ultimate resting place of all this universe. You are inexhaustible, and You are the oldest. You are the maintainer of the eternal religion, the Personality of Godhead. This is my opinion."<sup>91</sup>

<sup>91</sup> Prabhupada, *Bhagavad-Gita as It Is*, pg. 471.

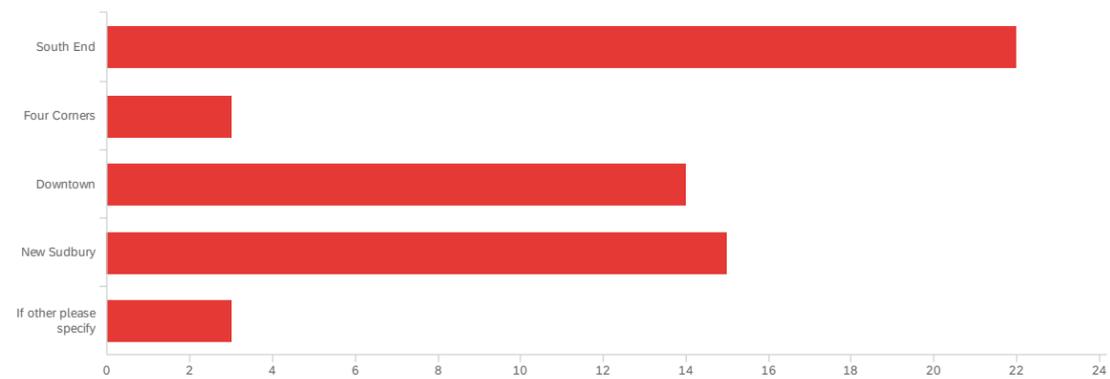
**APPENDIX**

*Sudburys Hindu community survey*

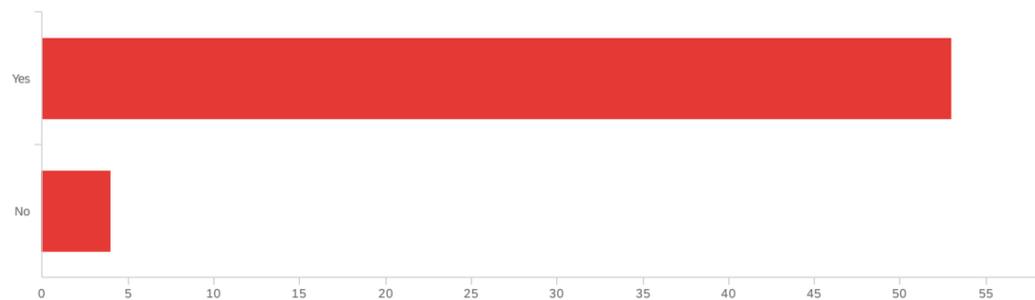
Q1 - How do you identify yourself?



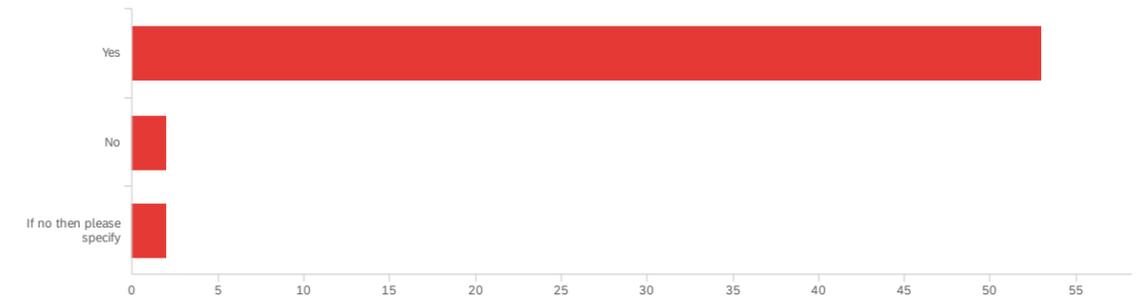
Q2 - What general area do you live in?



Q3 - Do you practice Religion?



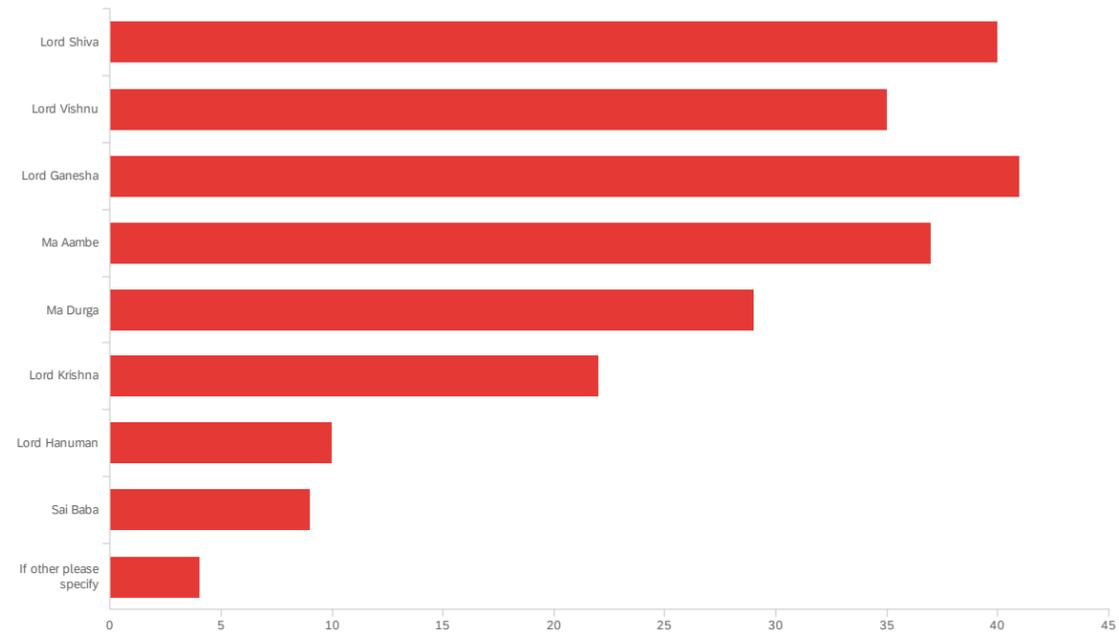
Q4 - Are you of Hindu faith?



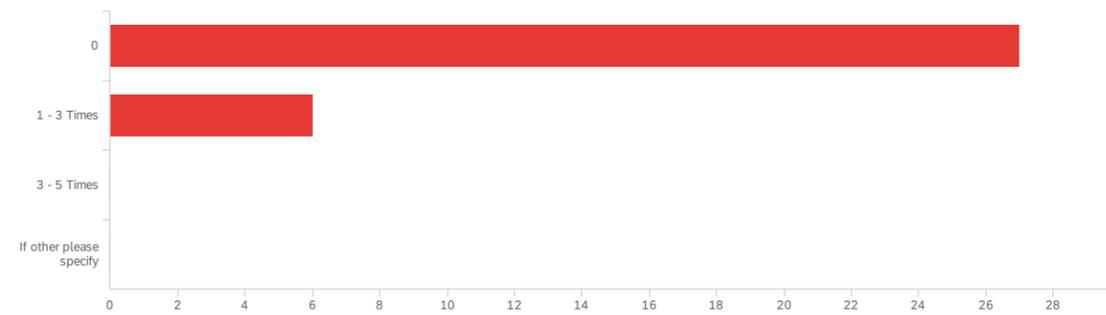
Q5 - What does Religion mean to you?

- Peace and happiness, faithful
- Religion to me means the faith for god
- A guide to live a quality life
- Teach in the best way how to live life
- My bliss and peace
- Cultural integrity set by great saints based on vedas
- Do some good activity for the community
- Root cause of existence
- That you are faithful what you believe in
- Humanity, help others
- Way of unification
- Religion is the belief that a person follows and sometimes worships
- Combination of science and spirituality
- Gives right direction
- I start my day with prayers! I believe in GOD! Religion is very important for me. It teaches me the principles of life!

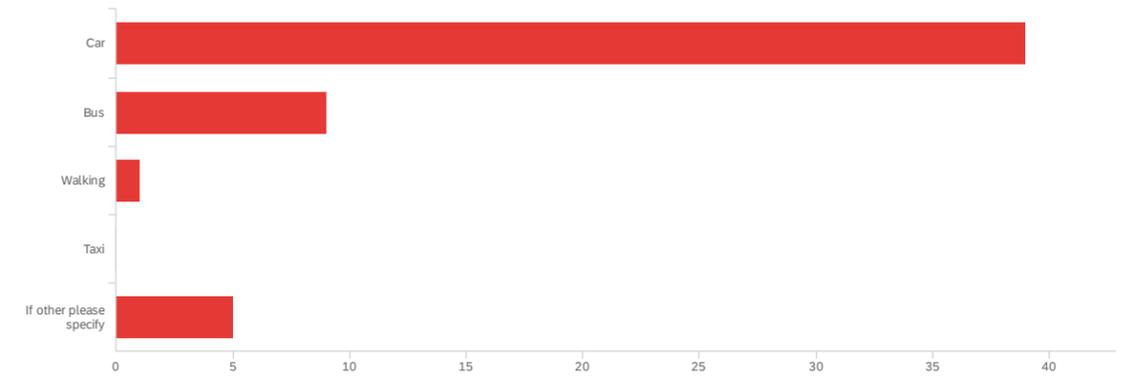
Q6 - What God, Gods or Goddess do you worship?



Q7 - How often in a month do you go to Sudbury Prathna Samaj?



Q8 - How would you get to Sudbury Prathna Samaj?

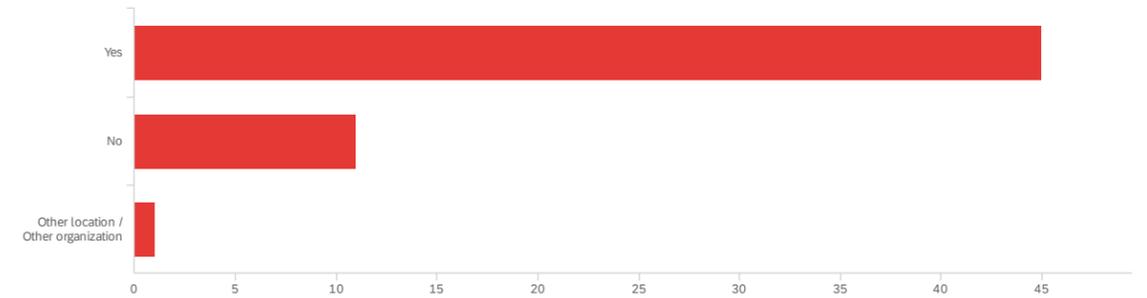


I am new to Sudbury and I didn't know this existed

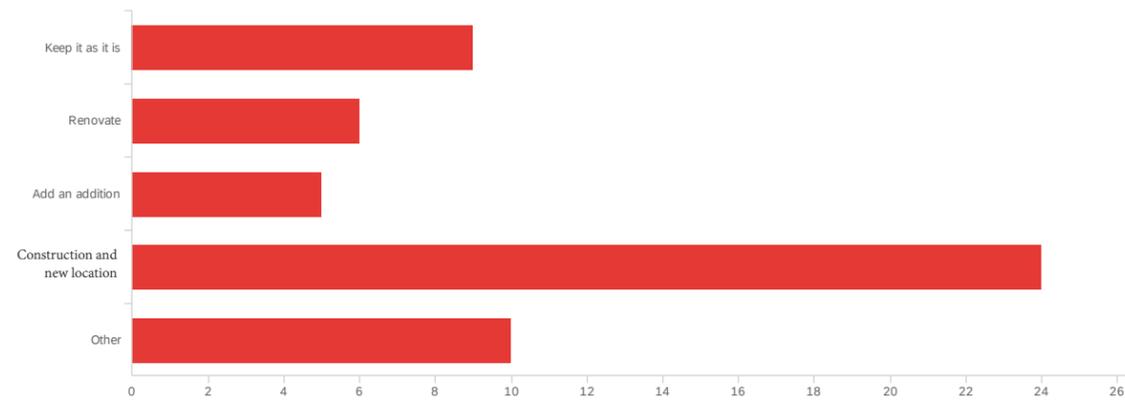
I pray at home

Q9 - Do you attend celebrations that happen in Sudbury Prathna Samaj? Ex. Navratri,

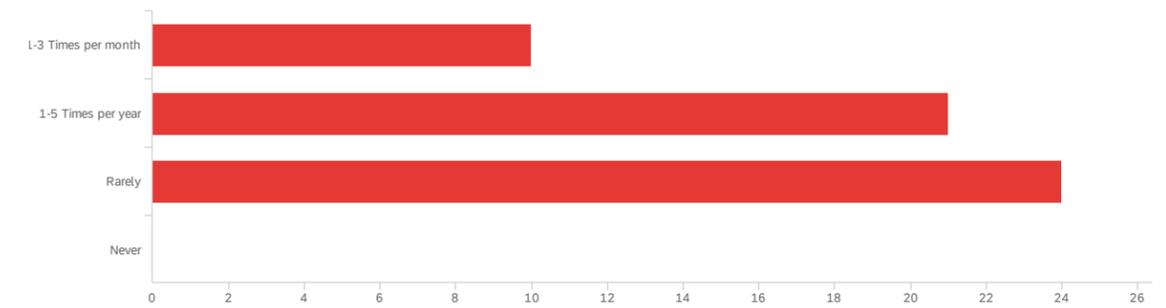
Diwali and other cultural events



Q11 - What do you think about the current Sudbury Prathna Samaj?



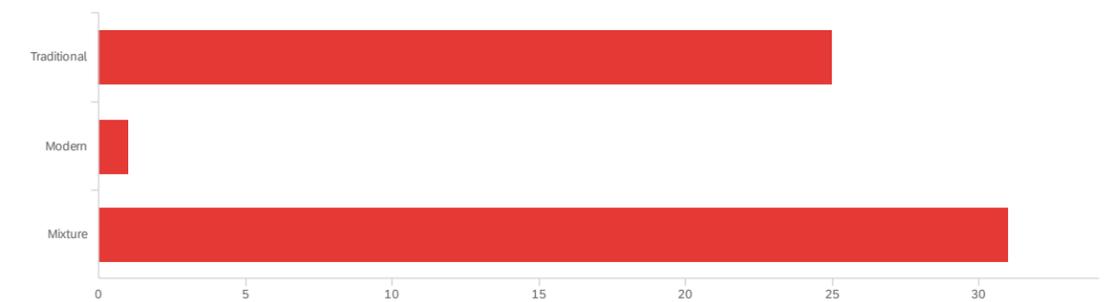
Q13 - Do you regularly go to visit other Hindu Temples in Toronto or elsewhere?



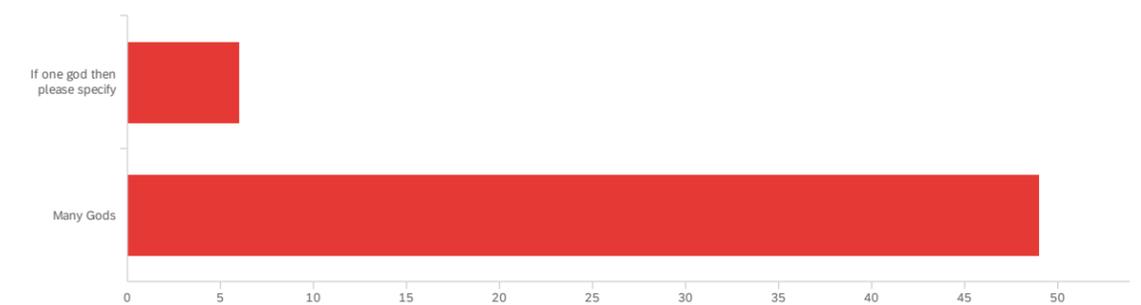
Q12 - What would you recommend as changes to the existing Prathna Samaj in Sudbury?

- New temple
- Need proper parking
- Need more space
- There is no structure of things. No backbone kind of a person who can take responsibility by being selfless
- Prarthana samaj belongs to all not a particular group
- If the worship is done there should be enough vibes same as India because we worship every day at our home something different make changes too
- Never saw, so don't have any clue
- Bigger hall and more comfortable sitting for seniors
- Need bigger space
- Car parking is a big problem. So need to consider an alternate location with car parking facilities
- It should be proper temple like we have in Toronto with Pandit and open every day for everyone
- Event area, better restroom facilities, more accessible
- Hours of worship
- Located and to get updates about it. Not everyone gets the chance to go there due to lack of information
- More celebrations of cultural and religious events

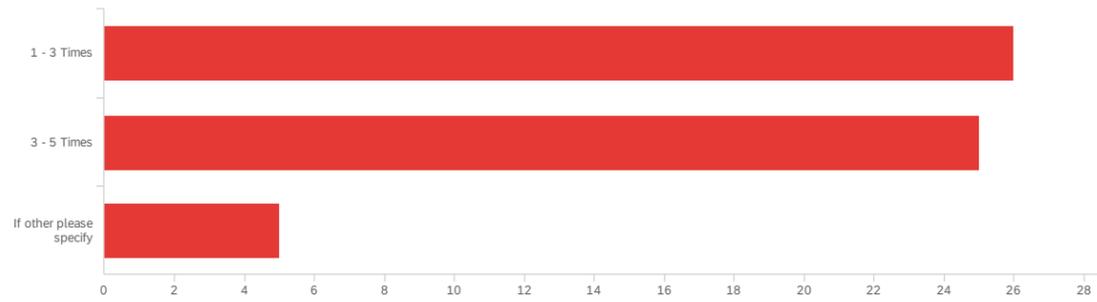
Q14 - What kind of a Temple do you prefer?



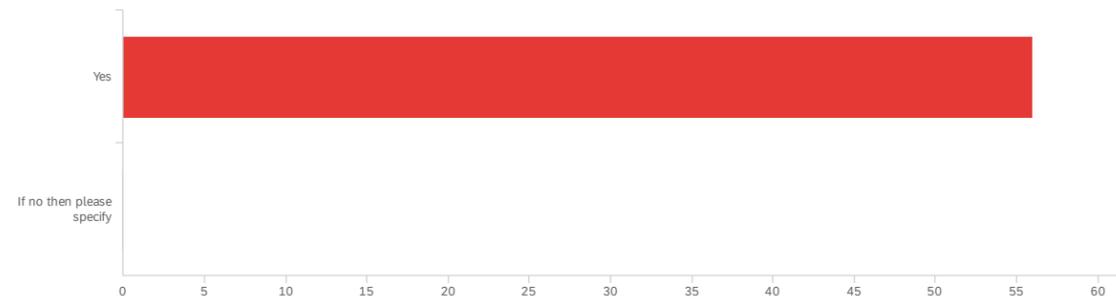
Q15 - Would you like the new Temple dedicated to one God or many Gods?



Q16 - If a new Temple is created in Sudbury, how often in a month would you go?



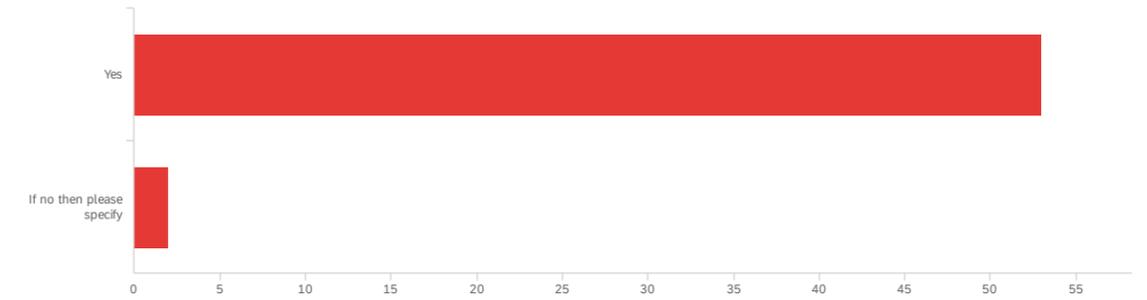
Q17 - With the new temple would you also like a space where everyone can gather during festivals and celebrations?



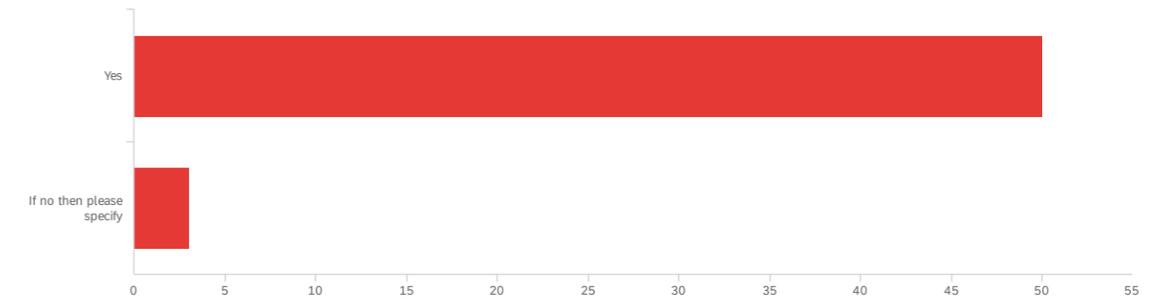
Q18 - What other cultural or religious events would you want to see incorporated into the design of a new Hindu Temple in Sudbury?

- Hall area where all religious activities can take palce
- Every festival should be celebrated. It should feel like you're at home
- Seminars of vedic knowledge that are applicable on daily basis
- Traditional values impacting daily life
- We just want a big hall so that we can get together and do other cultural events such as Gurpurabs and all
- Newcomer assistance, kitchen for homeless people, yoga classes

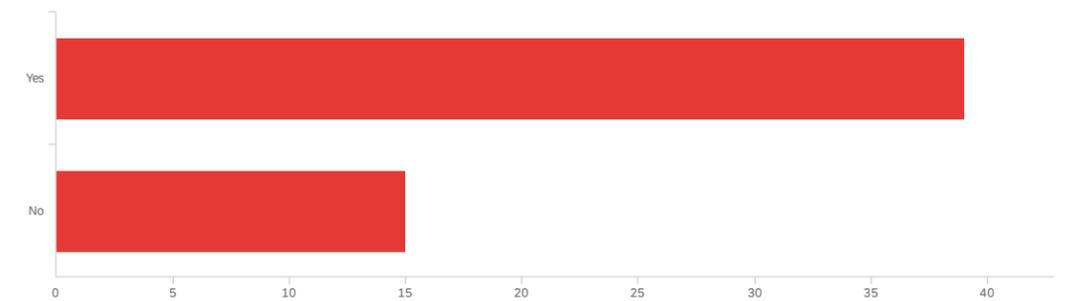
Q19 - Would you like dedicated areas for learning the Cultural language, dance, history, rituals Etc. ?



Q20 - Would you attend these classes or send your children's?

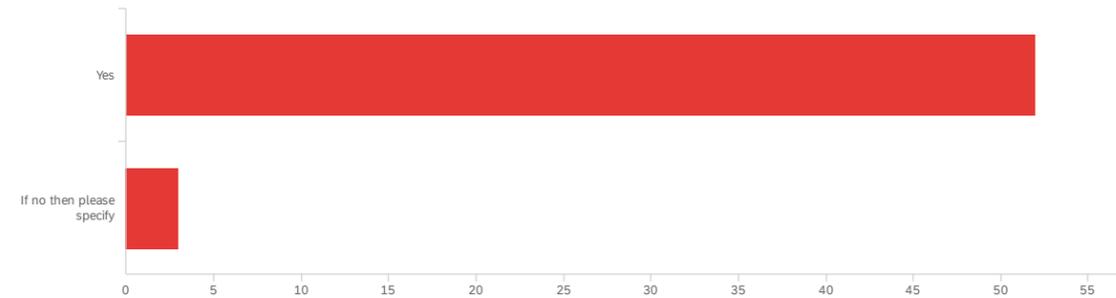


Q21 - Would you volunteer to teach one of those classes?



Q22 - Do you have a temple or any dedicated area for god in your house? or do daily

Puja?



Q23 - Coming from a place where Temples are everywhere, to a place where there is no Hindu Temple how do you feel? Has this affected you in any way?

- This was not a big transition as we have temple in our home
- Feel like missing culture
- Yes, we miss all the religious ceremony
- Not affected me in any way
- Pray by heart god is everywhere
- I miss going more often, but fortunatly I do have a friend who does all the ceremony and celebration at his home
- Yes, missing those positive vibes
- Has not really affected me as I have full-fledged temple and daily worship starting from Mangal arti to Shayan arti but, I feel bad for other people
- Not affected but back home going once in a week and now once in a year that too so far makes me miss those positive vibes in life
- Yes, we miss Hindu and Sikh temples
- Yes it does have an effect on my kids. They have not much knowledge about my religion which is sad
- Not really since I practice inner devotion
- Temple should be there for future generations, learn Hindu values from childhood
- No affect
- I don't think so because according to *Bhagavad Gita* god is everywhere
- Yes it was tough in the beginning because I used to go to temple regularly in my hometown. Now I am used to it, going to Toronto to visit temple whenever I can

Q24 - Is there anything else you would like to mention?

- Please make this happen
- Good wishes
- No
- Just keep it authentic, the purpose of temple is to please the Lord and Lord ONLY. Don't try to please the crowd
- If this project is successful and if I see a temple, I would be more than happy
- Government funding similar to Catholic school
- Just one advice, to put virtual information about Indian religions. So that these Canadians can learn our norms and values

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