

# The sacred, the mystical and the ritual: Exploring the relationship between mysticism and its manifestation in the Hindu temple

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In this study, we refer to aspects of the Hindu body of knowledge to explore the relationship between mysticism and its manifestation in the Hindu temple. We start by introducing two sets of foundational principles within Hinduism which are found in the multiple volumes of the *Vedas* and *Upanishads*. Principle A focuses primarily on the natural, physical dimension (*Dvaita*/dualism), and encompasses the aspects of the male and female tri-spirit; the male being *Brahma*, *Vishnu*, and *Shiva*, and the female being *Lakshmi*, *Saraswati*, and *Parvati*. Principle B focuses on the non-material, cosmic dimension (*Advaita*/non-dualism). In order to study the manifestation of said principles through geometry and fractal geometry, and its ability to facilitate ritual, we interpret a case study by referring to the framework of *Vastu-Shastra* (principles of spatial design and assembly) and of *Shilpa-Shastra* (principles of ornamentation and detailing). In the case study, we furthermore refer to *semiotics* - the study of meaning through signs and symbols, *hermeneutics* - the study of texts, and *poiesis* - the act of bringing something into being. The case study is focused on the Kailasha Temple in Ellora, central India, which serves as an example of an individual temple that is monolithic and produced through carving and subtraction. Through this case, we show how foundational principles of the *Vedas* and the *Upanishads* constitute the underpinning of how temple architecture is conceived and manifested, and how the unseen is being brought into the world of the seen through architecture.

**Keywords:** Sacred, mystical, ritual, Hindu temples

## Das Heilige, das Mystische und das Ritual: Erforschung der Beziehung zwischen Mystik und ihrer Manifestation im Hindu-Tempel

In dieser Studie untersuchen wir Aspekte des hinduistischen Wissens, um die Beziehung zwischen Mystik und ihrer Umsetzung in Hindu-Tempel zu untersuchen. Zunächst stellen wir zwei Gruppen von Grundprinzipien im Hinduismus vor, die sich in den zahlreichen Bänden der *Veden* und *Upanishaden* finden. Prinzip A konzentriert sich in erster Linie auf die natürliche, physische Dimension (*Dvaita*/Dualismus) und umfasst Aspekte der männlichen und weiblichen Dreigeister. Die männlichen sind *Brahma*, *Vishnu* und *Shiva*, während die weiblichen *Lakshmi*, *Saraswati* und *Parvati* sind. Prinzip B konzentriert sich auf die nicht-materielle, kosmische Dimension (*Advaita*/Nicht-Dualismus). Um die Umsetzung dieser Prinzipien durch Geometrie und fraktale Geometrie zu untersuchen, interpretieren wir eine Fallstudie, indem wir uns auf den Rahmen von *Vastu-Shastra* (Prinzipien der räumlichen Gestaltung und des Aufbaus) und von *Shilpa-Shastra* (Prinzipien der Ornamentik und Detaillierung) beziehen. In dieser Fallstudie beziehen wir uns außerdem auf die Semiotik - das Studium der Bedeutung von Zeichen und Symbolen -, die Hermeneutik - das Studium von Texten - und die Poiesis - die Tätigkeit, etwas Leben einzuhauchen. Die Fallstudie konzentriert sich auf den Kailasha-Tempel in Ellora, Zentralindien, der als Beispiel für einen individuellen Tempel dient, der monolithisch ist und durch Schnitzen und Subtraktion hergestellt wurde. Anhand dieses Fallbeispiels wird gezeigt, wie die Grundprinzipien der *Veden* und *Upanishaden* die Grundlage dafür bilden, wie die Tempelarchitektur konzipiert und umgesetzt wird, und wie dadurch das Unsichtbare sichtbar wird – mithilfe von Architektur.

**Schlüsselwörter:** Heilig, Mystisch, Ritual Hindu Tempel

In this paper, we will discuss Hindu mysticism and its architectural manifestation in Hindu temples. To do so we will first discuss foundational principles. We hope to show through this research that these spiritual principles, in conjunction with practices that underpin the Hindu body of knowledge, explicate the role of the temple as a sacred space and place in society.

## Foundational principles and practices of Hinduism, the *Vedas*

The term *Veda*, originating from Sanskrit, translates to “Knowledge” and represents the primary source of spiritual scripture in Hinduism, known as *Sanatana Dharma*, denoting the “Eternal Order” or “Eternal Path”. Considered sacred knowledge revealed through divine means, the *Vedas* encompass the fundamental understanding of existence, its purpose, and an individual’s connection with the divine. Notably, the *Vedas* have been transmitted through an oral tradition known as *guru-shishya sampradaya* (from master to disciple) until the Vedic period (1500 BCE to 500 BCE) in India (Mark 2020a).

Scholars generally agree that the earliest Vedic texts, particularly the *Rig Veda* (figure 1), were compiled between 4000 BCE and 1000 BCE.<sup>1</sup> Initially classified as *Shruti*, meaning “what is heard”, the *Vedas* were later recorded as *Smriti*, signifying “what is remembered/recorded” during the Vedic Period through written texts, thus there is no earlier record of its antiquity<sup>2</sup> (Debroy and Debroy 2000). The *Vedas* consist of four main volumes: the *Rig Veda* (knowledge of the sacred verses), *Yajur Veda* (knowledge of ritual/worship), *Atharva Veda* (knowledge of medicine/spells), and *Sama Veda* (knowledge of song/chants) (Pal *et al* 2023).

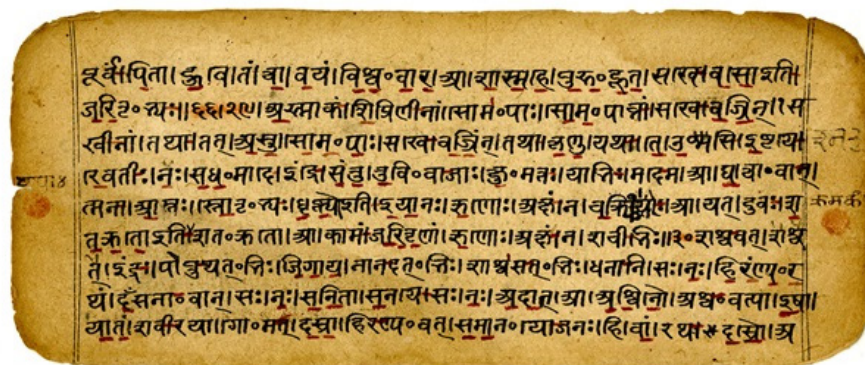


Figure 1  
Original *Rig Veda* scriptural artefact  
(retrieved from the public domain <https://www.bl.uk/collection-items/rig-veda>).

## The *Upanishads*

Apart from the *Vedas*, another set of seminal written scriptures known as *Upanishads* emerged. These annexures are considered *Shruti* (what is heard), resulting from profound spiritual inquiry

<sup>1</sup> See British Library. 2019. *Rig Veda ऋग्वेद*. Retrieved from <https://www.bl.uk/collection-items/rig-veda> on 30 May 2023.

<sup>2</sup> Antiquity refers to its earlier conception since it was first propounded through “what is heard” by revelation and only later recorded through written text as scripture.

into Vedic practices, discourse, and the divine. Among these annexures, the *Upanishads* hold paramount importance as they are found after each of the four *Vedas* and advocate monism and non-duality. They are believed to have been composed between 800 BCE and 500 BCE (Mark 2020b).

The term *Upanishad* translates to “sit down closely”, implying an intimate transmission of knowledge from spiritual master to disciple, rendering it a sacred text within the *Vedas*. The *Upanishads* are significant for their direct exploration of the *Vedas*’ complex aspects, including *moksha* (liberation) from *samsara* (cycle of birth and death), emphasising self-realisation. The *Upanishads* introduce us to the core teaching of *Tat Tvam Asi* – “Thou Art That” which underscores that all individuals already possess the “Divine Spark” within and must realise this truth. This understanding of human existence forms the bedrock of *Sanatana Dharma*.<sup>3</sup> The *Upanishads* offer guidance on how to embrace and live this understanding (Mark 2020c).

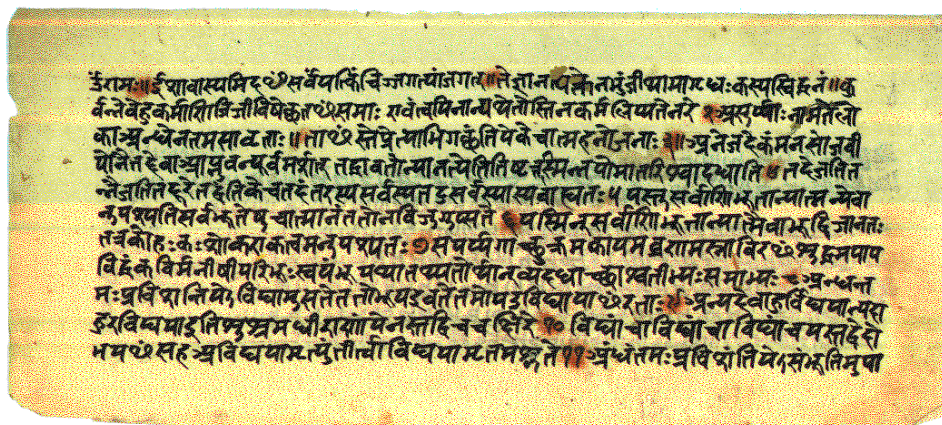


Figure 2

Original Isha-Upanishad scriptural artefact (retrieved from the public domain <https://iskcondesiretree.com/profiles/blogs/the-upanishads-an>).

## Facets of Brahman: *Tri-Murti* (masculine) and *Tri-Devi* (feminine)

In addition to the *Vedic* and *Upanishadic* texts, the *Puranas* are a collection of scriptures found within *Vedic* literature, expounding knowledge pertaining to the various aspects of mythology and genealogy of the *Trimurti*, *Tridevi* and other celestial beings found within Hinduism.

As per the *Puranas*, the *Trimurti* comprises of *Brahma*, *Vishnu*, and *Shiva* and the *Tridevi* consists of *Lakshmi*, *Saraswati*, and *Parvati* (figures 3 and 4) who symbolise distinct facets of *Brahman* (universal consciousness) and their cosmogonic roles in the universe (Bailey 1979). *Brahma* represents creation, *Vishnu* preservation, and *Shiva* destruction and transformation. The interplay of these masculine deities maintains harmony and order, ensuring the eternal rhythm of existence. The *Tridevi*, as their feminine counterparts, play significant roles in the universe. *Lakshmi* signifies wealth and prosperity, *Saraswati* embodies knowledge and wisdom, while *Parvati* exemplifies energy and creativity (Kushwah 2022).

<sup>3</sup> *Sanatana Dharma* being the original term for Hinduism according to the Sanskrit language. The word “Hinduism” is an exonym (a name given by others) from the Persians who referred to the people living across the Indus River as *Sindus*. This later developed as the common term “Hindu” and “Hinduism”.

Together, the tripartite of masculine and feminine consorts illustrates the essence of Hindu spirituality and philosophy, reflecting the perpetual interplay of creation, preservation, and transformation that governs the universe and guides the journey of all living beings.

Building upon this understanding, our exploration includes six schools of *Vedanta*,<sup>4</sup> which represent the culmination of spiritual inquiry within Vedic thought and are considered the ultimate and final message of the *Vedas* (Chakrabarti 2010: 42). Among these schools, our discussion centres on *Dvaita Vedanta* (the school of dualism) and *Advaita Vedanta* (the school of non-dualism).



**Figure 3**  
**Black and white photograph of *Trimurti* sculpted relief,**  
**Elephanta Caves, Maharashtra (retrieved from the public domain <https://collections.vam.ac.uk/item/O81501/the-trimurti-photograph-unknown/>).**



**Figure 4**  
**Painting depicting the *Trimurti* and their *Tridevi* consorts left: *Brahma* and *Lakshmi*; centre: *Vishnu* and *Saraswati*; right: *Shiva* and *Parvati* (retrieved from the public domain <https://collections.vam.ac.uk/item/O69378/brhma-vishnu-and-shiva-painting-unknown/>).**

<sup>4</sup> According to Chakrabarti (2010: 42) *Vedanta* translates into the “end of the *Vedas*” and thus emanates various schools of *Vedanta* which is a culmination of the *Vedas* through various modes of inquiry such as *Dvaita Vedanta* (dualism) and *Advaita Vedanta* (nondualism).

## **Principle A: *Dvaita Vedanta* (school of dualism)**

*Dvaita Vedanta*, introduced by the philosopher Sri Madhvacharya in the thirteenth century in southern India, embraces a dualistic perspective of life. Sri Madhvacharya describes *Brahman* (universal consciousness) as the superior and perfect reality, possessing omniscience and omnipotence. *Brahman*, the supreme soul, is independent, while all other living beings (*Jivas*) and inanimate matter (*Jada*) are dependent on it. According to Madhvacharya, there are two orders of reality: *Svatantra*, which comprises *Brahman* alone as the independent reality, and *Paratantra*, which includes a dependent reality consisting of all beings (*Jivas*) and objects (*Jada*). The path to salvation or liberation (*moksha*) in *Dvaita Vedanta* lies in the practice of love and devotion (*Bhakti Yoga*) toward the supreme *Brahman*, who is compassionate and wise, knowing all aspects of the past, present, and future. Thus, the *Dvaitic* perspective proposes that the *Atman* (individual consciousness) and *Brahman* (universal consciousness) are essentially separate entities (Aakriti 2022).

## **Principle B: *Advaita Vedanta* (school of non-dualism)**

*Advaita Vedanta* is the school of non-dualism and contributes towards the foundational principle for exploring Hindu spirituality and transcendence. *Advaita Vedanta* is the philosophy which centres on the premise of radical non-dualism, derived from the volumes of *Upanishadic* texts. *Brahman*, the nondual reality, underlies all existence and transcends empirical plurality. *Advaitins*<sup>5</sup> assert the identity of the individual *Atman* with the universal *Brahman*, perceiving it as pure non-intentional consciousness. The leading exponent of this tradition is Adi Shankaracharya, an exegete, philosopher and teacher who systematised theories of metaphysics, language, and epistemology to communicate the philosophy of non-duality. His teaching methods aimed at liberating recognition of non-duality, synonymous with *moksha* (freedom/liberation) (Dalal 2021). Thus, the *Advaitic* perspective propounds that the individual *Atman* and universal *Brahman* are essentially the same entity (non-dual).

It is important to consider that the philosophy of *Advaita Vedanta* is not just a conceptual understanding but a direct realisation through personal experience. The teachings and practices of *Advaita Vedanta* aim to guide individuals towards the direct realisation of their true nature, beyond the limitations of the mind and the illusory nature of the world (*Maya*).

*Advaita Vedanta* establishes a framework for understanding the nature of reality and the true self and expands on the inherent non-dualistic perspective of Hindu spirituality and transcendence. This will become crucial when investigating the spatial language of the architecture of the Hindu temple.

## **Fundamental Canons of Vedic Architecture: *Vastu and Shilpa Shastras***

The principles of *Vastu-Shastra* and *Shilpa-Shastra* in Hindu temple architecture have their roots in the Vedic scriptures known as *Vastu-Vidya*,<sup>6</sup> which constitutes a comprehensive study

<sup>5</sup> *Advaitins* refers to scholars who belong to the school of *Advaita Vedanta* (non-dualism).

<sup>6</sup> *Vastu-Vidya*, a Vedic science founded on the laws of nature, adhering to solar and lunar trajectories, atmospheric conditions such as the effects of magnetic fields and gravitational force, wind direction and heat. *Vastu-Vidya* propagates the balance and coexistence between human-beings, the environment and the cosmos.

of architecture and construction. *Vastu-Shastra* combines the Sanskrit words *Vastu* (house or building) and *Shastra* (teaching or doctrine) (Mona 2022). It incorporates Hindu religious and transcendental principles that guide architecture and design.

*Vastu-Shastra's* origins can be traced back to the Vedic period, with references found in early texts like the *Rig Veda*, dating back to around 1500-1000 BCE. Its underlying philosophy seeks to harmonise architecture with the environment, considering the functional relationships between different architectural elements and incorporating geometrical diagrams (*yantra*) (figure 5) and strategic placement of structures. Adhering to these spatial principles is believed to attract positive energies from all directions and maintain harmony between human beings and the natural surroundings. *Vastu-Shastra* associates the human body with the five elements (fire, earth, water, air, and sky/space), each connected to a specific direction and influencing various aspects of human well-being (Mona 2022).

Consequently, *Vastu-Shastra* provides guidelines for spatial design, layout, and temple construction, aiming to create an auspicious environment that fosters spiritual well-being and enhances the connection between the individual and the divine. These principles consider orientation, proportion, measurement, and spatial organisation to establish a sacred, consecrated space that aligns with the cosmic order and facilitates spiritual practices within the Hindu temple (figure 6).

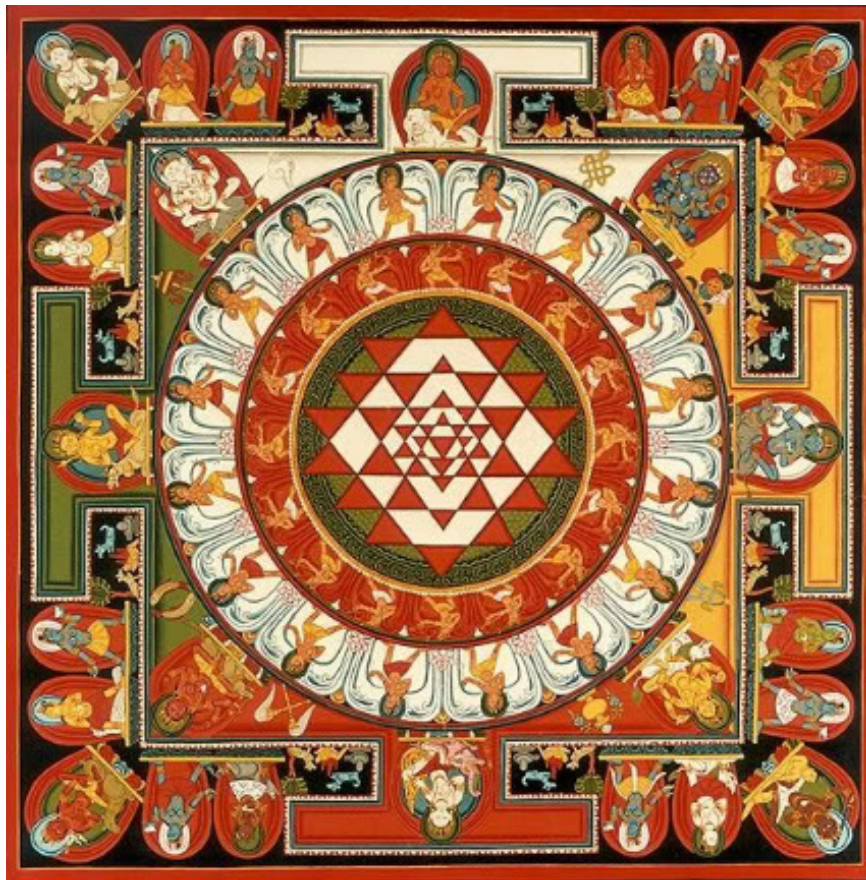
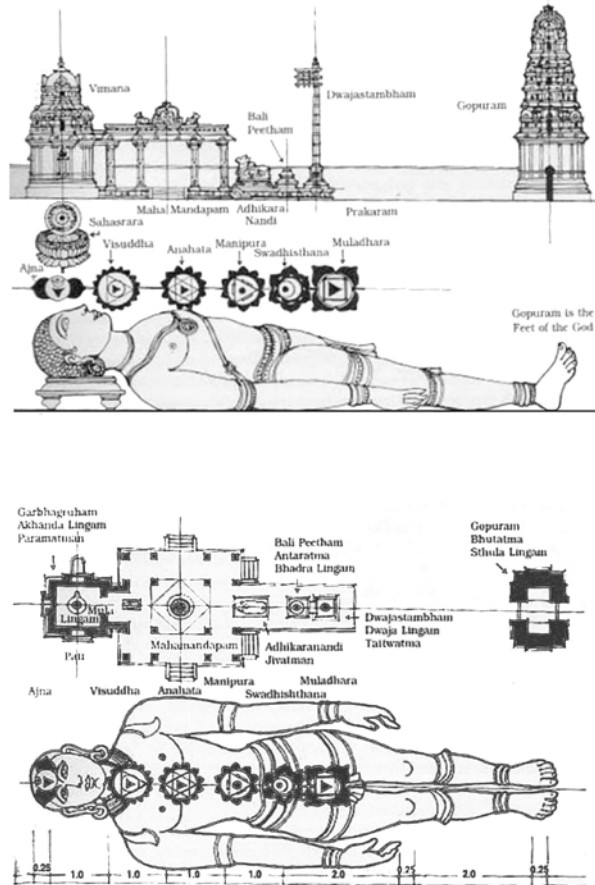


Figure 5

*Sri Yantra*, a metaphysical diagram of man in relation to the cosmos used in *Vastu-Vidya* (retrieved from the public domain <https://vedicvaastu.wordpress.com/tag/vastu/>).

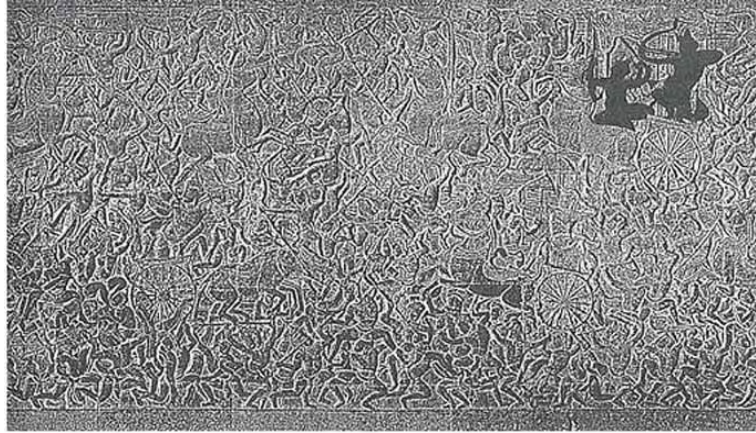


**Figure 6**  
Drawing illustrating the relationship between the structure and proportions of the human body relating to the Hindu temple (retrieved from the public domain <https://vedictribe.com/uncategorized/vaastu-shastra-hindu-temple-and-the-structure-of-human-body/>).

*Shilpa-Shastra*, on the other hand, focuses on the artistic aspects of the temple's architectural form, particularly ornamentation and detailing (figures 7 and 8). It encompasses disciplines of sculpture, iconography, painting, and decorative elements. *Shilpa-Shastra* aims to embellish the temple with intricate and symbolic artistic expressions, narrating stories and evoking a sense of divinity and transcendence (Vidyuta 2023).



**Figure 7**  
Shilpa-Shastra is seen through sculptural work depicting the epic *Kurukshetra* War at the Ellora Temple Complex, Maharashtra, India (retrieved from the public domain <https://www.dailyo.in/arts/hinduism-temples-storytelling-ramayana-mahabharata-ellora-ajanta-17060>).

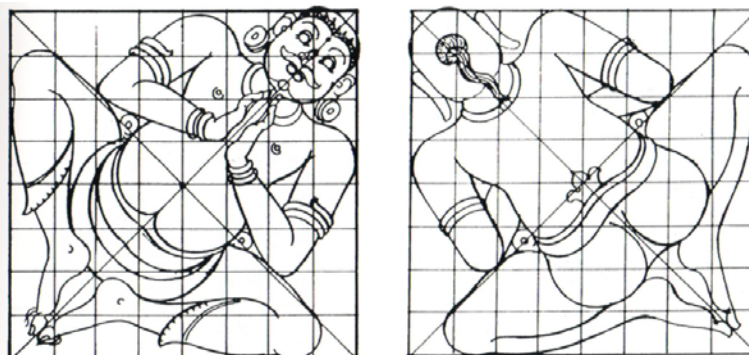


**Figure 8**  
**Shilpa-Shastra is seen through the sculptural motif illustrating the *Kurukshetra* War at Angkor Wat, Cambodia (retrieved from the public domain <https://www.dailyo.in/arts/hinduism-temples-storytelling-ramayana-mahabharata-ellora-ajanta-17060>).**

Together, these two frameworks help us explore how Hindu temples facilitate the ritual of transcendence through spatial design, construction, and ornamentation, embodying the profound connection between the physical and the spiritual dimensions.

### **Fractal geometric formation in Hindu temple architecture**

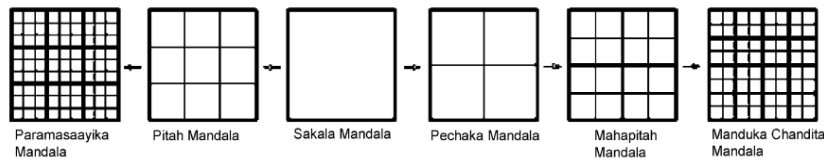
Hindu temple architecture establishes a significant connection between the human figure and a systematic approach to proportion. This relationship between geometry and architectural design has influenced renowned architects and engineers such as Vitruvius, Alberti, da Vinci, and Le Corbusier, who explored modular systems of measurement and proportion. The *Vastupurusha-mandala* (figure 9), a geometric representation in Hindu temple architecture, symbolises humanity and worldly dimensions through the geometry of a square while incorporating the geometric formation of the circle to represent the universe and cosmos beyond, conveying a sense of timelessness and infinity (Gurme and Patil 2017).



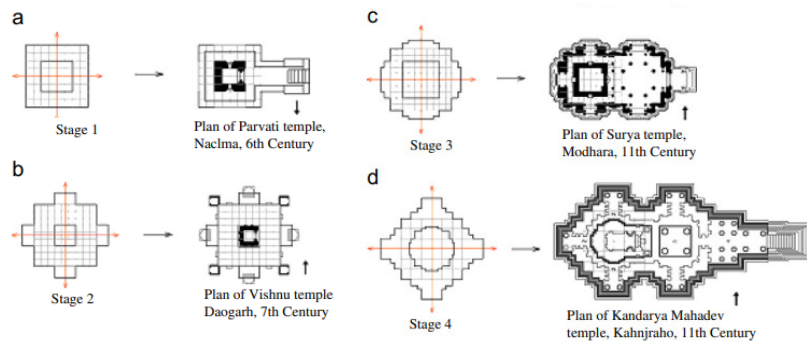
**Figure 9**  
***Vastupurusha-mandala*, an 8x8 grid totalling 64 squares representative of the cosmic man on Earth (retrieved from the public domain <https://architectureideas.info/2008/10/vastu-purusha-mandala/>).**

The *Vastupurusha-mandala* consists of a subdivided square arranged in a grid-like pattern, with each smaller square designated to specific deities and celestial beings. The configuration commonly includes 64 (8x8 grid) or 81 (9x9 grid) sub-divisional squares (*padas*), forming the foundational layout for all Hindu temples. The temple's design is based on this geometric arrangement, determining the thickness of walls, the placement of the presiding deity, and the circumambulatory path around the inner sanctum (*garbhagriha*). This geometric algorithm allows for the development of intricate temple compounds (Gurme and Patil 2017).

The use of *Vastupurusha-mandala* and other *mandala* arrangements results in the manifestation of fractal geometric formations in Hindu temple design, conveying philosophical concepts and evoking what is deemed as spiritual experiences. Through the interplay of geometrical patterns and proportions, Hindu temples embody the dualistic and non-dualistic aspects of existence, as expounded in *Dvaita Vedanta* and *Advaita Vedanta*, respectively. The temple's ornamentation and carvings represent sacred narratives, celestial deities, and various iconographies, reflecting the multifaceted nature of life's dualities. Simultaneously, the spatial emptiness and circumambulation within the temple symbolise a primordial non-dualistic space, where separateness dissolves into unity. According to *Vastu-Shastra*, fractal geometry is employed in the temple's design (figures 10, 11 and 12) to further reinforce a sense of the interconnectedness of the temple within the cosmos, epitomising the infinite nature of the divine and the universe (Trivedi 1989).

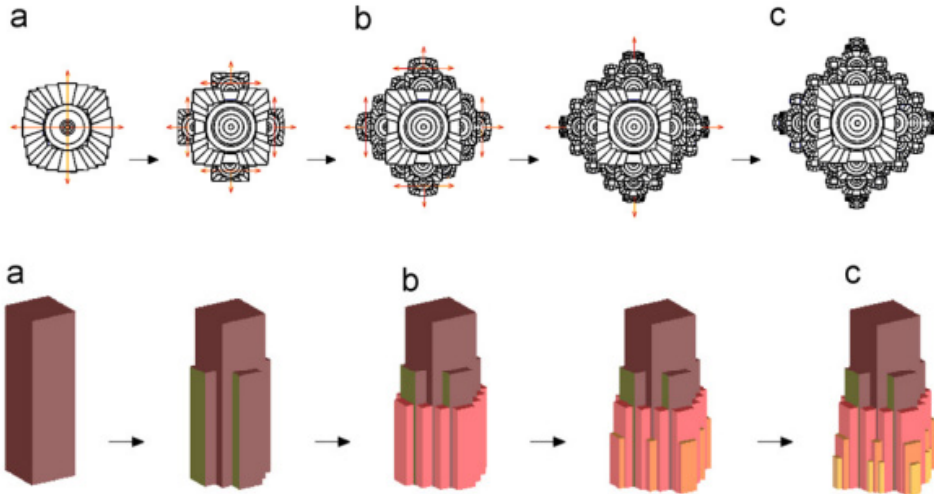


**Figure 10**  
Fractal characteristics of different mandalas and their iterations  
from the *Sakala-mandala*<sup>7</sup> (retrieved from the public domain [http://d-lab.kr/prof/2007\\_02.pdf](http://d-lab.kr/prof/2007_02.pdf)).



**Figure 11**  
Evolution of the plan derived from the *Vastupurusha-mandala*. Diagrams (a - d) illustrate the fractal geometric iterations and permutations of the plan in various Hindu temples (retrieved from the public domain [http://d-lab.kr/prof/2007\\_02.pdf](http://d-lab.kr/prof/2007_02.pdf)).

<sup>7</sup> *Sakala-mandala* consists of a single square (*pada*) where all four sides are ruled by celestial beings; the East is ruled by *Aditya* (sun), South by *Yama* (god of death), West by *Varuna* (god of waters) and North by *Soma* (moon).



**Figure 12**

**Diagrams (a-c) illustrating the evolution of fractal geometric formation in 2-dimensional plan and 3-dimensional form seen in Hindu temple architecture (retrieved from the public domain [http://d-lab.kr/prof/2007\\_02.pdf](http://d-lab.kr/prof/2007_02.pdf)).**

### ***Vedic science of sound and space***

The significance of sound-space relationships and the acoustic potential of sound resonance within spatial configurations are apparent in Vedic ideologies and practices (Prasad and Rajavel 2013). The Vedic subtle science of sound and space can be better understood by exploring the cosmological evolution of the universe and the role of the five natural elements associated with the five senses of perception. According to the *Vedas*, the manifestation of *Brahman* occurs in the *Atman*, which is the causal source for the emergence of the *Pancha Bhutas* (five natural elements) in the cosmos. These elements follow a sequential order of coming into being as seen below (Prasad 2009):

*Akash* (ether/space) is perceived through *Shabda* (sound).

*Vayu* (air) is perceived through *Sparsha* (sound + touch).

*Agni* (fire) is perceived through *Rupa* (sound + touch + form).

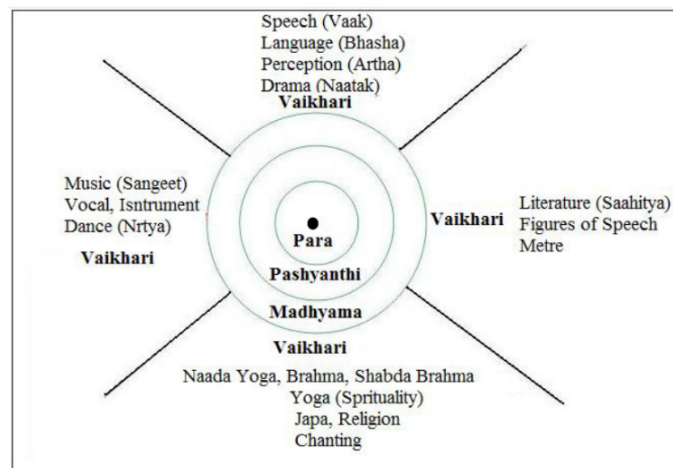
*Apah* (water) is perceived through *Rasa* (sound + touch + form + taste).

*Prithvi* (earth) is perceived through *Gandha* (sound + touch + form + taste + smell).

In the material world, the relation between *Dravya-Guna* (element-property) positions space as the element and sound as its property. Sound, being the foremost means, enables an individual consciousness to experience the universal consciousness, known as *Nada-Brahma* (sound of the Divine). This sequence signifies the cosmological evolution of the universe (figure 13; Prasad 2009).

In Hindu temple architecture, the subtle science of sound-space relations plays a central role in the design of *Mandapas* (congregation halls of varying scale and proportion). Here, the recitation of *slokas* (scriptures), ringing of tuned bells and chimes, and other ritual practices

are employed to influence and align the inner *chakras*<sup>8</sup> (subtle energy centres within the human body), promoting a state of balance, peace, and harmony in the body-mind complex. The temple's inner walls are specifically designed to amplify and reverberate sound, generated by chanting and playing of instruments, allowing participants to engage in the sacred sound-bathing of the scriptures (figures 14 and 15). Sound, considered sacred, holds paramount importance in spiritual upliftment, with the Hindu temple serving as a conduit for spiritual transcendence (Prasad 2009). The understanding of sound reverberation in space is closely related to the complex fractal geometric formations in Hindu temples.



**Figure 13**

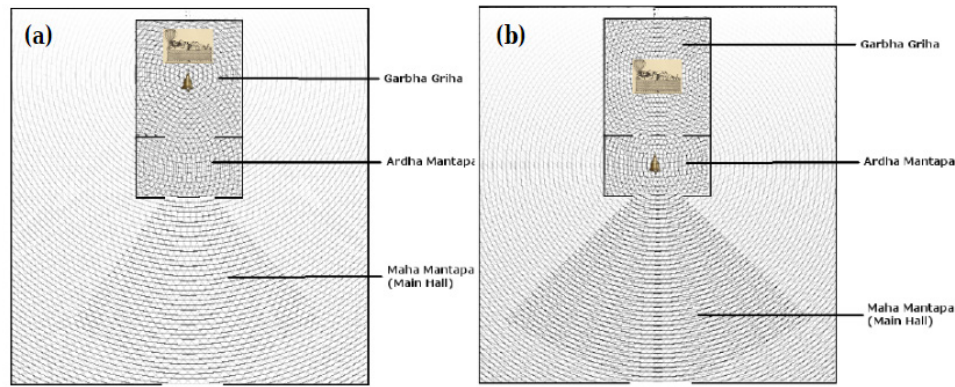
**Diagram illustrating four fields of sound according to the *Vedas* namely: *Para*, *Pashyanthi*, *Madhyama* (these three modes are internal to human speech), and *Vaikhari* (this mode is external to human speech and manifests in various ways)** (retrieved from the public domain [https://www.researchgate.net/publication/270758839\\_acoustics\\_of\\_chants\\_conch-shells\\_bells\\_and\\_gongs\\_in\\_hindu\\_worship\\_spaces](https://www.researchgate.net/publication/270758839_acoustics_of_chants_conch-shells_bells_and_gongs_in_hindu_worship_spaces)).



**Figure 14**

**Traditional instruments used in Hindu Temple worship (left: Conch-shell; centre: Bell; right: Gong)** (retrieved from the public domain [https://www.researchgate.net/publication/270758839\\_acoustics\\_of\\_chants\\_conch-shells\\_bells\\_and\\_gongs\\_in\\_hindu\\_worship\\_spaces](https://www.researchgate.net/publication/270758839_acoustics_of_chants_conch-shells_bells_and_gongs_in_hindu_worship_spaces)).

<sup>8</sup> *Chakras* are seven energy centres located within the spinal column, connected to the various organs and glands in the body. *Chakras* are responsible for distributing the life force/energy (*praana*). The seven centres are known as follows: *Muladhara* (root chakra: stability), *Svadhishthana* (sacral chakra: sexuality and pleasure), *Manipura* (solar plexus chakra: strength and determination), *Anahata* (heart chakra: love and compassion), *Vishuddha* (throat chakra: communication and expression), *Ajna* (third-eye chakra: intuition and meditation), *Sahasrara* (crown chakra: knowledge and consciousness).



**Figure 15**

Sound studies illustrating sound reverberation of bells in (a) *Garbhagriha* (inner sanctum) and in (b) *Ardha-Mandapa* (small congregation hall), additionally illustrating the effect of sound reverberation in the *Maha-Mandapa* (large congregation hall) (retrieved from the public domain [https://www.researchgate.net/publication/270758839\\_acoustics\\_of\\_chants\\_conch-shells\\_bells\\_and\\_gongs\\_in\\_hindu\\_worship\\_spaces](https://www.researchgate.net/publication/270758839_acoustics_of_chants_conch-shells_bells_and_gongs_in_hindu_worship_spaces)).

Through the elaboration of these foundational principles, we have developed a table, to serve as a theoretical framework, to interpret one of the oldest temples in North India (figure 16). The framework consists of three columns, where the first and second columns categorise the foundational principles into key concepts. The third extract, from the former two, architectural principles that will be used to describe and elaborate on the architectural characteristics of the Kailasha Temple.

| VEDAS + UPANISHADS          |                     | ARCHITECTURAL CONCEPTS                                                                                                                                                                                                              |
|-----------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BRAHMA</b>               | TRI-MURTI           | Masculine forces of nature                                                                                                                                                                                                          |
|                             | TRI-DEVI            | Feminine forces of nature                                                                                                                                                                                                           |
| <b>VEDANTA</b>              | DVAITA              | Philosophy of Dualism (many fragmented parts)                                                                                                                                                                                       |
|                             | ADVAITA             | Philosophy of Non-Dualism (singular whole)                                                                                                                                                                                          |
| <b>VASTU SHASTRA</b>        | BUILDING            | Orientation, proportion, measurement, and spatial organisation                                                                                                                                                                      |
| <b>SHILPA SHASTRA</b>       | ORNAMENTATION       | Ornamentation and detailing, sculpture, iconography, painting, and decorative elements                                                                                                                                              |
| <b>VASTUPURUSHA-MANDALA</b> | COSMIC DIAGRAM      | The square (man on earth) and the circle (divine order of cosmos)<br><br>Fractal geometric iterations in 2D and 3D (part-whole complex)                                                                                             |
| <b>PANCHA BHUTAS</b>        | 5 ELEMENTS          | Ether/space, air, fire, water and earth (from subtle to gross)                                                                                                                                                                      |
| <b>NADA-BRAHMA</b>          | SOUND OF THE DIVINE | Sound as primordial and perceivable to all 5 senses:<br>(ether/space) - sound<br>(air) - sound + touch<br>(fire) - sound + touch + form<br>(water) - sound + touch + form + taste<br>(earth) - sound + touch + form + taste + smell |

**Figure 16**

Diagrammatic illustration of the relationship between the Hindu philosophies and the architectural concepts found within the Kailasha Temple (source: the authors 2023).

## The Kailasha Temple

The Kailasha Temple stands as an extraordinary example of monolithic architecture situated alongside the Sahyadri Hills of Maharashtra, India (figures 17 and 18). The temple is located within the Ellora Cave complex which has been declared a UNESCO world heritage site. Carved entirely from a single massive rock, the temple showcases the concept of subtraction in early temple design and construction methods. Dedicated to Lord *Shiva*, it was constructed during the eight century by the Rashtrakuta dynasty and measures 60.96 metres in length, 30.48 metres in width, and 30.48 metres in height.<sup>9</sup>



Figure 17

*Gopuram* (reception gate) of the Kailasha Temple seen on the western elevation (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/>).

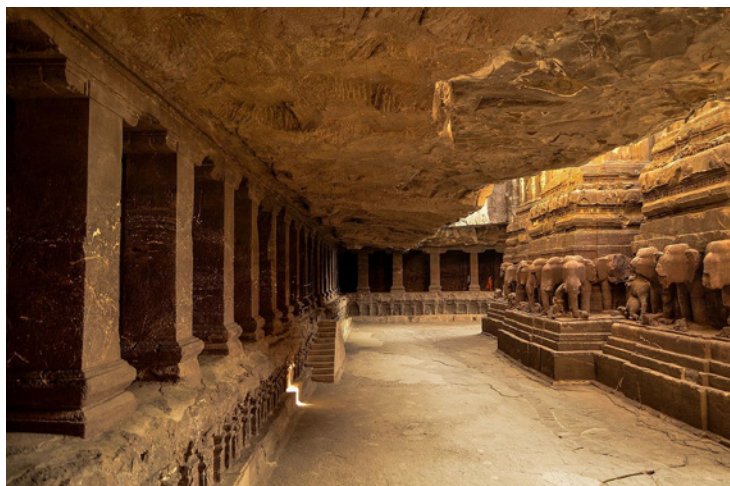
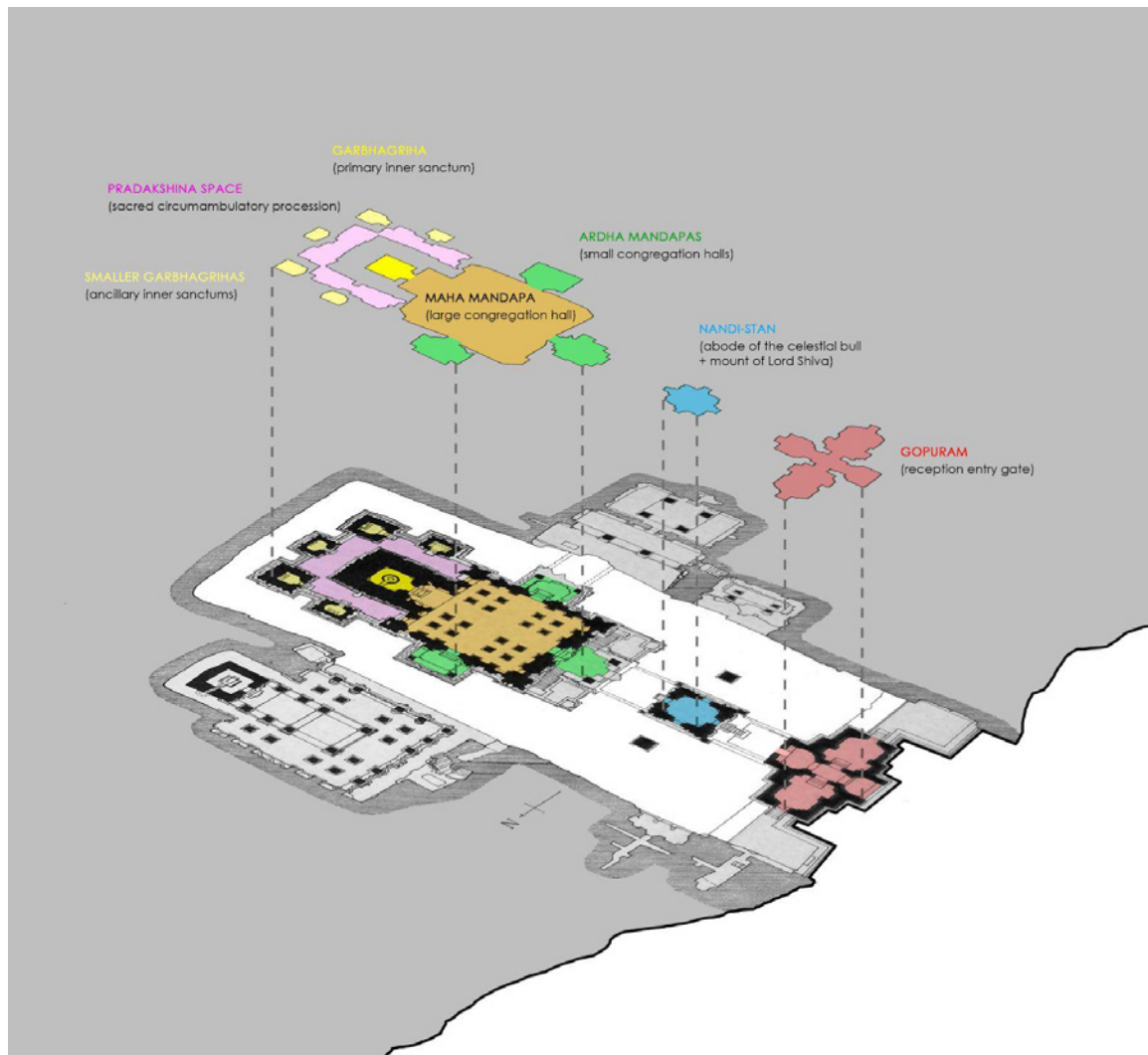


Figure 18

The carved edifice of monolithic rock creates a periphery of spatial arcades surrounding the temple complex (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/>).

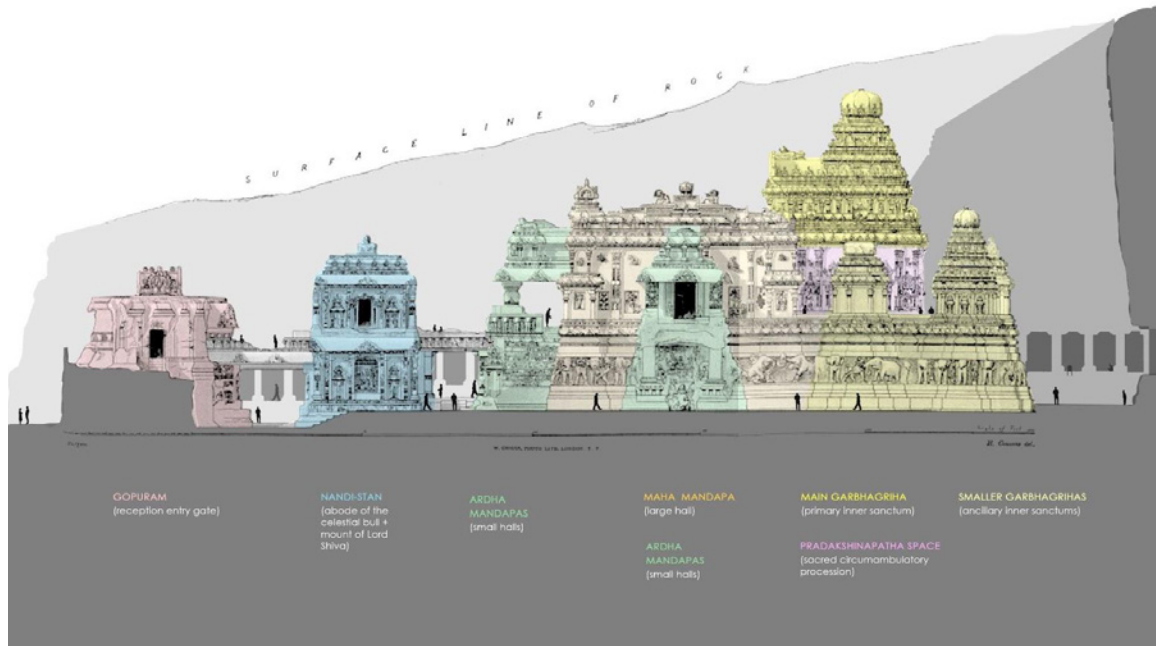
<sup>9</sup> Ministry of Culture, Government of India. 2022. *Kailasa: The Majestic Temple of Ellora*, INDIAN CULTURE. Retrieved from <https://indianculture.gov.in/stories/kailasa-majestic-temple-ellora> on 26 July 2023.

Conceived as a representation of Lord *Shiva*'s abode on Mount Kailash, situated in the Himalayan Mountain range of northern India, the temple required an immense labour force of 7000 workers for approximately 150 years to complete the monumental task. The temple's design incorporates the principles of *Vastu-Shastra*, emphasising alignment, orientation, and spatial organisation (figures 19 and 20) and *Shilpa-Shastra*, emphasising ornamentation and detailing (figures 21 and 22) to create a harmonious and spiritually conducive environment. The temple's layout ensures the placement of spatial elements like the *Gopuram* (reception gate), *Nandi Stan* (abode of the celestial bull), *Ardha-Mandapa* (small congregation hall), *Maha-Mandapa* (larger congregation hall), *Pradakshinapatha* (sacred circumambulatory passage), and the *Garbhagriha* (inner sanctum of the deity) (Mehla 2017; Ramachandran 2019).



**Figure 19**

**Figure/ground drawing of Kailasha Temple (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/>) and analysis diagram by Nikheel Joshi 2023).**



**Figure 20**  
**Drawing illustration of south-elevation: Kailasha Temple -**  
**diagrammatically illustrating vertical hierarchy and spatial intensity (retrieved from the public domain**  
**<https://architexturez.net/doc/az-cf-166362>) and analysis diagram by Nikheel Josh 2023).**



**Figure 21**  
**Sculpted reliefs illustrating the epics of *Ramayana* (left) and *Mahabharata* (right) (retrieved from the public**  
**domain <https://indianculture.gov.in/stories/kailasa-majestic-temple-ellora>).**



**Figure 22**

**Left:** Sculpted panel illustrating *Ravana* (demon king) shaking up Mount Kailash (abode of *Shiva*) (retrieved from the public domain <https://indianculture.gov.in/stories/kailasa-majestic-temple-ellora>). **Right:** Victory pillar depicting the might of the *Rashtrakuta* Dynasty as a stand-alone feature within the temple complex (retrieved from the public domain <https://indianculture.gov.in/stories/kailasa-majestic-temple-ellora>).

The following aspects illustrate how the various philosophies emanating from the Hindu body of knowledge are manifested in the architectural constructs of the Kailasha Temple.

### ***Dualistic / Non-dualistic aspects***

The Kailasha Temple exemplifies the philosophy of non-duality, which emphasises the connection between knowledge and devotional practice. The temple's architectural design embodies a sense of unity and indivisibility through the monolithic structure of the temple, reflecting the non-dualistic aspect of *Advaita* philosophy. The interconnectedness of its architectural elements signifies the harmonious coexistence of individual constituent components, analogous to the relationship between the individual consciousness and the cosmic whole. Thus, the temple as a sacred place, establishes a significant link from the world of dualistic entities to the non-dualistic cosmic whole, facilitating the transcendence of the physical to a spiritual dimension.

### ***Pancha-Bhutas (five elements)***

The *Pancha Bhutas*, representing the five fundamental elements (ether/space, air, fire, water, and earth), are crucial aspects of Hindu philosophy and cosmology. The Kailasha Temple incorporates these elements into its design and construction. The earth element is represented

by the solid stone structure, whilst water is found by the drainage outlet in the inner sanctum facing north, signifying the flow of offerings toward Mount Kailash (the eternal abode of Lord *Shiva*). The congregation hall preceding the inner sanctum represents the element of fire as this is where the ritual of prayer, worship and chanting of scripture is offered to the sacrificial fire. The temple's open-air facades allow for the free circulation of air within the temple and its related complex, allowing for the movement of energy and maintaining the balance between man and nature. Lastly, the element of ether/space is represented by the circumambulatory path surrounding the inner sanctum, representing the cosmic divine consciousness which pervades all, as per the texts.

### ***Vastu-Shastra***

The principles of *Vastu-Shastra*, which emphasise spatial orientation, proportion, measurement, and spatial organisation, are evident in the design of the Kailasha Temple. The temple's meticulous alignment with the east-west cardinal directions emphasises the connection with cosmic forces and the harmony between the temple and the natural environment. The spatial arrangement of the *Gopuram*, *Nandi-Stan*, *Ardha-Mandapa*, *Maha-Mandapa*, *Pradakshinapatha* and *Garbhagriha* follows principles of *Vastu-Vidya* to create a spiritually conducive environment that intensifies the devotees' spiritual experience through the incremental intensity of scale and proportion. The following aspects of the design and spatial arrangement of the Kailasha Temple can be seen through the principles of *Vastu-Shastra*:

1. *Orientation and Alignment*: The Kailasha Temple is meticulously aligned with the east-west cardinal directions/axis, emphasising the significance of cosmic forces and the harmony between the temple structure, its ancillary spaces and the cosmos. The temple makes a direct reference to the Earth's trajectory around the Sun by placing the deity of Lord *Shiva* within the inner sanctum and the entrance threshold of the temple precinct on this east-west axis. The presiding deity is located in the east and the entrance gate in the west, allowing devotees to move from west to east, from the setting Sun to the rising Sun. This is symbolic of the laws which govern all forms of life on Earth, and thus man's interconnectedness with the environment and divine order of the universe.
2. *Procession of Spatial Intensity*: The temple comprises of a reception gate at the entry or foot of the temple precinct, which then proceeds towards the celestial bull and mount signifying the gatekeeper of Lord *Shiva*'s abode, the small congregation hall and the large congregation hall respectively, finally leading devotees through a procession towards the innermost sanctum (figure 23). The reception gate, gatekeeper (celestial bull), congregation halls and inner sanctum are all positioned in a sequential manner of increasing scale and proportion, both horizontally and vertically, gradually intensifying the spiritual experience, symbolising the movement from the outer world of dualities towards the singularity of the Divine abode within the temple precinct.
3. *Sacred Circulation and Energy Flow*: The temple complex ensures smooth circulation of devotees, with well-defined pathways and interconnected spaces that facilitate the flow of people and energy within the precinct. The circumambulatory space can be found, surrounding the inner sanctum, which allows devotees to move around the central sanctum and engage in the sacred ritual of circumambulation. This signifies the acknowledgement of the infinite and omnipresent qualities of the Divine.

4. *Sanctum Placement*: The inner sanctum, housing the main deity of Lord *Shiva*, is located in the eastern precinct of the temple complex. Within the inner sanctum, there is a drainage outlet which faces north. The significance of the outlet facing north symbolises the ritual of *Abhishekam* (offering of milk, clarified butter, honey and various oils) where all offerings to the Divine are passed on towards the direction of Lord *Shiva*'s Himalayan abode on Mount Kailash which is geographically situated towards the north of the temple. The inner sanctum is visually marked by the use of a vertical spire known as *Shikhara*<sup>10</sup> and is the most dominant architectural feature of the temple due to it being the tallest architectural feature, signifying the abode of the deity presiding within the inner sanctum and the connection of the temple with the universal divine.

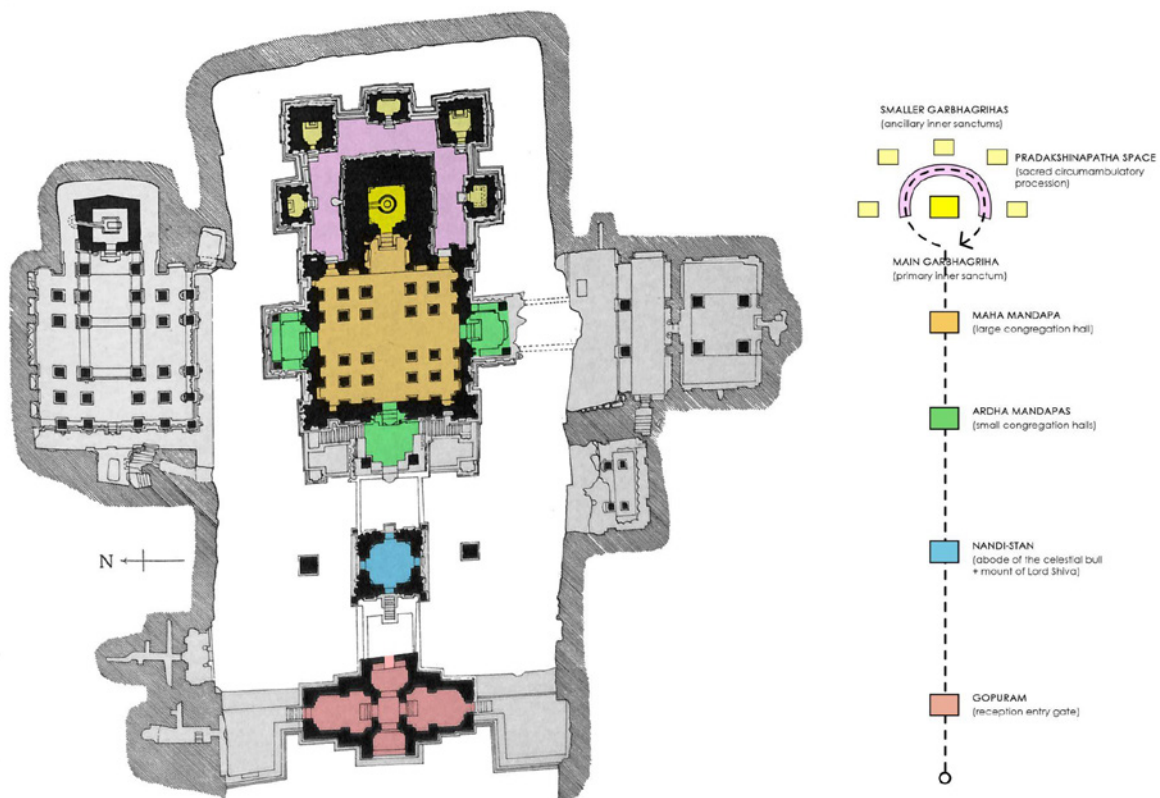


Figure 23

Figure/ground drawing and spatial procession diagram of Kailasha Temple (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/>) and analysis diagram by Nikheel Joshi 2023.

## Shilpa-Shastra

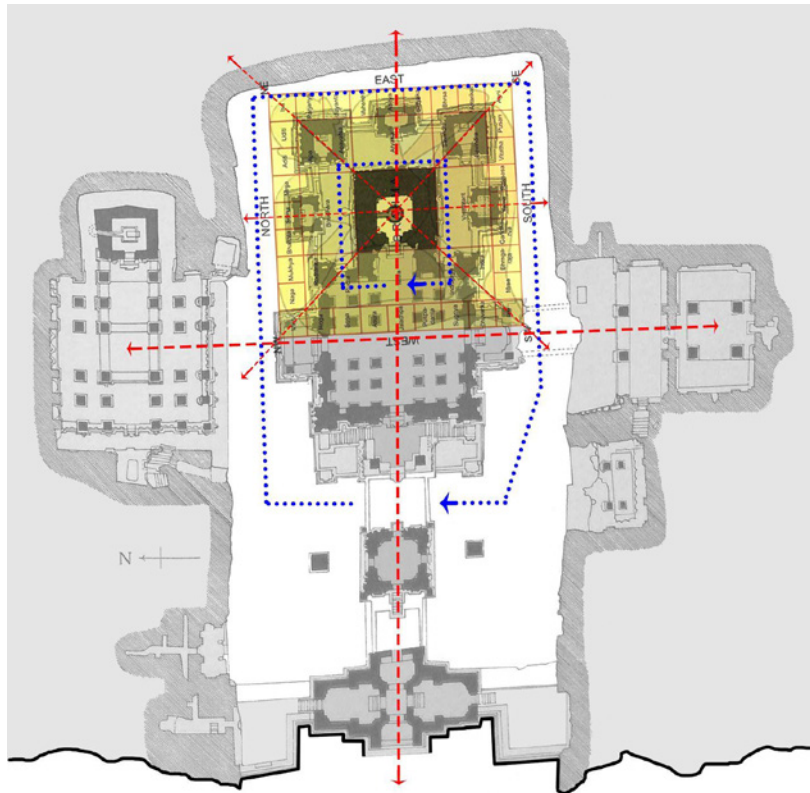
*Shilpa-Shastra*, encompassing formal ornamentation, sculpture, iconography, painting, and decorative elements, plays a significant role in the Kailasha Temple's design. The temple's intricate sculptures and decorative elements exemplify the artistic portrayal of Hindu mythology and religious sentiments. The craftsmanship and detailing in the stone carvings and panel reliefs add religious narrative expression and spiritual symbolism to the temple. Furthermore, intricate carving work can be found throughout the temple's façades. Skilled artisans meticulously sculpted

<sup>10</sup> *Shikara* in Sanskrit translates to "mountain peak" and is found predominantly in northern Indian temple architecture. The *Shikara* is a vertical spire situated above the inner sanctum and is a crowning feature of the most sacred space (inner sanctum) located within the temple, thus the tallest architectural feature.

the rock to create intricate reliefs, friezes, and sculptures, depicting various mythological and religious scenes from the various ancient epics found in Hindu scriptures such as the *Ramayana*<sup>11</sup> and *Mahabharata*.<sup>12</sup> These sculptures not only serve as ornamental motifs but also convey spiritual and philosophical narratives aimed at allowing one to reflect on the nature of the true self and the divine, emanating from the volumes of *Vedic* scriptures.<sup>13</sup>

### ***Vastupurusha-mandala***

The Kailasha Temple's design is based on the *Vastupurusha-mandala* (figure 24), a sacred cosmic diagram which is subdivided into squares (a grid of either 8x8 or 9x9 squares) resulting in self-assimilating iterations of geometric arrangements. This *mandala* determines the thickness of the walls, the placement of the presiding deity, the circumambulatory path around the inner sanctum and the overall spatial procession through the various rooms of the temple. The temple's adherence to this geometric arrangement reflects its connection to the cosmic order and divine symbolism.



**Figure 24**

**Overlay of Vastupurusha-mandala diagram on the plan of Kailasha Temple (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/>) and analysis diagram by Nikheel Joshi (2023).**

<sup>11</sup> *Ramayana* is the epic Sanskrit poem, ascribed by Maharishi Valmiki, narrating the life of Lord *Rama* (the prince of Ayodhya) and his epic battle against the demon king, *Ravana*.

<sup>12</sup> *Mahabharata* is considered a text pertaining to *Dharma* (Hindu moral law) and *Ithihasa* (history), ascribed to sage Vedavyasa, narrating the epic battle of *Kurukshetra* between the *Kauravas* and *Pandavas*.

<sup>13</sup> Ministry of Culture, Government of India. 2022. *Kailasa: The Majestic Temple of Ellora*, *INDIAN CULTURE*. Retrieved from <https://indianculture.gov.in/stories/kailasa-majestic-temple-ellora> on 26 July 2023.

## Fractal Geometric Iterations and Vedic Philosophies

The use of the *Vastupurusha-mandala* allows the Kailasha Temple to create fractal geometric iterations in both the plan (horizontal) and sectional elevation (vertical), thus manifesting 2-dimensional and 3-dimensional fractal geometric iterations of its monolithic form. These fractal arrangements (figures 25 and 26) are closely related to *Vedic* philosophies of sound, acoustics, and space within the temple. The temple's design employs sacred geometric proportions and scale, using the human body as a tool for deriving the proportion and scale of the temple, creating resonating spaces for spiritual contemplation and ritual practices such as sound-bathing during the chanting of scriptural verses.

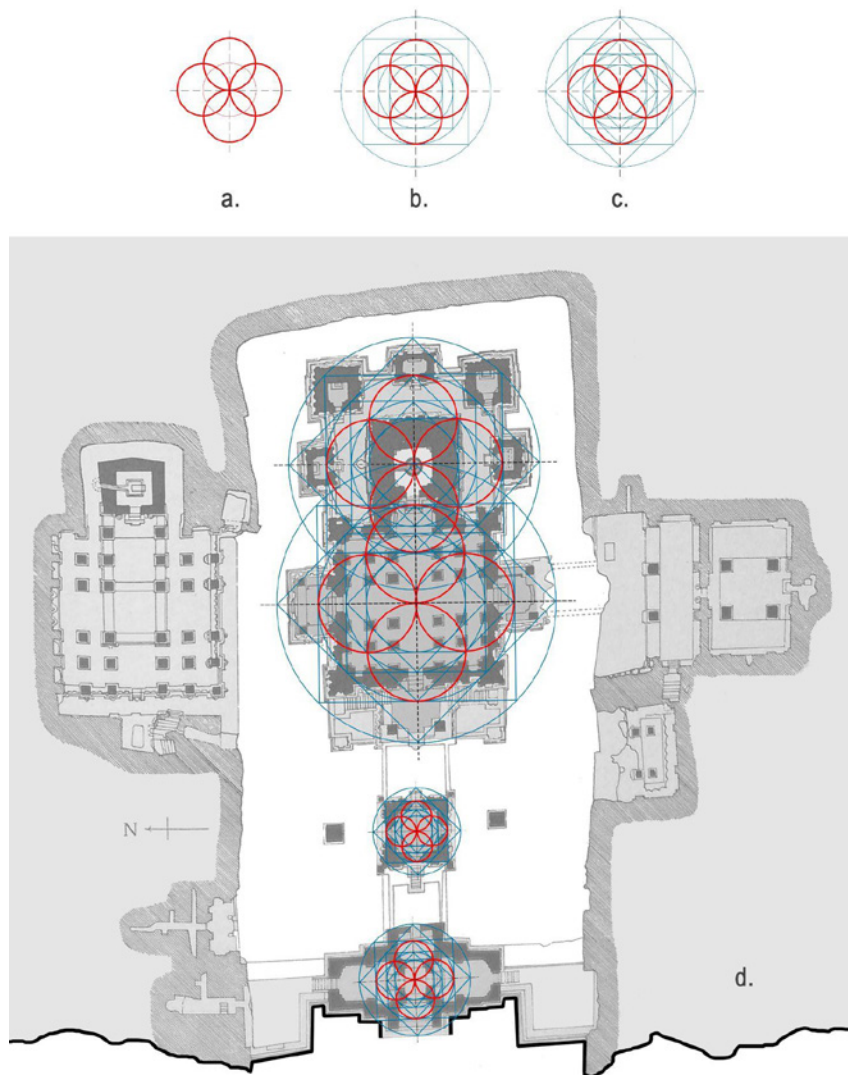
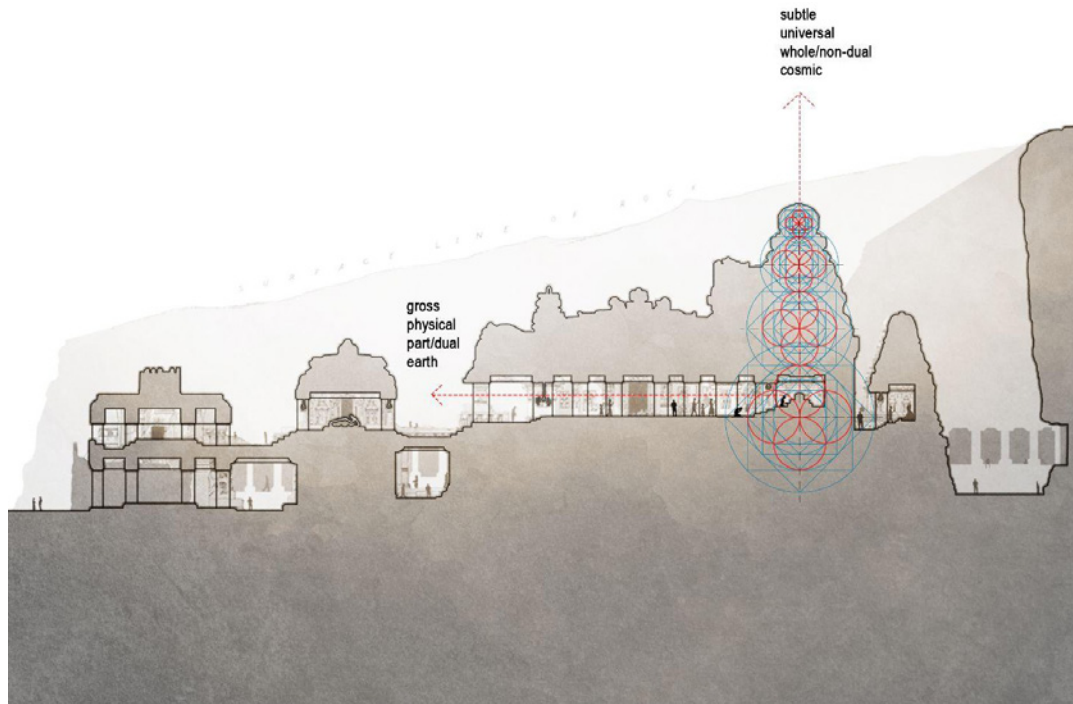


Figure 25

(a) Basic fractal geometric formation. (b) Nested squares and circles. (c) Nested diagonal squares and circles. (d.) Overlay of the fractal diagram on the plan of Kailasha Temple, illustrating how its proportion and scale are derived from fractal geometric principles (retrieved from the public domain <https://awesomebyte.com/kailasa-ellora/> and analysis diagram by Nikheel Joshi 2023).



**Figure 26**  
**Drawing illustration of long-section: Kailasha Temple -**  
**diagrammatically illustrating vertical/horizontal hierarchy and spatial intensity through principles of**  
**fractal geometry (retrieved from the public domain <https://architexturez.net/doc/az-cf-166362> and analysis**  
**diagram by Nikheel Joshi 2023).**

## Conclusion

In this paper, we have attempted to clarify, demystify and unpack some of the key foundational principles of Hinduism and to show how these are reflected in the conception and realisation of Hindu temple architecture. To do so we have broadly summarised aspects of Hindu philosophy in narrative form and developed a table that categorises selected key theoretical and architectural points. We have used this framework to interpret the historically significant Hindu temple in Northern India, the Kailasha Temple in the Sahyadri Hills of Maharashtra. By doing so we have illustrated how this case integrates principles of Hindu philosophy into its architectural design. We show the manifestation of the dualistic and non-dualistic philosophies of *Dvaita* and *Advaita Vedanta*, the representation of the five elements, the adherence to *Vastu-Shastra* and *Shilpa-Shastra*, and the use of the *Vastupurusha-mandala*. By doing so, we show how the temple becomes a profoundly sacred space for devotees to connect with their divine while concurrently serving as a sanctified conduit for profound spiritual contemplation.

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