



Cultural Continuity through Analysing Architecture of Hindu Temples in India

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(Received 23 May 2020, Revised 16 June 2020, Accepted 20 June 2020)

(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: Hindu Temples, right from their evolution as rock-cut to today's cast-in-situ construct, have continued their functional relevance in the Indian way of life. These are signified as places for hosting basically traditional cultural practices involving treatise-based rites & rituals that endured through generations. The architectural language historically practiced with essence of the geometry of "Vaastupurushamandala"; a grid that imparts proportion & orientation in the plan and with a pyramidal superstructure culminating vertically along with the ideational cosmic axis Mundi. Imagery & expression of the Hindu temples is so esoteric representations that the demand for reassuring cultural continuity through analysing their architectural grammar is felt. Scholars have identified broadly three architectural languages for Hindu temples that are classical, modern and contemporary. Does the sense of 'authenticity' & 'cultural heritage' continue through these different 'design paradigms' in terms of spatial patterns? The paper investigates the argument through selected illustrative case studies employing the primarily visual analysis of their respective published drawings. The research also revisits the existing critical analysis that reinterprets & supplements the study process. The continuity of cultural identity in design paradigms are confirmed through the outcomes of the research. They are tabulated as a comparative matrix reflecting the underlining architectural pattern.

Keywords: Architectural pattern, Classical, Contemporary, Cultural continuity, Design paradigm, Hindu temple, Modern.

I. INTRODUCTION

The Indian architectural history is concerned more with religious typology in relation to any other type because historically the cultures prevailed over the most universal and exalted appeal of religious beliefs that made the temple, the most permanent, the most expressive, and the most influential built form in the Indian subcontinent. The typology of sacred architecture is complex as the Indian subcontinent has the pantheon of 330 million Gods with diverse notions of pluralistic society that chronologically transformed with the evolution of cultural patterns. Architecture of the Hindu temple bears a constant historical milieu. From the seventh century, when social and religious transformations positioned temple worship as the more accessible and desirable form of religious experience, temple architecture flourished in India. It has developed a thesaurus of the symbols, meanings interlaced with form and space, and even had the codified presence in the ancient texts. The spatial qualities and organizational principles have rendered them timeless, the quality of continuity as examined by Yatin Pandya (1).

Today, temple design paradigms imbibe the historical styles even though employing contemporary building technology. However, contemporary culture & socio-economic landscape has demanded the functional, aesthetic or semantic transformations. The eschewed architectural grammar is quite evident in contemporary Hindu temple vocabulary owing to the socio-economic metamorphosis. Since the late medieval period, much of the religious architecture has lost singularity and

significance through the weakening of sacramental traditions, but today, as in the past, Indian architects have envisaged new means of use and expression with contemporary solutions. This paper investigates the adoption of new expressions in relation to the classical language and identifies the sense of cultural continuity.

II. METHODOLOGY

The intention of this research paper is to examine the architectural praxis of temples for the cultural continuity in terms of space syntax even if it does not follow the textural order. The validity would be incomplete if the cases under consideration analysed through their vocabulary alone; they may prove their intent by the drawing analysis of their respective design paradigm. It includes the strategies which are reinforced by applying specific analysing tools and applying suitable metaphors. Each language is discoursed and analysed through illustrative case studies by visual inspection using regulating lines. The characteristics of cultural identity through design paradigms is tabulated as comparative matrix reflecting the salient architectural grammar to put forth the intent of esoteric architectural patterns.

III. CULTURAL IDENTITY AND CONTINUITY

The *Oxford English Dictionary* has defined the identity as "the fact of being who or what a person or thing is" or "the distinct personality of an individual regarded as a persisting entity" [2]. Moreover, Beller and Leerssen posits it as "Identity becomes to mean being identifiable and is closely linked to the idea of 'permanence through

time': something remaining identical with itself from moment to moment" [3].

Noted Indian Architect, Charles Correa explained the identity as a quest, "What is identity? Firstly, it is a process, and not a 'found' object, it may be likened to the trail left by civilization as it moves through history. The trail is the culture, or identity, of that civilization. Secondly, being a process, identity cannot be fabricated. We develop our identity by tackling what we perceive to be our real problems...Thirdly, the identity is not a self-conscious thing" [4]. Delanty and Jonesre marked identity in relation to architecture as "architecture has become exceptional discourse for evolving expression & prominence of 'spatial' European identity. Architecture has become a plural cultural expression of post nationalist identities globally" [5]. However, religious architecture in the West continued to be the part of mainstream architectural practice, whereas the temple architecture in India polarised by colonisation, noted by A.G.K. Menon, to subordinate the role. A distinct dichotomy is observed in architectural design of temples with Modernist imperatives to classical language.

Observed phenomena led to an intense debate about how the cultural continuity should be interpreted other than by imitating fragments & negotiating with historical resources. Due to dearth of scholarly literature & documentation, attention of researchers tends to concentrate on religious beliefs & ritual practices in relation to research on Hindu temple rather than on architecture & art in order to comprehend the sense of cultural identity through praxis of Hindu Temple architecture in Indian regions. Accordingly, we have strived to identify the conformance with language as connotative through spatial analysis that appreciates the intention of cultural continuity in this research.

IV. ARCHITECTURAL IDIOMS

Among the discourse by various scholars, A. G. K. Menon propounded three contemporary architectural idioms for Hindu temple design aspirations:

1. Continuity of tradition on complying the canonical text,
2. Inclination towards pastiche & kitsch,
3. Attempt to manifest modern temple expression.

While the first two explains the analogical relation, the third one the 'modern' idiom entails the opportunity of experimenting with spatial configuration & form articulation so as to give expressive identity [6]. Adam Hardy, for contemporary Indian temple design paradigms has indicated three categories that corroborates Menon's idioms:

- Classical temples with 'authentic' language by traditional architects (*Somapuras* of Gujarat and *Sthapatis* of Tamil Nadu), complying the medieval treatises,
- Kitschy pastiche produces by copying naively the classical expressions, and
- Temples envisaged by trained architects in modern era.

Here also, first & second idioms subsume traditional architectural vocabulary whereas the third one is anticipated to avail the innovative expression [7]. Instead of categorisation, Rahul Mehrotra critically discoursed the contemporary trends as the domain of

"Counter Modernism' attesting the 'resurfacing of ancient' as a strategy of 'resistance to the phenomenon of globalisation". It seems that he has not dwelled upon the originality of the architectural language rather focused on the residual of traditions [8]. Thus, the intent of esoteric statements was manifested by adopting determinants such as (a) applying formal language, (b) structural or material play and (c) providing for functional requirements.

However, to explore the eschewed cultural (perception) continuity, it is worthwhile to appraise the ontological & spatial languages.

V. THE HINDU TEMPLE: AN ONTOLOGY

The Hindu Temple form is succinctly representation of Indian values & thought. "It is based on a simple and direct concept of worship with a ritual of prayer involving a dialogue between the devotee and the deity of the temple" [9]. It embodies cosmological symbolism in aesthetic garb. It is an aggregate of symbolism ritually invested with the human personality called '*Vastupurusha*' and conceived as 'human', the most evolved living form. The organic unity of the human body is manifested figuratively to different parts of temple structure. By the 4th century A.D., the Hindu temple assumed a definite nuclear architectural identity with the base platform (sacrificial altar), as '*Vedica*' the middle structure (sanctum) as '*Garbhagriha*' and the superstructure (mountain) as '*Sikhara*' (Fig. 1).



Fig. 1. Hindu Traditional Temple (Kandariya Mahadev Temple), Source : Shodhganga.

These parallels of temple imagery & morphology have been traced by various scholars as representations of philosophical & spiritual concepts along with varying

scholarly opinions owing to the nature of the signified. A. Coomaraswamy [10], S. Kramrisch [11, 12], A. Hardy [13], S. Kak [14], M.W. Meister [15] and P. Granoff [16] etc., have perceived the Hindu temple as “living ritual” evidencing the cultural continuity.

VI. SPATIAL LANGUAGE OF THE HINDU TEMPLE

The principle spatial components of the evolved classical Hindu temple are concluded as (a) the sanctum or garbhagriha (womb chamber, centrally placed deity), (b) the vestibule or antarala (small entry room to the sanctum), (c) the circum-ambulatory path or pradakshinapatha (processional passage around the womb-chamber), (d) the prayer hall or mahamandapa (columned hall for prayer/performance), (e) assembly hall or mandapa (small hall as compared to mahamandapa for gathering), (f) threshold or mukhmandapa (entrance to temple) and (g) Annexe/ancillary or ardhmandapa (transept for allied functions) (Fig. 2).

All these spaces lie on a primary cardinal longitudinal axis guiding the devotee’s progression and ingress to the womb chamber. Also, these spatial volumes are elaborated with a multiple image of idols, deities, and are embellished internally as well as externally. Further, visual linkages enhance the spatial progression among these spaces. The interactive visual processes describe the spatial narratives with sensorial & experiential

associations, thereby potentially nourishing the devotee emotionally as well as spiritually. The spatial sequence with a series of rising volumes of steeples and the increasing degree of enclosure, and the transition from semi-open multidirectional halls to the unidirectional dark sanctum, all heightens transcendence from corporeal to spiritual. The overall manifestation is described by Hardy as “...imagery and expression are chiefly in the sculpted exterior. Expression of structure, of load and support, is simply not an issue in this universe of weightless, interpenetrating, heavenly volumes; still less the expression of material or construction” [17]. To appraise this perception, the drawings (Planar) are taken as the analysis tool so that the connotative language of design paradigms can be explored in relation to following generic spatial principles of classical grammar:

1. Disparate visual & physical axis,
2. Layering for the sequential unfolding of spaces,
3. Movement as the key to conditioning of mind,
4. The Choice of movement path for personal & intuitive experience,
5. Kinesthetics as the organisational & proportioning tool,
6. Indoors integrated with outdoors through landscaping & light,
7. Semiotics as an associational overlay.

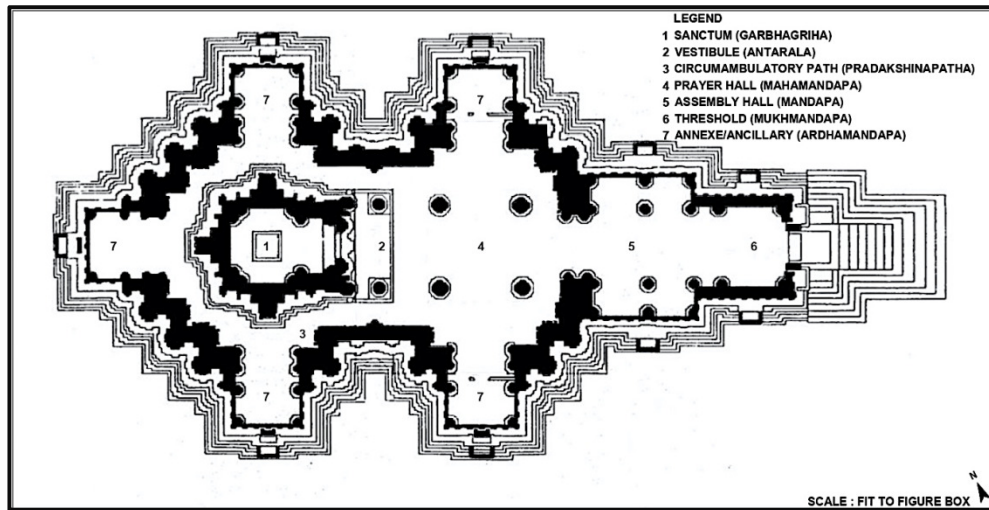


Fig. 2. Plan of Hindu Traditional Temple (Kandariya Mahadev Temple), Source: Shodhganga.

VII. DRAWING AS ANALYSIS TOOL

In contemporary era when approach to design paradigms are becoming more multi-disciplinary and inevitable than those dictated by the directives of CLASSICAL architecture, iterations to reveal the associations between the manifest and non-manifest have had to encounter more onerous positions to decode the intent of designer. In such situation, a drawing can become a medium between the known & unknown, predictable & unpredictable. Architectural theory describes the three distinct ways to use drawing; firstly, it act as a means of communication from designer (to promoters, builders, clients etc.), secondly, as a means to surface the design intent of designer (personal ‘play’) and lastly as analysis means to substantiate (to

acquire knowledge and factual interpretation). Among these, the third approach enables the understanding of the possibilities and working of architectural design processes. Stratton remarked “All building – irrespective of style or period – that is worthy of the name architecture responds to simple and elementary laws; observance of geometry underlies the grammar of the art and provides the basis of design” [18]. Further, Michael Pause and Roger H. Clark remarked in Analysis of Precedent, the essence of drawing as “...to assist the understanding of architectural history, to examine the basic similarities and differences of architects’ designs over time, to identify generic solutions to design problems which transcend style, and to develop analysis as a tool for design. Of paramount importance is the development of a vehicle for the discussion of design

ideas through the use of examples" [19]. The 'language' of architecture through drawings by D. K. Ching in his book, *Architecture: Space, Form and Order*, is among the best drawing analysis approach till date [20]. Next, Simon Unwin impressed that "Nor can drawing for design and drawing for analysis easily be detached one from the other. In this arena the two are fused, blend one into the other. Architects majorly would acknowledge that in the performance of design they are simultaneously drawing upon references: references that are to do with 'architecture' (intellectual structure) and to do with 'building' (physical realization). Similarly, in the performance of analytical drawing, one is simultaneously drawn into the performance of design" [21].

As the drawing occupies the above said enveloping role of envisaging architecture and its manifestation as building, so as inversely, it assumes prominent contribution towards the teaching-learning processes and capacity building in design/architecture by assimilating & analyzing precedents. Purposely, aesthetics is not analysed quantitatively through geometry instead it reveals the visual relationships that may have bearings on human behaviour such as notions & narratives that imbibes the cultural ethos. It also gives visual coherence to design and insight into the design processes through visual pattern. It is through this insight that cultural (perception) continuity may find its value. Henceforth, planar drawing of samples is taken as tool of for spatial analysis. For visual analysis of drawings, 'regulatory lines' are introduced as analysis medium to explore the spatial interrelationships. Kimberly addressed the significance of regulating lines as "The visual principles of geometric composition include an understanding of classic proportioning systems such as the golden section and root rectangles, as well as ratios and proportions, interrelationships of form, and regulating lines" [22].

VIII. REGULATORY LINES AS ANALYSIS MEDIUM

An entry in *Visual dictionary of Architecture* by F. D. K. Ching, 'regulatory line' is a line drawn to measure or express alignment, scale or proportion [23]. It emphasizes the organization of the intended experience of the design. With regulating lines, the problems related to the construct can be addressed. Regulating line is the rationale for composition in drawing that relates to visual experience within context & itself. It creates kinesthetic awareness of the object to itself and to the connecting elements. It acts as a tool for devising a visual relationship among the separate parts. Without succumbing to interruption or fragmentation, this technique sustains continuity of language in work and this language also set up the ground for relating it to the preliminaries of proportion thereby serving as an organizing tool. The edge of a plane can extend to create an edge that serves another component. Le Corbusier had iterated the regulating lines in his designs and in 'Towards new Architecture' emphasized its significance as "A regulating line is an assurance against capriciousness: it is a means of verification which can ratify all work. The regulating line is a satisfaction of a

spiritual order which leads to the pursuit of ingenious and harmonious relations. It confers on the work the quality of rhythm. The regulating line brings in this tangible form of mathematics which gives the reassuring perception of order. The choice of a regulating line fixes the fundamental geometry of the work, it fixes therefore one of the fundamental characters. The choice of the regulating line is one of the decisive moments of inspiration, it is one of the vital operations of architecture" [24].

Regulating lines (dotted lines in Fig. 3) create a relationship between the two elements; there exists a common boundary, a dialogue generates between the elements and this boundary as it activates a different depth.

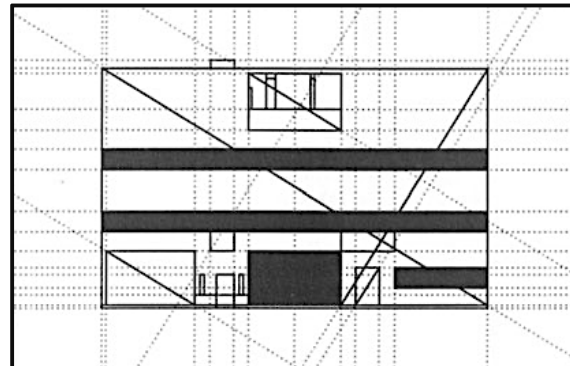


Fig. 3. Le Corbusier's "*les traces regulateurs*", Source : Kolarevic, B.

In a drawing, this extended edge gives order, intention, and a direct relationship between the parts of the drawing. "Regulating pencil lines therefore often provide, at a basic compositional level, an organizing framework for establishing positions and relations of inked line segments within and between shapes. In this scenario, regulating pencil lines define a compositional framework for establishing positions and relations of shapes" explains Branko kolarevic [25]. Order, intention, and obvious relationship transcend into an experiential clarity. When considering a plan drawing, a plane edge can work off the edge of a threshold and this interplay can start to create limited views and as a result bring movement into space. Regulating line has this strong influence in the experience of relationships within a space. Thus, regulating line serves as a tool to generate, strengthen, and refine architectural work. Regulating line prompts new ideas, it questions relationships between elements, and it helps organize the whole construct. It is a language that reveals an intentional thought process, and it results in sophisticated products with inherent order. So, the space syntax has been explored in the Plan drawings of samples using 'regulatory lines' in order to seek relationships among topological spaces.

IX. CASE STUDIES

For analysis, the selected works are considered as design classics as they have gained timelessness. The works depicts the relationship to timeless design classics, and the contemporary style & technology.

Despite the different time zones of the works, the similarity from planar dimensions to spatial organisation and intelligential design through geometry is evident.

CASE 1: Traditional Language

Kandariya Mahadev Temple, Khajuraho, Madhya Pradesh, INDIA (Fig. 4).



Fig. 4. South Elevation of Kandariya Mahadev Temple.
Source: Shodhganga

As noted by Menon/Hardy in the first category, the edifice at Khajuraho, Kandariya Mahadev Temple of medieval era exemplify the traditional vocabulary. The intention of formal language in accordance with treatises has manifested & evolved to fullest. Among the western group of temples, Kandariya Mahadeva Temple, dedicated to Lord Shiva stood as the largest temple at Khajuraho. It was built in c.1025 and 1050 A.D. during the Vidyadhara's reign. It is the pinnacle of the medieval Indian temple architecture that displays the intricate *vastu* art. "This temple can be graded as the grandest and loftiest of temple cluster at Khajuraho, not merely as its colossal height and length, but also on account of the rhythmic crescendo of architectural perfected by the doyens of yore" remarked by P.K. Mishra [26]. Devangana Desai appraised it as "Kandariya Mahadeva temple is not an ordinary temple mechanically built on vastusastras dictums but one which the architect-priest has creatively produced to symbolize cosmic order on earth, corresponding to its well-planned architectural structure based on centuries of experience in temple building in accordance with '*vastusastra*' tradition" [27]. Thus, the traditional language represents metaphoric architectural expression based on spiritual intent having esoteric content with 'authentic' sense through symbolic grammar and developed under generous patronage.

Spatial Analysis of Kandariya Mahadev Temple: Magnificent construct and maturity in plan are the hallmarks of Kandariya Mahadev temple. It has perfected the design, The Dimensions, proportions and the overall design submits the perfection. The structure consists of seven spaces, five built linearly on the east-west axis & two adjoining to this axis:

- Garbhagriha (Sanctum),
- Antarala (Vestibule)

- Pradakshinapatha (Circumambulatory path)
- Mahamandapa (Prayer/Activity/Dance Hall)
- Mandapa (Assembly Hall) and
- Mukhmandapa (Threshold)
- Ardhamandapa (Annexe/Ancillary)

The temple is entered through the threshold, 'Mukhmandapa' which is enclosed by bhadraka pillars. A transitional hall called 'Mandapa' is between mukhmandapa and 'Mahamandapa'. It consists of four pilasters and eight pillars that resembles in design with those of the mukhmandapa. Mahamandapa is the largest hall of the temple for the group sacred activities. It consists of four pillars defining the central space for performance. This hall is extended by two transepts across the main axis, called ardhamandapa for ancillary functions. Ardhamandapa is a balconied opening having two pillars & pilasters. 'Antarala' marks the transition between the garbhagriha & mahamandapa. The pilasters of antarala flanks the garbhagriha doorway. The innermost chamber is called the 'Garbhagriha' of the temple wherein 'Shiva-linga,' the deity's idol is centrally placed. It is also named as cella, sanctum or sanctorum where the devotee prays in person. It is surrounded by circumambulatory path, called pradakshinapatha for performing the parikrama. It is also flanked by ardhamandapa on other three directions.

Superimposing the regulating lines on the Plan drawing of the temple (Fig. 5) illustrates the juxtaposition & spatial narratives of these spaces that arouses the sensorial experience with visual progressions. Such experience transcends the devotee to be one with Shiva. The culture as living intangible heritage allows the people in India to live in three time zones simultaneously. The Realities of the present with legacies of past and aspirations for future.

The interpretation of this concept is continued in modern & contemporary attempts of spatial configuration in temple design. The traditional temple architecture is the narrative of continuity & pauses where the spaces are experienced & perceived through its space kinesthetics. The transition from the corporeal to the celestial in a typical Indian temple is architecturally achieved through sense of enclosure (increasing degree), decreasing intensity of light and intimacy of the scale of space. The surface articulations such as symbols, motifs or renderings further through associations conjure the sensorial experience thereby concretes the cultural identity [28]. The phenomenon is attributed to the remarkable underlying grid pattern, cardinal orientation, axial & layered progression, fractalization of spaces, proportioning & dimensioning of areas with variety of degree of enclosures, visual connectors, movement hierarchy, associational overlay and relational dualities. Thus, spatial analysis done using regulating lines (dotted lines in Fig. 5) reveals the cultural continuity as 'imagery' based on linear spatiality.

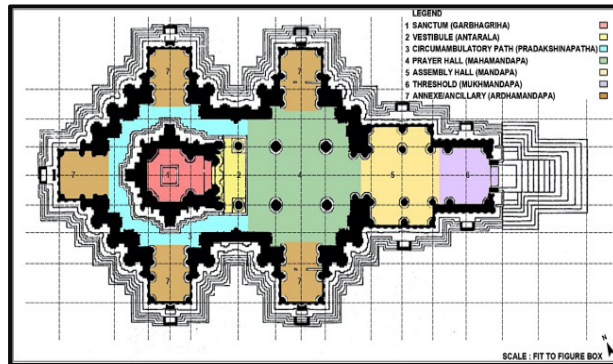


Fig. 5. Regulating Lines Layer on Plan of Kandariya Mahadev Temple.



Fig. 6. Shiv Temple. Source: sP+a.

CASE 2: Modern language: Shiv Temple, Wadeshwar, Pune, Maharashtra, India (Fig. 6). Modern language is expressed as functionalism, rationalism, construction processes and the true expression of material. Modernism prefers individual originality/innovation instead traditional approaches and minimalist in relation to decoration. And aspires to convey discrete rather than adhering specifically to certain cultures. The Shiv Temple dedicated to Lord Shiva at Wadeshwar is built in 2008 that Sameep Padora & Associates designed has discarded all embellishments, and clove to key symbolic association; an idol of 'Nandi', the revered bull positioned in open access, and a pyramidal roof form as the metaphor of the traditional 'shikhara' temple silhouette [29]. Crafting by material in particular is taken as modernist strategy. The aesthetics is exposed by dressed laterite stone blocks applied on the edifice and the threshold is clad in timber with stainless steel frame. Its design is conceived on the basis of dialogue with people & priest of surrounding villages, hence incorporating the cultural ethos related to temple form. Thus, this temple embraces the modern sensibilities structurally while the spatial narratives signifies the cultural continuity.

Spatial analysis of Shiv Temple: The layer of regulating lines has revealed the abstained approach in relation to classical order through the landscape. The traditional pillared hall i.e., mahamandapa, is interpreted as wide fluid open space surmounted by sky as roof and enclosed by columnar trees. The threshold is defined as free standing juncture walls which has connotation with historical 'kapili' wall and leaves much more impact than its ancestral precedent. It renders unique spatial quality of ambiguity between interior & exterior spaces. Threshold symbolizes immensely important entrance to the 'garbhagriha' but being subtle in traditional temples, here it is dramatized as window to the distant landscape. It is an attempt of designer to sieve essentials from associative imagery and conversation. Retaining the East-West orientation of the traditional temple architecture, the spaces are juxtaposed with separate physical & visual axis unfolding the sequential experiences through movement in landscape. The steep contours of the site on the southern edge are graded to outdoor stepped seating transforming the sacred space into a socio-cultural landscape intended for religious events thereby acquiring the shape of mandapa. The skylight punctuates the temple at final level creating

lively ephemeral experiences within the garbhagriha through the play of dynamic daylight. Regulating lines (dotted lines in Fig. 7) in Plan drawing of Shiv temple illustrates orthogonal pattern of spatial organisation, disparate visual & physical axis, associational hierarchy, virtual relationship among spaces, visual tension, ambiguous unfolding of spaces and subtle gesture. Thus, spatial analysis done using regulating lines reveals the cultural continuity as 'conjectural' based on orthogonal spatiality.

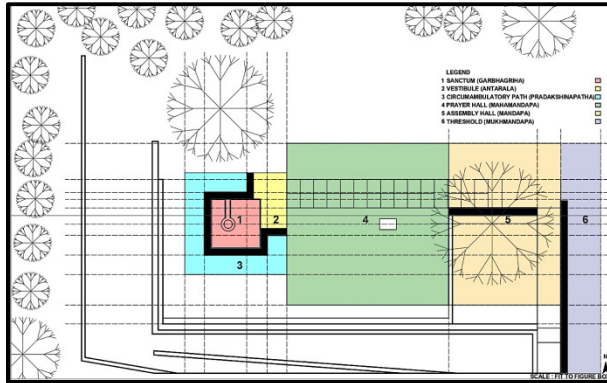


Fig. 7. Regulating Lines Layer on Plan of Shiv Temple.

CASE 3: Contemporary language: The Sai Mandir Temple, Vennached, Hyderabad, Telangana, India (Fig. 8)

Contemporary language refers to design responses to the functional demand within the current constraints of available possibilities. It in fact, depicts the abstraction with minimalism, subjective originality/innovation to traditional approaches but meanwhile explores the meaning specific to particular context. Though the contemporary temples entirely eschew the traditional vocabulary yet continue to imbibe the spatial connotations of the traditional temple.

The temple is devoted to Shirdi Sai Baba (revered as Godmen), late 19th and early 20th century saint, is designed by Ar. K Hari Krishna, the principal architect of the SEA, constructed in 2015, conceived it as social arena rather than sacred. Apparently, the Sai Mandir temple seems to be a distilled version of the classical temple. The elements such as a pyramidal roof, payer hall, gateway, sanctum and circumambulatory path are easily recognized. But what makes this significant is its position amidst the densely packed residential neighborhood and the creative brick tracery that turns a sacred space into desirable & inviting munificent design has turned this into an inviting and desirable social realm [30].

Spatial analysis of Sai Mandir Temple: The sieve of regulating lines (Fig. 9) has revealed that Architect has underpinned the traditional wisdom of temple design and creatively juxtaposed the cultural continuity. Krishna's design for Sai Mandir has retained most of the classical elements like axial access, boundary walls delineating the sacred space, orientation to cardinal directions, articulated gateways, towers over the

sanctum, circumambulation passage and claimed sequential transition to the sanctum. The critical departure from traditional vocabulary in spatial terms is the assemblage of all spaces within one pavilion and yet reinforcing the distinctive experiences of all.



Fig. 8. Sai Mandir Temple. Source: SEA.

The reinterpretation is observed in the traditional progression of sacred spaces as the distinct constituents are being fused to create a double-heightened, oblong central hall. This fusion allows the devotee to be in straight visual connect with the installed deity while entering hall space, that further is discerned by the jagged shikhara positioned overhead. The site-specific features such as mature tree with large canopy and need of transparency to villagers are amalgamated. The circumscribing wall is composed of brick 'Jali', (permeable screen) instead of opaque solid wall, traditionally that makes the porous enclosure. The traditional jali, not only allow the visual connect to outside but also alter the microclimate of the volume. It also enlivens the extended plinth under the large tree outside during evening through sound & light events. The enclosure also connects the tree shade & sky through the regular slit in roof that shelters the open shrined pavilion. Further, the lattice-like structure of jagged shikhara wherein the brick tiers turned at different angles with increasing heights allows the inside to permeate. While the tree platform draws people from surrounding village for social gathering, the temple plinth is occupied for sacred activities. The regulating lines in Plan drawing of Sai Mandir temple (dotted lines in Fig. 9). Thus, spatial analysis done using regulating lines (dotted lines in Fig. 9) reveals the cultural continuity as 'chronicle' based on orthogonal spatiality.

X. RESULTS

The observations from the above analysed case studies are summarised as comparative matrix (SCM) in the Table 1. The SCM tool is used to organize the extract of case studies to relevant category and to visualise relationships amongst the derived disparate extractions. It bridges the macro understanding of the literature to micro conclusive statements/idioms.

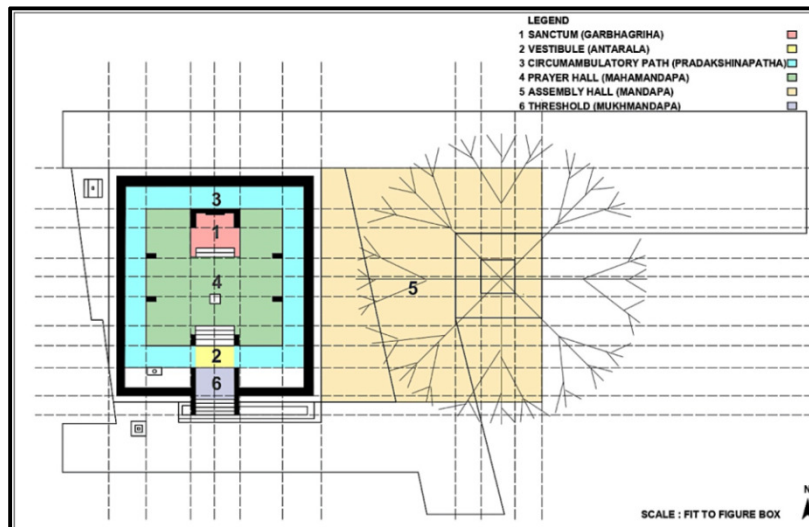


Fig. 9. Regulating Lines Layeron Plan of Sai Mandir Temple.

Table 1: A comparative matrix of Hindu temple architectural patterns in India.

S. No.	Cases under Study		Kandariya Mahadev Temple	Shiv Temple	Sai Mandir Temple
	Parameters				
1.	Context	Period	Historical	Contemporary	Contemporary
2.		Architectural Language	Traditional	Modern	Contemporary
3.		Stakeholder/Response	Patron	Architect	People
4.		Design Intent	Spiritual	Sacred	Social
5.	Spatial Attributes	Content	Esoteric	Reified	Semantic
6.		Aesthetic Sense	Authentic	Putative	Discernible
7.		Space Syntax	Symbolic	Eclectic	Reformist
8.		Spatial Configuration	Linear	Orthogonal	Orthogonal
9.	Conclusion	Cultural Continuity Idiom	Imagery	Conjectural	Chronicle

XI. DISCUSSION

The various heads in this paper have illuminated not only the diversity of the temple design practices rendered by respective architects in central region of India but also shown how the architect negotiated the change brought about by modern and contemporary contexts. Whether it is modern historical consciousness or changing socio-cultural arenas with current global economies and technologies, each architectural expression has attested cultural identity through continuity idiom relating it to the traditional wisdom in a particular inviolable mode. In other words, the respective case has produced their own locality, their own modernity by translating, and reconfiguring each of these paradigms spatially to their own end. This mode of inviolability has no intersections with orientalist conceptions of the 'Sthapatis' or the 'refined' tastes of 'critical regionalist value'. Most often, apprehension occurs among the practitioners & theoreticians involved in temple architecture due to tweaked historicism and hybridization. Kenneth Frampton remarked that "Post-Modern architecture...is the conscious ruination of style and the cannibalization of architectural form, as though no value either traditional or otherwise can withstand for long the tendency of the production/ consumption cycle to reduce every civic institution to some kind of consumerism and to undermine every traditional quality" [31]. Similarly, Hardy cautioned architects that "...learn that greater than the danger of pastiche is the blindness to other ways of architectural thought than Singh et al., *International Journal on Emerging Technologies* 11(3): 1072-1081(2020)

those they have been trained in... if a critical regionalism can be found, it will not be through qualities approved by modernist sensibilities but which have nothing to do with Hindu temples, such as tectonic form" [32].

The modern and contemporary languages eschew ornamentation and the sculptures that usually adorn Hindu temples. This, however, does not make it a stripped-down version of a traditional temple nor a 'modern' abstraction; it is an interpretation that straddles the world of collective memory and history, and the architect's subjective imagination. Moreover, it also does not insist on liturgical desires on its architecture as traditional temples would. But it is convincing that design could create innovative spaces and forms without losing the sense of exaggerated cultural continuity. This not only reflects the faith in design but also indicates the plural practices in Hindu temple building.

XII. CONCLUSION

The research paper has attempted to assert and illustrate the cultural continuity through analyzing the spatial patterns of Hindu temples while relating to the extracts from language of traditional temple. Apparently, it appears that contemporary paradigms are hostile to 'authentic' heritage when viewed through the lens of contemporary secular architecture praxis. However, if we look beyond the attitude of 'authentic', prima facie then plethora of opportunity exists to develop architectural patterns which may express cultural

continuity meaningfully and can be extracted categorically. The resultant matrix (Table 1) enumerates the characteristic attributes of design paradigms that are analyzed by applying 'regulating line' method. Without impressing upon the definition of spatial carriers of cultural continuity, which may arise anti-thesis, we have investigated within the framework of spatial qualities of a place in this paper. We have initiated by examining the idioms propounded by Menon and Hardy, both have articulated the cultural continuity through 'modern' approach. Table 1 presents the comparative summary of categorization for each language for which the stakeholder & primary intent is ascertained marking them distinct design paradigms. Then the spatial attributes are listed against each expression and finally relevant idiom for cultural continuity is extracted. Each language has been inspected here with due consideration to respective context & limitations. The matrix reveals the askew relation with the traditional language yet deciphers the cultural continuity through qualitative spatial delineations. This observation has posed the questions; is 'authentic', the only way to identify cultural continuity? Or, which one is better approach for futuristic temple praxis? Though it is improbable that academic deliberations will unravel the dilemma. Today we are witnessing elaborative endeavors in architectural praxis of contemporary mosques, churches and the like, so the Hindu temple design too and should empathize diversity of architectural languages with due cognizance of cultural continuity, thereby enriching the scope and vocabulary of Hindu temple architecture.

XIII. FUTURE SCOPE

To examine the performance of design paradigms, user perception has become the norm. Though it was included as objective of this research, it could extend interesting scope to look into the ethnographically based spatial analysis of temple paradigms. It can yield insight into prejudices and offer to understand the people's inclinations towards experimentation in relation to the perception of cultural continuity. Also, owing to 'individualized self' & 'multiphernia' [33], and diverse ethnicity as Hinduism itself professes to seek innumerable routes to divine, it may open up interdisciplinary approach to measure the expectations from built environment.

ACKNOWLEDGEMENTS

The corresponding author acknowledges the invaluable contributions of all co-authors while carrying out this exploratory research. Also, authors are indebted to the courteous support from all the concerned resource persons & institutions.

Conflict of Interest. As far as the extent of research is concerned, there is no potential conflict of interest is found.

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How to cite this article: Singh, A. K., Das, V. M. and Garg, Y. K. (2020). Cultural Continuity through Analysing Architecture of Hindu Temples in India. *International Journal on Emerging Technologies*, 11(3): 1072–1081.