STUDY OF PLANNING PRINCIPLES IN TEMPLE TOWNS: A CASE STUDY OF MADURAI, TIRUPATI, OMKARESHWAR AND VARANASI

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Abstract: India is a country largely governed by its spiritual culture and traditions. It draws sustenance and strength from its religious buildings. Over the centuries, religious structures and the events associated with them have led to the emergence of many towns. Hindu temples have been a focal point in the planning of such towns since the medieval era. There were several nucleated settlements that arose in many parts of India, focused on temples, and around which expansion took place. The temples played a major role in the community, serving not only as places of worship but as centres for social mobility, cultural centres and important elements in the urban economy. The development of these 'temple-towns' was driven by some factors which can be observed to be common to most sacred places. This paper, through case studies of holy towns in India and their comparison, attempts to understand how these cities evolved from small nucleated settlements to creating an urban genotype of their own i.e. temple towns. This research aims to present examples of a few such cities that developed in sacred sites and where the religious nucleus became the major reason for development of the city. The purpose is to highlight the characteristics which are reflected in all such towns, and have hence become important features that one can associate and identify temple towns with.

Keywords: Temple, Temple Towns, Planning, Settlements, Temple Architecture.

1. Introduction: Temples had a significant influence on towns, both on their urban development and on the community which shot around them. These patterns could be seen both in the physical development of streets, shops etc., and in the intangible aspects of the culture, festivals and beliefs of people living in that town (Venkatraman, 1981). For most Indians, the temple didn't merely signify their faith but became a major part of their life, its presence affecting them either directly or indirectly. Temple towns presented a unique aura as compared to other towns, projecting a harmonious atmosphere where all people and their activities were focused around a singular important aspect. All these temple cities, built around temples of North Indian- Hindu, Dravidian and South Indian styles, imparted similar characteristics, even though there were no set guidelines or principles for the development of these towns. This has been studied by drawing a comparison between of cities of Tirupati, Madurai, Somnath and Varanasi. All these cities, labelled as 'temple towns', differ in various aspects, yet reflect a similarity in their overall architectural execution and organic development. Thus, this study aims to explore these very characteristics which reflect in the planning of temple towns across the states in India.

2. Origin and Growth of Temple Towns: The temple is, according to belief, a site of the divine. Located strategically and built for a particular deity, the temple houses the divine energy of that particular deity in its optimum state (Importance of Temples, 2014). From the 1st century CE devotional Hinduism spread across the Indian sub-continent (Cartwright, 2015). The worship of gods required temples where the devoted could make offerings, thus, buildings were constructed to house the sacred symbol of a particular god. The grants of land and donations made by rulers and pilgrims to these temples were utilised for rituals, feeding pilgrims and priests, and festivities. Temples further used this

money for the maintenance and expansion of temple complex. Over time, they became important pilgrimage centres, and traders, artisans, priests settled near temples to cater to the huge inflow of crowd. Eventually, entire townships evolved around them, with the shrine forming the nucleus of the town. The shrine was regarded as the microcosm of a well-ordered and harmonious universe, and the town represented the same concept on a larger scale. Many such towns from India, which owe their existence to the temples of extraordinary magnificence and importance hence began to be called 'temple towns'.

2.1 Location and Planning Principles: While major Hindu Temples were mostly situated at confluence of rivers, river banks, lakes and seashore, Puranas suggest temples were also built where a natural source of water was not present. Here too, a pond was to be built preferably in front or to the left of the temple with water gardens (Hindu temple architecture). The development of the ancient temple town of Varanasi and Omkareshwar was guided along an axis, defined by the river Ganga and Narmada respectively. Temples could also be built inside caves and carved stones, on hill tops affording peaceful views, mountain slopes overlooking beautiful valleys, inside forests and hermitages, next to gardens, or at the head of a town street (Kramrisch, 1976).

Besides this, the development of temple towns was also guided by ancient principles of town planning as described in Shilpashastra. The town of Tirupati followed Nandyabharta type of planning where streets run parallel to the central adjoining streets. Madurai was designed according to the Rajdhani plan with the city built around the temple complex as the focal point, with a combination of a concentric street pattern, and the city acting as capital to a larger area.
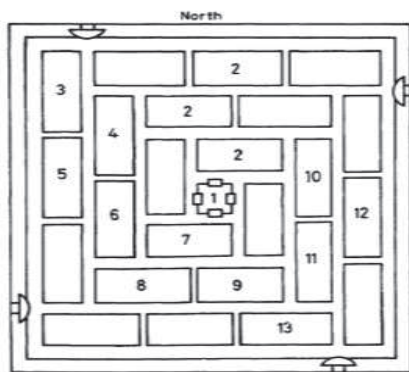
2.1.1. TIRUPATI- Nandyabharta:

Fig 1: Nandyabharta Type of Planning

Fig 2: Map of Tirupati
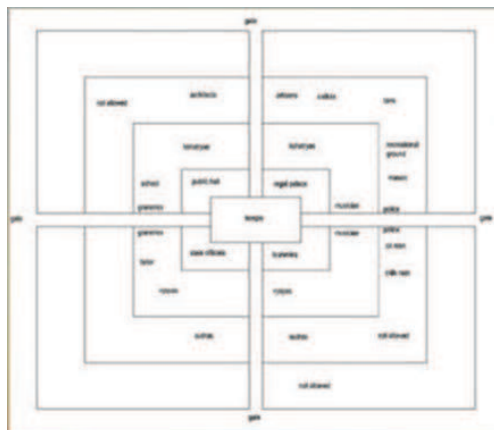
2.1.2. MADURAI- Rajdhani (Capital):

Fig 3: Rajdhani Type of Planning

Fig 4: Map of Madurai
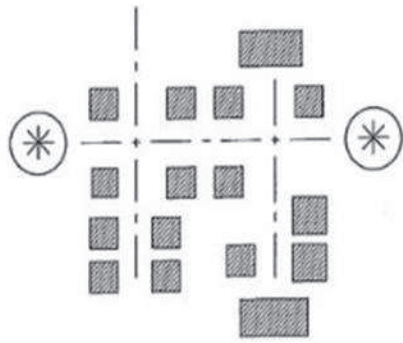
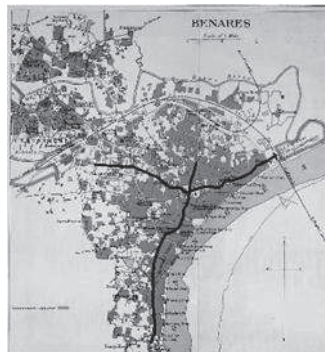**2.1.3. Varanasi and Omkareshwar – Axial:**

| **Fig 5:** Axial Type of Planning | **Fig 6:** Varanasi | **Fig 7:** Omkareshwar |

3. Characteristics of Temple Towns:

Table I: Comparison between Temple Towns

Towns / Characteristic	Tirupati	Madurai	Varanasi	Omkareshwar
Era of origin	10th century A.D. (Pallava dynasty)	4th century B.C. (Sangam period)	10th century B.C.	Unspecified
Geographical conditions	Hilly terrain	Southern Deccan plateau	Ganga river plains	Narmada river bank
Type of architecture	Dravidian	Dravidian	Hindu temple architecture	Hindu temple architecture
Planning	Nandyavartha	Rajdhaani	Axial/organic	Axial/organic
Integeration cores	Centering at temple in the center of the city	Centering at Meenakshi temple in the centre of the city	Centering at temple on intersection of axes guided by path of river	Centering at temple on intersection of axes guided by path of river
Connectivity	Broken linearity with streets spiralling inwards in rectangular form	Layers of structures centering at temple with major axes guiding secondary streets	Single axis guided by curve of the river path, with plenty of ghats used for different functions as well as transportation	Single axis guided by curve of the river path, with major development and connectivity on one side of the river
Street order	Streets run parallel to the central adjoining streets with the temple of deity at centre	Concentric quadrangular streets around temple	Organic layout of streets	Organic layout of streets
Water body	Bank of river 'Swarnamukhi'	Bank of river 'Vaigai'	Bank of river 'Ganga'	Bank of river 'Narmada'
Mythological significance	Mythological story of self-idol led to development of temple and eventually town	Venue of wedding of lord Shiva with lady Meenakshi	Religious importance of Kashi Vishwanath temple	Devoted to lord Shiva, one of the 12 Jyotirlinga shrines

4. Conclusion: Thus, from above comparison, a set of features which are observed to be characteristic to temple towns are:

- Geographical and topographical conditions played a major role in location and formation of a temple town.
- Most temple towns were associated with either a natural or a man-made water body.
- Planning principles of Vastu Shilpa were followed.
- Rank ordering of urban streets and landmarks was done.
- Integration cores centered at the temple as it was the focal point.
- Temple towns had highly planned layout and regular settlement pattern initially, which ultimately shifted to a more organic type of development.
- There was a high level of connectivity with intelligible structures.

References:

1. Acharya, P. K. (1946). An Encyclopedia of Hindu Architecture. In P. K. Acharya. New Delhi: Oxford University Press .
2. Ambalika Ekka, S. D. (2016). Influence Of Culture On Tribal Housing In Odisha: A Case Of Kisan, Oraon, Gond And Khanda Gauda. Engineering Sciences International Research Journal : Volume 4 Issue 1 (2016) , 72-80.
3. Cartwright, M. (2015, September 04). Hindu Architecture. Retrieved from http://www.ancient.eu: http://www.ancient.eu/Hindu_Architecture/
4. Dutt, B. B. (1977). Town Planning in Ancient India. In B. B. Dutt. New Asia Publishers.
5. Good, P. A. (1985, June 29). The Role Of The Temple In A Traditional Tamil Nadu Town. Retrieved from http://www.researchcatalogue.esrc.ac.uk: http://www.researchcatalogue.esrc.ac.uk/grants/G00230100/read
6. Heitzman, J. (2011, March 01). Temple Urbanism in Medieval South India. Retrieved from www.cambridge.org: https://www.cambridge.org/core/journals/journal-of-asian-studies/article/div-classtitletemple-urbanism-in-medieval-south-indiadiv/E9E7AC4838DF6A200E2B06EDFD116072
7. Hindu temple architecture. (2017, 04 16). Retrieved from wikipedia: https://en.wikipedia.org/wiki/Hindu_temple_architecture
8. Importance of Temples. (2014, January 3). Retrieved from Hindu Temples in India: https://hindutemplesindia.wordpress.com/category/importance-of-temples/
9. Kramrisch, S. (1976). The Hindu Temple. In S. Kramrisch, The Hindu Temple (pp. 5-6). Motilal Banarsidass.
10. Sarkar, T. (2016). An Architectural Investigation Of Colonial Calcutta Through Literary Works Case Study: City Of Dreadful Night By Rudyard Kipling. Engineering Sciences International Research Journal : Volume 4 Issue 2 (2016) , 94-98.
11. Venkatraman, N. (1981). Pattern approach to architectural conservation: a temple town in India. Retrieved from repositories.lib.utexas.edu: http://hdl.handle.net/2152/22574

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