

# Urban Design and Spatial layout of Temple and Temple Towns of Tamilnadu-India

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**Abstract:** *Traditional temple towns are structured in a way they meet the need, demand and aspirations of the society. These towns are guided by various treatises in architecture and planning. The functioning and ritualistic aspects are from the Agamic Verses. It is these sacred texts that determine the form and order of the city. The built fabric, the movement, the location dispersal of various activities shows a higher level of adherence towards their sacred text. These Temple towns are the standing examples for the living heritage. They act as a string of continuity that ties the past with the present. There is a higher level of integration with the spatial organization and functioning of the spaces. The metaphysical interpretation of spaces place a higher role in shaping the built fabric. The built form guided by social norms together with festive events forms the basic structuring of the Temple towns. This paper addresses the basic norms that guides the spatial layout of the Temple town, its functioning, its spatial dynamics and the importance of movement in Temple towns. Further, it also guides in formulating future guidelines for addressing any heritage town in the context of India*

**Keywords:** *Temple towns, Mandala, Spatial organization, Built form, Heritage*

## Introduction

The religious impact on cities has resonances in all disciplines of urban sustainability in the context of India and yet has not made a significant impact while articulating any sustainable urban policy. This paper explores the historical significance of the temple towns and how it got shaped over a period of time covering the urban planning, spatial organisation and so on.

This paper aims at the conceptual and traditional sensible empirical approaches to planning methods in India and further, extended through the analytical concepts that define a contextual planning that was in existence. The traditional planning methods give a sense of belongingness to the inmates of the society. This paper also explores the links the religion had with its heritage urban development and the environment

Traditional town show a striking balance in the socio-cultural, economic and environmental needs and it get reflected in its urban form and further responds to the domains of life at all levels. It has been internationally accepted that a successful city should have a proper balance in the above said needs thus offers security, urban infrastructure and a sound social environment.

It is a strong realisation by international and national community that a successful city should balance social, economic and environmental needs, should respond to all the domains of urban life, should offer security, quality level basic urban infrastructure and a healthy social environment to prosper its culture and community by recognising its natural assets, citizens' needs and environment on which it builds (Elmer & Leigland, 2013). Thus, with a focus on ecological and humanistic dimensions of urban environment, sustainability is an important concept, which is appropriate only when implemented in their current cultural contexts

## Background

Urban fabric evolution show that city making is a process in which social, economic, political and physical components interact with each other. These urban forms are the resultant of the urban experiences. These material organisations help in shaping the city. Elements of urban tend to express through its spatio-physical entities. Any city is a result of complex relationship among the socio- economic spatio-temporal and environmental processes and practices Religion plays an influential role in social and political movements and is an important determinant of identity The value of the place becomes the reference for its design as well as aspiration of the community at large thus becomes key component of a city's identity Religion is a critical analytical category in Indian cities in multiple ways and contribute to much determining factors of sustainable cities in India

City structure has had numerous interpretations from the social, religious, historical, emotional and metaphysical aspects. Urban form of any traditional town or city in the context of India has its unique dimensions. It shows a constant juxtaposition of time over space which has resulted in various styles and forms of Architecture and Urban Pattern. The urban form together with the multitude of activities and associated events makes the urban form in totality. The built form and its associated festive events, the constant juxtaposition of Time over Space, the metaphysical and the symbolic meaning of spaces all put together constitutes the Collective Urban form of a Temple Town .

## Temple Towns of Tamilnadu

Spirituality has taken a very dominant role in many fields like Arts, Literature, Music, Architecture and

Town Planning. It is true with the Temple Towns of Tamilnadu. As far as the urban form of a Temple Town in Tamilnadu is concerned, religious oriented activities and the rituals take a very dominant role in shaping the urban environment. The morphology of these Temple Towns exhibits very interesting urban forms associated with the living traditions. Temple occupies a prominent position. The temple related rites and other rituals form a major part of the urban fabric.

Development of an urban core around a temple complex is ideally a Temple Town. The Temple towns have a predominant Temple complex as the histogenesis of the town. The Temple was the Center of all civic and social life. Its structure dominates the surroundings both by its location and size. The precinct eventually grew around the Temple, which was the hub of all activities. Its influence extended beyond the purely religious and spiritual realms and made the Temple an important factor in the Community. These towns follow certain grammar in their overall layout of the urban form. The temple towns can be concentric or monocentric like Madurai, Chidambaram and Srirangam or multifocal or polycentric like Kumbakonam and Kancheepuram

**Spatial Configuration of the Temple Town**

Spatial components namely the main temple complex with its roaring Gopuram and massive enclosures, the water bodies- sacred and profane, the residential areas, the market place and others which form the fabric of the city are dispersed in an orderly pattern and is highly integrated. The manner in which these elements are arranged to obtain a particular spatial configuration reveals the existence of hierarchy. There is a specific hierarchy that is followed with the temple occupying the centre of the town, the water bodies at the cardinal direction, the Gopuram in the cardinal direction and the fabric of the city following the Mandala layout.

The elaboration and refinement of this spatial configuration is achieved by a system of spatial mediation achieved by the specific placement of the streets that accommodate the festive rituals, the diminishing height of the Gopuram towers. The disposition of urban form around the centre and their spatial configuration is normally regulated by the sacred geometry or the Mandala. The simplest is the Mandala which is a nuclear diagram of ritual significance and provides a blue print for building. At a smaller scale, the systems of urban spaces are laid out in direct response to the functional requirements of the processional routes or a ritual ceremony.

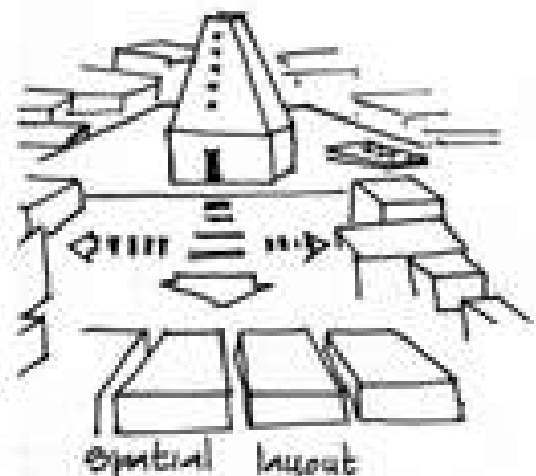
**Spatial Organisation of the Town With Reference to the Temple**

The temple complex with its huge Praharam and Gopuram, the Sannidhi street or the approach street, the Mada streets or the circumambulatory

streets, the sacred water bodies at cardinal directions constitutes the overall urban fabric of the temple town (fig1). The spatial organisation forms certain metaphysical grammar beneath the formation of such urban fabric.

The functions of these elements include the following

- The temple or the Stalam- the Genius Loci, that has the massive enclosures or Praharam and has Gopuram or the high rise towers
- the tank or the Theertham-for its religious ablutions and also has its association with various Thepam and other festivals,
- streets that includes Sannidhi streets or approach streets and Mada streets - the processional routes namely the Mada Veedhi which has year round dynamics through the celebration of the spaces (fig 2 a and b)

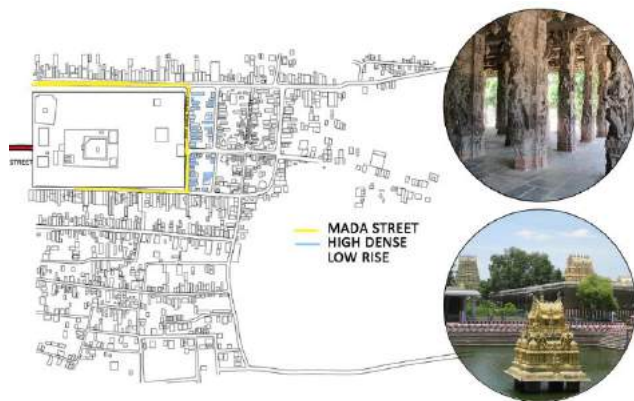


**Fig 1** Spatial Layout of the Temple Town with temple as its core

The temple has four major components Moorthy-diety, Shtalam -the shrine, Theertham –the water body and Vriksham –the associated tree (each shrine has got a Sthala Vriksham for its main diety, The spatial organisation that got eventually developed around a core was the outcome of a careful planning and understanding of urban ecology and related ecological sustenance.



a. Ekambareswarar temple surroundings



b. Varadarajaperumal temple surroundings

**Fig 2a and b** Surroundings of Ekambareswarar and Varadarajaperumal temple showing the Snnadhi street and Mada Street

**Processional Movements in Relation to the Center**

The movements during the festive rituals in urban space are always related to the center. They can be basically summed up into four types

- There are movements towards (or into, through and across)
- Movements around it, this is essentially the circumambulation which in spatial terms is the concentric processional streets surrounding the four sides of the temple and forming a series of enclosure
- Movements away from (or out of), this could be thought of in terms of cardinal streets leading out from the central temple and the beginning of any processional ritual in which the deity is taken out of the temple complex.
- Movements beside a spatial entity which is around the tanks and water bodies

These movements show how closely the circulation route is linked to the presence of the centre and other formal elements. The processional festivals are basically the elaboration of these four elementary forms of movement. It is basically these processional rituals and the festive events that make a holistic spatial organization

**Spatial Contrast**

The urban form as well as the settlement pattern is peculiar to a precinct and is differentiated from the overall city from by means of:

- The grandiose vista of the Gopuram from the streets
- such vista creates a sort of a anticipation in the movement
- Juxtaposition of the positive and the negative spaces
- Juxtaposition of the built spaces against the natural topography

- Street pattern either leading towards the temple or encircling it.

The pattern of spatial contrast is used universally in all traditions and cultures to define the sacred space. The qualitative difference the sacred space and its environment is the basis of order and that creates an interest in the overall urban fabric.

**Functional Dominance**

Most religious precincts have a mixture of activities within them because they act as important nodes of place. Religious and commercial activities are usually overlapped in most cases. They also contain the local occupations of the people supporting their economic activities. e.g., crafts in the form of silk weaving, jewellery making, pot making, garland making etc. Pilgrimage and festivals that take place within the precinct also contribute to its image.

**Symbolism and Imageability**

The urban form is spatially and symbolically expressed in the form of Gateways and Gopuram acting as landmarks and give orientation to the city. A view towards the Centre and Vistas along the street contributed by the urban pattern is also inherent in the precinct. In some cases, the ritual topography like hillocks or hills, sacred rivers plays a strong role in symbolism and imageability

**Processional Routes**

The main purpose of religious festivals in Tamil Nadu is to extend rites and ceremonies beyond temple walls so as to permit an interaction between sacred space and the urban space. The highly ordered movement of people and deities through the streets during religious ceremonies forges links between the focal monument that stands in the middle of the town and lesser shrines of the sub-urban quarters and sometimes even the sacred spots in the country side beyond. All the processional ritual movements are prescribed as all the form is based on the cosmic diagram- the Mandala and the route of circulation follows it. The significant aspect in this regard is the centre or the Bindu. All the processional festivals circumambulate the centre and all the movement patterns are in a certain reference and adhere to the agamic traditions of the temple

**Circumambulation**

In case of the Temple Towns of Tamilnadu, the concept of circumambulation is so dramatic, impressive, elaborate, vibrant and highly structured and so intrinsically choreographed that it becomes a central feature of public life .The deities are taken out in their vahanas or vehicles and follow a specific route and interestingly sometime visit another diety and the entire sequence becomes a beautiful pattern as a kind of mobile temple architecture

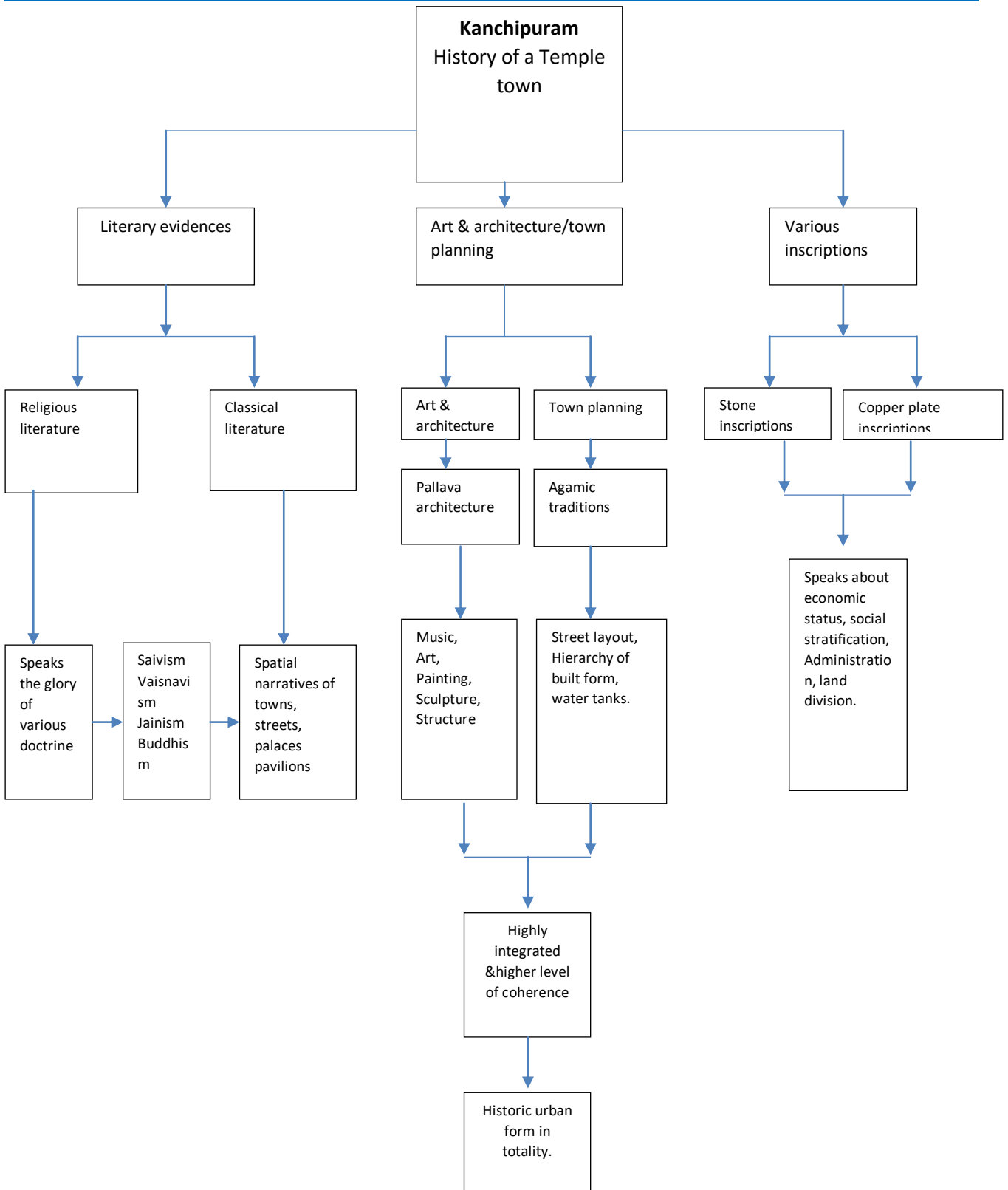


Fig 3 Historic background of Kancheepuram

**Dynamics of Spaces**

Year round Rituals, Celebrations, Festivals, Utsavams, Melas shows the real vibrancy of the spaces. The spatial dynamics varies daily with multitude of activities ranging from the micro level to the macro level through the sequence of spaces. This spatial

dynamics is again a sum total of the social, cultural and the religious factors that have been in practice. The space accommodates for these festive events and thus become a part of the temple fabric itself.

The Thepotsavam or Chariot Festivals play a significant role in exhibiting the Spatial Organisation of

the built environment. Through a sequence of vibrant events they represent the fixed aspect of the physical space by means of moving dynamic aspect of the festive procession. These events represent the social, cultural, metaphysical and religious aspects of the society at large

In the Temple Towns Of Tamilnadu ,most important rituals are linked together in space following Indian tradition. Significant occasions in one's life time from birth to death are either celebrated or performed with specific rituals at specific places. The first solid food given to a child is done at temple with a set of rituals;when a deity is worshipped , the idol, the temple ,the town is circumambulated.Thus it is very evident that there exist a subtle relationship between processional rituals and the form of the city .

### Case study-Kanchipuram

Like any other dominant Temple Town in Tamilnadu, Kanchipuram too had a temple centred urbanisation over a period of time. Kanchipuram is one of the significant temple towns of Tamilnadu. Kanchi or Kachi, as it is known, has a very rich cultural, architectural and religious heritage. From the earlier days, Kanchi is a centre of excellence for education next to Varanasi in India. It was seat for religious excellence in Saivism, Vaishnavism, Jainism and Buddhism and has a long history associated with it. Many literatures were created, quoted, sung in praise of the architectural, religious, cultural glory of Kanchi. Pallava, Chola and Nayak dynasties have left their strong footprints as their architectural marvels in Kanchipuram, Mahabalipuram and Thirukalukundram.

Metaphysical and philosophical interpretation of the urban spaces are some of the rarest remains which could be well demonstrated in case of the physical planning of Kancheepuram. In kancheepuram, the urban form consists of closely related residential and institutional buildings mainly occupied by the peoples who are involved in the activities of the temple and also, the commercial activities usually develop as a linear spine all along the movement of the religious areas. Religious institutions or madha are the next set of significant buildings in kanchi and are also located in close proximity to the temples. The concentric streets in the religious precincts have a definite relation with respect to the temple and its immediacy e.g., the tank square, the Mandapam and other structures. Thus they facilitate the hierarchical organization of the activities and processions to be carried out during festivals at different times of the

year. Fig 3 shows the historic background of kancheepuram.

### Application of traditional principles in the present context

Smart cities demands an integrated approach that is more holistic in nature covering the wider areas of urban planning. The integrated approach of town and country planning and making it more symbiotic is the crux in ancient planning with the town being the core and fed by the surrounding hinterland. Traditional towns need a systematic approach in addressing the current issues. Two things need to be addressed. Valuing its historic heritage is one aspect and to meet the contemporary issues is the next aspect. It is the challenge of the architects and planners to make a striking balance .

### Conclusion

There has been tremendous criticism with the insensitive and incongruent approach of urban planning for such old settlements with a complex society system and values. Hence, the interventions any recent Urban Development require an investigation of old cities in India to understand their traditional planning principles so that the inherent features of these old settlements can be advanced to perceived level of smartness

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