Shaping Settlements: A Study of Temporal Events and Spatial Form in South Indian Temple Cities

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INTRODUCTION

"....shall I attempt to describe Zaira, city of high bastions. I could tell you how many steps make up the streets rising like stairways, and the degree of the arcades' curves, and what kind of zinc scales cover the roofs; but I already know this would be the same as telling you nothing. The city does not consist of this, but of relationships between the measurements of its space and the events of its past.....the festoons that decorate the course of the queen's nuptial procession....As this wave from memories flows in. the city soaks it up like a sponge and expands. A description of Zaira as it is today should contain all Zaira's past. The city, however, does not tell its past, but contains it like the lines of a hand...."

- Italo Calvino, *Invisible Cities*

There are many ways of understanding built form, this paper examines it from the dimension of temporal events like processional rituals. All rituals convey certain meanings that relate to the significance of the place wherein they are staged. They serve as a mediator of meaning underlying a larger configuration. Rituals, festivities and celebrations have been studied extensively by anthropologists and sociologists, but unfortunately given less importance by architects and urban designers.[1] Some architectural theorists such as Rossi have touched upon the relationship between monuments and ritual, both being the "permanent conserving element of myth."[2] and both thus being linked to the idea of retrieving the memory of the past - one in the static and permanent dimension, and the other in the dynamic and temporary dimension. Besides this, some have also emphasized the understanding of ritual in relation to the city as one of the modes of expression of the collective memory being of extreme importance in understanding the implications of the founding of the city and of transmission of ideas in the urban context.

Today these rituals become specially important if we look at them as an imaginative means of urban renewal. Today, many people yearn for renewal with a holistic perspective. It is therefore important to understand what renewal meant in the past. Then, one of the ways in which the renewal of a city was encountered was, terms of an emotional and mental transformation experienced through rituals of festivity. This idea is reflected in the anthropological studies wherein, "the primary and most general function of the festival is to renounce and then announce culture, to renew periodically the life stream of a community by creating new energy, and to give sanction to its institutions, the symbolic means to achieve it is to represent the primordial chaos before creation, or a historical disorder before the establishment of the culture, society, or regime where the festival happens to take place."[3]

Before examining the relationship between rituals, festivals, celebrations and the form of settlements, let us consider the meaning of these terms, which have often been used interchangeably.

RITUAL

The adjective's ritual, ceremonial and customary have often been used interchangeably. Ritual is not just ceremonial or liturgical but is essential to basic human existence and thus a social need. One does not talk of repetitive everyday behavior as ritual; it is more of a habit. Ritual is a socially agreed upon and socially relevant form of behavior, with an extra degree of fervor, passion and intensity. This could be due to its function as a link between the sacred and the profane, since it does address forces or entities that might be termed supernatural or mystical. One could even say that the very act of ritual sanctifies the most prosaic aspects until they achieve that of reverential standing. Though a form of communication (as the "ritual as language theorist" would argue) it does to a certain extent portray beliefs and is an expression of them. Ritual serves to revive and express the memory of a myth associated with an event, person or place. It may take the form of selective remembrance or the recapitulation of an event and is inextricably linked to the memory. Ritual could thus be said to be a formal recreation of collective memory or celebration of collective memory beyond a functional level. Since ritual is an expression of cultural and social continuity and its expression is in some ways the ability of the people to draw on their own, memories of those around them, the total alteration of a ritual throws the
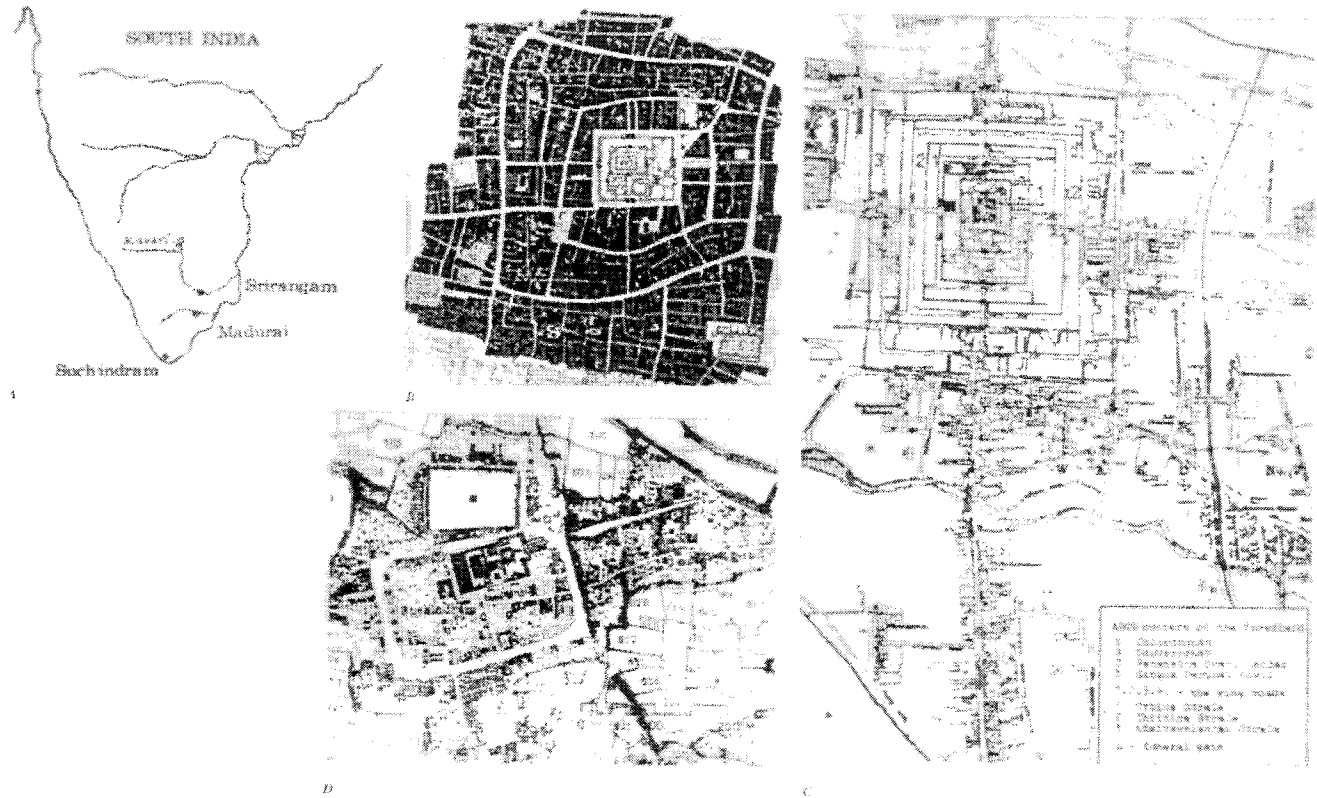
Fig. 1. A. Geographical Location B. Madurai C. Srirangam D. Suchindram

people who participate in it out of gear and go against its very meaning and essence. It is by this very act that a sense of continuity is achieved and which in turn assures a sense of security.

FESTIVAL

The term festival comes from two Latin words: *Festum*, which means public joy, merriment, revelry and *Feria*, which means abstinence from work in honor of gods. Both these words were used in the plural; thus one sees the element of play involved in the first one and the feeling of ritual in the second. "Play inverts the social order and leans towards license, ritual confirms social order and is regulated."[4] These two facets are both complementary as well as contrasting and each of them prepares you for the enjoyment of the other. It is the combination of these two that lends the celebration its liveliness and power, and is very important in generating the charged atmosphere. According to Johan Huizinga, the Platonic identification of play and holiness does not defile the latter by calling it play, rather it exhalts the concept of play to the highest regions of the spirit.[5] Festival means a cyclically recurrent social occasion, exhibited through events, in a multitude of forms, involving direct or indirect participation of people at various levels who might have different things in common ranging from religion, community, geographical location, language to world view.

CELEBRATION

Celebration is a combination of play and ritual. There is not a subject and object in the celebration, it is an entire totality and one cannot detach the participant from the event they participate in. The manifestation of these festive rituals is in their celebration wherein the spatial context is equally important as the temporal nature of the festive ritual; this shows the unique relationship of the memory of the place and the event. The fact that the act of celebration is recurring, collective, publicly exhibited, that it uses the public environment to be enacted, and reinforces the collective consciousness of the place and the people, makes it an important aspect of the collective memory and the built form. Celebrations could be referred to as connected with predictable culturally shared events, such as life experiences, work seasons, religious beliefs, etc.[6] But there is an important distinction between rites of passage and seasonal/calendrical festivals, "since life-crisis rituals emerge in situations of already heightened emotion and energy, the task of ritual is to 'provide an organizing set of principles, traditional ways of binding for the moment the opposing forces within the community and tying together the past with the present.' Festive celebrations have, on the contrary, to generate their own energies. They often begin, literally, 'with a bang' using pyrotechnic and percussive means."[7]

In this study the cities of Madurai, Srirangam & Suchindram are selected as exemplifying typical South Indian temple cities. The urban features and rituals in all the three cases are essentially

similar in nature, and are also characteristic of many other temple cities in the region. They are important religious centers and follow more or less the same ritual patterns as in the past since in comparison to many northern Indian cities these are least affected by outside influences. The cities analyzed here emerged in the early Middle Ages as an assertion of the political power and the ritual purity of kings.

SPATIAL MANIFESTATION OF PROCESSIONAL RITUALS

There are two aspects related to all processional rituals in these cities: 1. Movements are prescribed, since these cities are all based on a fixed cosmic diagram-the *mandala*,[8] and the route of circulation follows it. 2. The presence of a center around which the processions circumambulate. All the movement patterns are in reference to it as well as the formal spatial elements explained further.

1. *Mandala* layout:

There are various types of *mandala* layout, but in these temple cities the *Sarvatobhadra* and the Nandyavarta schemes seem to be used. These schemes particularly represent the concentric hierarchy. The ancient texts are ambiguous in their descriptions, but there has been much scholarly work done regarding their visual interpretation.[9] Both these schemes have streets that circumscribe the central *Brahmasthana*. The *Nandyavarta* scheme, though is more interesting, since it suggests movement within it, which is of course an important aspect of processional festivals. The concentric streets are associated with religious car festivals, though their allusion in the texts as rathya (here ratha probably mean's chariot or the car that is used in the procession referring specifically to religious processional cars) is uncertain.

2. The presence of a center as a reference point in processional rituals:

The center was thought to be the focus of creative force where the communication among the three planes- earth, heaven and the underworld- was most easily achieved. This was the metaphysical point through which the axis of the world passed. This symbolism made the center the most sacred point, thus, it was here that the temple was situated. The power generated here flowed out through the cardinal points to the *gopuram* towers, they therefore possessed heightened symbolic meaning that was expressed by the excessive, massive construction whose size far exceeded the necessary. Certain other features of the temple towns are also explained in symbolic relation to this center such as *kulams* (water bodies or tanks). The ritual ordering of the universe within the confines of the shrine creates an ideal opposed to the disorderly world of nature. At the heart of the shrine lies a concentration of sacred power; but this power is restricted, channeled, forced into an inherited pattern of symbolic relations. Chaos is represented through symbols that reflect its subjugation: the primeval water of the flood, the water that threatens to destroy the created universe and out of which the universe has emerged, exists within the shrine or in its vicinity in form of a temple tank, a river, or the sea.[10] This symbolism generates the essential elements that are integral to a South Indian Temple City - namely the central temple, the *gopuram* gates in the cardinal directions, the walled temple enclosures, and *kulams*.

These towns have been laid out on what can even be called 'inward directed geometrization'. The center which is all important and sacred gives rise to all ritual and festive activity like the processional circumambulation. Circumambulation in this case always refers to the center and so does other ritual movement. These can be analyzed into four types:
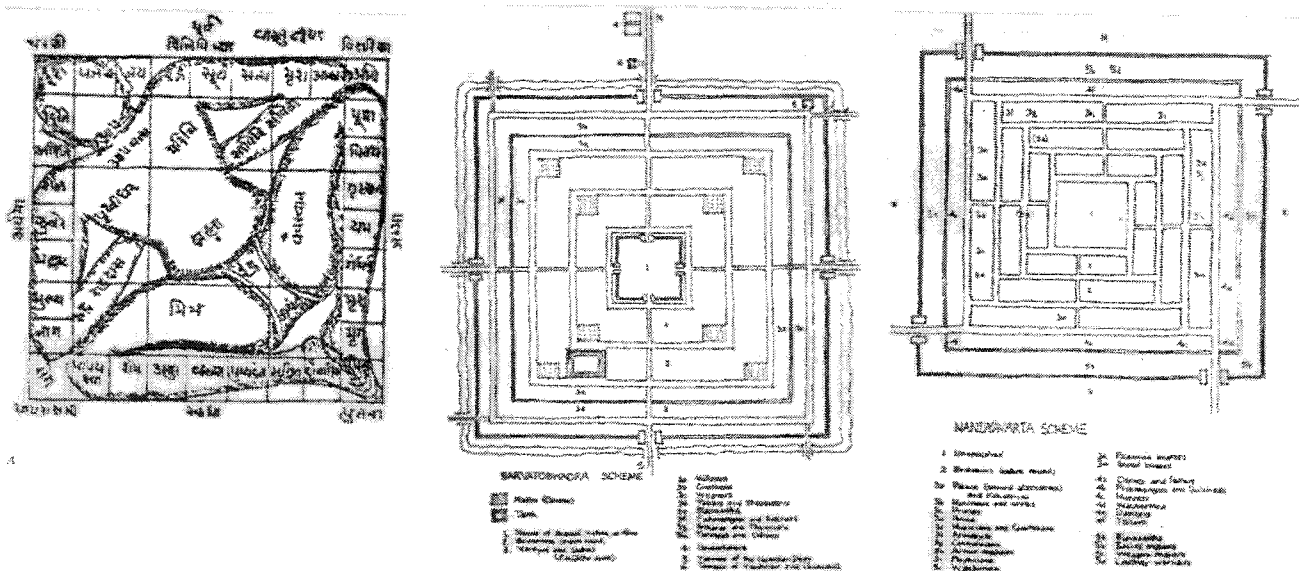

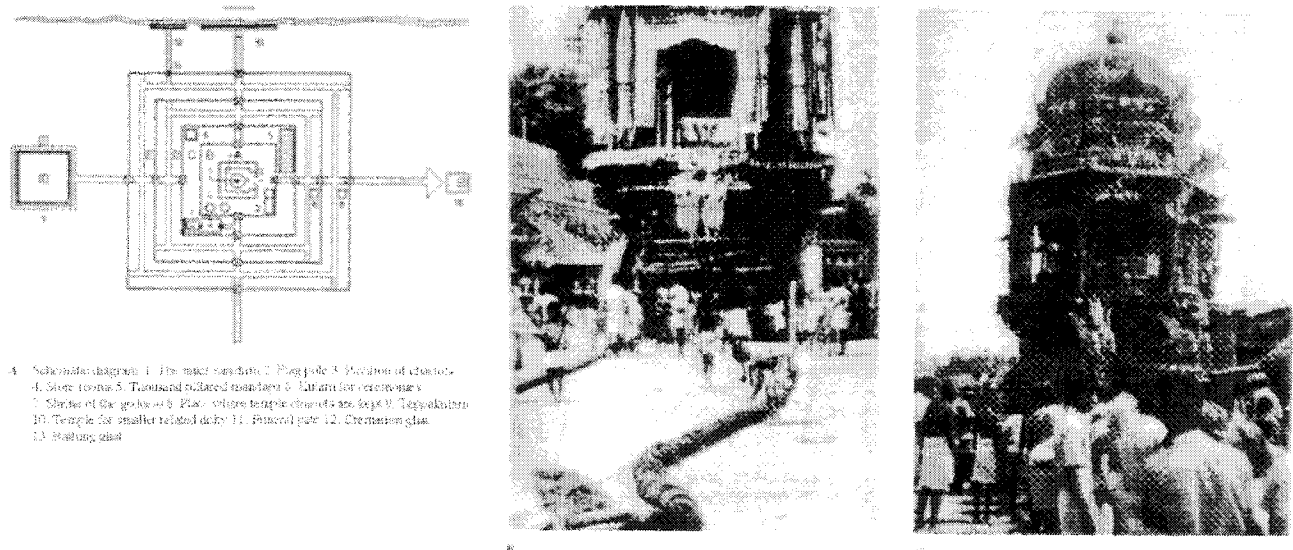Fig. 2. A. *Vastupurusha Mandala* B. *Sarvatobhadra* Scheme C. *Nandyavarta* Scheme

Fig. 3. A. Schematic diagram showing the elements of a South Indian temple town; B. & C. Processional chariots during festivals

1. The movement towards (or into, through and across). For instance, the east-west ceremonial axis in Suchindram, or for that matter in any of the temple cities the movement at the end of the procession or the termination is back to the beginning, which is towards the center in the temple.

2. Movement around it. This is essentially a circumambulation which in spatial terms is manifested in the concentric processional streets surrounding the four sides of the temple and forming a series of enclosures as in the case of Madurai.

3. Movement away from (or out of). This could be thought of in terms of the 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.

4. Movement 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 center, and other formal elements and processional rituals, are basically the elaboration of these four elementary forms of movement.

SPATIAL LAYOUT AND FORMAL ELEMENTS

Consider Srirangam, which may serve as a representative of the characteristic South Indian temple town. It is composed of seven concentric walled enclosures, of which the inner four constitute the temple proper, while the outer three are residential quarters. The entire complex is organized around two axial streets, crossing at right angles. This is discernible in its layout and in its spatial structure. The organization is evident in the sequence of the *gopuram* gates at every enclosure that are distinctly perceived from every part of the town showing the spatial nodes of the layout. An important feature in the spatial organization are the water bodies. There are eight tanks surrounding the town in the cardinal and intermediate directions for ritual purposes. In addition, due to the location of the town on the Kaveri river (on the end island which gives it special significance), the *ghats* (steps leading to the river) are linked by a

straight exactly north-south oriented ceremonial way.

In general, the spatial layout of these towns could be considered at three levels. The first is the repertoire of basic urban elements: the temple, the water bodies, the *gopurams*, walled enclosures, as well as the residential areas, and the market place, all of which form the fabric of the city. The second is the manner in which these elements are arranged to obtain a particular spatial configuration. Here a specific hierarchy is followed: the temple occupying the center of the town, the eight water bodies in the cardinal and intermediate directions, the *gopurams* in the cardinal directions and the fabric of the city itself following the *mandala* layout. The third is the elaboration and refinement of this spatial configuration by a system of spatial mediation. This can be achieved by means of specific placement of the streets that accommodate the festive rituals, the diminishing height of the *gopuram* towers as one goes towards the center and such like. This spatial structure of the city has often been described as a refined geometrical balance of the laws of two superimposed symmetrical systems, the whole being an elaboration of the bipolarities: "axial symmetry of the walls, gates and zones - diagonal symmetry of the ring road pattern; concentric system of sacred zones - diacentric system of caste distribution."[11]

SPATIAL ELEMENTS: WATER TANKS AND SHRINES

Water is an essential part of the basic repertoire of urban elements in a conventional South Indian temple city. These tanks not only have a religious significance and are related to innumerable myths, but are important in the form the town takes as well as its land use pattern, since land around the tanks is normally given to religious institutions. In the form of *kulams* (tanks), along with shrines and smaller temples, it is an important formal element in the processional rituals. In many cases these *kulams* form the boundary of the settlement. These *kulams* demarcate the sacred boundary and can be compared to city walls and gates found in other regions. Generally, there are at
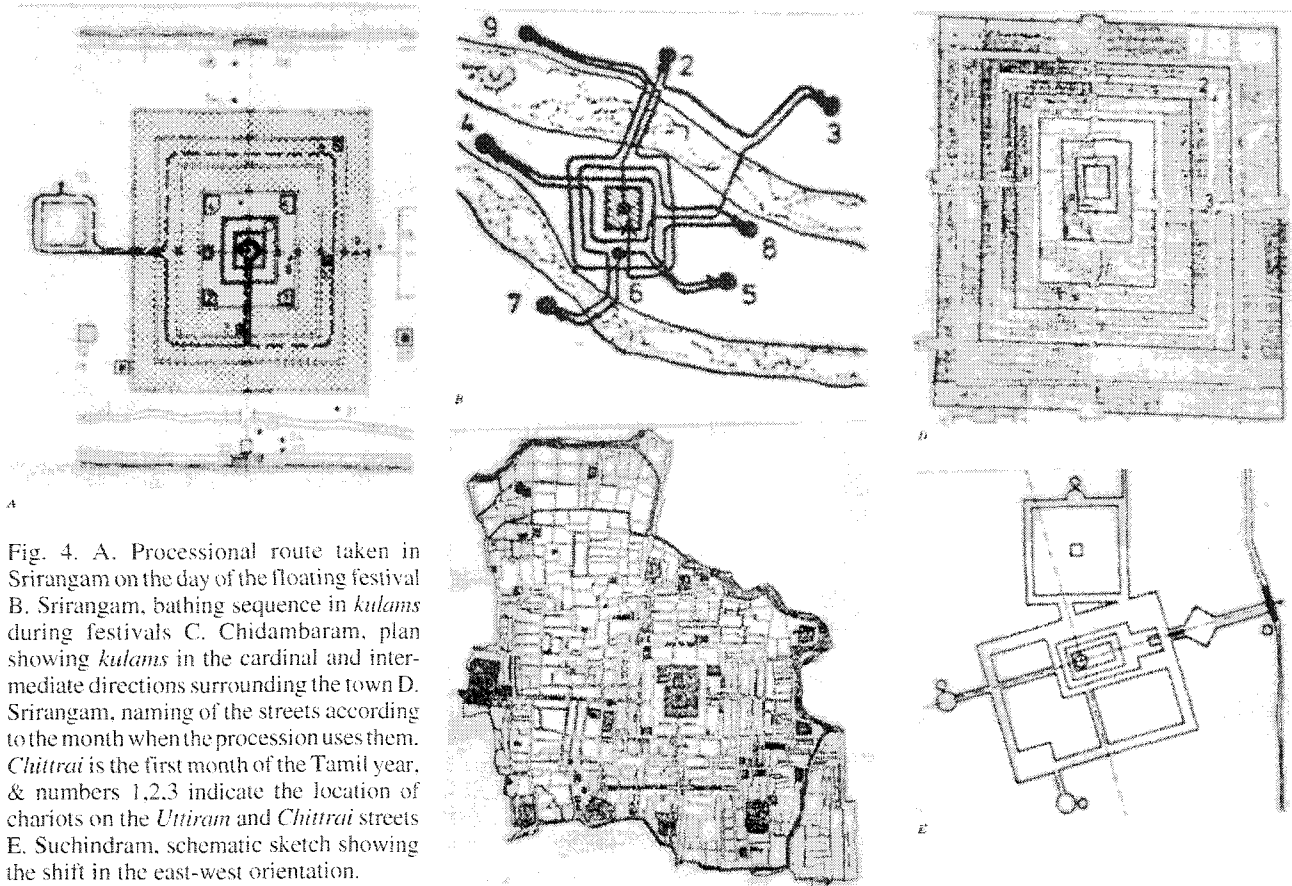
Fig. 4. A. Processional route taken in Srirangam on the day of the floating festival B. Srirangam, bathing sequence in *kulams* during festivals C. Chidambaram, plan showing *kulams* in the cardinal and intermediate directions surrounding the town D. Srirangam, naming of the streets according to the month when the procession uses them. *Chittrai* is the first month of the Tamil year, & numbers 1,2,3 indicate the location of chariots on the *Uttiram* and *Chittrai* streets E. Suchindram, schematic sketch showing the shift in the east-west orientation.

least eight tanks surrounding the city in the cardinal and intermediate directions. In addition to these, there is one in the center within the temple complex. They play an important role in the ritual bathing which is a significant component of most festivals. In many cities, ritually once a year the deity travels on water in a special festive ceremony, and therefore these towns have at least one large water tank *teppakulam* reserved for this purpose. This tank, which is square in plan, is normally located at one end of the main axis leading to the temple gates and has a central pavilion also used for special ceremonies during the festivals.

Srirangam has tanks surrounding the town in the cardinal directions purely for ritual purposes. Pilgrims take their ritual bath in them in a prescribed sequence. The one inside the temple complex is normally the first in the sequence and circumambulation of the town begins with this. The organization of the spatial pattern is such that the ceremonial route has the temple at one end and *ghats* on the Kaveri river on the other end. The spatial linking of the *ghats* on the Kaveri river to the ceremonial north-south axis which connects the river to the temple is important, since in the very first month of the year the festival of the goddess Kaveri is celebrated wherein a ritual procession takes the dowry from the god in the temple which is immersed in the waters of the Kaveri river.

Suchindram is slightly different from temple cities like Srirangam. Here, instead of eight tanks surrounding the town,

there is only one large tank. In Suchindram, as in other temple cities, there is a festival involving circumambulation in relation to the large tank - this is the floating festival. The tank is analogous to the temple. Just like the chariot circumambulating the temple, the float moves clockwise around the pavilion at the center of the tank. Like the two diagonal corners of the car street which are specially designed to take into consideration the dance ceremonies and the fireworks in the south-west corner on the night of the fifth day, so also during the floating festival there are special ceremonies performed in the south-east corner of the tank associated to the installation of the idol, and after the third round on water fireworks are staged in the north-west. This mirrors the diagonal symmetry of the chariot festival. This particular aspect of Suchindram, is portrayed by scholars as the juxtaposition of the temple and tank. Symbolically, the solid and void; the male 'upper town' around the Shiva temple in the center facing the east, and a female 'lower town' and the tank with the *devi* (goddess) temple, facing north.[12] The floating festival is concluded by a bathing procession with the ritual walk from the temple to the tank and back.

On analyzing the role of *kulams* within the spatial organization, it is obvious that they did not just happen to be there for other functional reasons and accommodated the rituals, but were specially constructed for these rituals.

CIRCUMAMBULATION

The 'mandala' plans in ancient manuals of architecture show 'processional ways' that run continuously around the settlement. This is in keeping with the ancient Aryan tradition, during the sacrificial rite the vedic altar was venerated by being carried clockwise in procession.[13] In the South Indian temple cities, this takes the form of chariot processions.

Spatially, the processional rituals indicating the travels of the deity, capture the subtle essence of the cosmic diagram - the mandala. A closer look reveals that every spatial gesture is in some way linked to the manner in which these rituals are celebrated; the ceremonial axis, the positioning of the tanks, the car streets, even the small alleys around their corner, the widening of the diagonal corners, could be all attributed to rituals. Even apparently ordinary spatial features such as narrow dead alleys at the sharp corners of the streets on which the chariot circumambulates are significant, since when the chariot reaches a corner, wedges are placed under the wheels and it is pushed into the blind alley to allow it to turn. These blind alleys provide the necessary spaces and are therefore vital. This minor detail is very interesting since it proves that the entire town was meticulously and consciously laid out with the festive processions in mind. In the town of Suchindram, it is interesting to note how the car streets at the north-east and south-west corners are widened for a particular ritual in the circumambulations; during the festive rituals when the rathas (chariots) reach these corners the carriers lift and lower the vehicles while dancing in a spiral form covering the entire widening of the square

The concept of circumambulation in these towns is dramatic, impressive, elaborate and so intrinsically choreographed that it becomes a central feature of public life. The abundant number of these processions in itself exhibits this; in Suchindram alone during the three major festivals there are 72 grand circumambulations, and 216 during the lesser events. The chariot festivals play a significant role in exhibiting the spatial organization of the built environment. The gods are taken out in their vehicles or chariots that are spectacular. These are not just chariots, but in fact a kind of mobile temple architecture.

ROLE OF TIME AND MEMORY

The role of 'Time' and 'Memory' is evident at every stage of the festive ritual. This is especially apparent in the spatial manifestation if one considers the streets where festive processions are held. In these temple cities, the streets surrounding the temple complex are named according to the month on which the each is used for the festive processions. In Madurai, the festive processions that are celebrated every month contribute creation and completion of a complete mandala by the end of the calendar year. Here, the names of the concentric streets - Adhi, Chittrai, etc.- are the names of the Tamil months associated with their respective festivals.[14]

In Srirangam, the ritual sequence and circumambulation followed in bathing at particular tanks during specific festive rituals shows the significance of one's place in space and time. Moreover, it also reminds one of his location within a larger context of the city form. This demonstrates the spatial marking of time in relation to the festive events. The spatial gesture validates a controlled space within the larger universal realm and also marks its extent in the four cardinals and four intermediate directions. Similarly, the temporal gesture controls the seemingly random flow of time by structuring and marking it through the festive events, and in turn, establishing the yearly cycle.
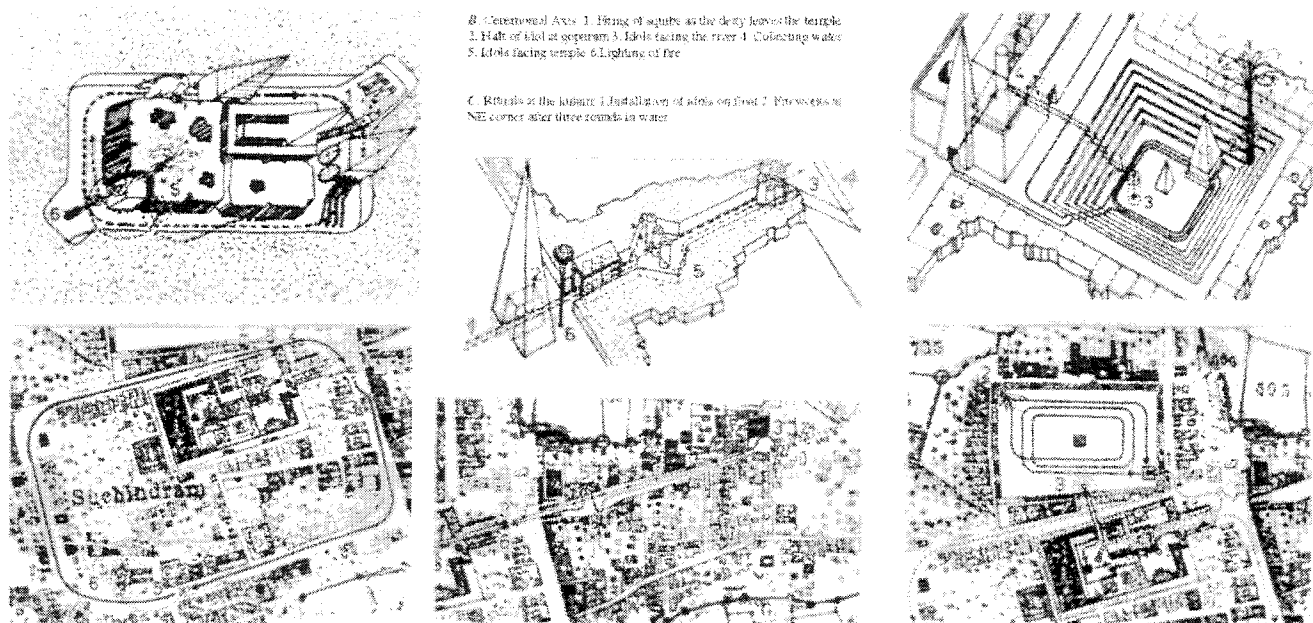

Fig. 5. Suchindram A. Ritual circumambulation route, note the widening of streets at diagonals to accommodate the ritual B. Ceremonial axis C. Rituals at the tank

In Suchindram the system of recalling the primordial memories is especially interesting. Here the memory of the foundation of the town is embedded in the installation of the idol. The east-west orientation of the idol shows a shift of 15 degrees from the geographical east. This is supposed to be due to the tradition that the orientation towards the cardinal points is fixed by the direction of the idol. Moreover, the direction is determined by the sunrise on the day of the foundation of the temple and the installation ceremony. This adds another dimension to the urban layout, 'time', since there is a basic reference to the rhythm of sunrise and sunset and the seasonal cycle. The importance of urban form then, is not just that of its relation with the cardinal points, but that of the primordial, archaic expressions of the foundation of the town in relation to it. This feature is also seen in other temple cities of South India.

The concept of time and memory is all important, here the cycle of the year is not simply a general scheme that can be repeated anywhere, but is infused with the local condition, the history of the city in time and is related to the origins of the city.

CONTINUITY AND CHANGE

In the South Indian temple cities, there is not much difference in the rituals celebrated today to those during the 17th and 18th century. This could be attributed to political conditions in this region. Modern-day changes, such as the coming of the railway during the British times, the breaking down of the boundary walls, uncontrolled growth of the city, make the spatial layout of the some cities quite indiscernible. Nevertheless, these rituals of festivity bring to light its spatial subtleties.

All the issues discussed in this study regarding the spatial organization and the rituals of festivity bring us to the fundamental question; were the rituals accommodated within a particular spatial organization or did they influence or generate the city form? As far as these South Indian temple cities are concerned, it seems that the rituals and the spatial organization were and still are to a great extent in perfect harmony. It is evident that the static and permanent configuration of these temple cities is totally dependent upon the dynamic and temporary activities they were built to accommodate. The festive rituals in that sense are a conceptual prerequisite. These cities have been described as examples of the "nested-city" model in which "ritual and form are inseparable."[15]

There is a view today that ritual is something that belonged to the past and rooted in the age of superstition. Many people question the significance and influence of ritual in the modern world. But, we are still affected by ritual to a large extent. Power is still cherished, expressed and augmented by rituals, and the latter demand spatial settings, be they represented through monumental vistas in capital cities, special parade routes, significant landmarks, or by other means. We might reject the rituals associated with power and the means to portray them, but we still have to accept that they play an important psychological role and relate to the deeper emotions and instincts within humans by reinforcing the sense of stability and continuity with the past.

NOTES

1 For studies on Celebrations, Festivals, & Rituals refer: Victor Turner, *Dramas, Fields, and Metaphors: Symbolic Action in Human Society* (Ithaca: Cornell University Press, 1974); Turner (ed.) *Celebration, Studies in Festivity and Ritual* (Washington D.C.: Smithsonian Institution Press, 1982); Clifford Geertz, *The Interpretation of Culture* (New York: Basic Books, 1973); Frank Manning, *The Celebration of Society* (Ohio: Bowling Green University Press, 1983); MacAloon (ed.)*Rite, Drama, Festival, Spectacle* (Philadelphia: ISHI Publications, 1984); Alessandro Falassi, *Time Out of Time: Essays in the Festival* (Albuquerque: University of New Mexico Press, 1987); Joseph Fontenrose, *The Ritual Theory of Myth* (Berkeley: University of California Press, 1966); William Doty, *Mythography: The Study of Myths and Rituals* (Alabama: University of Alabama Press, 1966); Malcolom Quantrill, *Ritual and Response in Architecture* (London: Lund Humphries, 1974)
2 Aldo Rossi, *The Architecture of the City* (Cambridge: MIT Press, 1982)
3 Falassi. *Time Out of Time*. p.3.
4 Manning, *The Celebration of Society*. p.7.
5 J. Huizinga, *Homo Ludens: a study of the play element in culture* (Boston, 1955). p.19.
6 Manning in *The Celebration of Society* says that "in its interpretive role. celebration is a distinctive part of the cultural repertory through which a people gain perspective on their situation. Celebration is fun, but it is also a performative statement, or "metastatement" about the social order. In its instrumental role, celebration is an important, often crucial, means through which people proclaim their identity and fashion their sense of purpose. These two roles tend to be particularly significant in contemporary societies and among those whose lives have been substantially affected by the complex and contradictory forces of modernization."
7 Turner, *Celebration: Studies in Festivity and Ritual*. p.27
8 A.Volwahasen, *Living Architecture-India* (London: MacDonald & Co., 1969). p.44, also refer Stella Kramarisch, *The Hindu Temple* (Calcutta: The University of Calcutta, 1946), and P.K. Acharya. *The Architecture of the Mansara* (London: Oxford University Press, 1901)
9 From *Manasara Shilpa-Shastra IX*. Ram Raz in *Essay on Architecture of the Hindus* in 1834 summarized the Shilpa-Shastra texts for the first time and drew diagrams of the village plans. E.B.Havell emphasized the north-south and east-west axis in 1915. P.K. Acharya also worked on the Shilpa-Shastras and the visual interpretation to his work was done by S.C.Mukherji.
10 David Shulman, *Tamil Temple Myths* (Princeton: Princeton University Press 1980). p.26.
11 Pieper, "Ritual Movement and Architecture." *AARP 11*, (1977).p.84.
12 Pieper, "Ritual Movement and Architecture." *AARP 11* (1977)
13 Volwahasen, *Living Architecture-India* .
14 Julian Smith, *Madurai, India: The Architecture of a City* (unpublished MS Thesis MIT, 1976). Pp.38-39
15 Kevin Lynch, *A Theory of Good City Form* (Cambridge: MIT Press, 1981). p.385.

ILLUSTRATION CREDITS

Fig.1.D. Fig.5. Jan Pieper, "The Spatial Structure of Suchindram" *AARP 17* (March 1980)
Fig. 1.C.Fig. 4.B. Jan Pieper, "Ritual Movement in Architectural Space" *AARP 11* (June 1977)
Fig.3. Fig.4.A.D. Jan Pieper, "A Note on South Indian Ceremonial Floats" *AARP 16* (December 1979)
Fig.2.A. A. Volwahasen, *Living Architecture - India* (London: MacDonald & Co., 1969)
Fig.2. B. C. Julian Smith, *Madurai, India: The Architecture of a City* (Cambridge: unpublished MS Thesis MIT, 1976).