



Transformation of Spaces due to Urbanization, with a Case Study of Historic Core of Madurai

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ABSTRACT: The city of Madurai, located in Tamilnadu, India dates back to 2500 C.E and manages to sustain as a living city even today. Over the time rulers like Pandiyas, Vijayanagara Nayakkas till British and the common people made changes in their community approaches and the uses of their urban heritage. But the growth of the city is considerably high that the heritage structures like Meenakshi Amman temple, Thirumalai Nayakar Mahal, Puthu Mandapam, Raya Gopuram, the Streets and the temple ponds undergo transformation and are in an urge to create awareness towards maintaining a balance between the existing and the future heritage.

The research concentrates on the historic core of Madurai, understanding the transformation of the city and its heritage structures. “How does the commercial or urbanization affect the heritage of historic cities?” was the research question. Madurai was taken as place of study and the monuments were documented and analyzed, to understand the impact of urbanization in an historic town.

I. INTRODUCTION

A. BACKGROUND

Madurai is the third largest city in Tamil Nadu and one of the oldest continuously inhabited cities in the world. It served as the capital city of the Pandyan Kingdom.

“The city of Madurai is as a lotus flower that springs from the navel of Lord Vishnu. The streets of the city are the petals. The “kovil“ at the centre is the thalamus within the petals. –Paripidal”

In 1837, the city was expanded to accommodate the growing population by demolishing the fortifications around the temple. Post-independence, the city has expanded particularly to the north of river Vaigai by the development of new residential neighborhoods. At present this historic core is functioning as the Central Business District of the city and covers an area of 2.5 Sq.Km (8.5% of total city area). The inner city area has a distinct character as the commercial and a religious center. This has resulted in shifting of the residential area to the outer city and that area is used for new developments. The new developments have different fabric and activity according to the ownership and this creates a different character to the street. The historic elements in the historic core of Madurai city are undergoing transformation in its use and visual character. The project is aiming at identifying the historic elements of Madurai which creates an identity of the city and to examine its transformation due to urbanization.

I. LITERATURE REVIEW

Literatures reviewed are Madurai India, architecture of the city. Julian S. Smith ,b.a , Oberlin college, Planning for Historic Cities-A Case Study of the Historic City Area of Madurai and Urban renewal program Madurai, 2003.Director of Town & Country planning, govt. of India.

MADURAI INDIA, ARCHITECTURE OF THE CITY, JULIAN S.SMITH, B.A: The discussion is about the street, its original character, present scenario and the factors that influence it. The researcher concludes with transformation has been occurring in the historic core which is because of the developments, tourism and the increase in commercial activity of the place.

A. *Planning For Historic Cities-A Case Study Of The Historic City Area Of Madurai*

The analysis explains the change in use of space, change of type of buildings and typology of the town. The authors have suggested strategies which can improve the city with reference to its historicity.

B. *URBAN RENEWAL PROGRAM MADURAI, 2003.DIRECTORATE OF TOWN & COUNTRY PLANNING, GOVT. OF INDIA:*

The main analysis corresponds to the change in land use and visual quality of the city. The problems discussed are from the view of the public and their suggestions are taken. The strategies focus on the city's historical elements and their current situation. Government has taken the first step towards it and chitirai street renewal has been completed and the other level renewal programs are in process.

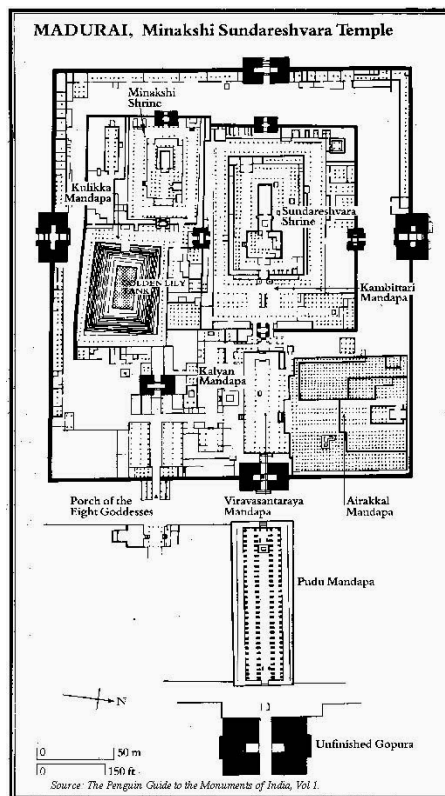
All the researches aim at regaining the historic quality of Madurai and solving the problem of traffic and transportation. The most addressed problem of Madurai is the increasing commercial activities of the core city, which reduces the residential proportion of Madurai resulting in creating a hub of commercial activities.

II. METHODOLOGY

The method of study is direct observation of the historic core area, mapping the activities and analyzing the factors influencing it. Mapping of the historical elements and documenting the scenario by observation. The collected data's are compared with the previous studies and analyzing the factors that brought in the change into city of Madurai.

A. Findings: Meenakshi Amman Temple

The temple forms the heart and lifeline of the 2500 year old city of Madurai. The complex houses 14 *gopurams* ranging from 45-50m in height, the tallest being the southern tower, 51.9 metres (170 ft) high and two golden sculptured *vimana* (shrine) over sanctum of the main deities.



The two area taken for study are

1. Nagaramandapam
2. ViravasantharayaMandapam (opposite to ayiramkalmandapam – entry through east tower)
3. PuthuMandapam
4. Raya Gopuram

Fig.1. Nagaramandapam.

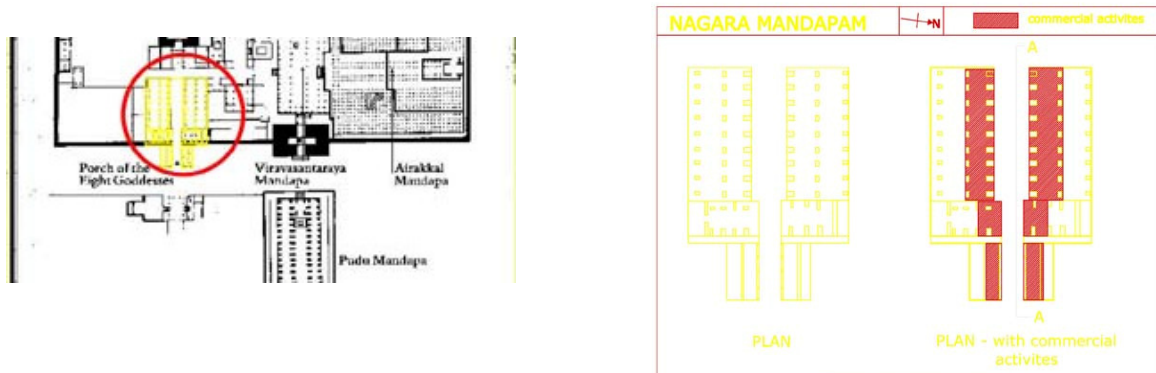


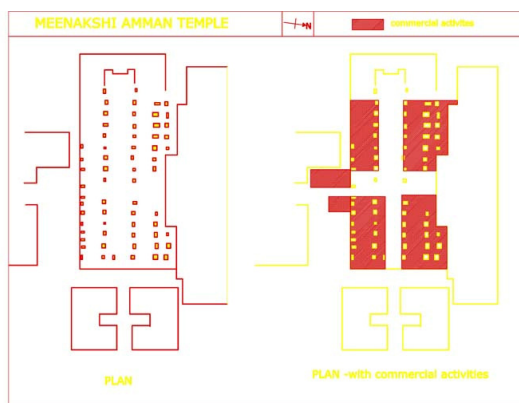
Fig. 2. Meenakshiamman temple plan – Nagaramandapam.

The architectural features, ambiance of the mandapam and half the mandapam is hidden back at the shops. The shops use the rear end of the mandapam for storage.

B. Viravasantharaya Mandapam



Fig. 3. Meenakshi Amman Temple Showing Viravasantharaya Mandapam.



The whole pathway is used for shops which are of different varieties, ranging from pooja items, kolu dolls shopping, fancy items , gift shops, bangles and cosmetics items.

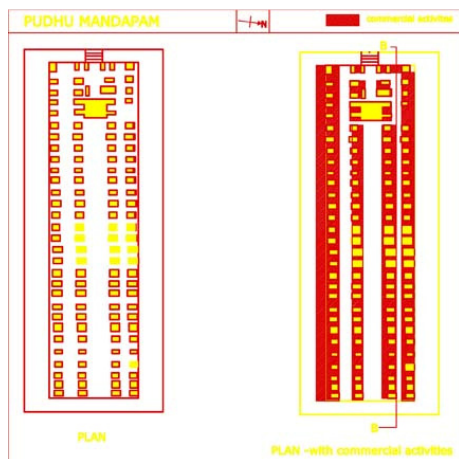
Fig. 4. Plan of Viravasantharaya Mandapam Showing The Commercial Activities.

C. Pudhu Mandapam

The commercial activity started in the mandapam was during early 1970’s and increasing till today. The entire mandapam is covered with commercial activities.



Fig. 5. Plan of Meenakshi Amman Temple – Pudhu Mandapam.



The architectural features of the mandapam are hidden within the shops and the sculptures are broken and modified according to their needs. The mandapam’s visual phenomenon is affected and the physical features of the mandapam are destroyed. The visual impact of the mandapam makes one feel the commercialization of the Madurai area.

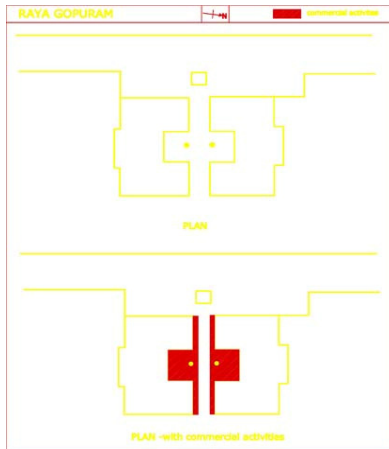
Fig.6. Plan of Pudhu Mandapam With Commercial Activities.

D. Raya Gopuram:

The unfinished gopuram that is the gate way of the temple complex of Madurai is a 16 century element, which stands as an architectural excellence of nayak style.



Fig.7. Plan of Meenakshi Amman Temple – Raya Gopuram.



The tower has a broad base whose one side base is larger than the base of temple's towers. The current scenario has transformed this element into a commercial stand. The seating area of mandapam is converted into shops for textiles.

Fig.8. Plan of Raya Gopuram Showing The Commercial Activities

The whole usable area of tower is fully used for commercial activities. The architectural features are hidden behind the shutters. The gopuram exhibits more number of sculptures and murals which are destroyed by the additions of the shops.

Table 1: Analysis of activities in the Mandapas

Sl.no	Name of the mandapa	Number of shops present	Observation
1	Nagaramandapa	24	Used for commercial purposes and loading and unloading is difficult
2	Viravasantharayamandapam	30	Used for commercial purposes and loading and unloading is difficult
3	Pudhumandapa	165	Used for commercial purposes and loading and unloading is difficult. Affects the visual phenomenon of the mandapa
4	Raya gopuram	6	The whole seating area is converted into textile shop.

III. ROAD NETWORKS

The roads connecting the temple complex and the historic elements of Madurai core are studied.

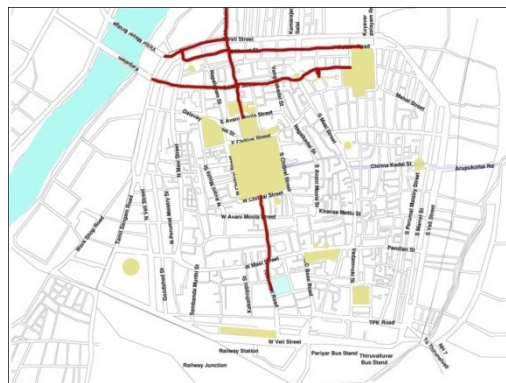
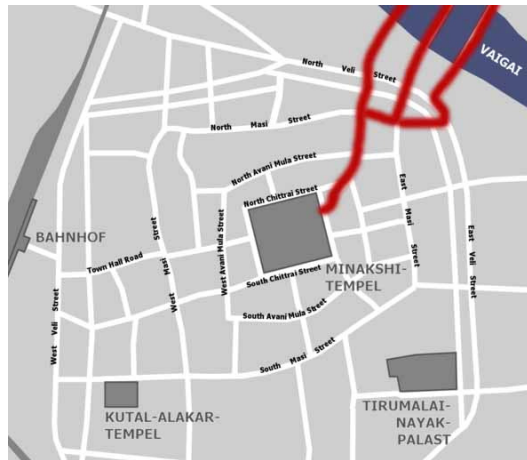


Fig.9. Road Network of Historic Core Of Madurai, With Historic Elements.

A. Roads Connecting Meenakshi Amman Temple And Vaigai River:

Madurai being situated on the banks of river vaigai, the city has its history connected with the river. The roads connect the new developing city with the historic core area. The temple has its rituals connected with the river

and the mandapam. The river or the mandapam in river is not maintained to its historic value; only the bridge is used for crossing the river. The karpaalam is not used and the roads leading to river is also not properly maintained.



The activity connected to this stretch are, commercial till masistreet , mixed commercial till veli street and residential area towards the river. Because of the negligence and improper maintenance the river and the road connecting it are not much used.

Fig. 10. Roads Connecting Meenakshi Amman Temple and Vaigai River.

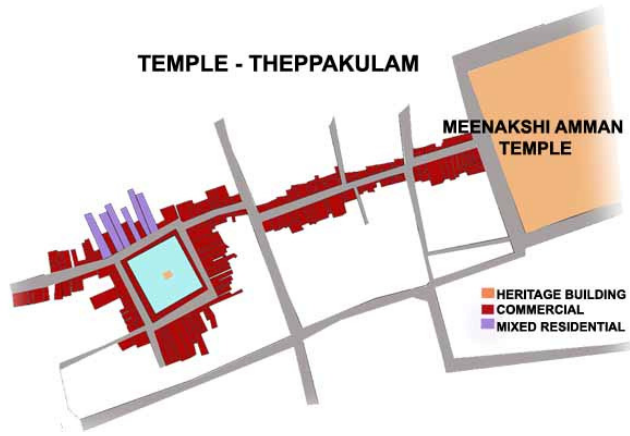
A. Road Connecting The Meenakshi Amman Temple And ThirumalaiNayakar Palace:



The road connecting the thirumalainayakar palace and the meenakshiamman temple, have a variety of activities and fabric with respect with the type of the building and the fabric produce a different image to the street. All the buildings in the stretch are converted into commercial and mixed residential uses. The activity found is textile shopping, rice delivery lorry booking offices and road side vendors.

Fig.11. Roads connecting meenakshiamman temple and thirumalainayakarmahal.

B. Road Connecting The Meenakshi Amman Temple And Azhagar Kovil Theppa Kulam(Starts From West Gopuram Of The Temple)



The theppakulam also called as the kalzhagartheppakulam , which is not visible from any of the surrounding roads because of the shops around the tank. There are many initiatives taken to clear the pond and removing the shops, which be fruitful for few months and later the stops accumulate again.

Fig. 12. Road connecting the meenakshiamman temple and kalzhagartheppakulam.

The government has taken initiatives to make the pond as a recharge point for the water table of Madurai , by creating rain water harvesting methods but the nearby lodging and commercial spaces does not help it. The stops vary from flowers, fruits to books, being a main area, the shop keepers don't shift the shop. The temple pond is fully encroached by the shops around; to an extent of even the entry points could not be found.

IV. DISCUSSIONS

The mandapas, the road networks that reflect the image and historicity of the city is undergoing transformation. In the mandapas, there are 225 shops accommodated. These shops bring in more crowd, loading and unloading problems, waste management and create damages to the heritage structure. The fabric of the city is dominated by the commercial activities that forces the heritage structure to undergo transformation and affects the identity of the place. The streetscape is not reflecting the historicity of Madurai. Neither the new buildings follow the government rule nor are inhabitants guided to protect the monuments. The vilakkuthoon, yaanaitoon, fort wall have even totally neglected and the mandapas are considered as shopping zone and the road networks are not given any emphasis on the historic nature of the town.

V. CONCLUSION

The research has started with the hypothesis of Madurai is getting transformed and it's losing its identity in the phase of urbanization. Through the process, the data's

analyzed shows that the transformation is rapid and less emphasis is made to maintain the historicity of Madurai. According to analysis 80% of the land use is for commercial activities, 4% for heritage structure, 8% for mixed use (heritage and commercial), 7% for mixed use (residential and commercial) and 1% for parking. Though the city needs the commercial activities for its survival, its also important to maintain the historic fabric of the city.

The transformation on land use that is unnoticed affects the heritage structures of the town

- Standards and rules by the government are not followed by the new developers, who ruin the tangible and intangible heritage of the town
- The growth of the city neither creates new iconic buildings nor conserves the heritage buildings
- New guidelines should be made to revitalize the town through heritage

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