

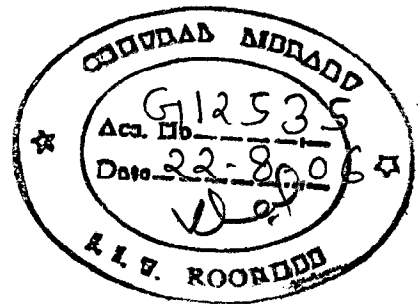
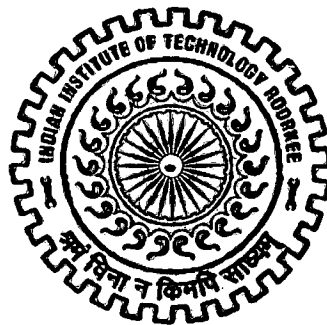
# URBAN RENEWAL OF PUBLIC REALM OF A HISTORIC CITY CORE: A CASE OF THANJAVUR

## A DISSERTATION

*Submitted in partial fulfillment of the  
requirements for the award of the degree  
of*  
**MASTER OF ARCHITECTURE**

*By*

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## CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in thesis entitled "**URBAN RENEWAL OF PUBLIC REALM OF A HISTORIC CITY CORE: A CASE OF THANJAVUR**" in partial fulfillment of the requirement for the award of the Degree of Master's of Architecture submitted in the Department of Architecture & Planning of the Indian Institute of Technology Roorkee is an authentic record of my own work carried out during a period from July 2005 to June 2006 under the supervision of Dr. Pushplata.


The matter embodied in thesis has not been submitted by me for the award of any other degree.



(P.GOPALAKRISHNAN)

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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.



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## ABSTRACT

Historic communities across world are searching for ways to improve their local economies, enhance their quality of life and revitalize their neighborhoods while preserving their cultural and natural heritage. In today's world the problem of revitalization of historic towns and monuments is of great importance. We live in a period of rapid technological development, but this destroys the cultural identity of many nations. The seriousness of the problem is underlined by the fact that the majority of governments throughout the world are trying to save the historical heritage of their countries and to preserve and revitalize architectural treasures such as historical districts, towns and monuments. Urban renewal plays an important role in providing, prominent economic and community development strategies to accomplish these objectives.

The focus of this thesis is on urban renewal of Public Realm within a larger framework of Indian historic city core. It confines itself to the enhancing the image and identity of the historical city core of Thanjavur as a cultural resource to promote historic preservation and heritage tourism. Heritage tourism as an outcome of urban renewal in historic areas is an economic development tool designed to attract visitors to an area based on the unique aspects of the locality's history, landscape and culture. This not only enhances regional and local pride but is also a good source of revenue for a community and creates jobs. Urban renewal is a tool for preserving a historic place, incubating small businesses, revitalizing city centers, generating local jobs, and creating improvements in a community.

This thesis is aimed at revitalizing the important public realm of the historic city core of Thanjavur by evolving a urban renewal strategy for the city core of Thanjavur; Identifying areas of distinctive character across the city and Analysing the character and improvement potential of areas and movement corridors. In order to achieve the objectives of the study, conserving the heritage value of the city for promoting tourism, strengthening community's self-image and to re-create viable, attractive places which encourage sustained inward investment,



enhancing local distinctiveness and sustain a sense of place that people can be proud of, suggesting methods for environmental up-gradation through better infrastructure and tourist amenities, Improving the visual and aesthetic quality of the built environment in order to enhance the imgeablility of the core area.

A detailed review of literature related to urban renewal has been done. Analytical study of case studies of similar projects have been undertaken to understand the various approaches to urban renewal of heritage areas in India and abroad. After understanding the context of Thanjavur, its historic core area was studied in detail to identify the problems and issues, as well as to identify the zone for improvement. Detail study of these zones and their issues formed the basis for revitalization strategies and design proposals. The outcome has been a hierarchy of urban renewal policy recommendations and general guidelines. The urban renewal policy recommendation aims in making, the city that inspires through imaginative and sensitive design and also by creating lively places which enhances the distinctive character of different areas of Thanjavur. It will help in creating Thanjavur streets and public spaces more safe, more accessible and pleasant to use, thereby attract more visitors and improve the local economy and revitalize the historic places.

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# CHAPTER I

## GENERAL INTRODUCTION

### 1.1 BACKGROUND

Historic urban areas developed gradually over time, are an expression of the diversity of societies throughout history. They make up a key part of the city center's character and represent tangible links to the past. Beyond their role as historical documents, these areas embody the values of traditional urban cultures. Today many such areas are being threatened, physically degraded, damaged or even destroyed, by the impact of the urban development that follows industrialization in societies everywhere. Urban renewal will significantly improve such historic public realm and also transform the precinct into an attractive, highly desirable and pedestrian friendly place for a range of activities. The historic centre of a town is generally part of a larger urban assemblage. In principle, it is important to keep its living function in regard to its structure and place it occupies both within the physical context of the town and in social, administrative and economic life.

### 1.2 NEED FOR STUDY

#### 1.2.1 Need for urban renewal

The often aggressive development of certain urban functions, especially in the historic centre, has created conflicting situations, in which the traditional element has become, or is at risk of becoming villain destroying or endangering the historic, artistic or ecological values that constitute the very reason for its protection. It is important to seek solutions to the conflicts which give priority to the preservation of these values, even if those solutions involve the movement of the functions towards zones outside the traditional centre. The neglect of central areas of major cities had adverse impacts on their physical and socio-economic conditions. Most of the historic buildings and residential areas remained in a dilapidated condition as the owners could not maintain them properly due to decreased income levels. This situation demands urgent corrective measures if the fabric of urban life is to be maintained properly. Hence the need for renewing the physical and non-physical aspects of inner and historical cities.

### **1.2.2 Need for Urban Renewal in Thanjavur**

The historic Thanjavur city has grown naturally with increase in size and population without proper plan for future in piecemeal manner. The historic Thanjavur city occupies its place within remnants of the old city wall. It contains the 1000year old Brahadeeswara temple and numerous other historic monuments many of which are in poor condition. The city is undergoing a constant change in activities and built form, but lack of space to accommodate these changes. The problems of congestion, conflict between pedestrian and vehicles, lack of parking facilities, encroachment and degradation in the overall quality of life can be seen within. There is a immediate need to revitalize the city's cultural and historic identity while also accommodating inevitable transition, growth and new uses. The historic city of Thanjavur has tremendous potential to attract the more tourists from all corners of the world. Hence infrastructure for them needs to be developed that will improve public realm and generate economic returns too.

### **1.3 AIMS AND OBJECTIVES**

Purpose of this study is to show the way in which the character of a small town of historical importance and architectural distinction can be enhanced and conserved for promoting tourism. Hence this study aims to revitalize the important public realm of the historic city core like street corridors, vacant open spaces, natural water bodies, temple tanks and the residential areas of the historic city for its integrated growth and vibrant use.

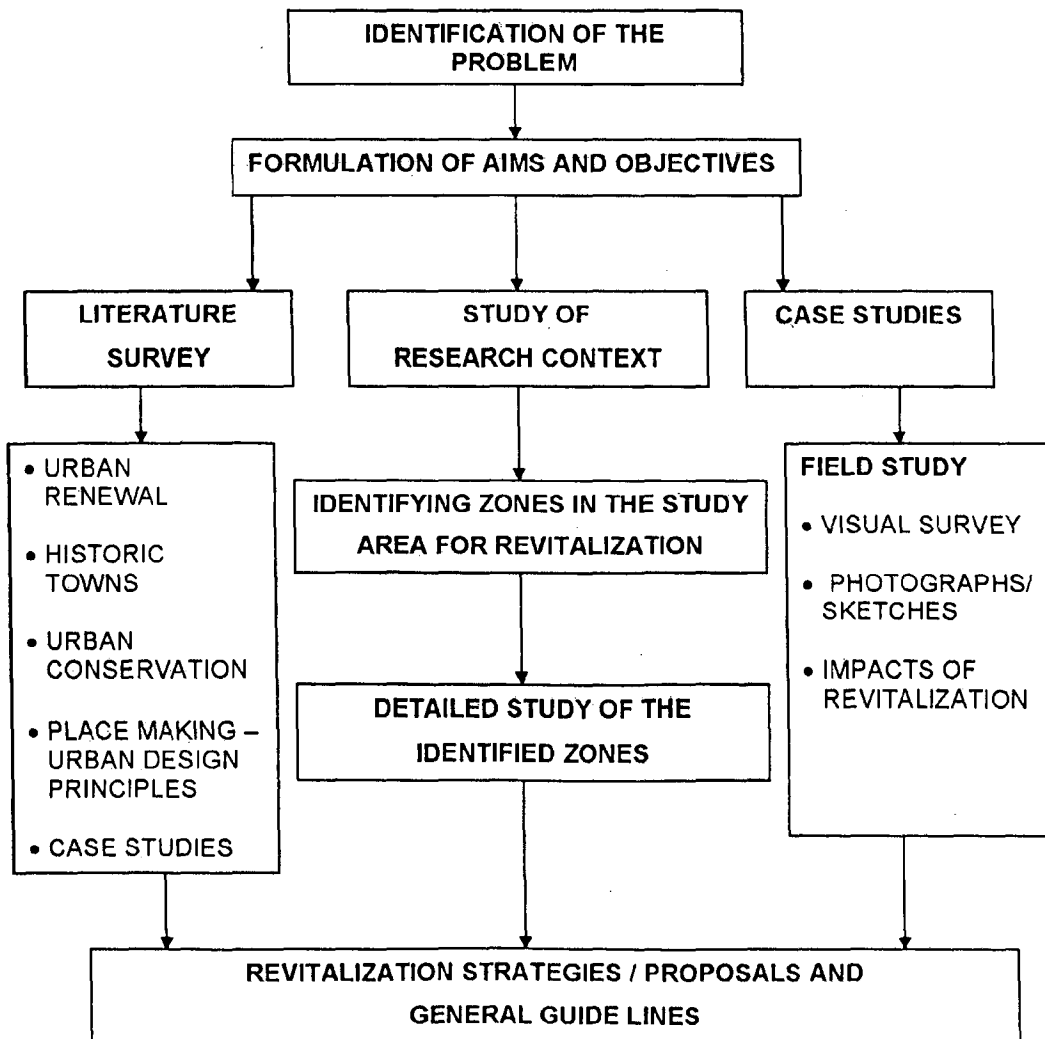
The main objectives of the study are:

- To conserve the heritage value of the city for promoting tourism
- To strengthen community's self-image and to re-create viable, attractive places which encourage sustained inward investment.
- To enhance local distinctiveness and sustain a sense of place that people can be proud of.
- To suggests methods for environmental up-gradation through better infrastructure and tourist amenities.

- To improve the visual and aesthetic quality of the built environment in order to enhance the imgeability of the core area.
- To enhance the townscape with attractive landscape and urban design.

#### 1.4 METHODOLOGY

The methodology of the study, to achieve the above aims and objectives, begins with the identification of the problem, framing the aims and objectives; a review of literature is done in three specific contexts namely urban renewal, public realm and historic core areas. Further study area identification was undertaken; case study field survey is also done. Based on the study and analysis revitalization strategies and general guidelines are framed.



## **1.5 SCOPE & LIMITATIONS OF STUDY**

The study will be conducted at area level and it will not include urban renewal at city level

The scope of this dissertation is limited with revitalization of the following:

- Streets around the palace complex
- Open spaces and water bodies around palace complex and Brahadeeswara temple
- Moat around Brahadeeswara temple
- Articulation of traffic flow, provisions of parking lots and pedestrian walkways linked to the Brahadeeswara temple and Palace complex

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter provides an introduction to urban renewal in general and Historic Core areas. It discusses briefly the relevant literature on Historic core areas in Indian context; concept of urban renewal ; its evolution & types; urban renewal practices abroad and India; essential qualities of successful public realm; salient principles in conservation of historic core areas

#### **2.2 GENERAL BACKGROUND**

Urban development in historical perspective is a cyclic phenomenon depicting continuous decline and renewal in physical as well as socio-economic aspects of human settlements. As decline and renewal are inevitable processes, the balancing factor is the pace of change. In the earlier generations, the change was slower but the twentieth century is witnessing dramatic acceleration resulting in radical disruptions in the physical and socio-economic aspects of urban settlements. The migration of rural people into major urban settlements led to rapid expansion, encompassing the fringe areas. The fringe areas and the market centres assumed importance. The older inner areas, though experience rapid population growth, could attract neither private nor public investments and were allowed to deteriorate. Historic inner cities are facing the economic decline, physical decay and adverse social conditions. Unless renewal of inner cities takes place, it will throw the people to face a future of decline.

#### **2.3 HISTORIC CORE AREAS IN INDIAN CONTEXT:**

In India, many traditional cities are developed around a historic core, where the core area is called as walled city or inner city. The typical plan of the inner cities puts the temple or Mosque at the centre, the markets immediately adjacent. The seat of government / palace is seldom at the centre, and is usually on the outskirts. Bordering these public areas are the residential districts. In historical south Indian cities like Madurai, Srirangam, Thanjavur, Chidambaram, Kumbakonam, Nagapattinam, the temple dominates the plan at the centre. The

main streets that are wide enough for the temple cars to move around the temple during festivals run around the temple in all cardinal directions. These traditional cities are very complex and highly developed over many centuries. Every city has its own identity and a different morphological structure.

Today these traditional cities are facing problem of rapid urbanization which is devastating the historical physical form of our ancient cities. Typically the historic core areas are congested, overcrowded lacking in basic amenities and steadily deteriorating. The main problems due to urbanization are increase in urban population at an unprecedented rate, with the poor population that is unemployed and underemployed in many cities growing at two or three times the rate of city's population as a whole.

Several problems arise in dealing with such historic core areas, first the conservation of historic buildings and monuments which is an expensive process needs large amount of funds. Second, the historic core areas are not preferred for any new investments, which isolates from the rest of the city, as visually unattractive place or congested area. Such areas needs to be well integrated with other parts of the city. Third is the problem of integrating the modern urban fabric with the historic core. All three problems require a Comprehensive Urban Renewal programme, which can provide solutions.



(a) Srirangam

(b) Thanjavur

(c) Nagapattinam

Fig 2.1, Satellite images of Historic Core area of Srirangam, Thanjavur and Nagapattinam, showing the temple and major streets in the core area.

(source: google earth and space imaging)

Recently Central Government has emanated a major initiative on urban renewal (National Urban Renewal Mission) in view of the fact that while the

population has grown three times since Independence, urban population has grown five times without up gradation of infrastructure. One of the objectives of this urban renewal mission is to upgrade the infrastructure in the inner-cities and older areas of historic towns.

## **2.4 URBAN RENEWAL**

Urban Renewal defined as *"the process by which a large area of a town, (e.g. the whole town centre) slowly renews itself and thereby gradually changes its character to fit in with the needs of contemporary society. It is an amalgam of all the process which act on a town, or a portion of it and which are continually moulding and changing its character and appearance. It includes preservation, rehabilitation of property or environment and redevelopment. The process is one of carefully controlled change, as against the rapid and violent change of redevelopment"*. (Wilfred Burns<sup>1</sup>)

Urban Renewal, a concept of American origin, initially referred to slum clearance and housing but has gradually evolved into a multidimensional concept. The concept of urban renewal, however, was never understood in clear terms. Different interpretations were made in different countries and at different periods to suit the local interests. It is increasingly being looked at as an answer to the multi faceted urban crisis, which is a universal phenomenon.

The need for urban renewal arises from usually from a combination of circumstances: expansion of the town, lack of modern facilities, traffic problems, outworn buildings, the area in themselves lack interest, color and any pleasant feeling, degradation of urban areas as the result of structural economic change and its associated effects of depopulation, property abandonment, social problems, crime, and a desolate and unfriendly urban landscape., the abandonment of buildings and not reconstructing buildings after damage by fire. The main reason is the removal of blight and urban decay from the city centers.

Although widely debated and variedly interpreted in the context of changing time, place problems and needs, it is universally accepted that urban renewal is a complex phenomenon and has several aspects. It includes slum clearance and improvement, provision of housing, provision of adequate social

facilities and civic amenities, creation of infrastructure, road widening and traffic regulation, improving the visual appearance of old areas and creation of better living environment, and preservation of historical monuments / areas, etc. Stated simply, urban renewal is a combination of the process of rehabilitation, conservation and redevelopment. It is the nature and stage of 'decay' that determines the strategy to be adopted: rehabilitation, conservation or redevelopment or a combination of them.

#### **2.4.1 Components of Urban Renewal**

**Redevelopment** is a process which involves clearance of property and the building of new structures according to a definite preconceived plan with a layout different from that of the area before redevelopment was undertaken. It implies a comprehensive plan, for redevelopment cannot seriously be called such unless it is on a substantial scale and is part of an overall plan, otherwise the process is mere rebuilding.

**Rehabilitation** is the process of putting existing buildings or existing areas of development back into a worthwhile state after they have become outdated and unsatisfactory.

The **Preservation** of patrimony of monuments aims at keeping the latter in the best possible condition in respect to their architectural and aesthetic, as well as historic or archaeological, values.

The **Restoration** of monuments relates to the more important interventions that in general aim at the restitution of parts seriously modified by the effects of time or man or elements or parts of buildings having disappeared in the course of time but perfectly documented and well-known

**Conservation** is the action taken to prevent decay. It embraces all acts that prolong the life of our cultural and natural heritage, It is the process through which the material, historical, and design integrity of immovable objects are prolonged through carefully planned interventions. Buildings and properties



under conservation may have *architectural, historical, archaeological, cultural, scientific technological values*

#### **2.4.2 Evolution of Urban Renewal**

Decline and renewal being inevitable in the cycle phenomenon of urban development, urban renewal has been taking place in one form or other, since ages. First formal large scale urban renewal goes back to the rebuilding of Rome by Sixtus V. In order to make Rome, which was sprawling, disorderly city into fitting Capitol of Christendom. Sixtus V formulated his ideas for the renewal of Rome, by making a clear plan for the city. In his effort to recreate the city of Rome into a city worthy of the Church, saw clearly the need to establish a basic overall design structure in the form of a movement system as an idea, and at the same time the need to tie down its critical parts in positive physical forms which could not easily be removed. He hit upon an idea of using Egyptian obelisks, of which Rome had a substantial number, and erected these at important points within the structure of his design. The ordering principle in the regeneration of Rome was the establishment of lines of force which defined the tension between various landmarks in the old city. The interrelationship of these lines and their interaction with the old structures set into play a series of design forces which became the dominating element in the later architectural work along them (Bacon).

It was during Renaissance period in Europe that renewal of the medieval towns / market places / squares and other public areas were undertaken in a large scale through out in major towns and cities of Europe. Consequently, redevelopment and renewal of important public areas in Rome namely Campidoglio, St.Peters Square, Santa Maria Maggiore, Piazza Del Popolo were redesigned by eminent designers like Michelangelo, Bernini, Rainaldi, Fontana. These places are still most attractive public places of the world attracting large world tourists. The focus of renewal of urban areas during the renaissance period was on enhancing the Visual and Aesthetic qualities of the place.

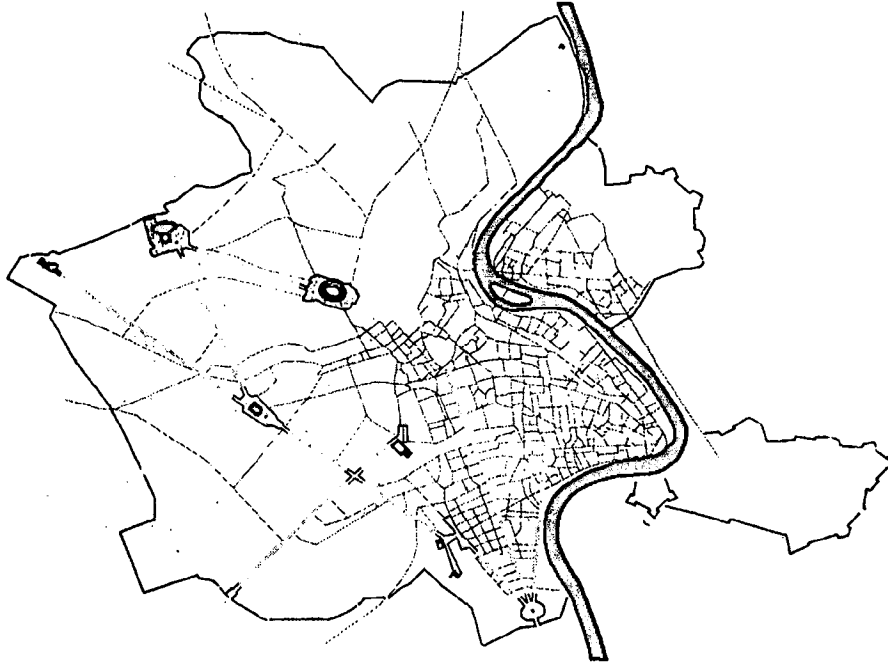


Fig 2.2 Plan of Baroque Rome – Proposed renewal plan by Sixtus V  
(source : Design of cities, Edmund. Bacon)

Modern attempts can be said to have started with late-19th century Paris, It was the cultural center of Europe and one of the world's most developed cities by the end of the second empire. Nevertheless, the physical infrastructure of the city was failing in the face of increasingly rapid growth -- as the effects of the Industrial Revolution took hold and combined with the economic impacts of war and social upheaval. But it was Napoleon III & the achievements of Baron Georges Haussmann that led to the reintegration of the heart of Paris and a strengthening of its interior structure on a scale commensurate with the forces of regional expansion. The program of Haussmann rebuilt other infrastructure and services in the city: railroad lines and stations, sewerage, street lighting, regular collection of garbage, and large parks. It also led to large numbers of the working class and the poor being forced to move to the suburban areas of Paris, effectively reserving large areas of the city for the middle and upper classes. The emphasis of the urban renewal exercise here is realigning streets, creating boulevards and reintegrating the heart of the town to other parts by avenues and boulevards.

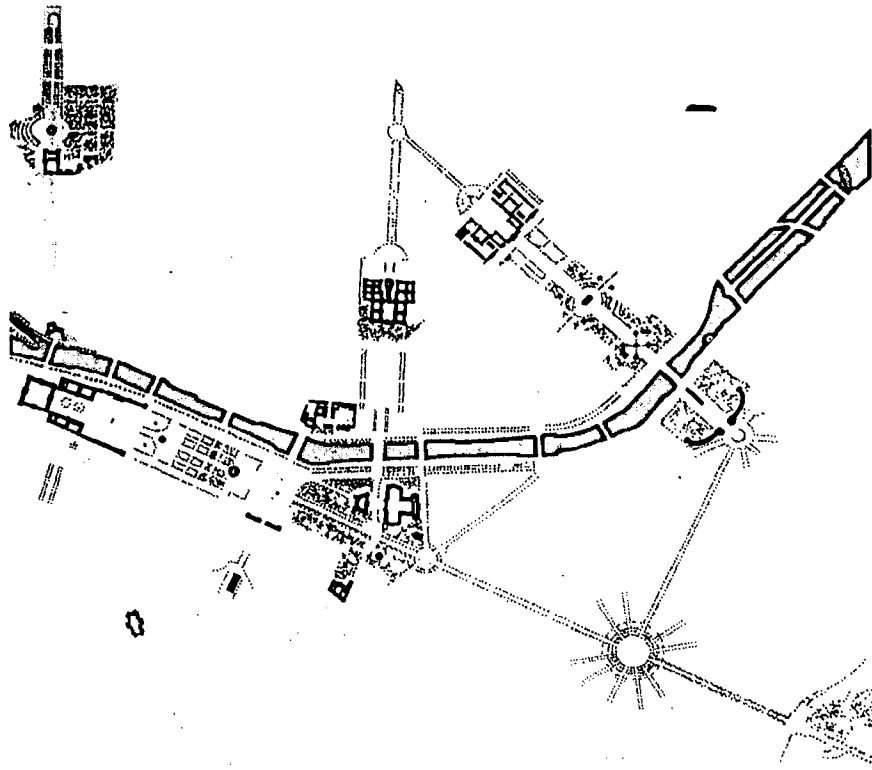


Fig 2.3 Haussmans Plan for Paris  
(source : Design of cities, Edmund. Bacon)

Another major chapter in the history of urban renewal was the work of Robert Moses in the redevelopment of New York City and New York State from the 1930s into the 1970s. Moses directed the construction of new bridges, highways, housing projects, and public parks. Moses is responsible for the major traffic arteries of the city and for its largest parks, other than Central Park and Prospect Park.

The role of American Housing Acts of 1937 & 1954 are very significant in the history of urban renewal. American Housing Act of 1937, which created the U.S. Housing Agency and the nation's first public housing program -- the Low Rent Public Housing Program, was the beginning of the large public housing projects that later became one of the hallmarks of urban renewal in the United States. It provided funding to local governments to build new public housing, but required that slum housing be demolished prior to any construction. American Housing Act of 1954, added a most important tool- conservation and rehabilitation to the urban renewal kit.

Another important landmark in the evolution of Urban renewal is the release of a classic guidance for Historic Preservation in Urban Renewal in 1959. It was prepared as a report on an Urban Renewal demonstration grant project for the College Hill area in Providence, R.I. This document contains graphic and narrative proposals to restore buildings in the Historic College Hill area.

In Britain, the first public recognition of the need for urban renewal came in 1972 when Peter Walker, the Secretary of State for the environment, set consultants to work in three deprived inner-city areas in Lambeth, Liverpool and Birmingham. The latest solution to the redevelopment of derelict inner-city land is the design of "URBAN VILLAGES". The concept in respect of inner-cities is that urban villages are a means of regenerating derelict land on a sustainable, human scale

Today Urban renewal means additional building in an existing urban environment. Recent sites of urban renewal have been especially former port and industrial areas due to the restructuring of global economics. Urban renewal is the opposite of the creation of new cities and suburban housing areas in the usual case these are built directly in original nature without earlier urban settlements.

### **2.4.3 Urban Renewal in India**

Urbanization in India has resulted in growth of cities, development of fringe areas, establishment of new towns, etc. This in turn, has led to the decline of older towns and cities and inner cities. The decline of urban centres, like their growth, is due to a variety of factors. Urban centres grow because of certain causative factors and they lose their rationale and will decline when those factors cease to exist. Thus it can be hypothesized that the same set of factors that are responsible for the acceleration of urbanization process account for the decline of the urban centres. The need for renewal arises in every society and city. But its significance in the Indian context is qualitatively different as most of our towns have grown haphazardly over the years.

Urban renewal in India had its origin in early 20<sup>th</sup> century in a different name, it was undertaken under the City Improvement Trust, which was formed under the City Improvement Act. First such act was formed in Bombay in 1898. Bombay trust undertook large-scale schemes of improvement and expansion in 1925. The various services undertaken by the trust were, opening up congested areas, laying out or altering streets, providing open spaces for purpose of ventilation or recreation, demolishing unsanitary buildings , acquiring land and constructing buildings and for re-housing of persons of the poorer and working class displaced by the execution of city improvement schemes.

Indian experience of comprehensive urban renewal is fairly recent, though several cities, like Delhi, Jaipur, Jaisalmer, Hyderabad, Bombay, Ahmedabad, Calcutta etc have been attempting to tackle the problem of decline through ad hoc initiatives. Diverse and complex nature of Indian Society, which Indian cities reflect do not provide a uniform picture. Problems are different, contexts differ, needs change and therefore, the policies and programmes to deal with each city and town would also differ. Awareness of these experiences would enable, the policy-makers, planners and administrators to articulate the need and significance of urban renewal and formulate and implement renewal policies and programmes to regain the urban glory and to ensure better quality of life to the urbanites.

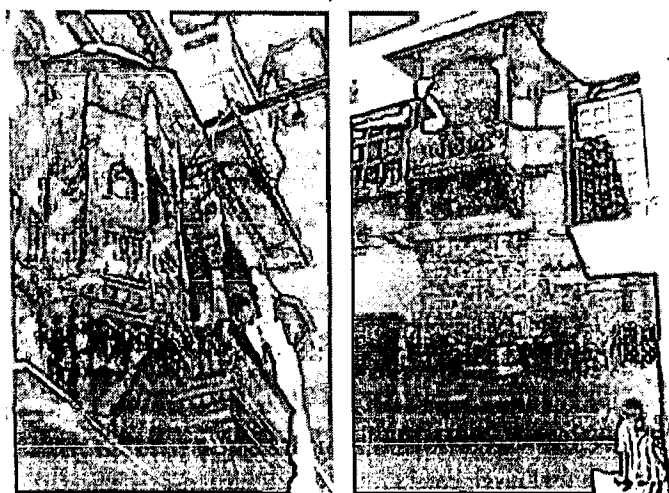


Fig. 2.4 Jaisalmer Streetscape Revitalization Project

(Source: INTACH)

#### **2.4.3.1 National Urban Renewal Mission (NURM)**

The blueprint for developing urban India has taken the shape of a “National Urban Renewal Mission (NURM)”. The project aims to increase urban infrastructure investment by increasing participation of municipalities, the private sector, and community organizations in the development and delivery of commercially viable urban infrastructure services; improving capacity of municipal and state governments, infrastructure agencies, and other urban professionals to manage urban growth, mobilize resources and improve infrastructure services; and supporting development of a market-based urban infrastructure finance system.

The NURM will cover physical infrastructure development projects such as water supply, sewerage, sanitation, solid waste management, roads and street lights. There will be other sub-missions on urban transport and mass rapid transportation systems, on environment protection and improvement, on slum development and relocation and on employment projects, housing projects for the economically weaker sections and health and education projects to ensure quality elementary education and health for all.

The projects eligible for NURM assistance: Urban renewal, that is, redevelopment of inner (old) city areas [including widening of narrow streets, shifting of industrial and commercial establishments from non-conforming (inner city) areas to conforming (outer city) areas to reduce congestion, replacement of old and worn out pipes by new and higher capacity ones, renewal of the sewerage, drainage, and solid waste disposal system].

However aesthetic upgradation / enhancement of visual appearance, which is crucial to urban renewal does not find a clear mention in National Urban Renewal Mission. But the Delhi government has asked funds for beautification of older areas under NURM. In a developing country like India, it is logical that first priority is given for providing basic infrastructure. Visual appearance improvement and aesthetic upgradation only becomes secondary, Since visual image of a city or town is equally important, perhaps it can be incorporated in the City Development Plans as next phase in NURM.

#### 2.4.4 Types of Urban Renewal Projects

The major types of urban renewal projects undertaken around world include, Rebuilding cities of the world devastated by war, natural disasters etc.; Slum Clearance, Purchase of buildings and land, the removal of the uses and inhabitants of that land, the demolition and clearance of the land, and the building of the site; Abandoned sites of extensive area by their inhabitants and made available by their owners for redevelopment; Historic towns regeneration; Urban waterfront development; Inner city (downtown ) renewal; Brown field redevelopment (Abandoned industrial areas and railyards)

#### 2.4.5 Urban Renewal Projects :

##### 2.4.5.1 The major approaches to urban renewal in USA

There are two main strands to the urban renewal in american cities: the revitalization of the downtown areas, and neighbourhood renewal and housing. Although city authorities give most publicity to their revitalized central areas, housing activity is significant. The most striking downtown developments are those which have resulted from the rejuvenation of the former decaying waterfront areas in the cities that were formerly the great ports of the USA. Some of the important cities which undertook the urban renewal projects are, Pittsburg, Newark, Newhaven, Newyork, Boston, Philadelphia, etc

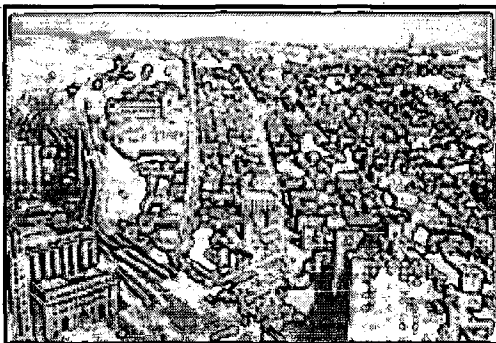


Fig. 2.5 Redevelopment of neighborhood  
(source : [www.wikipedia.com](http://www.wikipedia.com))

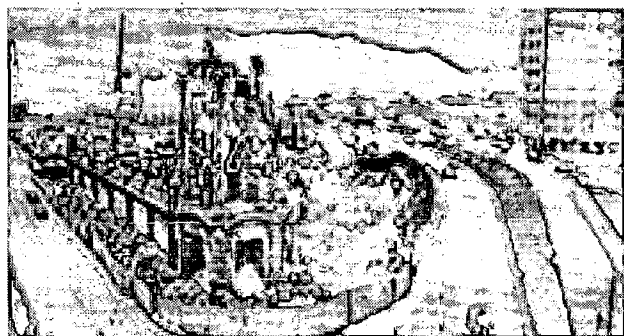


Fig.2.6 Terminal building demolished for a  
gate way center office building.

Pittsburgh became the first major city to undertake a modern urban-renewal program (fig 1 & 2). An urban renewal authority was set up in 1946. The first changes came about in the 1950's when smoke control regulations

eliminated the major environmental blight of the steel making process, which had given Pittsburgh its negative image. Now the city centre fits into an area of land which has become known as the "Golden Triangle" as a result of the amazing economic and physical transformations that took place after 1945. The preservation of old buildings has been an important part of the urban renewal process in Pittsburgh.

#### **2.4.5.2 Urban Renewal Practices in Britain**

The first public recognition of the need for urban renewal in Britain came in 1972 when Peter Walker, the Secretary of State for the environment, set consultants to work in three deprived inner-city areas in Lambeth, Liverpool and Birmingham. The policy on the inner-cities paved the way for a number of projects in larger cities and towns aimed at tackling a broad range of economic, environmental and social problems of urban deprivation on a partnership basis between people and the government. The policy on inner-cities had made it clear that involving local people is a necessary means for the renewal of urban areas.



Fig 2.7 Revitalized New Victoria Square, Birmingham.  
(source : Urban regeneration, Ian Colquhoun)



The latest solution to the redevelopment of derelict inner-city land is the design of "URBAN VILLAGES" (a multiuse development in 40-hectare neighbourhoods with a resident population of between 3000-5000). The concept in respect of inner-cities is that urban villages are a means of regenerating derelict land on a sustainable, human scale. They are antithesis of rigid, top-down, master-planning, in which commercial criteria can too easily dictate, rather than respond to, social and economic criteria.



Fig 2.8 Urban Village Concept: The Pikku-Huopalahti project in Helsinki aims to create an extension to Housing in the city Centre. (source : Urban regeneration, Ian Colquhoun)

#### **2.4.6 Significance of Public Realm in Urban Renewal**

Parks, squares and streets make up the public realm and comprise the places people use every day. They are a defining feature of any urban place. Collectively, they provide the main places for public gatherings and the locations where civic life occurs. The quality and image of the components of the public realm strongly influence how people perceive the city and the values of those who reside there. Tourist or a visitor often interpret the condition of these public places to be an indication of how citizens feel about their city and their willingness or desire to receive, host and welcome newcomers.

Extending and improving the public realm can have tremendous economic impacts by increasing property values, attracting new investment to particular shopping precincts, and encouraging people to walk, shop and take in and enjoy

the city. Public investment in well-designed, high-quality open spaces and streetscapes is one of the best ways to create people-friendly settings that have the added benefit of signaling positive change and encouraging private sector reinvestment that matches or even exceeds the quality of the public realm, thereby enhancing the area further.

#### **2.4.7 Creating Public Realm in the Process of Urban Renewal of Historic Core**

Successful streets, spaces, villages, towns and cities tend to have qualities in common. The fundamental qualities of successful Public Realm, which all development in historic core areas must contribute to, are outlined below.

##### **2.4.7.1 Character: *a place with its own identity***

A place that responds to and reinforces locally distinctive patterns of development and landscape. The positive features of a place and its people contribute to its special character and sense of identity. In the context of historic areas they include landscape, building traditions and materials, patterns of local life, and other factors that make one place different from another. The best places are memorable, with a character which people can appreciate easily. Designing for local distinctiveness involves the creative reconciliation of local practices, on the one hand, with the latest technologies, building types and needs, on the other. Character and innovation can always go together, New and old buildings can coexist happily without disguising one as the other, if the design of the new is a response to urban renewal objectives.

##### **2.4.7.2 Continuity and Enclosure: *a place where public and private spaces are clearly distinguished, Clarity of form***

Historic successful urban space (including street space) is defined and enclosed by traditional buildings, structures and landscape. The relationship between buildings on a street, and between buildings and the street, are the key to this. Buildings which follow a continuous building line around a street block and contain the private space within back yards or courtyards are often more successful than individual buildings that stand in the middle of a site. Buildings

with live edges, such as shop fronts, doors directly to the street, or residential upper floors, enable people to keep an eye on public space and make it feel safer.

Streets, footpaths and open spaces overlooked by buildings; Clear distinction between public and private space; Avoiding gaps in the line of buildings; Enclosing streets and other spaces by buildings and trees of a scale that feels comfortable and appropriate to the character of the space; No leftover spaces unused and uncared for.

#### **2.4.7.3 Quality of the Public Realm: *a place with attractive and successful outdoor areas***

The success of the historic public realm depends on the arrangement of its paving, planting, lighting, orientation, shelter, signage, street furniture, and the way it is integrated with historic environment around it, as well as the routes which pass through it, and the uses in and next to it. The public realm is made up of the parts of a village, town or city that are available, without special charge, for use by everyone. This can include streets, parks, squares, arcades and public buildings, whether publicly or privately owned. It provides the setting not only for everyday life, but also for more formal civic occasions. It is enlarged and enriched by developments designed to welcome a broad range of people, and by creative management. It is restricted and impoverished by buildings and spaces designed to keep out or discourage all but a narrow range of users, and by overregulation. Anyone who is designing a building, or any other structure, is helping to shape the public realm.

A feeling of safety and security; Uncluttered and easily maintained; Carefully detailed with integrated public art; Suited to the needs of everyone, including disabled and elderly people; Well-designed lighting and street furniture; Attractive and robust planting.

#### **2.4.7.4 Ease of Movement: *a place that is easy to get to and move through***

The convenience, safety and comfort with which people go to and pass through buildings, places and spaces play a large part in determining how

successful a place will be. Streets are more than just traffic channels for vehicles, and should offer a safe and attractive environment for all. Well designed streets encourage people to use them, and make going outside a safe and pleasant experience. Successful places are unlikely to include large blocks of inward-looking development which exclude public access.

Density highest where access to public transport is best; Roads, footpaths and public spaces connected into well-used routes; Easy accessibility; Direct routes that lead to where people want to go; A choice of safe, high quality routes.

#### **2.4.7.5 Legibility: *a place that has a clear image and is easy to understand***

Landmarks, gateways and focal points help people find their way. Vistas create visual links between places. Planting can emphasise pedestrian routes. Visible routes and destinations, and a visible choice of routes, will contribute to making a place feel safe and unthreatening. Places where form, layout and signage make them easy to understand are likely both to function well and to be pleasant to live in or visit. Equally, some places draw their charm from their lack of clear routes. The process of design needs to take account of the fact that people do not all read, interpret and enjoy a place in the same way. Men and women, children and adults, residents and visitors, old and young people, and people from different cultures will experience it differently and be encouraged to feel at ease by different aspects.

Landmarks and focal points; Views; Clear and easily navigable routes; Gateways to particular areas; Works of art and craft; Signage and way markers.

#### **2.4.7.6 Adaptability: *a place that can change easily***

The most successful places have prospered in changing circumstances. Even though people may live, travel and work in very different ways, the basic structure of the physical fabric of such places proves to be grounded in unchanging patterns of human life, rather than being unalterably fitted to some very specific purpose. Successful places avoid the destructive trauma of large-scale blight and dereliction, and the sort of comprehensive redevelopment which serves a narrowly-defined range of purposes. Places need to be adaptable at

every scale. A household makes different demands on a house as children are born and grow up. Towns and cities as a whole have to adapt as industries rise and decline, demand for housing and the nature of workplaces changes, and buildings and infrastructure age.

Flexible uses; Possibilities for gradual change; Buildings and areas adaptable to a variety of present and future uses; Reuse of important historic buildings.

#### **2.4.7.7 Diversity: a place with variety and choice**

The mix of uses (whether within a building, a street or an area) can help to determine how well used a place is, and what economic and social activities it will support. A mix of uses may be appropriate at a variety of scales: within a village, town or city; within a neighbourhood or a street; or even in a particular building. In a town centre, for example, housing can provide customers for shops, make use of empty space above them and generate activity when they are closed. In residential areas, workplaces, shops and other facilities can make the place more than just a dormitory. Mixed-use development can make the most of opportunities for higher densities and intensive activity at locations with good access to public transport. At higher densities, it can provide the sort of environment that will suit particular kinds of household, such as single or young people, or couples without children.

A mix of compatible uses and tenures; Variety of layout and building form;  
Diverse communities and cultures; Variety of architectural styles ; Biodiversity.

#### **2.4.8 SIGNIFICANCE OF CONSERVATION IN URBAN RENEWAL**

In recent years, the conservation of historical monuments or historic districts, as heritage to the present and future generations, is receiving greater attention the world over. Historic districts are geographical areas or sites containing significant concentration of historic buildings, monuments, structures, sculptures etc and also streets and building layouts with a unique character, style, and street furniture and landscaping were unique of an age or period will be worth preserving as a historic district

In the west, governments emphasized the importance of listing out the individual buildings that need to be protected and the legal safeguards are

devised in this respect. The countries like Spain, Italy, Malta, Britain, Morocco, Tunisia, etc. had also formulated renewal policies. Legal and financial assistance was made available to both private and government agencies involved in the conservation and renewal efforts of individual buildings or entire historic districts .

Another significant fact was finding new uses of the old monuments and buildings so that conservation becomes more meaningful and financially viable. As each building or monument stands in a physical setting, conserving the entire setting also becomes inevitable. As a result, the scope of conservation gets widened and assumes the form of 'renewal' or 'regeneration' wherein the 'old' life patterns, physical artifacts and cultural heritage of cities and towns are preserved and improved for the future generations. The conservation movement thus, evolved into a vital segment in urban life involving preservation of man made and natural environments. Urban conservation as an issue needs utmost attention and care. It cannot be reduced to individual buildings or monuments of historic interest, nor can it be interpreted simply as a totality of the built parts. For effective conservation of historic towns, the interventions should form an integral part of a coherent policy of economic and social development and urban planning.

#### **2.4.8.1 Major Principles in the conservation of Historic Towns:-**

- The conservation of historic towns and other historic urban areas should be an integral part of coherent policies of economic and social development and of urban and regional planning
- Qualities to be preserved include the historic character of the town or urban area and all those material and spiritual elements that express this character, Urban patterns as defined by lots and streets; Relationships between buildings and green open spaces; The formal appearance, interior and exterior, of buildings as defined by scale ,size, style, construction, materials, colour and decoration; The relationship between the town or urban area and

its surrounding setting, both natural and man-made ; The various functions that the town or urban area has acquired over time.

- The participation and the involvement of the residents are essential for the success of the conservation programme
- Conservation in a historic town or urban area demands prudence, a systematic approach and discipline
- New functions and activities should be compatible with the character of the historic town or urban area.
- When it is necessary to construct new buildings or adapt existing ones, the existing spatial layout should be respected, especially in terms of scale and lot size.
- Traffic inside a historic town or urban area must be controlled and parking areas must be planned so that they do not damage the historic fabric or its environment.
- Specialised training should be provided for all those professions concerned with conservation.

## **2.5 INFERENCE:**

This chapter has discussed various relevant literature regarding Urban renewal and Historic core areas, focusing on the evolution of urban renewal and the changing emphasis of urban renewal from Renaissance period to the modern day regeneration projects. The Renaissance urban renewal projects had focused on visual aesthetic upgradation. In early 19<sup>th</sup> century urban renewal projects were focusing on Renewal of neighborhoods and gentrification. Today the emphasis differs from context to context, in India the focus of renewal projects are in physical infrastructure improvements and providing basic amenities to cities and towns. Significance of Public realm and conservation in urban renewal is also discussed in this chapter in the context of Historic core areas.

## **CHAPTER III**

### **URBAN RENEWAL APPROACHES IN HISTORIC CITIES**

#### **3.1 INTRODUCTION**

Urban renewal case studies of historic inner cities discussed in this chapter have been chosen keeping in mind the heritage value of the historic core areas of different communities. The main objective of the case studies is to understand the transformation process in historic core areas as well as to find out the various approaches to urban renewal of historic areas in different contexts. Projects selected for study are Bhaktapur Development Project ; Restoration of Bukhara old city; Conservation of old sana ; Conservation and Revitalisation of Historic Mostar; The Golden Temple Beautification plan, Amritsar. Inferences from the Case studies are drawn which become the basis for deciding the approach to improvement of historic core area selected for the detailed study.

#### **3.2 BHAKTAPUR DEVELOPMENT PROJECT, BHAKTAPUR - NEPAL**

##### **3.2.1 Introduction**

Bhaktapur, a place of historical importance and the home of medieval art and architecture, is one of the three capital towns of Nepal, locally known by Bhadgaon and Khwopa. Bhaktapur is situated at an altitude of 1,401 meters above the sea level and spreads over an area of 6.88 sq. km lies 11.2 km east of Kathmandu. One hundred thousand people inhabit the city and the main occupation of its inhabitants is agriculture where as the crafts and businesses are their secondary occupations. The city remained the capital of the kingdom of Nepal from 12–15th century A.D. Cultural and living heritage dating back 14-15 centuries has remained relatively well preserved. Many important buildings have remained as master pieces not only of Bhaktapur but also of the country. The decline of the city started after shifting of activities to other cities and construction of a highway to the new capital by passing the traditional trade route through Bhaktapur. Bhaktapur Development Project was undertaken by the Government of Nepal and Federal Republic of Germany to revive and revitalize the economy of the declining town and also to conserve the architectural and heritage value of the town.



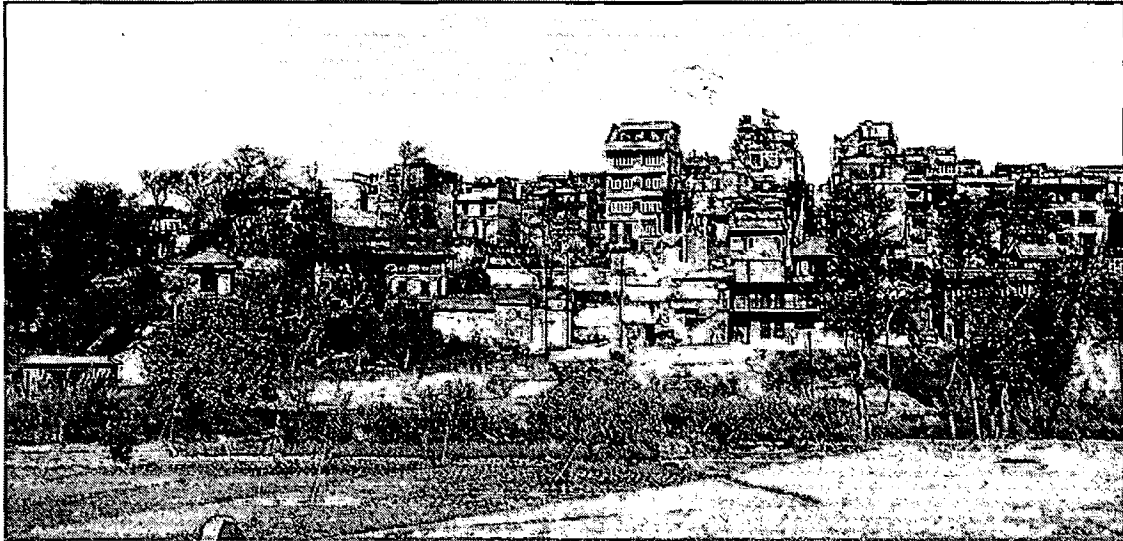


Fig 3.1 View of Bhaktapur town (source: www.molon.de)

### 3.2.2 Heritage Value of Bhaktapur

Monumental masterpieces in Bhaktapur are innumerable. Much of the town's great architecture dates from the end of the 17<sup>th</sup> century during the rule of King Bhupatindra Malla. Most of the temples are pagoda style with terracotta tile roofs supported by intricately carved wooden struts or columns, wooden doors, gilded roofs and pinnacles and open brick-paved spaces around. Most of the building with heritage value are located in and around the three squares (fig 3.2) in town, namely, Dattatraya Square, Durbar Square, Taumadhi Square.

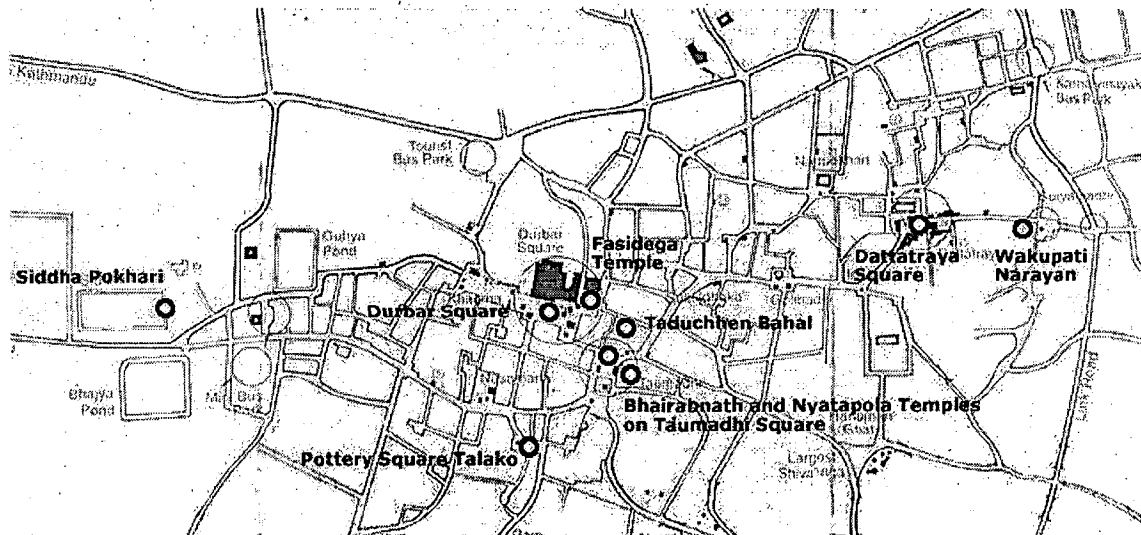


Fig 3.2 Plan of Historic core of Bhaktapur

The oldest part of the town is around *Tachupal Tole (the Dattatraya Square)*, *Dattatraya Square* is like an open museum that contains innumerable monumental masterpieces of woodcarvings. Another important square is the Durbar Square. It was once packed with monasteries, temples and artistic buildings, almost one third of which were destroyed by the disastrous earthquake of 1934. The square still holds mesmerizing palaces, pagodas, shikhara-style temples as well as Buddhist monasteries with exclusive architecture. It is one of the seven UNESCO world heritage sites located in Kathmandu Valley. Taumadhi Square is located close to Durbar Square, this square divides the ancient town into upper and lower halves. Taumadhi square is dominated by many mesmerizing temples and other examples of medieval architecture. *Nyatapola Temple*, *Bhairav Temple* and *Til Madhav Narayan Temple* are the major structures being centrally located in this square.



Fig 3.3 Bhairavnath Temple

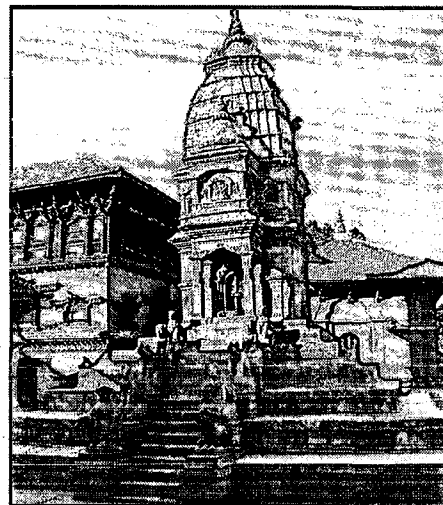


Fig 3.4 Hindu Temple

(source: [www.molon.de](http://www.molon.de))

### 3.2.3 Need for Urban Renewal

Bhaktapur was the centre of power and a thriving centre for trade, especially with Tibet up to the second half of the 18<sup>th</sup> century. Then the centre of power shifted as the city lost its tributary land and the trade route were by passed after the construction of a highway to the capital. The decline of Bhaktapur was gradual but steady. The decline and shift of activity to the other two cities Kathmandu and Patan, of the region has resulted in lack of incentives and the means for the kind of large-scale urban renewal that might have emphasized the

repair of its architectural glory of Bhaktapur. Damage to buildings due to neglect has been compounded by the ravages of earthquakes and inherent factors such as moisture, weak foundations, lack of moisture barriers, leaking roofs and insufficient links between timber elements and masonry are among the main problems faced by majority of heritage buildings in the town.

### 3.2.4 Bhaktapur Development Project

Bhaktapur Development Project, was launched in 1974 as a venture of His Majesty's Government of Nepal with the assistance of the Federal Republic of Germany, to revive and revitalize the economy of the declining town and also to conserve the architectural and heritage value of the town. The costs for which the construction work for the project was to be undertaken in two phases are 15 million and 23 million Rupees to be shared between the two countries: one third by Nepal and two thirds by the Federal Republic of Germany.

Aim of the project was to improve the physical, infra-structural and socio-economic conditions of the people of Bhaktapur, and preserving the medieval character of the town at the same time. This required a comprehensive plan which would take into consideration and give equal importance to both development and preservation. During the first phase of the project, twenty large monuments and numerous small objects were restored or repaired. Carving accounted for a very large proportion of the work, ranging from the replacement of individual members of an element to the manufacture of whole units such as doors, windows, balcony windows and pillars.



Fig 3.5 View of Durbar Square after Renovation (source: [www.molon.de](http://www.molon.de))

The project made a special effort to improve traditional house construction. The guiding principle in devising new methods has been to make use of existing skills, technology and construction methods wherever technically possible. The project has collaborated in a number of private house repairs and reconstruction works by giving aid in design as well as subsidies in the form of material and labour. Every effort is being made to combine the preservation of artistic treasures with the provision of income, employment and better living conditions. Thus, much time and energy has gone into the improvement of the water-supply system as well as into traditional open wells and ponds, sewerage, sanitary facilities, housing and construction Or school buildings. The success of this development project continued not only the fund assistance from Germany, but also gave satisfaction of achieving the two main objectives that is

- **Strengthening of an age old culture by a judicious blending of old and new techniques.**
- **Economic revival of a declining town; and the creation of a large number of jobs.**



Fig 3.6 Renovated Square with Batsala Temple (source: [www.molon.de](http://www.molon.de))

### 3.3 RESTORATION OF BUKHARA OLD CITY , BUKHARA - UZBEKISTAN

#### 3.3.1 Introduction :

Bukhara a legendary city of learning and culture, and a jewel of medieval Muslim urbanism was first established in the middle of the first millennium BC, but became an important commercial, artistic and intellectual centre particularly after the beginning of the eighth century AD. Its influence continued until the city was almost leveled by the Mongol hordes under Genghis Khan in 1226. After it was revived, Bukhara's position on Central Asian trade routes generated enormous wealth which the Timurids and Uzbeks used to commission architectural masterpieces, making Bukhara one of the most splendid cities in the Islamic world. Bukhara became an independent khanate in 1753, continuing as such until 1868, when it was incorporated into Tsarist Russia. A number of monuments suffered from bombardment when it was taken over by the Bolsheviks. Bukhara became the capital of one province after Uzbekistan became an independent republic with the collapse of the USSR in 1990.

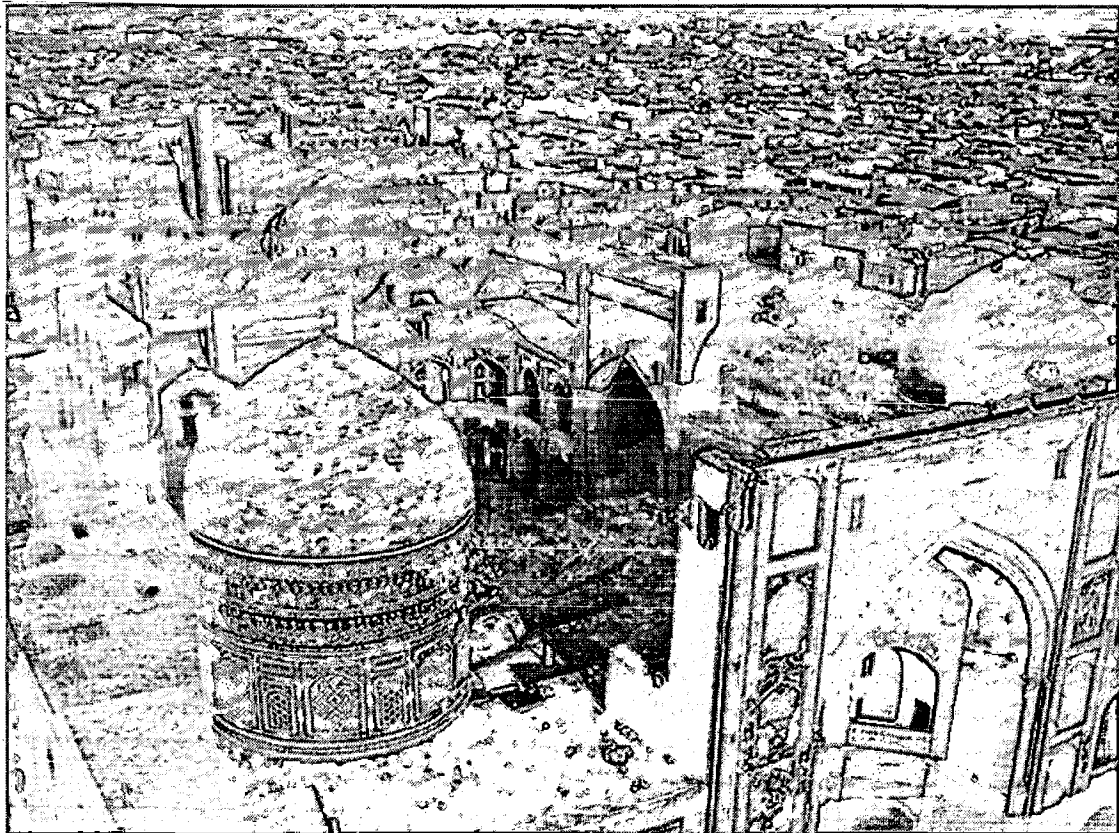


Fig 3.7 View of historic core of Bukhara (source: [www.archnet.org](http://www.archnet.org))

### 3.3.2 Bukhara Old City

The old city of Bukhara was founded 2,500 years ago. Within its ancient city walls and gates are five hundred standing monuments: they include twenty four madrasas, forty eight mosques, fourteen caravanserais, nine mausoleums, four trading domes, the Ark citadel, and many hammams, old houses, and canals. The restoration programme of Bukhara Old City, aims to conserve the major monuments and landmarks in the centre of the old city, and to re-integrate them into the life of the bordering districts

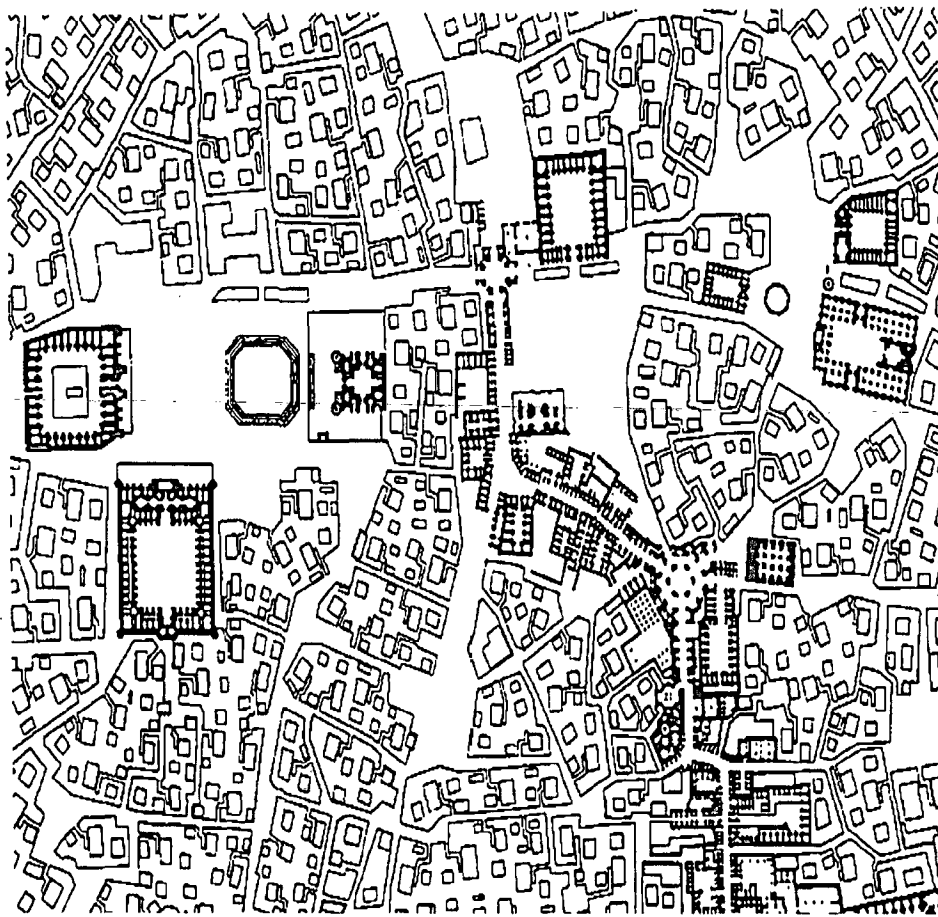


Fig 3.8 Plan of Bukhara Old city (source: [www.archnet.org](http://www.archnet.org))

### 3.3.4 Restoration Programme

The restoration programme began in the late 1960's under the USSR and has been continued by Uzbekistan since its independence in 1990. The primary aim is to conserve the major monuments and landmarks in the centre of the old city and to re-integrate them into the life of the bordering districts. Since most of the upgraded mosques, madrasas, mausoleums, and other monumental structures are no longer used as such, a new function was found for each. Some

madrasas, for example, have been turned into craft centres, studios, and galleries. One has become a restoration institute where future restorers are trained. Other structures have had their old functions renewed. A caravanserai is once again a silk and cloth warehouse and trading domes are renewed as active suqs (market place). Among the great landmarks restored are the Samanid Mausoleum, the Mir-i Arab Madrasa and the Kalyan Minaret. Mediocre buildings of 1950's were removed to open up the old centre, thereby allowing the monuments to be seen better. Utilities have been upgraded, and the streets paved. Given the economic weakness of the newly independent republic in an increasingly competitive international economy, the local community has taken the primary responsibility to reclaim the old city as its own. The ensuing integration of the remaining elements of the old city into the modern city fabric has been sensitively achieved. The restoration work is of acceptable quality and the sense of place has been enhanced. The re-use of the historic spaces and buildings has been an economic, social and architectural success. The surroundings have also been revitalised, galvanising new construction that is sensitive in scale and materials, and new economic activities.

The versatile and everyday uses that have been integrated into the old city have given it a new lease of life. The upgrading of utilities, paving of streets and restoration of the old town centre have virtually transformed Old Bukhara from a derelict slum into a viable, functioning, living urban space with a cultural and aesthetic focus that is attractive to local visitors and foreign tourists alike. The combination of community effort and technical expertise represented in this project can be taken as example for similar projects. The civic pride and enhanced cultural identity that are the outgrowth of this work demonstrate that a legacy can be more than a museum or a tourist destination. It can become an important part of the living present, to be used and enjoyed by residents and visitors alike; a continuing inspiration for new architecture and urbanism.

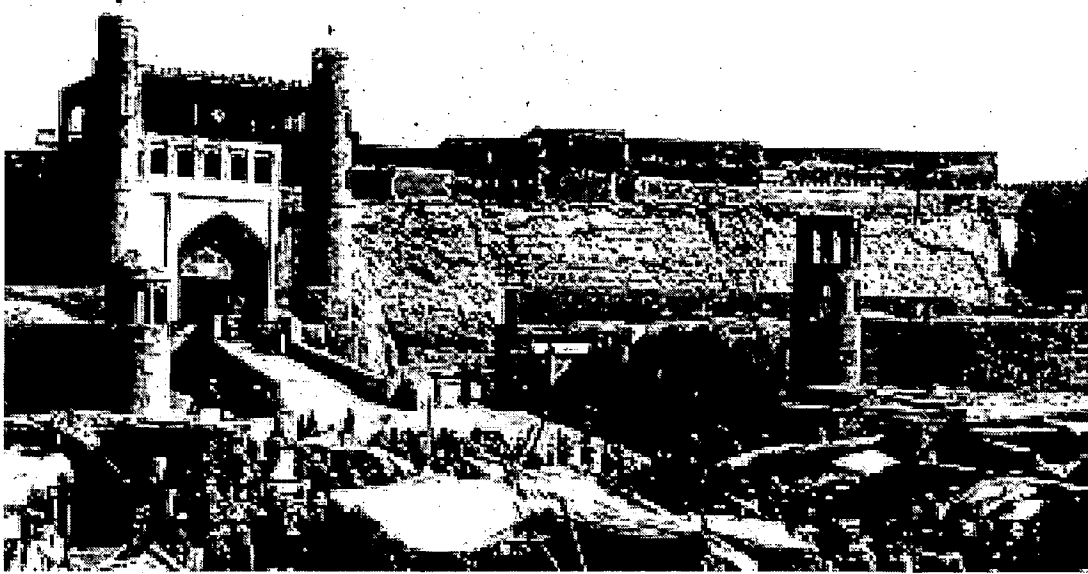


Fig 3.9 View of Ark citadel before and after restoration, once the seat of Emir of Bukhara , today houses a museum which displays the history of the city  
(source: [www.archnet.org](http://www.archnet.org))

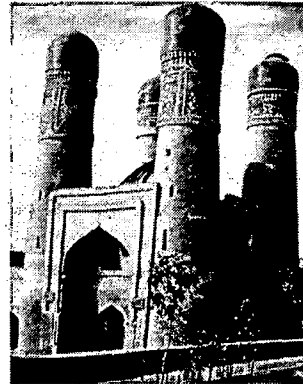
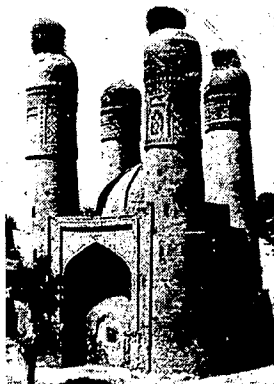


Fig 3.10 View of Chor Minor Madrasa, before and after restoration



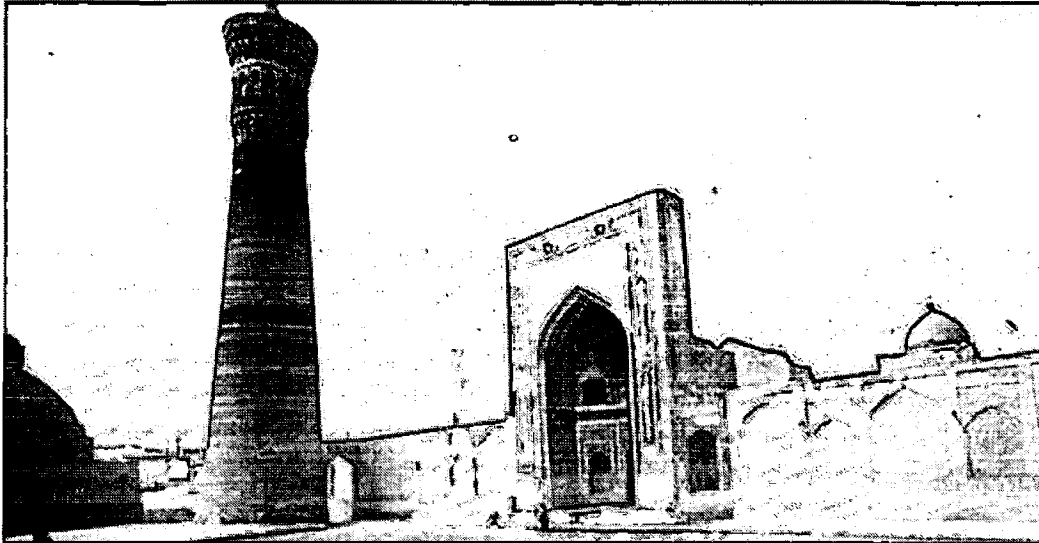
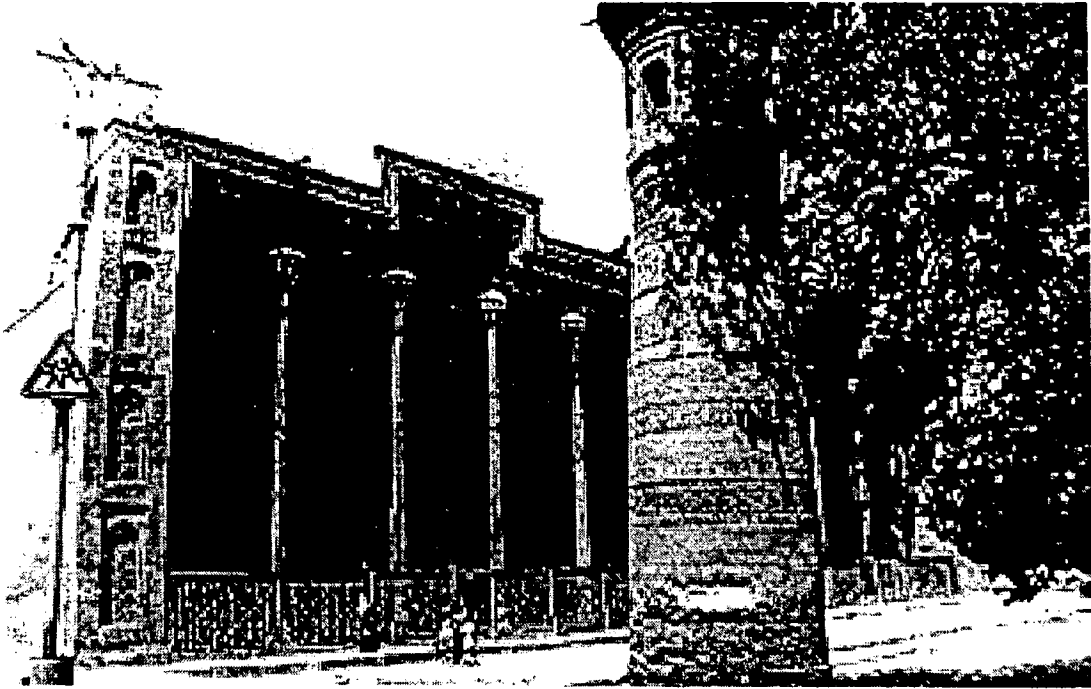


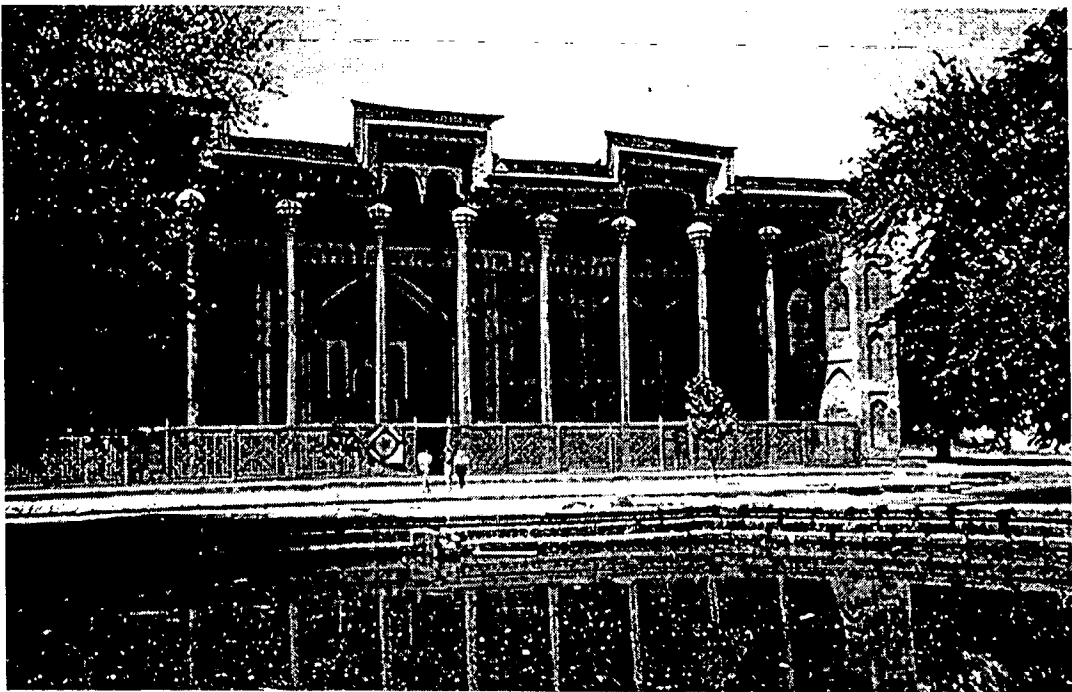
Fig 3.11 View of kalan Mosque and Minaret after restoration (source:www.archnet.org)

The current revitalization is a reoriented and expanded programme, begun in the late 1960s with a series of restorations. Today, as much attention is paid to the activities in the monuments and surrounding urban fabric as to the physical fabric itself. The Restoration Institute of Uzbekistan in Tashkent was created with the sole mission to revitalise the historic centres of old towns. The architects and restorers of the Tashkent Institute have worked with their counterparts in Bukhara to plan and carry out the restoration of Bukhara Old city. Since gaining independence in 1990, Uzbekistan has sought to define its national image, and the preservation and re-use of its architectural heritage are important components of this effort.

The restoration of Old Bukhara is an immense undertaking that will continue for years to come. At present, only some fifteen per cent of the monuments of Bukhara have been conserved to date. This mammoth task is being tackled practically and rationally, with imagination and foresight, by the staff of the restoration institutes in Tashkent and Bukhara. In spite of all the difficulties Uzbekistan faces, the government, talented specialists and the general populace display a commitment to protect the architectural heritage of their city in an extraordinary expression of cultural identity.



(A)



(B)

Fig 3.12 (A,B) Bolo Khaus Mosque, before and after Restoration (source:www.archnet.org)

### 3.4 CONSERVATION OF OLD SANA, SANA – YEMEN

#### 3.4.1 Introduction:

Sana'a has been a major trading centre for south-eastern Arabia, since its founding 2,000 years ago and also became one of the two capitals of the great Sabaean empire. Once a seat of government for the early Islamic caliphs, it is today the capital city of Yemen. The walled city of Sana is one of the best preserved old cities in the world today. Remote in the central mountain plateau of Yemen and for more than 200 years before 1962 closed to foreign influence, the city and its inhabitants retain many characteristics that one would associate with the mediaeval Islam.

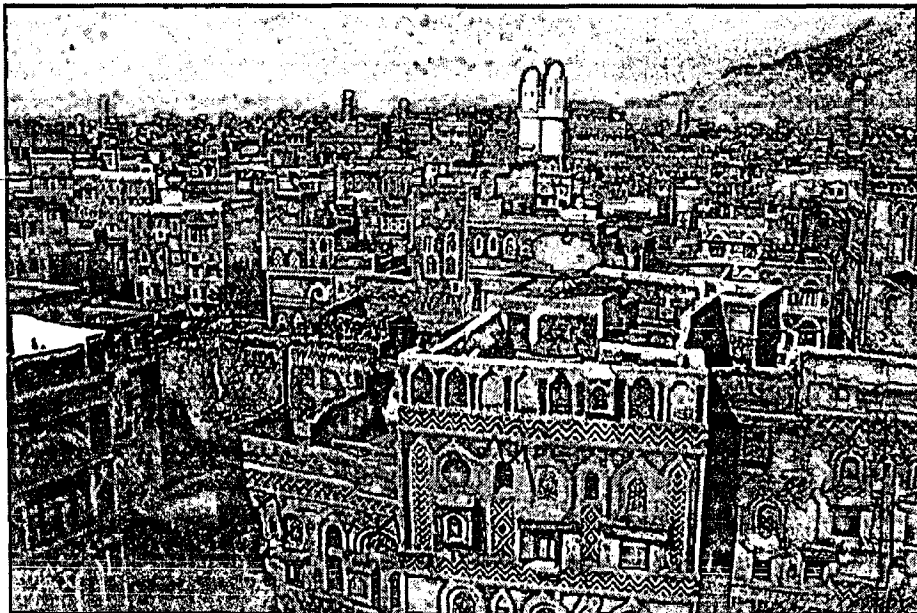


Fig 3.13 View of historic sana'a (source:www.archnet.org)

#### 3.4.2 Heritage Value of Sana'a

Sana'a is known for its rich architectural value in its townscape. Typical houses in Sana'a rise to as many as nine stories. The lower levels are usually built of stone and the upper ones of lighter brick. The windows are outlined in white gypsum and have fan lights of alabaster or coloured glass held in gypsum tracery. Architectural researchers are seriously handicapped by the lack of any archaeological study within or near the city and by the absence of classification on most of the documentation. The immense wealth of surviving buildings in

Sana has made it possible to establish the main outline of building development for at least the last 300 years, and in the case of mosques, for well over thousand years.

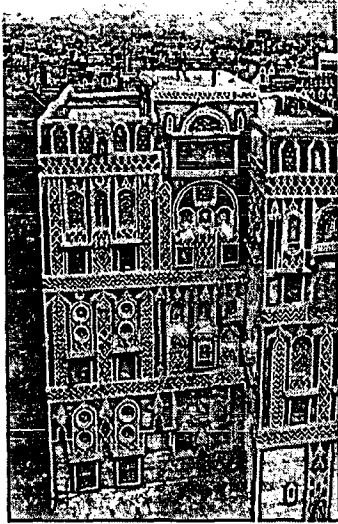


Fig 3.14 Typical façade  
Ornamentation



Fig 3.15 Sana'a residential neighbourhood  
(source:www.archnet.org)

### 3.4.3 Conservation Project

The General Organisation for the Preservation of Old Sana'a was created in 1984 by the Republic of Yemen, in view of urban expansion of the 1970's and 1980's that had begun to threaten and eventually destroy the old city. By 1987, it extended its responsibilities to all of Yemen and became the General Organisation for the Preservation of the Historic Cities of Yemen (GOPHCY). UNESCO and UNDP assisted the preservation planning process, while technical assistance and funding were provided by the Yemeni government and by Germany, Italy, the Netherlands, North Korea, Norway, Switzerland and the U.S.A.

Under this project about 50 percent of the city's streets and alleys have been paved with patterned bands of black basalt and white limestone and the repair continues. Old water supply and drainage systems were upgraded, and craftsmen are restoring the city's mud walls. Numerous buildings dating from the 14th, 17th, and 19th centuries have been restored.

### **3.5 CONSERVATION AND REVITALISATION OF HISTORIC MOSTAR BOSNIA - HERZEGOVINA**

#### **3.5.1 Introduction:**

Mostar once a small hamlet situated at a strategic crossing of the Neretva River. Mostar was a representative multi-ethnic and multi-cultural settlement in Bosnia, which had possessed an independent political identity since the twelfth century. Mostar, perched atop the steep banks of the Neretva River in south-western Bosnia-Herzegovina, was for centuries an outstanding example of cultural and religious diversity in the heart of the Balkans. In spite of the very considerable damage the city suffered during the 1992-1995 war, Mostar remains an extraordinarily important European cultural heritage site. Its preservation and development have a symbolic meaning and underscore Bosnia-Herzegovina's determination to recover its multicultural past and to secure a future of tolerance and peace.

#### **3.5.2 Old Town of Mostar**

Mostar situated at a strategic crossing of the Neretva River before the Ottoman conquest of Bosnia. The bridge is at the heart of the town's identity: Mostar means "bridgekeeper". Mostar was transformed, in a matter of decades, from a minor river crossing to a thriving colonial crossroads. During the Ottoman period, the Stari Most was built to replace a precarious wooden suspension bridge that had spanned the river. Facilitating travel, trade and the movement of military troops, the Stari Most became a symbol of the benevolence and power of the Ottoman Empire; it insured Mostar's primacy as the capital of the county of Herzegovina. The Ottomans used monumental architecture to affirm, extend and consolidate their colonial holdings. In Mostar, historicist architectural styles reflected cosmopolitan interest and exposure to foreign aesthetic trends and were artfully merged with indigenous styles. Examples include the Italianate Franciscan church, the Ottoman Muslibegovića house, the Dalmatian Ćorovića House and an Orthodox church built with a gift from the Sultan. By the 1960s, the 16th-century historical core of the town of Mostar was physically deteriorated and commercially stagnant. It has since become revitalised and reactivated as a thriving business centre.

### 3.5.3 Urban Renewal Project

After the war of 1992 -95 in Mostar, Aga Khan Trust for Culture and World Monetary Fund jointly began the preparation of a "Conservation and Development Plan for the Old Town" in 1998. This Plan was formally adopted by the local authorities on May 2001. It includes plans, regulations and guidelines for the protection of the historic core of Mostar, detailed proposals for the rehabilitation of the neighbourhood areas, and a series of adaptive re-use schemes for priority buildings, as well as provisions to support institutional strengthening and active management of the historic city's future.. The work achieved under this partnership complements the bridge reconstruction project of the UNESCO/World Bank group with a comprehensive urban rehabilitation effort. The main objectives of this project were,

- Establishment of a detailed conservation and development plan for the old city in order to provide the city administration with an up-to-date record of the existing situation, as well as an appropriate urban management tool for plot-by-plot interventions ranging from restoration to appropriate new "infill" structures.
- Development of a series of action plans for significant specific areas that are characterised by ensembles of historic buildings and their enclosed or adjacent public spaces, particularly the two historic neighbourhoods flanking the Old Bridge complex on both sides of the Neretva River. In these areas Mostar's old townscape has been as much as possible re-established. In cooperation with the residents, owners and the authorities, interventions ranged from roof repairs to the reconstruction of ruined buildings, environmental improvements, street furnishings, etc.
- Identification of a list of 21 important historic buildings to be restored as a priority for the city's recovery, with funds made available through public or private investment. Each building was carefully recorded and analysed, and corresponding conservation proposals were prepared, including cost estimates and recommendations for re-use.

### 3.5.4 Key Concepts of Conservation and Development of Mostar's Historic Core

- Reinforce the integration between the Old Bridge and the adjacent bazaar and historic neighbourhood areas.
- The bridge and the surrounding urban fabric must be considered part of a single system that should be protected and managed in its entirety through consistent and well-coordinated planning and building measures.
- Recognise the centrality of the Neretva River in shaping the image and identity of the city and aim at preserving its natural landscape qualities for the future.
- The natural features must not be compromised by too many access points
- Streamline and improve circulation in the central area by establishing clear hierarchy of motorised roads and a separate pedestrian network
- Reinforce and extend car-parking points around the central area within easy pedestrian access to the historic core.
- Identify key “action areas” and “streetscapes” as priority zones
- Revitalize the many ruined, empty or underused historic buildings within the central area
- Historic structures reflect Mostar's multi-cultural past and should be reclaimed to meaningful use in order to spur economic growth, revitalize neighbourhoods and enhance community pride and identity.

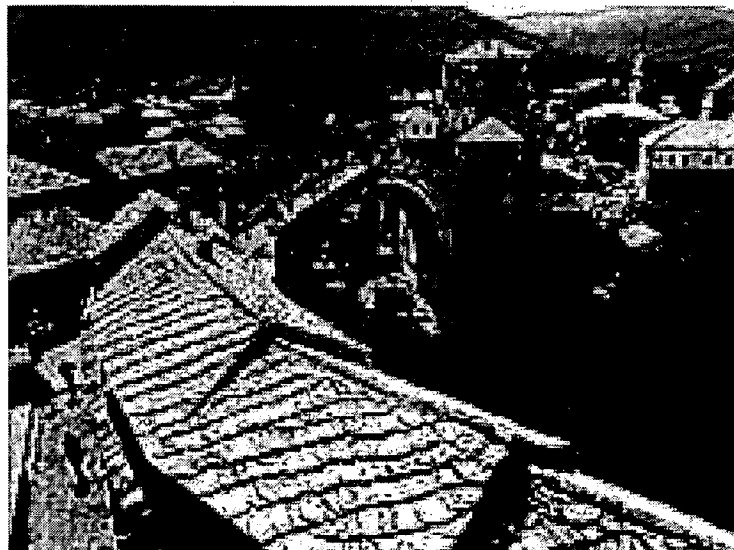
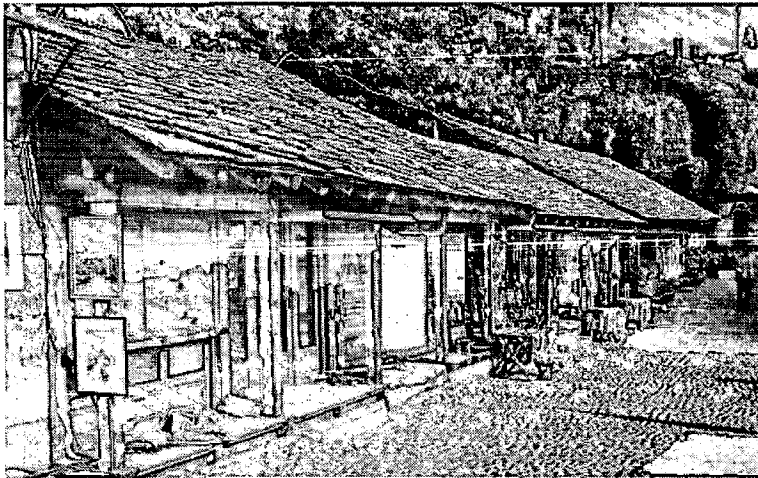


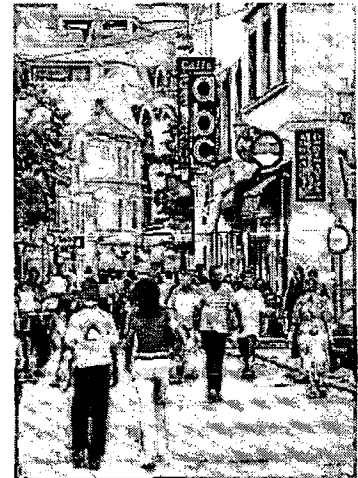
Fig 3.16 View of the old bridge



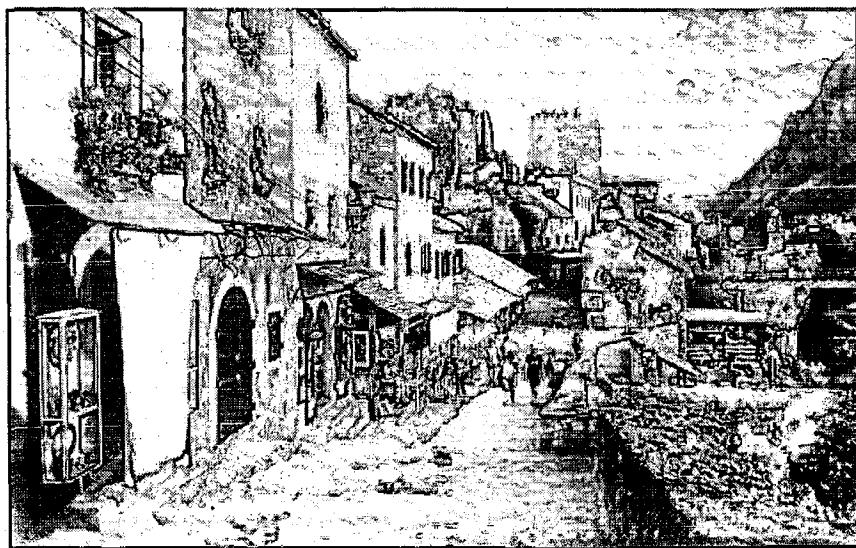
(a) Plan showing the Interventions in the Historic Neighbourhood



(b) Reconstructed shop fronts



(c) Fejic Street



(d) Reconstructed main bazaar street

**FIGURE 3.17 Historic core of Mostar**

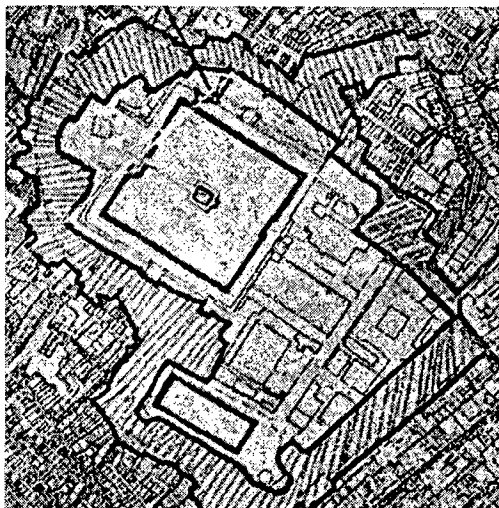


### 3.6 THE GOLDEN TEMPLE BEAUTIFICATION PLAN, AMRITSAR - INDIA

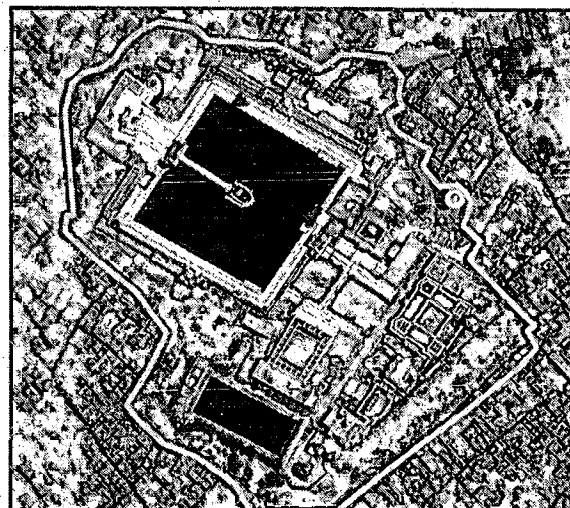
#### 3.6.1 Introduction:

Amritsar is best known as the home of the Golden Temple, the most sacred shrine of the Sikhs. Guru Ramdas the fourth of the Sikh Gurus, decided to build a temple on the land gifted to him by the emperor Akbar in 1579 A.D. A sacred tank (the pool of Nectar) was first excavated and later in 1588 A.D., A temple was raised in midst of it by the fifth Guru, Guru Arjan Dev to house the Guru Granth Sahib, the sacred book of the Sikhs. Ever since, the Darbar Shaib, or Divine Court of Amritsar has been Sikhism's holiest shrine and a pilgrimage centre for Sikhs from all over the world.

After the blue star operation in 1984 , there were lot of damages on the buildings of golden temple and surrounding areas. Old monuments were demolished completely which were further rebuilt. The government in order to provide security and beautification, acquired 30m width around the golden temple complex in 1989 and demolished all the buildings and proposed the Galiara scheme in this 30m belt around the complex.



(a) Hatched area showing the 30m area of the Galiara Scheme



(b) Satellite image of the historic core of Amritsar

Fig.3.18 Historic core area of Amritsar and the Galiara Scheme



Fig 3.19 Thick built mass around golden temple complex (source: Author)



Fig 3.20 Green open space, Pedestrian path & road around  
The golden temple complex under Galiara Scheme (source: Author)

### 3.6.2 Galiara Scheme (Redevelopment Project)

The Golden Temple Beautification Plan, also known as the Galiara Scheme, was announced in June 1988 by the Central Government. The aim of the project was development and beautification of 30-m belt around the golden temple complex. Its objective was to remove all narrow lanes and bazaars, which proved to be a hindrance for the security forces during the infamous Operation Blue Star. Under the Galiara scheme Government acquired 30m of width around Golden temple complex and approximately two third of the acquired width was beautifully landscaped just around the complex. Adjoining the landscaped court , a road was constructed all around. Public toilets were provided adjoining the periphery road in regular intervals around the complex.

The Galiara scheme destroyed many buildings which had high historical and architectural significance. The historical sites could have been preserved not only as monuments, but also as living witnesses of the age-old traditions. The bazaars, which had a great heritage value, were demolished to pave the way for the Galiara. These historical bazaars included famous Bazaar Maniaran (Jhutha Bazaar), Pappranwala Bazaar, Kapda Bazaar (cloth market) adjoining Baba Atal, a portion of Atta Mandi, Mochi Bazaar and the major portion of Mai Sewan Bazaar. The original cost of the project was Rs 119 crore. However, the cost was modified to Rs 82.75 crore. The Central Government sanctioned Rs 74.75 crore for the project, out of which Rs 70 crore were released. The entire area was divided into five phases. About 1233 commercial plots and 391 residential plots were allotted and subsidy was paid by the Municipal Corporation as a rehabilitation measures to the people who were affected by the Redevelopment Process.

The entire area was divided into five phases.

Phase one: Chowk Parag Dass to Baba Atal.

Phase two: Baba Atal to Bazaar Pappranwala.

Phase three: Bazaar Pappranwala to Bazaar Mai Sewan.

Phase four: Guru Ram Dass Serai to Ghanta Ghar.

Phase five: Construction of vehicles' parking, including underground parking for 200 cars, ground-parking for buses

Out of the five phases, only three phases have been completed. The remaining two phases are yet to be completed.

Under the Galiara scheme, it was proposed to demolish 500 buildings. This was later amended to 492, and out of these, 483 buildings were demolished. The remaining buildings were not demolished either for security or for other reasons. But all buildings, except religious buildings were demolished. As many as 859 families were uprooted and 500 houses and 1150 shops were demolished. The shopkeepers were resettled in various markets like Pink Plaza, Shaheed Bhagat Singh Market, IDH Market, Green Plaza. They were allotted plots for 1224 shops. The expenditure incurred on the payment of compensation of land properties and rehabilitation was Rs 80.14 crore. The work of the Galiara has been stalled since 1997 due to political interference in shifting the IT Market facing Ghanta Ghar having 42 shops to the back of Sanglan Wala Akhara. The fifth phase, which envisages underground parking for 200 cars, ground-parking for buses, was delayed due to objections raised in certain quarters. As per the design prepared by Delhi-based Architect Ravinder Bhan, there is provision for landscaping after demolishing the market in front of the Golden Temple.

The purpose of the project has been partially defeated with the non-completion of the remaining four and five phases. For the front side of the Golden Temple where tourists, including VVIPs, enter the shrine, a revised plan of Rs 64 crore was sent to the government in 2001. Brahm Buta Akhara was acquired by the government for the completion of the scheme and a compensation of Rs 72 lakh was also paid. But till today, the possession of the site has not been taken.

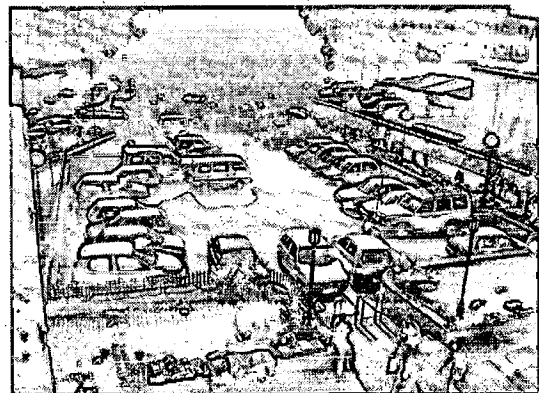
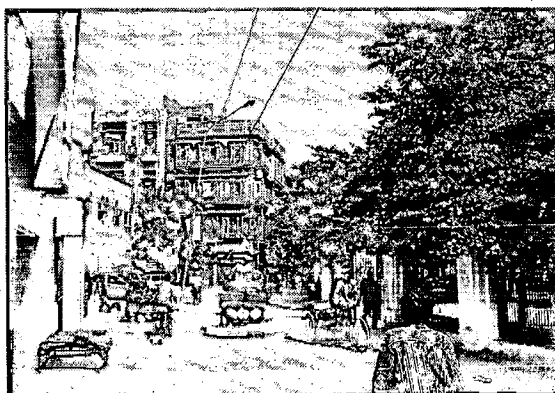


Fig 3.21 Road around the temple complex and Parking space under Galiara scheme



Fig 3.22 View of 30m green belt from Gurudwara Baba Atal ji (source : Author)



Fig 3.23 View of fountain and water body (source : Author)

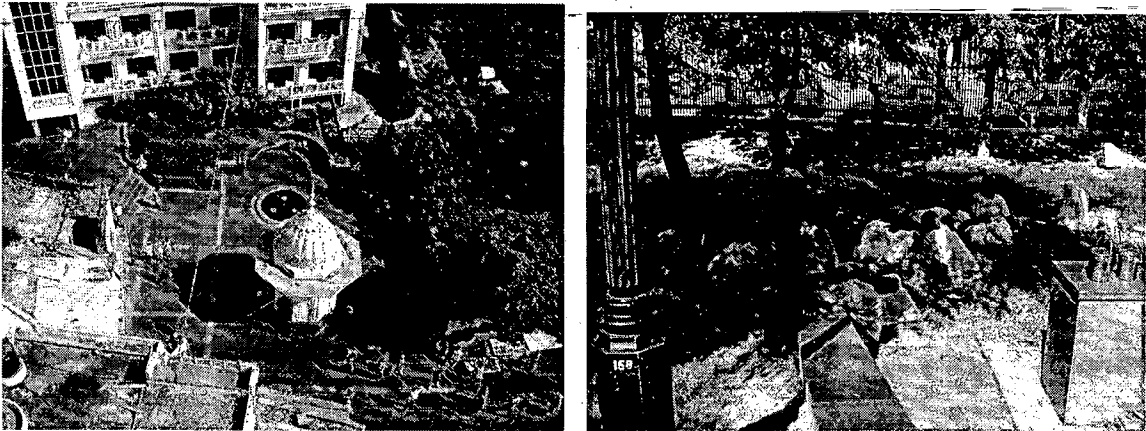


Fig 3.24 View of plaza and pilgrims taking rest (source : Author)

### 3.7 INFERENCES FORM THE CASE STUDIES

It is observed from the case studies that, all the projects had a common objective to integrate the historic core area with the rest of the city, but each project focused on a particular component of urban renewal. In the case of Bhaktapur redevelopment project, it is more of preservation and strengthening of an age-old culture by a judicious blending of old and new techniques and also economic revival the declining town.

# CHAPTER IV

## STUDY AREA: THANJAVUR OLD TOWN

### 4.1 INTRODUCTION

This chapter discusses the study area Thanjavur historic city core, its general profile, historical evolution and its architectural heritage value. The focus of this chapter is on understanding the context of study area. An attempt is made to understand the problems and issues in historic core area of Thanjavur in the chapter. Considering the crucial role of tourism in economic revitalization, significance of tourism in Thanjavur in the context of urban renewal is also discussed in this chapter.

### 4.2 THANJAVUR: GENERAL PROFILE

#### 4.2.1 Geographical location & Area

Thanjavur is located in the central eastern part of Tamil Nadu state. It is one of the important heritage towns of Tamil Nadu. It lies between 9° 50' and 11° 25' north latitude and 75° 45' and 79° 25' east longitude. It is bounded on the north by Thiruchirapalli and Cuddalore districts, on the east by Tiruvarur and Nagapattinam districts, on the south by Palk strait and Pudukottai district and on the west by Pudukottai and Tiruchirapalli districts. It spreads over an area of 30 SqKm and has a population of 2,15,725 according to 2001 Census.

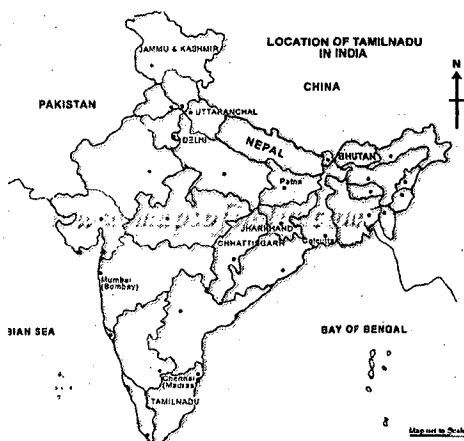


Fig 4.1: Location of TamilNadu in India

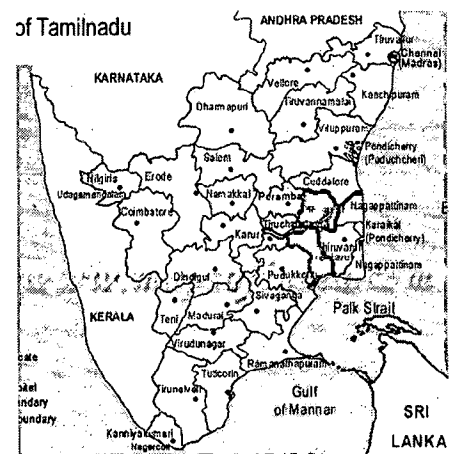


Fig 4.2: Location of Thanjavur Dist.

(Source: [www.mapsofindia.com](http://www.mapsofindia.com))

#### **4.2.2 Climate**

Thanjavur enjoys a tropical, hot, monsoonal climate. The mean maximum temperature varies between 29° C in November - January and 36° C in May - July the average being 32.46° C. Similarly, the mean minimum varies between 22° C and 27° C with an average of 24.75° C. Individual maximum temperature vary between 20.8° C and 40.0° C. The normal annual rainfall is 1168.4 mm. About 60% of the total annual rainfall is received which commences by mid October and ends by December.

#### **4.2.3 Topography**

The town is essentially a flat, deltaic terrain, without any hills of noteworthy heights. Few residual hillocks of 25 to 45 m elevations occur in the western parts called Vallam table lands. They slope gently to the east. The western part forms the new delta area, which is more or less a plain land, sloping towards the east.

### **4.3 HISTORICAL EVOLUTION OF THANJAVUR**

Thanjavur was the capital of Imperial Cholas. Historical references on Thanjavur are available only after the 7th Century A.D. Thanjavur was ruled by five different rulers starting from 8<sup>th</sup> century Cholas, the Pandyas, the Nayaks, the Marattas and the British. The first literary reference about Thanjavur is available in the hymns of Saint Appar of the 7th Century. Hence forward literary and epigraphical references are available on Thanjavur.

#### **4.3.1 Chola Period (846 A.D – 1279 A.D)**

In 846 A.D the first imperial chola king Vijayalaya Chola captured Thanjavur territory from a Muttarayar King and established his capital at Thanjavur and built a palace. From the reign of Vijayalaya Chola, Thanjavur continues to be the capital of the subsequent Chola rulers, Rajaraja I (985-1014), the days dawned to bring about new and brilliant chapter in the history of Cholas. Both in war and peace Rajaraja and his son Rajendra proved themselves as the most outstanding personalities of their time

Rajendra I held Thanjavur as his capital for 10 years from his accession (1014 A.D) and later (1025 A.D) shifted his capital to Gangaikonda Cholapuram. After

the shifting of the capital, Thanjavur lost its prestige and glory as the capital of Cholas and relegated to the secondary position in the galaxy of capital cities of that time.

#### **4.3.2 Nayak Period (1450 A.D – 1675 A.D)**

After the Pandiyas, Hoysala rulers ruled the Chola Mandalam for few years and in the 14<sup>th</sup> century, the Vijaya Nagar Empire brought Thanjavur under its control. During their reign, Thanjavur regained its lost glory. In 1535 A.D, Vijayanagara emperor Achutha Devaraya established the Thanjavur Nayak's rule. He appointed Sevappa Nayak as the first ruler of Thanjavur kingdom. The Nayak rule continued up to 1675 A.D. During the Nayak period also Thanjavur witnessed the flourishing of art, architecture, literature and other allied activities.

#### **4.3.3 Maratta Period (1676 A.D – 1855 A.D)**

After the Nayaks, the Marathas captured and ruled Thanjavur till 1855 A.D. Thanjavur was nourished and enriched with arts, literature, buildings, temples etc. Saraboji was the celebrated Maratta ruler of Thanjavur who patronised fine arts, music and literature. Saraswathi Mahal library was established by him.

#### **4.3.4 British Period (1798 A.D – 1947 A.D)**

The French and English also began interfering in the internal affairs of South India. The supremacy of the English was later established. Saraboji II the adopted son of Tuljaji, was made King of Thanjavur in 1798, after agreeing with all the conditions laid down by the British Government. The administration of Thanjavur was given over to English fully under the Treaty of 1799. The ruler of the Thanjavur was allowed to retain the fort of Thanjavur only with limited power of administration. When the ruler died in 1841 without heir, the Thanjavur fort was also annexed by the British and it became part of the then Madras, Thanjavur remained under the British until 1947 when India attained freedom.

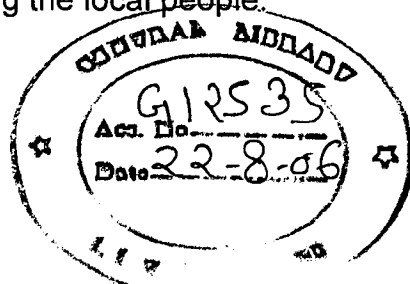


#### 4.3.5 Post Independence Period (1947 A.D – 2006 A.D)

Introduction of railways during the british period allowed the town to grow on the southern side of the existing old town. Even after independence the growth of the town is seen more on the southern corridor connecting the railway station and the old town. In early 60's more plotted residential development is seen on the southern side like v.o.c nagar, rajappa nagar, arulananda nagar etc. came into existence and also more developments seen on the corridors connecting major towns like Kumbakonam and Trichy.

For many decades agriculture has been the main activity in the district and town, being in the deltaic region of the famous river Cauvery. It was rightly acclaimed as the Granary of south India and Rice Bowl of Tamil Nadu. But today Thanjavur's economy not only depends on agriculture but it has other source of revenue, as a Heritage and Education city. There are two reasons for this, one is the increasing number of higher learning technical institutions from the year 1990.(It has four engineering colleges, one medical college and many arts and science college in the outskirts) Many students from other states come here for education. Other reason is the Tourist important places like Brahadeeswara temple complex and Palace complex both being important land mark in the city.

After Brahadeeswara temple was declared as a world heritage monument by UNESCO in the year 1987, the number of tourist coming to Thanjavur has increased significantly, In the year 1991 the tourist visiting thanjavur was only 2.8 lakhs where as in the year 2004 it has increased to 8.2 lakhs. This has led to increase in no. of hotels and other hospitality industry. Today Thanjavur is a heritage and pilgrimage town, where the historic core area is threatened by rapid urbanization. The core area except for the protected monuments is facing blight and decay due to shifting of higher income population from the historical core area to the new housing areas that offer improved living conditions, infrastructural facilities and services as well as due to more investment in commercial sector being put in newly developed areas and not in the old city areas. Another reason is lack of urban conservation awareness among the local people.



#### **4.4 TOURISM SCENARIO IN THANJAVUR**

Thanjavur has been identified as one of the Heritage towns by Tamil Nadu government. Thanjavur has lot of tourist important places for the Heritage lovers, the first one among them is Brahadeeswara Temple, which is a World Heritage Monument, there are other places of tourist interest like, Bell Tower, Arsenal Tower, Sangeeth Mahal, Saraswathi Mahal Library, Maratta Durbar Hall, Sarja Madi in the Palace Complex. Sivaganga Garden and Schwartz Church is also an important historical sites in Thanjavur. According to Tamil Nadu tourism policy Special Area Development Authorities are proposed to be established in all the heritage towns with the objectives of :

- Cleaning and beautification
- Preserving, conserving and protecting the archaeological and architectural heritage.
- Providing public amenities for visitors, pilgrims and tourists like parks, toilets , restaurants, restrooms , hotel rooms, souvenirs shops, walking areas, car parks, Bus stops, illumination and lighting, side walks, foot paths, shopping areas and recreation centres.
- Preventing unplanned and haphazard growth in these towns and removal of congestion.
- Providing proper sewage removal systems
- Strengthening local bodies and formation of special Area Development Authority, so that the same agency could be made responsible both for the planning and implementation of special area development schemes.

The towns identified in the first phase as Heritage Towns are Mamallapuram , Kacheepuram, Chidambaram, **Thanjavur**, Kanniyakumari, Rameswaram, Tharangambadi, Kumbakonam, Srirangam, Thiruthani, Palani, and Sriperumpudur.

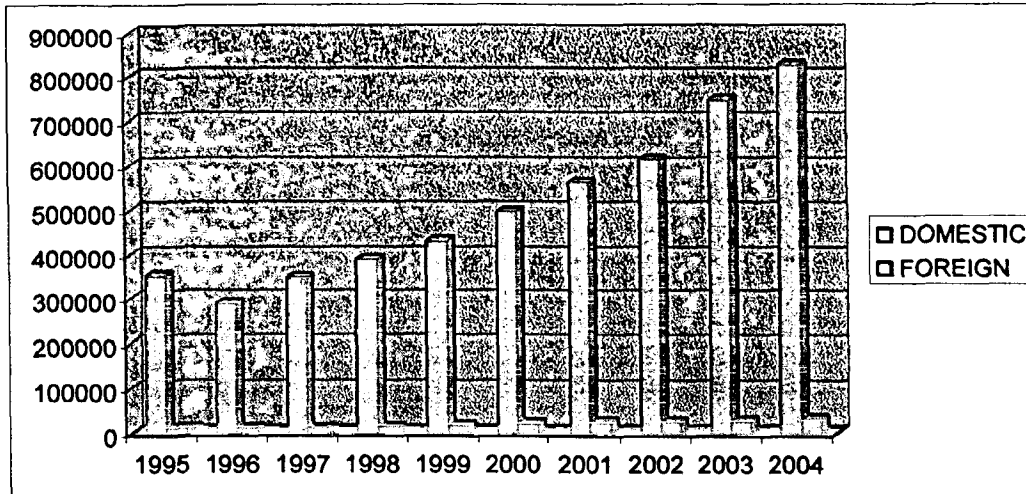


CHART 4.1- Domestic and Foreign Tourist arrivals in Thanjavur  
(Source : Tamilnadu Tourism Department)

There has been a steady growth in tourist traffic to Thanjavur as can be observed from chart 4.1. But still Thanjavur received only 2.7 % of Total Tourist coming to Tamil Nadu in 2004 (Table 4.1) . In the year 2004, Thanjavur town received around 8.5 lakhs of tourist , whereas the near by town Tiruchirappalli received around 15.3 lakhs of tourist , even though Tiruchirappalli city has less historical significance compared with Thanjavur. There can be two reasons for this, Firstly Tiruchirappalli lies in the important tourist route from Chennai to Madurai, Rameswaram and Kanyakumari. It is observed from the tourism data that more number of domestic tourist visit Rameswaram and Madurai compared with other religious towns in TamilNadu. Secondly the town is well connected by Road, Rail and Air.

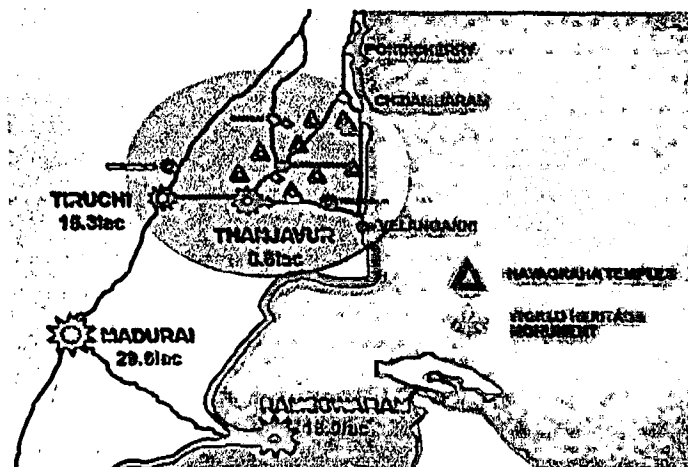


Fig.4.3 Tourism potential around Thanjavur (source : author)

Thanjavur town is also well connected by road and rail but it does not have an Civil Airport. The ongoing Broad gauge conversion between Chennai and Thanjavur which is scheduled to be completed in 2008. and the East Coast Road project connecting Chennai and Kanyakumari along the coast will improve the connectivity to Thanjavur, which will increase the Tourist arrivals to Thanjavur.

The inclusion of Temples of Gangai Konda Cholapuram and Darasuram as World Heritage Monuments by UNESCO along with Thanjavur Brahadeswara are now called as "The Living Chola Temples". The inclusion of these temple as World Heritage Monument gives a international exposure to these temples, which will bring in more foreign tourist to these destinations. The Navagraha Temples around Thanjavur and Kumbakonam (fig 4.3) is know becoming popular as a important Pilgrimage tourism Destination. Which means the Thanjavur which lies in the enroute to these temples will see increasing number of tourist arrivals in coming years. At present Tourist spend only half day or few hours in Thanjavur, only visiting the Brahadeeswara temple and the Palace. But there is a great potential in this town to make the tourist stay for more duration by way of engaging them in cultural activities and making them visit Temples, Monuments and Palace. Providing tourist with information on historical significance of the place by audio visual shows, street plays etc. and also providing more shops for local handicrafts and antiques near this tourist zones.

Year	No. of domestic tourists who visited Tamilnadu (In lakhs)	No. of foreign tourists who visited Tamilnadu (in lakhs)	Total No. of Tourist visiting TamilNadu (in lakhs)	Total No. of Tourist visiting Thanjavur (in lakhs)	%
2000	229.82	7.86	237.68	5.18	2.2
2001	238.12	7.73	245.85	5.87	2.4
2002	246.61	8.05	254.66	6.40	2.5
2003	270.59	9.02	279.61	7.75	2.8
2004	300.77	10.58	311.35	8.58	2.8

TABLE.4.1 Domestic and Foreign Tourist Arrivals in Tamil Nadu & Thanjavur  
(Source : Tamilnadu Tourism Department)

Thanjavur being in Tamilnadu state where tourism has become a priority sector which is reflected in higher budget allocations, growing partnership efforts between the public and private sectors, increased tourist arrivals, vibrant and vigorous promotion efforts, etc. The emphasis is to make Tourism a mass movement and a prime mover for promoting entrepreneurship, poverty reduction and economic development. During the year 2001, Tamilnadu occupied the third rank in both domestic and foreign Tourist arrivals to India. According to a survey conducted in the year 2003, Tamilnadu has moved to the second position in attracting foreign Tourists. In the case of domestic tourists, it has retained the third post.

Provision of well integrated, world class infrastructure and amenities at Thanjavur would continue to receive more attention from tourist all over the world and within the country during the coming years.

#### **4.4.1 Tourism as an Catalyst for Urban renewal of Thanjavur Historic Core**

Attractive historic environment created as an outcome of urban renewal will draw more tourists to Thanjavur town which means more revenue from the tourism industry can be generated, which can finance the restoration and maintenance of historic areas. Rejuvenation of the economic base of the town can be enhanced through tourism. The tourism industry will become the economical backbone of other enterprise like hotels, restaurants, shops, art galleries, craft shops, entertainment. Tourism development in this town should be done in a sensitive manner.

### **4.5 THANJAVUR OLD TOWN - A CASE OF URBAN RENEWAL**

#### **4.5.1 Urban Structure of the Historic City Core**

Thanjavur historic area is located in the heart of the present city (fig 4.4), surrounded by the remains of the rampart wall on western side and temple fort on the south west corner. The four main streets of the town defines the residential area .The magnificent palace of nayak period is also located on the eastern side of this residential area, which is a focus of this district. The Brahadisvara temple on the southwest corner of the old town is the landmark structure of the city, for

its historical significance as well as for its monumental scale. The temple visually dominates the whole area.

The historic area in Thanjavur is divided into two forts Big fort and Small fort (fig.4.5) . The small fort is located on the southwestern end, which is more elevated than the big fort, in order to store the rainwater and feed the inhabitants of the fort by gravitational force. Small fort consists of Brahadeshwara temple and the Sivaganga garden , tank , Schwartz church. The big fort has been located on the northeastern side of the small fort and its periphery is along the upland having hard soil where it meets the low-lying fertile lands. The Big fort consists of a large inhabited area gradually sloping up from the Northeast to the Southwest (fig.4.5), extending over an area of 1.33 Sq.km. The small fort extends over an area of 0.33 Sq.km<sup>19</sup>.

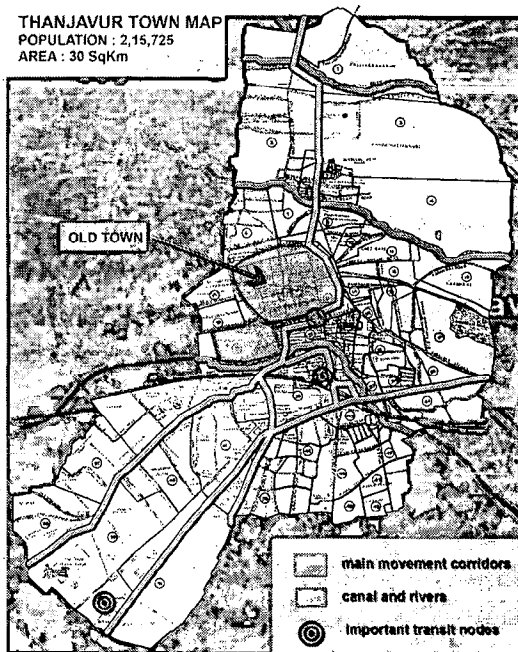


Fig 4.4: Thanjavur city map

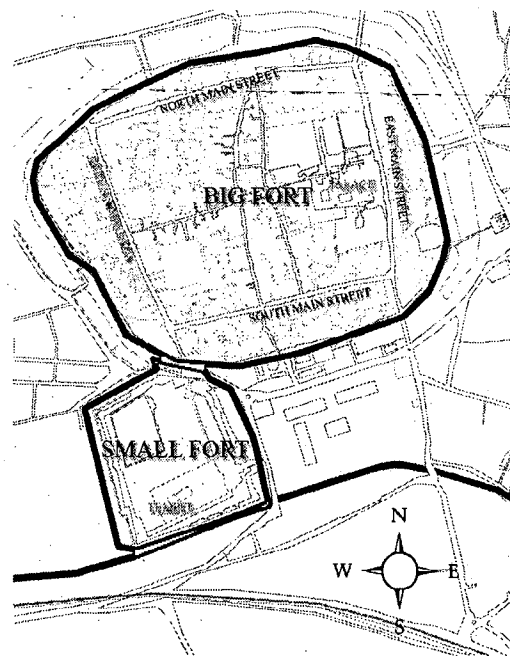


Fig 4.5: Thanjavur Historic core area map

The main residential area is enclosed within the main cardinal streets (25 m to 35 m wide) called East main street, West main street, North main street and South main street. The next important streets are the ramparts (3.3 m to 6.6 m wide) namely East rampart, West rampart, North rampart and South rampart running more or less parallel to the above main streets respectively (fig.5). Within

the core area, most of the settlements had been located in accordance with the tradition. This area is divided into two halves as East half and West half by the provision of two narrow street lines running between north main street to south main street. In between these two lines of streets, markets and shops are functioning as Nalangadi (Day market) and Allangadi (Night market). This is located in the central portion, so as to provide an easy accessibility to all the inhabitants and also to provide safety for Kasukkadai (jewellery shops), etc. The further segmentation in the Western sector was well planned and has equal segments by the present Sakkanayakkan Street, which runs in East West directions<sup>19</sup>.

It is observed that the Granaries - storage of food grains are located in the south west part which is the most elevated part within the big fort in order to safeguard it from occasional floods if any and to enjoy the maximum air flow and lighting. The tanks are located in the Northwest (Ayyan tank ) Aripandithar tank) and Southeast (Samanthan tank and Krishnavilasam tank) in order to feed the major portion of the fort area by gravitational force alone (fig-5). Out of these four ancient tanks, Aripandithar tank do not exist now, and also the Samanthan tank is becoming huge garbage collector. The palace buildings are located in the eastern part of segmentation surrounded by thick high walls.

#### 4.5.2 Architectural Heritage of Thanjavur old town:

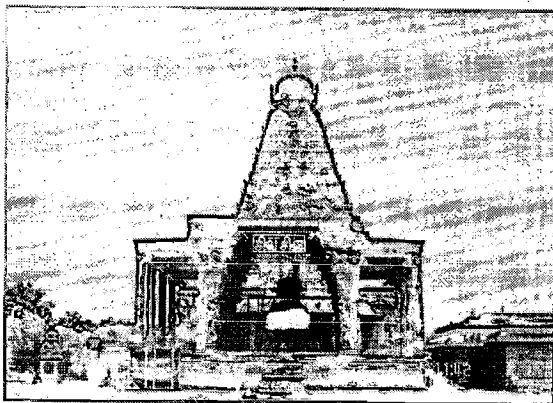


Fig 4.6 Brahadeeswara Temple

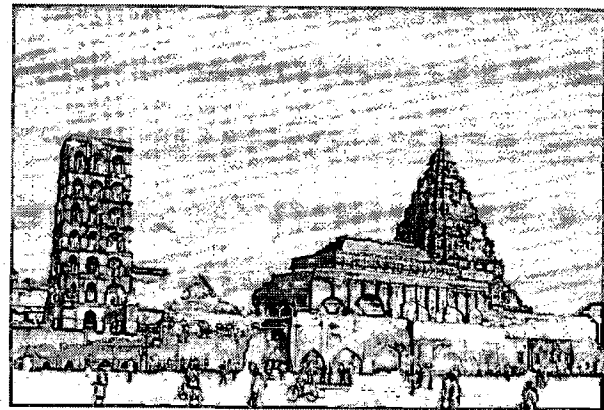


Fig 4.7 Palace complex

Thanjavur historic core is a remarkable area from the point of view of planning, design and the exquisite craftsmanship displayed in its built form. There are two important heritage areas in the entire historic core; they are Brahadeeswara temple complex and the Palace complex. Rajaraja I the chola

king built the most magnificent temple of Brahadeeswara at Thanjavur, the fine specimen of Dravidian architecture. The Nayakas established the Palace, Moats and fortifications in the city of Thanjavur. In the beginning of sixteenth century, centered their capital around the new royal palace framed by the four principal roads which replicated the traditional cart roads around the south Indian temples. On a plan vacillating between the circle and square, a rampart doubled by a moat encircles the town and joins at its south-western corner a new fortified enclosure constructed around the old chola temple and vast basin adjoining it in the north. The important heritage buildings and their significance in the historic core area are discussed in detail in the next chapter.

#### **4.5.3 Problems and Issues**

The historic core of Thanjavur suffers from an enormous pressure on its traditional urban fabric, which is constantly getting transformed to accommodate and adjust to the new land use, materials and transport systems. The major problems include traffic congestion due commercial activity attracting large volumes of traffic; lack of parking space and regular traffic jams, inadequate public facilities, lack of proper signage, views and vistas of traditional buildings blocked by new developments, Mobile phone transmission towers coming up in the historic area disturbing the skyline once dominated by the Brahadeeswara temple. Lack of public amenities, poor drainage system and improper solid waste management further adds to the problems of the historic core. Another problem is the subdivision of smaller housing units and increasing pressure on infrastructure systems and also change in land use resulting in the breakdown of the traditional social fabric.

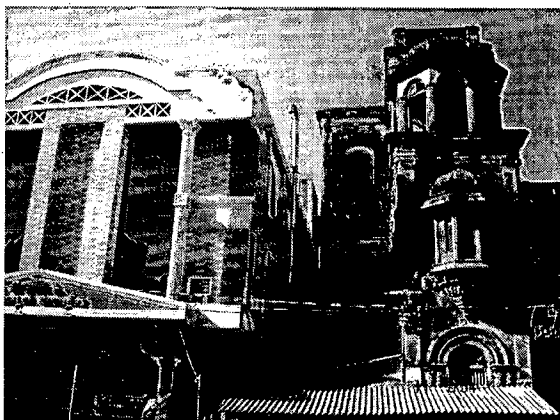
A lack of awareness and appreciation of traditional architecture with its inherent advantages and breakdown of the traditional local governance system that incorporated involving the community, spreading awareness about the need for urban conservation and more importantly, putting a check on the demolition of heritage properties in the historic core to build commercial centers, remain important problems in the old town. The shifting of investments in commercial activities from the core area towards the newly developing areas like Medical college road and New bus stand area, further cause economic decline to the old



town. In spite of large no. of tourists come to see Brahadeeswara temple and the palace complex, the town lacks basic tourist facilities like information kiosks, hygienic toilets, pedestrian paths, good restaurants in the corridor connecting Brahadeeswara and palace complex.

The new construction coming up in the historic areas are not compatible with the character of the area, especially in the palace complex. The new buildings in the Palace complex, which has come in the last fifteen years are not visually coherent with other traditional buildings, rather they are in stark contrast to the historic buildings. The whole complex needs to be listed as a heritage building, at present there are only few areas being designated as protected monuments under ASI and Archeology Department. Some of the functions inside the palace complex not compatible

The area on the southern side of the Brahadeeswara temple needs a special attention, since it lies in between movement corridor starting from the over bridge to the new canal bridge, any new development in this area will have impact on the temple view from the corridor, so any new developments in that area should make use of the temple view. At present the land use in the area is more of health facilities, which is not made use of the temple view. The ideal land use for this area would be, lodging facilities for the tourist. Building heights and signage needs to be controlled in this zone.



(a) Mangala Vilas with incompatible neighbor



(b) School building inside palace complex

Fig.4.8 New constructions not compatible with the character of the area

The Historic core area today is facing blight and decay due to ill effects of urbanization like traffic congestion, decrease of the high income local population

in the historical core area because of the preference for new housing areas offering improved living conditions, infrastructural facilities and services. The town has tremendous tourist potential, the tourist arrival is also increasing every year. If the towns heritage value is revived, it will certainly improve the image and identity of the town, which in turn will attract more tourist. General lack of awareness among the local people of its own town's heritage value. Unless some action is taken to enhance the Public realm of the historic environment in Thanjavur, it will further deteriorate and there will be nothing left to build up on.

#### **4.6 INFERENCE**

The historical capital of Cholas is the city of Thanjavur, an important town of Tamil Nadu known for its heritage value. Brahadeeswara temple is an architectural wonder of the Chola kingdoms; it is an important land mark in the town attracting many domestic and foreign tourists. After it got declared as a world heritage monument, large no of tourist flow is evident from the tourism statistics. Thanjavur is also now becoming important Pilgrimage tourism Destination, since it lies in the enroute to Navagraha temples from the southern and western districts of tamilnadu. In spite of receiving many tourist the historic core is facing various problems of blight and decay due to increasing population and urbanization. Lack of awareness of urban conservation in the heritage areas among the local inhabitants has deteriorated the environment visually and aesthetically. It is evident from the trend on growth of tourism in the area that Thanjavur has potential to attract more tourists in the coming years. A systematic analysis is required to identify the strategy to enhance the image and identity of the historic core of Thanjavur.

## **CHAPTER – V**

### **STUDY AND ANALYSIS OF PUBLIC REALM OF HISTORIC CORE**

#### **5.1 INTRODUCTION**

Strengthening the image and identity of the Thanjavur historic city will have a considerable impact upon an individual's ability to read, understand, assimilate information and therefore make informed choices about whether to visit, live or invest in it therefore affecting the economy of the area. People's understanding of a place is conditioned by many interrelated factors, which are often difficult to define. Spending power, motivation, time/distance and critical mass of attractions are all important factors in influencing whether or not to visit a place. Equally the ease and convenience with which people can find their way around an urban environment and the quality of that experience is crucial factors in providing choice and attracting increased diversity of uses. The quality and quantity of choice, service/management and design all influence the look, feel and experience offered by a place. The image which Thanjavur projects to the outside world through its physical environment is therefore vitally important to its future success. The priority for enhancing the image of the public realm in the historic core goes to important tourist places and their linking corridors that have a bearing on economic revitalization of the historic core area.

Considering the significance of enhancing the image and identity and providing public facilities in the economic revitalization of the historic city core by attracting more tourists, the public realm of Thanjavur old town has been analysed. This chapter presents the analytical study of the historic core area of Thanjavur in terms of the analysis of historic pattern of development; legibility; views and landmarks; Active ground floor uses; Access to Heritage areas; Pedestrian paths and parking spaces; Hierarchy of routes and spaces that has a bearing on the image and identity of the area.

#### **5.2 URBAN DESIGN ANALYSIS OF THE PUBLIC REALM**

Urban design analysis techniques are used here to identify certain characteristics and illustrate them in a way that can then be used to guide and inform policy and

proposals. Accordingly the Thanjavur historic core Urban Design Strategy has been informed by an analysis, which has considered a range of issues including:

### 5.2.1 Analysis of Historical Resources

Heritage value of the area has been analysed by identifying historical resources through the study of historical records. The **historic pattern of development** that have influenced the routes and spaces their location, hierarchy and character which form the urban structure has been studied. Presence of large number of heritage buildings in the city core area reveals the city centres historical legacy.

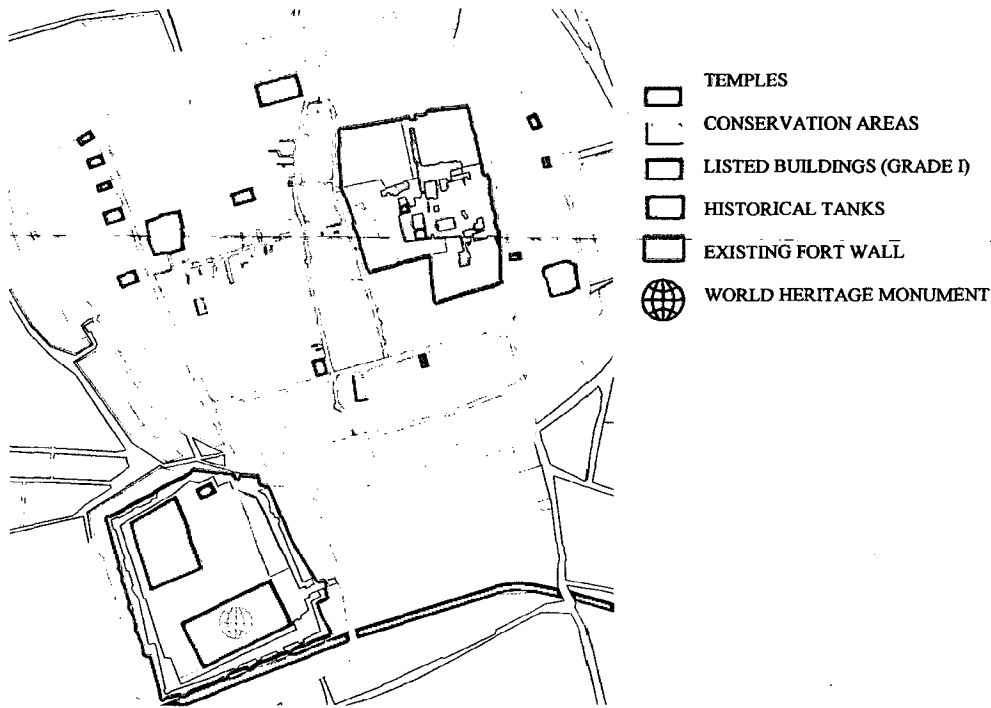


FIG 5.1 Historical Buildings and Conservation Areas

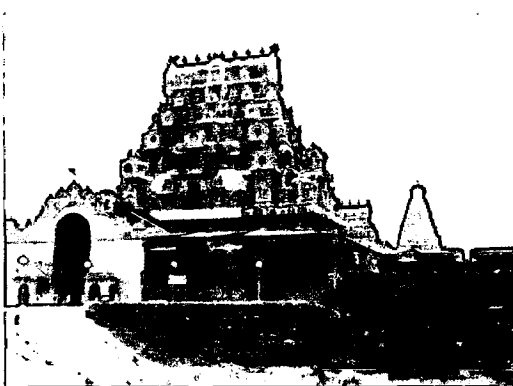
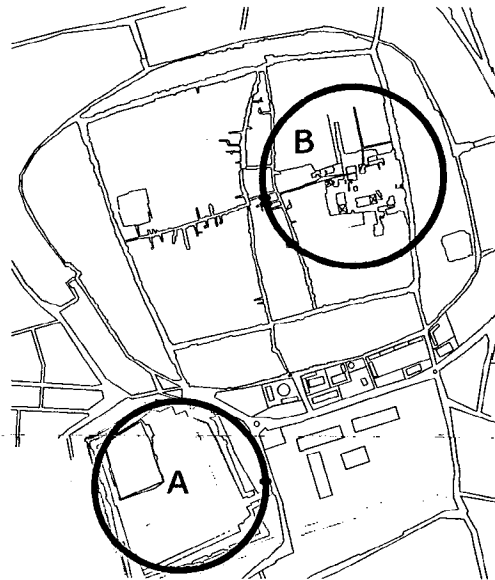


FIG. 5.2 Brahadeeswara Temple

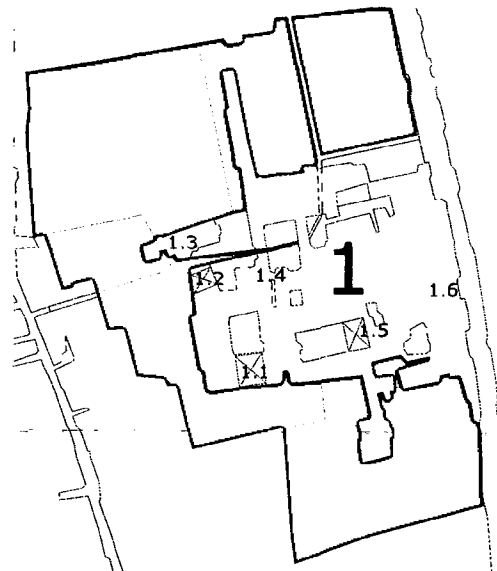


FIG. 5.3 Palace Complex

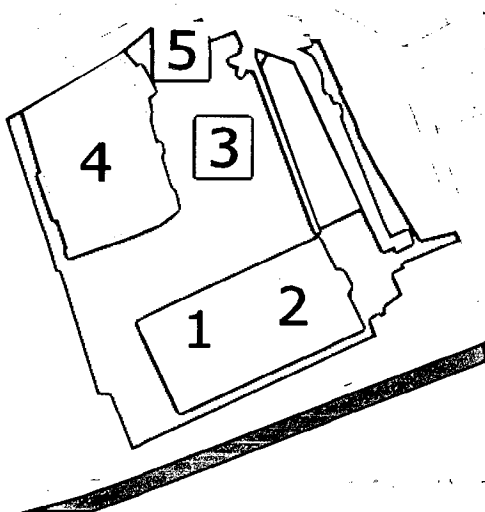
As mentioned earlier, there are two important heritage areas in the historic core of Thanjavur, one is the Brahadeeswara temple complex (with Sivaganga garden) and the other is the Palace complex. The important heritage buildings in these two areas are: Brahadeeswara temple, Schwartz church, Bell tower, Arsenal tower, Sangeetha Mahal, Durbar Hall and Sarja Madi.



(a) Historic Core of Thanjavur



(b) B - Palace Complex



(c) A - Brahadeeswara Temple & Sivaganga Garden

**Palace Complex**

- 1.1 Arsenal tower
- 1.2 Bell tower
- 1.3 Sangeetha Mahal
- 1.4 Saraswathi Mahal Library
- 1.5 Maratta Durbar Hall
- 1.6 Sarja Madi

**Temple complex**

- 1. Main vimana
- 2. Temple courtyard
- 3. Sivaganga garden
- 4. Sivaganga Tank
- 5. Schwartz Church

Fig 5.4 Heritage buildings in the Historic Core of Thanjavur

### **Brahadeeswara Temple:**

The Great Rajarajan, the latter Chola King (985-1014 A.D.) built Rajareswaram, the Big temple (fig.4.9) at Thanjavur, which according to experts, is a standing classical monument of the Chola style of art and architecture. The main temple consists of a tower called srivimana over, sanctum sanctorum .in front of the sanctum lies a big rectangular mandapa with an intervening vestibule called mukhamandapa. The srivimana consists of the basement at the ground level, the wall (two storey high) , the roof cornice, the garland miniature shrines, the storeys, the neck, the crown and the finial stupi. The main tower presents a pyramidal appearance it converges upwardly by means of a square base, the total height of the vimana is 60m. The neck is provided with four niches in the cardinal directions and eight bulls at the corners. Four siva figures adorn the niches. The niches are topped by arch like embellishment called kerthimukhas.

The spherical element on the top, called sikhara is made up of many pieces of cut stones dressed for the purpose. The finial (stupi) is a metal vase with a lotus bud design at the top. It is plated with gold and carries few inscriptions of Thanjavur Maratta kings and the donors.

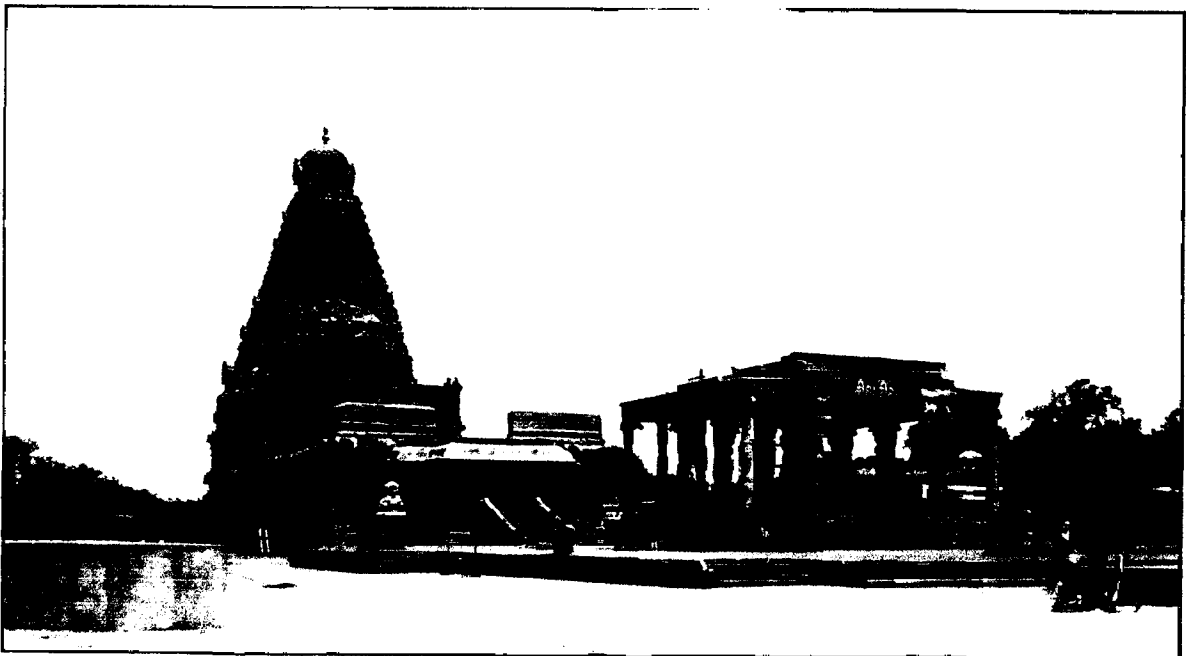


Fig.5.5 Brahadeeswara Temple

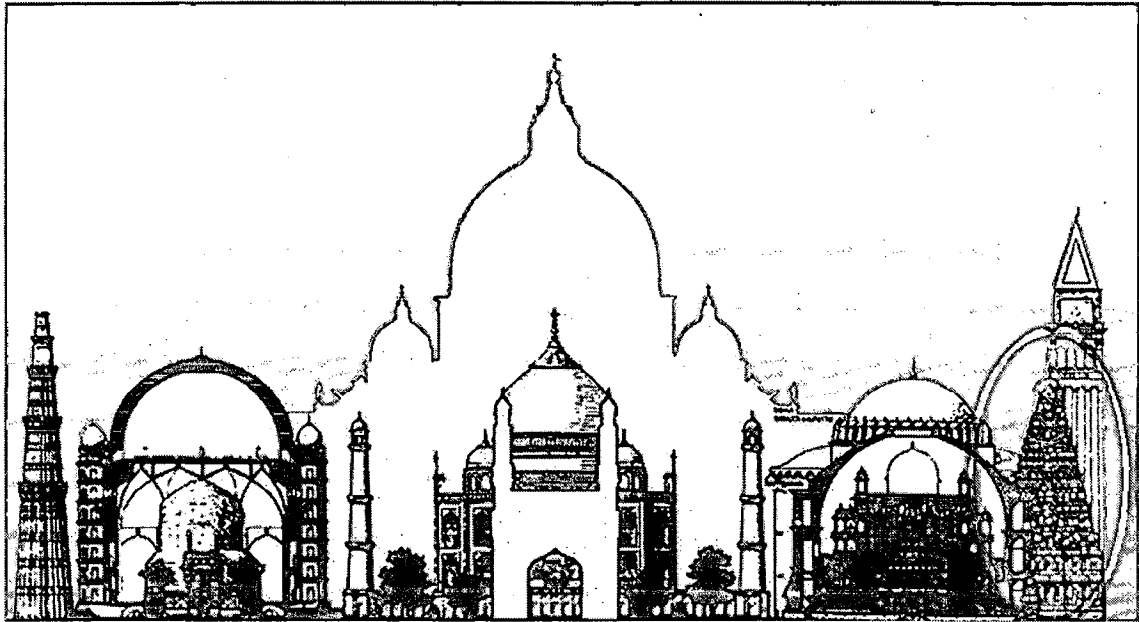


Fig 5.6 Brahadeeswara Temple with other Indian & European Monuments on the same scale  
(Source: ASI, 1976)

Great poets, skilled builders and master craftsmen, savants and scholars and enlightened Kings combined to create a very sophisticated and advanced civilization. Temple of grand design and majestic proportion, embellished with the works of skilled sculptors, are the visible manifestations of the spirit and culture, priorities and principles, cherished values and beliefs of the people who lived in those days. The fig 4.10 shows the scale of Brahadeeswara in comparison with other monuments in India and Europe. In 1987 UNESCO & Government of India has declared this temple as a World Heritage Monument

#### **Palace Complex:**

The magnificent Palace complex is surrounded by huge fort walls, dating back to 14<sup>th</sup> century A.D. It was built partly by Nayaks and partly by Marattas. It is fascinating building with huge corridors, spacious halls, decorated rooms, tall watch towers, wonderful fresco painted walls and ceilings and an underground tunnel for royal family to escape during emergency. The palace complex consists of many important buildings of Nayaks and Marattas, they are *Bell tower, Arsenal Tower, Sangeeth Mahal, Darbar Hall & Sarja Madi*. Palace complex is partially open to public, remaining areas are used as Government offices, Fire station, School and the Maratta royal family stays in the eastern part of the palace.

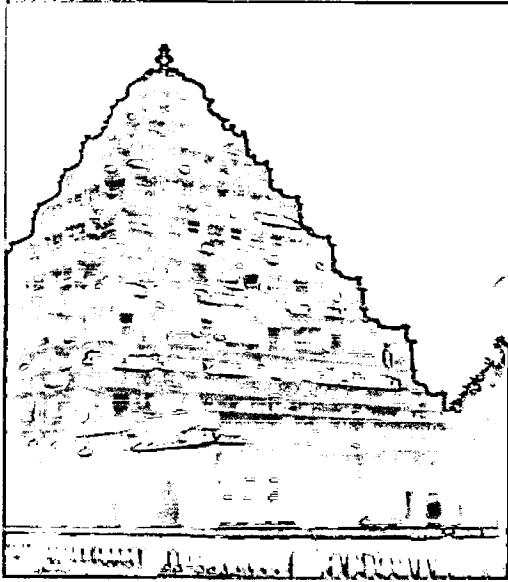


Fig. 5.7 Arsenal Tower

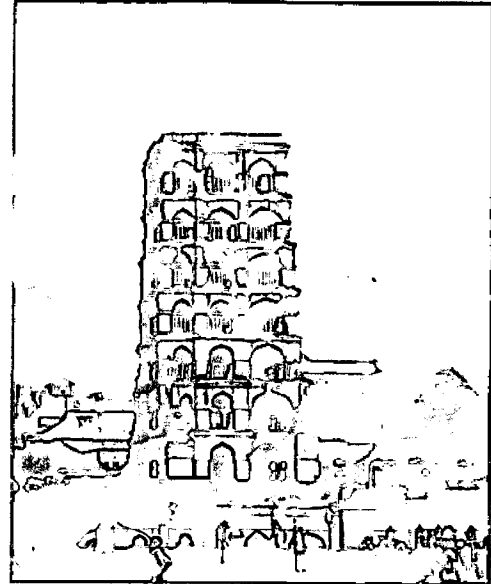


Fig. 5.8 Bell Tower

### **Bell Tower**

This high rise structure of 32.36m height was used for Defense purpose as information transmission tower. There was a Murasu Drum at the top. The bell tower was used to give indication about hours and also give alarm signals during war period, signals could be heard at all locations in the fort area and even outside. This was also used as watch tower.

Columns and Arches are the dominating elements in the Bell tower. Since the Bell tower was designed as watch tower for defense purpose, the tower is built with only columns and arches to have maximum possible views in all directions. Columns and Arches are proportioned in such a way that the structure looks solid and gives a visual security to it from a distance.

### **Arsenal Tower**

This is the most architecturally rich and attractive building in the entire palace complex. It is of pyramidal shape and has a height of 43.6m. The serrated surface of the tower with cornices, offers attractive feast to the eyes in addition to increase the longevity of the building by protecting it from the environmental effects. The superstructure of each floor is built with brick vaults resting on arches and these arches are in turn supported by pillars. The height of the floor gradually decreased as one climbs up. This tower was built as a pleasure resort for the



Royal family, by Nayak Rulers adopting Sultanate Architecture, later this building was used for storing Ammunitions during war time in British period.

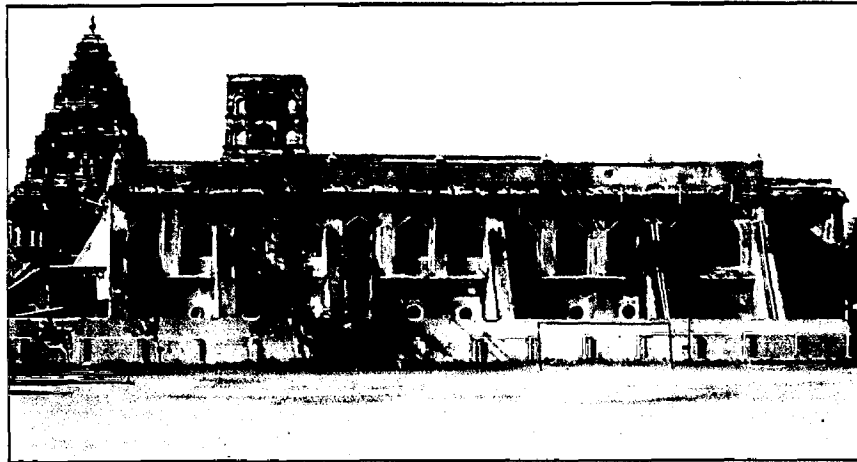


Fig. 5.9 Sangeetha Mahal (source: author)

### Sangeetha Mahal

Sangeetha Mahal is used as an audience hall, where dance and music activities were performed. The Royal family used this hall to view the performance and to enjoy the concerts with all comforts in privacy. It is a rectangular hall 19.2m x 33.86m, oriented in E-W direction with its central auditorium with tall head room of 14.5m. In between the stage and audience there was a pool of water to enhance the sound quality. The proportion of the building is designed such that, to have enhanced acoustical performance with clear audible sound level without using public address systems even today.



Fig. 5.10 Darbar hall seen from Arsenal  
Tower



Fig. 5.11 Darbar Hall interior

## Maratta Darbar Hall

This hall is beautifully decorated with fresco paintings in the walls and ceilings. Darbar hall was used as an official meeting place during the Maratta Period. The central podium was surrounded on sides with cloisters to accommodate ministers. Officials, invites and special delegates during the Darbar. The sloped roof in front of the dais helped in reducing the echo and improved the sound quality in the hall. There is spacious open court in front of the darbar hall which enhances the overall setting of the place.



Fig. 5.12 Sarja Madi

### Sarja Madi:

This building is in the eastern part of the palace complex, built in the Indo-Saracenic style by Serafoji Raja after his return home from Varanasi. It is a six-story structure, known for its architecturally rich projecting balconies. Its spacious halls show the grandeur of this palace.

On issues related to heritage buildings and public realm in the historic core are discussed area wise in the next chapter.

### 5.2.2 Legibility Analysis

The image of identity of a place remains stronger on a tourist only when a place offers a clear image and if it is easy to understand. This analysis is done to find out the important landmarks, gateways and focal points in the historic core area of Thanjavur, which gives a clear image and enhances the legibility. Fig 5.13 shows the important paths, gateways, city hub, edge, nodes and landmarks. The important paths identified inside the historic core area are southmain, eastmain, westmain and northmain streets. The important gateways are identified as street leading towards the old town near oldbus terminus, entry opposite to Sivaganga garden, entry from Karanthatankudi. The edges are identified as the corridors

which run along the moat namely southrampart, east rampart, and west rampart roads where the ruined fort walls forming a distinctive edge. The important nodes are identified as rajarajan junction, anna statue, oldbustand junction. A further detailed analysis of views and landmarks is done.

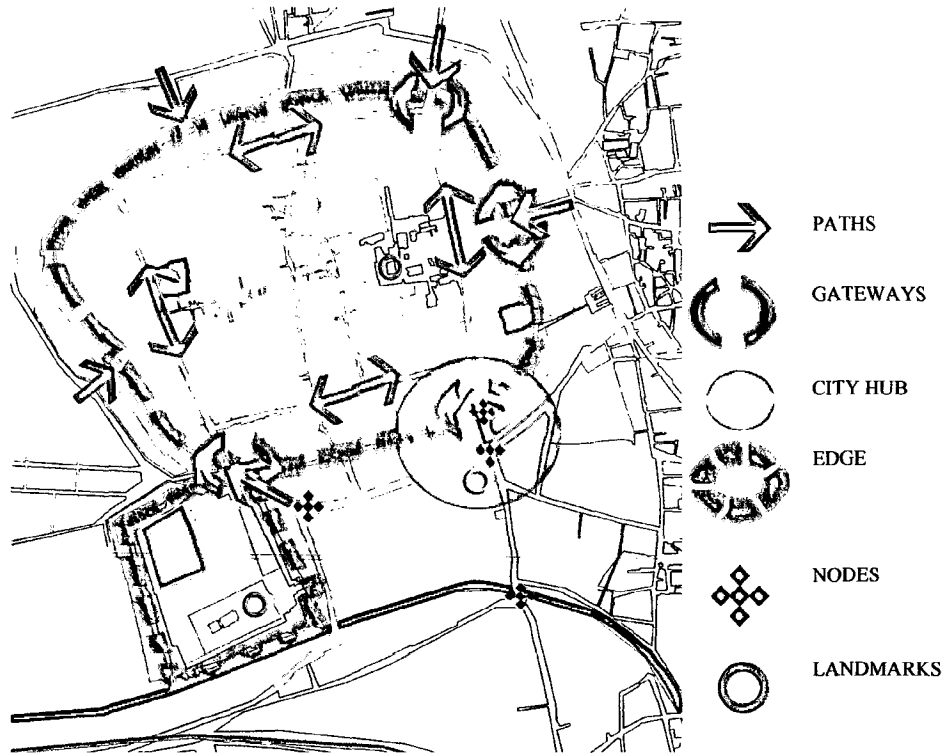


Fig 5.13 Legibility Analysis

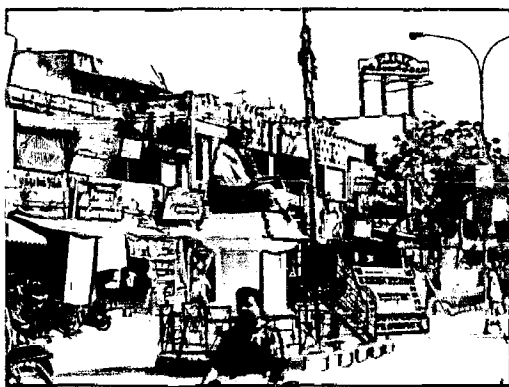


Fig 5.14 Anna Statute Important Landmark



Fig 5.15 Residential Buildings above rampart wall ruins forming Edge for the Old town

### 5.2.3 Views and Landmarks

Analysis of **views and landmarks** (fig 5.16) has illustrated the importance of the Brahadeshwara Temple Vimana not only as a visual landmark, which is almost a city icon, but also the importance of other landmarks like Bell tower and Arsenal Tower in Palace complex and Rajagopalswamy temple gopuram which taken together create a varied skyline in the historic core of Thanjavur. Many of the landmarks located in the historic core area has significance to certain areas of the city centre others have city significance because of their height. Some other buildings are identified as landmarks but have poor quality in terms of their appearance namely, Mahalingam press building and Modern Radio service building near the oldbus terminus. Analysis of important views of the landmarks which needs to be preserved are shown in fig.5.16. The local landmarks namely rajarajan statue, anna statue, clock tower, Thopil pillayar temple near cauvery super market have local significance. Analysis of views which needs to be enhanced from the street corridors is also illustrated in the fig 5.16.

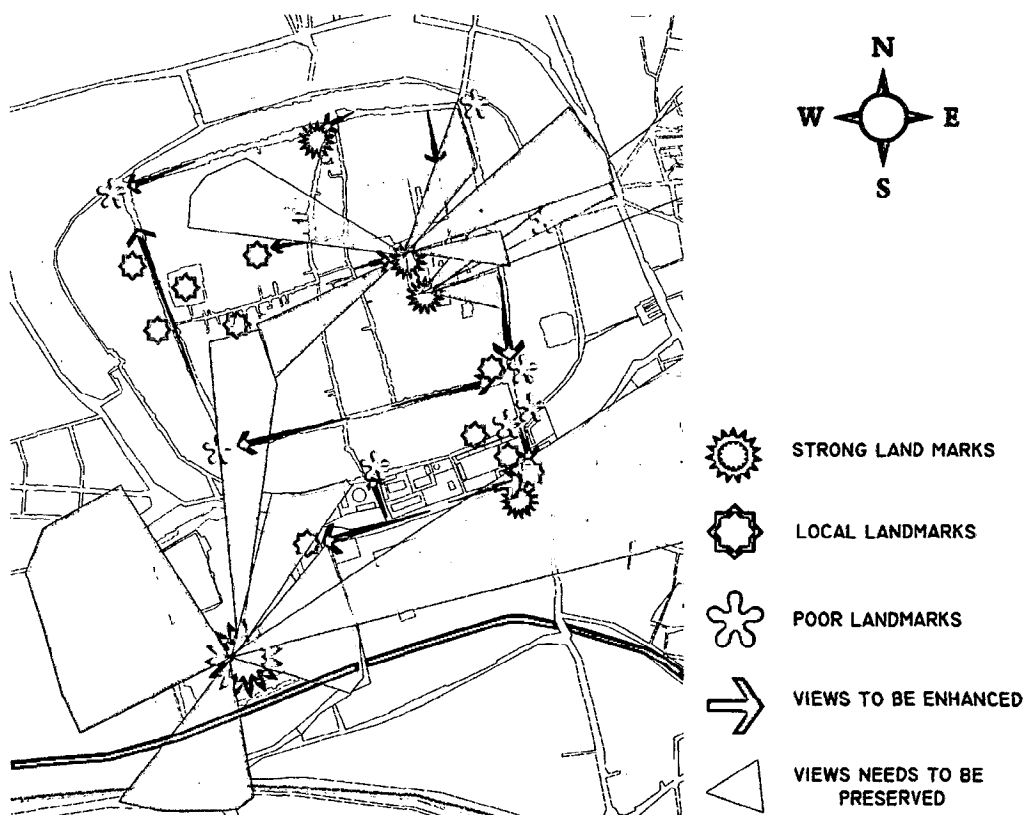


Fig 5.16 Views and Landmarks



Fig.5.17 Bell Tower View from Ayyankadi Street



Fig. 5.18 Brahadeeswara Temple View from New Canal Bridge

#### 5.2.4 Active Ground Floor Uses

The location of **active ground floor uses** (fig 5.19) identifies those parts of the historic city, which attract more pedestrians. Active Frontages are those that have the main retail and commercial activities. The majority of active frontage is contained within the inner circulatory streets namely south main street, Ayyankadai Street and Manojiappa Street leaving large areas of the city centre unattractive to visitors. Even these frontages lack visual interest characterized due to gap sites, on-street parking and lack of exclusive pedestrian paths in these areas, presenting a poor image of the city centre.

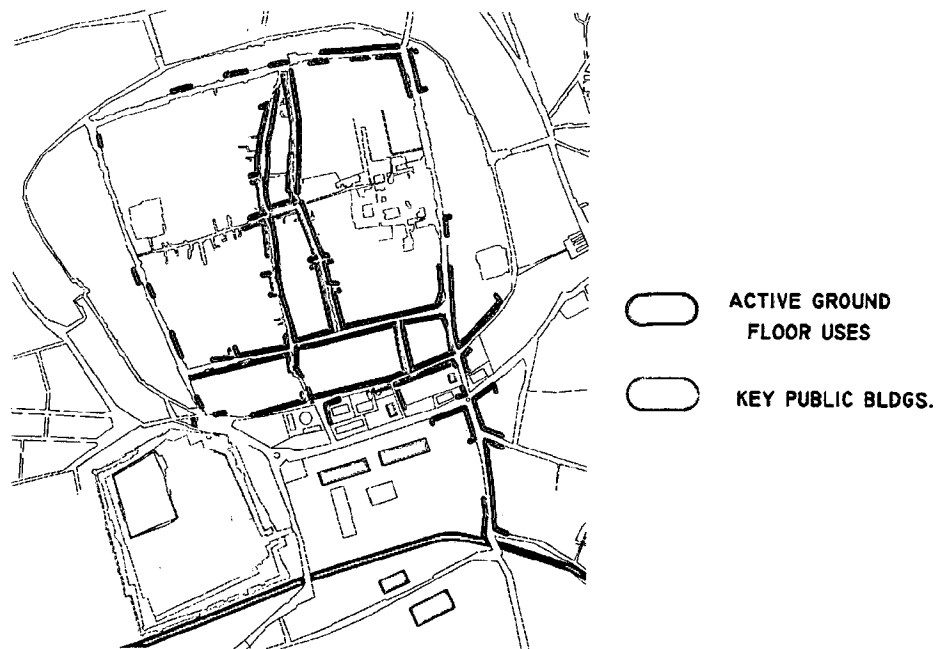


Fig. 5.19 Active Ground Floor Uses

### 5.2.5 Access to the Historic core

Access to the historic core area from different parts of Thanjavur city and from outside the city is achieved through movement corridors. The significance of these corridors and their hierarchy with respect to image and identity gains important due to the tourist movement. The analysis of approach links to the historic core has illustrated the vehicular movement and Pedestrian circulation (fig 5.20 and fig 5.21) in the historic core area. It also illustrates the need for better pedestrian linkage between heritage areas.

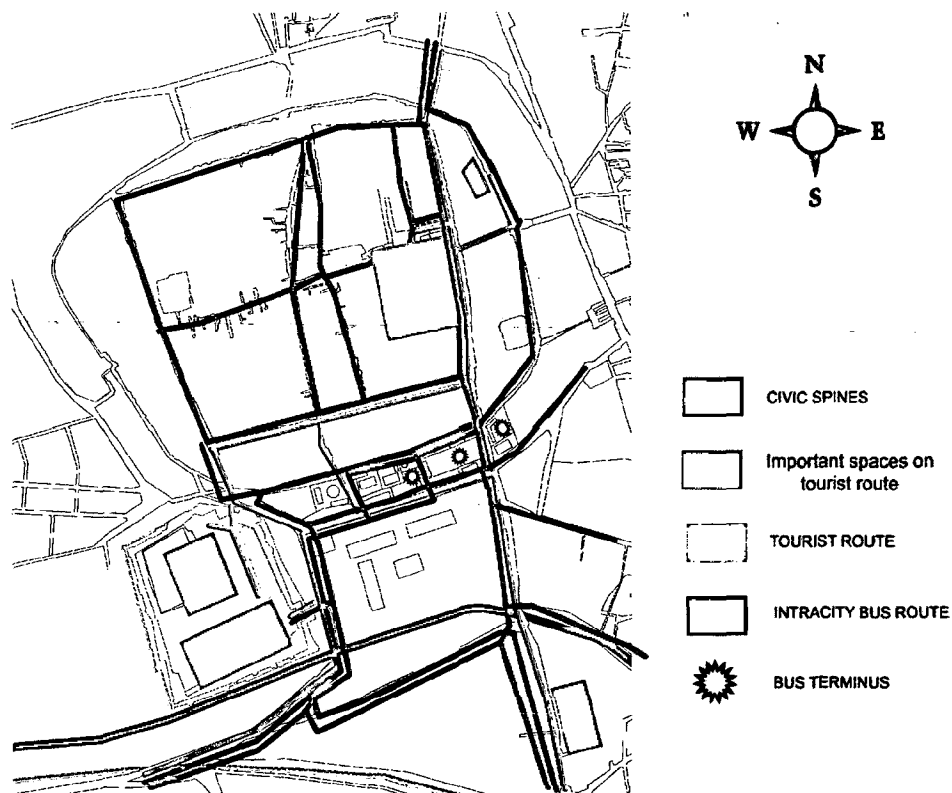


Fig 5.20 Access to the Historic Core

#### 5.2.5.1 Hierarchy of Routes and Spaces:

- A two hierarchy vehicular movement system exists in the historic core area, one is the Bus route and other is non-bus route. Both the routes have other vehicles plying in & out in all times. It is observed from the analysis Anna statue and Old bus stand junction are highly congested during the peak hour traffic. Lack of pedestrian paths also adds problems to the Vehicular movement.



(a) Old bus terminus junction

(b) Old Bus terminus and southrampart junction

Fig. 5.21 Movement corridors in Historic Core

### 5.2.5.2 Pedestrian Paths and Parking Spaces:

- Analytical study of the core area shows that pedestrian path exists only in few areas of the historic core, in some places it is provided only in one side of the street. The lack of **parking spaces & pedestrian spaces** creating a conflict between vehicles and pedestrians in the core. There is no pedestrian link between Palace and the Brahadeeswara temple. It is observed from the field study and analysis that more number of foreign tourists goes on foot to Palace from Brahadeeswara temple causing inconvenience. The dearth of such spaces is also seen in other environs of the city centre.



Fig 5.22 Pedestrian Path on one side of the road in front of Brahadeeswara temple

Parking spaces in the historic core area are only provided, for the Brahadeeswara temple and the palace complex, the quality of the parking space

needs improvement. The commercial areas in the core area do not have exclusive parking spaces. On street parking, encroaching the road creates inconvenience to the pedestrians and vehicle users. The two wheeler parking for the old bus terminus is the only organized parking space in the entire core area. The parking space in front of cauvery super market and rajarajan commercial centre needs to be improved. More number of off street parking spaces needs to be provided to reduce the congestion and traffic jams in the inner roads like southmain and east main streets.

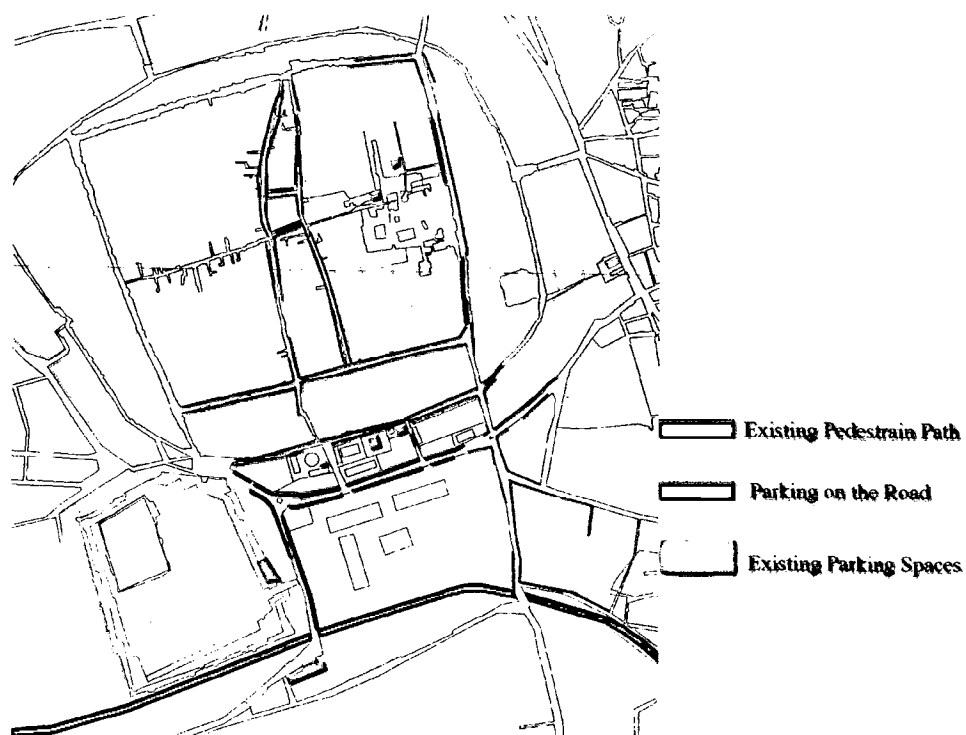


Fig 5.23 Pedestrian Paths and Parking Spaces

### 5.2.6 Information Components In Thanjavur Old Town

Taken in its widest sense, the whole environment acts as a sign, which people use to orientate themselves in unfamiliar surroundings, by the recognition of distinctive areas and by their position in relation to important landmarks and points of interest such as buildings and other features. In the absence of a signing system people use these features to move from one point of interest to the next. Currently parts Thanjavur historic core fail to provide sufficient visual



cues in terms of signage to enable the tourist to make the most of what it has to offer. Existing visitor information and signing for pedestrians is inconsistent, of a generally low level and poor in quality. The main problems are:

- There is no clear, coordinated strategy for signing and visitor information.
- There is no obvious hierarchy of information delivery.
- Even the main attractions and places are not signed.
- Existing signs do not develop linkages and assist movement between areas.



Fig 5.24 Signage in Front of Brahadeeswara Temple

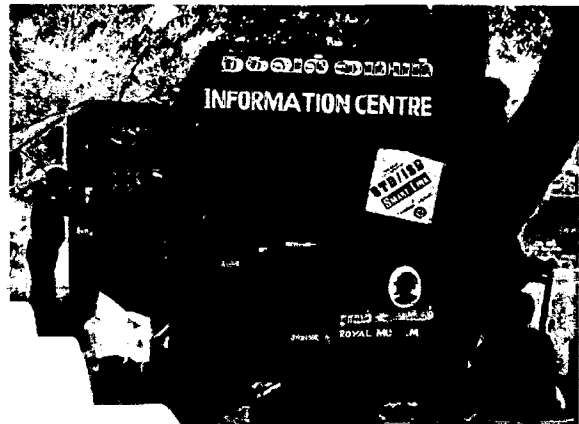


Fig.5.25 Uninviting information centre in front of Brahadeeswara Temple

- Outwardly there appears to be no overall design philosophy, hence no consistent signing provision is in place.
- Existing signs are not distinctive and do not develop the character and sense of place of particular areas.
- Certain signs are difficult to read and could be better sited
- It is important to ensure continuity of provision and coordination/ consistency of information as the tourist accessing the Historic core area from the National Highway from Tiruchirappalli, Tiruvarur or regional road network from Kumbakonam, Pudukottai, Pattukottai must travel along road corridors of considerable length.

The introduction of an imaginative and innovative signage and information system will contribute significantly to the vitality and viability of the old city centre as part of a wider package of streetscape, space improvement projects and major developments. The opportunity exists to greatly improve the image of the city in terms of creating and then reinforcing a good first impression.

### **5.3 INFERENCES:**

Image and identity are two important factors for growth of any historic tourist city. Therefore the image which Thanjavur projects to the outside world through its physical environment is vitally important to its future success. The analysis in this chapter has shown us the importance of heritage buildings; important views and land marks that needs to be protected, existing pedestrian paths and need for more pedestrian linkage between the historical important places, active ground floor uses, existing parking spaces with locations of on street parking and off street parking and hierarchy of routes with relation ship with tourist important spaces and public buildings. This analysis forms the basis for identification of improvement zones in the historic area which is discussed in the next chapter.

## **CHAPTER VI**

### **PROPOSED IMPROVEMENT ZONES AND ACTION PLANS**

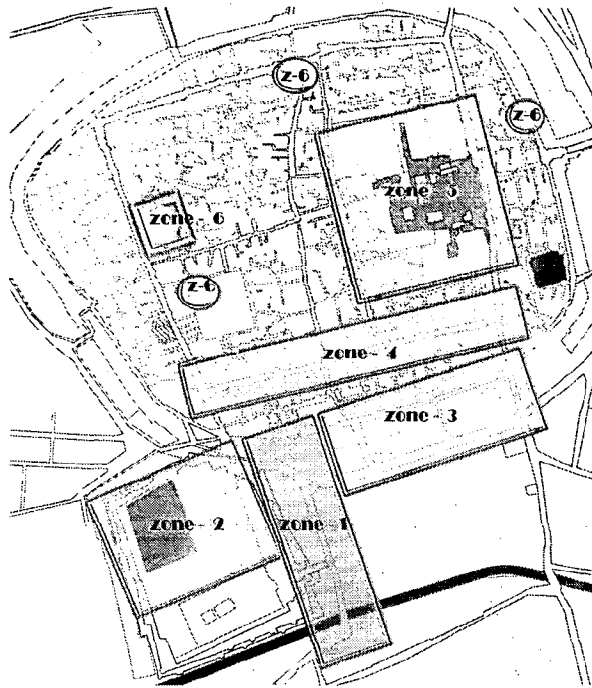
#### **6.1 INTRODUCTION**

Based on the analysis of the study area, historic city core of Thanjavur, zones for improvement are identified. Problems and issues of each zone are discussed in detail and appropriate actions are also suggested for individual zones, which then become the base for framing the recommendations and policy guide lines.

#### **6.2 PROPOSED ZONES FOR ENVIRONMENTAL IMPROVEMENT**

Spaces and streets which are important contributors to the image and perception of the city by tourist and residents and have considerable potential for improvement is identified for major environmental improvement within the historic core area. These spaces are grouped under six zones; they are illustrated in the figure 6.1. The zone one consists of Brahadeeswara temple precinct, mainly the spaces in front of the temple namely the moat, sivaganga garden, bathing ghat and the parking spaces. The zone two consists of sivaganga garden complex, which includes the garden area, Schwartz church, and the street which connects the garden and temple complex. The zone three consists of Hospital road and south rampart road which are important moving corridors that connect the temple and the palace complex.

The space identified under zone four is south main street, which is also an important commercial corridor that comes in between the important tourist places. The zone five consists of Palace complex, which is an important heritage area in the historic core of Thanjavur; it has listed buildings like Arsenal tower, Bell tower, Sangeetha mahal etc. and also has other heritage buildings in dilapidated state, which need to be preserved. The zone six consists of individual buildings and spaces which has considerable historical and architectural significance, they are Nayak period Granary, Rajagopalswamy temple gopuram, Maratha period Rajagopalswamy Beerangi (cannon)



- ZONE 1**  
BRAHADESWARA TEMPLE  
PRECINCT
  
- ZONE 2**  
SIVAGANGA GARDEN
  
- ZONE 3**  
HOSPITAL ROAD
  
- ZONE 4**  
SOUTH MAIN ROAD
  
- ZONE 5**  
PALACE COMPLEX
  
- ZONE 6**  
GROUP OF HISTORICAL  
IMPORTANT STRUCTURES

Fig 6.1. Proposed Zones of Environmental Improvement

**6.2.1 ZONE 1- Brahadeeswara Temple Precinct**

Brahadeeswara temple which is located in the southwest corner of the Thanjavur old town, the spaces in front of the temple are identified under zone one for environmental improvement, they include moat on the eastern side, canal banks and bathing ghat ( illustrated in fig 6.2) Rajarajan garden, parking spaces for the temple and the approach road.

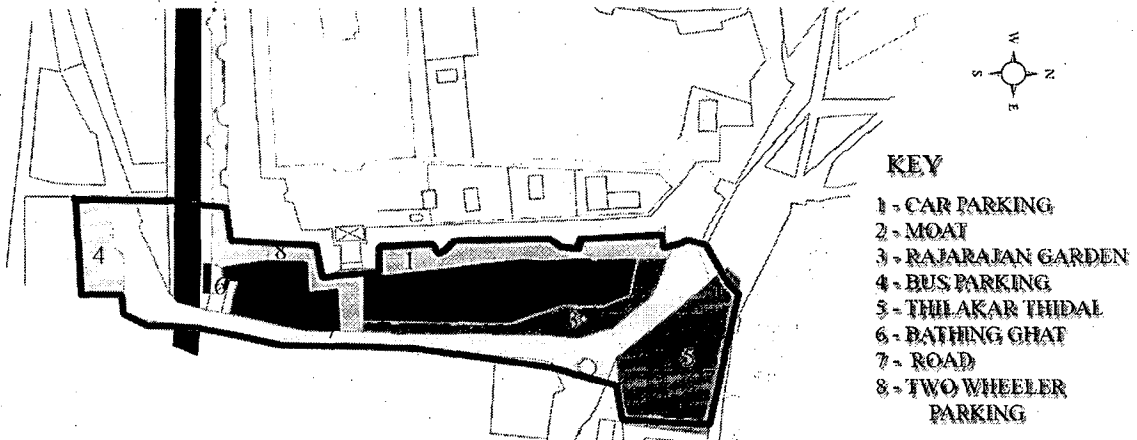


Fig 6.2 Plan of Brahadeeswara temple precinct

The main aim of this improvement area is to integrate moat and Rajarajan garden with Brahadeeswara temple and to improve the quality of overall environment. Preserving the view of Brahadeeswara temple, from the corridor linking over bridge and Rajarajan garden.

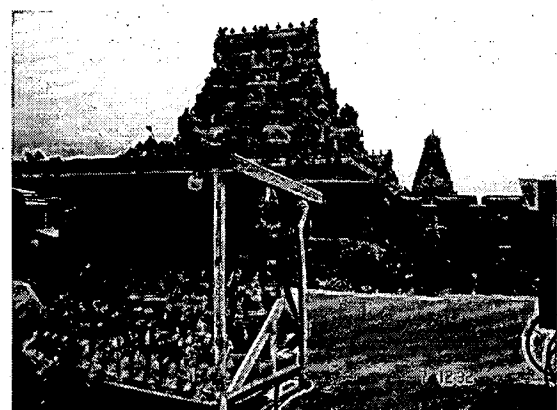
#### ISSUES & PROPOSED ACTIONS:

##### Infrastructure:

- Brahadeeswara temple Moat on the eastern side is covered with excessive foliage and solid waste from the shops. The moat needs to be redeveloped as a functional space which can be used by the visitors as well as the local inhabitants.
- Lack of tourist amenities inside and outside the temple complex. Tourist amenities like information counters, toilets, water fountains, needs to be increased and quality of the existing ones needs to be improved.
- The building housing public toilet facilities in front of the temple does not go with the character of the temple environs.
- Rajarajan garden located in the important junction, lacks visual interest and landscape amenities, it needs to be improved and integrated with moat behind.
- Bathing ghat in the new canal needs to be improved, changing rooms for men and women needs to be provided.

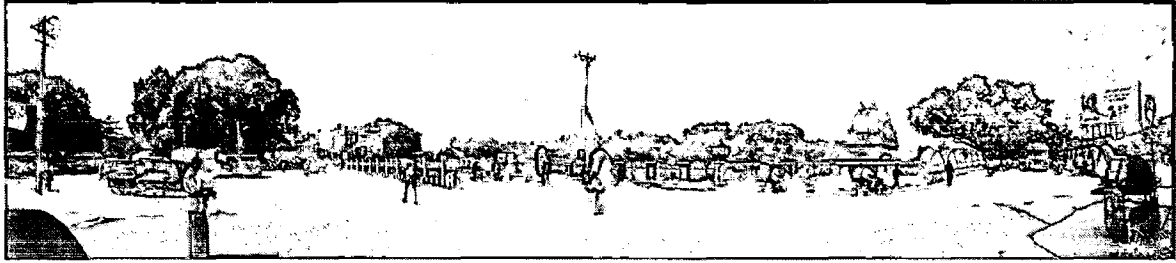


(a) Moat in front of the temple

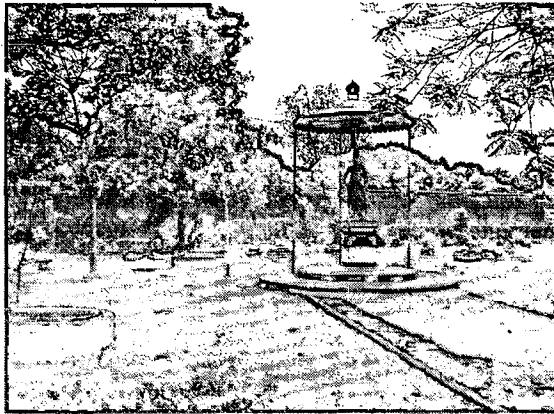


(b) Cart shops obstructing the temple view

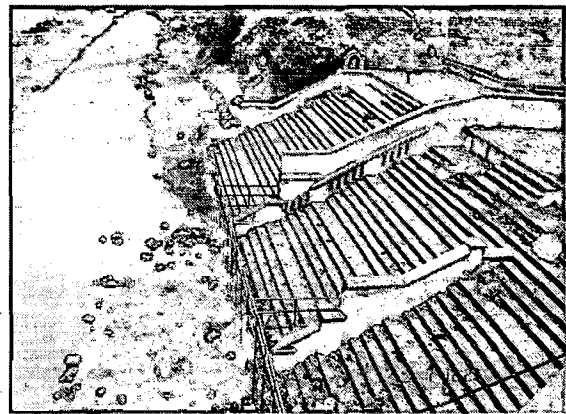
Fig 6.3 Spaces in front of Brahadeeswara Temple



(a) View of the temple from bus parking area, no connection by pedestrian path



(b) Rajarajan Statue



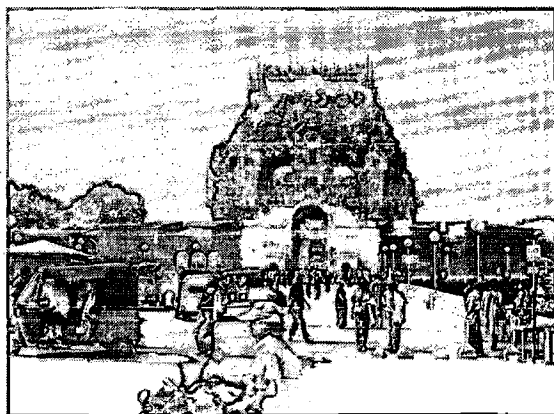
(c) New Canal bathing ghat



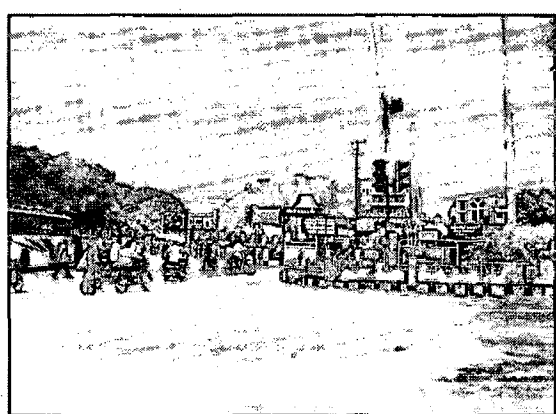
(d) Car Parking very close to the Temple



(e) Bus Parking



(f) Entrance to the Temple



(g) Junction Opposite to RajaRajan Garden

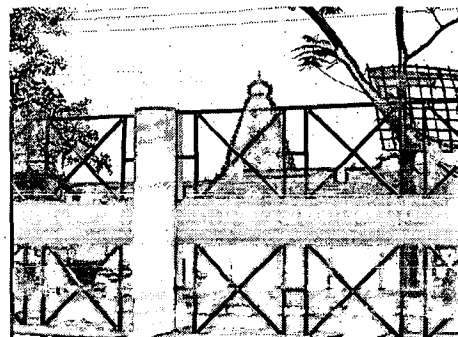
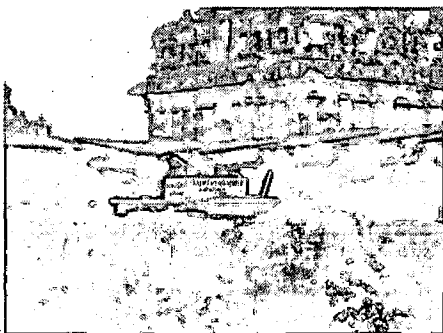
**Figure 6.4 Brahadeeswara Temple precincts**

### Visibility:

- Visibility of the temple affected by Building Height & billboards near the over bridge on southern side of the temple. Building height needs to be restricted
- Shops / vendors in front of the temple, obstructing the view also causing hindrance to the pedestrians. Some of the shops are located on the pedestrian paths (fig 28) which needs to be removed and separate spaces should be allocated for the shops. Space for this purpose can be acquired from the General Hospital campus which is right in front of the temple, which has lot of vacant land facing the temple.
- Parapets on the new canal bridge is obstructing the temple view, the parapet needs to be redesigned.
- Rank vegetation growth is seen all over the fortification wall and the walls have fallen in some area. They adversely affect the ancient ambience of the temple.

### Vehicular and Pedestrian movement:

- Heavy vehicular movement in front of the temple causing vibration and also air pollution. Traffic calming is suggested in front of the temple.
- Pedestrian path exists only on one side of the road in front the temple. Pedestrian path with appropriate paving material which maintains the historic ambience to be provided on both sides of the road.
- Parking for the temple needs to be improved; the entry to the parking area and drop of point should be changed. The bus parking needs to be connected well with temple, pedestrian path and pedestrian crossings needs to be provided.



(a) Toilet building not maintaining the character (b) High barriers in the road obstructing the view

Fig 6.5 Issues affecting the view of the temple complex

## 6.2.2 ZONE – 2 Sivaganga Garden

Sivaganga garden located on the northern side of Brahadeeswara Temple complex consists of a large garden area, Schwartz church which was built in 1779 A.D, ancient Sivagangai tank, Water slide and pool, Raja kalai arangam (OAT) and government offices which are located on the eastern side of the garden.

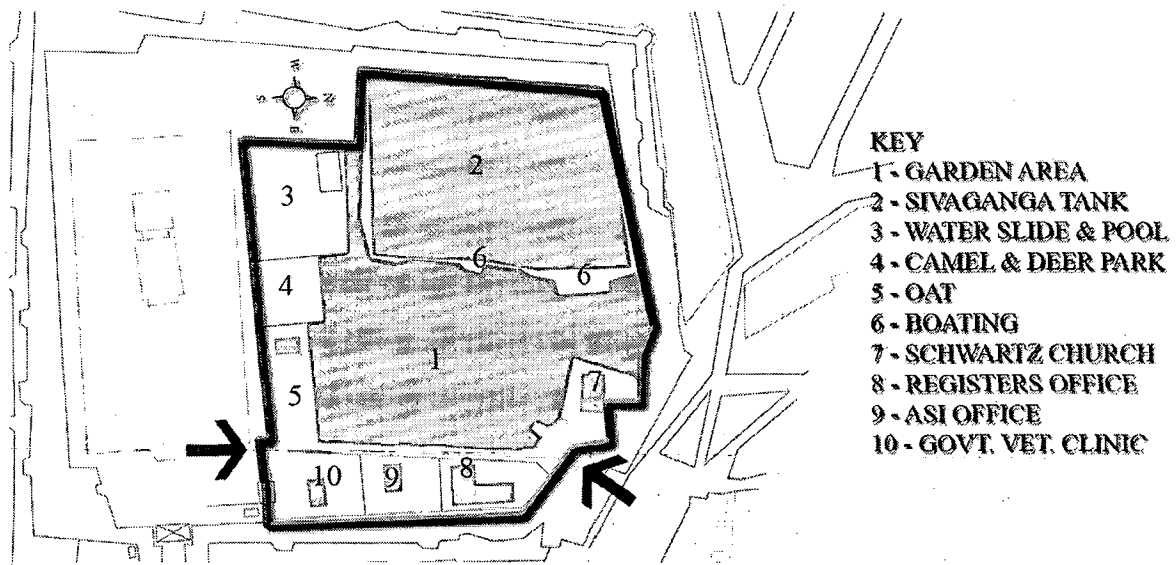


Fig 6.6 Plan of Sivaganga Garden

The goal is to improve the overall quality of the garden and integrating with Brahadeeswara complex and also to remove the incompatible structures disturbing the character of the area inside the garden.



FIG 6.7. Approach Road

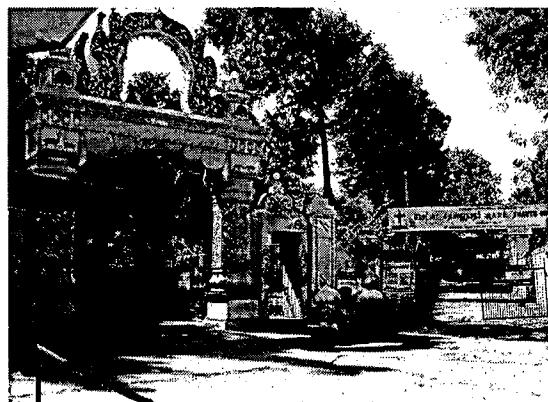


FIG 6.8 Entry to the Garden and Church



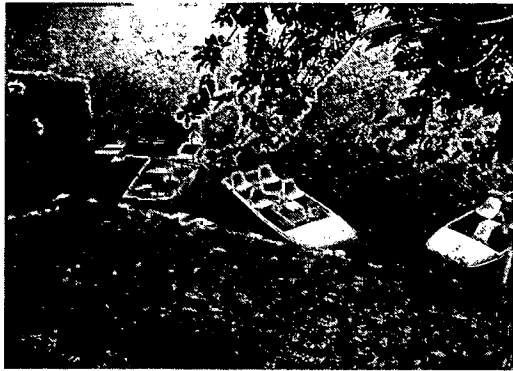


FIG 6.9 Well Shaded Central Garden Area

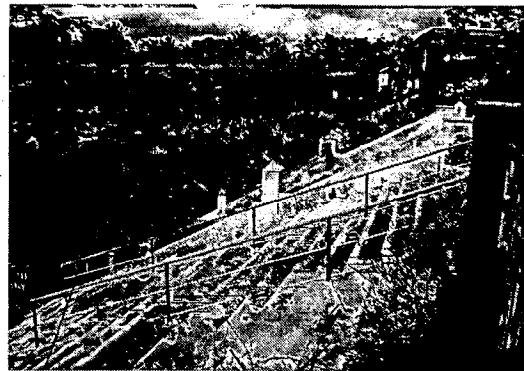
## ISSUES & PROPOSED ACTIONS:

### Infrastructure:

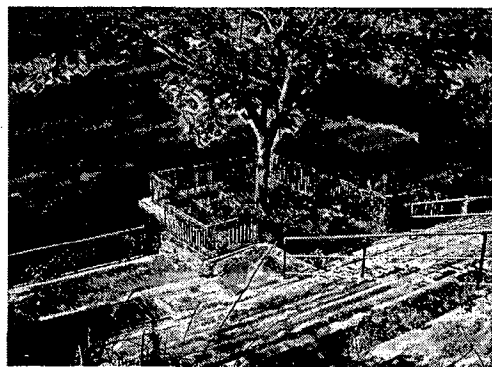
- Entry to the Sivaganga garden is visually unimpressive, it needs to be enhanced. The PCO shop in the front and also the veena making yard near the entrance should be relocated.
- The buildings inside the Sivaganga garden are incompatible with the garden complex. New functional uses to the buildings housing Tamilnadu land registration office, Govt. veterinary hospital, Raja kalai arangam, should be proposed.
- There is lack of quality in the garden spaces both in landscape as well as amenities. General quality of the garden space needs to be improved, like street furniture, lighting, litter bins, signage, eating places, pedestrian paths, plantings, toilet facilities, water fountains etc.
- New water slide facility located close to the temple vimana creates a visual conflict with the historical ambience of the area. It should be removed and relocated on the northern side of the garden.
- The cable car facility inside the garden area, at present is only for limited distance till the island temple, it should be extended to the other side of the tank with a stop in between in the island temple
- Boating facilities are inadequate and substandard in quality. The boating area should be improved; mainly the steps leading to the boat house should be well designed and maintained.



(a) Boating Facility



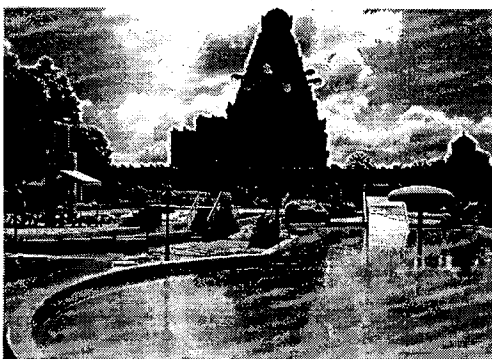
(b) Steps Facing the Tank in the northern side



(c) Steps Facing the Tank



(d) Island Temple in the Tank



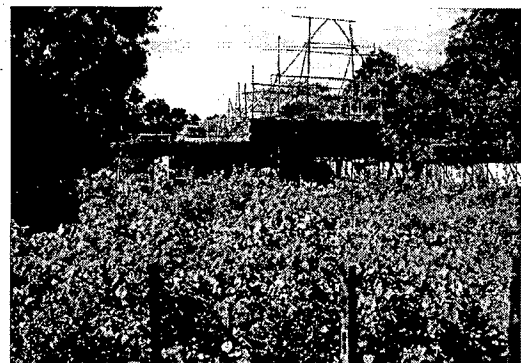
(e) Water slide close to temple



(f) Road leading to the temple from the garden



(g) View of Temple from ASI Office



(h) Kalai Arangam

**Figure 6.10 Sivaganga Garden complex**

- There are very few garden furniture facing the Sivaganga tank, it is observed from the study more people are sitting on the parapet of the tank, if furniture is provided it will be more comfortable for the visitors.
- Light and sound show which is been proposed by the state government can be permanently organized in the Raja kalai arangam.
- 18<sup>th</sup> century Schwartz church is not seen from the entrance of the garden, the entry to the church should be redesigned and it should be well integrated with the garden.
- There is less number of play areas for children in the garden, in the weekends the play areas are congested and overcrowded. More number of play areas needs to be provided with quality play equipments.
- The garden lacks public art, inside the complex. Murals , sculptures needs to be provided in the garden area. The existing toy train route should be increased and quality carriages should be provided.

#### Visibility:

- The island temple inside the sivaganga tank lacks visual interest, since it is the focus of the tank, it needs to be improved. High quality paving material, barriers and also furniture needs to be provided.
- The steps facing the tank on the northern side, is covered with vegetation and inaccessible to the public. It needs to be cleared of vegetation and should be open to the public.
- The temple view on the southern side of the garden complex is not utilized in its proposals, especially the new water slide facility which is located close to the temple vimana, spoiling the historical ambience of the temple. In this case, temple should not be seen only as religious icon. Due to its rich architectural, historical and cultural significance it is of international importance. The potential of using the view of Brahadeeswara temple vimana should be considered in the new proposals for the garden.

### 6.2.3 ZONE – 3 HOSPITAL ROAD AND SOUTH RAMPART

Hospital road and south rampart road are important movement corridors which connect the tourist important heritage areas. Both the roads have considerable potential for improvement. On one side of the Hospital road government hospital is located and on the other side library, state bank of India, state transport corporation offices are located. Buildings facing this road are having minimum of 4m set back and the trees on both sides create good sense of enclosure.

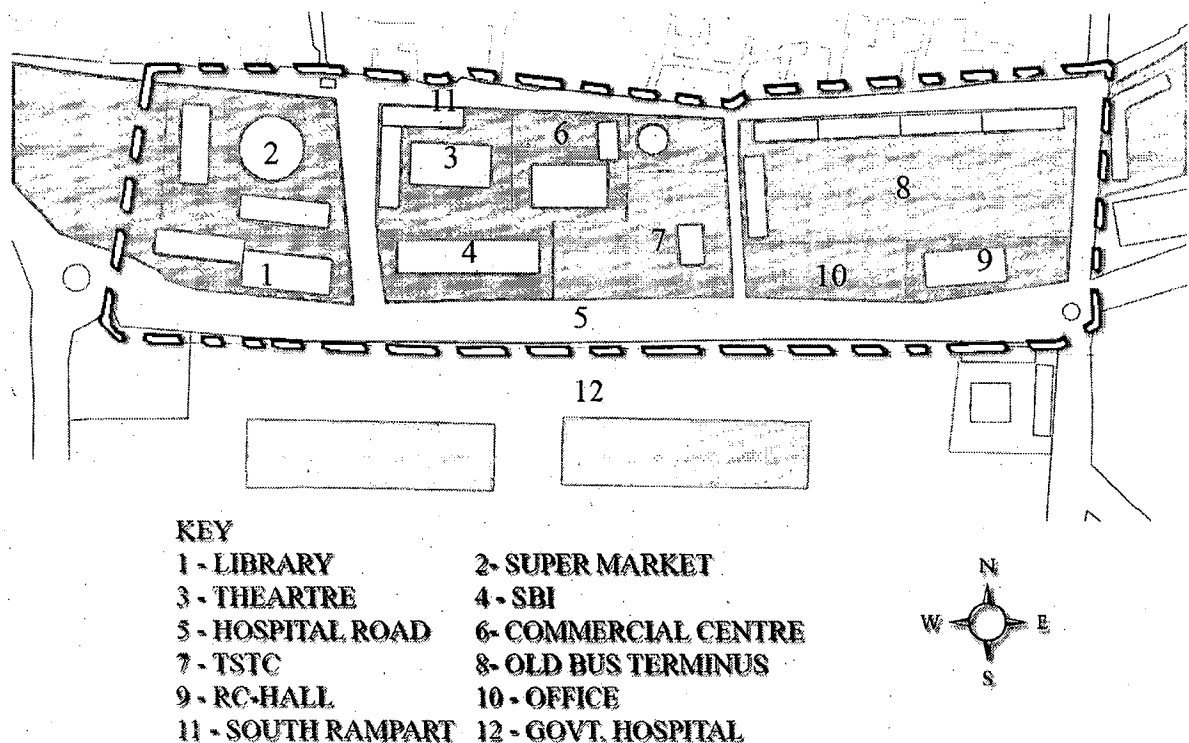
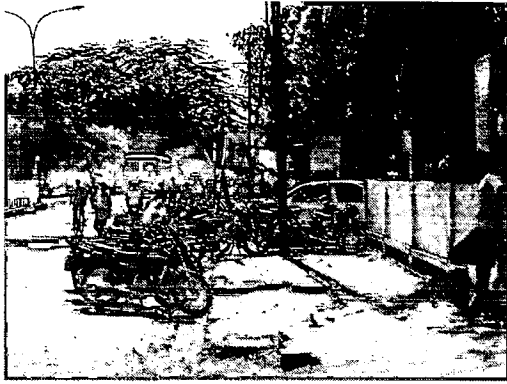


Fig 6.11 Plan of Hospital Road and South Rampart

The goal here is to develop the hospital road as a urban boulevard and to integrate other public spaces with city corridors in this zone and also to improve the pedestrian linkage between the heritage areas through this zone.

#### ISSUES & PROPOSED ACTIONS:

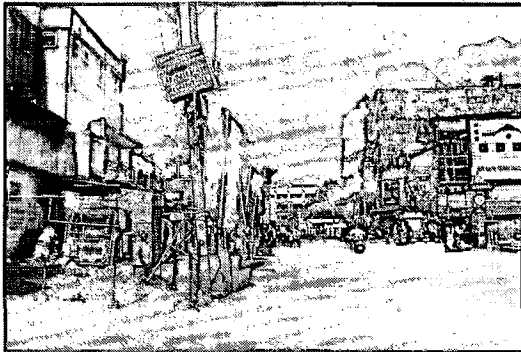
- The roads lack some of the street qualities like character, continuity, enclosure. Hospital road and Southrampart needs to be improved based on the good street qualities.



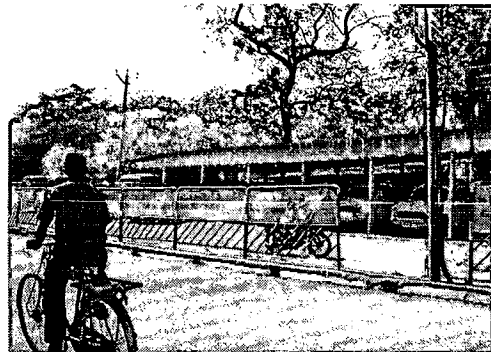
(a) On Street Parking in Front of SBI



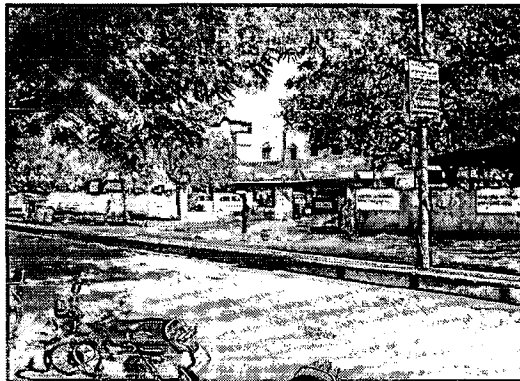
(b) Vendors on the Pedestrian Path



(c) Advertisement Hoardings on the Road



(d) Taxi Stand On the Pedestrian Path



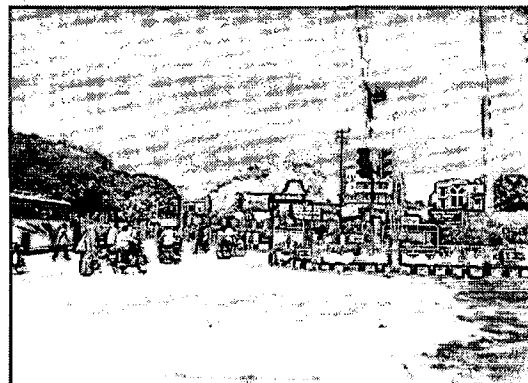
(e) Entry to the Hospital



(f) Pedestrian Path near RajaRajan Garden



(g) Tree in middle of Pedestrian Path

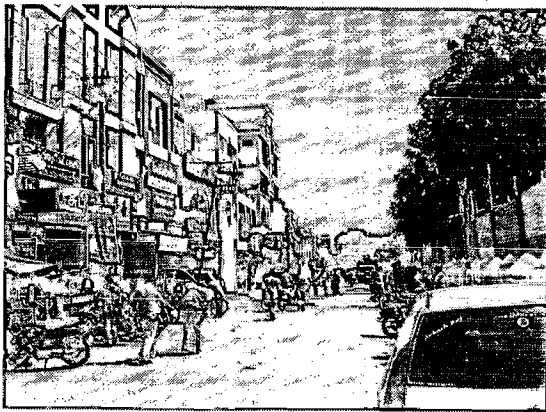


(h) Lion Pillar Near RajaRajan Junction Needs to be Enhanced

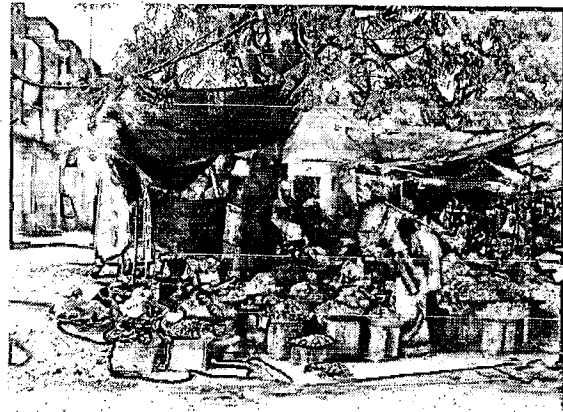
**Figure 6.12- A- HOSPITAL ROAD**

- The use of mature trees in the hospital road is not fully exploited. The road having mature trees on both sides needs to be trimmed and aligned to make a boulevard.
- There is a lack of street amenities in both roads. Adequate number of litter bins, signage, street lighting, good paving material in the pedestrian paths needs to be provided.
- The utility lines on either side of the road create a visual clutter. It needs to be replaced with underground cable.
- Tea shops and vendors near the state bank of India are encroaching the pedestrian path. They should be relocated in an appropriate place.
- On street parking in this road encroaches the road space thereby creating traffic problems, on street parking near bank and share auto parking near hospital needs to be rationalized.
- The place elements like Anna statue needs to be enhanced in that node by removing the barriers around it. It should be made as the focus to the hospital corridor. High quality pedestal for the statue can be provided.
- The advertisements in the median barrier are inconsistent and need to be removed and the median should be made with planters.
- Advertisement hoarding fixed near the Ramanathan Chettiar Hall (RC Hall) disturbs the pedestrian activity and also creates a uninteresting space behind it. It should be removed and pedestrian path should be provided in that area.
- Taxi stand on the pedestrian path near R.C Hall causing inconvenience to the pedestrians. It should be removed and relocated to some other appropriate place.
- The facade of government hospital and other buildings like the district library, SBI do not have any distinctive character. It needs overall refurbishment in the design as well as finishes.
- There is general lack of quality southrampart streetscape, lack of pedestrian paths on both sides of the road. There is a need to improve the quality of the street and for basic infrastructure.

- The government movie theatre ( Thiruvalluvar kalai arangam ) which is located in the southrampart road is running in loss. It can be redeveloped as a shopping Mall with parking space.
- The Rajarajan commercial centre which is of a poor quality in its design can be combined with the theatre complex and can be redeveloped.
- On street parking in this road, creates lot of traffic problems and also the main intracity buses plying through this road makes it more vulnerable for accidents. The parking in this area needs to be rationalized.
- Lack of proper space for the vegetable market, creating traffic related problems in the evening hours. A defined space needs to be provided for the vegetable market near the super market.
- Lack of general street amenities is evident from the study. General road condition, street furniture, lighting, signage, trees, planting needs to be improved in quality.
- There is a lack of Public toilet facility in this zone, it should be provided at sufficient intervals in this hub space.
- There is a considerable scope to improve the Old bus terminus shops facing southrampart side. It needs to redeveloped as G+2 storey structure, with mix uses.



(a) View of southrampart road showing  
Unorganized on street parking



(b) Vegetable market near cauvery super  
market, needs improvement

**Figure 6.12- B- SOUTH RAMPART ROAD**

#### 6.2.4 ZONE – 4 South Main Street

South Main Street is an important corridor in the city centre connecting the west main and east main streets. It is one of the busy commercial streets which is highly congested and over crowded during evening hours. This street has completely lost the heritage characteristics, there is only one important heritage building in this entire street which is in a highly deteriorated (Mangala Vilas) state, due to lack of maintenance. It is a street of tourist importance due to its linkage between southrampart, west main and eastmain streets.

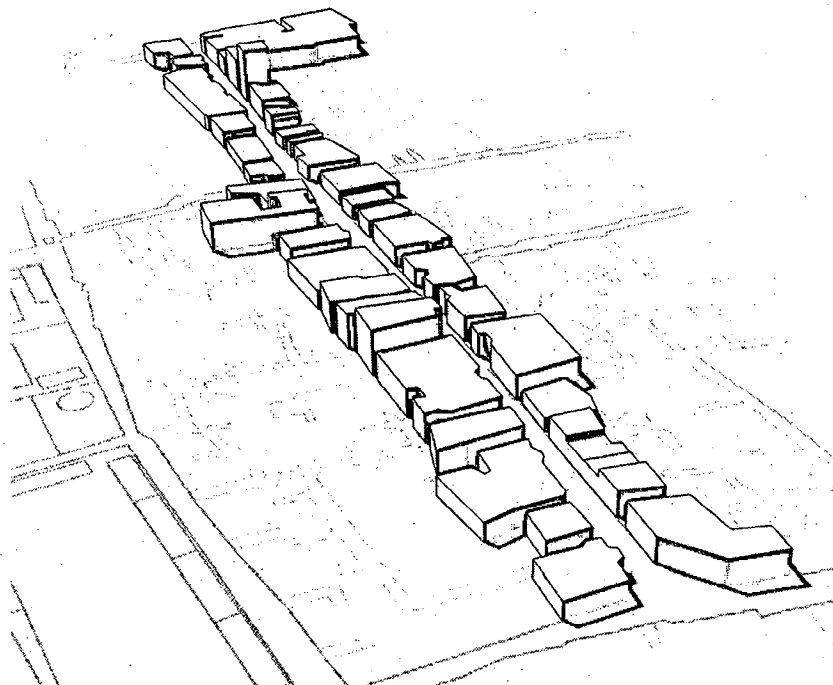


Fig 6.13 3D view of South Main Street

The goal here is to improve the pedestrian linkage between east main street and west main street via south main street and also to improve the overall quality of the street.

#### ISSUES & PROPOSED ACTIONS:

- The south main street lacks street amenities like signage, litter bins, pedestrian paths, street crossings, etc.
- There are no unifying elements in the street to create a character to that place.





(a) view of south main street



(b) Mangala Vilas the only heritage building in South Main street



(c) Inconsistent Advertisement Hoardings



(d) view of Arsenal tower from one of the lanes



(e) Ayyan kadai street junction



(f) Public urinal needs improvement

**Figure 6.14 SOUTH MAIN STREET**

- The trees in the street can be exploited in a better way to make the street look more attractive and safe to walk.
- The new construction coming up in this area, block the view of the heritage buildings from the narrow lanes. The view of Brahadeeswara temple and Arsenal tower from the narrow lanes connecting south main street needs to be protected.
- The utility lines creating visual clutter on either side of the road needs to be replaced with underground cable.
- Lack of good drainage system causing inconvenience to small shop owners. Tea shops and vendors in the street should be provided with a good drainage system. They should not be allowed to throw their waste in the street.
- On street parking near ICICI and central banks encroaching the road, creates problems for the commuter in that stretch. On street parking needs to be reorganized in the entire stretch of south main street and also new constructions do not provide parking spaces for their use within their boundary. It should be made mandatory to provide parking space , within any new development boundary.
- Public urinals existing near the co-optex junction is in a dilapidated condition. It needs to be reconstructed with good quality materials.
- There is heavy movement of traffic in the south main street from 10am to 1 pm in the forenoon and 6pm to 8pm in the evenings, every day. Traffic movement in the street needs reorganization. It is observed there are more number of two wheeler traffic than any other mode.
- The south main street is visually unimpressive for any new visitor. Appearance of the street needs to improved by providing pedestrian paths, organized on street parking, street furniture, lighting and tree planting
- Signage in the street creates visual clutter, there is no order in the signage system. There are many signage boards for single shop with same contents. There should be a overall signage policy to control their size and location
- The street junctions near the east main street and west main street are in a poor state. It needs to be enhanced.

## 6.2.5 ZONE – 5 PALACE COMPLEX

Palace complex is a special character area having unique architectural and historic qualities in its buildings. Important landmark buildings in this complex are bell tower and arsenal tower. The important tourist attractions inside the complex are: Arsenal tower, Marata Durbar Hall, Bell tower, Saraswathi mahal library, Bronze and granite sculpture museum, Sangeeth Mahal, Sarja madi, Handi crafts emporium, Royal museum

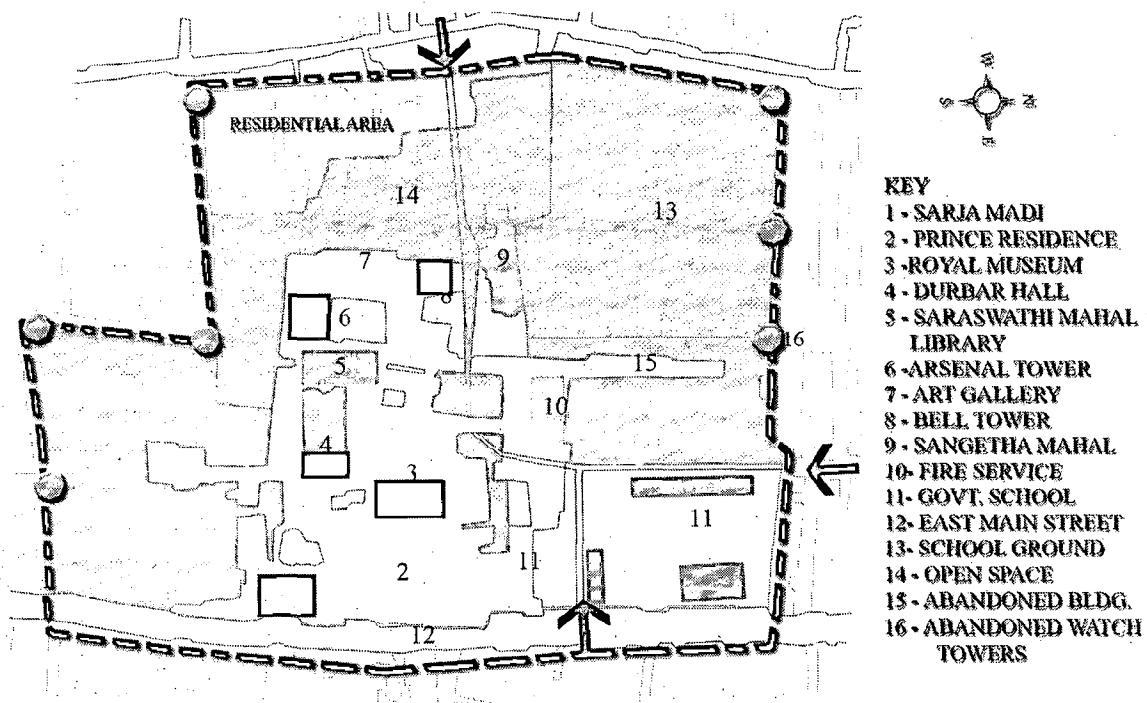


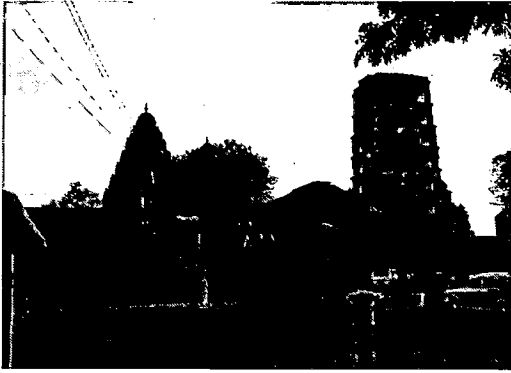
Fig 6.15 Plan of Palace Complex

The goal here is to integrate the spaces inside palace complex and to preserve the Architectural and historical character of the area and also to remove the uses which are incompatible to its character.

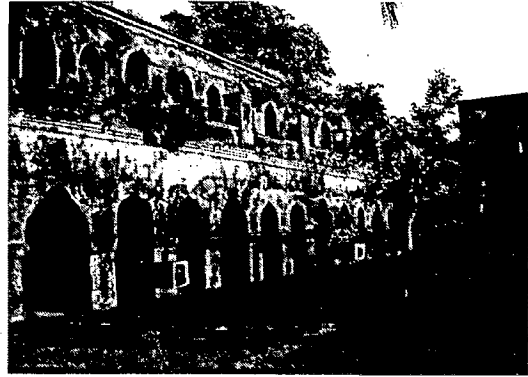
### ISSUES & PROPOSED ACTIONS :

#### Land use:

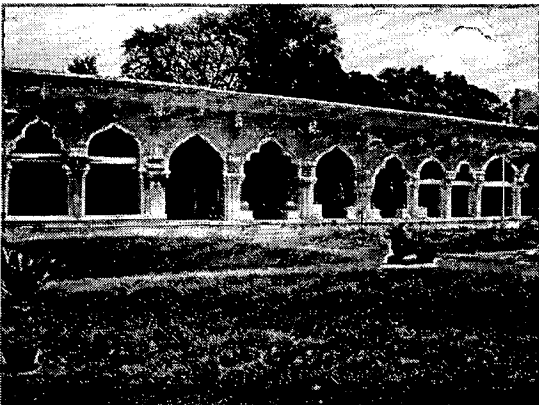
- The palace complex is used by different agencies, some of them are not compatible with the character of the area. The uses which are not compatible needs to be relocated. At present the complex is used by, state archeology , Thanjavur tamil university, Government School, Fire service Department, Thanjavur Prince residence, Saraswathi mahal library.



(a) Bell tower & arsenal tower



(b) Abandoned building near school



(c) Restored building in durbar hall court



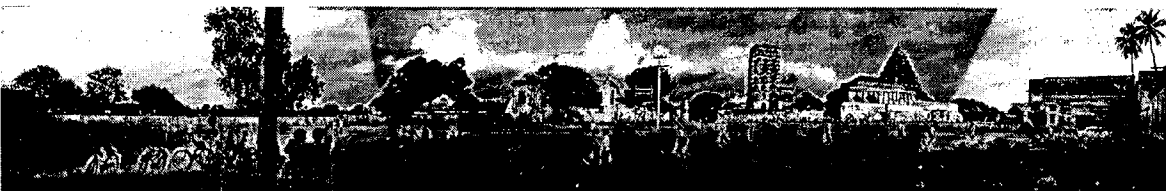
(d) Entry to the palace from northern side



(e) Abandoned watch towers



(f) School building

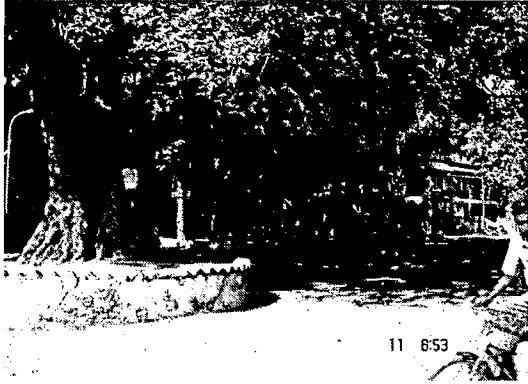


(g) Panoramic view of palace complex from the ground

**Figure 6.16 – Palace Complex**

## Character & Adaptive Reuse:

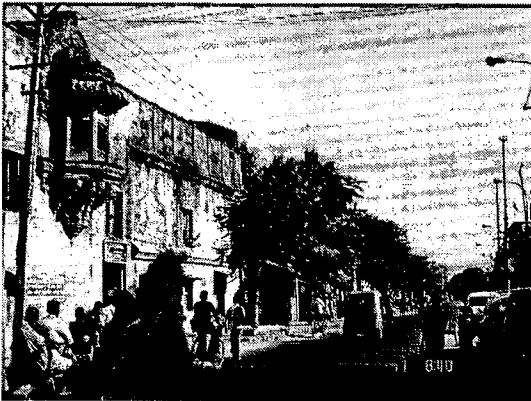
- There is a clear evidence of erosion of the following qualities seen in the complex
  1. Coherence of building form / materials
  2. Mix of land uses
  3. Historical significance
  4. General environment quality
- The abandoned historical structure near the school building disturbs the ambience of the palace complex. It has lot of potential for improvement. It needs to be preserved and adaptive reuse with a new function should be proposed.
- Ornamental watch towers located all around the fort wall is in a deteriorated condition. It needs to be restored and should be integrated with the palace complex
- The entry gate way on the northern side needs to be enhanced so that the entry can be highlighted on the western side and the new structures on top of the gate way should be removed.
- The new government school building inside the palace complex does not respect the historical values of the built environment around it. They rather disturb the character of the area.
- The old trees needs to be preserved inside the complex, carefully selected trees should be planted along the streets.
- There are no building controls exist for this heritage area. The local planning authority should provide guidelines for any alterations to existing buildings, roof extensions, painting, finishing, windows/fenestrations, telecommunication equipment, soft landscape design / open spaces / views /vistas / landmarks
- The new developments which has come up in the last few years, the school building, extension of saraswathi mahal etc. do not respect the existing layout of buildings /streets/ and spaces. Guide lines should be framed for any new construction inside the palace complex.
- Toilet facilities provided near the entrance to the bell tower lacks quality, it needs to be enhanced.



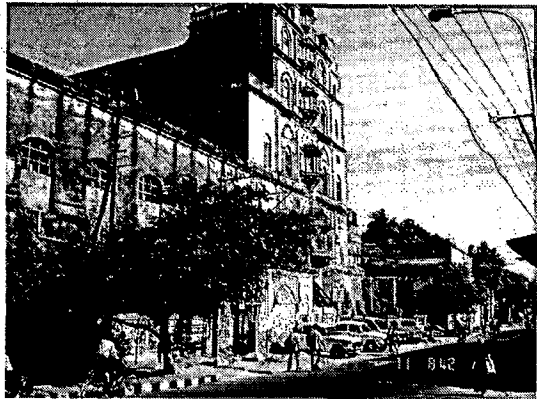
(a) Fire Service Station inside Palace complex



(b) East Main Street



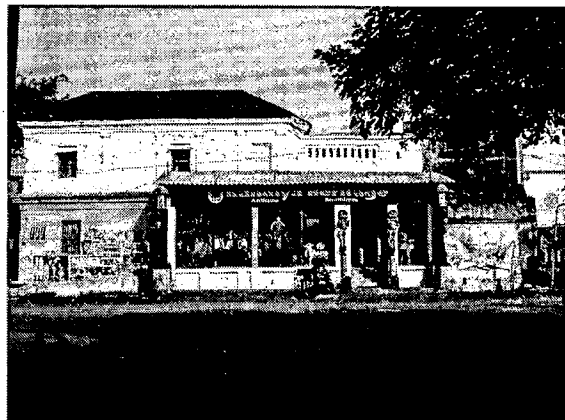
(c) Building Frontage Needs Improvement



(d) Taxi Stand in Front of Sarja Madi



(e) Handicraft shops in East Main Street



(f) Adaptive Reuse- House Converted as Antique Shop



(g) ANTIQUE SHOP



(h) SARJA MADI

Figure 6.17 East Main Street

### Infrastructure:

- The streets inside the palace complex lacks the basic facilities. It should be paved and curbs should be provided on either side along with street furniture's.
- The street link between east main street and manojiappa street through the palace complex runs very close to the bell tower, the street should be re routed or it should be open only to the pedestrians. If vehicles are allowed to use, it will certainly deteriorate the ambience of the complex. At present two wheelers using this route contribute to its sound and air pollution. In future this should be avoided.
- The open spaces inside the palace complex needs to be integrated with built environment around and also soft landscaping needs to be provided to the open space adjacent to bell tower and arsenal tower with street furniture.
- The open ground on the western side of bell tower and arsenal tower has considerable potential for improvement. A landscaped openspace with tot lots for children to play can be developed in this area. For the local residents around the palace, the proposed landscaped open spaces can provide good environment for morning walks, play area for children and serve as an interaction space.
- No proper signage exists inside the complex. Coordinated and consistent signage system is required for the entire palace complex.
- The parking space located very close to the monuments needs to be relocated to appropriate place. The ideal location for parking space will be near the inside entrance of the complex, that is near the existing fire service station. The visitors can be allowed to walk from that area, so that they get a feel of that place.
- There are less tourist facilities inside the complex, facilities like Restaurants, local art and craft shops can be added in the complex for the tourist.
- At present only few areas of the complex is open to the tourists, more areas can be renovated and it can be made open to the tourists. Except

the Royal family residence , other places can be explored for making it open to the public.

East main street:

- The façade of saja mati in the east main street, is not been highlighted for the visitors. The parking space in front of sarja mati should be removed and relocated in appropriate place so that the visibility of the façade can be enhanced, the entrance to sarja mati needs enhancement. An appropriate use can be proposed for the sarja mati building, since it is not been utilized.
- East main street has no proper pedestrian path on either side of the road, lacks street amenities. Street should be provided with pedestrian paths on both sides of the road, the street furniture should be designed to go with the character of the area.
- New developments of particular use is seen on east main street. This has converted even many residential properties into Handicrafts and antique shops.
- Since east main street is the only important approach road to the palace complex, the significance of the street with respect to tourism is very high. It should be made mandatory that shop frontage in the east main street should follow the proposed guidelines of character area.

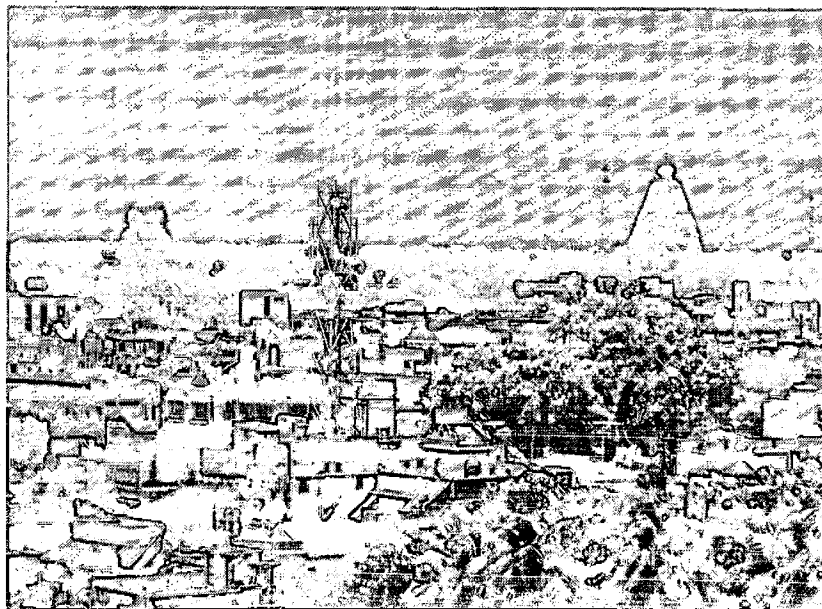


Fig 6.18 View of Brahadeeswara temple from arsenal tower, telecommunication towers blocking the view of the entrance gopuram



### 6.2.6 ZONE – 6 Historical Structures of Nayak and Maratta Period

In this zone, historical structures and places are identified based on their architectural and historical significance, it is observed from the study there is a high heritage value exists in these identified structures and places namely Rajagopalswamy temple with its architecturally rich gopuram of Maratta period, Granary structure of 16<sup>th</sup> century with its exceptional vault construction of Nayak period, Rajagopalswamy beerangi is a 17<sup>th</sup> century cannon used by Maratta kings, Mangala vilas is early 19<sup>th</sup> century residential place for kings concubines and Ayyan tank is a ancient water body of early 17<sup>th</sup> century.

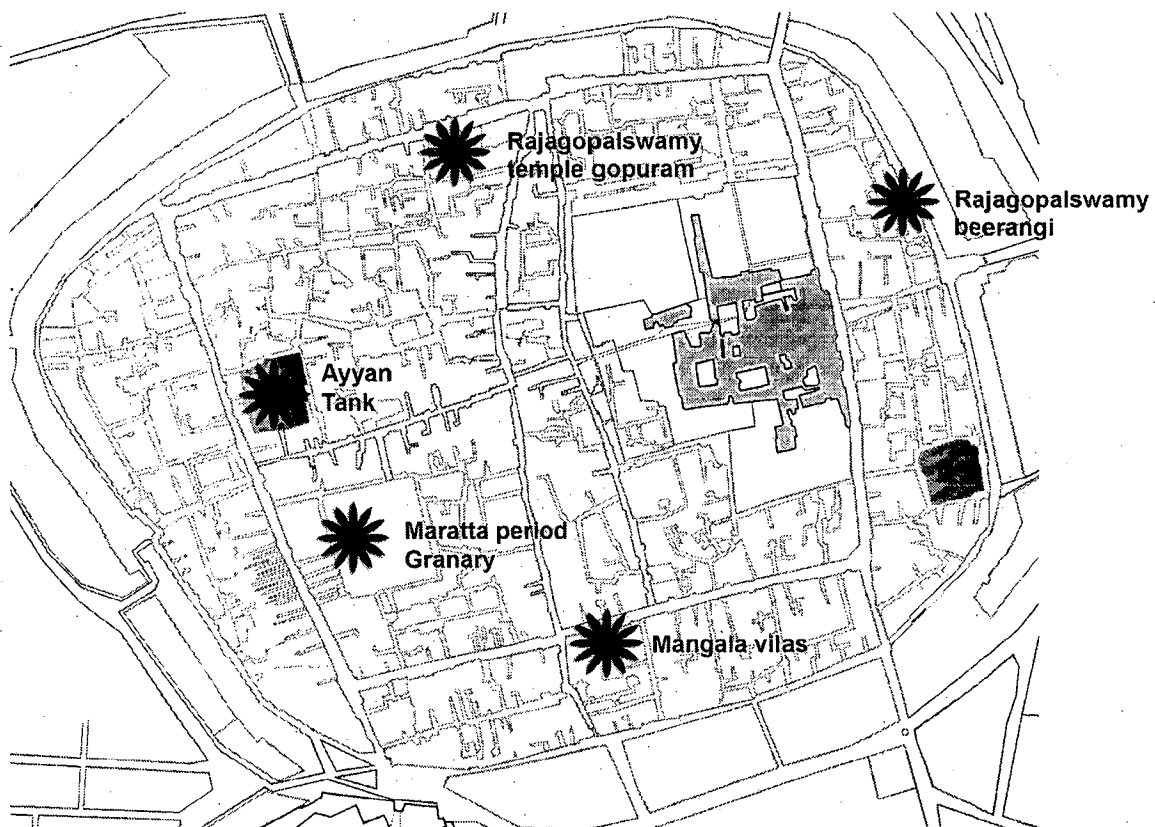


Fig 6.19 Plan showing the location of Historical structures

The goal of this zone is to improve the overall environment around the identified monuments and make them more functional to the residents and attractive to the tourists.

#### ISSUES & PROPOSED ACTIONS:

The following old historical structures needs to be declared as protected monuments based on their historical, architectural and archeological significance.

- Rajagopalswamy temple (1538)
- Granary (1550)
- Ayyan tank (1600)
- Mangala vilas (1800)
- Rajagopalswamy beerangi (Protected monument) (1620)

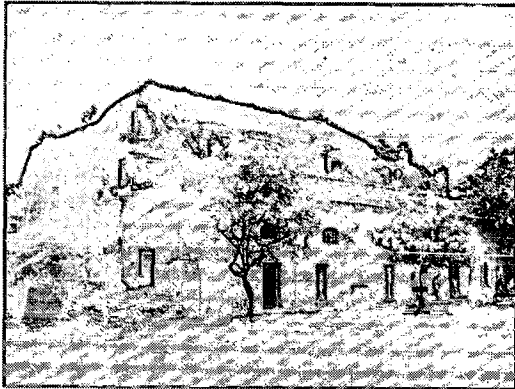
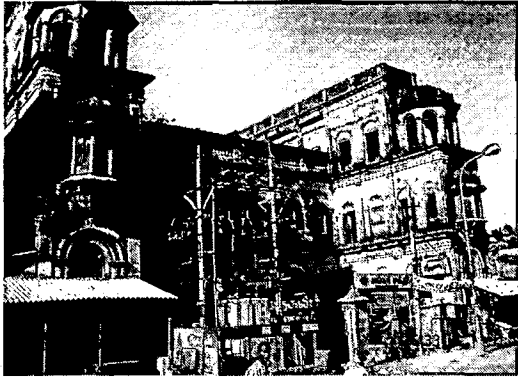


Fig 6.20 Granary Structure



Fig 6.21 Interior view of the Granary with vaulted roof

- The granary structure on the western side of the big fort is located in a private school ground. This structure is being used as a store yard by the school due to poor lighting in the interiors. Granary structure is one of the fine examples of nayak period construction of brick vault roofing system in this region. It should be preserved and its construction techniques should be studied. By providing good artificial lighting and new functional use, this building can be regenerated. The surrounding area needs to be landscaped and the entrance needs to be enhanced.
- Mangala vilas is an historical important structure of Maratta period, which was used by the kings concubine. This building which is located in the heart of South Main Street needs to be preserved. This building is now used as a retail shop for building construction materials. The present use of the building is not compatible with its layout, and new function needs to be proposed. The tea shop which is on the side of this building, encroaching the building façade should be removed , the façade elements needs to be restored.



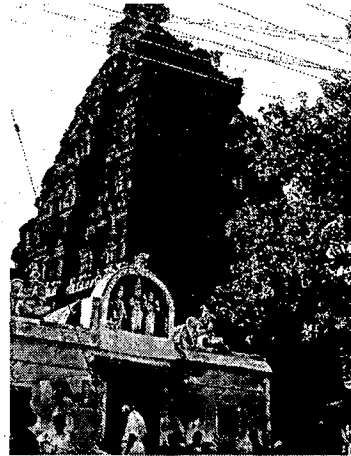
(a) Mangala Vilas



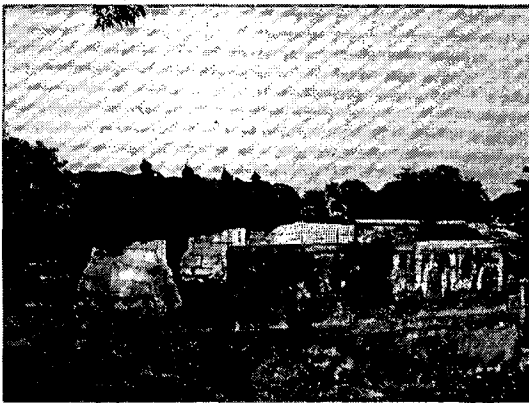
(b) Tea shop encroaching Mangala Vilas



(c) Rajagopalswamy temple gopuram with adjoining poor quality new constructions



(d) Gopuram in a dilapidated condition



(e) Rajagopal Swamy Beerangi



(f) View of Arsenal tower and Sarja Madi from Rajagopal swamy beerangi



(g) Ayyan Tank one of the ancient tanks needs revitalization

FIGURE 6.22 – Important Historical Buildings and Spaces

- The electrical transformer in front of Mangala Vilas creates a visual obstruction; it should be relocated to appropriate place. Since this building is located in the commercial hub, Ideal use for this building could be retail shops for traditional musical instruments, local handicrafts like tanjore painting, art plate, pith work, small exhibition space can also be placed on the upper floors.
- The Rajagopal swamy temple gopuram in the north main street is one of the earliest temples of Nayak period, built during early 16<sup>th</sup> century. The gopuram is in a state of decay. This temple complex needs to be restored and the gopurams unique architectural features should be enhanced. It is also a landmark structure in this area. The buildings constructed opposite to the rajagopal swamy gopuram, blocks the view as well as adjoining the gopuram of this temple should be removed. No new construction should be permitted around this temple min 10m radius.
- The Rajagopal swamy beerangi (cannon) on the east rampart road is a protected monument but still lacks a quality environment. The monument does not have any signage or information panel for the tourist. The quality of flooring, parapet wall, finishes on the stairs needs to be improved.
- The two historical tanks of nayak period, ayyan tank and samanthan tank which is almost filled by cities garbage, needs to be restored. The restoration of these tanks will help recharging the ground water in the neighboring residential area.

In addition to the proposals and improvement action plans, the general guidelines for movement corridors and conservation areas which required to be framed for the historic core area are discussed in the next chapter.

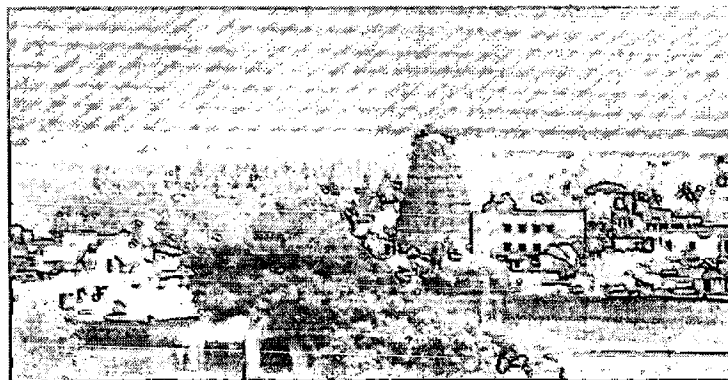


Fig 6.23 Rajagopal swamy temple gopuram dominating the sky line

## **CHAPTER – VII**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 INTRODUCTION**

In this chapter overall summary of the thesis is discussed and general recommendations for the historic core of Thanjavur is provided in two specific type of context, one is the movement corridor connecting the tourist important places and the other is the identified character areas in the Historic city core of Thanjavur.

#### **7.2 SIGNIFICANT FINDINGS OF THE THESIS**

The Historic cities are developed gradually over time are an expression of the diversity of societies throughout history; these areas embody the values of traditional urban cultures. In the historic cities the core areas which possess the traditional buildings gives a visual character and identity to that area. In India many traditional cities are developed around a historic core which has significant concentration of traditional buildings which gives an image and identity to that place. Today many such areas are being threatened, physically degraded, damaged or even destroyed, by the impact of the urban development that follows industrialization in societies everywhere. Urban renewal is an approach towards revitalizing such historic public realm and also enhances the historic precinct into an attractive, highly desirable and pedestrian friendly place.

From the review of literature related to urban renewal the concept of urban renewal was understood. It is evident from the study, that the shifting of emphasis of urban renewal from renaissance period to the modern day regeneration projects. The Renaissance urban renewal projects had focused on visual aesthetic up gradation. In early 19<sup>th</sup> century urban renewal projects were focusing on Renewal of neighborhoods and gentrification. Today the emphasis differs from context to context, in India the focus of renewal projects are in physical infrastructure improvements and providing basic amenities to cities and towns, this is clear from the fact that the newly introduced central governments urban development scheme, National Urban Renewal Mission focuses on providing physical infrastructure to towns and cities.

It is also understood from the literature review, the significance of public realm in the urban renewal, the qualities of public realm and also significance of conservation in urban renewal of historic towns.

It is observed from the case studies that, all the urban renewal projects which were studied had a common objective to integrate the historic core area with the rest of the city, but each project focused on a particular component of urban renewal. In some of the projects it was redevelopment component of urban renewal, others it was more of preservation, adaptive reuse and strengthening cultural heritage, but all of them focused on economic revival of the declining towns. There fore it is understood that the focus of urban renewal projects can vary depending upon the context and need of the area.

Thanjavur located in the central eastern part of Tamil Nadu is an important historical town, known for its heritage value. Brahadeeswara temple located in the historic core of Thanjavur is an architectural wonder of the Chola kingdom; it is an important land mark in the town attracting many domestic and foreign tourists. After it got declared as a world heritage monument, large no of tourist flow is evident from the tourism statistics. Thanjavur is also now becoming important Pilgrimage tourism Destination, since it lies in the enroute to Navagraha temples from the southern and western districts of Tamilnadu.

In spite of receiving many tourists to the historic core of Thanjavur, it is facing blight and decay due to increasing population and urbanization. Lack of awareness of urban conservation in the heritage areas among the local inhabitants has deteriorated the environment further, visually and aesthetically. It is evident from the trend on growth of tourism in the area that Thanjavur has potential to attract more tourists in the coming years. It becomes essential to improve the image of the historic environment.

Study and analysis has shown that image and identity are two important factors for growth of any historic tourist city. Therefore the image which Thanjavur projects to the outside world through its physical environment is vitally important to its growth and future success. The analysis has shown the importance of

heritage buildings; important views and land marks that needs to be protected, existing pedestrian paths and need for more pedestrian linkage between the historical important places, active ground floor uses, existing parking spaces with locations of onstreet parking and offstreet parking and hierarchy of routes with relation ship with tourist important spaces and public buildings. This analysis forms the basis for identification of improvement zones in the historic core area of Thanjavur. Based on the detailed issues of the individual zones broad general design recommendations were framed.

### **7.3 URBAN DESIGN GENERAL RECOMMENDATIONS FOR THANJAVUR HISTORIC CORE**

General recommendations were framed based on the analysis and problems of the individual zone in two specific context within Thanjavur historic core. They are corridors and conservation areas. Design interventions should follow this policy in the Thanjavur Historic town and it should be incorporated in the proposed Master plan of the town.

#### **7.3.1 Movement Corridors:**

It is proposed that the following city corridors be enhanced through the introduction of coordinated Improvements, due to its high significance as a tourist route between Temple complex and Palace complex.

1. Hospital Rd.
2. Brahadeeswara Temple Rd.
3. South Rampart
4. South Main Street
5. East Main Street
6. East Rampart

The improvements in the above corridors should be designed to:

- Provide a better welcome and first impression to tourists
- Guide, orientate and inform tourists about areas, attractions and facilities both along the corridor and within the city centre before arrival

- Reinforce the character and identity of overall corridors, sections of a corridor and adjacent areas
- Promote the ease and convenience of bus travel for passengers
- Support the vitality and viability of local shopping frontages
- Enhance the public realm through coordinated environmental improvements reflecting corridor and local character identity.
- Promote higher standards of design in respect of frontage development of individual corridor and set the coordinating structure for the detailed design and implementation of improvements. Design guides for shop fronts and residential alterations and extensions will be particularly relevant for corridors in the conservation zones.

As a first phase of improvement projects the following should be undertaken:

Detailed audits of existing signage and street amenities which will enable first phase removal / replacement of poor quality signage and litter bins, barriers, etc and reduction of clutter and duplication. A landscape audit identifying condition of tree structure which will enable proposals for maintenance and the filling of gaps in the existing street tree planting structure

Improvements could include the following:

- Coordinated pedestrian and vehicular signage and information system
- Street furniture, lighting, paving, and public art (located at regular intervals to aid way finding)
- Development of corridor lighting plans
- Tree planting and other soft landscape
- integrated car parking and two wheeler parking bays
- enhanced pedestrian crossings
- improved pedestrian routes to tourist important places
- Rationalization of off-street parking provision and management
- Changes to on-street parking provision and controls
- Better links between the Brahadeeswara temple and the Palace Complex



- Better links between the transportation nodes and the historic core

### **7.3.2 Conservation Areas:**

The issue of conservation areas and in particular their status within the proposed master plan needs careful consideration. The implications on Thanjavur municipality resources and the prioritization of some areas over others and the limitations of local planning authority guidance need to be balanced against the need to develop design policies which respond more sensitively to individual contexts and promote higher standards of design in areas where local character and identity is gradually being eroded. This process of erosion is characterized by small scale alterations and extensions which over time have a cumulative and detrimental impact.

The following broad criteria have been used to identify character areas in the historic core of Thanjavur:

- A) Consistency/coherence of building forms and materials
- B) Particular uses or mix of uses
- C) Historical significance (built form, pattern of development, activities, landscape structure, movement corridor)
- D) The relationship between the built and the natural environment, including the definition of significant landmarks, vistas and panoramas, where appropriate;
- E) Significant element in the development of the city
- F) General environmental quality
- G) Evidence of erosion of the above qualities

The following Conservation areas have been identified as scoring well against the criteria:

1. SMALL FORT & BRAHADEESWARA TEMPLE COMPLEX
2. PALACE COMPLEX
3. SIVAGANGA GARDEN
4. RAJA GOPAL SWAMY TEMPLE
5. MANGALA VILAS
6. NAYAK PERIOD GRANARY

### **7.3.2.1 General Recommendations for Conservation zones**

- Within or adjoining conservation areas, and in locations which affect the setting of listed buildings, scheduled monuments or nationally important archaeological remains, development proposals must respect adjacent buildings, open spaces, landmarks and settings and have regard to local scale, proportion, detail and materials. Proposals will be required to maintain or enhance existing urban spaces, views, landmarks, and other townscape elements, which contribute to the character or appearance of the area.
- With regard to listed buildings, consent should only be granted for the following types of development where there is no adverse effect on the character, appearance or setting of the building :
  - development in the immediate vicinity of listed buildings;
  - demolition;
  - internal or external alterations;
  - change of use;
  - erection of satellite antenna and Mobile phone transmission towers
- Planning permission should only be granted for new, or alterations to existing buildings in conservation areas or on listed buildings where the proposed design preserves or enhances the character of the area or building.
- Within conservation areas, or on listed buildings, advertisements , hoardings will be expected to comply with policy that consist of:
  - A design and scale that respects the character and appearance of the area
  - Good quality materials that are harmonious to the surface to which they are attached
  - Should not block the view, vistas of monuments and historic structures;
  - Externally illuminated advertisements that require large light fittings should not be permitted.
- Existing trees and landscape which are part of the setting of conservation areas, listed buildings and scheduled monuments, will be required to be

retained, and provision made for planting within new development, where appropriate.

- Where consent should be granted for the removal of protected trees, conditions should be imposed to ensure replacement with appropriate specimens.
- Proposals affecting historic parks & gardens should be permitted provided they have no adverse effect on the character, appearance, amenity, setting or enjoyment of the park / garden.

#### **7.4 CONCLUSION**

Urban renewal and preservation of historic towns is, today one of the most important aspects of the policy of safeguarding the monumental and historical heritage in many countries. In India many historical inner cities are characterized by an exceptional concentration of magnificent traditional buildings, which gives a unique visual character to that town. Thanjavur with its rich architectural and historical significance is under the threat of neglect and development pressure due to urbanization. It is evident from the study and analysis that renewal of Thanjavur historic core should involve renewal of economic base, an increase in investment in the core area and the revitalization of the economic and financial structure in addition to restoration of monuments and the protection of the urban character. This is essential to meet the urban renewal costs and the maintenance of the restored environments and other public realm in the historic core.

The main issues to be considered for the regeneration of Thanjavur historic core is the balanced approach of conservation and progressive and participatory planning and design, adaptive reuse, provision of infrastructure and administrative structure to deliver the project and creation of awareness and responsibilities among the local people. Successful renewal of historic environment in Thanjavur will bring social, economic and environmental life back to its historic core area. It will transform places, strengthen the community's self-image and will re-create viable, attractive places which will encourage sustained inward investment. Understanding how places change and recognizing the significance of their history in the historic core area, is the key to successful and sustainable urban renewal.

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