

# REVITALIZATION OF WALLED CITY, JAIPUR

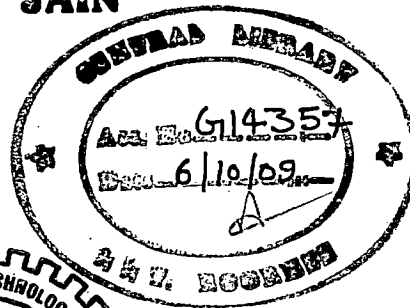
## A DISSERTATION

*Submitted in partial fulfillment of the  
requirements for the award of the degree  
of*

**MASTER OF URBAN AND RURAL PLANNING**

By

**PRERNA JAIN**



**DEPARTMENT OF ARCHITECTURE AND PLANNING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
ROORKEE - 247 667 (INDIA)**

**JUNE, 2009**

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## CANDIDATE'S DECLARATION

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I hereby certify that the work which is being presented in this Dissertation entitled "**Revitalization of Walled City, Jaipur**", in partial fulfillment of the requirements for the award of the Degree of **Master of Urban and Rural Planning**, submitted in the Department of Architecture and Planning, **Indian Institute of Technology- Roorkee**, Roorkee, is an authentic record of my own work carried out for a period of about one year from June 2008 to June 2009, under the supervision of Prof.R.K.Jain, Department of Architecture and Planning, **Indian Institute of Technology- Roorkee, Roorkee, India.**

The matter presented in this dissertation has not been submitted by me for the award of any other degree of this or any other institute.

Date: 20.06.09

Place:Roorkee

*Prerna*

(Prerna Jain)

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



**Prof. R.K.Jain**

**Associate Professor**

Dept. of Architecture and Planning

IIT Roorkee

Roorkee- 247667 (INDIA)

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## CERTIFICATE

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Certified that this report entitled “**Revitalization of Walled City, Jaipur**”, which has been submitted by **Miss Purna Jain**, in partial fulfillment of the requirements for the award of the Degree of **Master of Urban and Rural Planning**, submitted in the Department of Architecture and Planning, **Indian Institute of Technology- Roorkee**, Roorkee, is the student’s own work carried out by her under my supervision and guidance. The matter presented in this dissertation has not been submitted by her for the award of any other degree of this or any other institute.

Date:

Place: Roorkee



**Prof. R.K.Jain**

**Associate Professor**

Dept. of Architecture and Planning

IIT Roorkee

Roorkee- 247667 (INDIA)

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## ABSTRACT

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Jaipur planned in 1727 is one of the important case of living heritage city. The city has a glorious past linked with it, due to which it is well-known even today throughout the world. The urban design and rich architecture are the important characteristics of this city. Many of the heritage settlement are subjected to change and rapid deterioration of the fabric and quality, where as the Jaipur walled city still is the thriving economic centre and very much intact of its physical characteristic. The potential of the Walled City of Jaipur are immense, economically, culturally, socially and aesthetically. The city is not becoming a dead town; it is the overuse and chaotic functioning which is threatening the very basic life of the area. The city however is still offering a major economic base. The urban life in the walled city has always confronted with problems due to modernization against traditional built form. The absolute conservation and freezing of the environment cannot be the approach to the problem as it is a very much living and throbbing city.

Old city of Jaipur is in its transition phase. The threat the city faces is due to the rapid conversion of land use, congestion due to increased vehicular traffic, parking requirements and the basic qualitative needs of the residential areas. This imbalance is resulting into the environmental deterioration and possible collapse of the heritage fabric if not intervened urgently. Considering the growing population and its relative demand, there is an urgent need to focus on conserving its overall character, protecting important monuments and providing basic facilities to its residents. These problems may affect the unique characteristics, architectural value and heritage of the old city. So there is a need to work towards an action so as to restructure and revitalize the old city. The intense use and the character of the old city, strengthens the necessity to prepare a Revitalization Plan. This plan will arrest the issues and allow improving the situation qualitatively and at the same time conserve the heritage of the walled city, which is one of the rare examples in the world history.

### **Approach of the Study:**

Basic approach has been first to review the literature available and study the original character of the walled city of Jaipur in terms of its city planning and

architectural concepts. Then the level of transformation and its impact on physical development of the heritage areas has been studied and analyzed. This analysis has depicted how the process of transformation has impacted on land use, built form, streetscape, traffic and transport facilities, etc. Transformation has been studied under three levels, i.e. Bazaar street level, Chaupar level and Chowkri level by taking three case study areas. Based on the analysis different issues related to the Walled City have been identified. Certain conclusions are drawn from the database. The recommendations for revitalization of the walled city of Jaipur are based on the issues identified and the conclusions drawn. The author believes that these recommendations would relieve the walled city from the existing pressure.

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## *Chapter 1: Introduction*

*1.1 General*

*1.2 Jaipur, the first planned city of India*

*1.3 Need Identification*

*1.4 Aim*

*1.5 Objectives*

*1.6 Scope*

*1.7 Limitation*

*1.8 Methodology*

## 1.1 General

Historic cities in India are under severe threat from the onslaught of urbanization. The heritage areas are integral components of the city's fabric contributing to the image of the city. Apart from containing rich examples of traditional architecture, these heritage areas are cultural and social centres of the city, giving a sense of value to its residents.

Development process over the last three decades have affected the historic towns to such an extent that the evidence of the historic relics are defaced or getting erased forever.

Demographic growth, the huge migration from rural areas to urban areas, the intrusion of motor transport, booming commerce leading to transformation of residential areas into commercial ones etc. have changed the original character of heritage areas.

## 1.2 Jaipur, the first planned city of India

If there is one city in India, which has imbibed the positive values of tradition while making provisions for the needs of the future, then it is Jaipur. The foundation of a future city was actually laid more than 250 years ago. A utopia was planned and it took shape in the true spirit of symbol of 'Vastu Purusha Mandala' representing nine planets. Jaipur is a city with an urban form of undeniably high quality. It was not designed for protection but as a habitation for diverse communities engaged in trade, the arts and crafts of various kinds. The city wall was not part of a system of defense, but was built to define the city limits and establish a sense of order. The hierarchy of roads is clear, with it wide range of functional and dimensional variations. The foundations of this unique city were laid by Raja Sawai Jai Singh II in 1728, and he named it, Jaipur.

Jaipur is an incomparable and irreplaceable historic city with numerous assets. At the same time, it is a fast growing modern city of Rajasthan. The pressure

of commercialism and development poses a threat to the city. The transformation in the heritage walled city has been very intense in terms of land use, urban form, street façade, city graphics etc. The last ten years have seen more damage than the corresponding period before them. Jaipur city is world famous for its rich urban heritage. The survival of these urban heritage areas have come under threat due to rapid urban development and transformation.

Urban conservation assumes the highest priority in the case of Jaipur because of principles and values of design it demonstrates, not just in its monuments and in the layout of the city, but also in the regional setting in which the city is placed and its relationship with other elements. Hence the object of the study is to assess the transformation in the walled city and to find out ways to conserve the walled city by not letting it become a total commercial district in the future.

The revitalization is not the wholesome preservation of everything which is old and archaic, but contemplates creative use and reuse of older structures and areas in order to facilitate their continued use and up gradation of civic services. The prime concern of the study is to protect and renew the historic environment in order to accommodate the present and future needs of its inhabitants and to revitalize the function of the old city thereby safeguarding and restoring the traditional urban fabric. This would also entail preservation of special urban components with its unique traditional values. Priority should be given to the city's overall economics, social requirements and needs, the efficiency of all networks and rehabilitation of buildings to ensure its use and reuse.

### **1.3 Need Identification:**

Jaipur Walled City is one of the important case of living heritage city. The planning and rich architecture are the important characteristics of this city. Many of the heritage settlement are subjected to change and rapid deterioration of the fabric and quality, where as the Jaipur walled city still is the thriving economic centre and very much intact of its physical characteristic. The threat the city faces is due to the rapid conversion of land use, congestion due to increased vehicular traffic, parking requirements and the basic qualitative needs of the residential areas. This imbalance is resulting into the environmental deterioration and possible collapse of the heritage



fabric if not intervened urgently.

The potential of the Walled City of Jaipur are immense, economically, culturally, socially and aesthetically. The walled city is still the heart of Jaipur. The city is not becoming a dead town; it is the overuse and chaotic functioning which is threatening the very basic life of the area. The city however is still offering a major economic base. The urban life in the walled city has always confronted with problems due to modernization against traditional built form. The absolute conservation and freezing of the environment cannot be the approach to the problem as it is a very much living and throbbing city. On one hand we are concerned with the preservation of heritage and at the same time we have to adapt the area as per the modern requirements. To meet today's functions the city is under stress and calls for revitalization. A Revitalization plan will arrest the issues and allow improving the situation qualitatively and at the same time conserve the heritage of the walled city, which is one of the rare examples in the world history.

#### **1.4 Aim:**

To evolve planning strategies for revitalization of Walled City of Jaipur.

#### **1.5 Objectives:**

The following objectives have been looked into and it is proposed to be able to provide a 'decision support' for revitalization of walled city of Jaipur:

- To investigate the existing situations of the walled city of Jaipur; tracing of its morphological development, analyzing its problems and identifying the urban components.
- To identify the characteristics of walled city and its transformation process.
- To evolve a systematic approach to revitalize the city's basic elements.
- To come up with strategies to guide the improvement in quality of urban life and living environment.

## **1.6 Scope:**

- Study would focus on urban transformation and its impacts on heritage areas.
- To ascertain the impact of transformation, study would focus on urban form, land use, infrastructural facilities in the walled city.

The investigation would

- pave the way for understanding the magnitude of the problem faced in the city.
  - assess the stress on physical infrastructure and urban form.
  - address the measures to preserve the heritage of the city by
- 1) considering the inhabitants as a major factor that should be involved in the process of revitalization by identifying their problems, priorities and aspirations.
  - 2) finding ways to revitalize the city keeping in mind the improvement in the quality of the existing traditional environment.
  - 3) considering revitalization as a comprehensive approach for economics, social, networks, shells and functions, all together.

The investigation will record information available through literature (secondary sources) and from the field observations. This knowledge will be correlated, put together and synthesized and thus incorporating all the above information shall make the proposal.

## **1.7 Limitation:**

Limiting the study area to walled city of Jaipur only and studying outer city to the extent which is demonstrative of its linkages with the walled city.

The study does not deal with the urban design issues and design guidelines for the individual buildings.

## **1.8 Methodology:**

The present investigation has the following steps:

1. Extensive literature study to understand the concept of revitalization, the basic principles and approaches for revitalization, case studies on revitalization.
2. Studying the historical background of Jaipur city.

3. Understanding the image of Jaipur city in its present context.
4. Field study to gain first hand knowledge on the condition and potentials of the walled city, problems and issues, resource availability and scope of development through intensive discussions with officials, experts etc.
5. Analyzing of the study area on the basis of the following major parameters:
  - Land use
  - Transportation
  - Activity
  - Infrastructure
  - Environment
6. Making an analysis of above parameters and understanding their potentials and constraints.
7. Preparing strategies for revitalization.

### **Data Collection**

*Secondary Sources:* Published and unpublished literature, documents, etc., pertaining to this investigation.

*Primary Sources:* Conducting surveys at various levels for obtaining the requisite data.

### **Tools and Techniques**

#### *Survey Tools*

Relevant survey tools, such as, schedules, questionnaire

#### *Analytical Tools*

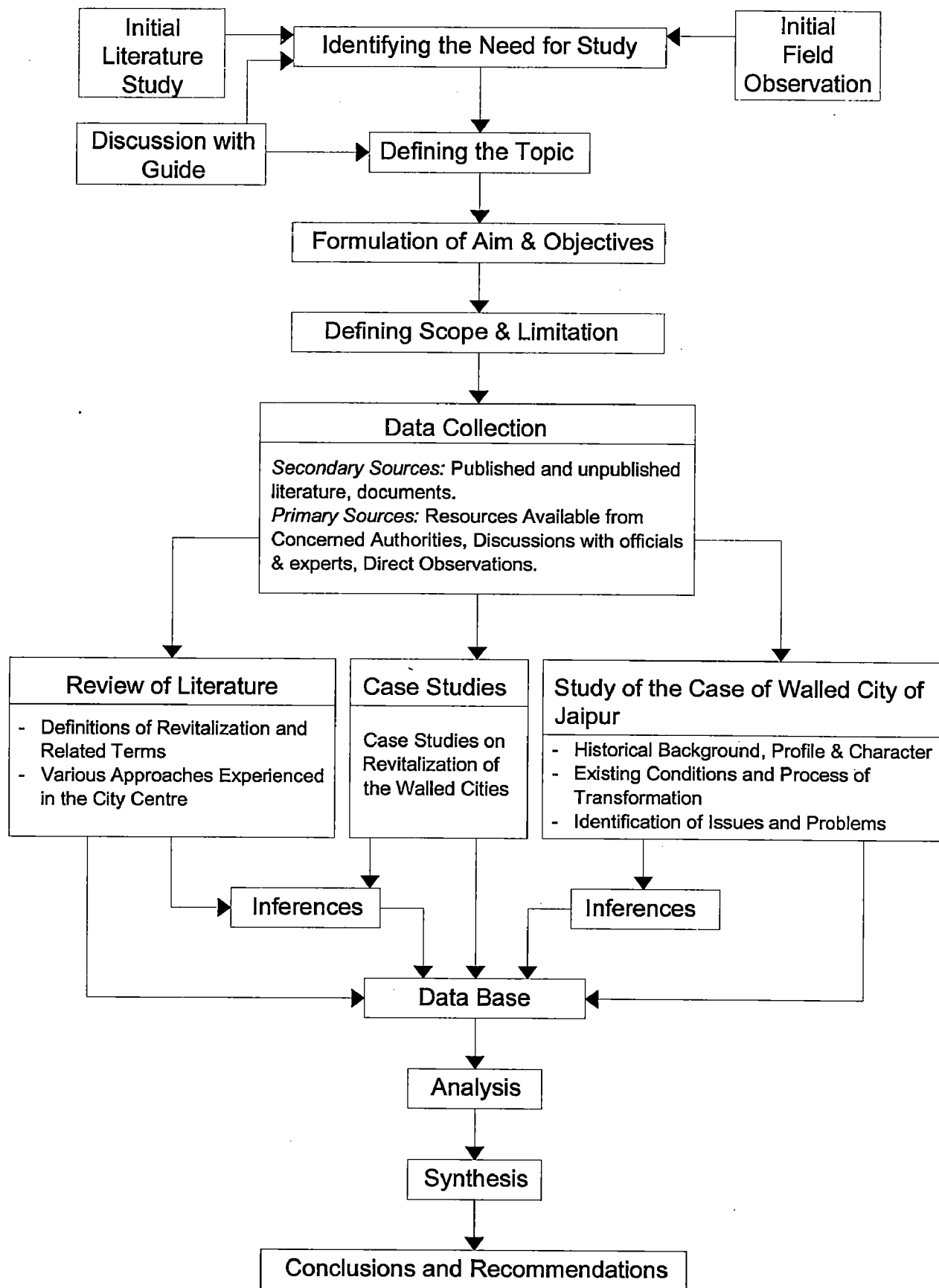
Relevant analytical tools, such as computer hardware, software for data processing and analysis

### **Analysis**

Analysis shall be done on the basis of literature survey and the survey results

### **Recommendations and Conclusions**

Suitable recommendations for revitalizing the study area.



**Fig 1.1: Methodology Chart**

## *Chapter 2: Review of Literature*

*2.1 Introduction*

*2.2 Definitions*

*2.3 Historic Centre 'Conditions and Trends'*

*2.4 The Approach to City Centre*

*2.5 Renewal and Management Approaches*

*2.6 Development Control Approaches*

*2.7 Sustainable Development Policy*

*2.8 Inferences from Literature Study*

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REVIEW OF LITERATURE

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**2.1 Introduction**

Reviewing of the literature dealing with different revitalization approaches applied to a city centre of historical importance has been of immense value. The review pertains to the relevant research undertaken in past by international institutions as well as individual professionals. The present review has been undertaken to analyze the natural sequence of revitalization approaches applied to ancient areas or conglomerations in the chronological order. It is the general observation that, to some extent, there are similarities in the nature of the problems of the older urban areas in a city, irrespective of the fact whether it is in developed countries or in developing countries. Though most of the literature reviewed relates to foreign countries, yet it is a very important source to learn not only from successes (or partial successes) but also from failures of different approaches. Districts are symbols of the city's image; above and beyond their own cultural value they fulfill an important mission in modern urban development: they create the identity.

**2.2 Definitions:**

**2.2.1 Revitalization**

*"Bringing back new vitality, bringing back to life (a building, a community, a neighborhood, activities, business, etc.) is revitalization. It may involve allocation of new uses".*

Urban heritage relates the history of the city, its inhabitants, religions and social and cultural transformations. This heritage is deeply anchored in the spatial and economic structure of the cities, their buildings and monuments. The people living and working in the city identify with it. Today, historic and the city's image and are key geographic factors for the local and regional economy. Public administrations and inhabitants have a dual challenge: on the one hand the urban fabric has to be preserved, and on the other the vitality of the city's cultural heritage, the outcome of hundreds or thousands of years of history, must be supported. Yet the sole preservation of buildings and monuments cannot save these historic cities. It

would create a "museum" phenomenon putting a severe strain on public finances and freezing any development opportunities. In that case, complete eradication would be postponed for several years.

**An integrated revitalization approach** includes preservation and development: the need to improve the living conditions of the inhabitants and economic viability must be taken into account. Preservation involves material improvements and enhancing the attractiveness of the district and its residential character, while development tends to ***stabilize economic viability and diversity, diversify urban functions and ensure income sources for the inhabitants.*** Juxtaposing these two objectives could improve the inhabitant's perception and recreate a positive image, which is the main factor to attract commercial investments and visitors.

### **2.2.2 Town Centre**

**Gibbered, Frederic** (1967) generalized the definition of 'Town Centre' as "the chief administrative, business, entertainment and cultural centre of the town as a whole. It has been the place where, the craftsmen worked, a meeting place for the people and the focus of the circulation system".

**Kennedy, Declare** (1976) wrote that most cities contain a core area with high-density development, having specialized and overlapping functions, which are collectively termed as Town Centre.

### **2.2.3 Historic Centre**

**At a seminar in Quito**, 'Historic Centers' were defined as "those living human settlements, strongly conditioned by a physical structure dating from the past, recognized as representative of the evolution of people."

The 'historic centre' contained a cultural property with values which may be assigned-broadly to buildings, townscape and landscape under three main headings. These are:

- i. Emotional Values: Wonder, Identity, Continuity, Spiritual and Symbolic
- ii. Cultural Values: Documentary, Historic, Archaeological and Scarcity,

Architectural, Townscape, Landscape, Ecological and Scientific.

iii. Use value: Functional, Economical, Social and Political.

**Hardoy, J.E. and Others (1991)** define 'Historic Centre' as simply a district in the city. It has features which distinguish, from other districts. They are inhabited by a stable population which lives and works there and have their own social and cultural life along with other facilities associated with a neighborhood.

**Steinberg, Florian (1996)** mentioned "Most definitions exclude Historic Residential Area and Historic City, which equally represent the urban heritage. He added that there may be non-tangible elements of urban heritage which play a role for the articulation of space use and the built environment".

### **2.3 Historic Centre 'Conditions and Trends':**

**Gibbered, Frederic (1967)** analyzed that the town centres renew themselves through a gradual process of replacement of worn - out or obsolescent structure. This slow and almost spontaneous growth has been destroyed by abrupt and often violent social and technological changes. He noted that the prime functional problem with most town centres is that of overcrowding; too many buildings and too much traffic on a small area of land.

**Steinberg, Florian (1996)** in 'Habitat International' explains that in addition to the problems of 'inner city' there is a problem of housing because of the rapid growth in size of most cities, especially in the developing world and the transformation of the city economics, the whole spatial pattern of land use and activities began to change. Inner cities became valuable for land uses other than housing and economic pressures led to further elimination of the older housing stock.

For all these reasons, most cities in the developing world have paid and continue to pay very little attention to their older housing areas. As a result, these areas generally continue to decline, with their physical, social and economic functions disrupted and their potential contribution to the city's overall housing stock under-utilized.

**Hardoy, J.E. and Others (1991)** analyzed that 'Historic Centres' have suffered gradual renovation in construction and change in land use, growing physical



deterioration, increased traffic congestion and deterioration in services. There are also indications of the general impoverishment of the resident population and deterioration in their quality of life. The physical deterioration of historic centres, housing stock and old buildings and even many streets is one indication of their deterioration. It reflects the abandonment of houses or flats in the centre by wealthiest social groups and their replacement by groups with a much lower income. And there is also the destruction caused by tourism.

**Margaria, Gutman (1991)** added that various public buildings underwent changes of use. Old houses also went through similar process of change, whether by demolition and replacement, or because of change in use.

There is also the destruction caused by tourism because some historic centres began to attract international and / or national tourists. "A historic place with traditional cultural activities became an important factor in encouraging the sale of property in that area, but these processes generate incredible destruction, i.e. the demolition of residences of high historical value.

**Scrageldine, Ismail (1991)** discussed the problems of rapid urbanization in developing world, which faces many challenges-such as population growth, influx of rural migrants and evolving economic base. All these factors on the other hand challenge the ability of the city to provide jobs and livelihood, crumbling infrastructure, poor and over-stretched social services, rampant real estate speculation, and weak government and thus contribute to putting tremendous pressure on the central cities.

**Strange, Ian (1997)** wrote that the competing demands for land use, changes in the nature of economics and the continued consumption of historic assets present a threat to the specific features of the historic cities.

## **2.4 The Approach to City Centre:**

### **2.4.1 Introduction: The Generation of Urban Renewal**

**Carmon, Naomi (1990)** divided the historic overview into three successive generations of policies as below:

***First Generation: The era of bulldozer "physical determinism and emphatic of the built environment"***

Intolerable housing conditions in old and very old areas in the growing cities, coupled with the wish to make "better use" of the central urban land and to drive the poor out of sight, give birth to the idea of 'slum clearance'. They were criticized for ignoring the heavy psychological cost of forced on and the social cost of the destruction of the healthy communities. In those cases where new residential neighborhoods were built, the planners and designers were blamed for building inhuman multi-storey blocks which were unfit for family life and certainly not fit for human habitation.

Redevelopment continued for two-three decades and during that time, unused buildings and vacant land vacated by pulling down the buildings and similarly the construction of roads and commercial buildings in place of housing covered the centre of the city causing vast economic and social damage.

***Second Generation: Neighborhood rehabilitation-"a comprehensive approach emphasizing social problems"***

This approach of assisting distressed neighborhoods was developed and implemented in many countries in 1960s. It was influenced by the severe criticism of the 'bulldozer approach' of the first generation. Public opinion became more favorable than before towards public programs which require large allocations for welfare purpose. As a consequence, it was possible to plan and implement comprehensive rehabilitation programs, aimed at improving existing housing and environment instead of demolishing them while simultaneously treating the social problems of the population by adding social services and improving their quality.

***Third Generation: Revitalization "especially in city centre a business - like approach emphasizing economic development"***

In the beginning of 1970s and 1980s, interesting spontaneous processes of revitalization were documented in large cities of the developed countries. The very low prices of land and housing in the city centres began to attract both small and large private entrepreneurs. The new processes can be divided into two groups: 'Public - individual partnerships' and 'Public - private partnerships'. The first term

refers to cases in which investments were made by individuals and the second term describes the cooperation between large private investors and public authorities.

These generations, which are described by Armon, Naomi (1999) (6) as 'a generation of urban renewal' existed in integration with each other in most of the urban renewals and programmes/schemes.

#### **2.4.2 Urban Renewal:**

**Miller, J. Marshal** (1959) explained that "in most instances, the renewal might be sporadic as related to any broad-guided pattern of renewal. He further adds that the fundamental objective of urban renewal is the application of several principles which result in REVITALIZING any or all portions of the urban structure which in any way are not fulfilling the functions of the use for which they are designed.

City should be designed, maintained or renewed so as to serve the people in all of their activities in the best way. The vitality, attractiveness, functioning and economic stability of any use will be in directly proportional to the existing scenario. Urban renewal is a process by which these principles are applied to areas lacking the vitality and which should be associated with surrounding areas.

**Burns, Wilfered** (1963) wrote that urban renewal is taken to mean the process by which a large area of town or the whole town center slowly renews itself and thereby gradually changes its character to fit in with the needs of contemporary society. It is distinguished from the radical changes of redevelopment occurring in the town center as part of urban renewal programme, as well as from the status quo of preservation and rehabilitation.

#### **2.4.3 Fundamentals of Urban Renewal:**

According to the deliberation of the first International Seminar on urban renewal, the fundamental concepts inherent in processes and programs of urban renewal:

- A. Urban renewal has three constitutes – Redevelopment, Rehabilitation and Conservation
- B. Urban renewal programs and projects form an integral part of the general city plan.

- C. Urban renewal programs encompass the political, social and economic aspirations of the community.

The above concepts are elaborated as follows -

**A. The three constituents of urban renewal are explained below:**

**I) The Redevelopment Approach :**

**According to Burns, Wilfred (1963)** Redevelopment is the process which involves clearance of property and building new structures according to a definite preconceived plan with a layout different from that of the area before. It can not seriously be called 'redevelopment' unless it is on a substantial scale and is part of an overall plan; otherwise the process is mere rebuilding.

**Miller, J. Marshall (1959)** explained redevelopment as the approach which is applicable to areas in which buildings are generally in serious deteriorated conditions or in which the arrangement of buildings and general layout of the area are such that the area does not and can not provide satisfactory living conditions or opportunity for sound economic activity. It consists of:

- a) The removal of existing buildings, and
- b) Re-use of:
  - i. The Land thus cleared , and
  - ii. Any open land that is interspersed among the removed buildings, and possibly contiguous land,
  - iii. Possible contiguous open land for :  
Sites for the construction of new buildings or for recreation purpose of one or more kinds, or for streets and traffic purposes, or open space as such including visual sites for buildings, or any combination of any of the foregoing.

**Burns, Wilfred (1963)** referred mainly the need for redevelopment to: Traffic congestion and worn - out structures. He also summarizes the lessons from (post-war) redevelopment schemes for "commercial as well as residential" redevelopment.

**i) Commercial redevelopment included:**

Retention of old pattern, old idea and old building, separating pedestrians

from vehicles, separating through traffic from local traffic by (inner ring roads), rear access to shops, the covered footway, the disposition of the magnets in redevelopment areas, definite focal point, substantial changes in environment can not be achieved without large-scale land ownership, the development of comprehensive scheme by combined private interest has proved to be slow and difficult.

ii) Residential redevelopment includes:

- The need to create a total environment at each stage of development.
- Insulate the new development from the old by cleared land.
- Consistent attention for the maintenance of small features is essential.
- Children should be catered for in properly designed and sited Play -grounds.

Different areas have different social characteristics and need different treatment. Patching up old houses will never be satisfactory. The rehabilitation of older properties is sensible and possible and must be pursued in almost all towns. Attention should be focused towards the creation of new types of environment.

#### **Problems of Redevelopment Approach:**

- i) It is expensive and causes too much hardship especially to the socially and the intellectually insecure when it involves the destruction of familiar landmarks, which may be of great architectural significance or none at all **Dix, Gerald (1990).**

Redevelopment is essentially a new plan for a town or its area. In either case the plan conceives the clearances of existing urban property before the construction of new structures with a new layout. The emergence of new urban scene in town centre which, if uncontrolled, can destroy both its visual character and proper working **Gibbred, Frederic (1967).**

- ii) The buildings were not suitable for the use of population whom they were allotted; these apartments were too small to fulfill the needs of the generally large families. These apartments house many families in large blocks and this situation does not suit the life style and culture to which the residents were

accustomed. In fact they used to live on or near the ground and due to climate considerations the yard was considered to be the integral part of the house through many months of the year. This is another reason for not adapting themselves to the new situation.

The process of redevelopment has been more beneficial to strong players such as landlords, entrepreneurs of new business and the local bodies rather than to weaker sector of the society. It also enhances the status of the 'place rather than to benefit the people who live in it. **Carmon, Naomi (1999)**

### **Development of Ideas of Conservation & Rehabilitation:**

Until the 1940s, few countries in the world appreciated the value of their old cities. In Europe, conservation was limited to a concern for historical buildings of special importance.

The mass destruction of the historic cities in Europe during Second World War provided the stimulus for a more serious consideration of older urban areas. The re-buildings which occurred across Western Europe in the 1950s and into the 1960s led to much greater awareness of the unique character of these older areas and the need to treat them sensitively and constructively **Steinberg, Florian (1996)**.

At the same time, in Europe and North America there was growing criticism of the 'modern' school of Architecture and the 'bulldozer' school of Planning. There began to be popular resistance to the standardized 'high rise' housing solutions which were imposed in the name of modernization. People who had shifted to new housing estates generally compared them unfavourable to their previous living in older housing area of the city core.

From these various experiences has emerged the idea of urban rehabilitation. This does not mean simply the passive protection of individual buildings of historic significance; nor does it mean the wholesome preservation of everything which is old. Instead, it means the creative use and re-use of older quarter of the city taken as a whole. Where possible, old buildings are repaired and modernized, to facilitate their continued use, especially as housing. This often includes upgrading of infrastructure services, but on a modest scale, allowing the preservation of the existing urban pattern and fabric. Where necessary, some change of use may be

incorporated, but on a small scale. Demolition should normally be reserved for structurally unsound buildings.

Interestingly, experience in many countries has shown that it can be easier and less costly to restore and modernize old buildings than was originally expected.

## **II- Rehabilitation Approach:**

**Burns, Wilfred** (1963) defined rehabilitation as the process of putting existing buildings or areas of development back into a worthwhile state after they have become outdated and unsatisfactory. It might mean simply, the proper maintenance and decoration of buildings and open spaces.

According to **Miller, J. Marshall** (1999) rehabilitation is applicable to areas in which buildings are generally in structurally sound condition but have deteriorated because of neglect of maintenance, or in which there exist conditions that are likely to cause such deterioration.

Rehabilitation consists of:

- a) Removal of the physical results of either deterioration or obsolescence (or both) of buildings, by repairing or modernizing physically deteriorated buildings that continue to be useful if such remedial measures are taken.
- b) Removal of physical conditions that tend to cause deterioration of buildings by discouraging proper maintenance. Such as:
  - i. Other individual buildings that are deteriorated beyond the practical possibility of rehabilitation by repair or by modernization;
  - ii. Excessive coverage of land by buildings (the remedial measures here being the removal of some buildings in order to open up the area) ;
  - iii. Inharmonious uses of land or buildings (with either the rehabilitation area, or adjacent thereto) that have a deleterious effect on the appropriate uses of land and buildings in the area;
  - iv. Traffic conditions (such as difficulty of access, lack of parking space, conflicts between vehicular and pedestrian traffic, etc. that have an adverse effect on the appropriate uses of land and building in the area;

v. Any other adverse physical condition.

c) Correction of any existing deficiencies in the provision of:

- i. Facilities those are necessary or desirable for the economically and socially sound use of buildings and land.
- ii. Necessary or desirable public and quasi-public such as fire protection, waste removal, street maintenance, recreation activity etc.

**Stenberg, Florian** (1996) discussed various aspects related to urban rehabilitation, especially with reference to the aspects as follows:

- **Political Aspects:**

One very important factor in rehabilitation is the generation of political support. Without this support, protecting the historic fabric is extremely difficult in many countries. Policies at different levels should be adopted to support the rehabilitation of heritage and integrating it with developmental strategies.

- **Cultural Aspects**

One reason to conserve historic housing area and monuments is the hope that this may strengthen indigenous cultural tradition and form and thus may add to a sense of belonging among inhabitants and other users of the area.

- **Social aspects**

A major question is how historic housing areas can be upgraded, without raising property values; so as to retain low income residents who are already living in that area so that they may also participate effectively in the rehabilitation process as such.

- **Economic aspects**

The question of financing the rehabilitation programme remains important because most local bodies are unable to afford conservation and rehabilitation programmes of even the most precious monuments and areas. It is therefore quite pertinent to look for private and public resources i.e., public - private partnership to generate financial resources to make the rehabilitation programmes successful and commercially



viable activity; so that the conservation and rehabilitation have an overall revitalizing impact on the economic development of such area.

### **III- The Conservation Approach:**

**Miller, J. Marshall** (1958) summarized conservation approach as it is applicable to areas of sound quality in which buildings are kept in good physical condition by means of proper maintenance. It consists in general of the protection of the quality of such area by preventing the occurrence therein of all the kinds of conditions that have resulted in deterioration and obsolescence in redevelopment and rehabilitation areas.

Conservation areas may be designated for the purposes of:

a) Applying the measures of conservation therein at a more intensive level than may be expected generally throughout the city.

b) Conducting in such areas campaigns of public information and education of conservation measures. The following measures of conservation are of particular importance:

- i. Required maintenance of good physical conditions of buildings in accordance with legally prescribed standards applicable to existing buildings.
- ii. Prevention of over-crowding of the occupancy of buildings in accordance with legally prescribed standards applicable to existing housing.
- iii. Strict enforcement of the density limitations as prescribed under zoning regulations.
- iv. Strict enforcement of zoning regulation applying to the use of land and buildings.

Conservation is primarily concerned with saving from destruction buildings or features of historic, architectural or pictorial values **Sibberd, Fedrlek**(1967).

### **What Should We Conserve?**

**Kaln, Roger** (1981) wrote in his book 'Planning for Conservation' that the protection should include individual buildings, groups of buildings, streets and squares or even

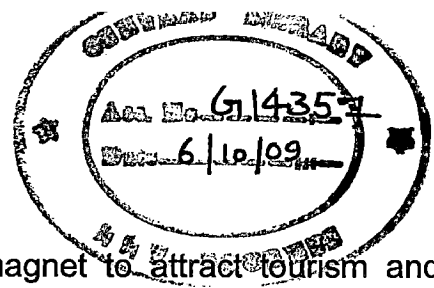
the whole of the town, can be worth preserving and it must be remembered that even a group of the simplest old houses can be crucial for determining the overall quality of the townscape. In some cases, it will not be sufficient to protect selected neighborhoods; the whole cultural landscape will have to be included. He also mentions that the policies of preservation and restoration must be accompanied by selective demolition to create open spaces and to allow the introduction of some new buildings and appropriate economic activities.

**Dix, Gerald (1990)** added that:

- It is or should be impossible to consider conservation of the old separately from the construction of the new, for they are essential and complementary aspects of the development of settlements.
- Conservation is concerned with wise and beneficial use of resources and buildings, roads and other structures are as much a resource as are raw materials found in the landscape.
- Conserving the idea or the artifact- Is it the feeling of security or satisfaction that is given by the feel of a town or, a square or, a street or, is it the substance of particular buildings by their forms, size and colour that we want to retain? Is it a satisfaction induced by the planting, or the absence or presence of noise and activity that makes a place sufficiently important for people to wish to see it remain apparently unchanged?
- Attention has to be focused on the urban ensemble rather than the architectural merit of individual buildings and on any new uses then, being those that are at least in general accord with those traditionally present. Activities are important, for changing the uses to which the building or the plaza are put can enhance or destroy its character and it may, therefore, be desirable to protect in some way the structure and use of both the buildings and spaces.

**Marcuse, P., (1998)** analyzed the results of conservation as:

- i. If historic preservation is seen solely as a preservation of the past, without regard to the life of the city around it or its economic impacts, it will be bad



preservation and bad economics.

- ii. If historic preservation is seen solely as a magnet to attract tourism and through it tourist dollars, it will, likewise, be both bad preservation and bad economics.
- iii. Preservation and tourism should present social, political and economic relationships in ways which might indeed pioneer in establishing a new meaning and role for both historic preservation and tourism.
- iv. Demo-Tourism, a tourism relating to and based on respect for people (just as eco-tourism is related to and based on respect for the environment) might provide an approach meeting "sometimes conflicting" needs of historic preservation and economic development. Preservation activities should be integrated into economic development planning for the city as a whole and specifically into planning for cultural tourism. Tourism is often claimed to be the fastest growing industry in the world and securing income to meet the cost of conservation and perhaps even to justify expenditure in the face of competing demands. However, this is no easy solution and can often be more harmful than beneficial unless proper provision is made to meet the need of tourists **Dix, Gerald** (1990).

There are again two aspects to the relationship between historic preservation, tourism and economic development. First is to maximizing the net economic benefits from cultural tourism while minimizing its destructive aspect and second is the distribution of the benefits from tourism to those who are most entitled and/or in need of them.

**Marcuse, P.** (1998) analyzed the relation between historic preservation and city context and inferred that the preservation activities should be integrated with city planning as a whole. If the 'historic' section of the city is a mono functional area, its contribution to the life of the city as a whole will be limited, it will be historically unauthentic, because it will not reflect the changes of history the life of people, it will be only architectural history and not city history. Preservation of large areas should show the changes that history has produced in functions, their structure and their uses. It is the preservation of the history of the city as a whole.

The approach of preservation of the individual buildings and of large part of the city means broader concern in two directions:

- With history throughout time and
- With history throughout space

**B- Urban renewal programs and projects form an integral part of the general city plan:**

The need or desire for urban renewal in any forms is generally in evidence only within a dynamic urban society. The environment of such a society is continually expanding and changing. The fundamental prerequisite to the success of any program of development or renewal is the complete integration of these programs with the general plan of the urban area.

Renewal plans, with the associated problems of circulation, density, relocation, maintaining or creating of community centres and community life, preserving or increasing economic stability and social stability, can only succeed if these plans are cast within the framework of the broader and more general plans for the entire city.

**C- Urban renewal programs encompass the political, social and economic aspirations of the community:**

Effective urban renewal generally encompasses projects of sufficient magnitude to affect both private and public uses and ownership of land. Consequently, urban renewal activities, therefore, should be conceived and carried out as cooperative programs between public and private enterprises and between national, state and local governments.

The cooperative character of sound renewal must endeavour to maintain a balance between the return on private investment and the provision of socially desirable environment.

Urban renewal procedures and techniques, if properly used, can open great opportunities for renewing the urban structure to meet political and social aspirations and at the same time offer attractive possibilities of economic gain and long-term stability.

## **2.5 RENEWAL AND MANAGEMENT APPROACHES:**

### **Strategies of Intervention :**

#### **2.5.1 Introduction:**

The possibilities for action in historic centers fall into three broad approaches i.e. the destructive, conservation and constructive management of historic centers, the characteristics of each of these above approaches is discussed below.

##### **2.5.1.1 Destructive Management**

Within the actions carried out in historic centre, there is a predominance of Destructive Management This is characterized by the tacit acceptance- by those who have the greatest power to intervene – of very poor living condition for many of their inhabitants control of different types of land use, of density of development and other factors related to land use and development intensity. It also has sole responsibility for more limited decisions directly linked to local life, such as those concerning pavements, storm-water drains, traffic control, parking, public transport, street lighting, reforestation and the design, building and maintenance of streets and squares.

The result of this type of management is that many historic centres have been stripped of much of their heritage and have lost a large part of their installed capital. Such management not only constitutes an enormous social injustice but also under-utilization of human resources available in historic centres through not making use of their productive potential.

##### **2.5.1.2 Conservation Management:**

This approach gives priority to the ad-hoc maintenance of the architectural heritage and only partially to the urban heritage. It does so by understanding the most essential work to prevent the disappearance of irreparable deterioration of buildings. Conservation management of isolated buildings occurs hand-in-hand with the destructive management of historic centres.

There have been no attempts to preserve the volume and exterior appearance of buildings which make up the framework of streets and squares. This valuable but static form of management for historic centres excludes the dynamic

aspects represented by the society living in them and their economy. Ad-hoc solutions which focus on the restoration of buildings and rehabilitation of the occasional urban space do not provide the answer to the vast and diverse problems of historic centres.

### **2.5.1.3 The constructive management (conservation & social need)**

It is aimed not only at conserving what already exists but also at increasing existing capital through social and physical investment. The aim is not to preserve a static situation but rather to encourage a dynamic process, taking advantage of the historic centre's location and the commercial vitality and tourist appeal which already exist (or which could be generated in a historic centre) to begin its rehabilitation.

In all historic centres, there are deteriorated social facilities and infrastructure which could be repaired and modernized. There are also unused public properties and waste land, and houses and institutional buildings which could be repaired and re-used at a cost lower than that of new construction if the integrated rehabilitation of the historic centre is accepted as a viable strategy. In addition most low-income dwellers in historic centres would greatly prefer the improvement of the housing in which they live rather than attempts to relocate them. This does not act against the preservation of architectural and urban values.

The obvious coordinating body for all these actions is the municipality and through the municipality, such actions acquire full meaning with the addition of social and community support. Without the incorporation of the community living in the historic centre, both in setting the objectives of the rehabilitation as part of the city, and their involvement in decision - making and the execution of the steps to be taken, there can be no assurance of success in achieving these objectives of integrated rehabilitation.

## **2.6 Development Control Approaches**

### **2.6.1 Introduction**

Since the failure of modernist theory in most of their applications to everyday life, particularly in dealing with urban situation and human/social responses, efforts have been made to deal with a fundamental dichotomy in the development process.

In architecture and urbanism, theoretical work on the dichotomies of development tends to fall into two major categories, involving divergent notions of the traditional. On one hand, there are those theorists who fight global tendencies and defend the possibility of a pure "critical regionalism". They share a static notion of traditional, as if traditional could be insulated from reality and kept intact. On the other hand, there are those theorists who point toward more interactive models for the understanding of global architecture phenomena, and who acknowledge fundamental specificities that mainly emerge from economic and political conditioning. In this case "traditional" is not necessarily opposed by modern. The term comprises complementary parts of the same reality. This was the notion of traditional that guided the city of Rio de Janeiro in its process to protect and revitalize areas of its downtown. Equally important was the functional, cultural and social diversity of the area. All of these concerns were consistent with a pluralistic and traditional sense of urbanity.

In trying to keep up with and revitalize tradition, the planner sought to ensure that the down town would continue to evolve both economically and socially and continue to be perceived as centre of city life - The physical and socio cultural patterns guiding this process of continuity and change gained their inspiration from informational residues, memories and life-style that construct tradition and identity in a city and a society.

**Pinheiro, Augusto Ivan and Vicente Del Rio (1993)** explained the historic project for the central area. Following is the summary of related points-

- i. The social movement was generally strong in Rio de Janeiro because of its notable environmental beauty and significant historical architectural heritage.
- ii. The planner first proposed the project in 1979 in an attempt to reconcile historic preservation with the needs of economic development and various class interests.
- iii. From social point of view the project proved to be sensitive to several population groups, respecting their interests and involving them in the decision making process.
- iv. It has tried to maintain the dynamics and diversity of small-scale commercial activities, valuing them against large scale uses and enhancing the quality of their spaces.

- v. It has emphasized the symbolic value of existing buildings, spaces and activities - all of which were previously regarded as "backward".
- vi. From the cultural point of view, it has aimed at recapturing the symbolic role of the past, which was already being re-evaluated for its ability to transform knowledge and inform future generations.
- vii. The project has to be an ongoing process, combining a collection of city programmes around a unifying idea. Thus, although it was principally an instrument for preservation, it was not limited by nostalgic and static views emphasizing protection of old architectural structures, nobody wanted the area transformed into a museum. Rather, it focused on the possibility of applying contemporary planning approaches to old problems.
- viii. The project also sought to revitalize the public image of the area by improving and beautifying public spaces; creating a new building opportunities for vacant land, and promoting complementary cultural events.

## **2.6.2 Legislation and urban design for development control:**

Through land-use zoning and land-subdivision controls, these tools have defined the utilization of land and the urban character of buildings based on such typical determinants as land use, lot coverage, setbacks and parking requirement.

Three primary LAND-USE categories were defined in the corridor legislation:

### **2.6.2.1 Preservation**

If a building were classified under the preservation category, most of its original architecture characteristics had to remain intact. Renovation and adaptive reuse of buildings would have strict design guidelines for both facade and interior layout.

### **2.6.2.2 Reconstitution**

This category is applied to buildings which were damaged but whose original architecture elements could be reconstituted. Guidelines were adapted requiring reconstitution of historic elements in any new design, particularly in relation to the exterior.



### **2.6.2.3 Renewal**

This category, covered vacant sites, recent buildings, and buildings which were deemed beyond historic reconstruction, largely discretionary guidelines were adapted to govern design in this category, indicating allowable building envelopes and suggesting clues for "contextual infillings".

As a further area of restriction, city legislation defined design control for billboard and architectural signage. Such constructions were seen as having a strong negative effect on historic architecture, causing "Visual Pollution" in the public realm. Redevelopment process involves:

#### **1. Preserving Historic Buildings:**

Where the majority of buildings had kept their original historic features, that called for the protection of the whole set of buildings, especially facade and roof design elements.

#### **2. Combining New and Old Morphologies:**

Where certain parts of the project are areas of transition between the historic downtown area and renovated districts.

#### **3. Recycling Deteriorated Areas:**

This type of intervention was used for the area "adjacent to the most traditional and active commercial area," of the downtown which has suffered from "planning blight".

#### **4. Redesigning Public Areas:**

The detailing and implementation of design for new public spaces, depended on recommendation - which were related to squares, sidewalks, streets and vehicular traffic, such as the closing to vehicular traffic of all streets where natural pedestrian route, is more preferred due to an intense shopping use, which needs limited vehicular flow.

Because of the relation between the scale of the historic architecture and the narrow width of the streets in the downtown those areas have adapted well to pedestrian use. At the same time complementary projects were undertaken to beautify the streets with new paving, street furniture, and public lighting appropriate to the historic

architecture. Specific historic areas have thus merited special treatment, either to enhance their potential for tourism or simply to increase enjoyment of them.

## **2.7 Sustainable Development Policy:**

### **2.7.1 Introduction:**

Recently new policy mechanisms have emerged to reconcile the conflict demand of conservation and development by applying sustainable development policies to the physical and social fabric of historic cities, as well as through the regulation of localized pattern of economic and physical growth. Those make historic cities attractive to residents, visitors and business.

### **2.7.2 Conservation, Globalisation and Sustainable Development:**

**Strange, Ian** and others (1997) in their article planning for change highlighted the following:

There is a long history of interest in the conservation of the built environment, a history shaped by both private concerns and public or professionalized interventions to preserve the historic components of space. Indeed, the very desire for conservation and its manifestations in past and present reveal the different ways in which societies at particular times have shaped their physical or built environment for specific ends.

It is possible to identify four broad ways in which societies have interacted with their environment through:

- i. Stewardship
- ii. Economic Exploitation
- iii. Scientisation
- iv. Visual Consumption

These conceptualizations of the relationship between humanity and the environment relate well to the often - hidden rationales for urban conservation.

#### **2.7.2.1 Stewardship:**

The stewardship is the management of resources for future generations and

is the single justification for much of what passes for conservation activity.

### **2.7.2.2 Scientisation:**

Similarly, the scientisation of the environment portrays the environment as an object of investigation and in need of regulation and intervention, is nowhere more evident than in the stress on area conservation and its integration into land-use planning, and in concerns over the need to develop sustainable development strategies both for historic cities and buildings

### **2.7.2.3 Economic Exploitation:**

The issue of the relationship between economic exploitation and conservation is more problematic due to the virtual denial of the existence of exploitation throughout the history of urban conservation.

However, the instrumental appropriation of economic benefits from conservation measures is closely connected to the altruism that the conservation movement has historically presented. There are two ways in which conservation seeks out exploitative opportunities:

**First:** Conservation planning is increasingly used to justify the appropriation of historic buildings as a commercial resource to be marketed and sold for new economically productive uses;

**Second:** Historic cities and the marketing of their cultural heritage become the basis for generating economic growth, investment and tourism income.

### **2.7.2.4 Visual Consumption:**

In contrast to conservation as exploitation, conservation as visual consumption refers to the ways in which the landscape or townscape is constructed not for production but rather is "embellished" for aesthetic appropriation. Again, area conservation is important here because one of its rationales is the maintenance or re-creation of a place's visual pleasure; areas are designated and assessed according to "the contribution of the townscape of buildings, streets and spaces, as an ensemble regardless of their individual merit.

The construction of a visually pleasing historic scape through conservation has become (and will continue to be) increasingly important. **Strange, Ian (1997)** highlighted the following:

The concentration of 'conserved' historic products in historic cities and the growing number of tourists and visitors who are drawn to this concentration in their search for new historical experiences, has produced a major planning dilemma for such cities; How to manage the conservation of the physical fabric of the city and accommodate the pressures associated with an expanding range of tourist-related activities and functions, as well as allowing the city to develop as a place to live and work? In many historic cities, a local fatigue results for over - consumption of local infrastructure, historic buildings vs. a demand on land, growing social conflict between visitors and residents, and the environmental impact of tourism.

At a policy level, attempts to integrate environmental protection with economic development in the form of sustainable development policies are evident at many territorial and spatial scales of government.

The idea that sustainable development is founded on principles of intergenerational equity, transfrontier responsibility and social justices is prevalent within the literature, but there is a wide spectrum of approaches that lay claim to representing these principles. This range stretches from purist approaches that stress extreme resource preservation to ameliorist positions, where the preservation of both natural and human resources is secondary to continued economic growth.

## **2.8 Inferences from Literature Study:**

- 1) Historic centre may be termed as a district in the city. The different features of a particular district will distinguish one district from other district. These features relate to its physical structure, urban heritage, non-tangible elements and population with their own social and cultural way of life.
- 2) The prime functional and physical problems, with most town centre are that of overcrowding, and congestion which includes too much buildings and too much traffic on too small an area of land. Physically it suffered gradual renovation in construction and change in land use and deterioration in services.

- 3) Worn out and obsolescent buildings are result of destruction by abrupt and violent social and technological change.
- 4) City centre faced many challenges like population growth, influx of rural migrants, evolving economic base, continued consumption of historic assets and the destruction caused by tourism.
- 5) Urban renewal is classified in terms of policy changes of three generations:
  - i. The era of Bulldozer refers to physical determinism and emphasis on the built environment
  - ii. Neighborhood rehabilitation refers to a comprehensive approach emphasizing social problems
  - iii. Revitalization emphasizes economic development within the city centre
- 6) There are three fundamentals in urban renewal:
  - i. Urban renewal programmes constitute of: a) Redevelopment (clearing and re-use of land); b) Rehabilitation (repairing, refurbishing, remodeling or replacing of elements of building or group of buildings to ensure continued use); and c) conservation (preservation and protection of structures and areas in sound condition, or structures or areas which have architectural or historical value)
  - ii. Urban renewal programs and projects form an integral part of the general city plan.
  - iii. Urban renewal programs encompass the political, social and economic aspirations of the community.
- 7) The fundamental objective of urban renewal is the application of many principles/approaches, which result in revitalizing the urban structure.
- 8) Urban renewal should encourage and encompass the revitalization of all elements of urban structure simultaneously and continually.
- 9) Urban renewal plans must develop within the framework, and be an integral part of the general plan for the physical development of the entire city.

- 10) Elements of a renewal program may be thought of on a project basis, in reality, the rebuilding of even one area in the central city may well result in relocation problems as a whole.
- 11) General plans should be developed within the context of internal economy, the political traditions and human values to which the affected people adhere to.
- 12) Urban renewal Planning and urban area planning will be more meaningful and effective if there is an intermediate stage. This stage would be the planning of districts within the city.
- 13) Urban renewal activities should be conceived and carried out as cooperate programs between public and private enterprises, and in accordance with the national, state and local governments.
- 14) Redevelopment as renewal approach is mainly needed for Traffic congestion; worn out structures and area does not and can not, provide satisfactory living opportunity for sound economic activities.
- 15) Redevelopment consists of:
  - i. The removal of existing buildings
  - ii. Re-use the land thus cleared and any open land interspersed among the removed buildings and possibly contiguous land for:
    - Sites for new construction
    - Recreation purpose
    - Streets and traffic purpose
    - Open space
    - Or any combination
- 16) Redevelopment is very expensive and causes hardship especially to the socially and intellectually insecure, creates new urban scale in town centre and results in high rise buildings which are not suitable for many families and does not suit the life style and residential culture.
- 17) Urban rehabilitation does not mean simply the passive protection of individual buildings of historic significance; nor does it mean the wholesome preservation of

everything which is old. Instead, it means the creative use and re-use of older quarter of the city, modernization and repair of old buildings to facilitate their continued use. This often includes upgrading of infrastructure services, preservation of existing urban pattern and fabric and some change of use.

18) Urban rehabilitation means the process of putting existing building or areas back into a worthwhile state and applicable to areas in which buildings are generally in structurally sound condition but are deteriorated to a certain extent.

19) Urban Rehabilitation approach relates and raises a variety of crucial questions related to:

- Political aspects
- Cultural aspects
- Social aspects
- Economic aspects
- Urbanization aspects

20) Conservation is primarily concerned with saving the buildings or features of historic, architectural or pictorial values, from destruction.

21) The conservation approach is applicable to areas of sound quality in which buildings are kept in good condition by means of proper maintenance.

22) Conservation consists in general of the protection of the quality of area by preventing the occurrence therein of all the kinds of conditions that have resulted in deterioration and obsolescence in the area.

23) Conservation and protection should include individual buildings, group of buildings, streets and squares, a whole quarter in the town, and the whole cultural landscape and cultural values as:

- Emotional values
- Cultural values
- Use values

24) Attention has to be focused on the urban ensemble rather than the architectural merit of individual.

25) The policies of preservation and restoration must be accompanied by selective demolition to create open space and new buildings and appropriate economic activities.

26) General about renewal

- Central city areas must include a variety of associated and compatible uses which cannot be relegated to non-central areas, small business uses, institutions for special education, parking etc.
- Urban vitality in central areas cannot be achieved by limiting the use of land to one activity. It is essential to achieve a balanced variety of land uses in centre to assure a diversity of activities conducive to vitality.
- Successful development and redevelopment depends as much upon a satisfactory pattern of circulation as upon a logical pattern of land use.
- Central city areas must be designed to accommodate automobiles and pedestrians, and be so planned to achieve the ease and safety of movement of both pedestrian and vehicular traffic with the least interference of each other.
- In most congested areas pedestrian traffic must be given priority over vehicular traffic.
- Cities will continue to expand, and functions of the area at the core will become more important which will require more judicious use of existing open land areas.
- Existing urban open space should be preserved and maintained for the use for which they were originally designed. The building and rebuilding of cities is (and will continue to be) a cooperative enterprise of public and private interests representing the investment of public & private funds.
- Renewal planning by government direction and/or participation must be within the citizen's sphere of understanding and administration at regional and local levels.
- Effective renewal will depend upon creative collaboration between developer and city as well as upon opportunities for creative imaginations in the designs themselves.



27) The strategies for intervention approach involve three approaches:

i) Destructive management control of different types of land use, of density of development, infrastructure and other socio/economic factors related to land use. The result of this type of management is that historic centre has been stripped of much of their heritage, resulting into an enormous social injustice, and under - utilization of human resources.

ii) Conservation management gives priority to the ad-hoc maintenance of architectural heritage rather than to the urban heritage in totalities. There have been very little attempts to preserve the volume art exterior appearance of buildings as a whole and excludes the dynamic aspects represented by the society living in them and its commercial viability.

iii) Constructive management combines the need for conservation with the need of those living and working in historic center. It aimed at conservation and increasing existing capital through social and physical investment and encourages a dynamic process of preservation.

28) There is a failure of modernist theory in most of their application to everyday life particularly in dealing with urban situation and human/social responses and dealing with the fundamental dichotomy in development process with respect to continuity and change, reservation and renewal, the traditional and modern.

29) In architecture and urbanism theoretical work on the dichotomies of development has tended to fall into two major categories, involving divergent notions of the tradition.

i) The theorists share a static notion of tradition, as if tradition could be insulated from reality and kept intact, "pure critical".

ii) The theorists who point towards more interactive models, and who acknowledge fundamental specificities that mainly emerge from economic and political conditioning. In this case ("traditional" is not necessarily opposed by "modern").

30) To revitalize traditional town, we sought to ensure that the town would continue to evolve both economically and socially and continue to be perceived as centre of the city life.

31) In historic project "revitalizing", we should consider the main points as follows.

- i. Project must respect the population interests and involve them in decision - making process.
- ii. Maintaining the dynamism and diversity of activities and enhancing the quality of their spaces.
- iii. Project must emphasize the symbolic value of existing buildings, spaces and activities
- iv. Culturally must aim at recapturing the symbolic role of the past.
- v. Revitalize the public image of the area by "improving and beautifying the image of public spaces, creating a new building opportunity for vacant land and promoting complementary cultural events.

32) Development control approach relates primarily to three land-use categories to define the utilization of land and the urban character of buildings.

- i. Preservation: If a building were classified under it, most of its original architecture characteristics had to remain intact. Renovation an adaptive reuse of building would have strict design guidelines.
- ii. Reconstitution: This category applied to building which were damaged but whose original architecture elements could be reconstituted.
- iii. Renewal: Covered vacant sites, recent buildings and buildings which were deemed beyond historic reconstruction.

33) Redevelopment has to proceed as:

- i. Preserving historic buildings where the majority had kept their original historic features.
- ii. Combining new and old morphologies where parts are in transition between old historic and renovated district.
- iii. Recycling deteriorated area adjacent to the most traditional and active commercial area.
- iv. Control for billboard and architectural signage and improve the quality of

townscape through proper urban design.

34) Sustainable development policies have to be emerged to create integration between environmental protection with economic development and to reconcile the conflicting demand of conservation and development and to regulate of localised pattern of economic and physical growth.

### **3.1 Introduction**

#### **3.1.1 Revitalization practices in the World**

Revitalization in rest of the world is a continuous process. Revitalization is statutorily incorporated in physical planning. It consists of both physical and economical planning. By law revitalization has to be incorporated within a framework of a detailed development plan.

In revitalization process in many countries both public and private sector participates. In some countries there is a participation of non-profit special companies, which operate in partnership with local authorities. The legal provisions in these countries require urban renewal matters to be taken into considerations during the preparation of master plans. These practices are extensively followed in Sweden, Denmark, and South Africa.

#### **3.1.2 Revitalization in India**

Most Indian old cities have been marginalized in the process of urban growth. The walled city segment of the old cities languishes from multiple deprivations such as poverty of urban infrastructure, poverty of income and employment. However, it needs to be remembered that development of a city is the result of centuries of growth in the course of which new elements are constantly juxtaposed with the older ones. Though the walled cities area are today dilapidated there is still hope of survival, of improvement, of getting life back to them.

Efforts at understanding the concept of urban conservation in the old walled cities of India gained momentum. Heritage has now become an issue in the context of Indian cities- Calcutta, Ahmedabad, Jaipur, Mumbai and Delhi. However, all these efforts have been for the conservation and improvement of the architectural heritage of its walled cities. For the revival and renewal of the walled city economy, there has been a unique effort in 90's when a group of people created an organization – "Ahmedabad Local Economy Rejuvenation Trust" (ALERT) and prepared Ahmedabad project of recycling and redevelopment of land of closed mills. It was

posed to National Renewal Fund (NRF) Empowered Committee. NRF was established for funding

1. Voluntary Retirement Scheme (VRS)
2. Training & retraining and
3. Urban rejuvenation

The budget was sanctioned and published but could not be executed because NRF funds most of the money was spent on Voluntary Retirement Scheme (VRS) and some non-viable training schemes only. No scheme of urban rejuvenation was taken up which was the most important component of NRF.

### **3.2 Case Study 1: Walled City Of Delhi (Shahjahanabad)**

Delhi since its inception has seen a series of invasions. Warlords and mainly Islamic rulers from the north attacked and savaged the city at various points of time, killing people and looting and leaving behind the scars of such gruesome acts of destruction. Some came and created dynasties like the Mughals while others posted able representatives who formed their own empires. They built their own cities and over time Delhi has become a conglomeration of such developments. Presently Delhi has eight cities out of which Shahajanabad – also known as Old Delhi, built by the Mughal emperor Shahajahan and New Delhi - built by the British and extended by the Delhi Development Authority are of concern here. The following areas have been identified as Heritage Zones:

- i. Walled City of Delhi, Shahjahanabad
- ii. Central Vista
- iii. Nizamuddin and Humayun's Tomb Complex
- iv. Mehrauli area
- v. Vijay Mandal – Begumpur – Sarai Shahji – Lal Gumbad
- vi. Chirag Delhi

Old Delhi is a sad sight today. Because of the mixed use and wholesale markets (60% of the wholesale markets in Delhi are in this area) and retail guilds and lack of proper roadways to feed these humongous markets traffic congestion has become a major problem. A proper system of electricity distribution is lacking and cables run all along in entangled messes totally killing the character of the Old City.

## *Chapter 3: Case Studies*

*3.1 Introduction*

*3.2 Case Study 1: The Walled City Of Delhi  
(Shahjahanabad)*

*3.3 Case Study 2: The Walled City of Ahmedabad*

*3.4 Case Study 3: The Walled City of Lahore,  
Pakistan*

*3.5 Case Study 4: Medinas of Northern Africa*

*3.6 Inferences from Case Studies*

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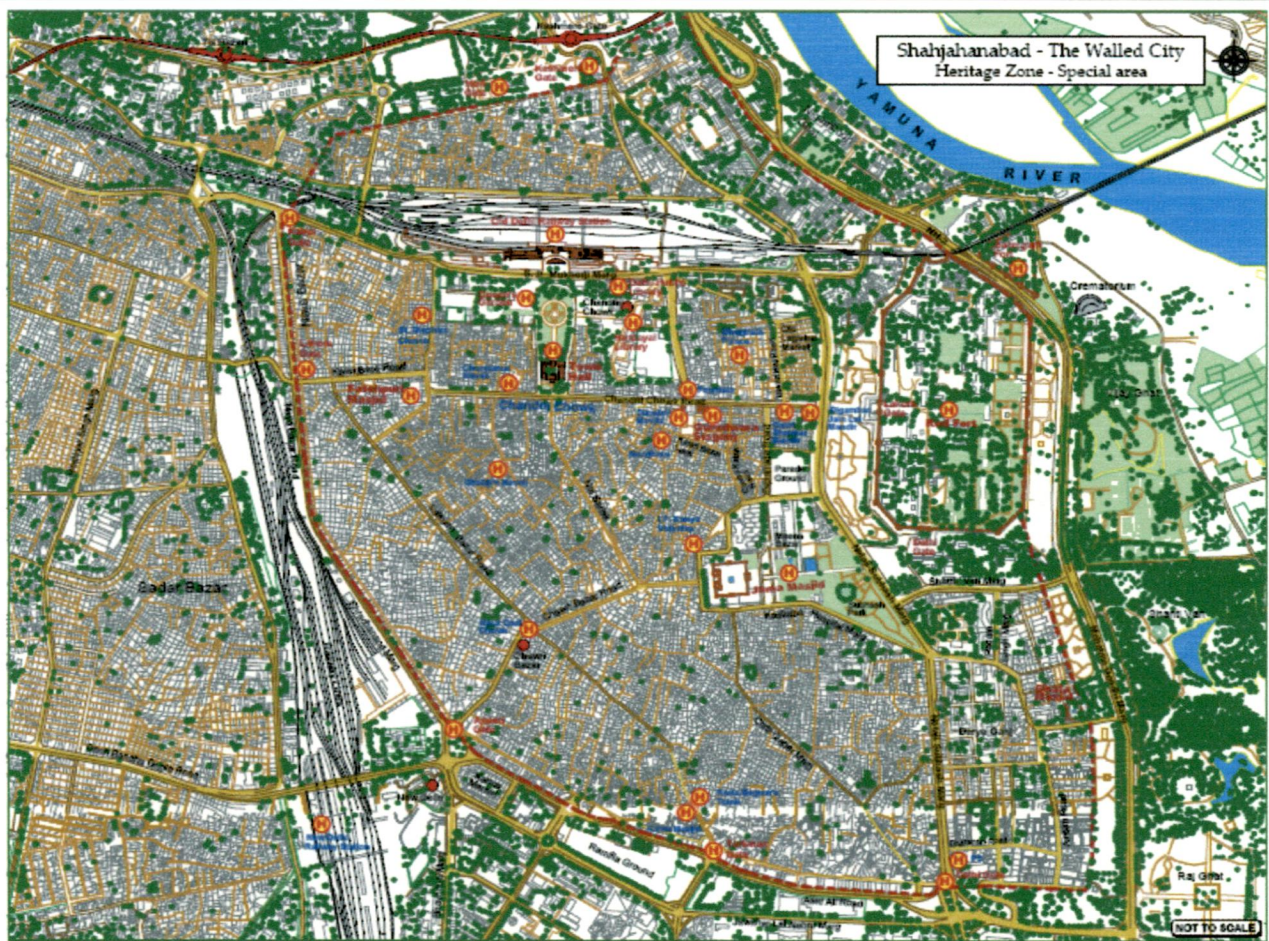
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Due to the congestion and overpopulation and a lack of basic amenities and with extensive commercial activities the place is always dirty. Implementation still remains major problem and revitalization plans do not show any positive transformation.



### Legend

- - - Walled City
- Builtup Area
- Railway Line
- Lane
- Main Road
- Road
- Tree
- Green Area
- Metro Station
- Elevated Metro
- Heritage Site
- Water
- Text — Main Heritage Site
- Text — Heritage Site

**Map 3.1: Walled City of Shahjahanabad**



**Fig 3.1: Some buildings worth preserving**

Source: *Redevelopment of Shahjahanabad, Report by Ar. Pradeep Sachdeva*



**Fig 3.2: Signboards, Signages and Hoardings**

Source: *Redevelopment of Shahjahanabad, Report by Ar. Pradeep Sachdeva*



**Fig 3.3: Various Formal and Informal Commercial Activities**

Source: Redevelopment of Shahjahanabad, Report by Ar. Pradeep Sachdeva



**Fig 3.4: Deterioration of Structures**

Source: Redevelopment of Shahjahanabad,  
Report by Ar. Pradeep Sachdeva



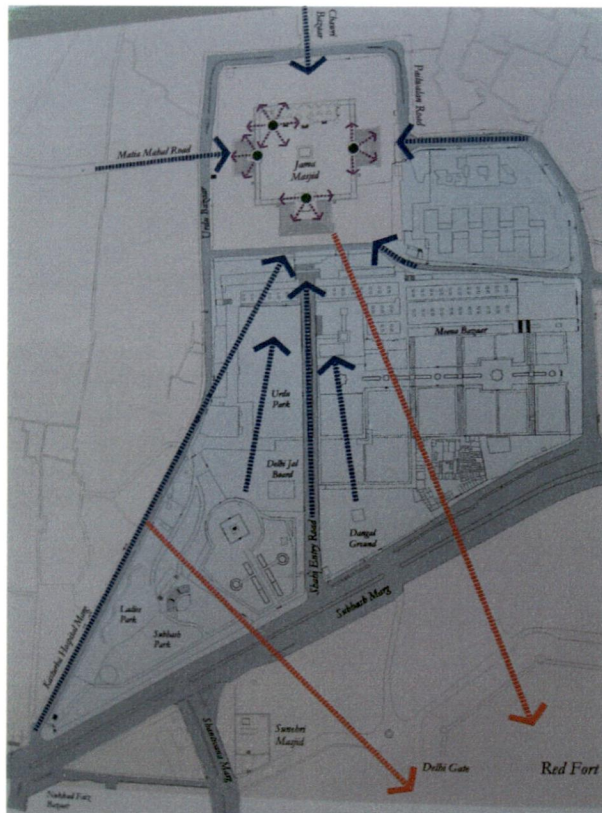
**Fig 3.5: Parking reducing ROW**

Source: Redevelopment of Shahjahanabad,  
Report by Ar. Pradeep Sachdeva

### 3.2.1 Regeneration of Inner City

The various proposals for revitalizing the glory of Walled city are:

- i) Conservation approach to retain the overall traditional character of the Walled City.
- ii) Visual integration of major landmarks to revitalise the past glory. Enhance the existing visual link between the three major landmarks namely Red Fort, Jama Masjid and Fatehpuri Mosque as per original concept of Walled City of Shahjahanabad.



**Fig 3.6: Visual Corridors (Red Fort and Jama Masjid)**

*Source: Redevelopment of Shahjahanabad, Report by Ar. Pradeep Sachdeva*

- iii) Many areas in Shahjahanabad could be pedestrianised and made completely free of vehicular traffic so as to restore the human scale and convenient living. For example pedestrianisation of Chandni Chowk to impart grandeur to the monuments.
- iv) Judicious use of existing spaces for development of open recreational uses.
- v) MRTS station areas are to be dealt as per specific Urban Design schemes and be declared as pedestrian zones.
- vi) Introduction of activities such as traditional/craft bazaar, heritage walk/rides to attract tourists.
- vii) Generation of urban culture at neighbourhood level such as festivals/fairs, kite flying etc.

viii) Environmental up-gradation required to reduce degenerative effects of traffic congestion.

ix) Rejuvenation and conservation through management option, financing incentives, innovative development controls considering built to edge typology.

MPD-2001 proposed revitalization of 2600 ha. of old built up area, known as 'Special Area' which has been divided into 4 Areas namely (i) Walled City (ii) Karol Bagh (iii) Other Urban Renewal Areas, and, (iv) Specific use zone areas. Walled City of Delhi with concentration of historical buildings has been designated as "controlled conservation area". The following strategies had been proposed for overall conservation of the Walled City:-

- (i) Shifting and de-limitation of non-residential activity with priority for shifting of noxious and hazardous trades/industries.
- (ii) Upgradation of physical and social infrastructure.
- (iii) Traffic and transportation, management and regulations.
- (iv) Conservation and restoration of historical buildings.
- (v) Revitalisation of residential areas.
- (vi) Renewal/redevelopment of Walled City Extension.

The main priority is to decongest the old city and to shift traffic generating activities from the Old City. To shift wholesale trade, noxious industries and hazardous business from the Old City, it is proposed to develop counter-centres in the form of:

- Integrated Freight Complexes at the peripheral location
- New industrial area,
- Development of Truck Terminals, vehicle repair workshop, Old Car markets, Motor parts Markets at the periphery of Urban Delhi.
- Railway Freight Terminals.
- Noxious industries and hazardous trades are to be shifted from the Special Area in a time frame by a set of incentives (providing alternative plots, tradable FAR, tax holiday etc.) and disincentives (non-renewal of trade/industry licences etc.) within a time frame of 3 to 5 years maximum.

For the Walled City and other Special Areas, it is necessary to evolve a strategy that will trigger a self-starting redevelopment process and will give "new lease of life" to these areas with improved infrastructure, transportation and economic viability. These may include the following;

- Application of Transferable Development Right so that the premises owners in the Walled City and Special Area get enhanced component of space in designated new areas.
- Private developers and co-operatives may be encouraged to undertake conservation of heritage and redevelopment guided by planning and façade controls, but allowing internal flexibility of space and use.
- Certain city areas need to be fully pedestrianised
- FAR and Tax incentives for those who have to maintain the architectural controls.
- When land is to be surrendered for widening of roads or any other public facility, the equivalent FAR should be permissible to the owner/developer either to use on same plot or added to the TDR component.
- The concept of Accommodation Reservation may be introduced for Special Area, whereby for provision of essential public facilities to be handed over to the local body/government, the owner of property is given full permissible FAR on the component of public facility. Evacuee properties can also be used for this purpose.
- Area based approach specifying "Protected Areas", conservation/heritage zones
- Specifying pedestrian and vehicular streets, and undertaking the preparation of road beautification/development plans.
- The overall fire fighting plan to dictate minimum road widths for vehicular movement.
- All heavy commercial vehicles, rickshaws, animals and animal driven vehicles to be prohibited.
- Underground parking lots to be developed at the peripheral locations.
- On most of the road and streets in the Walled City, part of the right of ways are occupied/ encroached upon by commercial establishments, which is about 25% to 30% of their right of way. Removal of encroachments would have double benefit (i) recovery of the right of way; and (ii) decongesting the city of commercial activity and thus improving the environment.

- Augmentation plan for decentralized services with public-private partnership, including solid waste management, telecommunication and I.T.
- A new set of Development controls for Mixed Use, enhanced FAR and TDR applicability.

In about a year, about 50 per cent of the Inner City will be within 8 to 10 minutes of walking distance from Metro Stations. Hopefully, this will release some congestion from already choked roads and reduce the parking demand. This will also provide opportunity (i) to pedestrianise some of the roads in the Walled City and other area, (ii) to redevelop certain areas along metro corridors, (iii) to upgrade infrastructure services, and, (iv) to improve interface between land use and transportation. Improved accessibility will also facilitate and encourage decentralisation of wholesale trade from old Delhi. In place of centralized CBD, a new linear pattern of economic corridors can emerge by planned intervention. For this, a set of well worked out incentives and disincentives need to be built-in within the planning framework. Within the intervention zone of 500 meters on both sides of metro corridor, actual delineation of economic corridor along metro route should be area specific.

The comprehensive scheme can be initiated by the land owners, local associations/co-operatives or authorised developer for approval of the DDA/local body. This way the process of area by area renewal and redevelopment would trigger a process of decongestion and conservation, releasing heavily built up area for open space/greenery, upgradation of social-physical infrastructure and shifting out of hazardous, inflammable and noxious activities from the Old City. The incentive of additional FAR, alongwith other measures like liberalisation of land use and time bound approvals would motivate the owners and residents to adopt the route of planned development.

### **3.3 Case Study 2: The Walled City of Ahmedabad**

The city of Ahmedabad is endowed with a rich architectural heritage that is vital to the local identity and continuity of the place. The foremost heritage assets are the Indo-Islamic monuments of the 15th to 17th centuries: the Jama Masjid, the Teen Darwaza, the Bhadra Gate and Tower and the Tombs of Queen and King located in

the historic core, the remaining sections of the original fort wall, 12 original gates and a number of other monuments protected by the Archaeological Survey of India (ASI). Besides these monuments, there are potential heritage precincts in the form of the *Pols*, the traditional residential clusters of the medieval period, which makes Ahmedabad exceptional. A large enclave of the Maratha period and many fine examples of colonial era architecture also survive in the Walled city.

This urban heritage of housing and architecture constitutes a living context, a technology and a morphology, which can be restored and adapted to meet the needs of the day. But, in absence of any protective measures and pressures of urbanization, demolition has continued destructuring the walled city in particular. The protection of any city as a whole is under the auspices of urban management and cannot be limited to mere aesthetic concerns. Hence instead of a piecemeal or a fragmented approach, an overall conservation strategy, which is technically and economically coherent, is required.

### **3.3.1 Heritage Resources**

The heritage resources in Ahmedabad can be looked at following three distinct levels:

**a. The entirety of the walled city:** ASI has a total of 52 Indo-Islamic monuments under protection. In addition, there are many Hindu and Jain temples, the Gaekwad's Haveli enclave of Maratha period and several other institutional buildings and bungalows of the Colonial period. At the moment, these structures are in a state of disrepair except for the few Jain temples taken care of by the Jain community. The City Wall and its Gates are equally in dilapidated condition.

**b. The pols which comprise it:** The grouping of houses into pols is typical of Gujarat and especially of Ahmedabad. When compared to the costs engendered by the modern cities, the pols seem most economical making use of simple facilities, techniques and easily accessible social amenities, something lost in the suburban lifestyle much dependent upon commuting. Destruction and de-structuring caused by new buildings, the invasion of business and traffic point to a worrisome future for the pols.



**c. The individual houses:** The houses of Ahmedabad were traditionally built of carved wood and brickwork characterized by low, single family units, of which only some 10,000 survive now. The gradual progression of the model gave way to the transplantation of forms, which were totally foreign to local traditions. The apartment buildings are of a mediocre quality heralding a decline in the know-how and technique.



The Walled City of Ahmedabad:  
400 000 Inhabitants, 600 ha.



Tankasal ni Haveli, future Heritage  
School in Ahmedabad



Ahmedabad old city



The typical urban fabric in  
Ahmedabad: the pol

**Fig 3.7: Walled City of Ahmedabad**

Source: *Context: Built, Living & Natural; Vol. V; Journal of the Development and Research Organization for Nature, Arts and Heritage – Dronah, 2008*

Realizing the acute need for a holistic approach to the conservation and preservation of this valuable heritage resource, Ahmedabad Municipal Corporation (AMC) with assistance from CRUTA Foundation set up a heritage cell in 1996. Its main objectives are to create basic awareness amongst the citizens, promote traditional built forms, support participatory action programmes and to co-ordinate efforts of different disciplines, stakeholders and authorities. It is an advisory board to AMC essentially assisting the Corporation in its capacity building.

The Heritage Cell has been actively involved in varied aspects of urban conservation, while, effectively implementing numerous projects. The following interventions are part of its efforts for the overall process of inner city revival:

**1. *Generating awareness amongst people through documentation, preparation of models, organizing street exhibitions and community meetings:***

These activities involve strategic partnerships, public-private partnerships as well as international collaborations. Some such activities undertaken by the Heritage Cell are heritage walk, the freedom walk, association of the old house owners, celebration of the polday, the auto-rickshaw tour, signposting of the pols, illumination of monuments, traditional street theatre, information through the media, best practice transfer programme, training of administrators, City heritage award, revival of the 'Panch' and so on.

**2. *Initiating restoration efforts.***

Restoration of the buildings and pols have been initiated by commissioning detailed surveys, mobilizing resources, identifying and commissioning expertise, providing technical assistance, initiating community-based restoration process, training of volunteers, initiating citizens/ NGO actions.

**3. *Enabling government facilitation:***

The Cell is also assisting the Local Body in resolving legal issues, clarification of the property tax, financial assistance, co-ordinating the efforts of the different departments, initiating requisite institutional development, preparing guidelines for revitalization.

The efforts of the AMC have made a cultural impact on community at large.

Mention of heritage walk in 'Lonely Planet' is a credit to Ahmedabad Municipality.

Some of the successful projects initiated by the Heritage Cell are:

- Revitalization of the Walled city of Ahmedabad (an AMC-France Collaborative project), The City Museum
- Restoration of the facades
- Restoration of Chabotras (bird feeders)
- Restoration of Dwarkadhish temple
- Revival of the 'tankas'
- Design of a special fire fighter
- Development of the Manek Burj
- Restoration and Development of the Dutch Tomb Complex at Kankaria
- Earthquake damage repair of the Municipal School Buildings and
- Awareness creating programs for children.

AMC has been quite active in the overall process of revival/ conservation of artifacts, structures and precincts of historical, aesthetical, architectural and cultural value. However, problems still persist for which detailed strategies need to be worked out.

### 3.3.2 Issues

***Insensitive Building Controls and Planning:*** There is a glaring lack of policy and no action blueprint exists for the conservation of heritage resources either at the state or city government level. The Development Control Regulations (DCR) of 1983 is found inadequate for the task of conservation. Also, the availability of high FAR within the Walled City encourages demolition of old buildings and the construction of large buildings in its place by amalgamation of plots. Planning proposals for road widening in the Walled City area have resulted in the destruction of valuable streets.

***Heritage Definition:*** There are definite problems with the existing definition of heritage as interpreted by ASI as well as the government agencies. The rules say that they can protect monuments that are more than 100 years old. This excludes medieval residential *pols* worthy of protection and colonial properties, though some of them are more than 100 years old.

***Deteriorating Building Stock:*** In the recent years, out-migration of wealthy communities to the peripheral areas of the city has been observed. The Rent Control Act discourages owners from letting properties as vacant properties attract lower

taxes. Also, inadequate infrastructure keeps property prices depressed. Also in absence of availability of loans for house repair is deteriorating the building stock. All these reasons are contributing to the high vacancy rates, lack of maintenance and degeneration of usable building stock.

**Traffic Congestion:** Vehicular traffic has predominantly increased through the years creating problems of parking, thus, blocking the visibility and accessibility of heritage buildings. Air pollution from vehicular exhaust is on an increase, causing an irreparable damage to the heritage resources. Further widening of roads with insensitive design layout has caused increase in traffic problems eventually disrupting the total fabric.

**Encroachments:** The visual character and aesthetic ambience of the heritage buildings/ precincts is totally engulfed by intense commercial activity, signboards etc. This is coupled with actual physical encroachments around these historic precincts.

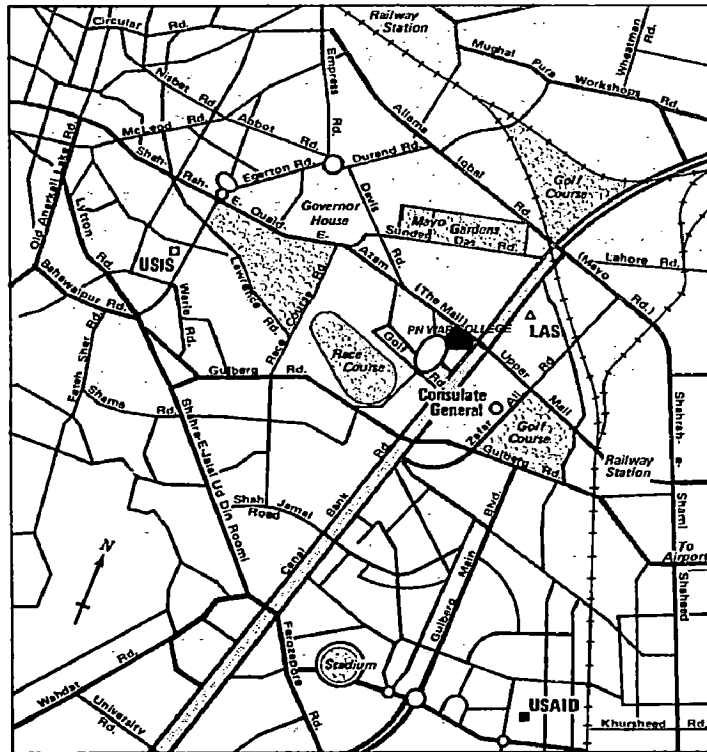
**Inadequate Municipal Services:** Inadequate and inappropriately located facilities for garbage collection, inadequate fire services due to congested lanes, shortage of water supply, storm water and sewerage connections has lead to overall deterioration of the urban fabric.

**Lack of New Investments:** Areas within the Walled City that can accommodate new development are inappropriately zoned, discouraging new investments. Building in areas surrounding protected archaeological monuments requires permission from the ASI in New Delhi. This discourages the flow of new investments in the Walled City. The lack of public expenditure on improving infrastructure discourages new private investments.

### **3.4 Case Study 3: Walled City of Lahore, Pakistan**

This case study on urban development focuses on the Pakistan Environmental Planning and Architectural Consultant's efforts to create and implement an urban conservation plan for the walled city of Lahore in the early 1980's. With a population of four million in 1992, this old quarter of Lahore is under tremendous pressure from commercial and industrial interests, which as yet have little regard for the historic nature of the city. In addition to these active menaces, the

city is struggling to integrate new municipal services into its existent tissue without obscuring its visual character. Although few interventions have actually been achieved, several higher profile "pilot projects" have been carried out in an effort to raise public awareness of the conservation plan.



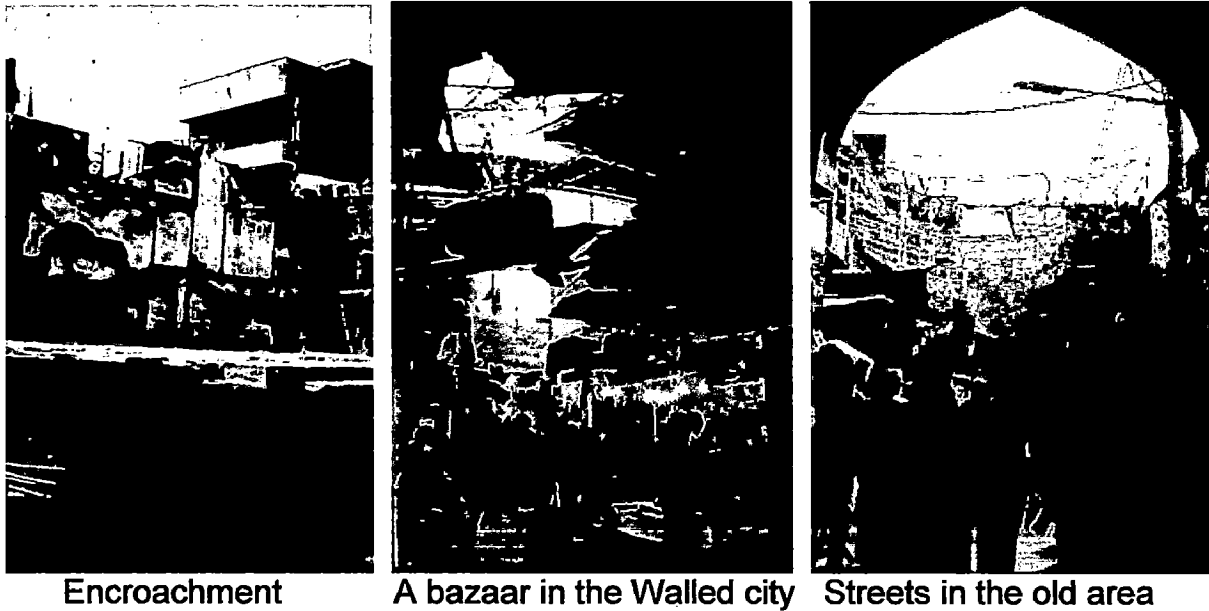
**Map 3.2: Lahore City**

Source: Paper on 'Conservation of the Urban Fabric Walled City of Lahore, Pakistan' by Zachary M. Kron



**Fig 3.8: View of Lahore City**

Source: Paper on 'Conservation of the Urban Fabric Walled City of Lahore, Pakistan' by Zachary M. Kron



**Fig 3.9: Photographs showing Walled City of Lahore**

*Source: Paper on 'Conservation of the Urban Fabric Walled City of Lahore, Pakistan' by Zachary M. Kron*

### **3.4.1 Significance of the Walled City**

The walled city of Lahore is the product of the cultural influences of at least three major empires in the subcontinent of India: the Moghul Empire, the British colonial presence, and the modern nation-state of Pakistan. As a result of its position along a major trade route, it has also been influenced by many other, less dominant cultures, such as Afghanistan and China. Unlike Peshawar, which has lost much of its larger scaled architectural past, and Islamabad, which can only boast Modern Monumental architecture of some merit, Lahore contains some of the best of all the empires which have touched it, as well as smaller scale vernacular architecture.

In addition to this object value, the walled city plays a central role in the daily functioning of Lahore. It remains a bustling center of commerce and represents the "living culture" of the city, an enduring continuation of and evolution from a much older way of life. As the city contains many heterogeneous physical attributes, the activities of the walled city include all aspects of urban life: residential, manufacturing, retail, educational, religious, and civic.

### **3.4.2 Conservation Philosophy**

The Lahore Development Authority's *Conservation Plan for the Walled City of*

*Lahore* is a series of recommendations concerning the physical decay of historic structures in the city, the "visual clutter" of newer structures and infrastructure, and the encroachment of various unregulated elements on the city's fabric. This program of conservation, headed by Pakistan Environmental Planning and Architectural Consultants Ltd. (PEPAC) is actually the expansion of a project begun in 1979, the "Lahore Urban Development and Traffic Study" (LUDTS). This study, undertaken by the Lahore Development Authority (LDA) and funded by the World Bank, identified four areas for improvement. "1. *Urban planning activities, leading to the production of a structure plan to provide a framework for action program within Lahore;* 2. *Neighborhood upgrading and urban expansion projects, to provide substantial improvements in living conditions for lower income groups;* 3. *Improvement of traffic conditions in congested parts of the street system of central Lahore; and* 4. *Improvements to living conditions within the walled city by improving environmental sanitation and providing social support program."*

Part of LUDTS' findings identified the precarious position of the physical fabric of the city. The report suggested (among other things) that any development and upgrading program that the city initiated should include measures "to protect national and regional cultural heritage," and to that end it recommended the development of a conservation plan. The World Bank made the creation of a plan a condition of the first loans to be issued to Lahore.

The study identifies some 1,400 buildings within the city as having high architectural or historical value and presents a series of conservation proposals. These recommendations include both conservation steps for the buildings themselves, as well as social and economic programs to halt the causes of their degradation. In general the study suggested the following:

1. Strategic policies and actions to be taken outside the walled city.
2. Planning activities and studies for both the central area and the walled city.
3. Institutional development including the full utilization of existing resources reinforced with an active training program, and the application of the legislative resources that already exist.
4. Urban management and controls to include production of a "Manual for Conservation and Building Renewal" and improved maintenance practices.

5. Traffic improvement and management program.
6. Upgrading and enhancing the physical fabric and the urban environment through upgrading the building stock and through upgrading urban services.
7. Revitalization with concern for conformity with the scale, height, densities and building typologies traditionally characteristic of the walled city to be demonstrated through projects undertaken by public authorities on state land and through regulated private sector activity.
8. Conservation of individual listed special premises or elements.

### **3.4.3 Conservation Program Interventions**

While the statement above outlines a general policy approach to the conservation effort, several pilot projects have been more specifically outlined and a handful have been implemented and funded by the World Bank through the Punjab Urban Development Project. The buildings are, in most cases, structures dating from early British colonial times, both residential and commercial, and more monumental structures from the Mogul Empire, although action has only been taken on government owned buildings.

One pilot project that has come directly out of this effort is the restoration of the Wazir Khan Hammam (bath house), built in 1638. The bath, which suffered mostly surface damage to the fresco work, is now being re-used as a tourist center with some facilities for computer education for women. While the structure itself was not in any particular risk of irreversible decay, this hamam is a particularly important site to the Development Authority because it is located on a popular entrance point for tourists coming to the city. For visitors it is the first logical stopping point on a walk that goes from the impressive Delhi Gate past the Wazir Khan Mosque and the Choona Mandi Haveli Complex to end at the Lahore Fort. This route is also well traveled by locals going to the wholesale cloth and dry goods markets. It seems that the choice of aiming the rather limited resources of the program at this project is an attempt to heighten the community interest in the conservation effort, rather than directly addressing sites with more desperate conservation needs.

Additionally, there are several proposals to deal with the conservation of areas surrounding historic monuments. Of particular concern is the area around the Mori Gate, which stands next to the well preserved UNESCO site of the Lahore Fort,



and lies between the Fort and the Delhi Gate, immediately adjacent to the newly conserved and re-used Choona Mandi Haveli Complex. While the Fort itself is a vigorously monitored and controlled site, the area immediately surrounding it is "visually cluttered," to say the least. One exits the Fort to be confronted by a mass of electrical cables, transformers, and half a dozen steel recycling operations.

PEPAC's proposal involves the relocation of the steel traders (whom it claims are operating illegally) to a more suitable location and repopulating the area with a mixture of commercial and residential uses. The area itself does not contain artifacts of particular merit, but is amid a concentration of other historic elements.

In their statement of policy and issues, PEPAC refers to the exemplary conservation work done at the Choona Mandi Haveli Complex, and to its re-use as a degree college for women. While this is not a PEPAC project, it is identified as a model of the work they wish to see happening in the city, and claim that the project "came out of the conservation effort" that they are creating.

It seems sensible to concentrate on blocks of the city as specific focus areas for limited resources and as showpieces to use to solicit further funding, but it is curious that this is not stated as a strategy in the group's policy statements.

In addition to these concentrated areas of restoration, the main gates to the city have been chosen as pilot projects, several of which have already undergone restoration work. In order to determine how the restored gates should appear, PEPAC searched for clues not only in their existing condition, but also in historical documentation of the gates from the pre-colonial period. In particular, a wealth of information was found in the numerous renderings by French and British explorers from the 17th century who made paintings, drawings and etchings of the sites. After identifying the site and determining the changes that are to occur in the area, the site was "vacated of encroachers," who currently occupy the niches, hollows and shelters provided by the wall. Several of the gates have now been restored to their pre-colonial state, but the work has recently been halted due to the cessation of World Bank funding.

### 3.5 Case Study 4: Medinas of Northern Africa

The urban fabric of these medinas seemed (and still seems for many of them) very much like the historic cities of India, notably Jaipur in the following ways:

- Square courtyards, multistoried houses left by the noble families after the colonization to settle outside the walls, same densification of low income people,
- Problems of shared or bad registered properties,
- Problems of overpopulation,
- Decaying of civil heritage
- Narrow streets network (the bazaars of Jaipur are a specificity) with trade and handicrafts, sanitation problems and low network equipment,
- Problems of accessibility by motorized vehicles
- Traditional handicrafts workshops replaced by storages or recycling of materials.

Over many decades, the authorities of these countries gave priority to the resorption of slums in the outskirts and the construction of new districts to cope with the housing shortage. By this time, the situation of the inner historic former cities, called medinas (from 20 ha to 200 ha), got worse, with more densification, decaying housing park. In some medinas, notably in Tunis (300 ha, 110 inhabitants), the situation started changing 20 years ago, through different actions:

- 1) **Creation of a strong Heritage Cell** (creation of the medina preservation association of Tunis in 1975 associating the regional government and the city) for public awareness and demonstrative public rehabilitations or reconstruction of buildings on public properties, and for helping owners for rehabilitation. This association receives 40% subsidies and 60% resources from consultancy and work controls.
- 2) **Identification of pilot areas** (10 to 15 ha) to start the process through local and simple actions.

- 3) **Improvement of urban services**, including solid waste management, local green and local facilities.
- 4) Loans from international donors and public subsidies to bring basic urban services to the population.
- 5) **Decontrol rent acts** to increase owners' revenues to maintain their building.
- 6) **Re-use of civil heritage buildings** for local facilities or cultural citywide facilities. As a consequence of the progressive shift of the image of those districts: increasing land value, settlement of modern shops and settlement of new rather well- off families in some parts of the medina, the rest remaining rather vibrant and popular.

Of course the authorities and Heritage Cells of medinas had and still have to manage many difficulties to get these results such as:

- 12 years of work to get a decontrol rent act for the medina of Tunis
- Difficulties to provide owners in shared ownership situations
- Difficulties to provide loans to low income owners and to adapt the current system of loans of Morocco for these situations
- Difficulties to canalize speculators looking for demolition and building any kind of architectures, suppressing all existing local squares or greens
- Difficulties to manage the solid waste: 3 collections a day in some streets to keep them clean because of poor public awareness.

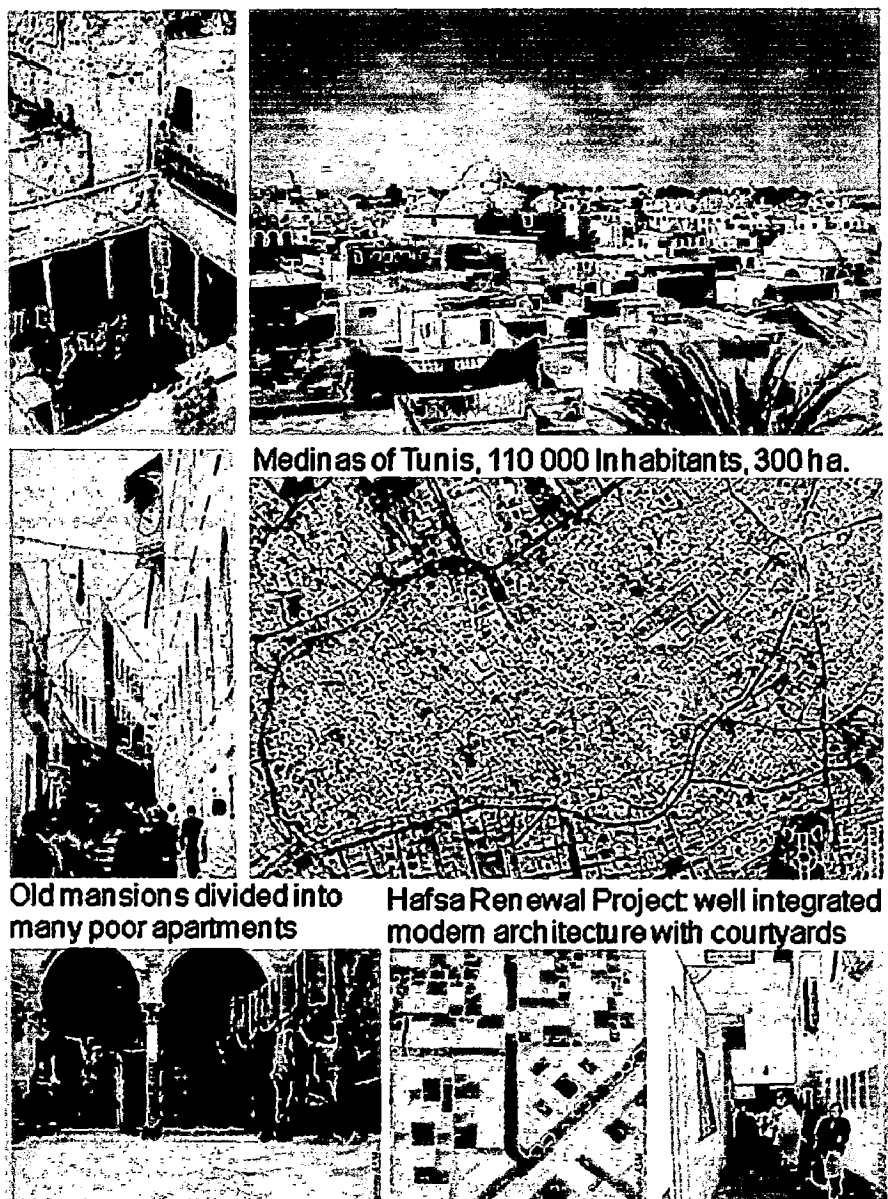
### **3.5.1 Medina of Tunis Heritage Cell: ASM**

Since 1967, rehabilitating and renovating the Medina of Tunis has been the principal concern of the 'Association de Sauvegarde de la Medina', A.S.M, in link with the Municipality. The surveys and plans, reports and analyses, proposals and projects implemented, have saved the old city and created a favourable climate for investment. Even though demolition/ reconstruction are unavoidable, the Medina of Tunis tries to keep its 'civil architectures' without stereotyping. The A.S.M. has a key-role to play

here, observing and monitoring, designing and advising, adapting the old, carefully inserting the new.

### 3.5.2 Oukalas operation

'Oukala' means the subdivision of old mansions into small flats occupied by poor families coming from the country side. The targets of the Oukalas operation : to protect a decaying and vanishing civil heritage and to provide solutions to these families.



**Fig 3.10: Medinas of Northern Africa**

*Source: Revitalization issues for walled cities with special reference to Jaipur, 2005*

The Oukalas have been divided into 3 categories: 250 Oukalas (totally decaying) expropriated, demolished and sold by auction to builders for reconstruction,

unless owners accept to relocate tenants. 300 Oukalas restored (remake of floors, foundations etc) and 120 rehabilitated, mostly by owners through a fund allowing subsidies and low rate loans (5%, 15 years). 1500 families, from demolished or restored and rehabilitated oukalas, low income owners or tenants that could not afford to rehabilitate or to pay increased rents (after rehabilitation) relocated by the Municipality in the outskirts areas, into well equipped houses.

### **3.6 Inferences from Case Studies:**

#### **3.6.1 There is no “perfect example” to adapt.**

Although historic districts face common problems, each district is characterized by its diversity of socio-cultural, bioclimatic, economic and political contexts. The strategies must take into account the concrete local situations and rely on the resources, notably cultural resources, identified in feasibility studies. Each city must be able to design and develop its own projects according to the financial, technical and human resources available and according to its own procedures.

There is no single or “miracle” method even for seemingly similar problems. The failures and the effects of the process, the methods used and the lessons learned from the experience, are the best elements for progress. The positive results and good practice indeed have far-reaching consequences but are often limited in terms of usefulness for the actors.

**3.6.2 Difficulties encountered in the process of revitalization often vary; the following seem to be recurrent:**

- i. Lack of political strategies, of serious diagnosis and competent expertise.
- ii. Ambiguity or inadequacy
- iii. Lack of training, inadequacy of technical capacities, notably in terms of linking traditional with modern know-how.
- iv. Insufficient involvement of local populations, notably in non-democratic political systems.
- v. Consequences of gentrification difficult to foresee but sometimes intended (little account taken of social criteria, rise in rental costs, and refusal of social mix).

- vi. Complete destruction, no consideration of heritage value, in order to build new constructions, notably in residential areas.
- vii. Exclusively heritage approach, underestimating the functionality of the district and the city as a whole.
- viii. Lack of cooperation and coordination among the actors (national and international) linked to a lack of transparency in the process.
- ix. Incoherent financing, relying essentially on the State.
- x. Tourism as the sole activity making qualitative approaches impossible.

### **3.6.3 Historic districts should not be isolated pockets but integrated into the rest of the city or area**

Revitalization experiments in historic districts show how action is increasingly restricted when it centres solely around one specific building and does not take into account networks, locations and interaction with the city and its wider area.

Local projects must therefore be supported and integrated into an overall urban development plan to make sure the historic district does not become an element of spatial segregation in the area.

“In order to be most effective, 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 at every level.” Consequently, “the conservation plan should aim at ensuring a harmonious relationship between the historic urban areas and the town as a whole”.

***Revitalization means reaching a satisfactory balance between the laws of economic development, the needs and the rights of inhabitants and the value enhancement of the city as a public good. The heritage, economic, environmental and socio-cultural approaches do not conflict; not only are they complementary but long-term success is dependent upon these approaches being linked together.***

### **3.6.4 Political will as a key factor for success**

Decision-makers, local representatives and their teams have a key role to play: they can guide the revitalization strategies by placing the inhabitants at the heart of the process. **Revitalization involves a commitment at city level and a**

**dialogue with numerous actors at varying levels to communicate effectively. It is a matter of ratifying technically feasible and viable projects while keeping in mind future generations.**

The population explosion of cities has a direct impact on historic districts, which come up against a multitude of different approaches with extreme cases such as: - laissez-faire policy: the historic district has completely deteriorated and been abandoned owing to the cost of expanding other areas.

Buildings with no heritage value are rented or squatted by very low-income migrants.

- elitist revitalization: the district is transformed into a "museum" with an increase in real estate prices, and a predominance of offices and hotels, which leading to significant segregation and the loss of the city's social and identitarian assets.

An alternative is possible:

- The restoration of a historic district attracts new residents, new economic activities and consequently a rise in real estate prices.

- National and local strategies that facilitate access to housing and services; encouraging the establishment of small businesses, responding to the needs of the poorest inhabitants and transmitting a constantly renewed identity are necessary to make up for these negative impacts.

**It is possible to reconcile preservation, valuation of the urban heritage, economic development, functionality and habitability of a city to respond to Inhabitants' needs while managing the cultural and natural resources in a sustainable manner.**

### **3.6.5 The following points should be supported in case of Revitalization:**

- Enhance public spaces while sustainably protecting the cultural and natural resources
- Create social links while contributing to the improvement of living conditions (public amenities, employment, housing, trade, and water and flow management)
- Respond to the actual needs while preserving the city's identity and enhancing traditional knowledge
- Support cultural creativity and diversity
- Develop a controlled cultural tourism maintaining many sectors of activity
- Safeguard the inscribed urban sites and benefit from their fame

**3.6.6 Following are the points that area to be avoided:**

- do not evict the population (residents and traditional merchants)
- do not demote the traditional occupations
- do not contribute to the break-up of urban social links
- do not suppress existing trade
- do not convert housing into storehouses for itinerant merchants
- do not isolate the historic district from the rest of the city
- do not preserve the built heritage without the involvement of the inhabitants or reflecting on the impact on the rest of the city
- do not develop tourism as the sole Activity



## *Chapter 4: Study Area Profile: The Walled City of Jaipur*

*4.1 Introduction*

*4.2 Historical background*

*4.3 Evolution of Old city Master Plan*

*4.4 Planning Principles*

*4.5 Urban character*

*4.6 Elements*

*4.7 Population Density*

*4.8 Economy*

*4.9 Architecture and Heritage of Walled City*

*4.10 Road network and hierarchy*

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**STUDY AREA PROFILE: THE WALLED CITY OF JAIPUR**


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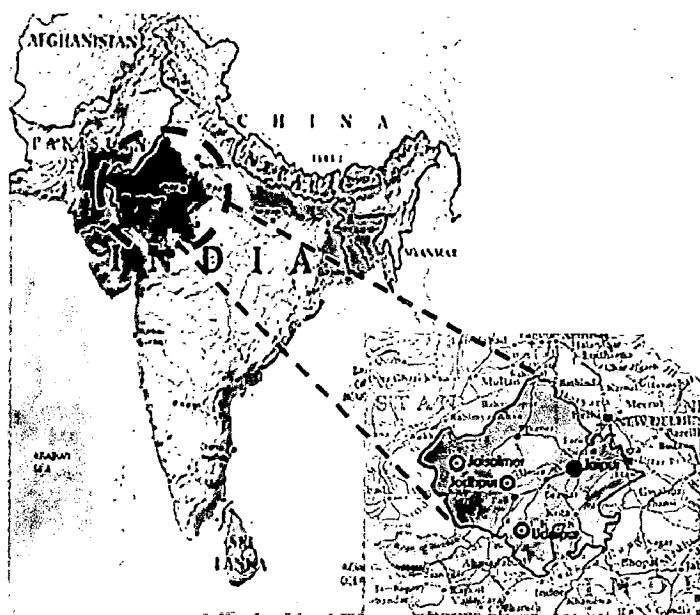


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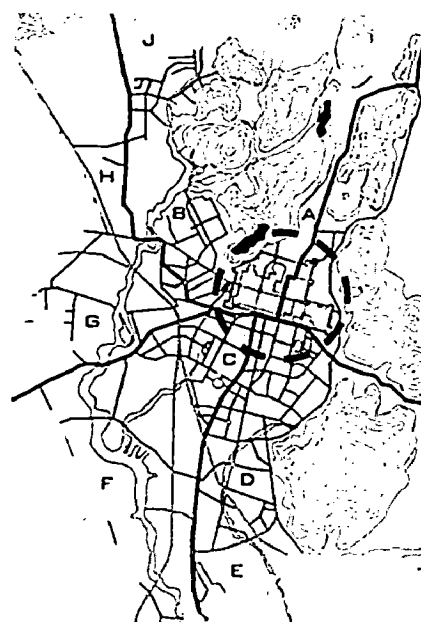
**4.1 Introduction**

Jaipur city is located amidst the Aravali hill ranges at an altitude of approximately 430 meters above mean sea level. It lies on 26°54' N latitude and 75°49' E longitude. The city is part of Jaipur district situated in north eastern part of Rajasthan. Jaipur district is surrounded by Alwar district in North, Sikar in north-west and Bharatpur and Dausa in East. The city is regarded as one of the fast growing metropolitan in our country and has recorded exponential growth of population in last four decades. The city is commercial and administrative capital of the state.

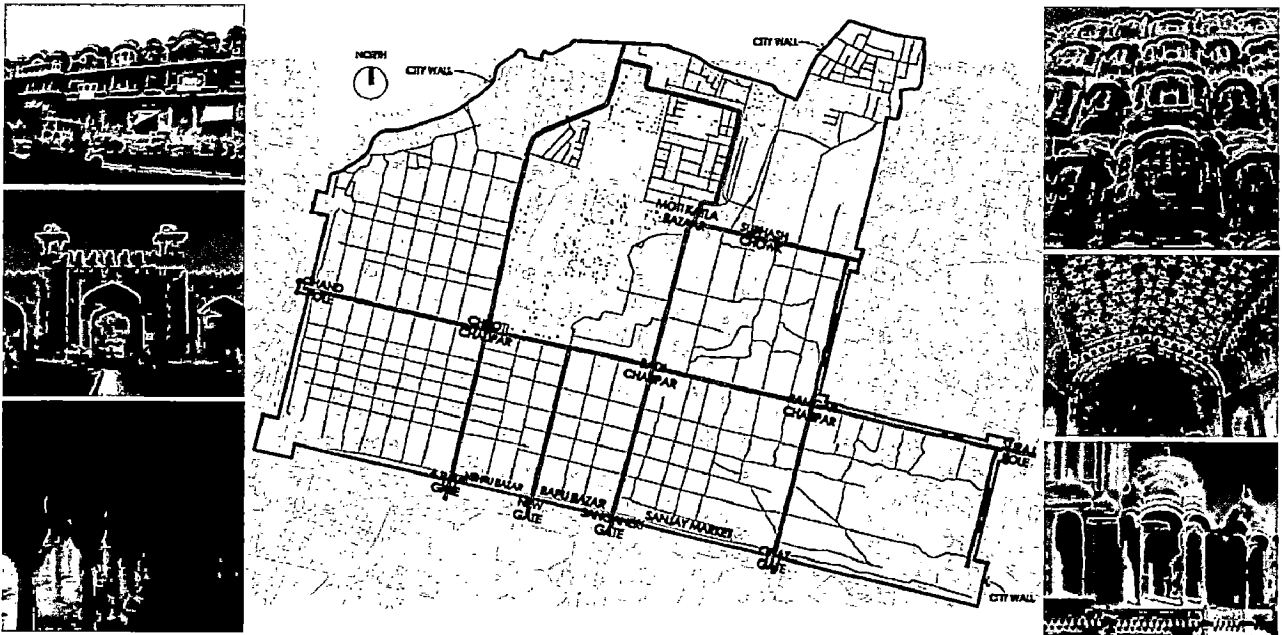
It is also one of the important tourist cities in India and hence is also draws good amount of revenue to our country. It lies on one of the most popular travel packages of India 'Golden triangle' connecting tourist spots like Delhi, Jaipur and Agra. The city of Jaipur also attracts a large number of international tourists to our country. Jaipur has a timeless appeal in its colorful bazaars that delights for its Rajasthani handlooms and trinkets. Beautifully laid out gardens and parks, attractive monuments and marvelous heritage hotels, once the residence of Maharajas, are worth admiration, not to mention the ambling camels and cheerful people in multi hued costumes that make Jaipur a tourist's paradise.



**Map 4.1: Location of Jaipur**  
Source: [www.mapsodindia.com](http://www.mapsodindia.com)



**Map 4.2: Location of Walled City**  
Source: [www.mapsodindia.com](http://www.mapsodindia.com)



**Map 4.3: Map of Walled City of Jaipur**

Base Map: Courtesy- Jaipur Nagar Nigam

## 4.2 Historical background

'Jaipur' means the city of victory. The city was built in 18th century; approximately 280 years back (1727 A.D). The old city of Jaipur is considered as the oldest planned city in India. The city has been named after Maharaja Jai Singh II of Kachchwa clan of Rajputs. Amber, the capital of Kachchwa Rajputs was unable to cater to expanding economic and administrative functions on accounts of its location. It was the vision and determination of Maharaja Jai Singh to shift the capital from Amber to Jaipur. Another major reason for shifting the capital to Jaipur was his intension to safeguard the people of Amber by avoiding confrontations with the Mughal kings. Scarcity of water at Amber also added a reason to shift the capital to Jaipur. The king himself was much influenced and knowledgeable regarding astronomy and architecture. He invited famous Bengali architect Vidhyadhar Bhattacharya to prepare a plan of the city. Vidyadhar laid down the plans according to ancient Indian planning principles on architecture called 'Shilpa Shastra' (Vastu). The city was planned in a grid system. This grid system had wide straight avenues, roads, streets / lanes and uniform rows of shops on either side of the main bazaars, all arranged in nine rectangular city sectors (chokries). Seven of these blocks were meant for public and remaining two consisted of palaces and state buildings.

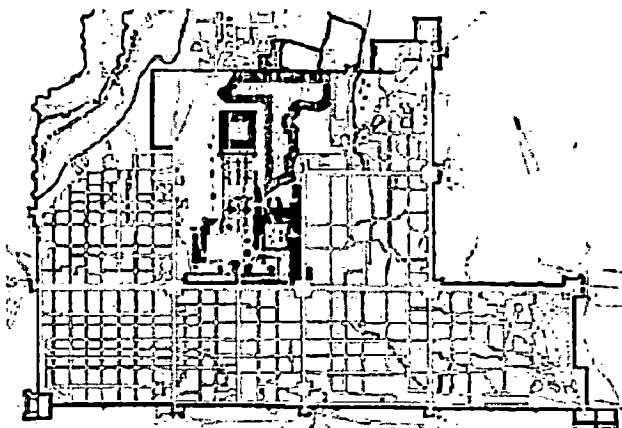
The city was further encircled by the city wall and entry was through seven

gates. The maharaja also built an observatory in the year 1728 A.D. known as Jantar Mantar, which attracts a large number of tourists today. Thus the value of old city of Jaipur lies as much as in its planning, urban design and building process management as in its monuments. This remarkably planned city was able to attract merchants and artisans from all across the country. Wide network of streets and mohallas provided in the city plan were very successful. Thus the old city of Jaipur is the outcome of realization of the vision of Jai Singh, articulated with the support of his able ministers, notably Vidhyadhar.

Even today the traditional crafts like jewellery, metalwork, enameling etc. patronized by the rulers in the 18th century continue to thrive in the city. The city wall still encircles the old city and has a suggestion of formidable strength; its function of protecting all within. The city itself is an attractive creation worthy of universal admiration. The city was reorganized as a municipality in 1926 and a new Municipal Act was prepared in 1929. Even though the city has grown and expanded much beyond the original boundary 'the wall', the old city still remains the major destination in terms of daily needs for the residents and an enchanting tourist destination.

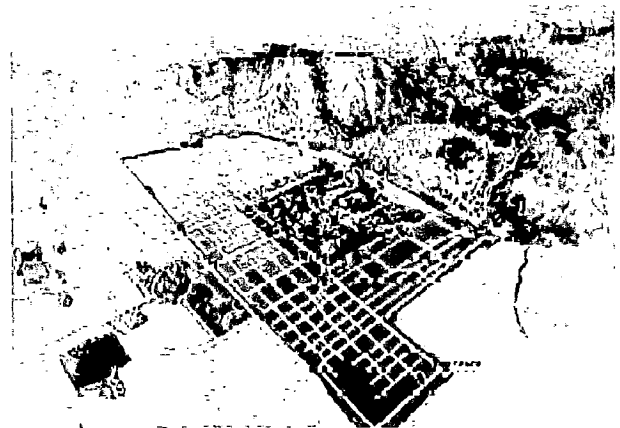
### 4.3 Evolution of Old city Master Plan

Jaipur Old City was created as the capital of the Kachchwaha Kingdom moving from Amber to the picturesque valley site by Maharaja Jai Singh with his architect Vidhyadhar Bhattacharya. The city is planned in the plains, 11kms south of Amber on a dry, flat bed of lake between the rivers Amanisha and Dhond.



**Map 4.4: Old city plan showing city wall and gates**

Source: Report on Walled Jaipur, JNN



**Fig 4.1: Jaipur old city in context to its surroundings and location of Palace Complex**

Source: Report on Walled Jaipur, JNN

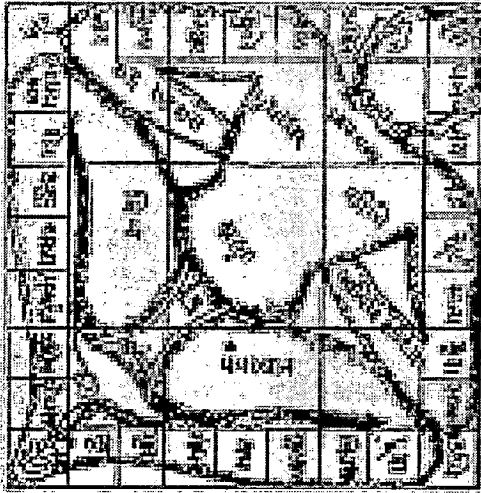
Apart from the terrain which was flat, strategic position, availability of water, good drainage conditions, availability of stone for construction and better communication with outside due to the ancient trade route from Delhi-Agra to Ajmer were the main criteria's for the selection of the site. The hilly terrain of Amber site restricted any expansion for the growing population and forced the King Sawai Jai Singh to look for the new site. The northern and the eastern sides of the new city are defined by the hill ranges leaving the city to expand towards the south. Northern hill is occupied by the Nahargadh Fort the retreat for the king. The selection of the new site for the city was the indication of changing conception of the capital, from a military retreat cut off from invading forces to a trading centre open to good communication. The site of the city was previously the hunting ground of the King Sawai Jai Singh with a hunting lodge, known as Jai Niwas, and a small lake called Tal Katora. This later became part of the city.

Another feature was a road traversing the plain from North to South, linking Amber, the capital with Sanganer, which at that time was the state's principal trading town. A second road traversed the plain from East to West. This connected the Mughal city of Agra to Ajmer and was a major trade route. These two roads became the main structuring element of the city plan. The other critical natural feature of the site was the presence of a ridge parallel to the Agra – Ajmer route aligning east-west and deviated 15 degree from the cardinal axes. This was also incorporated into the plan of the city as a major artery. The City of Jaipur was not only planned but its execution was also coordinated by Sawai Jai Singh, in such a manner that a substantial part of the city developed within seven years of its foundation.

#### **4.4 Planning Principles**

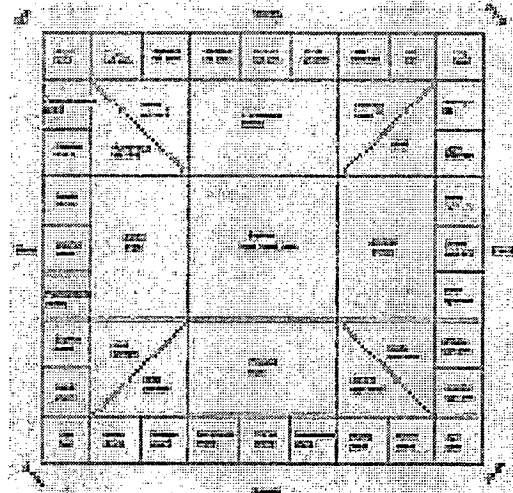
The Old City of Jaipur is planned based on the Vastu Purusha Mandala of the ancient Hindu Planning treatise. The Mandala is the simplest form with a 3 x 3 square grid called pitha, as well as the commonly used 9 x 9 square grid form called the paramashayika.

The city plan also reflect the use of the grid as the ordering principle, which has been one of the significant principle used from ancient time in the history of settlement planning right from Mohenjodaro and Olinthus in Greece to the medieval cities.



**Fig 4.2: Vastu Purush Mandala**

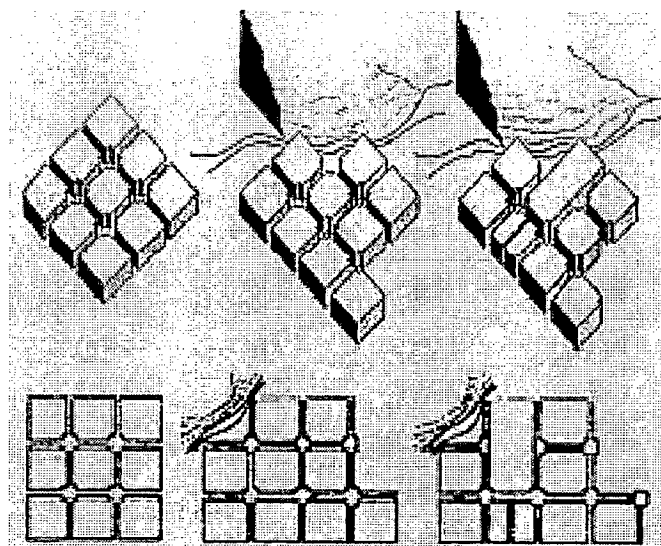
Source: Report on Jaipur, JNN



**Fig 4.3: Paramashayika Mandala**

Source: Report on Jaipur, JNN

The nine square grid is laid with the ridge identified at the site as the base line for one of the main street with its 15 degree tilt from the cardinal axis. The distance between the ridge line and the Agra-Ajmer road evolved the size of the quadrants. The ninth square towards the north-west end did not fit due to the base of the hills; hence it is added to the south-east end of the plan as adjustment. The primary roads divide the city into nine chowkries (quadrants), the central two are occupied by the palace complex and tank. The intersection of the main street forms the public squares called 'chaupars'. The city is enclosed by a city wall with seven gates. The gates are also forming public space for transition into the city. The rest of the chowkries are occupied by the various communities for residence and subdivided into mohallas with smaller streets.



**Fig 4.4: Evolution of City Structure**

Source: Report on Jaipur, JNN

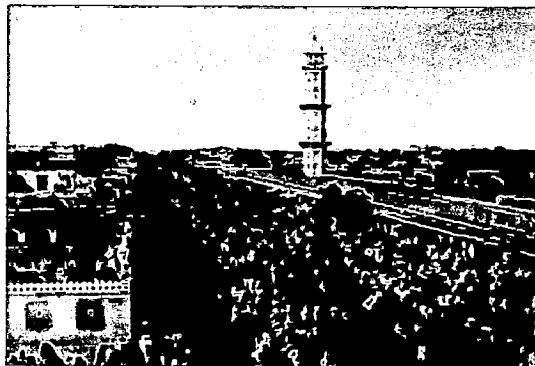
#### 4.5 Urban character

The adjusted nine square plan of Old City Jaipur was a grid defined by the main streets running north-south and east-west. The main streets were defined by continuous line of shops with colonnade creating various markets encouraged by the King to bring various traders from different parts of the country. The streets formed three intersections in the centre creating the important public squares called the 'Chaupars', namely Badi Chaupar, Choti Chaupar and the Ramganj Chaupar. The Chaupars had tanks in the centre of the space bringing water for the people through underground canal system from outside the city. People came to this square every day to collect water. The main temples, academic institutions like colleges and library etc constructed by the King are located along the main streets and chaupars. Massive city wall was constructed around the old city. This wall was punctured by seven gates. The longest axis i.e. East-West axis traversed through four chowkries and three chaupars.

The Gate on the Western end, the direction of sun set is called the Surajpol Gate and the opposite Eastern end is called the Chandpol Gate. The urban block in Jaipur, was derived by the grid iron street structure. A typical block consisted of number of mohallas according to castes, economic status and the trade of its occupants. The block was defined by series of shops with colonnade towards the edge and the inside is the neighborhoods forming clusters in two ways:

- a. Street clusters where the houses are organized along a small street and the grouping is linear.
- b. Space cluster where the houses are organized around a common space.

The formation of space clusters increases the porosity of an otherwise dense urban fabric.

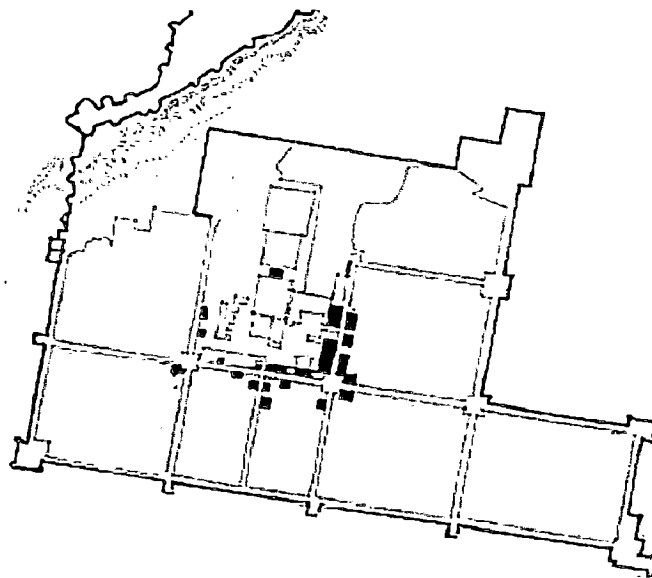


**Fig 4.5: "Main Street - Jeypore – Rajputana Feb. 1890";  
there seems to be a procession passing by**

*Source: ebay, Dec. 2006*



**Fig 4.6: "Street and public library, Jeypore," an albumen photo, c.1870-80's**  
Source: ebay, Oct. 2006



**Fig 4.7: Location of Public Institutions, majorly along the main streets of the old city**  
Source: Report on Jaipur, JNN



**Fig 4.8: "A Street door of Temple at Jaipur Old city"**  
Source: ebay, Oct. 2006



**Fig 4.9: One of the gates of Jaipur- Tripolia.**  
Source: ebay, Oct. 2006



## **4.6 Elements**

The primary elements that constituted the physical structure of the old city were:

### **4.6.1 The Palace complex and Observatory:**

The palace and the Observatory occupied the central position. This suggested the importance of these structures in the city and city's administration. The complex was located along the east-west axis in the centre. The King Sawai Jai Singh was very interested in astronomy and constructed an Observatory called 'Jantar Mantar'.

The observatory was located in the palace complex area and is one of the major attractions for the tourist today. Several other significant monuments were also planned within the Palace complex. This included another significant monument called 'Hawa Mahal' facing along the main street near Badi Chaupar. Small intricately carved façade, with small openings for the ladies of the Palace (to watch the procession) were the important elements of the structure. Jaleb chowk, Govindji temple, Tal katora lake etc. were amongst few other structure that were planned within the palace complex.

### **4.6.2 The Chaupars (Urban Spaces):**

Three chaupars (Badi chaupar, Choti chaupar and Ramganj chaupar) were planned at the intersection of major streets of the old city. Chaupars were large urban spaces and were mainly designed as public realm. The chaupars were different from each other with respect to its size and location. The location of the chaupars was very strategic i.e. at the intersection of main East-West artery and North-South primary streets. Hence the use of the chaupar was very common and convenient.

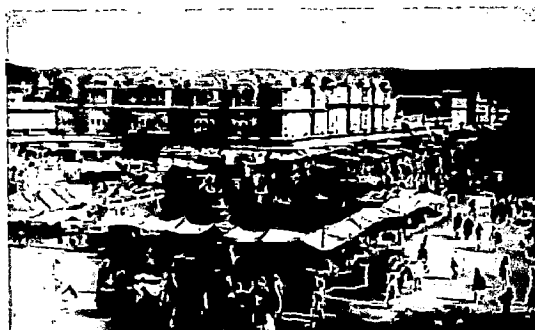
The width of each chaupar was approximately three times the width of the principal streets i.e. 100m x 100m. Also geometrically the shape of the chaupar was almost a square. Thus the chaupars gave a feeling of openness against the surrounding dense built form. Chaupars functioned like intense activity centres and successful public realm due to this distinct nature.



**Fig 4.10: A street scene from a visitor's photo album, 1910's**

Source:[http://www.columbia.edu/itc/mealac/pritchett/00routesdata/1700\\_1799/jaipur/jaipurcity/streets1910s.jpg](http://www.columbia.edu/itc/mealac/pritchett/00routesdata/1700_1799/jaipur/jaipurcity/streets1910s.jpg)

Chaupars were sensitively designed square space. The streets penetrated the Chaupars at centre of the square. Due to this kind of arrangement in design, some space was left at the corners to act as pedestrian realm. At the centre of the square where the streets meet, an arrangement of storing water in tank was made. Water was brought to this tank by underground canal systems from outside the city. The Chaupars were designed with a dual role i.e. to function as a daily urban space for day to day activities as well as to conduct large public gatherings during festival or celebrations.



**Fig 4.11: "Street and public library, Jeypore," an albumen photo, c.1870-80's**

Source:Report on Jaipur, JNN

#### **4.6.3 The Main Bazaar Streets**

The main streets forming nine chowkries were designed to act as market areas so as to attract business. These streets were lined on both sides with continuous shops and arcades. These were commonly known as 'Bazaars' and each bazaar formed a specialized market. The width of the street was approximately 33 m, with wide pavements along with terraces on top of the shops. These terraces served as a transition space between the streets and the houses. They were often used by people for watching processions during festivals or celebrations. The major

markets that were the part of old city were Johari Bazaar, Sireh Deori Bazaar, Kishanpol Bazaar, Gangori Bazaar, Chandpol Bazaar, Surajpol Bazaar, Tripolia Bazaar, Ramganj Bazaar and Ghat Bazaar. Jaipur was envisioned as a city flourishing in its trade and commerce; hence the bazaar streets played a very important to depict this image as well as for actual business.



**Fig 4.12: "Haldiya House, Main Street, Jaipur."**

Source: Gobindram Oodeyram, Jaipur, ~ 1915

#### 4.6.4 The Fort Wall and Gates

The Old City is enclosed by a fort wall with seven gates to enter. The Wall is on average 6 m high and 3 m thick. The Chand Pol gate on the west side and the Suraj Pol gate on the east mark the ends of the main west-east route through the city, about 3 km in length. The north side is entered through the Jorawar Singh Pol gate, formerly known as Dhruv Pol after the pole star, on the road from Amber.

The southern edge is defined by four gates; Ajmeri gate for road from Ajmer, New gate in front of Albert hall, Sanganeri gate for the road from Sanganeri and Ghat gate for the road from Ghoomi Ghat. The southern side, the vulnerable face was further protected by a ditch immediately in front of the wall, which was later filled during the 1950s. All the gates are major public spaces and were closed at night, a practice continued until 1942.



**Fig 4.13: View of Ajmeri Gate**

Source: <http://www.hindistangezi>



**Fig 4.14: View of Sanganeri Gate**

Source: <http://www.hindistangezi>

#### **4.6.5 The Chowkris (Wards)**

The main bazaar streets of the old city divide the area into nine chowkries or squares. Two chowkries lying in the centre were allotted to form 'Palace complex'. The chowkries lying in south-west and east directions were known as 'Topkhana Desh' and 'Topkhana Hazuri' (meaning arm store) respectively. These chowkries were conceived as city's corner bastions. Remaining chowkries were named after the communities residing in that area e.g. Modi Khana chowkri, Vishveshvarji chowkri, Purani Basti, Ghat Darwaza chowkri, Ramchandrajji chowkri and Gangapol chowkri.

A very precise format of road hierarchy was adopted to design the road network within the old city. The main streets forming the chowkries were 111 feet wide. Each of these chowkri was further divided into mohallas by secondary streets, which were half the size of the main streets. The tertiary streets were narrower than the secondary street and measured around a quarter in width.

The division of chowkries was also based on certain particular principles. The secondary streets divided the chowkries in grid iron pattern, while the tertiary streets divided the area a cluster-form creating informal spaces. The houses within the chowkries/mohallas were tightly placed one after another and had courtyards. The size and number of courtyards varied with the size of house. Some houses used to have only one small single courtyard, while haveli type houses (large houses) used to have six courtyards. In order to maintain cleanliness and level of hygiene, narrow lanes were placed between these houses on the back side. These lanes were called 'Gandi Gali' and were used to collect night-soil manually.

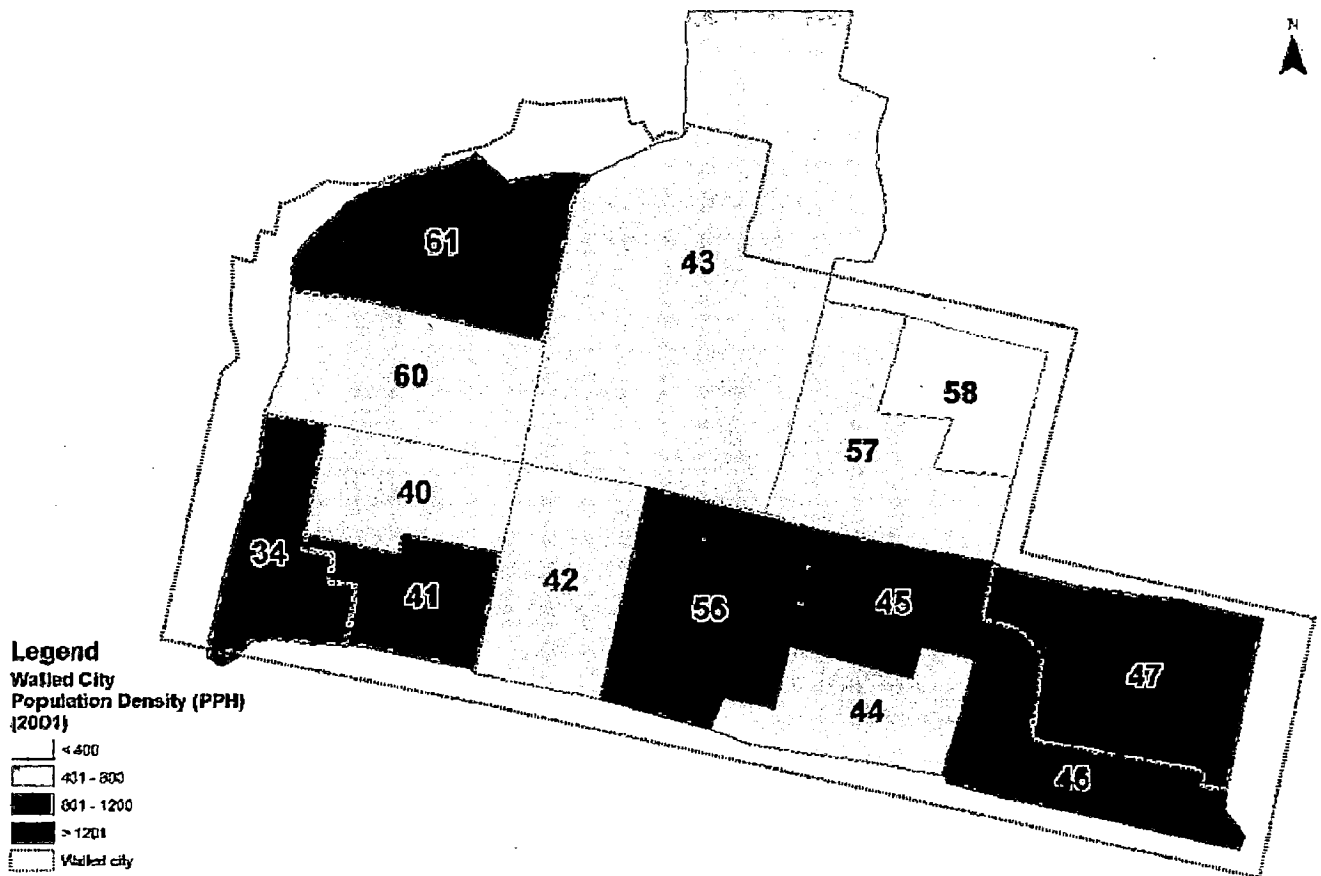
In 1868 Sawai Ram Singh II experimented with coloring all the main streets with different colors. Realizing the mistake he again ordered in 1870 to recolor the streets with a uniform pink wash to give coherence to the built form of the streets. The idea of coloring the streets was a later development, in fact Maharaja Sawai Jai Singhi the founder and his successors had no such scheme and the buildings were all white originally. The facades along all the main streets of Old City Jaipur were designed and constructed by the state to ensure aesthetic control.

The continuous shopping arcades along the streets are the commercial activities. The terraces above the arcades are often used by people for observing the

processions on streets. Although the arcades are controlled, each street has its own kind of treatment, a fair amount of variations occur in the façade of the buildings at upper levels. The height of the buildings are controlled and restricted to three floors only to not allow it to be higher than the Hawa Mahal of the Palace Complex.

#### 4.7 Population Density

The population of Jaipur city was only 3 lakhs in 1951 but in 2001 it has reached 23 lakhs. The walled city was designed for 60,000 persons in an area of 6.4 sq.km while it had a population of 4.97 lakhs in 2001. The population density in Walled City is very high. The wards 45, 46 and 56 have relatively higher density of population (more than 1200 PPH). The walled city despite the lowest area has the largest density of population. Infrastructure provision becomes a crucial concern in the high density areas.



**Map 4.5: Density of Population 2001-Walled City**

Source: Jaipur City Development Plan, JNNURM

#### 4.8 Economy

The occupational structure shows that the three major economic activities in Jaipur are the service sector, industry trade and commerce. There has been a

substantial growth of industries from 1961-81. There has also been an increase of 50% of small scale industries during the period from 1986 to 1991. The increase in trade and commerce has also been helped by the growth in the informal sector.

The walled city accounts for 54 % of the total commercial area of the city and employs 32 % of the total workforce of the city. The walled city has a dense mixed land use pattern, with the coexistence of commercial, industrial units; home based economic activity and activities with rural characteristics. Some of these are:

- **Small scale manufacturing units** and workshop.
- **Wholesale markets:** for products such as building material trade, textiles, wood products, textiles and metal works.
- **Handicrafts:** manufacturing and selling of enameled brass work, marble statues, pottery and embroidered footwear.
- **Jewelry:** It is a major center for cutting and polishing semi precious stones and making jewelry.
- **Tourists:** A large number of tourist spots are located within the walled city: Hawa Mahal, Jantar Mantar, City Palace etc.

This imbalance in the location of jobs and commerce generates a large informal sector, loading and unloading activities, high volumes of commuting traffic and a concentration of migrant low income population within the walled city. There is a continuous increase in the number of commercial establishments in the walled city and it continues to be the hub of economic activity. The shifting of some administrative establishments like the Vidhan Sabha, Municipal offices has helped to reduce the pressure. Also if relocation of wholesale markets as identified in the master plan were to happen, it would help decongest the walled city. The establishment of Indira Bazar has been instrumental in increasing commerce in the walled city.

#### **4.9 Architecture and Heritage of Walled City**

The streets were lined with fine buildings of uniform design and were decorated with variety of architectural elements. Its particular features are: the tapering columns, scalloped as well as plain pointed arches, brackets and balconies or Jharokhas, squat domes, square, octagonal and rectangular, curvilinear domes and Chajjas pillared and domes Chattatries portico or the Taj with portal seats, easy

ramps instead of steps, gigantic gateways, spacious 'Mandapas' or assembly halls in temples, high basement, chabutras, courtyards and the Jali. Though the architecture of Jaipur is quite similar to common Indian style architecture, but it has its own peculiarities. These peculiarities were developed by using very fine mortar which is not found elsewhere in India.

The city was designed as sequences of architectural sequences rather than an assembly of monuments. But in spite of the attention being lavished upon the urban scale, no compromise was made upon individual monuments, and Jaipur can boast of some exquisite structures. These vary in scale, grandeur, and use but are tied by the tradition of excellent craftsmanship, material and an architectural vocabulary which at all times is respectful of its context, Jaipur. Majority of the prominent monuments located in the old city lie within City Palace complex. Some of the prominent monuments are Mubarak Mahal, Diwan-e-am and Diwan-e-khas, Chandra Mahal, Jai Niwas gardens, Badal mahal, The Talkatora/Rajamahar ka talab, Jaleb chowk, Jantar Mantar, Hawa Mahal (the palace of winds), Kale Hanumanji ka Mandir, Maharaja Art College, Town hall, Govindji Temple etc.

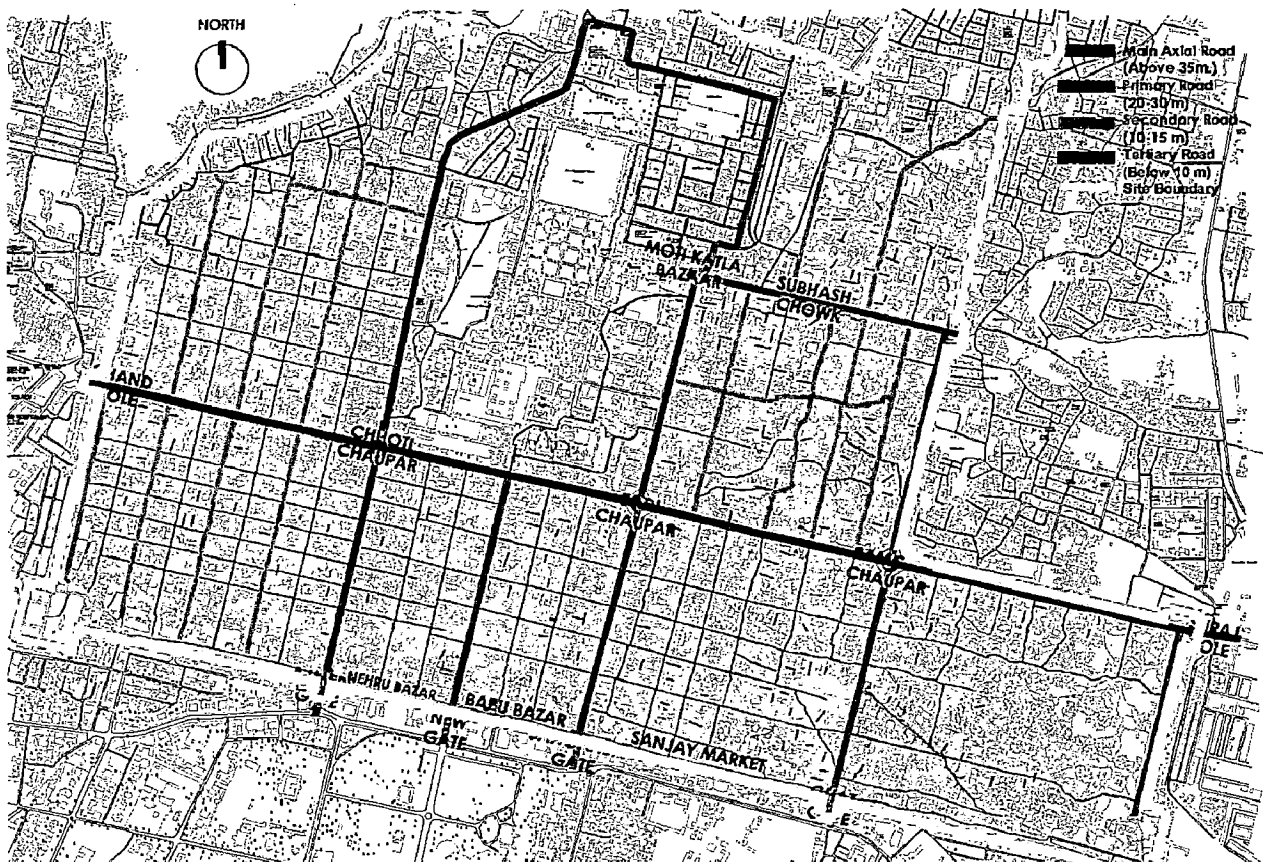
The Jaipur Development Authority has identified heritage buildings in the walled city. A total of 300 buildings have been identified in the various chowkries of the walled city. These have been categorized into large, medium and small on the basis of area. The location of all the buildings in the various chowkries of the walled city has been given in Table 4.1.

**Table 4.1: Heritage Buildings- Walled City, Source: Jaipur CDP, JNNURM**

<b>Chowkri</b>	<b>Large</b>	<b>Medium</b>	<b>Small</b>	<b>Total</b>
Purani Basti	6	14	26	46
Top Khana Desh	6	11	31	48
Modikhana	9	21	22	52
Vishveshwarji	5	17	41	63
Ghat Gate	7	11	12	30
Top Khana Hazuri	3	3	11	17
Ramchandrajji	9	9	5	23
Gangapole	1	7	13	21
<b>Total</b>	<b>46</b>	<b>93</b>	<b>161</b>	<b>300</b>

#### 4.10 Road network and hierarchy

Road network of walled city was planned in a regular grid system. As the road network was laid in a grid-iron pattern, almost all the streets intersected at right angles. This helped informing wards, which are again divided in smaller blocks by streets and lanes, the wider streets being alternated by narrower ones. The manner in which the roads were planned and laid has produced a pattern of its kind not only in India but even internationally. Even the road widths were planned and followed a particular arithmetical representation. Almost all the major streets of the city were 30m wide and they intersected secondary streets at right angles. These secondary streets were 15m wide and were further criss-crossed by less than 10m wide streets.



**Map 4.6: Hierarchy of Roads**

*Base Map: Courtesy- Jaipur Nagar Nigam*

The walled city is the centre of activities and has significant concentration of heritage structures. The area has a definite identity of its own, a distinct townscape character that calls for preservation. Thus, in addition to its economic importance, the place gains a symbolic value attributing common identities for the citizens.



## *Chapter 5: Analysis of Transformation in the Walled City of Jaipur*

*5.1 Introduction*

*5.2 Transformation Levels*

*5.2.1 The Case of Tripolia Bazaar*

*5.2.2 The Case of Badi Chaupar*

*5.2.3 The Case of Chowkri Modikhana*

*5.3 Impact on Physical Development*

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**ANALYSIS OF TRANSFORMATION IN THE WALLED CITY OF JAIPUR**

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**5.1 Introduction**

The entire walled city of Jaipur is classified as a 'Heritage city'. Being a planned city whose major elements were constructed within a span of seven years, it exhibits coherence in terms of architectural vocabulary, material and workmanship. At macro level the planning of open space system has been envisioned as a total structure complementary to the built up areas. The efficient circulation system has not only increased mobility but has created an artful sequence of vistas. The monuments are unique not only because of their architectural resolution but also because of their views being enhanced through relationships and the symbolic importance being accorded to them in the design plan. This relationship has been reinforced by the landuse, activities and processional movements within these spaces. The monuments especially the temples have been designed to enjoy the privilege of being seen as distinct objects in the silhouette against the sky, while their entrance create variation in the continuous foreground created by the verandahs.

In the interior residential cluster where though the roads became the regulatory measure the character is as much derived from the artful grouping, clustering and rhythmic spacing of volumes as in the intricate courtyard havelis. On these residential streets the building masses, the spaces between them, the treatment of the facades in relation to the street and the building entrances achieve a sense of intimacy, characteristic of Jaipur.

Unfortunately over a period of time and due to rapid development the quality of the fabric has deteriorated. The intensity in the volume of traffic on the roads and the parking requirement leaves little room for any exhaustive explorations of the city. There are few efforts towards repair and maintenance of buildings of these structures which are overburdened by high densities and change in use. The situation is compounded because the ownership lies with different government agencies. A piecemeal approach towards conservation of monuments has further fragmented the linkages and relationships to contexts.

## 5.2 Transformation Levels

One of the issues identified for the walled city was the level of change that was occurring through often small interventions to historic buildings by their owners. At street level this includes new types of shutters, insensitive signage and most significantly encroachment onto the street. Houses are also being altered with new windows and balconies or extended upwards using new materials and styles that are not in keeping with the character of the area. Much of this change is the result of the tendency of owners and occupants to accommodate maximum functions to their space and accommodate new functions and extended family. The development of the walled city should therefore be such that it is able to meet the present requirements and the future needs keeping in mind the significance of the built form and the architectural character of the buildings within the walled city.

The Walled City was planned with 4% commercial land use, which reached 13% in 2007 (Table: 5.1 & 5.2). The commercial areas have been encroaching upon the residential and the open areas (Map: 5.1). It has been seen that the commercial and institutional activities have been proliferating in the walled city since independence and there has been no significant move to put a check on it. These non-confirming land uses in the walled city have been transforming and encroaching the heritage areas, which are worth preserving (Map: 5.2). The transformation of land use has an adverse impact on the physical development of the walled city. The transformation has been studied under three levels:

- i. Bazaar Street Level
- ii. Chaupar Level
- iii. Chowkri Level

Land Use (1971)	Percentage
Residential	51%
Commercial	4%
Open Spaces	31%
Lake	2.1%
Public/Semi Public	3.6%
Recreational	8.3%

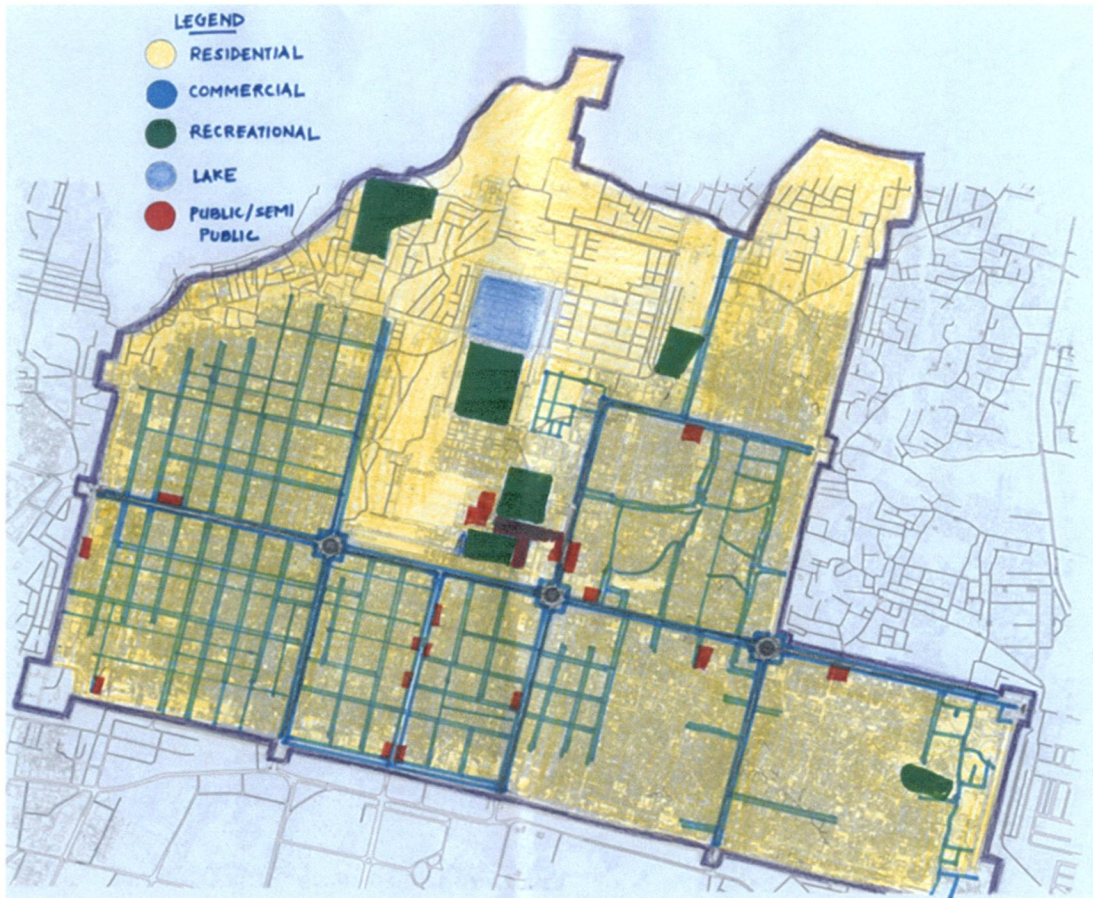
**Table 5.1: Land Use (1971)**

Source: Master Plan Surveys, JDA

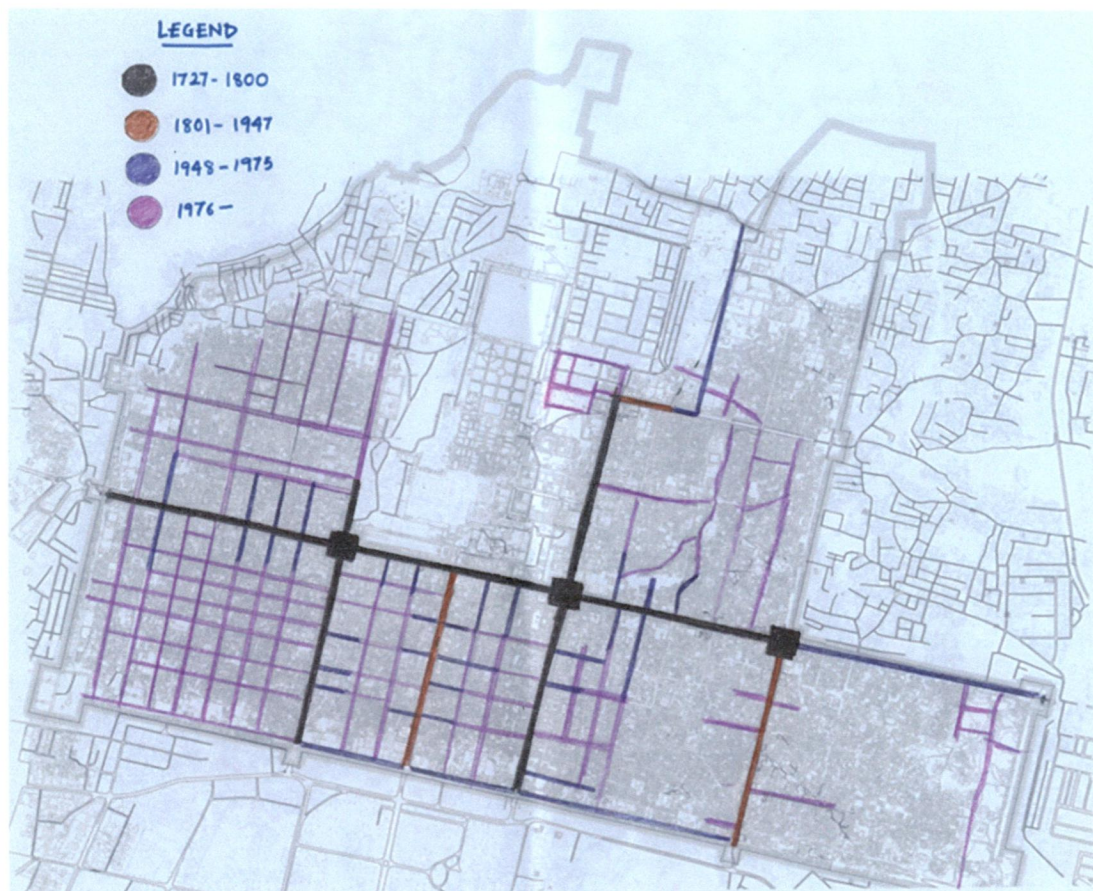
Land Use (2007)	Percentage
Residential	41.2%
Commercial	13%
Open Spaces	29.9%
Lake	2.1%
Public/Semi Public	6%
Recreational	7.8%

**Table 5.2: Land Use (2007)**

Source: Master Plan Surveys, JDA



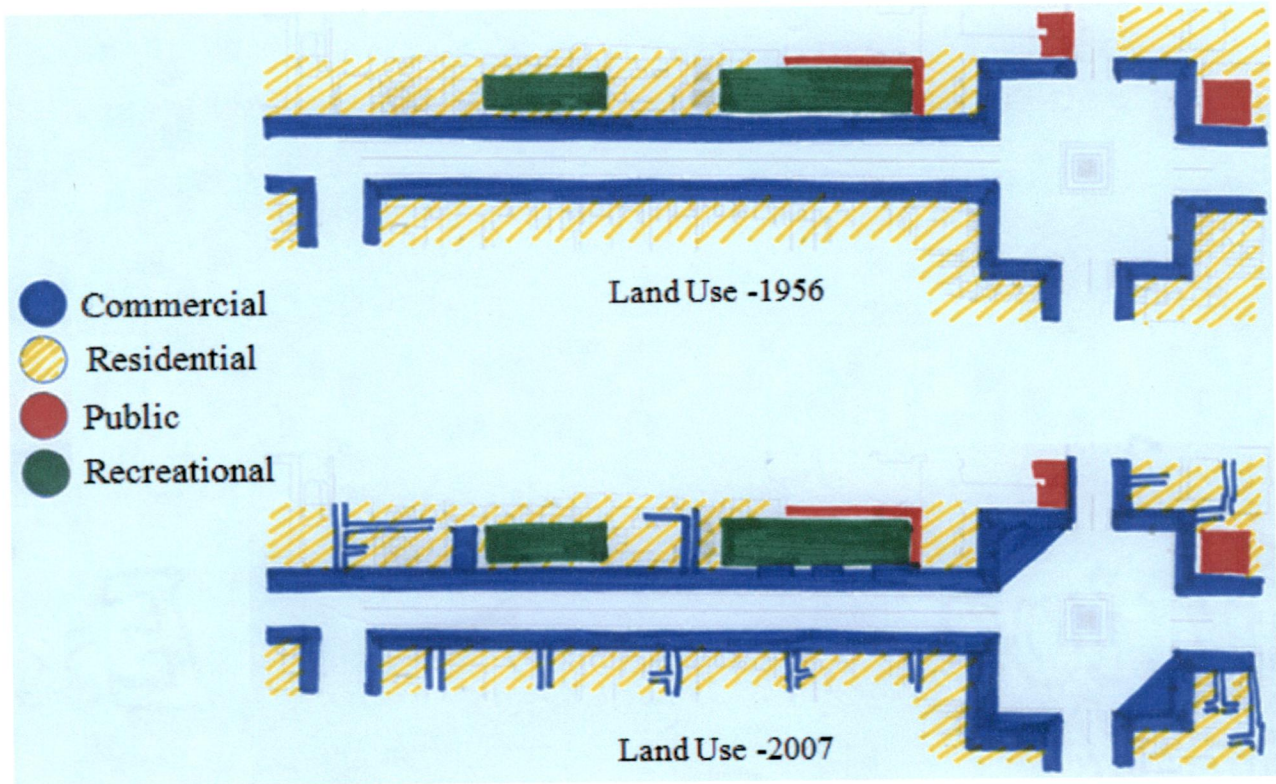
**Map 5.1: Land Use Classification (2007)** (Base Map: Courtesy- Jaipur Nagar Nigam)



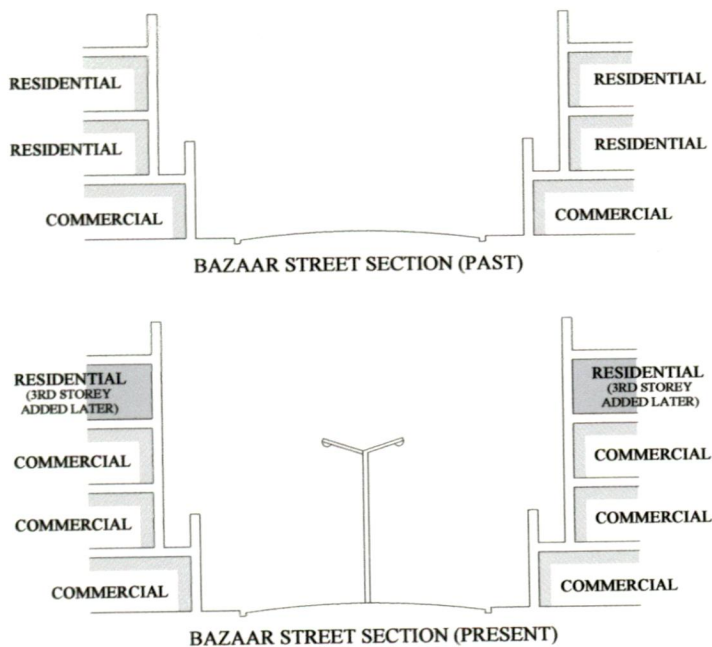
**Map 5.2: Growth of Markets** (Base Map: Courtesy- Jaipur Nagar Nigam)

### 5.2.1 The Case of Tripolia Bazaar

The study area is 1.3 km long stretch. It is predominantly a commercial area. The commercial activity has encroached upon the residential area where commercial land has increased from 4% in 1956 to 16% in 2007, thus, reducing the residential land use from 46% in 1956 to 36% in 2007 (Fig: 5.1).



**Fig 5.1: Transformation of Landuse in Tripoloia Bazaar**

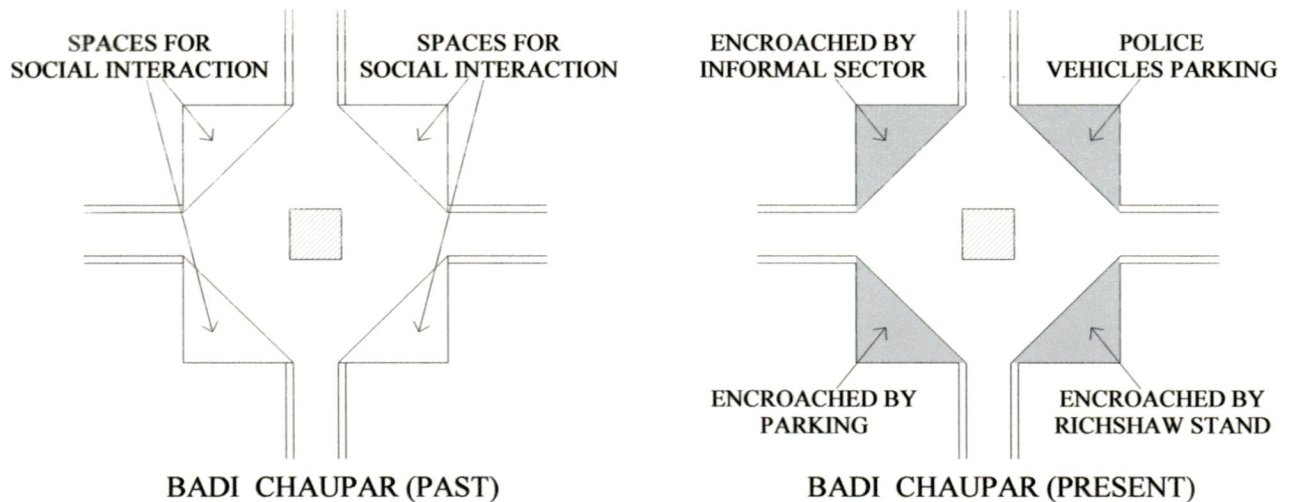


**Fig 5.2: Transformation of Built Space**

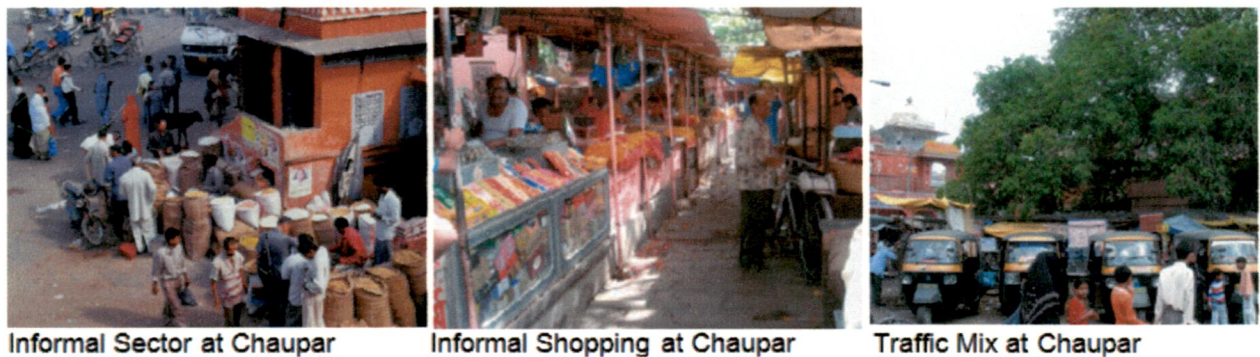
Transformation of landuse is also evident as in 1956 the buildings were three storeyed , the ground floor being used for commercial activities whereas the upper two storeys were for residential use. However in 2007 all three storeys were converted into commercial use and an additional storey came up for residential use. (Fig: 5.2)

### 5.2.2 The Case of Badi Chaupar

Another example of encroachment on public space is evident at Badi Chaupar which was once a significant space for social interaction and cultural gathering. At present this space has been encroached by informal shopping, rickshaw stand, parking lots and parking for police department vehicles adding to the chaos and spill over resulting in traffic congestion on the main carriageway. (Fig: 5.3 & 5.4)



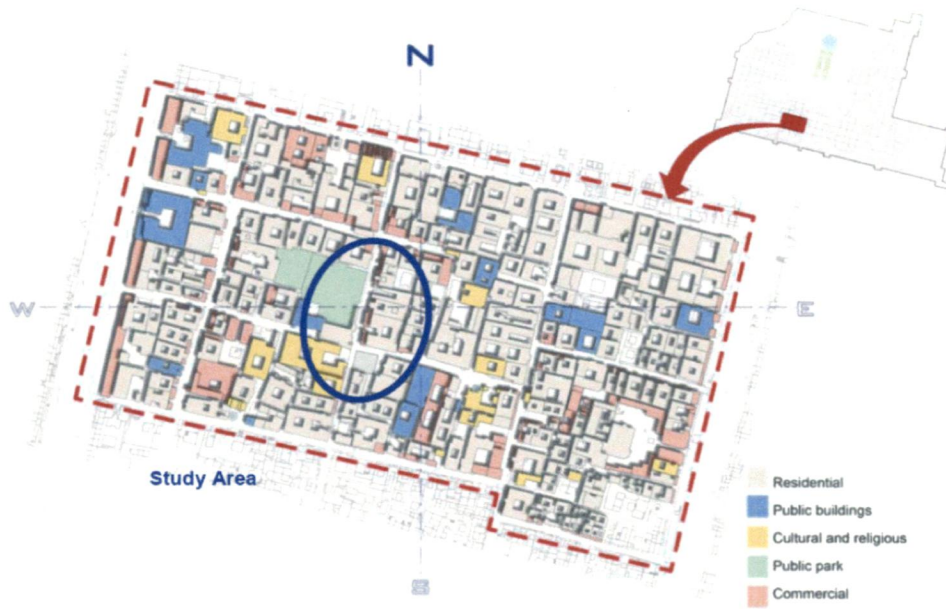
**Fig 5.3: Encroachment on Existing Public Space**



**Fig 5.4: Activities at Chaupar**

### 5.2.3 The Case of Chowkri Modikhana

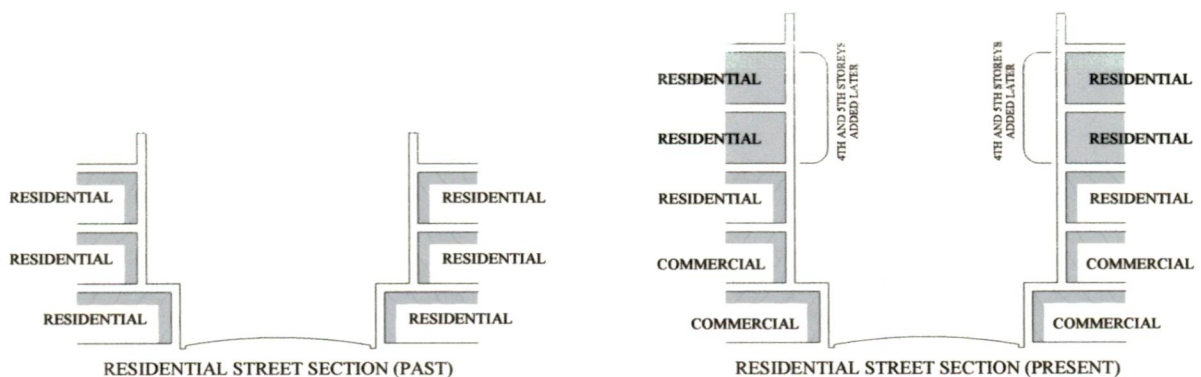
Area of Modhikhana was traditionally occupied by prosperous merchants and jewelers, who built large havelis with a courtyard with well articulated interiors. The area has undergone tremendous change. A large number of havelis have been subdivided into two or three properties resulting into conversion as residential and commercial complexes, and the front rooms on secondary roads are being converted into retail shops, private offices etc. (Map: 5.3). The area lacks proper management of solid waste and the hanging electrical cables give a bad sight.



**Map 5.3: Land Use of Chowkri Modikhana**

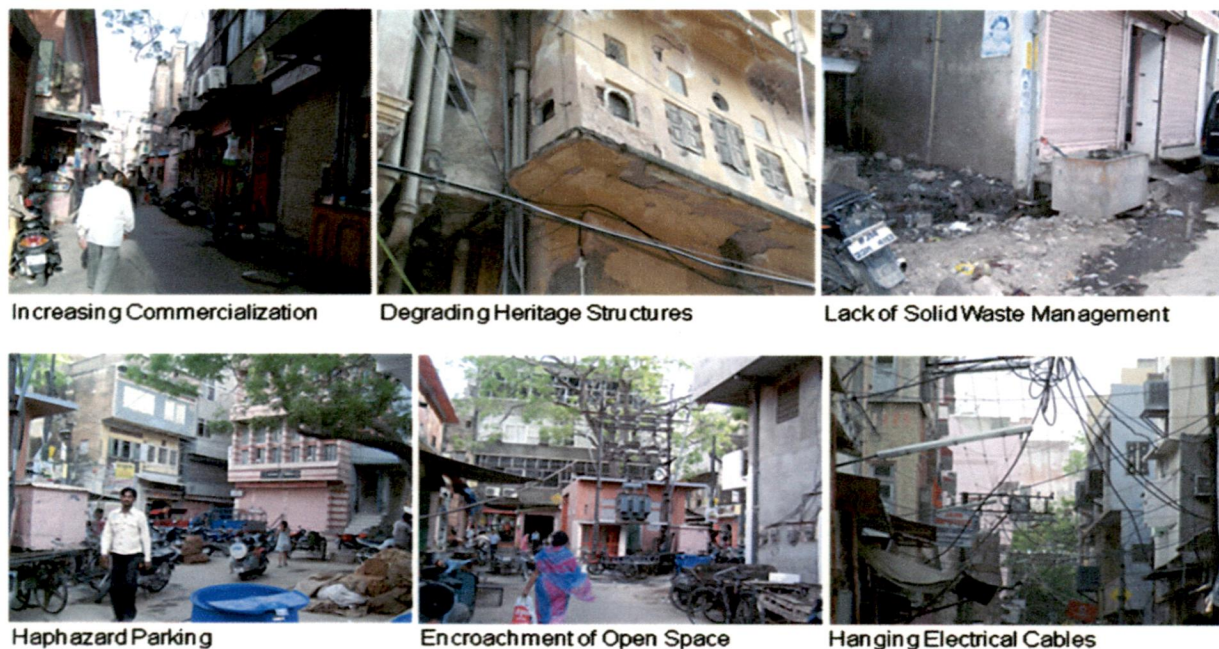
Source: Asia Urbs Project Report: Urban Revitalization of Walled Jaipur

An area 1,40,000 sq.m. within the Modikhana chowkri of the Walled city is selected for detailed study. ModhiKhana was traditionally occupied by prosperous Jain merchants and jewelers, who built large havelis with a courtyard with well articulated interiors. Maximum heritage buildings are located in this chowkri. This area, because of the presence of markets on all its encompassing roads, has undergone tremendous change. A large number of havelis have been subdivided. Two or three properties are being merged and reconstructed as residential and commercial complexes. In residences, the front rooms on secondary roads are being converted into retail shops, private offices and space for jewelers. Proliferation of commercial activity inside chowkri is a phenomenon that started in last 30 years. Buildings have reached even 5 storeys (Fig: 5.5).



**Fig 5.5: Proliferation of Commercial Activity inside Chowkri**

Excessive, uncontrolled and unchecked commercialization of the inner streets in the walled city has led to problems such as traffic congestion during the peak hours. Haphazard construction of shops has spoiled the cultural fabric of the city. Due to lack of infrastructure facilities people from walled city are moving out to the outskirts resulting into conversion of vacant houses into commercial areas. (Fig: 5.6)



**Fig 5.6: Existing Situation**

In this area of Modi Khana chowkri (consisting of 280 buildings, 680 households and about 4000 inhabitants, with an average of 18 persons per building), the majority of havelis have disputed ownership. The ownership of one haveli can be divided between two, three or four owners, sometimes six. Less than 50% of haveli seem to be occupied by tenants, up to six families in each one.

As families grew larger, they extended the house by adding new floors which were in reinforced cement concrete. Along with the extension of facades, the original building was also altered. This irreversible process is so imposing that the architecture of the original building is sometimes barely visible.

The alterations reflected in either the plan or elevations have been made either to fulfill the needs of a growing family or to upgrade the infrastructure. These alterations do not have aesthetics, continuity and materials in line with the original fabric.





**Map 5.4: Urban Fabric of the Study Area**

Source: Asia Urbs Project Report: Urban Revitalization of Walled Jaipur

Built up area is 54% and open area is 46%. The built form is very compact in its structure and suited to the hot dry climatic conditions (Map: 5.4). The houses or havelis have an introvert plan around a courtyard and the treatment of the facades and openings indicates a sensitive response to climatic conditions. A unique feature of this fabric is the narrow lanes (gandi galis) meant for cleaners to clean the night soil manually. This system was abolished but these narrow lanes continue to remain and act as ducts for air circulation during the hot summer months.



**Map 5.5: Structural Condition of Buildings**

Source: Asia Urbs Project Report: Urban Revitalization of Walled Jaipur

The structural condition of buildings is good, fair or bad depending on the degree of maintenance required. Due to their inherent (stone) structural system,

majority of the buildings are in sound structural condition (Map: 5.5). Buildings which have been extensively subdivided, have disputed ownership, or intense commercial use, are structurally weakened.



**Map 5.6: Heritage Buildings versus Other Buildings**

*Source: Asia Urbs Project Report: Urban Revitalization of Walled Jaipur*

Heritage buildings are being converted into modern buildings by the owners thus spoiling the fabric of the city. Proper inventory of heritage buildings is required. Repair and maintenance of the old heritage buildings is essential as they are the main sources of tourism, trade and commerce. Overlapping of duties and responsibilities among various departments and lack of clear-cut responsibilities has led poor management of heritage buildings.

### 5.3 Impact on Physical Development

- There is a massive distortion of architectural characters on the Bazaar streets. As the land values are quite high in walled city, it makes it more vulnerable for commercial activities to come in. Thus to increase this demand, people have constructed more number of floors, spoiling the scale of the street facade.
- Commercial activities have been proliferating in the walled city without any check. 1971-91 market plans for Jaipur declared walled city as a CBD but in recent smaller plan, authorities envisage a check on it and intend to declare it as heritage zone for conservation. (Fig: 5.7)



**Fig 5.7: Proliferation of Commercial Activities without any check**

- Informal sectors are not dealt properly. Walled city attracts tourists and informal sector have to be there to cope up the demand of. Tourists Open spaces, pedestrians become most obvious place where they come up. Since the street is encroached by them and there is always the danger of forced eviction by the authorities, they use cheap materials like haphazardly fixed canvas canopies etc, for carrying on informal sector activities Due to this the structures have an ugly look and give a had Visual appearance. Sometimes these kinds of informal shops completely hide the view of the formal shops and of good buildings behind them. Influx of informal sector has changed the space experience of the chaupar as it has transformed a square space into a undefined space. (Fig: 5.8)



**Fig 5.8: Informal Sector**

- The walled city has good visual linkage to the Galtaji and the Nahargarh fort. The linkage to Galtaji was an important consideration for the location and orientation of the east west road. However due to vegetable vendors located all along the Ramganj bazaar the view from the chaupar is not at all pleasing. The vegetable vendors encroach on the footpath and the waste attracts cattle which gives a bad visual impact to the surroundings.

- Since the land values in this area are also quite high hence every incidental space even on the tertiary roads is encroached upon and converted into commercial, industrial or residential use which disturbs the sequence of space. As the spaces are filled up, the space-building relationship is also disturbed. Even large open spaces like Jaleb chowk and chaupars are filled up. (Fig: 5.9)



**Fig 5.9: Open Spaces at Chaupars filled up to accommodate various activities**

- Landuse distribution - Commercial areas have come up even on secondary and tertiary streets because of unabated commercial development. At several places it is also observed that the commercial establishments which were previously limited only to the ground floor of buildings have also occupied the first floor thereby pushing the residential areas further to the second floor and above floors. This leads to increase in number floors in buildings and consequently leads to the change in density and volume & pattern of traffic coming in to the area. (Fig: 5.10)



**Fig 5.10: Commercial Activities in Secondary and Tertiary Streets**

- Grain and Pattern- Due to construction of structures for informal sector, the grain and pattern, both undergo a change. Due to these constructions, the area

becomes congested. The constructions on open spaces and common areas further affect the grain and pattern. Traditional havelis have been pulled down to accommodate market plazas. Some of them have been completely or partially altered. (Fig: 5.11)



**Fig 5.11: Addition of extra floors and change in old fabric**

Due to break up of joint family systems, the havelis have also undergone severe physical change in terms of height, general layout plan, elevation etc. A new building in place of a haveli stands absolutely alien in the street.

- Some old styled buildings have been brought down to accommodate modern buildings. The architects and designers have not taken care of vernacular architectural context, while dealing with the elevation and this spoils the urban fabric of the area. Certain new buildings have painted pink colour to match with environ but attempt is very poor. (Fig: 5.12)



**Fig 5.12: Buildings painted pink in colour to match the environ**

- Open spaces in the residential streets where people used to interact and children used to play, being converted into space for parking and garbage collection. (Fig: 5.13)



**Fig 5.13: Open Spaces in Residential Streets**

- Traffic- It is one of major problem in the walled city. Commercial activities are closely related to paths and comes up along them. In certain streets, in formal sector have occupied almost whole of the footpath. Thus pedestrians also tend to move on streets. All this lead to traffic congestion and accident. This problem is particularly acute in Badi Chaupar and Ramganj bazaar. (Fig: 5.14)



**Fig 5.14: Encroachment on Footpaths, Pedestrians tend to move on streets**

As per the original concept the secondary streets end the mohalla streets were planned for pedestrian movement, but now due to influx of commercial activities in the residential areas, traffic move through the Mohall's too. At Purohit Ji ka katla, due to the development of wholesale cloth market, vehicles move through the market, where the roads are not more than 2 mts. wide thereby affecting the original movement pattern.

- Commercial activities, institutional activities, tourism result in high floating population in day time in the walled city. Now this results in traffic congestion and parking problems. Though govt. has tried to develop some parking lots outside the walled city but they are also not able to cope up the demand.

- Four wheelers are parked on R.O W. of the main street, thus reducing the effective R.O.W. traffic pollution also lead to environmental and ecological problems. (Fig: 5.15)



**Fig 5.15: Parking Reducing Effective ROW**

- Nodes- Transport operators are attracted to the nodes as it gives them maximum clientel. At chaupar two corners are occupied by transport operators. The north east corner has a Tonga stand and south and east corner has auto rickshaw stand. They come in the way of pedestrians and reduce the street width.
- Due to the square shape four triangular corners are left out as areas of least traffic movement and at Chaupar it could be seen that three out of the four corners have informal activities. Florist shops are located on the south eastern corner behind the auto rickshaw stand and the Bangles market is located in the North West corner. The remaining south west corner is used as a bus stand and parking lot. (Fig: 5.16)



**Fig 5.16: Transport and Informal Activities occupying the corners of the Chaupar**

- Landmarks - Landmarks attract tourist and therefore informal sector

establishes itself around the landmark. The prominent landmark in the case study area is the Hawa Mahal which is an important tourist attraction. Due to this, the shops selling local handicrafts and other specialty items have come up in the buildings opposite the hawamahal and also in buildings adjacent to it. (Fig: 5.17)

The shops are located even on the first floors where they have put up their display boards and this leads to disfiguring of the street elevations as the boards are of all shapes, sizes and colours. All this affects the visual quality of the landmark.



**Fig 5.17: Shops selling local handicrafts opposite Hawa Mahal**

- City graphics - many aspects of urban architecture, particularly those dealing with commercial areas and busy intersections get adversely affected by haphazard placement of sign boards, boarding, posters, billboards etc. (Fig: 5.18)


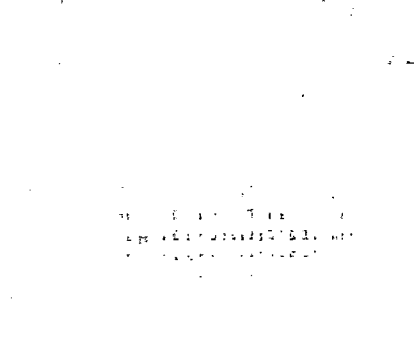
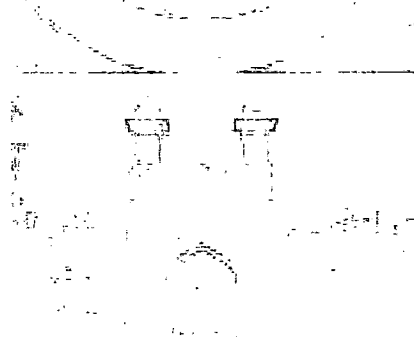
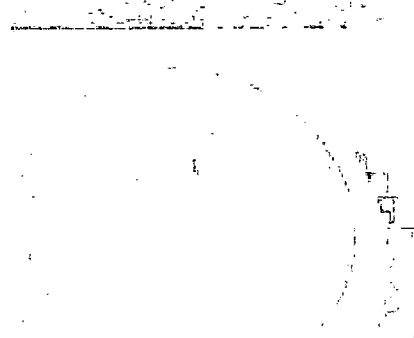

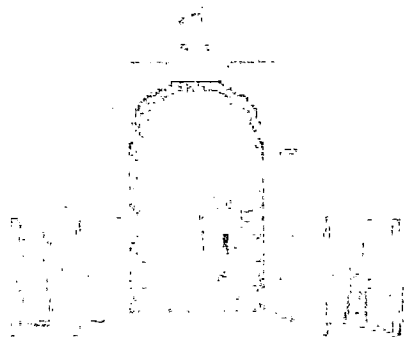


**Fig 5.18: City Graphics**

While urban conservation is a very urgent issue, the pressures of commercialism and development are bound to ride roughshod over it. The rate of destruction in various spheres is growing faster than ever before. The last ten years



have seen more damage than the corresponding period before them. The damage in the next five years is bound to surpass seven that of the previous decade. Now that a definite understanding is developing, although still on a very limited scale, policies signifying conservation should not only be spelled out but made part of urban planning processes. If this generation is unable to make better cities, it should, at least refrain from destroying those it has inherited.



## *Chapter 6: Issues and Problems of the Walled City of Jaipur*

### *6.1 Introduction*

### *6.2 Issues*

*6.2.1 Haphazard parking*

*6.2.2 Gates*

*6.2.3 Chaupars*

*6.2.4 Informal sector*

*6.2.5 Extension of shops*

*6.2.6 Religious and other illegal structure on roads*

*6.2.7 Drawbacks in Present Swm*

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## ISSUES AND PROBLEMS OF THE WALLED CITY OF JAIPUR

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### 6.1 Introduction

Jaipur city has grown much beyond the defined boundaries of old city. However, the concentration of economic, commercial and residential activities within the old city area has not reduced. Even today the old city acts as major economic base not only of Jaipur city and its hinterland, but also for the entire state of Rajasthan. Thus the old city is still important with respect to its commercial and economic position within the entire city. With growing intensity of activities several problems are arising. This is leading to deterioration of the city at fast rate. Presently, Jaipur old city is facing several problems that are responsible for degeneration of its character. These problems pose a threat to the architecture and heritage value of old city.

### 6.2 Issues and Problems related to the Walled City

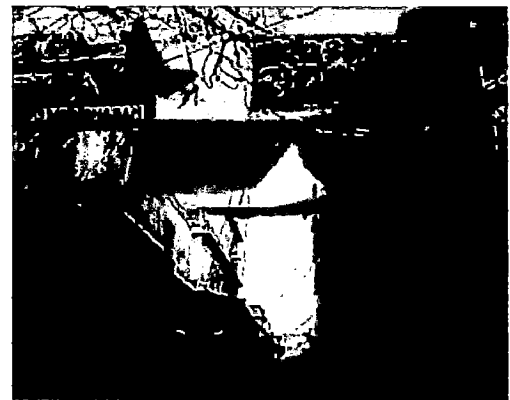
Few major issues related to the walled city are mentioned below:

- Old city is unable to offer attractive lifestyle and comfort to its residents. Over period of time, needs of the residents have changed drastically demanding more luxuries in life. The density within old city is high. Lack of open spaces and other public spaces like parks or gardens is creating dissatisfaction among people. Amenities and facilities are also not adequate. The entry to these residential lanes is very narrow and hence maneuvering of vehicles becomes very difficult. The houses do not have adequate parking space. All these have forced people to move out of the old city area.
- Another major threat to overall character of the walled city is change in landuse. Conversion of landuse is a severe problem within the walled city. Residential units are being transformed into commercial units mainly shops and godowns. This has become very common phenomenon within the old city. These commercial spaces attract more people and hence number of vehicles also increases. This leads to problems like traffic congestion and requirement for more parking spaces.

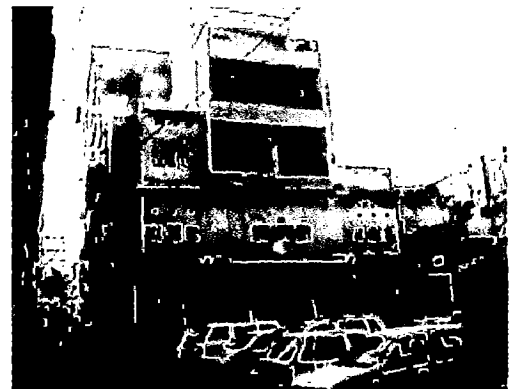
- All the major roads in the old city area are approximately 30m wide. Considering the present traffic plying on these roads, the traffic carrying capacity is manageable. However the effective carriageway width is reduced due to parking on the road sides, pedestrians and slow moving vehicles like cycle rickshaws. Thus improper utilization of carriage way reduces the carrying capacity of the road. This ultimately creates congestion and other related issues. The old city lacks parking areas and facilities. Haphazard on-street parking is a major problem.
- The State Transport buses and City transport buses pass through the old city. The use of buses as public transport is limited because of inefficient route planning, poor maintenance of buses, overcrowding, frequency of availability and high travel time. Tourists visiting the old city hardly use the public transport. Also there is no dedicated public transport system within the old city area.



Dilapidated Structure



Improperly laid services



Addition of extra floors, change in old fabric

**Fig 6.1: Photographs of Walled City, Jaipur**

- Traveling by cycle rickshaws is very common and preferable mode of transport in the old city. Cycle rickshaw rides also attract lot of domestic as well as foreign tourists. There are several positive points associated with cycle

rickshaws as a mode of transportation – fuel free, pollution free, serves as a good para-transit mode, cheap and gives job opportunities to unemployed. However from transportation engineering point of view, cycle rickshaws are not a preferable mode of transport in such congested areas. The travel speed of cycle rickshaw is very low and hence it occupies the road space for longer time duration. This leads to traffic congestion. Rickshaws drivers park the rickshaws at a location convenient to them so as to get a rider easily. This improper parking of cycle rickshaws obstructs traffic and creates congestion. Even socially, this mode of transport is not acceptable.

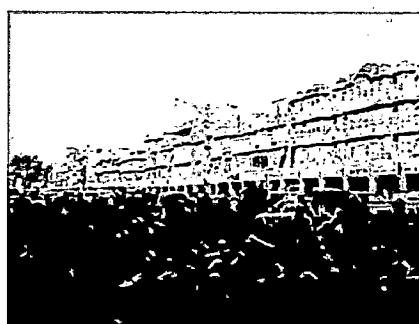
- Some amount of 'through' traffic also passes via old city. It is essential to diverting this traffic outside old city. This will reduce traffic volume and also help to reduce bottlenecks.

### 6.2.1 Haphazard parking

With increasing demand of vehicular parking and in absence of definite parking spaces, old city is facing severe crisis. Due to lack of adequate facilities, parking generally happens along road sides. There is no proper demarcation of space for roadside parking; hence people park haphazardly on road sides. (Fig: 6.2) This narrows the clear lane width and hence reduces the carriageway width available for traffic movement. This not only causes congestion, but also decreases travel speed and increases travel time.



Parking on Sireh Deori Bazar



Parking on Jauhari Bazar



Parking in Chandpole Bazar



Parking on Jauhari Bazar creating congestion.

**Fig 6.2: Haphazard Parking**

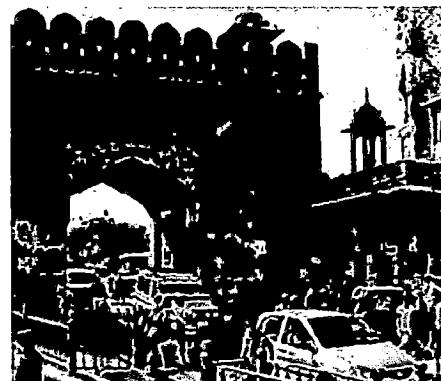
### 6.2.2 Gates

The walled city of Jaipur has 7 main gates, which serve as only entry and exit points into the city. These gates are huge structures, but the entry and exit points are very narrow. The width of the opening of the Gate being very narrow, only one 4-wheeler can pass through it at a time. This reduces the carrying capacity of the road at this section.

Also due to the narrow width, during peak hours the traffic cannot pass smoothly and hence speed of vehicles reduces to approximately 5 km / hour. This causes congestion before and after entering the gate. (Fig: 6.3)



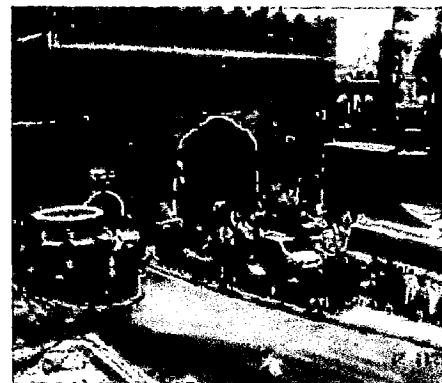
Traffic congestion during peak hour at Gate



Entry of only one vehicle at a time due to width of gate



Congestion at Gate due to stopping of bus



Chandpole Gate, only one entry point

**Fig 6.3: Congestion at Gate**

### 6.2.3 Chaupars

They are the major intersection points and hence govern the capacity of the intersecting roads. Chaupars have become points of conflicts due to enormous informal activities, parking, pedestrian movement, movement of slow moving vehicles like cycle rickshaws /autos, stoppage of state and city buses etc. (Fig: 6.4)



Traffic movement at Chaupar



Parking at Chaupar



Informal sector at Chaupar



Traffic mix at Chaupar



Markets at Chaupar



Small informal sector at Chaupar

**Fig 6.4: Activities at Chaupar**

#### **6.2.4 Informal sector**

The old city also has a major concentration of informal shops. There is no demarcated hawking space and hence the informal sector is spread through the old city. However major locations where the informal shops are present in considerable amounts are open / parking space near gates, arcades along the major roads, on roads, chaupads and major road intersections. Presence of the informal sector at such critical locations invites several problems. It causes traffic congestion, reduces the carriage way width, takes away the parking space and pedestrian walkways etc. (Fig: 6.5)



Informal sector at Gate



Informal sector on Arcade



Informal sector at Badi Chaupad



Informal sector & extension of shops on arcade

**Fig 6.5: Informal Sector**

### 6.2.5 Extension of shops

The shops opening on the arcades extend their activities into the arcades. Display of items or goods and storage of extra items on the arcades is a common practice. This type of encroachment by the shop owner decreases the width of the arcade available for pedestrian movement. Hence pedestrian prefer to walk on the road and not inside the arcade. This creates congestion on roads and disturbs traffic movement. (Fig: 6.6)



Informal sector & extension of shops



Extension of shops in the Arcade

**Fig 6.6: Extension of shops**

### 6.2.6 Religious and other illegal structure on roads

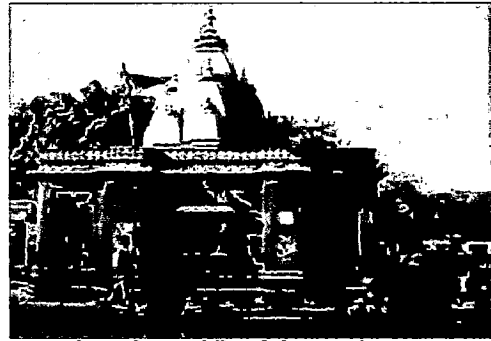
Illegal structures like temples standing in the middle of the road pose as a problem to traffic movement. These structures not only occupy the road areas, but also decrease the lane width. Such structures obstruct the traffic, reduces the travel speeds, causes congestions and traffic jams during peak hours. Religious structures



on road attract people who come to seek blessings, thus it increase the cross-over pedestrian traffic on the road. Such structures should be relocated and reconstructed at a nearby location. (Fig: 6.7)



Temple in the middle of the road



Temple in the middle of the road

**Fig 6.7: Religious and other illegal structure on roads**

### 6.2.7 Drawbacks in Present Solid Waste Management Services

#### 1) No Storage of Waste & Segregation at Source

There is no practice of segregation & storing the waste at source. Citizens have not been educated to keep domestic, trade, and institutional bins for storage of waste at source and stop littering on the streets. As a result, solid waste is thrown on the roads in discriminately. (Fig: 6.8)



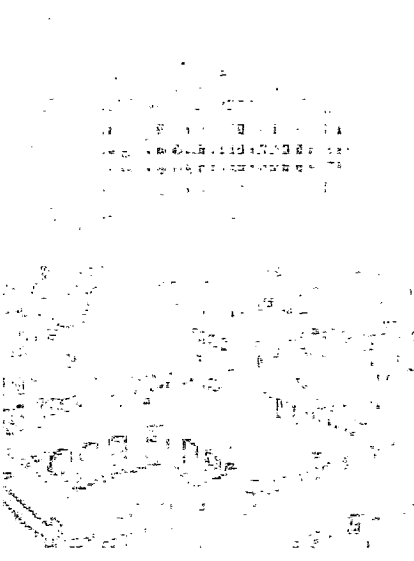
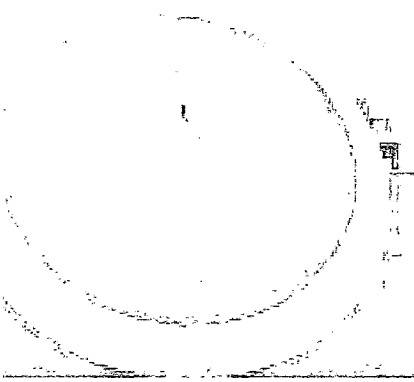
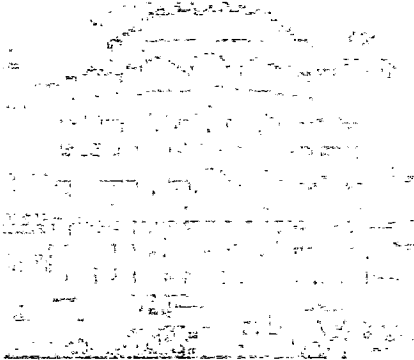
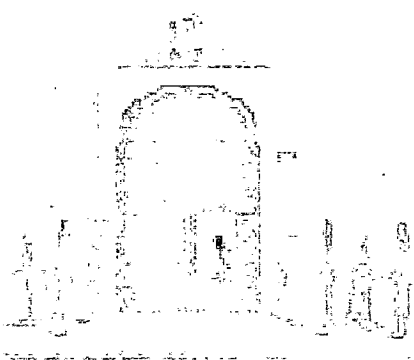
**Fig 6.8: Improper Solid Waste Management**

## **2) No System of Primary Collection from the Doorstep**

There is no public system of primary collection from the source of waste generation. The waste discharged here and there is later collected by municipal sanitation workers through street sweeping, drain cleaning, etc. Street sweeping has, thus become the principal method of primary collection.

## **3) Irregular Street Sweeping**

Even street sweeping is not carried out on a day-to-day basis in the city generally commercial roads and important streets are prioritized and rest of the streets are swept occasionally or not swept at all. Generally, no sweeping is done on Sundays and public holidays and a back log is created on the next working day. The Jaipur Municipal Corporation allocates work to sanitation workers on ad hoc basis. The work distribution ranges between 200metres to 1000metres of street sweeping each day. Some sanitation workers are found under worked while some over burdened.



## *Chapter 7: Recommendations and Conclusions*

### *7.1 Conclusions*

### *7.2 Recommendations*

#### *7.2.1 City Level Recommendations*

#### *7.2.2 Sector Level Proposals*

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## CONCLUSIONS AND RECOMMENDATIONS

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### 7.1 Conclusions

1. Revitalization processes respond to transversal, cross-cutting, multidisciplinary and multi-scalar approaches. These complex approaches require transparency in their implementation.
2. The historic district is part of a specific urban territory. Projects must be included in a global plan to avoid exclusion that can result from revitalization processes in these districts.
3. Strong political will (strong leadership) is inseparable from a concerted and organized mobilization of all actors (private sector included) accompanied by awareness raising and training of the people concerned.
4. Each historic district has its specificity, even in the same country and the same region, thus no model can claim to replace an analysis of the values and local practices that are subject to constant evolution. The methods and tools conceived in a given context may help the actors but must be adapted to the local specificity.
5. Regular assessment of action allows for readjustments to be made to the processes and to improve the approach in constantly evolving contexts and districts. The urban fabric is a living fabric always in motion.
6. Historic districts need conservation and therefore restoration of the built heritage. In case of irreversible damage, measures have to be taken to prevent further degradation and enable the district to transmit a heritage testifying to an era and to past generations.
7. Professionalism is compulsory at every stage, in the fields of planning (quality of the architectural processes, traffic and transport), environment (public spaces, noise) services (reception, trade), culture (services, sites management) and in the field of information (signaling, documentation).

8. To revitalize the old city, the basic elements which play vital role in its survival, must be looked into in a systematic and coordinated way avoiding individualistic approach in dealing with different elements to avoid over emphasis of any one particular element, at all stages of revitalization.
9. The revitalization has to be an on going process, combining different approaches to strike a balance between the old values and the new requirements of the inhabitants and visitors.
10. The economic viability is crucial and important factor in the process of revitalization of the old city. Proper management of resources for revitalization is thus required to make their optimum utilization. It requires justifying the appropriation of historic buildings as commercial resources. The rehabilitation of older structure, utilizing the vacant buildings and areas and the environmental improvement, all of which will in turn generate economic growth, investments and tourism income from tourism. The benefits of these resources should go to the interest of residents and for public investment for revitalizing the historic city.
11. Revitalization is a plan for upward social and economic mobility of inhabitants and an attempt to identify and address the social issues that required attention, and to adjust the current priorities in order to comply with future requirement. The plan must be sensitive to society, respecting the inhabitants' aspirations and priorities and involving them in the process of decision making. The plan should be employed to support the revival of social integrity respecting the social values and customs.
12. Through traffic from old city to be discouraged with limit of impairing accessibilities. An acceptable balance must be struck between the need to satisfy the demand of residents, for accessibility, and minimizing the disturbance that is inevitably created by the traffic. The streets should be an exciting shopping and entertainment area and should provide amenities attractive to residential areas, and the focus to create pedestrian environment woven in the traditional fabric.

13. The focus should also be on those services and requirement that will enhance the quality of life for all and to maintain an acceptable aesthetical and qualitative environment for residential living.
14. The plan emphasized on the conservation of the cultural and historical characteristics and values of existing buildings. Utilization of structures and areas will play vital role in revitalizing the old city and that will get the economic return for the inhabitants. This should be considered within the characteristics of the original building without alteration to the main structure.
15. Rehabilitation of residential areas is an important approach for supplying more housing and to utilize the complete set of buildings. Strengthening indigenous architecture and form, by conservation, to recapture the symbolic values of the past, moreover, revitalize the image of the area by improving and beautifying public spaces.
16. It is necessary to optimize the use of open spaces, urban gardens and social squares, for the needed use especially for recreation purpose. However, these spaces should be conserved as open spaces to keep the balance and texture of the traditional fabric of the city.
17. The overlapping of the responsibilities of urban governance, dealing within the old city imparts a negative impact on the old city. These conflicting roles of local civic bodies create much destruction in the traditional fabric. Therefore, there is an urgent need to authorize particular agency to manage, regulate and control the responsibilities of other agencies which also need to be remolded.

## **7.2 Recommendations**

### **7.2.1 City Level Recommendations**

Planning controls are required for maintenance and existence of buildings and sites of historic and architectural value situated in Historic Town. Towns are never static, always growing and new activities are added and in a result ultimately destroy the historic character and buildings of architectural importance.

Mainly the human factor like population pressure, urban traffic, economic consideration, lack of awareness, modernization and urban renewal, etc. are responsible of deterioration and disappearance of the architectural heritage. For efficient conservation, the planning controls should be responsive to the physical, social and economic needs of the area. Following are the recommendations at city level:

### 1) **Retaining Urban Form**

The Walled City of Jaipur has survived for 300 yrs with rich cultural heritage. The visual impact must be kept unobstructed. (Fig: 7.1)



**Fig 7.1: Retaining Urban Form**

### 2) **Designation of conservation zone**

The areas and buildings of historic importance, which contribute to the overall character and ambience of the city, are protected through designating them as conservation zones with strict development controls. Conservation areas are defined as “areas of special architectural and historic interest, the character or appearance of which one desires to preserve or enhance.” These areas should be protected with well defined ground rules to control alterations and new developments.

#### **Heritage and conservation:**

- Creation of a separate Heritage Cell for walled city.
- Compulsory demolition permit, compulsory agreement from the heritage cell as well as Municipal Corporation on building permits of new buildings inside Walled City.
- Creation of separate heritage fund for renovation of Heritage Buildings.

- An efficient subsidy fund for helping the owners to renovate the heritage buildings (30 % or more).
- A heritage tax of about 1 dollar/day, can be levied on foreign tourists in addition to hotel tax for heritage fund.
- To convince house owners to restore the buildings:
  - Exemptions of rent limitations
  - Direct subsidies to owners up to 50% for restoration of buildings.
  - Low interest rate loans for renovation.
  - Exemption of property tax for restored old buildings.
- Defining role of civil society groups in heritage protection with the help of NGOs.
- Funds from national/international agencies.

### **3) Land use and zoning**

It defines land to be developed, zone land uses, establish plot ratio to govern density and sets out alignment of roads. Through use control, through varying use of new and existing, through determining the areas of change for public and private renewal, the usual process of change can be stopped.

### **4) Protection of listed buildings**

Protection of listed building is necessary for its existence to play its role for architectural and planning reasons or as an illustration of social and economic history. Particular attention is necessary in carrying out any changes even if it is minor as it has serious effect on their overall appearance and character.

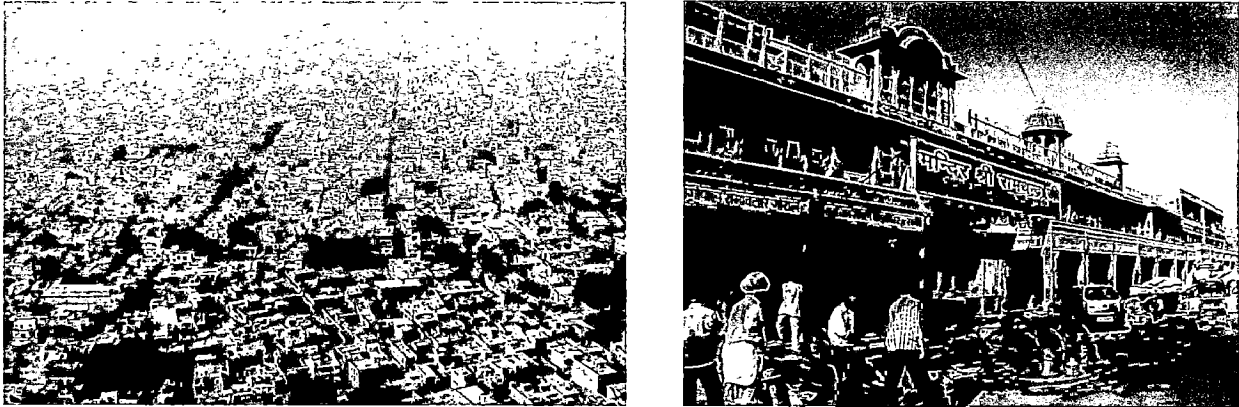
### **5) Demolition control**

The Listed buildings of architectural or historic interest need careful attention to ensure their preservation. The demolition is not allowed to such buildings unless special permission is obtained from the authority.



## 6) Height control

Building height has a considerable effect on the city's townscape and skyline. In case of new development it must maintain the original height or permissible height. (Fig: 7.2)



**Fig 7.2: Height Control, Maintaining the Original Height**

## 7) Floor space index

The purpose of FSI standard is to protect the amenities and character of the city's environment by setting a limit on the bulk of the development. In the walled city area the development or addition of floors be discouraged by setting the restrictions on the plot ratio either by maintaining or decreasing the FSI.

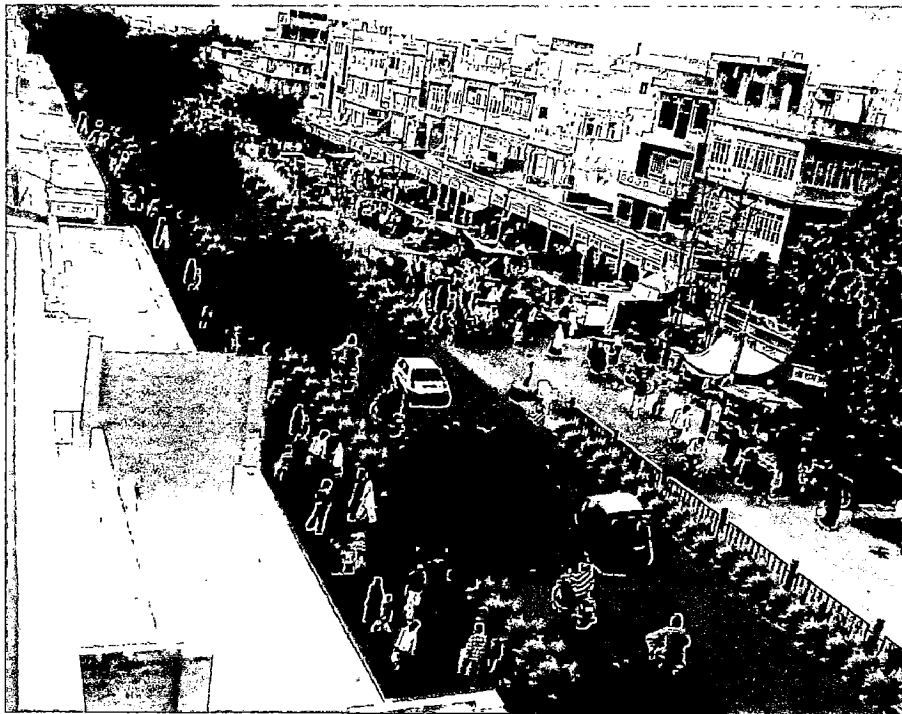
## 8) Traffic control

The intrusion of heavy and modern traffic in the historic areas will result in demolition of ancient road pattern, destruction of entire quarters, loss of architecture, dismantling of monuments, walls, gates and other city's built elements.

- As whole sale markets, Govt. offices etc are proposed to be shunted out of the walled city, the numbers of trips would automatically decrease and traffic congestion would also reduce tremendously.
- On main bazaar streets four wheeler parking should not be allowed as it spoils the streetscape and also reduces the effective are ROW. All main bazaars and chowkries to be converted to "No Parking Zone". (Fig: 7.3 & 7.4)

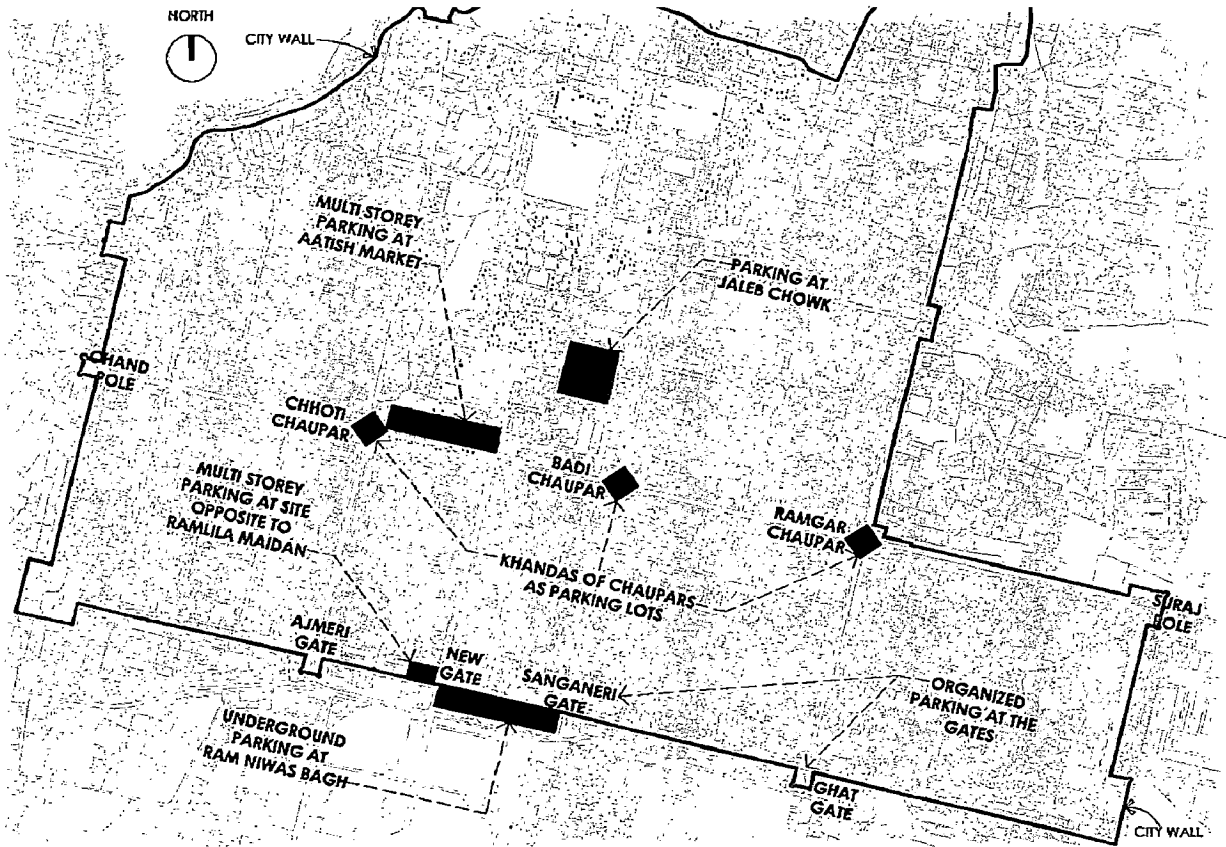


**Fig 7.3: Existing Situation of Bazaar Street**



**Fig 7.4: City Level Proposal (Bazaar Streets to be converted into  
"No Parking Zone")**

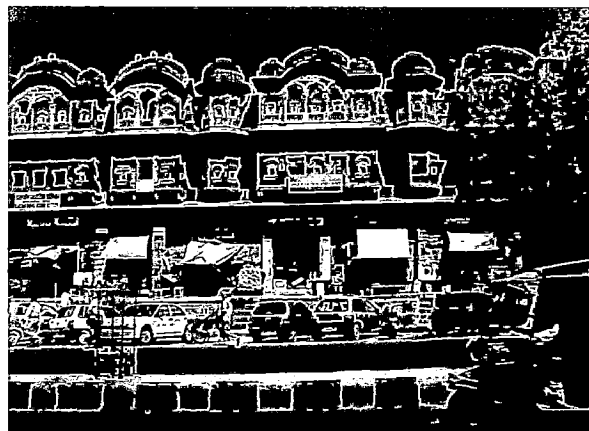
- Parking lots should be developed in and around walled city after careful studying the possible sites. (Map: 7.1)
- Pedestrian traffic should be encouraged. These pedestrian should be made free from encroachments.



**Map 7.1: Location of sites for Parking**

### 9) Dominating features

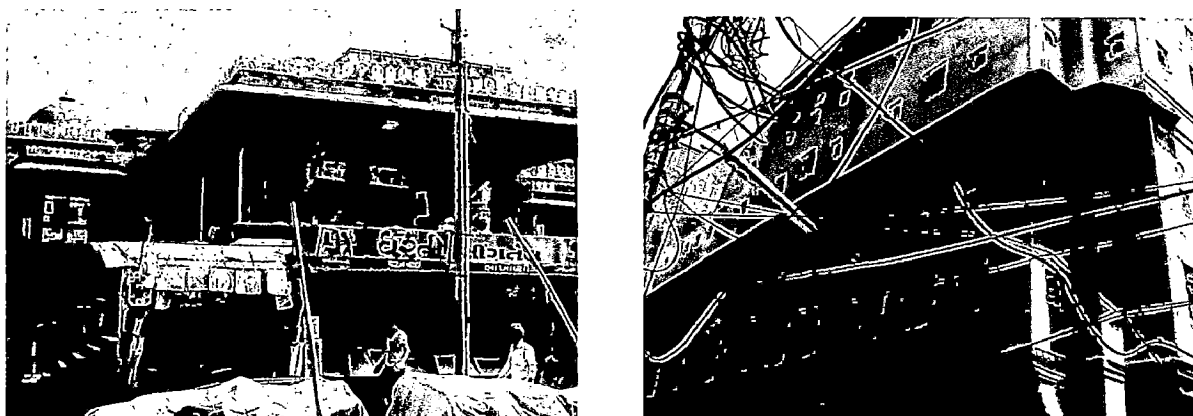
The spatial organization and setting of buildings should be harmonious. The new development should maintain the general character of the group of buildings with dominant features like, the harmony of heights, colors, materials and forms and all other elements constant in the way of facades and roofs are built, relationship between the volume of buildings and the spatial volume, as well as their average proportion and their positions. (Fig: 7.5)



**Fig 7.5: Dominating Features of the Façade**

## 10) Protection from disfigurement

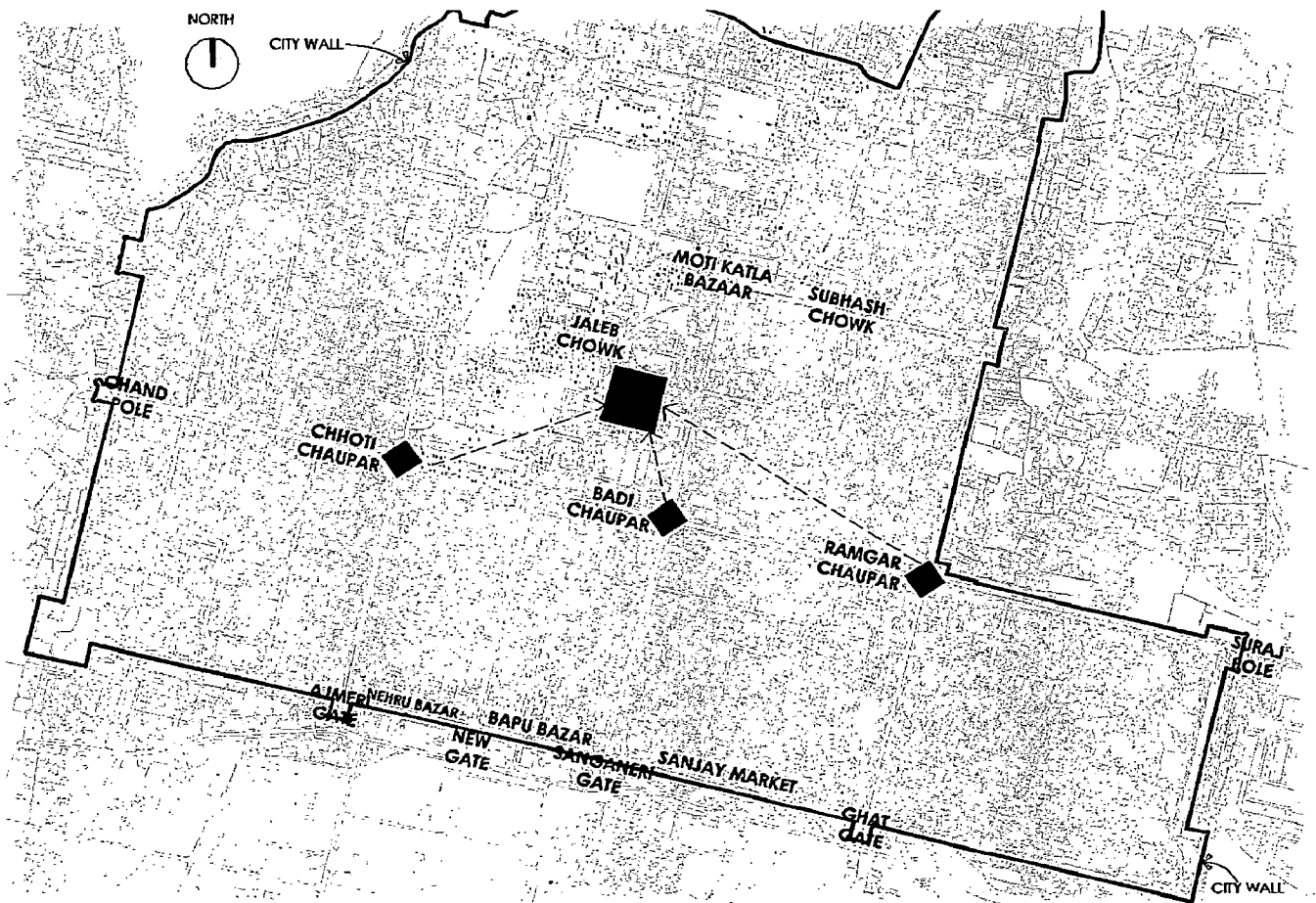
The walled city area and its surrounding should be protected from the disfigurement caused by advertisements board, erection of poles, or any other activities which may harm, in order to protect and enhance the generally dignified character of city's street. (Fig: 7.6)



**Fig 7.6: Protection from disfigurement**

## 11) Regulation of Commercial Activities

- Detailed building regulations, FAR. Ground coverage etc. to be prepared under Zonal Development Plan by taking care of different character of nine Chowkries and bazaar streets. Right now a similar set off by laws apply to all most all parts of walled city.
- Informal sector, which has a greater potential in a tourism rich area: should be organized properly. Jaleb Chowk has small rooms opening into a covered verandah and it could be a great informal shopping plaza. This area is also the entry point of tourist complex of city palace, so visitors coming to city palace can also enjoy this shopping plaza. (Map: 7.2)
- Principals of adaptive re-use should be exercised. Govt. should make it a policy that all the historic buildings in their ownership, weather in use or not, must be maintained in good usable conditions. Govt. should take the lead in encouraging recycling old buildings.
- The havelis could be converted into hotels, restaurants, cafe, Bar, Museum, Library, handicraft Haat bazaar etc. especially conforming to tourist interest use and making recycling economically viable.



**Map 7.2: Informal Sector Shift (to Jaleb Chowk)**

*Base Map: Courtesy- Jaipur Nagar Nigam*

## 7.2.2 Sector Level Proposals

(Refer Map 7.3 for Proposal)

- Pedestrianization of streets and the entire Chowkri should be converted into "No Traffic Zone". (Fig. 7.7)
- Keeping the original courtyard of the havelis should be made obligatory. In case of demolition and reconstruction, it is advisable to insert courtyards in the new buildings.
- The heritage buildings which are in good condition are to be protected, the ones in fair and bad condition require to be conserved through the process of restoration or reconstruction and the ruins or totally decaying heritage buildings should be demolished.
- Buildings other than heritage buildings need not be conserved but should

have compatible development in order to retain the character of the area. These buildings, if required, can be rehabilitated according to the will of the owner with the possibility of getting loans and advice of heritage cell. Dilapidated buildings should be replaced and there should be guidelines to build up new ones (height, materials, volume, etc).

- Limitation of storage and commercial uses on the ground floor.
- Banning the demolition of buildings with high cultural importance.
- Direct subsidies from authorities to owners (50 % of the restoration costs). The subsidy can be proportionate to the owner's resources, can encourage owners who occupy their property or owners who rent to tenants. Low interest loans for restoration.
- The exemption of land tax on restored buildings for a period of 10 or 15 years from the time of the completion of work is an incentive. Tax benefits: possibility of deducting expenses (costs of work or costs of loans) incurred on the property from the taxable income or the exclusion of restored buildings from the base of calculation of taxes for ten years.
- Advertisement for shops should be in a prescribed place.
- Pipes for water connecting main lines and the house should be put underground. Underground cabling of all hanging electrical cables should be done. (Fig. 7.9)
- Open drains should be covered.
- Sewer and rain water pipes on the facades should be accommodated in the conservancy lanes.
- Redesign of open spaces.
- Efficient solid waste management (Fig: 7.8): Immediate requirement is to employ a private contractor to take up the responsibility of solid waste

collection and disposal. However, for the implementation of a strong and integral plan for the best practice available for collection, treatment and disposal of Solid Waste a detailed survey and study of Jaipur City including the Walled City needs to be carried out.



Before Intervention



After Intervention

**Fig 7.7: Pedestrianization of Chowkri**

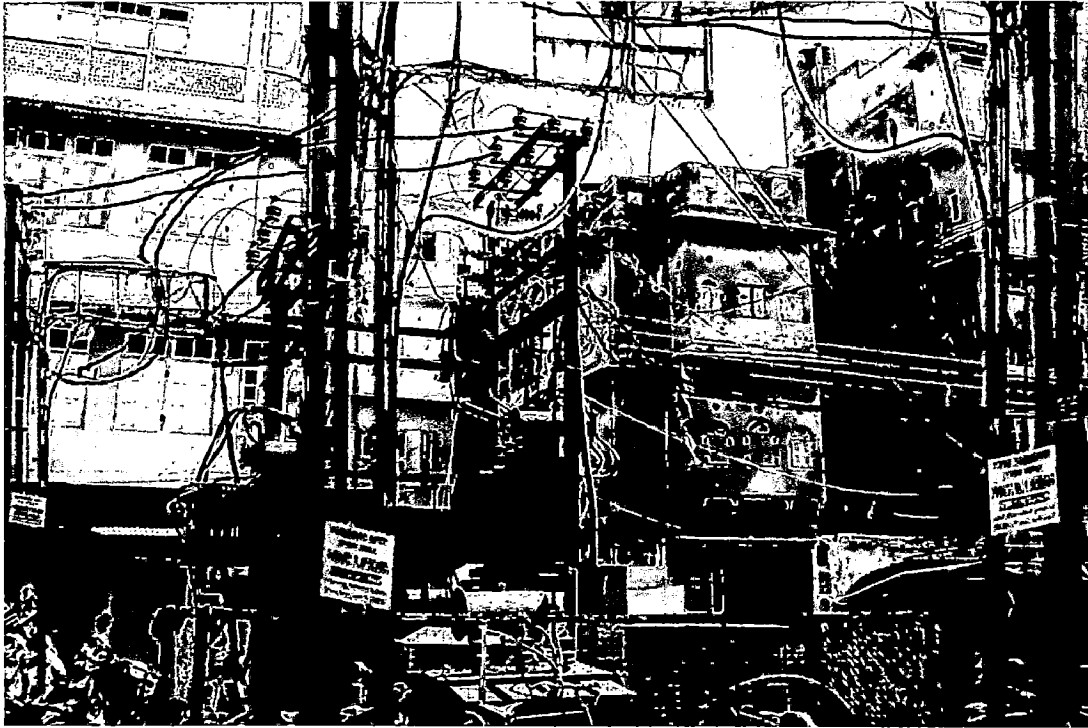


Before Intervention



After Intervention

**Fig 7.8: Efficient Solid Waste Management**



*Before Intervention (If we do not care)*



*After Intervention (If we do care)*

**Fig 7.9: Underground Cabling of all Hanging Electrical Cables**

A proper integrated and comprehensive approach for infrastructure provision and their maintenance at a city level is necessary.



Obligation of keeping the original courtyard of the havelis. In case of demolition and reconstruction, it is advisable to insert courtyards in the new buildings.

Buildings that can be rehabilitated according to the will of the owner. In case of rehabilitation, there would be possibility of getting loans and advice of heritage cell.

Buildings to be protected

Buildings that can be replaced and guidelines to build up new ones (height, materials, volume, etc).

Ruins or totally decaying heritage buildings to be demolished,

- The opening of new open public spaces
- The organisation of amenities

Buildings required to be conserved through the process of restoration or reconstruction

Buildings which need not be conserved but which should have compatible development in order to retain the character of the area



Pedestrianization of streets and the entire Chowkri to be converted into "No Traffic Zone"

**LEGEND**

Good		Fair		Bad	
	Other building		Heritage building		Heritage building
	Other building		Other building		Other building

**Map 7.3: Proposed Master Plan (The Case of Chowkri Modikhana)**

Jaipur is one city where a piecemeal approach to conservation will not yield the desired results. It presents an obvious case for a comprehensive policy dealing with individual monuments and the overall urban form which incorporates design principles on a city wide scale. Freezing developmental activities may be difficult task and perhaps even undesirable. Guiding change in a controlled manner and incorporating plans that can be modified if necessary from area to area is the key to urban conservation. In the case of Jaipur, the conservation strategy has to be closely tied to urban development policies.

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