RESEARCH STUDY SERIES

Number 58

INNER CITY ENVIRONMENT AND URBAN RENEWAL OF MYSORE

National Institute of Urban Affairs
New Delhi

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PREFACE

The rapid growth of India's urban population is by and large confined to the existing towns and cities. The spatial expansion of urban development is at a greater pace than the increase in population. Satellite images of some major cities reveal that for every 100 percent increase in the population of a city, the area under urban development increases by about 300 percent. This is largely due to rapid development of low rise, low density development in the periphery of existing towns and cities. As a result of such spatial growth, the inner city areas, which were at one stage of city's development, the core areas, have lost their importance.

These inner city areas, characterised by high density of mixed land uses, served as both the core of economic as well as residential activities in the past. The built form of these inner areas, developed over two to three centuries, had a human scale, that permitted all activities to congregate within working distance. The growth of economic activities and population in recent period, has taken place outside the inner core areas. Many households and activities have also shifted out of the inner areas. The built form of the inner city areas has witnessed a gradual change. A majority of the old housing stock has become dilapidated. With the imposition of Rent Control Act, it has become difficult for owners to upgrade the buildings.

Low rentals have also prevented mobility, particularly of lower and middle income group households.

Unlike the European and North American cities, very little effort has been made in India for renewal of inner city areas. The only programme existing in India is that of the Bombay Building Repairs and Reconstruction Board which takes up repairs and rebuilding of dilapidated structures in Bombay. However, in may other cities of India, there is an urgent need to formulate strategy and programmes to upgrade the built form and living environment in the inner cities. This is important because the inner city areas have a rich potential to continue to serve as a core of urban activities, have a wealth of historic artifacts and structures that need to be conserved, and still serve as a place of residence and economic activities for a large number of residents.

The case study of Mysore, described in this report, has been undertaken with a perspective of preparation of a strategy and action programme for revitalising the inner city residential areas. Unlike the other medieval city inner areas that are organic in character with narrow & meandering streets, Mysore's inner city areas are planned and laid out in almost grid-iron pattern. The renewal of inner city areas of Mysore thus require considerable less investment and efforts. While the specific renewal

strategies suggested for Mysore, may not be directly replicable for other Indian cities, the approach suggested of a partnership between city governments and community groups is certainly worth emulating in other Indian cities.

At the NIUA, Dr. Madhusree Mazumdar took the complete responsibility of coordinating the Study. In addition to the team of researchers at NIUA, local research staff helped us in primary surveys at Mysore. We are grateful to Prof. P.D. Mahadev of the University of Mysore for his help in the initial phase of this study. We also wish to place on record, the excellent contributions of Prof. A.G.K. Menon and Mr. Satya Parkash Varanashi on architectural conservation. We are grateful to The Norwegian Agency for Development Cooperation (NORAD), for their financial support.

This report provides a methodological framework for development of a comprehansive inner city renewal strategy for Indian cities. Studies of this nature need not be confined to prescriptions alone but also need to be acted upon. Preliminary presentation of this report to city officials and professionals in Mysore evinced keen interest to implement the suggested strategy. The implementation exercise in itself will be a valuable learning experience for us in improving the quality of life our cities.

July, 1994

DR. DINESH B. MEHTA
DIRECTOR

EXECUTIVE SUMMARY

Concept

As cities attain age, the historic core or the inner city area, which is normally in the centre of the town, becomes congested because of population increase and multiplication of activities, for it is forced to accommodate much more than what it can hold. As a result environmental conditions deteriorate and people live in misery. To improve the standard of living of the inner city residents, rejuvenation of such areas was introduced in the West. It began with the upgrading of environmental health conditions, but deflected towards refurbishing of the old housing stock, as improvement in housing brought about better conditions of living and prevented health hazards. Over time the strategies for "urban renewal" matured and culminated into sound renewal policies.

In India, inner city renewal strategies have not been formulated so far, because in all developing countries provision of housing and infrastructure gets priority over renewal and rejunvention. Besides, the conditions here are very different. The custom of shared ownership of houses makes renovation difficult, as owners desist spending on common property. In addition, the Rent Control Act is biased in favour of tenants and encourages them to exploit the situation. Renewal under such circumstances is very difficult. It leads to complex management and administrative problems. Hence no comprehensive renewal

strategy has been formulated, even though the need for such a strategy is long felt. Consequently, inner city areas continue to deteriorate.

In some cities piecemeal efforts have been made to upgrade such areas. But since activities within a city are interrelated and action in one field is reciprocated by counter actions in others, in all efforts towards improvement become futile if taken up in insolation. There is, therefore, an urgent need to formulate a comprehensive inner city renewal strategy.

Selection of the City

To study the problems that arise out of inner city deterioration that affect city life and management, the city of Mysore (in the state of Karnataka) has been selected. The aim is to develop a strategy for inner city renewal.

The reason for selecting Mysore is its historical past that lends a character to the city. The idea is to suggest renewal and conservation of the deteriorating traditional housing in order to retain its heritage, before the town gets too industrialised and loses its character altogether.

Because of its salubrious climate Mysore has always attracted people from all over India. The rulers of the city, from time immemorial, have promoted very special

cultures and industries that have given the city a unique place in the Indian sub-continent. Preserving the inner city environment is, therefore, necessary to retain the culture of the city and the well-architectured housing stock.

Objectives

This study is an action-oriented research that aims at developing a comprehensive strategy for inner city renewal of Mysore. The objectives of the project have been categorised into:

- planning objectives:
  1. To improve the living conditions of the inner city.
  2. To retain the old housing stock at a time when housing is in demand - for renovation is more economical than reconstruction.
- project objectives:
  1. To formulate a strategy for inner-city renewal.
- study objectives:
  1. To assess the socio-economic status and the physical and environmental conditions of the inner city to form a base for further planning.
  2. To find out area-specific problems of degeneration.
  3. To analyse the existing structural patterns vis-a-vis the growth process.

4. To study urban forms and suggest retention of the housing stock in conjunction with the cultural ambience.

5. To formulate an action-oriented strategy with people's participation to improve the housing and upgrade the residential neighbourhoods within the inner-city.

Project Design

The project has been designed on the basis of the study objectives, the target population and the information available, keeping in mind the organisational set up that would implement the project and the time and resources available to the study team. The sequential steps followed 'are:

- a survey of case studies in India and abroad;
- a presentation of the historical background of the city;
- an account of the development of the city and the growth processes;
- an assessment of the physical, environmental and socio-economic conditions of the study area, the problems faced by the inner-city residents and their preferences and aspirations that will help in solving planning problems;
- analysis of data and matching of physical and socio-economic characteristics to understand the built form, the ethnicity and the cultural change, and the causes of deterioration over time;
- formulation of a strategy.

Selection of the Study Areas

The study areas consist of two residential neighbourhoods -- K.R. Mohalla and Mandi Mohalla. They have been selected after due considerations of ethnicity, homogeneity and physical deterioration, so that strategy formulation and implementation of renewal projects become easy. To ensure inner city identity, neighbourhoods have been selected from the oldest parts of the city.

The Study Methods

Simple techniques of data analysis have been used, which can be understood at all levels of operation and put to practice easily. The various stages of project development are : the assessment stage; the strategy formulation stage, the administrative and policy - decision stage; and the implementation and management stage. The last two stages, though related to the study, are outside the purview of this research project. But they cannot be ignored at the strategy formulation stage, as details regarding implementation will have to be chronicled at the time of strategy formulation.

- Sampling:

  A purposive stratified sampling has been done in the absence of a total listing of the housing plots in the study area. The categorisation is based on the condition of the houses i.e. the dilapidated, the

renovated and the reconstructed houses within the inner-city area, so as to facilitate the analysis of the status and behaviour of the inner city residents living in the three different types of houses. Such stratification was helpful in identifing the evolutionary processes of housing over time, which in turn helped to pinpoint the problems faced, so that solutions could be found to overcome them.

The selection of sample houses has been done on the basis of the judgments of the investigators regarding the condition of the houses. This judgment is based on the external facade and the build of the houses.

- Data Collection:

Primary data has been collected from 150 sample households, with 75 households from K.R. Mohalla and another 75 households from Mandi Mohalla. In both the Mohallas 25 houses have been selected from each category for a comparative analysis of the processes of change in the housing sector.

This necessitated the formulation of questionnaires for socio-economic and physical surveys, training of investigators, supervision of data collection and discussions with the residents.

Secondary data has been collected from government offices and the local authority on city growth, infrastructure development, the planning processes and the policies followed so far, given the prevailing legislations.

- Data Processing:

Time series data have been collected from secondary sources in order to analyse the trends, patterns and processes of growth and development of the city as a whole.

Simple percentages have been computed to standardize the data for comparative analyses of both the primary and secondary data. Only average values and frequency tables have been used to assess the existing conditions.

- Analysis of Urban Form:

Intensive field surveys have been undertaken to identify architectural designs and spatial patterns to analyse the living styles of the past, so as to suggest ways of moulding them to suit modern trends without much disruption.

The Inner City

The inner city area of Mysore is very special. Though the socio-economic characteristics have many features common

to all cities, the scale of operations is much smaller than those of metropolitan cities. Despite mixed landuses at the macro-level, the inner city of Mysore has small enclaves of residential neighbourhoods totally segregated from commercial areas, though located close to them. Kothwaripura Agrahara (a study area) of K.R. Mohalla is one such enclave, which inspite of being in the heart of the city, is fully residential. In fact, the inner city of Mysore has many such 'agraharas' with concentrations of Brahmins from the days of the Maharajas. These areas are noted for their unique ethnicity from their past cultures. Mandi Mohalla (another study area) has typical concentrations of commercial activities found in most inner cities of developing countries, with wholesale and retail trade and household industries. But even within Mandi Mohalla certain sections are totally residential, though some houses still have household industries within their residential premises, especially agarbatti, bidi and woodcraft industries, for which Mysore is noted.

Physical:

The built-form exhibits clear cut street imagery and distinct neighbourhood boundaries. The street pattern is grid iron, but the road hierarchy is not rigidly followed. There are row houses along narrow streets similar to those of the West; but the architectural styles are different.

The houses are either single (66.27%) or double storeyed (31.08%) in small plots, with very small frontages with built-in seats (specially in K.R. Mohalla) which are used by residents to socialise. The open space within or outside the houses is very small. So are the rooms, kitchens, baths and toilets. Floor space has improved with reconstruction of houses.

There is hardly any concept of open urban space because of socio-cultural reasons. Even the semi-public spaces, where family activities used to be performed are eroding away. In general, the inner city has a run-down appearance with dilapidated houses interspersed with renovated and reconstructed ones.

The building materials used in the dilapidated houses are of biodegradable nature, such as mud, red oxide, bamboo, wooden frames, country tiles and the like. Only the stone foundations are long lasting. The construction materials have changed with renovation and reconstruction. In renovated houses mud walls have been replaced by mortar, country tiles by Mangalore or machine tiles, red oxide floors by cement or flagstones and wooden superstructure by iron frames. The reconstructed houses use all modern building materials like the RCC roofs, mosaic floors, iron grills in windows and so on.

Infrastructure:

Mysore being one of the first few planned towns in India, infrastructures such as water, electricity, sewerage, roads etc. are well developed, though over time, their capacity is shrinking because of population increase.

Socio-economic:

The area is mostly occupied by Kannadigas (96.30%) and Hindus (78.38%). There are Brahmin concentrations in K.R. Mohalla and Muslim concentrations in Mandi Mohalla. There are 79 nuclear families (53.38%), 49 extended families (33.11%) and 20 joint families (13.50%) in the two study areas (from the sample households).

The education level in general is not very high, with 14 percent illiterate heads of households, 13 percent with primary education, 9 percent upto middle level and 15 percent till secondary school. Only 27.21 percent have done graduation and post-graduation. With diversification of occupations, the age old professions of the craftsman and priest, are on the decline. The less educated have taken to self-employment and lower order professions like photo processing, tailoring etc., while the more educated have become doctors, lawyers and academicians.

The average income level of the residents work out to Rs. 2989 for dilapidated, Rs. 4470 for renovated and Rs. 6356 for reconstructed categories of K.R. Mohalla. For

Mandi Mohalla the corresponding figures are Rs. 2761, Rs. 4839 and Rs. 3381 for the three categories. Though the average income appears to be high, 7.43 percent are in the economically weaker section, 31.76 percent in the low income group, 27.70 percent in the middle income level and 33.11 percent in the high income category. The household income ranges between Rs. 300 and Rs. 17,500 and the per capita income between Rs. 60 and Rs. 2,600, with very high coefficients of variations.

Though the inner city is very congested, with 39,964 persons per sq.km. in K.R. Mohalla, and 19,488 persons per sq.km. in Mandi Mohalla, when the gross densities for the urban agglomeration is 5831 persons per sq.km. and for the municipality it is 8106 persons per sq.km., the room congestion is only 1:1.6 in K.R. Mohalla and 1:1.8 in Mandi Mohalla. It needs to be mentioned here that the rooms are very small. Neither is the dependency ratio very high, though dependency in Mandi Mohalla is higher than that of K.R. Mohalla, because of more children. None of the household heads are unemployed, though there are many widowed and retired.

Housing:

Most of the houses are owner occupied (72.6%) unlike in large cities; and majority of the houses have only one household per property (78.38%). The houses are generally

used for residential purposes, though a few still have handicraft industries in them. Many houses have been totally converted into workshops.

The age of the buildings indicates that only 4.05 percent of the houses are more than 100 years old. About 25.0 percent are between 61-100 years old, 26.36 percent between 41-60 years and 29.05 percent less than 20 years old. This indicates that renovation and reconstruction have been in vogue for a long time, though it was not done uniformly.

The low income groups living in the dilapidated buildings repair their houses more frequently than the others. But because of their meagre resources the renovation done is very poor. As a result they repair their houses every year without any lasting effect. This adds to their expenditure and poverty.

The money spent on repairing is mainly from personal savings (76.64%). Loans are normally not taken, as borrowers find it difficult to repay them back.

Causes of Deterioration:

Usually the inner city environment deteriorates because of overuse of buildings and infrastructures, lack of maintenance because of the weak financial position and use of low-tech building materials. In most inner cities in

India economic activities are informally carried out in residential premises where workers live and work under one roof. Such intense use accelerates deterioration. Though in Mysore the industrial workshops are gradually shifting to more organised sheds, overuse has already taken its toll on with the houses. Besides, the biodegradable construction materials could not cope with the prolonged and intense use of houses.

At the same time modern facilities such as wash-hand basins, W.C.s, etc. also need to be introduced for modern living. Hence, intervention is necessary to physically upgrade the houses and the area.

The Renewal Strategy

Since the inner city of Mysore is different from those of other Indian cities, the strategy to be formulated for renewal should also be very special. While on the one hand the common problems of area rejuvenation need to be resolved, the special culture of the place should be retained to preserve the character of the town and to help the residents to remain self-confident.

Action will have to b taken at three levels of spatial organisation -- the house and the street, the Mohalla or the neighbourhood and the inner city as a whole. The scale of operations will be:

Scale of Operation

Scale	Actor	Activities	Facilitators	Level	Aspects
1. House	Household	House renovation	Head of Household	Micro (Residence)	Social, Te Financial
2. Mohalla (Agrahara)	Community group	Maintenance of community, space, trees, other activities	Social worker (Anthropologist)	Meso (Area)	Corporator
3. Inner City	Municipal corporation	Street repairs, cleaning of open drains, garbage collection	City managers	Macro (city)	Integrate aspects

Should be performed in three contexts: fiscal, legal and time frame.

The activities, the actors and the facilitators will change with the levels. Also,

- guidelines for house/area upgradation should be easily accessible to all inhabitants;
- citizen's forum should be empowered to monitor upgradation/construction activities to maintain the traditional ambience;
- no deterministic proposal should be framed for the area; let change take its own course; initiatives, alternatives and required infrastructure may be extended by city managers.
- all decisions should be participatory, with local authorities and citizens pooling in their ideas.

A few issues will have to be resolved before the actual repairing of a house or area improvement is taken up:

- In an area where renovation has not been carried out because of shortage of personal funds, the major task would be to generate resources that would make renovation possible.

  At the same time since the inner city residents of Mysore are not all that poor, the best solution will be

to rebudget their income to give priority to house renovation, and also to obtain loan for house repair at lower rates of interest, if necessary. The latter would work as an incentive to repair, as well as to save.

The idea of generating resources is to assist the local or the state governments to avoid financial pressures.

- The extent of renovation needs to be determined, before the actual improvement begins. The standards will depend on the availability of resources, the weather conditions, the nature and intensity of use and the culture of the place.

- Since a house is an object of sentiment, as it signifies a "home", any change in housing should come gradually to make it acceptable. The renewal strategy should, therefore, be phased.

- Planning for an inner city area with people living in it needs special considerations, as day to day problems need to be resolved.

Role of the Management Agencies

The Community Organisations:

Any good strategy for inner city renewal will need community participation, for, when houses are to be renovated, the people who live in the houses should be consulted. An area is best understood by the community living within it.

- The community organisations should be large enough to coordinate all aspects of development. They can be sub-divided into sections to take care of the different aspects of development.

- The community should liase with all management agencies. To facilitate such interaction separate "desks" need to be introduced for inner city renewal in all the executing agencies, such as electricity board, water and sewage board, the public works department of the state and so on, to bring in efficiency through personal interaction.

- The size of the organisation will depend upon the areal dimensions of the neighbourhoods.

- There should be one community organisation for each neighbourhood.

- The community organisations should employ its staff from within the community, so that they are readily accepted. This will, to a certain extent, solve unemployment problems within the area.

- There should be perfect coordination between the sub-sections of the community organisation.

<u>The Public Agencies</u> :

- The local government, which maintains the city, should act as a facilitator.

- Since municipalities are elected, it would be easier for elected members to work as catalysts in the formation of community organisations.

- The local body should form an "urban renewal cell" to give special attention to the inner city, as this part of the city needs special care because of cultural, sentimental, economic and physical reasons.

Change is an assence of continuity. It should occur in a manner so that traditions are maintained within transformed contexts. Only then will a renewal strategy be successful.

PROJECT TEAM

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CHAPTER I

URBAN ENVIRONMENTS : EFFORTS FOR RENEWAL

INTRODUCTION

The usual process of city development begins from a "core" where people congregate to give the characteristics of urban form to an area. This core can be a market place, an industry where workers are employed or it could be a "historic core" with the seat of the government and/or city rulers, flanked by the houses of the common people in the vicinity. As the city grows, this core transforms itself into an "inner city".

Such inner cities, in time to come, become misfits, because of changing scales and functions and are unable to provide modern standards of living befitting healthy urban development. While the, city expands and spreads to the suburbs adding to it intermediary and peripheral zones that are supported by faster means of communication, the inner city becomes more and more congested because of its "centrality" and has a tendency to slide back economically and physically because of overuse and obsolescent economic activities. It is with these inner cities that planners of today are concerned. Comprising of formally and legally built houses, affected by a process of decay, in India such areas are frequently neglected by the upgradation programmes of the government, which mostly concentrate on slums, no matter how serious their deterioration or lack of sanitation. Unless such areas, in the heart of the city,

occupying prime land, are "renovated", the area loses its competitiveness and economic value vis-a-vis the rest of the city.

Inner cities are occupied by citizens who have lived long enough to develop deep ethnic ties with the area and therefore, cannot be uprooted and shifted elsewhere. Hence, along with the new developments in the periphery, such old areas need to be refurbished in a manner that would not hurt the sentiments of the residents and at the same time integrate the area with the newer extensions/layouts of the city in order to retain an economic and ethnic link between the old and the new, between the past and the present. Such development activities also help in maintaining the old housing stock. For, in times of high demand for housing, with rapid population increase, it is always more economical to renovate rather than reconstruct. This helps in improving the housing stock of the city.

"Inner city renewal" should, therefore, follow a strategy of economic upliftment, infrastructural upgradation and residential refurbishment that will conserve the cultural heritage and maintain a balance between the old and the new within the urban ecosystem.

INNER CITY CHARACTERISTICS AND PROBLEMS

Inner cities are characterised by two distinct patterns, which are very closely related to the manner in which their economies are organised. In developed countries

with corporate economies, economic activities are vertically linked through an organisational hierarchy that is differentiated in space, but is bureaucratically related to the structure of the firm. The firm's production, administration and sales departments are located away from each other, often in different cities. Separation of functions slackens the demand for inner city housing and until the demand for commercial space emerges (to take advantage of the well connected central locations), the city centre appears "blighted". With owners disinvesting, because of low market rents tenants manage to live cheaply in old buildings which are allowed to run down. The owner however, wait for the market demand to catch up with the supply. While the affluent and the economically capable move out to more prosperous areas, the centre is left with vulnerable groups such as victims of racial discrimination, the elderly, the single mothers, the poorly skilled and the less educated and all those who are least able to respond to the labour market and being poor are deprived of a good quality of life. (UNCHS : 1984).

In the small firm economy of the developing nations, the equivalent linkages take place through recurrent transactions between the administratively distinct units. Related firms are clustered together in one place along with the managers, workers and traders. With less capital to invest, the firms require cheap space that is sub-divided into small affordable units. This dense occupancy is

detrimental for buildings and the structures begin to deteriorate through overuse. The infrastructure is also unable to bear the strain of such intense use. In developing nations the inner city is often the entry point for those seeking to establish themselves in an urban area because of availability of informal employment and cheap housing. There is, therefore, an active market for housing; but the market mechanism does not ensure the upkeep of the buildings. One reason is the overcrowding produced by the logic of the low-income housing market. Another cause is management problems that are produced by congestion as also the fact that low rents make it unprofitable and sometimes even difficult to generate resources for repairs and refurbishments and deter owners from investing in their properties (UNCHS : 1984).

The two modes of economic organisation represent different conditions for living and for programmatic intervention, though they suffer from similar characteristics of inner city degeneration. While in the West inner cities pose fewer problems of congestion and can be redeveloped and renovated according to the changed circumstances, it is often difficult to effect substantial physical upgradation of the inner cities of Asia or of a developing nation without massive displacement of residents. Even in the West total clearance was resisted as it uprooted residents who had lived in a neighbourhood long enough to develop ethnic and emotional ties. Hence, renewal programmes

were introduced to refurbish dilapidated houses, improve environmental conditions and introduce training for better employment, bearing in mind the relationship that exists among the different factors of development. In the context of developing countries, displacement of residents during redevelopment entails such heavy social costs and financial expenditure that it is often wise to do little for the buildings and concentrate more on public services and social and infrastructure management. It has also been the experience of urban planners and city builders that repair is more economical than reconstruction. Studies have indicated that the cost per household, per shelter year is less in case of renovation than construction. Therefore, comprehensive renewal and not reconstruction is the answer to inner city decay. But it should be based on city-specific characteristics and country-specific economic support and policies.

THE CONCEPT

Inner city or urban renewal is based on the concept of improving the housing stock of the low income groups who are unable to look after themselves for want of adequate financial resources and require some kind of help. It also aims at providing a decent home to every citizen. The philosophy behind the concept is that of poverty alleviation, which needs to be tackled from diverse angles.

With urbanisation, the multiplicity of functions

demands decentralisation of economic activities for better operational efficiency. In this process of change the city centre is often denuded of its economic base (as modern manufacturing industries are set up away from the old city), and enters into a syndrome of deterioration and degradation because of the low income from land holding old fashioned economic activities, and is unable to support its citizens, who being poor can neither afford to move out to higher income areas nor invest to improve the areas where they live. Consequently houses deteriorate because of lack of maintenance, infrastructural services disintegrate on account of overuse and social facilities shrink with shortage of funds. For the inner city to continue to contribute to the (urban) economy there is a need to diversify activities and introduce modern technology for improved employment and environment. When the local government intervenes to help the inhabitants of such "blighted" areas, it has to deal with many aspects of city development. The main components of an urban renewal programme are normally -

- repair/refurbishment of the old housing stock;
- upgradation of physical infrastructures like water, sanitation, drainage, roads etc.;
- improvement and provision of social infrastructures like health centres/hospitals, educational institutions, employment training, skill training etc.;
- generation of employment for the residents through better economic activities;
- conservation of historic buildings, culture and

ethnicity;

- integration of traditional and modern culture to suit new technologies;
- improvement of the environment through control of air, water, noise pollution and better sanitation methods;
- promoting ecological balance by creating open space, parks and playgrounds and planting trees and landscaping.

In other words, an overall improvement of the area is desired, followed by good maintenance and efficient administration. The aim is not only to improve the residential neighbourhoods physically and economically but also to help the residents socially : to gain confidence and self-reliance in an atmosphere of degeneration and deterioration. All this has to be done with minimum resources and time, so as to have the maximum impact. Such a holistic approach to urban renewal has not been adopted in India so far.

To implement such a comprehensive programme, what is required is an area-based development that will merge smoothly with the city's development plans, in comparison to macro policies that become unwieldly, or piecemeal efforts in scattered locations whose impact gets dissipated. It is also easier to solve problems more effectively in a homogeneous area having the same background. Again, project formulation, monitoring and evaluation prove simpler in a defined area. Besides any programme of urban renewal needs a thorough understanding of the area. Though physical

manifestations of degeneration may appear to be similar in many cases, the socio-economic and cultural profiles might vary, demanding different strategies. Therefore, while formulating such projects it is necessary to identify homogeneous areas at the micro level. While on the one hand the size of the project area should be large enough for a sustainable programme of renewal, on the other hand the area selected must not be too large so as to obstruce efficient management.

THE EXISTING STRATEGIES ABROAD

Urban renewal was first taken up in the West to upgrade environmental health conditions in inner city areas, with an emphasis on refurbishment of housing and improvement of on-site infrastructure. Subsequently the policy also included economic regeneration of deteriorating areas, especially in the United States. Over the years this process of maintenance management has matured, giving rise to time-tested strategies, backed by sound urban renewal policies for renovation, restoration and conservation. Of late these strategies are being modified to suit changing requirements, and new policies are being adopted to cope with the situation. For example, a recent development in U.K. is to give grants after "means testing." In the United States, Redevelopment Agencies have been set up by the States, in conjunction with the city councils, to facilitate private investments (in the decaying parts of cities) through various incentives that will help to generrate employment

and productivity to revitalize inner cities. Also residential neighbourhoods are provided with block grants by the City's Department of Housing and Community Development. It also makes loans available for rehabilitation.

Britain :

Inner city renewal in Britain was introduced to improve poor environmental health conditions, but has gradually shifted to refurbishing and upgrading of run-down housing stock and environmental improvement within residential areas. Renewal in Britain also aims at the conservation of buildings of historical, architectural and archival importance. The process began with large scale slum clearance as far back as the 1930s, especially in war-damaged areas. City Councils entered into redevelopment partnerships for commercial and residential developments and compulsory purchase of housing and land. By 1960s the city's clearance machinery was seen to be working much faster than its reconstruction machinery and new ways to solve problems of inner city deprivation had to be considered. By 1974 slum clearance was totally replaced by comprehensive rehabilitation packages.

The first legislation on housing improvement was introduced in 1949 to provide grants to individuals for improvement of their houses. Since then a wide range of grants have been made available for repair and improvement of properties. Two important legislations were passed in 1969 and 1974 which provided for the declaration of General

Improvement Areas and the Housing Action Areas, respectively. A recent change in the legislation, as mentioned above, allows grants based on the individual's ability to contribute. This "means testing" phenomenon is a further attempt to concentrate resources on those most in need.

Though the central government passes legislation for housing improvement grants, it is the local authorities who are actually responsible for renewal within the cities. The City Councils of Great Britain monitor the implemention very closely and act as a catalyst by introducing various methods of renewal. The entire strategy is an area-based approach for development. The standards set are mostly influenced by public health precautions and climatic conditions. Implementation of renewal programmes is done by Area Teams identified by the local authorities, but drawn from the residents.

However, there still exist blocks of properties, which because of their structural defects, are unfit for human habitation. Such areas are governed by compulsory purchase powers. Every effort is made to minimise the stress on the residents affected by clearance. Rehousing options are made available to them. Redevelopment of cleared sites within an area, for specific housing needs, or other developments in agreement with local residents is programmed to closely follow demolition. This greately

reduces the disruption caused by derelict sites within residential areas.

United States :

In the U.S. it is the private sector that is stimulating the revitalisation of the declining city centre. This sector views the city as a business enterprise, a capital conserving, income generating centre which will retain its vitality only through adherence to sound management procedures and a rational structure of economic incentives sufficiently alluring to reverse the flight of capital and industry. As a result downtown malls have became very popular and fashionable.

Equally interesting has been the residential rehabilitation occurring in the inner city neighbourhoods. Areas shunned as undesirable are attracting growing numbers of middle-income and upper-income tax payers who find mortgages easy to obtain. Suddenly after years of suburban flight, affluent individuals are glutting the local housing markets to buy or rehabilitate town houses, brownstones, redhouses and lofts in Boston, New Haven, Manhattan, Brooklyn, Philadelphia, Baltimore, Washington and Chicago (Paul Levy and Dennis McGarth : 1979). What works for one city may not work for all; but the common thread is involvement of the private sector.

The City's Department of Housing and Community Development grants loans to the "homesteader" for

rehabilitation purposes. People purchase vacant houses at nominal prices and renovate them according to health and building code standards within specified time periods. At the end of the lease period the property is deeded to the homesteader. The return of the middle-class to the city centre has helped to improve community health and has raised the quality of life of neighbourhoods surrounding downtowns, though there is now a growing realisation that revitalisation promises to improve neighbourhood conditions only for those who can afford to pay for better conditions. In coalition with private firms the City's Department of Housing and Community Development also helps in upgrading the outward appearances and facades of the buildings, improve transportation, promotes car pooling to reduce road congestion etc. Private firms and companies are assisted by subsidies, loans and often grants from the Federal funds to promote urban renewal. Efforts are also made to generate resources through tax reforms, reduce wastage and redirect Federal expenditure to "progressive planning" (Eve Bach etal : 1982).

The pattern that emerges in this process is selective resurgence in the midst of decline. What is distinctly new in the contemporary version of the 'private strategy' is its attempt to remarket the city for competition in a changing world economy. In its purest form it promises only to reinvigorate the city as an economic system and conceives of its population as ancillary to the process,

though the private firms increasingly accept that they have a social responsibility towards the people who live in depressed urban areas (Paul Levy and Dennis McGarth : 1979).

STRATEGIES IN ASIAN COUNTRIES

In the East the target is set for low cost housing and provision of basic infrastructure. But so far only piecemeal efforts have been made. Asian countries, that display inner city characteristics of the small firm economy, try to encourage cross-subsidies, co-operative housing, community participation and low-cost development strategies to overcome resource constraints.

Sri Lanka :

Sri Lanka presents an interesting illustration of public sector legislative intervention for houses, that also provide and maintain basic services. The aim is to stabilize the low-income population of inner cities. The Ceiling on Housing and Property Law of 1973 control the ownership of housing by specifying the number of houses an individual family or group of persons can own. The surplus can be purchased by the tenants or their ownership transferred to the Department of National Housing which, in turn, can sell the acquired houses to the tenants. The transfer of a large share of the existing housing stock to the government automatically binds the public sector to providing and maintaining basic services in low-income neighbourhoods. For this purpose the Common Amenities Board

Law was adopted in 1973. A UNICEF - assisted programme in 1980 helped to improve the water supply and toilet facilities in slum tenements in the central areas of Colombo. Also, two pilot upgrading projects (Steuart Street and Kew Lane) helped to establish an alternative model to the original practice of redevelopment through direct construction. Steuart Street provided for repair of existing structures, improvement of lighting and ventilation, construction of new units to replace those demolished to accommodate common amenities, delivery of sanitary services and improvement of footpaths and drainage. Kew Lane marked a notable step forward, with the emphasis shifting to provision of basic services and environmental upgradation.

A further step towards socialisation of housing was brought about in 1977 by policy changes that facilitate tenants who pay monthly rents of Rs. 25 or below to get their housing units free of charge from the government. (UNCHS : 1987).

Thailand :

Bangkok's experiment with land sharing has considerable potential for stabilising the position of low-income groups in the inner city. The schemes tackle one of the main constraints facing inner-city rehabilitation - i.e. landlord's opposition to the upgrading of slum areas/dilapidated housing so as to recover their property for private redevelopment. The schemes are based on a trade-off between conflicting interests - "owners versus

residents" - which allow the landlords to recover a part of their property while permitting the residents to retain possession of the remaining part. In inner-city areas, where growing demands on valuable land increase the threat of expulsion of the low-income groups, land sharing helps to break a deadlock by legitimising the right of the poor to remain where they are. The assumption underlying land-sharing arrangements is that each party stands to gain in the process of resolving legal conflicts which affect both users and owners - the former in terms of constant insecurity, and the latter in terms of being unable to put the property to profitable use. The crux of the scheme is the "bonus" floorspace generated, which the owner can sell in the open market for commercial utilisation while accommodating the occupants of the area within the premises. (UNCHS : 1987). But land-sharing schemes have inherent limitations. Densification culminates into selection of residents and a threat of expulsion of the low-income group because of rising land prices in the central areas, especially adjacent to commercial areas.

India :

Indian cities have over time developed tripartite structures, with the historic core characterised by congestion and mixed landuse, a planned westernised commercial area (the civil lines) with comparatively newer shopping arcades built during the British rule, based on the corporate economy pattern and the recent unplanned slum

developments providing housing to the poor. But whereas the traditional inner city with its diverse interest and intensity of landuse remains alive throughout the day, the specialised commercial centres are bereft of any activity after dusk. In spite of the small firm's meagre capital investments, the inner city still forms a receptacle for rural-urban migrants and for unskilled labour who come to the city in search of better living, because it operates on a "human" scale. The traditional core is not equipped to cope with such increasing demands of urban growth (as it is built on a very conservative scale) and succumbs to the pressures, bringing about obsolescence and often economic decline.

Economic activities are frequently carried out informally within the residential premises of inner cities, where the workers live and work under one roof. The problem which arises from this kind of urbanisation is not so much of a flight of capital like in the West, as of the deterioration of buildings and shortage of infrastructure because of overuse. The custom of shared ownership of houses also creates problems of renovation of buildings as owners desist from spending on common property. In addition, the Rent Control Act encourages tenants to exploit the situation, as it is biased in their favour. Renewal in such areas is a complex issue that involves dealing with different kinds of city management and administration such as refurbishment of houses, upgrading and provision of

additional infrastructure, relocation of non-conforming economic activities, regulation of traffic caused by intense economic activities in the congested areas, alleviation of poverty that is induced by the poor migrant workers and so on. It has also to cope with the social problems of ethnicity and emotional ties and the economic problems of unemployment of the urban poor, as the city centre is often the entry point for the migrant informal workers. Unfortunately, so far no significant attempt has been made by planners to integrate the old and the new.

As for slums, the settlement locations are so haphazard that they often disturb the existing landuse and zoning patterns. They draw illegally from the city's existing infrastructure and are often a burden to its resources and the planning machinery. As a result, a multitude of conflicting urban development issues emerge both in the inner city area, as well as in city development in general that need intervention and monitoring.

In a vast country like India the magnitude of the problem calls for special attention on each aspect of urban renewal. But since activities within a city are interrelated and action in one field is reciprocated by a counteraction in another, all efforts become futile if dealt with individually. While on the one hand it is essential to tackle all the problems simultaneously, it is physically and financially difficult to do so. Renewal programmes in

India have, therefore, remained as piecemeal efforts and have not been given nationwide coverage as in the western countries.

The focus of urban renewal in India is, therefore, not the same as it is in the West. The tilt is towards provision of housing and infrastructure rather than refurbishment of the old housing stock and upgradation of the eroding infrastructures, though the goal has been the same as it is in the West--improvement of environment and upliftment of the poor (perhaps not always within the inner-city areas).

Calcutta :

The earliest attempts at redevelopment in India were made in Calcutta, when the Calcutta Improvement Trust Act was enacted in 1911 to help in rehabilitating slum dwellers who were displaced by the city's improvement schemes. The Calcutta Slum Clearance and Rehabilitation of Slum Dwellers Act, 1958 enjoined direct public intervention in the Calcutta slum situation. Again, the 1972 Act prescribed two courses of intervention--one for removal of environmental deficiencies and the other for redevelopment of slum areas. The slum dwellings were thus accepted as a part of the city's housing stock. It was realised that the issue was not to "clear" them, but to "sanitize" them and make them better and healthier places to live in. (Mohit Bhattacharya : 1989).

Subsequently, the Basic Development Plan of Calcutta

tried to provide services external to shelter structure through the Bustee Improvement Programme, thereby recognising the bustees (slums) as low income housing. The thrust was on the provision of sanitation, water supply, drainage, paved pathways, streets and so forth in the interest of public health and welfare, particularly to eradicate endemic and epidemic diseases such as cholera (CMPO 1966).

Bombay :

In Bombay a Building Repair and Reconstruction Board was established in 1969 to undertake repairs and reconstruction of identified old and dilapidated buildings. The Act authorised the State Government to levy a repair and reconstruction cess on a differential scale based on rateable values and the classification of buildings by age. The Bombay Municipal Corporation collects the cess along with the property tax. Financial norms were prescribed by the Board for undertaking such repair works. If the estimated cost exceeds the prescribed limits, the buildings are considered for repairs only if the owners/tenants agree to bear the excess expenditure. If, however, this arrangement is not acceptable to the occupants, the building is declared as beyond economic repair and considered for inclusion in the programme for demolition and reconstruction. Sometimes the tenants collectively come forward to undertake such repairs, in which case a No Objection Certificate is issued by the Board which

reimburses to the association of tenants the cost of repairs up to the ceiling cost in force. Often tenants are provided with financial subsidies and loan assistance to undertake repairs through contractors chosen by them and with technical assistance provided, in part, by the Board. The experiments have been successful. It proved that tenants were willing to contribute their own resources in the case of "self-managed" repairs. In fact, the tenants demonstrated a high degree of willingness to pay the monthly cess levied by the Board. The positive results obtained have prompted the Authority to pursue the system of self-managed repairs (Ajay Dua : Mimeograph).

But the Repair and Reconstruction Board could only repair a few old and dilapidated buildings in a year, for want of resources. Hence, the emphasis has shifted to providing cheap sites and services and in situ upgradation of existing dwellings to cope with the shortage of housing and to improve the standard of living. The programmes initiated are the Bombay Urban Development Project and the Prime Minister's Grant Project. There is also the Slum Upgradation Programme and the Dharavi Redevelopment Scheme, which is a major component of the Prime Minister's Grant Project, where renewal is being done on a comprehensive scale with traditional employment generating activities, such as manufacturing of leather goods, ready to eat foods and confectionery units and other "clean industries," (A Dua :1989).

The urban renewal programmes under the Prime Minister's Grant Project have also focused their attention only on pockets having clusters of old buildings. Comprehensive area development with markets, schools, gardens, roads, dispensaries, banks and post offices, all set up to cater to the requirements of the areas has been taken up. Simultaneously, the essential amenities are being updated and brought in line with the current requirements of the residents.

Delhi:

The Delhi Development Authority in its Master Plan envisaged a comprehensive renewal plan for its inner city with redevelopment, rehabilitation and conservation of areas delineated on the basis of the degree of obsolescence. It also planned for the relocation of certain hazardous and non-conforming activities and laid down a new set of rules for traffic and transportation. (DDA : 1957) Unfortunately, the strategy was never put to practice in its entirety as the planners themselves felt that an area-based approach would be impractical in such a congested area. Piecemeal regulatory measures were subsequently propagated to remove noxious and nuisance industries, and relocate the wholesale markets. Such measures failed to bring about any effective change as activities that were prohibited were surreptitiously continued, while owners of business houses preferred to operate from both the old and the new locations and thereby expand their business. (TCPO : 1974).

Hyderabad:

Another attempt at comprehensive urban renewal was by the Quli Qutab Shah Development Authority for the inner city of Hyderrabad. The Quli Qutab Shah Development Authority is a nodal agency created by the Government in August 1981, to assume the gigantic task of improving the worn out conditions of old Hyderabad. Its success is yet to be evaluated.

The Quli Qutab Shah Urban Development Authority adopted the concept of neighbourhoods and mini plans to save the city. It initiated measures to renew the old city by integrating the new and the old, keeping the people where they live and by working in consultation with the inhabitants, serving their larger interests. It planned for a continuous interaction between the people's representatives, the community and the authority which will facilitate the planning and timely completion of the development projects. The redevelopment of the old city was to be taken up as an integral part of the overall plan for the development of the Hyderabad Metropolitan Region.

The old city development was to have been undertaken from diverse angles including development of the water supply network, widening of narrow roads and lanes, development for green belts, development of parks and playgrounds, improvement of the sewage system and low-cost sanitation, augmenting health facilities, improving educational facilities, providing accommodation, preserving

historical monuments and so on. The authority was to depend mainly on the grants received from the government. A number of institutions at the national, state and local levels were to be involved in the renewal programme (K.V. Ramana : 1989).

CONCLUSION :

Though time and again comprehensive renewal has been tried, inner city renewal in India has remained as a single-component development phenomenon, not so much as a policy, because of the magnitude of the task that requires a large implementing machinery and also because of inadequate financial resources. As of date, none of the comprehensive urban renewal programmes, especially those for residential neighbourhoods, can be said to have been satisfactorily implemented. As mentioned earlier, the only way to solve this problem is through location - specific and area - specific programmes. At the micro level these programmes should be for very small and manageable areas.

Also, it is increasingly being realised by the developing agencies all over the world that with rapid population growth, no government is really in a position to finance all the components of the urban renewal programmes. Hence, the financial responsibilities should be shared by the community, the public agencies and the private sector. Public organisations are, therefore, beginning to use the concepts of risk and renewal analysis to cope with the costs

by borrowing private help. Conversely, the private sector is learning how to deal effectively with the state and the local governments in making use of their joint dependencies, to benefit most from such collaborations. (G.Edward De Seve:1986).

A part of any renewal strategy, therefore, always involves devising innovative methods of resource mobilisation for implementing the projects. There are, actually, two components to any urban - renewal programme - (i) the "hardware" of the project which deals with resource generation to develop the economic base upon which to build and (ii) the "software" of the project with welfare and development strategies to upgrade derelict areas and uplift the poverty-stricken residents who are not in a position to look after themselves.

When existing markets in Calcutta became a drag on the municipal finances, with shopkeepers paying rent as per a contract signed at the inception, which did not provide for an adequate escalation clause,the Calcutta Corporation worked out a strategy to (1) modernise and enlarge the marketing facilities (2) to enhance the development potential of the markets by creating additional office and commercial space (3) to counter the growing of ill-planned and expensive private markets and (4) to keep the tax burdens on citizens low, while paving a way for city upliftment. All the objectives were sought to be achieved with no investments out of the municipal funds. This could

be done by getting out of the beaten track, and aligning with private capital, which was not an easy task for a government wedded to marxist ideology (in West Bengal).

The Corporation invited private developers to invest their funds for a one-time premium in return. The developer was expected to complete a project at his own cost within an agreed time-table, rehabilitate the existing occupants, sell the extra space generated on license basis and collect his premium in return. Once the space is sold, the developer ceases to have any responsibility and the market becomes the property of the civic body. (R.K. Prasannan : 1989).

There is, however, an economic question with moral overtones that remains unanswered in this strategy. It is the criticism that such projects open the sluices for "black money" and help in laundering it. In a free developing country like India the parallel economy is a fact of life and cannot be wished away. The crucial issue is whether public bodies should harness it for public good or allow it to continue with its role in distorting the national economy. Does the end justify the means (R.K. Prasannan : 1989)?

Renewal schemes, all over the world, have so far been supported by three sources of funding - the government or public agencies, the community and non-governmental organisations and the corporate sector firms that perceive profits in financing renewal schemes. Actually the quest

for an appropriate mix of the three still continues for all renewal strategies.

The United States has from the very beginning tried private participation, often at the cost of social upliftment. Of late the strategy has taken a turn to "progressive planning" by generating resources from diverse sources and from public-private partnerships.

In Britain the grant based strategy is slowly turning on to "means tested" funding and to non-profit making voluntary agencies that tap private resources. For example, the City Council in Bristol is encouraging "Neighbourhood Revitalisation Services" (NRS) to register with the National Home Improvement Council, which is a building confederation set up by the sponsorship and eventually the partnership of private companies such as Midlands Gas, British Coal, British Steel, National Building Supplies Companies and National Construction Companies, all of which have the ultimate aim of promoting their own products through generation and improvement of funding. The City Council also has given financial support to NRS. The government too has given supplementary grants to NRS. Britain also has instances of private support for redevelopment as in Canon's Marsh in Bristol, the Docklands in London, the Convention Centre in Birmingham and the Tyne and Wear Redevelopment in Newcastle.

In India several attempts have been made by the government to improve inner cities with isolated schemes of structural improvements for "katras" or banning repairs to existing buildings to control unauthorised constructions (in Delhi). The government has also made efforts in transferring ownership to occupants and to convert dry latrines into WCs. But these are all fragmented efforts specific only to few cities.

The two countrywide upgradation schemes floated in India so far are the Environmental Improvement of Urban Slums and the Urban Basic Services Programme, both of which display government's efforts to improve low-income residential areas in slums. Of them the former is an upgradation scheme for infrastructure, while the latter is only a welfare programme. So far no comprehensive area-development schemes have been planned for inner cities in India, though a few metropolitan cities have had area-redevelopment schemes (e.g. Calcutta) which are not specifically for inner cities, or for housing improvement. The need for a renewal strategy, therefore, still exists.

This study will try to formulate a renewal strategy for the inner city of Mysore. The two sample areas selected reflect typical inner city residential conditions with well-laid-out but inadequate infrastructure, where segments of the neighbourhoods reveal extreme signs of obsolescence and deterioration with dilapidated houses almost on the verge of collapsing. Where houses have been renovated or

reconstructed, living conditions have improved, thereby suggesting the need to renovate for better living by making full use of the prime land in the centre of the city.

CHAPTER II

OBJECTIVES AND METHODOLOGY

The formulation of a strategy for inner city renewal not only requires careful consideration by the government or the local authority, it also necessitates active participation of the beneficiaries and/or the residents of the area to help planners to comprehend the inherent sentiments associated with the people and the place, which lend a very special character to the area. It is expected that the outcome of this understanding would lead to a fusion of the ethnicity of the place with modern technology and a broad economic base supported by political stability that would give the inner city area a unique status in the city. Only then will a renewal strategy for the inner city be able to solve the problems faced by the area and by the residents.

Strategy formulation for an inner city is thus not an easy task. It needs a careful assessment of the socio-economic features, the physical build and the causes of deterioration, in order to find solutions to stall such derogatory factors of urbanisation that destroy city development. In trying to assess the cultural background, surveyors and assessors need to participate in strategy formulation along with the community. Only then can an inner city strategy be made effective. Perhaps the very task of assessing inner city characteristics forms a part of the strategy that is being formulated.

Objectives :

This study is, therefore, an action-oriented research that would form a part of the strategy formulated for the inner-city renewal of Mysore. The objectives of the project have been categorised into:

- planning objectives:
  1. To improve the living conditions of the inner city.
  2. To retain the old housing stock at a time when housing is in demand - for renovation is more economical than reconstruction.
- project objectives:
  1. To formulate a strategy for inner-city renewal.
- study objectives:
  1. To assess the socio-economic status and the physical and environmental conditions of the inner city to form a base for further planning.
  2. To find out area-specific problems of degeneration.
  3. To analyse the existing structural patterns vis-a-vis the growth processes.
  4. To study urban forms and suggest retention of the housing stock in conjunction with the cultural ambience.
  5. To formulate an action-oriented strategy with people's participation to improve the housing and upgrade the residential neighbourhoods within the inner-city.

Philosophy :

Studies such as these are based on the philosophy that when living standards improve, productivity also increases; for the main problem of inner city areas are overall deterioration which finally affects the economic base, the built form and the society, thereby destroying ethnicity and culture that foster emotional strength and self-confidence in people. Basically it aims at poverty alleviation and area upgradation for the decaying parts of the historic city where landuse is slowly changing from residential to commercial and land values are rising because of its central location. Yet housing in these areas is deteriorating because of congestion, overuse and meagre returns from low rents (because of degeneration), which are inadequate for reinvestment for upgradation. Regeneration or revitalisation of such areas, therefore, becomes essential for the progressive development of the city.

Reconnaissance Survey :

Even before the project is designed, it is essential to get an idea about the area, and the data that will be made available to the research team, or the assessors. It is, therefore, essential to interact with the State government and Local Authorities who should be briefed about the study objectives and the implications of the study. Also, permission has to be sought to collect restricted data/information for the purpose.

Demarcation of the study area is essential before designing the study. This will be influenced by the study objectives, the time and resources available with the study team and the expected constraints of data collection and processing.

Project Design :

The project has been designed on the basis of the study objectives, the target population, the information available, keeping in mind the organisational set up that will implement the project and the time and resources provided to the study team. The sequential steps followed are:

- A survey of case studies in India and abroad;
- a presentation of the historical background of the city;
- an account of the development of the city and the growth processes;
- an assessment of the physical, environmental and socio-economic condition of the study area, the problems faced by the inner-city residents and their preferences and aspirations that will help in solving planning problems;
- analysis of data and matching of physical and socio-economic characteristics to understand the built form, the ethnicity and the cultural change, and the causes of deterioration over time;
- formulation of a strategy.

The outcome of the project would be a strategy for implementing a renewal scheme in the inner city area, ready for policy considerations. This would mean mobilising the city management and motivating the residents of the inner

city, so as to induce community participation in solving area problems, with the government and the local authority acting as facilitators. The entire method of strategy formulation has been documented so as to help train city managers and officials who will ultimately implement the programme.

Methodology :

To make project implementation easy, extremely simple techniques of data analysis have been used, which can be understood at all levels of operation and put to practice easily. The various stages of project development are : the assessment stage; the strategy formulation stage; the administrative and policy - decision stage; and the implementation and management stage. The last two stages, though related to the study, are outside the purview of this research project. But they cannot be ignored at the strategy formulation stage, as details regarding implementation will have to be chronicled at the time of strategy formulation.

- Sampling:

  A purposive stratified sampling has been done in the absence of a total listing of the housing plots in the study area. The categorisation is based on the condition of the houses i.e. the dilapidated, the renovated and the reconstructed houses within the inner-city area. This has been done to facilitate the analysis of the status and behaviour of the inner city

residents living in the three different types of houses. Such stratification helps to identify the evolutionary process of housing over time, so that the problem areas in this evolutionary process can be identified and solutions suggested to overcome them.

Selection of sample houses has been done on the basis of the judgments of the investigators regarding the condition of the house. The judgment is based on the external facade and the build of the houses.

The study areas, consisting of two residential neighbourhoods, K.R. Mohalla and Mandi Mohalla have been selected after due consideration of ethnicity and physical deterioration and homogencity. To ensure inner city identity, neighbourhoods have been selected from the oldest part of the city.

- Data Collection:

Primary data collection has been done from 150 sample households, with 75 households from K.R. Mohalla and another 75 households from Mandi Mohalla. In both the Mohallas 25 houses have been selected from each category for a comparative analysis of the processes of change in the housing sector. This necessitated the formulation of questionnaires for socio-economic and physical surveys, training of investigators, supervision of data collection and discussions with the residents.

Secondary data has been collected from government offices and the local authority on city growth, infrastructure development, the planning processes and the policies followed so far under the existing legislations.

- Data Processing:

Time series data from secondary sources has been collected in order to study the trends, patterns and processes of growth and development of the city as a whole.

Simple percentages have been computed to standardize the data for comparative analyses of both primary and secondary data. Only average values and frequency tables have been used to assess the existing conditions.

- Analysis of Urban Form:

An extensive field survey has been carried out to identify architectural designs and spatial patterns to analyse the living styles of the past, so as to suggest ways of moulding them to suit modern trends without much disruption.

Action Research :

To formulate a strategy for implementation, indepth research is required to find out about the existing conditions, the gaps in development, and the needs and aspirations for the future. Needs analysis is the same for any theoretical and/or practical projects. It cannot be differentiated. Hence, in doing so for the project, a part of the renewal programme to be implemented is already done. It is, therefore, essential to do a detailed household survey which helps to document the characteristics and the needs of the residents and is by itself action-oriented.

Selection of Mysore :

The city was selected because of its historical and cultural background and for its unique ethnic qualities. While on the one hand the magnificent palaces of the ex-rulers stand out as glorious edifices attracting tourists, the inner city or the historic core is an epitome of traditional social areas with Muslim and Brahmin concentrations that once served the royal households. The houses within the inner city are built of poor quality building material that deteriorates very fast with age and congestion, displaying characteristics of subordination and servitude. Such houses today attract low-income residents who are unable to improve their housing because of inadequate finances. Yet these traditional houses contribute to the housing stock and are in great demand because of their central location and also on account of the

growing population. Before these houses succumb to the inevitable evolutionary processes of change due to urbanisation, industrialisation and commercialisation, an intervention is required to retain them -- first to preserve a built form that is gradually eroding away and which is of sentimental value to the residents and the city, and secondly because reconstruction is more expensive than renovation and is unaffordable to the residents.

CHAPTER III

MYSORE CITY

HISTORICAL BACKGROUND

Mysore has a historical past dating back to the eleventh century, when a Yadava prince from Gujarat, named Vijaya, came down south to worship at Yadugiri, and impressed by the beautiful surroundings stayed on to found the Mysore kingdom, then known as Vijayanagar. After the fall of Vijayanagar one of the local chieftains assumed the title of Wodeyar and continued to rule the empire after paying a tributary to the British Viceroy at Srirangapatna and eventually moved the capital to it. Then followed a period of Muslim rule - that of Hyder Ali and Tipu Sultan, at the end of which the Wodeyars were reinstated as rulers of Mysore and remained so for an uninterrupted period of growth and prosperity until the recent past.

Since the restoration of the rule of the Wodeyars : four stages of growth can be identified for the city of Mysore :

1. Restoration in 1799 to Rendition in 1881, when the state was ruled by the Queen Mother and her able dewan Purnaiya, as the ruler was young;
2. post Rendition period between 1882-1902 under British rule;
3. rapid modernised growth between 1903 to 1947, when the economic base shifted from the Palace to more diversified employment; and
4. the post-Independence period from 1947 till date.

The city of Mysore, has a wealth of palaces, gardens and institutions befitting princely states and draws tourists throughout the year. The beneficial factor for the development of Mysore is its physical setting. The salubrious climate not only attracted its past rulers, it still continues to draw a large number of tourists from all over the world.

Today, Mysore is the second largest city in the state of Karnataka and is a divisional headquarter. It is an important administrative, educational, tourist, industrial and trade centre of the state. The aim of the Maharajas was to make Mysore one of the well planned cities in India. Hence, some of the better planned features of the city are actually a legacy of the past. It is said that the rulers of Mysore even saw to the colour schemes of the buildings. Subsequently the government, with the help of the City Improvement Trust Board Act and the Town and Country Planning Act formulated and implemented landuse and development regulations to make the city what it is today. The Mysore City Planning Authority, constituted under Section 4 (c) of the Act has recently been replaced by the Mysore Urban Development Authority, established in 1988 under the Karnataka Urban Development Authorities Act of 1987. The latter, alongwith the Municipal Corporation now looks after the city.

Even though the growth of a city is guided and influenced by its history, there is always a "present" that is very important from the planning point of view, as each stage of development is an effort to solve existing problems with a perspective for the future.

GEOGRAPHICAL SETTING :

The city of Mysore lies in a saucer-shaped basin flanked by the Chamundi hills on the southeast and a raised platform (near Hinkal) on the west. It is situated in the southern part of the state of Karnataka at 12^0 18' N and 76^0 12' E, at an elevation of 777 meters. The city is in the interfluve between two rivers, the Cauvery (which is 16 kms. to the north of the city) and Kabini (which is 22 kms. to the south of the city).

The "tucked in" location is of some disadvantage to the growth and prosperity of the town. Despite its importance as a historical city Mysore, until recently, was connected only with the meter gauge rail. Recent development of road transport has also helped in improving Mysore's location vis-a-vis those of the other centres in the region. The nearness of the State border has curtailed the city's influence in the south.

At the regional level Mysore occupies an important location, being close to the textile centre of Coimbatore and at the exchange point between the wet cultivated area of the east and the dry arable farming lands of the west.

Despite its lop-sided location vis-a-vis the state, Mysore has prospered because of its salubrious climate (being close to the Western Ghats) that has attracted its rulers and a number of economic activities throughout history. The city still continues to draw a large number of tourists all round the year. Besides, certain natural resources (like mulberry and sandalwood) congenial to such weather, have also helped Mysore to grow into a production centre of rare handicrafts. According to the 1991 census, the Mysore Urban Agglomeration has an area of 112.01 Sq.Kms. and a population of 6,53,345, with 4,80,692 people within the municipal limits of 54.50 Sq.Kms.

URBAN SPREAD

Population Growth :

As the seat of the titular rulers, Mysore became a focus for development that attracted people from the neighbouring areas. The Palace became the main economic base of the city, with the majority of the people deriving their livelihood by performing direct or indirect services for the Maharajas. As the population increased and the settlement expanded, it assumed the characteristics of a more comprehensive city.

The erratic population growth of Mysore is related to political changes and natural calamities that affected its development. Initially, the rate of growth fluctuated with the fate of the rulers. When the capital of the State shifted from Mysore to Srirangapatna and back to Mysore and

then to Bangalore, people who were dependent directly or indirectly on the rulers, moved along with them. The activities in which the "growth generating" high income people were engaged were somewhat "foot loose" and did not have their roots permanently in Mysore (Mahadev:1975).

The decadal population growth increased from nearly 5 percent between 1871-81 to about 17 percent between 1881-91 mainly because of the restoration of the princely rule, which increased the population by about 10,000 people. But the plague epidemic of 1898 reduced the population by about 6,000, bringing in a negative growth of 8 per cent in the following decade. This drop in population was, however, not confined to Mysore alone. It was experienced in many other towns of the state. It is said that Mysore suffered more because of poor environmental sanitation. Hence, there was an exodus of people from the city to the surrounding rural areas. Thus the population loss was not just due to plague mortality, but also because of migration for fear of infection from insanitation. When the epidemic subsided, only a few who had migrated came back to revitalise the town. A great many migrated to Bangalore and other nearby towns in search of employment (Mahadev : 1975).

Table 3.1 : Growth of Population

Year	Population	Percent Variation
1871	60,312	-
1881	63,313	+ 4.90
1891	74,048	+16.95
1901	68,111	- 8.00
1911	71,306	+ 4.69
1921	83,951	+17.73
1931	1,07,142	+27.62
1941	1,50,540	+40.51
1951	2,44,323	+62.30
1961	2,53,865	+ 3.90
1971	3,55,685	+40.10
1981	4,79,081	+34.69
1991	6,53,345	+36.37

Source : Census of India.

The influence of the loss was felt for the next two decades. The after effects of the plague epidemic were overcome only by 1921, when the city regained its vitality and the decadal growth in population in 1911-21 reached 17.73 percent. The population reached the one lakh mark in 1931, of which one-fourth was added between 1921-31.

The highest growth (62.30%) was attained between 1941-51, with an absolute increase of 93,783 persons. This phenomenal increase was due to several factors such as rural-urban migration during and after World War II because of increased construction work in the towns and cities and

subsequently owing to the upsurge of industries following Independence. But when the State capital shifted to Bangalore in 1956 following the reorganisation of the state and improved employment opportunities in Bangalore, many of the natives of Mysore shifted to the State capital for better prospects, bringing down the growth to only 3.90 per cent. The setting up of various precision instruments industries in Bangalore, to benefit from its salubrious climate, led to rapid infrastructure development that in turn attracted people. The reorganisation of the State robbed Mysore of its political glory and converted the city into a place of tourist interest. The linkage between other smaller towns and Bangalore strengthened, while that of Mysore diminished.

The sudden decrease in the growth of population drew the attention of urban planners and several measures were introduced to restore the economic development of Mysore. The Jawa Motor Cycle Factory went into production in 1970 and several industrial estates and educational institutions had to be established to draw more people to Mysore. Today there are over fifty large and medium industries in Mysore taluk. These developments boosted the economy of Mysore, which accletated the growth of the service sector in the city. The last two decades have thus witnessed a considerably stable population growth, though the growth between 1971-81 has been less than the national average. The 1981-91 growth is at par with the national average.

An analysis of births and deaths between 1963 and 1993 indicate that the population growth of Mysore has been more on account of a natural increase than migration or because of changes in the boundary.

Table 3.2 : Increase in Population

Year	Births (Nos.)	Deaths (Nos.)	Natural Increase (Nos.)	% to total (Nos.)	Migration and boundary changes (Nos.)	% to total
1963-1973	96565	38156	58409	57	43411	43
1973-1983	129323	45406	83917	68	39479	32
1983-1993	156331	57199	99132	57	75132	43

Source : Census of India and the Municipal Corporation.
Note : Comparative population is that of the Census years of 1961,1971,1981,1991.

Spatial Distribution of Population :

The Municipal Corporation area of Mysore, which has the old city in it, is divided into seven Mohallas - Laskar Mohalla, Mandi Mohalla, Devaraja Mohalla, Chamraja Mohalla, Krishnarja Mohalla, Nazarbad Mohalla and Fort Mohalla. Of these, Laskar Mohalla has the largest population followed by Devaraja Mohalla, Chamraja Mohalla and Mandi Mohalla (1991). Though subsequently more space has been added to the Corporation area, the above mentioned Mohallas form the older parts of the city. The total Municipal area is now 54.5 sq.Kms. It constitutes 48.7 percent of the Mysore urban agglomeration, which is 112.01 sq.kms.

Table 3.3 : Spatial Distribution of Population within Mysore Municipal Corporation

Mohallas	Area Sq. (km.)	1971	1981	1991
1. Laskar	5.34	81,735	1,05,833	98,820
2. Mandi	3.53	56,656	65,250	68,792
3. Devaraja	11.94	53,095	72,635	88,183
4. Chamraja	5.95	53,670	66,107	76,834
5. K.R.	1.05	41,601	48,726	41,962
6. Nazarbad	4.79	33,774	43,872	57,114
7. Fort	4.59	35,154	39,331	48,059

Source : 1. Census of India.

2. P.D. Mahadev; People, Space & Economy of an Indian City,'Institute of Development Studies, Mysore, 1975.

The outgrowths which were added much later, in the form of new spacious residential and industrial areas, constitute the newer extensions of the city and are an outcome of planned developments with less population. They contribute only 7.7 percent of the total population of the Mysore Urban Agglomeration.

Population density figures indicate maximum concentration in K.R. Mohalla, followed by Mandi Mohalla, Laskar Mohalla and Chamraja Mohalla. These are areas adjacent to the Palace and form the oldest residential areas.

Population density is influenced by the available area and its location. According to the size of the Mohallas K.R. Mohalla is the smallest, followed by Mandi Mohalla, Fort Mohalla and Nazarbad Mohalla.

Table 3.4 : Density of Population
(Persons per Sq.Km.)

Mohallas	1951	1961	1971	1981	1991
1. Laskar	9,713	10,233	15,036	19,819	18,506
2. Mandi	12,425	11,926	16,050	18,484	19,488
3. Devraj	2,918	2,955	4,447	6,083	7,385
4. Chamraj	6,333	6,638	9,020	11,110	12,913
5. K.R.	31,168	32,243	39,620	46,406	39,964
6. Nazarbad	5,126	5,323	7,051	9,159	11,923
7. Fort	4,096	4,903	7,659	8,569	10,470

Source : 1. Census of India

2. P.D. Mahadev; People, Space and Economy of an Indian City, Institute of Development Studies, Mysore, 1975.

The 1991 population density points to a sudden drop in density in K.R. Mohalla and Laskar Mohalla. Within the Municipal Corporation the percentage growth of population in 1971-81 was less than the occupied residential houses.

Table 3.5: Percentage Decadal Growth of Population and Occupied Houses (1971-81)

	Mohallas	Population	Occupied Houses
1.	Laskar	29.48	47.14
2.	Mandi	15.17	78.38
3.	Devaraja	36.80	57.66
4.	Chamraja	23.17	37.12
5.	Krishnaraja	17.13	52.15
6.	Nazarabad	29.90	41.50
7.	Fort	11.88	29.88

This gives an idea about the increase in the density of residential houses within the Municipal Corporation limits.

In conformity with other Indian cities, the density of residential population in Mysore decreases away from the core. This is because of the highly mixed and intense use of land around the core, depicting high land values of centrality. The Central Business District of Mysore is bounded by the Sayyaji Rao Road on the east, K.R. circle on the south, Sivarampet on the west and Irwin Road on the north. This area contains 75 per cent of the banks, shops, restaurants and vegetable markets (Mahadev : 1975).

The land values are also decreasing as one moves away from the centre of the city. For example, the average land value in Mandi Mohalla and K.R. Mohalla is around Rs.250 per sq.ft. The commercial areas have higher values (Rs. 400 per sq.ft.) than the residential areas. In any city the

central parts tend to have more land values because of commercial activities, where land is put to more profitable use because of its centrality. In Mysore even though land values tend to decrease towards the periphery, in the planned residential layouts the values rise once again inspite of their peripheral locations. This is because of the process of suburbanisation that offers better housing in the periphery, rather than within the congested parts of the city. Also, land values in the eastern parts of the city are more than land values in the west because of their snob value.

Table 3.6: Spatial Distribution of Land Values

Areas	Average land values (Rs.per sq.ft.)	Types of function
Mandi Mohalla	400.00	Commercial
Mandi Mohalla	250.00	Residential
Laskar Mohalla	250.00	Residential
Nazarbad Mohalla	120.00	Commercial
Nazarbad Mohalla	90.00	Residential
Narsimharaja Mohalla	100.00	Commercial
Mohalla	75.00	Residential
Gayathripuram layout	50.00	Residential
Mahadivpura layout	70.00	Residential
Siddartha layout	90.00	Residential
Chamundi foot hills	150.00	Residential

Landuse :

An increase in population leads to urban spread. This obviously means an expansion in the land used, and a change in the city structure that necessitates planned development. But inspite of such transformations, certain old features remain as historic evidences of the past that explain the economic, ethnic and cultural conditions prevailing in each era.

Urban landuse is dynamic, changing with the people and their socio-economic conditions. In Mysore, though the actual areas under different landuses have increased, their proportions have remained almost the same, except for land under industrial use, which has increased phenomenally between 1976 and 1990.

With time the proportion under transportation has gradually, diminished, thereby congesting the roads. It seems that the increase in land under different uses has been adjusted against open spaces, for not only has the proportion of open spaces become less, but there has also been a reduction in the actual area. This indicates that the city is getting congested every day with the built up area and the population increasing rapidly, especially during the last three decades.

Table 3.7: Landuse for Developed Area
(Hectares)

Landuse	1967	%	1976	%	1990	%
Residential	1088.24	37.23	1226.75	33.22	2488.92	36.18
Commercial	89.03	3.04	95.54	2.59	181.46	2.64
Industrial	193.45	6.62	308.50	8.36	1623.10	23.59
Public & Semi Public	410.77	14.05	602.96	16.33	758.71	11.03
Parks + Open Space	411.58	14.08	578.36	15.67	405.47	5.89
Transportation	586.81	20.07	714.50	19.35	1056.38	15.36
Public Utility	12.54	0.43	13.34	0.36	23.19	0.34
Water sheets	6.47	0.22	98.61	2.67	103.71	1.51
Agricultural	108.05	3.70	52.64	1.43	238.17	3.46
Vacant	16.19	0.55	0.80	.02	-	-
	2923.13	100.00	3692.00	100.00	6879.11	100.00

Note: There is increase in area over time.

Though in Mysore natural increase is more than the increase from migration, or boundary expansion, the growing industries have generated jobs that attract migrants, and at the same time held back the native residents, thereby preventing emigration, as was the case when the capital shifted to Bangalore.

Housing :

Of the total area of a city, residential landuse occupies maximum space. In Mysore this landuse has increased from 1088.24 hectares in 1966 to 1226.75 hectares

in 1976 and 2488.92 hectares in 1990. Though at the onset it appears that Mysore is one of the less unfortunate cities of India with low density and less high rise buildings, with a gross density of 95 persons per hectare, the residential density of the city is around 260 persons per hectare. The Comprehensive Development Plan of Mysore has taken the norm of 100 persons per hectare as gross density to extend the city limits to accommodate the growing population. If this standard is considered to measure the density of the older parts of the city which are within the municipal area, all the seven Mohallas will surpass the density standards set by the planning machinery.

Landuse in Mysore is a legacy of the past, as is the case in most Indian cities. But the influence of the economic forces cannot be ignored, more so in the central parts of the city where mixed use is a common cause of congestion. As mentioned above, the land occupied for commercial use has the highest value. But even the residential use in these areas is under great stress, as can be seen from the land values and the density of occupied residential houses.

Table 3.8 : Density of Occupied Residential Houses and Population (1981)

Mohallas	Area (Sq.km.)	Number of houses	Residential Density per sq.km.	Popu-lation	Population Density per sq.km.
1. Laskar	5.34	16203	3034	105833	19819
2. Mandi	3.53	9843	2788	65250	18484
3. Devaraja	11.94	12707	1064	72635	6083
4. Chamraja	5.95	11281	1896	66107	11110
5. K.R.	1.05	7892	7516	48726	46406
6. Nazarbad	4.79	7375	1607	43872	9159
7. Fort	4.59	7015	1528	39331	8569
Outgrowths					
1. Belavatha	4.72	166	35	840	178
2. Bhogadi	7.85	844	107	4675	595
3. Chamundibetta	5.73	177	31	1001	175
4. Devanoor	3.51	8	2	30	8
5. Iranagere	0.25	319	1276	1788	7152
6. Kukkarahalli	0.02	100	5000	515	25750
7. Kurubarahalli	3.64	835	229	5074	1394
8. Kyathamara nahalli	2.69	720	268	4125	1533
9. Malalavadi	3.38	648	192	3383	1001
10. Maragowda nahalli	1.54	640	415	3794	2464
11. Metagalli	3.30	436	132	2132	646
12. Mysore	1.81	1521	840	8514	4704
13. Nachanahalli	3.78	270	71	1456	385

The distribution of the houses in the Mysore Urban Agglomeration shows that 91.54 percent are within the

Municipal Corporation limits. Mohallawise distribution shows that the old city areas are more densely populated, with a relatively high concentration of housing, than the outgrowths.

To house the growing population, Mysore has four predominant house types :

1. terraced with brick or R.C.C. walls;
2. Mangalore tiled with brickwalls;
3. country tiled with brick and mud walls; and
4. thatched with mud walls.

Time series data between 1958 to 1967 shows that Mysore had more of tiled houses than terraced houses in the earlier days.

Table 3.9 : House Types and Structure

(Nos.)

Year	Terraced	Tiled	Total	Mud & Thatch	Grand Total
58-59	6900	25000	31900	70	31970
59-60	7200	25000	32200	50	32250
60-61	9683	24819	3452	870	35372
61-62	13015	22965	35980	2891	38878
62-63	13695	23160	36845	3352	40197
63-64	13800	23160	36962	2012	38972
64-65	13862	23225	37087	3753	40840
65-66	14154	23330	37484	397	37881
66-67	14763	23162	37925	326	38251

Source : P.D. Mahadev; People, Space & Economy of an Indian city, Institute of Development Studies, Mysore, 1975.

Over the years the ratio of terraced houses to tiled houses is changing. With the planning agencies assuming the role of facilitators in building houses for the people, the number of terraced houses is increasing.

Population growth, urban spread, increase in employment as a result of urban-industrial growth are all reflected in the demand for housing and the need for land development. A study of Mysore City conducted during September/October 1990 by the Centre for Symbiosis of Technology Environment and Management (STEM), Bangalore, gives the details of the nature and type of shelter required to house the population of Mysore.

The households studied have been broadly categorised into four income groups and their demand for housing has been estimated. The groups are :

1. Economically Weaker Section (EWS) -

   i. EWS-I : With a monthly household income upto Rs.700/-

   ii. EWS-II : With a monthly household income between Rs.701/- to Rs.1100/-

2. Low Income Group (LIG) -

   i. LIG-I : With a monthly household income between Rs.1100/- to Rs.1500/-

   ii. LIG-II : With a monthly household income between Rs.1500/- to Rs.2500/-

3. Middle Income Group (MIG) -

   i. MIG-I : With a monthly household income between Rs.2501/- to Rs.3000/-

   ii. MIG-II : With a monthly household income between Rs.3001/- to Rs.4000/-.

4. High Income Group (HIG)-

i. HIG : With a monthly household income of Rs.4001/- and above.

The Centre for Symbiosis of Technology Environment and Management projected the 1991 population of Mysore to be 6.44 lakhs (it is 6.53 lakhs according to the 1991 census) and estimated that by 2001 the population would increase to roughly 8 lakhs. This means an addition of 36,000 households between 1991 and 2001, to the already existing 1,12,000 households. The housing needs will, therefore, increase from 1,00,750 in 1991 to 1,55,100 by the turn of the century. STEM has estimated the present housing deficit as 22,300 (1991), which will go up to 30,400 by 2001.

Table 3.10: Households and Housing Projections for the city 1991, 1996 and 2001

(in 000's)

Indicators	1991	1996	2001
1. Population	644	727	806
2. Household (Persons/HH)	112 (5.8)	130 (5.6)	148 (5.4)
3. Housing			
i. Housing Stock	103	118	135
ii. Unusable stock	7.8	7.9	10.32
iii. Housing need	117.5	136.3	155.1
4. Housing Deficit	22.3	26.2	30.4

Source : STEM; Housing and Land Development Programme, Mysore City.

Housing requirements for EWS and LIG groups would be about 25,000 in this decade (according to the study done by STEM 70 percent of the total households of the city belong to EWS and LIG groups). The MIG and HIG groups would require about half of this number. The investments necessary to meet the above housing requirements have been estimated at Rs.380 crores, which means an annual investment of Rs. 4 crores. The total investment for EWS and LIG income groups is estimated at Rs.124 crores, and those of MIG and HIG at Rs.256 crores. Also, it has been estimated that an additional sum of Rs.16 crores would be needed to upgrade the older housing stock. To meet such demands implementation in stages is required.

As a princely state, Mysore has always received attention in planned development. The City Improvement Trust Board (CITB) was constituted in 1903 by the then Maharaja of Mysore, Sri Krishnaraja Wodeyar. This was one of the premier planning agencies in India constituted for the upkeep of the city. The CITB was subsequently reconstituted in 1988 as the Mysore Urban Development Authority (MUDA).

Though the CITB and MUDA have introduced city development and housing schemes from time to time, Mysore city has a past history of cooperative housing from 1905 when the cooperative movement in Mysore state began by enacting the Cooperative Societies Regulation III. The Mysore District Gazetteer reports that the first "housing

society" of Mysore was constituted in 1916 called "The City Cooperative Housing Society". Subsequently housing societies increased. According to the Registrar of Housing Societies the figures, as of date, are as follows :-

Table 3.11: Registered Housing Societies in Mysore District

Year	Number
1961	1
1971	13
1981	19
1991	44
Total	77

Table 3.12: Members of Registered Housing Socities in Mysore District

Year	Members	Year	Members
1977-78	21500	1985-86	33602
1978-79	22556	1986-87	41360
1979-80	20130	1987-88	40887
1980-81	21788	1988-89	42115
1981-82	21968	1989-90	44420
1982-83	22820	1990-91	45405
1983-84	26777	1991-92	46810
1984-85	33263		

Note : The majority of these belong to Mysore City.

Efforts to provide housing to the citizens are being made by many agencies. In 1987, the year of "shelter for the homeless", novel schemes like "Asha Mandira" were taken

up by the erstwhile CITB. Although 44,000 applications were received, only 6,500 houses could be allotted under the HUDCO scheme, and 650 houses were given under Own Your House Scheme. About 10,000 plots were also provided by MUDA.

In 1989 as against 17,000 applications, MUDA allotted only 1600 sites. In 1991 another 3000 sites were provided against 24,000 applications. Once again 16,000 sites were allotted in 1992. Even then, 70,000 applications for the allotment of sites are still pending with MUDA. This only underscores the deficit in the supply of housing in Mysore as against the requirements. The Revised Comprehensive Development Plan of Mysore estimates the need for one lakh houses between 1991 and 2001 AD.

Apart from MUDA the Karnataka Housing Board is also providing housing from time to time. So far a total of 4780 houses have been constructed at an expenditure of Rs.582.96 lakhs. An on-going scheme proposes to construct another 4341 houses. The Karnataka Housing Board (KHB) has also prepared a Corporate Plan for Housing and Land Development (HALDA) for the period 1991-2001 for the entire urban sector of the State. So far eight towns have been included in it, of which Mysore is one.

Housing schemes have also been taken up under bank-aided programmes for the EWS, with subsidies being released to various (71) banks, especially under the Nehru Rojgar Yojana Scheme. The Karnataka Slum Clearance Board, which

has a welfare approach, also rehabilitates slum dwellers by constructing houses for them. The Board also upgrades slums through environmental improvements. It depends for its finances on the government. Of late sites and services programmes have also been taken up (1991-92 - at Gokulam).

Table 3.13: Statement Showing Upgradation of Shelter under NRY Scheme : 1989-90 (First Instalment)

Loan released by K.H.B. (Rs.)	No. of Beneficiaries (Nos.)	Amount Distributed to Beneficiaries (Rs.)	Balance (Rs.)
14,48,000	103	1,39,500	13,08,500

Of the total loan amount of Rs. 14,48,000, Rs.2,57,200/- was allocated for training. It can, therefore, be summed up that though efforts are being made to solve the housing problems of the city, very little efforts are made to upgrade housing.

Matching with population growth and increase in demand for housing, the infrastructure needs to be improved. Mysore being the cultural centre of the region, town development has always been the focus of attention of the authorities from the ancient times. As mentioned above, the CITB was introduced in 1903 and the planning machinery of Mysore came into force very early in the history of urban development in India. But the extent of development depends

not only upon the culture of the place, but is also in consonance with the city's exchequer. During the era of the titular rulers the city coffers were large enough for maintenance and improvement of the city. As against this today the per capita expenditure is only around Rs.250. Even then, this is very high in comparison to many other towns in India. But growth in municipal finance has been erratic, as also the receipts and the expenditures.

Table 3.14: Position of Municipal Finances in Mysore

(Rs.)

Year	Opening balance	Receipts	Total	Expenditure	Closing balance
1985-86	3922643	65196579	69119222	66554633	2564589
1986-87	2564589	67715721	70280130	69910618	369692
1987-88	369692	72870392	73240084	72468258	771826
1988-89	771826	110656331	114128157	89617191	21810966
1989-90	21810966	119745983	141556949	126545704	1501245
1990-91	15011251	139931418	154942669	1371993339	17743330
1991-92 (Revised Estimates)	17743330	57883000	175626330	161693000	13933330
1992-93 (Estimate)	13933330	225007000	238940330	225694000	13246330

Table 3.15: Growth in Municipal Finances and Expenditure in Mysore

(percentage)

Year	Receipts	Total	Expenditure
1986-87	3.86	1.68	5.04
1987-88	7.61	4.21	3.66
1988-89	51.85	55.83	23.66
1989-90	8.21	24.03	41.21
1990-91	16.86	9.46	8.42
1991-92	12.83	13.35	17.85
1992-93	42.51	36.05	39.58

Water Supply

The city got its first modern water supply system in 1896 during the reign of the Queen Regent. It was named as Vani Vilas Water Works after her. The water was treated through slow sand filters before distribution. The head works were located near Belagola and water was being pumped with steam turbine pumps to the city through a 350 mm CI Rising main of 8.85 kms. At that time the city had a population of 68,000 and the total quantity of filtered water produced was 2.27 million litres per day. The rate of supply was about 31.82 litres per capita per day. The system was gifted to the Municipal Corporation in 1900 and the Government continued to maintain it. During 1910 the Belagola pumping station was electrified and the steam turbine pumps were replaced by electrically driven centrifugal pumpsets. Subsequently, the water works has

been renovated, improved and expanded three times. Around 1981 the demand for water was to the tune of 78 million litres, but the supply was only about 48 million litres, indicating a deficit of 30 million litres. This has resulted in a reduction in the supply hours and staggered supply to different localities. The storage facility is also insufficient. Daily variations in consumption, peak-hour demands, additional demands during festivals etc. cannot be taken care of. The distribution network has been extended to the new layouts of the city. With some 800 connections being obtained each year, the distribution system is being overloaded.

As of date, the total supply of water to the city is 16 M.G.D. from the Cauvery riverand 2 M.G.D from borewells. This amount is distributed to the different users as follows :-

	Users	**Amount**
1.	Domestic	11.20 MGD
2.	Non-Domestic	5.00 MGD
3.	Commercial	1.80 MGD

The per capita water supply to the 9 divisions, to which the city is divided (for charging tariffs), is as follows :

	Divisions	Per Capita Supply
1.	V.V. Mohalla	150 LPCD
2.	Chamaraja Mohalla	120 LPCD
3.	K.R. Mohalla	120 LPCD
4.	Devaraja Mohalla	130 LPCD
5.	Mandi Mohalla	100 LPCD
6.	Fort Mohalla	110 LPCD
7.	Laskar Mohalla	90 LPCD
8.	Kuvempunagar	125 LPCD
9.	Nazarbad	90 LPCD

The total number of connections as on 31.3.92 is :

	Users	Connections
1.	Domestic-metered	38072
2.	Domestic-Non-metered	7142
3.	Non-domestic	3723
4.	Commercial	1727
5.	Industries	318
	Total	50982

In addition there are 1830 public taps.

The expenditure in 1990-91 was Rs.381.10 lakhs and increased to Rs.415.00 lakhs in 1991-92. The revenue collected has been Rs.206.27 lakhs for 1990-91 and Rs.216.11 lakhs for 1991-92. At present the tariffs collected meet about 50 per cent of the expenditure.

Under Ground Drainage :

The first underground drainage in Mysore was provided to Fort, Laskar, Mandi, Devaraja and K.R. Mohallas in 1886. Incidentally, Mysore is one of the few cities to have an underground drainage system from such an early date.

As the city expanded, the underground drainage was extended to the new areas. But the expansion could not match the city-spread. Hence, in 1955 a comprehensive plan was drawn to improve the capacity of the older areas and to lay new ones. The expenditure was jointly borne by the Government and the Municipality. At present almost all parts of the city have underground drainage. Mysore's drainage system is enhanced by its undulating terrain.

Electricity :

As compared to otther cities Mysore has been well ahead in the use of electricity. Because of its proximity to the Sivasamudram waterfall, at a distance of 80 kms., there is adequate power for lighting the city. Initially, electricity at Sivasamudram was primarily generated for use in the Kolar Gold Fields and the surplus power was diverted to Mysore and Bangalore. Mysore municipality was one of the first few agencies to use power for providing beautiful street lighting, as early as 1908.

Table 3.16: Electricity Connections and Loads Pertaining to City Area Division Mysore

Year	Categorywise Connections and Load												Revenue collected (Rs. Lakhs)	Expenditure (Rs. Lakhs)
	Domestic lighting		Domestic heating and lighting		Commercial lighting and heating		Industrial set + water works		Power for small industries		Large Industrial power			
	Nos.	Load in km.	Nos.	Load in km.	Nos.	Load in km.	Nos.	Load in HP	Nos.	Load in HP	Nos.	KVA		
1988-89	59853	11978	28812	51864	19015	9508	1623	8115	5041	75615	112	56000	2498.89	980.24
1989-90	62669	12540	32268	58082	20708	10354	1754	8770	5257	78855	119	52350	2655.05	1017.31
1990-91	76180	15236	34523	62145	20859	10480	2533	12665	5529	82935	127	66550	3148.30	756.43
1991-92	80338	16068	37175	66915	21111	10558	2663	13315	5967	89505	132	67575	3944.46	1022.62
Upto Dec.92	82599	16520	39452	71019	21652	10828	272	13640	6232	93480	137	68950	2979.83	137.68

Table 3.16 shows that since 1988 the consumption of electricity is on the increase. In fact, all houses in Mysore have electric lighting.

Lighting of the Palace and the K.R. circle which was stopped, has been resumed recently after 40 years. The lighting is done only on Saturdays and Sundays and is a beautiful sight to watch. Such lighting is also done during festivals, especially during Dussehra.

Education

Mysore has very good educational institutions. The University of Mysore was founded in 1916. However, there existed two colleges before the formation of the University - the Maharaja and the Maharani colleges. The former formed the nucleus of the Mysore University. The University campus has of late shifted to the western side of Kukkarahalli tank and is called "Manas Gangotri".

The other institutions that have brought fame to Mysore as a seat of learning are the Central Food Technological Research Institute, part of which is managed by the F.A.O. This has brought in its wake the Defence Food Research Laboratory that is concerned mainly with the preparation of high protein food for the army personnel particularly stationed in high altitude environments.

The spatial distribution of colleges corresponds to the distribution of high schools. The factors that prompted the high schools to grow, also hold good for the location of colleges (P.D. Mahadev : 1975). There are altogether 79 high schools, of which 49 are aided, 24 un-aided and 6 government schools. There are 209 higher primary schools and 95 lower primary schools. The number of Junior colleges are 21.

Apart from the general schools and colleges, there are vocational training institutes. Two important ones are the Chamaraja Technical Training Institute and the Industrial Training Institute (ITI). These are funded by the Department of Industries of the State Government. The strength of the students in these organisations is not much, as the stipends are very low. The total strength of the former is 58 and that of the latter 281. The Chamaraja Technical Institute dates back to the Maharajas' rule when members of artisan families were trained. Today the majority of the trainees come from the Mandi Mohalla, where there is a concentration of artisans. The ITI trainees come

from all over the city.

Transportation :

Transportation plays a very important role in the development of a city. The city depends not only on its inherent vitality for growth, but also in its capacity to tap resources from its surrounding areas. To perform this function it is necessary to have a good network of roads and linkages, both within and outside the city.

In Mysore, the Palace has always been the focal point of all activities. Hence all roads run radially from this point. Four of the arterial roads from the Palace are State highways connecting Bangalore-Mysore-Ooty, Kanakapura-Mysore, Mysore-Mangalore and Mysore-Mananthody (in Kerala).

The street pattern within the city is more or less grid-iron pattern. Most of the roads are broad and straight, with regular footpaths on either sides. Intra-city transportation is a link between functional areas within the settlement.

The total road network in the city was 335 kms. in 1971. It increased to 432 kms. in 1981. By 1991 it has almost doubled to 853.63 kms. The road capacity in the older parts of the city has remained the same for a long time, while the quantum of traffic has increased significantly.

A traffic survey done by M/s. Transport Operation Planning and Informatics Centre, Bangalore, in 1990, shows

the following results :

Households owning vehicles :

- 25 per cent of the households have no vehicles;
- 28 per cent have cycles;
- 48 per cent have two wheelers;
- 4 per cent have cars.

Mobility:

- mobility of household members increase with ownership of motorised vehicles;
- household trip rates increases to 9.4 per day among the households which have all the three modes of transport.

Passenger trips:

- 5.7 lakh passenger trips are generated each day within the urban limits;
- home to work trips constitute 23.2 per cent;
- home to education trip is about 19.5 per cent;
- home to shopping is 2 per cent;
- home based trip is 49.9 per cent;
- non-home based trip is 5.4 per cent;
- 12 per cent of intercity trips are by tourists;
- 2/3 of intercity passenger trips are for work;

As a city grows, vehicle ownership also increases. In Mysore District motor vehicles have increased by almost 13 times between 1971 and 1989.

Table 3.17 : Motor Vehicles in Mysore district

(Nos.)

Year	Motor Cars Jeeps	Motor Cycles Scooters	Trucks	Bus	Auto Rick-Shaw	Others	Total
1970	2099	2602	866	499	12	255	6333
1976	2843	8219	1161	651	473	770	14117
1981	3323	17978	1351	659	1096	1012	25419
1986	4829	45125	2145	1021	2406	1685	57211
1989	5717	68060	2310	1318	3118	1593	82114

Source : Comprehensive Development Plan

Motor cars and Jeeps have increased by 172 per cent; whereas two wheelers(motorised) have gone up by 2516 per cent. Auto rickshaws which were not there until 1970, have been introduced. Buses have increased by 164 per cent. With population increase, the transfer of goods has become important. Hence trucks have increased by 167 per cent. The total number of vehicles have increased by 1197 per cent in about two decades.

Spot surveys done by the study team for the two selected study areas reveal that the majority of the traffic in Mysore consists of bicycles and scooters. Auto rickshaws follow next. There are not many cars and taxis. In fact, the results obtained are not very different from the 1990 survey.

Table 3.18 : Traffic Survey of Study Areas

(Nos.)

Type of Vehicle	Mandi Mohalla (morning)	Mandi Mohalla (evening)	K.R. Mohalla (morning)	K.R. Mohalla (evening)	% to total vehicles
Trucks/Buses H.T.V.	40	36	132	208	3.69
Small Trucks/ Tempo L.T.V.	17	24	73	82	1.45
Cars/Taxis Four wheelers	52	73	196	269	4.77
Carts & animals driven vehicles	65	7	66	50	0.89
Three wheelers	672	752	931	774	13.72
Two wheelers	930	1169	2154	2698	47.84
Cycles	835	1121	1752	1521	26.97
Any other	6	-	-	37	0.66
Total	2617	3252	2304	5639	100.00

Source: Primary data.

The Comprehensive Development Plan has been thinking of upgrading roads to cope with the increasing traffic. Plans for "building lines" have already been drawn. With re-densification of residential layouts certain radial roads are to be converted into arterial roads. Also truck terminals and bus stands are proposed. A reorganisation of locations of these has also been thought of.

ECONOMIC BASE :

The factors that draw people to any city are its salubrious climate, social and cultural infrastructure and sound economic activities. Mysore happens to have all of

them. The splendid culture of the titular rulers supported by their riches promoted unique handicraft industries and good educational institutions. Moreover, the salubrious climate of Mysore and its surrounding region continued to produce the raw materials needed to sustain such industries. The silk and sandalwood industries of Mysore give the city a unique position in the Indian sub-continent. To this is added the past heritage of palaces and gardens, to draw a continuous stream of tourists throughout the year. Today tourism has become an important industry of Mysore.

Tourism :

Mysore is a city of palaces. The physical as well as the economic core of the city has until recently, been the Palace, which is largely responsible for supporting the city. The cultural heritage, along with the salubrious climate draws tourists throughout the year. Monthly data from the Department of Tourism will give an idea about the steady flow of visitors to the city.

Table 3.19: Tourist Arrivals in the Regional Tourist Office - 1992

Month	Number of tourists	Month	Number of tourists
January	679	July	441
February	611	August	580
March	550	September	450
April	554	October	680
May	559	November	530
June	476	December	445

Table 3.20 : Tourist Arrivals

Tourist Places	Number of Tourists	
	1990-91	1991-92
1. Maharaja's Palace, Mysore	1,160,000	65000
2. Art Gallery, Mysore	1,156,000	4,806,000
3. Zoo, Mysore	1,146,000	376,000
4. Brindavan Gardens	1,246,000	425,600
5. Lalihtamahal Palace, Mysore	13200	124000
6. Dasaprakash Paradise Hotel, Mysore	12000	15000
7. Hotel Metrople, Mysore	4800	6000
8. Mandya Division Tourist Places	8600	9600
Srirangapattana		180965

Source: Regional Tourist Office, Mysore.

The tourists require some extra amenities as compared to the local residents. These are places of lodging and boarding, water supply, sanitation and transportation. The city of Mysore has 1138 licensed hotels and eating places, apart from the smaller catering services.

Table 3.21: List of Licensed Hotels and Eating Places

Type of Place	Number
1. Board+Lodging+Restaurants	35
2. Boarding+Lodging	15
3. Lodging+Restaurant	17
4. Boarding+Restaurant	89
5. Hotel or Restaurant	181
6. Non-vegetarian Hotel	127
7. Lodging	112
8. Canteen	116
9. Cafeteria	67
10. Mess	20
11. Tea Shop	251
12. Coffee Bar	49
13. Milk Bar	59
Total	1138

Source: Municipal Corporation, Mysore.

All these generate plenty of economic activities in the service sector. The visiting tourists also generate a lot of trade in the form of shopping and souvenir stalls.

Industries :

When the abolition of the titular rule and the shift of the administrative capital from Mysore to Bangalore led to a sudden decrease in population, the government's planning agencies had to introduce measures to regain population and

economic stability. This effort brought about the establishment of several industries, as can be seen from an increase in the industrial landuse between 1976 and 1990. The proportion of land under industrial use rose from 8.36 percent to 23.59 percent. The 1990 survey shows that land under industrial use was 1623 hectares. In the Revised Comprehensive Development Plan the area proposed for industrial use is 1848 hectares.

In the past Mysore was known for its silk, sandalwood and rosewood products, such as sarees, sandal oil, agarbatti and handicrafts. The majority of the industries were either agro-based or forest-based. The Karnataka Soaps and Detergents Ltd. was set up in 1917 and the silk weaving factory in 1932. These were the only two large scale industries set up before Independence, apart from a railway workshop and Mysore Lac and Paints. Post-Independence industrialisation began with the Ideal Jawa (India) Ltd. at Yadavgiri in 1970. Since then various types of industries have been set up in Mysore. Industrial development has taken place along the highways. A major area of industrial development is to the north-west of the city. At present there are 3,500 registered units with 23,000 employees. There are now about 50 large and medium industries in Mysore employing about 13326 workers. Some more industries are being set up.

Small scale industries are spread out all over the city, with concentration of agro-based and textile

industries in Ediga Extension. Beedi manufacturing is concentrated in Mandi and Lasker Mohallas and wood industries in Mysore South and Bamboo Bazaar. Wood crafting is done mostly in Mandi Mohalla. Many household industries are registered. According to the 1971 census 20.3 percent of the workforce were engaged in industries other than the household industry. There is no data exclusively for the industrial workforce for the subsequent census years. However, approximate estimates indicate an increase.

The Karnataka State Handicraft Development Corporation, through its Multicraft Complex, (M.C.C.) in Mysore, provides various types of assistance to handicraft artisans in and around the city. The M.C.C. was started in 1985. Under this programme not only are facilities provided to buy raw materials and sell finished products, but the poorer artisans are also assisted in the use of machinery required for their craft. The Corporation has built some 100 living-cum-workshops under a Dutch assisted programme to help the artisans. Housing is also provided on hire-purchase basis, in which the State Government provides a 33 per cent subsidy. The balance is recovered in monthly instalments over a period of 25 years. The loan carries a nominal interest rate of 4 per cent.

There has been a steady increase in the production from this complex.

Table 3.22 : Handicraft Production

Year	Production/Procurement (in lakhs Rs.)
1985-86	2.00
1986-87	4.00
1987-88	6.00
1989-90	11.00
1990-91	17.00
1991-92	19.50

The Multicraft Complex also provides training to the members of the artisan families. The trainees are paid a stipend of Rs.250-300 per month. The master craftsperson is given an honorarium of Rs.1500.00 per month.

Efforts at promoting handicrafts are supported by the District Industries Centre that helps to procure raw materials, provides civic amenities in the complexes and liases between the aritsans and the banks from where the borrower can take loans. NABARD refinances the commercial banks for such loans.

There are altogether 6742 artisans in Mysore taluk the number of small scale industries in the entire district is 10,000.

Employment :

With the development of industrial infrastructure and the educational institutions, there is more scope for employment in Mysore today. The provisional population figures for 1991 show that 30.52 per cent of the population

is in the workforce as against 26.43 percent in 1971, and 27.51 percent in 1981. It is now at par with the national urban workforce which is 30.44 per cent. This is an improvement over the previous census years.

Table 3.23: Employment Needs (as on 13.12.92)

(Nos.)

		Men	Women	Total
1.	Graduates	6026	2464	8490
2.	Diploma holders	1906	123	2029
3.	I.T.I. Certificates	3377	-	3377
4.	Typist	1940	2136	4076
5.	Stenos	247	281	528
6.	Primary school teachers	1297	1923	3220
7.	Physical Education Instructor	637	51	688
8.	Pre-primary school teacher	-	972	972
9.	S.S.L.C.	22368	5248	27616
10.	P.U.C.	5202	1974	7176
11.	Drivers	1407	-	1407
12.	Below SSLC (Middle school)	12306	1888	14194
13.	Literates	5281	932	6213
14.	Illiterates	1180	914	2094
15.	Others	5240	169	5409
Total		68414	19075	87489

Note : The figure of SC, ST, Blind, Deaf, Orthopedically handicapped and others are included in the total.

Source :Employment office, Mysore city.

Data from the Employment Exchange also quotes very high figures for job seekers. Altogether 68,414 men and 19,075 women are in search of jobs in the city. The total figures work out to 13.39 percent of the entire population and 43.45 per cent of the provisional workforce. It is hoped that with more industrial development more jobs would be generated, especially in the service sector that would come up as a result of the multiplier-effect. Details regarding the level of education give an idea about the requirements for different types of jobs.

CITY STRUCTURE :

Mysore displays two types of structural conditions, with the older parts of the city being of feudal origin and the newer extensions an outcome of democratic institutions. It typifies a contradiction inherent in cities that are in transition and are still in the process of adjusting themselves to new realities. The old values have faded away and the new ones have not yet begun. The traditional economic base has also weakened, but the new bases for sustenance are yet to catch up. This transition can be witnessed in all the facets of city structure - in space, in the physical build, in social characteristics and in the economic conditions.

As the seat of the titular ruler, the palace was located in the centre of the town, surrounded by gardens enclosed by four gates which gave access to the different sides of the town. The inner circle surrounding the palace

consisted of high class courtiers and Brahmins, while the periphery was populated by the lower order courtiers and other poor people. Near the core, Santhepet was occupied by the merchants and their business premises.

In olden times, being the capital of a princely state, the city was strewn with palatial buildings of good architectural standards. But it lacked continuity of built form. The Wodeyars gradually beautified the already attractive topography of the place by creating gardens and parks. For those who served them the rulers also helped to build houses very close to the palace. Today these areas form the "inner city" residential neighbourhoods of K.R. Mohalla, Mandi Mohalla, Fort Mohalla, Laskar Mohalla and so on. The newer extensions with modern housing are near the periphery.

The modest houses of the older residential neighbourhoods reveal an attitude of subordination and servitude adopted by the rulers towards their employees, which is very typically feudal. In spite of all the benevolence shown by way of good planning, through well laid out streets and provision of water, drainage and sewerage, the housing standards did not match those of the princely style. The roads were narrow and though closeness of houses promoted ethnicity, it also brought about congestion, especially with the increase in population. This has ultimately affected the environmental health conditions of

these areas. It is also because the city was not planned by the people, but by someone who was a symbol of authority and had supreme power. The peripheral areas were more rural than urban.

The British, during the post rendition period (1882-1902) changed the urban morphology by providing modern infrastructure with improved health and hygiene standards. Their housing was different, depicting European architecture with bungalow type of houses with Mangalore tiles. This style influenced many indegenously built housing in Mysore, which today has many more tiled roofs than otherwise found in cities (op cit Table : 3.8).

After the plague of 1878 when the civic administration undertook salvaging work, the landuse changed considerably. Even though landuse is partly a legacy of the past, circumstantial changes in attitudes and values influenced subsequent development over time. Hence landuse dimensions changed and transportation routes improved and grew. This resulted in overall structural changes. Over time a class structure was formed, with the middle class shifting away from the core during the time of decongestion, soon after the plague. Recent trends witness the rich moving out to the suburbs (newer extensions) for more spacious accommodation.

All these changes have diversified development. Hence with population increase, the city has not only expanded, it

has also developed new features and acquired new characteristics that have changed the overall structure. But pockets of ethnic groups still exist as can be seen in the 'agraharas' in the heart of the city or in the typical craftsmen areas. Landuse specialisation has become prominent with modern planning. Separate industrial, residential, commercial and institutional uses are now being allocated for further developments. House types are also changing from the tiled roofs to the multistoreyed apartments. So are the building materials, from temporary to permanent types, from mud, thatch and tiles to bricks, mortar and R.C.C. The residential density has already increased, leading to housing shortages.

Changes in the occupational structure can also be seen. With an increase in the population and the broadening of the economic base, the palace - oriented economy is changing over to tourism and education as the major functions of the city. Of late, industrial development is being promoted for a more sustainable development. The landuse pattern and the employment exchange registrations reflect these changes. To cater to the increase in demand, urban infrastructure is also being given a boost. More resources are being put to upgrade infrastructure.

While such changes have got interlinked with development planning, the large houses and buildings of the olden times with unique architecture and with spacious compounds for specific use, stand out as monuments of the

glorious past. INTACH has done a detailed listing of all such buildings of architectural importance in Mysore that need to be preserved and renovated, to remind the Mysoreans of their rich heritage and their cultural background.

The urban morphology of Mysore also speaks of a two-tier hierarchy of commercial centres, with the primary or the main market and the secondary or the neighbourhood markets. The main market is characterised by different levels of wholesale and retail trade and with different order goods supported by various threshold populations. It is located in the heart of the city in a depressed area to the west of the Palace and all along Sayyaji Rao Road, which was once upon a time Purnaiah's nullah - an unsuccessful water project started during the time of the Queen Regent and which had become a cesspool causing environmental problems to the citizens. This road is now flanked by buildings to contain shops and other commercial establishments (Mahadev: 1976).

Industrial development in Mysore was primarily due to the availability of hydro-electric power from Sivasamudram. The industries which were started early were the government sandal oil factory, the silk factory and the K.R. Mills, coffee curing works, fertiliser factory and the paper mills on the periphery which depended on local raw materials. These not only aided the physical expansion of the city but also boosted construction activity.

The underground drainage which was started by Sir. M.Visvesvaraya, when he was the Chief Engineer is now being extended to newer areas. In Mysore the sewerage system had the advantage of the gravity flow because of the undulating topography of the city. The outfall is provided with a treatment plant to provide water and compost for agriculture.

While planning, certain preventive measures were taken in view of the past experiences. The new layouts have broad roads and plenty of lung space. Mysore has thus emerged as a well laid out beautiful city. Recent industrial developments have focussed on modern industries like the Jawa factory, Karnataka Telecables, Triton Valves Ltd., Talcon Tyres Ltd., Mysore Polymers, etc. With the change in the accent from palace - oriented economy to tourism, education and industry, it is hoped that urban development in Mysore will take on a modern pattern of growth. But care should be taken to retain the rich heritage that would emotionally hold the people together, as well as put Mysore on the international scene.

CONCLUSION :

The trends in the growth and the present conditions relating to population, housing, industry, employment and infrastructure, clearly indicate that Mysore, which has had an erratic growth pattern, is eventually stabilising and the remnants of its past glory only remain as historical monuments today, drawing tourists and promoting tourism as

an important economic activity. This could happen because of the political stability that has prevailed since Independence. But the past celebrities have certainly left a lasting impression on the culture of the place. The ethnic developments and the cultural trends, therefore, still owe their credentials to the past rulers.

As mentioned earlier, even though the growth of a city is guided by its history, there is always a 'present' seeking attention from the planning point of view, to cope with the existing and ever-changing conditions. In Mysore, efforts to govern the city were not only made by the tituler rulers, but the local governments and the public organisations have also subsequently made substantial efforts to quide the development of the city in consonance with the evolutionary changes taking place. The city's municipality was formed in 1862 to maintain and improve the city. Decongestion of the older parts of the city areas was taken up as early as 1898 when the plague epidemic struck the city. New extensions were made to shift the population. Ittigegud, which was an insanitary area was improved by the Maharaja when the old palace was burnt down and the summer palace became his residence. The Municipality acquired the insanitary areas in Fort and K.R. Mohallas to prevent the spread of the epidemic. Subsequently the Municipality and then the Mysore Urban Development Authority (MUDA) formed many new residential extensions to make the city what it is today. The City Improvement Trust Board was constituted in

1903, which assumed a new role as the Development Authority in 1988. The section on housing gives an idea of the efforts made by MUDA to provide housing to the growing population. The Department of Industries is also making rigorous efforts to improve the economic base of the city.

City development and planning is not just the task of MUDA. Various administrative and implementing agencies need to coordinate for city development and maintenance under the overall guidance of the Planning Department. With increasing complexity and needs, the magnitude of the task demands division of labour. As per planning practices, a city is divided into planning areas to keep a close watch on development within manageable areal limits. Mysore has been divided into 29 planning districts, where all aspects of planning are repeated in each district for rigorous implementation of the plan. The major districts are only 12 in number; but some of them are divided into different sections to highlight specificity and to bring in accuracy.

The Comprehensive Development Plan of Mysore was approved by the State Government in 1981. The major policy decisions were to locate new industries, improve traffic and transportation to meet the increased requirements and at the same time to reduce urban sprawl. This can be done by introducing multi-storeyed dwelling units in specific zones. Development has been suggested along with beautification of the city, with an emphasis on preserving the ancient culture, ethnicity and beauty.

The developments need to be phased out as the magnitude of the work and resource generation are not easy tasks. Stress has been laid in generating internal resources by the local authorities under the Urban Development Authority's jurisdiction. Also, grants and loans are expected from the State, the World Bank, Life Insurance Corporation, Banks, National Housing Board and by way of private investments.

Planning, over time, is done by various agencies, for different aspects of development. While on the one hand the city expands with growth, the older parts of the city begin to decay because of age. Hence, good planning would always include renovation/repair of the older parts, to prevent degradation that has a negative effect on the city. So far no strategies have been formulated to look after this aspect of planning for the country as whole. This study will, therefore, try to formulate a strategy to improve the deteriorating housing stock of the oldest parts of the city of Mysore (which can also be called the inner city) that would satisfy a very important aspect of development, as the foremost requirement of any growing population is housing. But associated with shelter, the basic infrastructure required to support a reasonably good living will also have to be planned, so that suggestions to improve it can be made accordingly.

RESEARCH STUDY SERIES

Number 58

INNER CITY ENVIRONMENT AND URBAN RENEWAL OF MYSORE

National Institute of Urban Affairs
New Delhi

July, 1994

CHAPTER IV

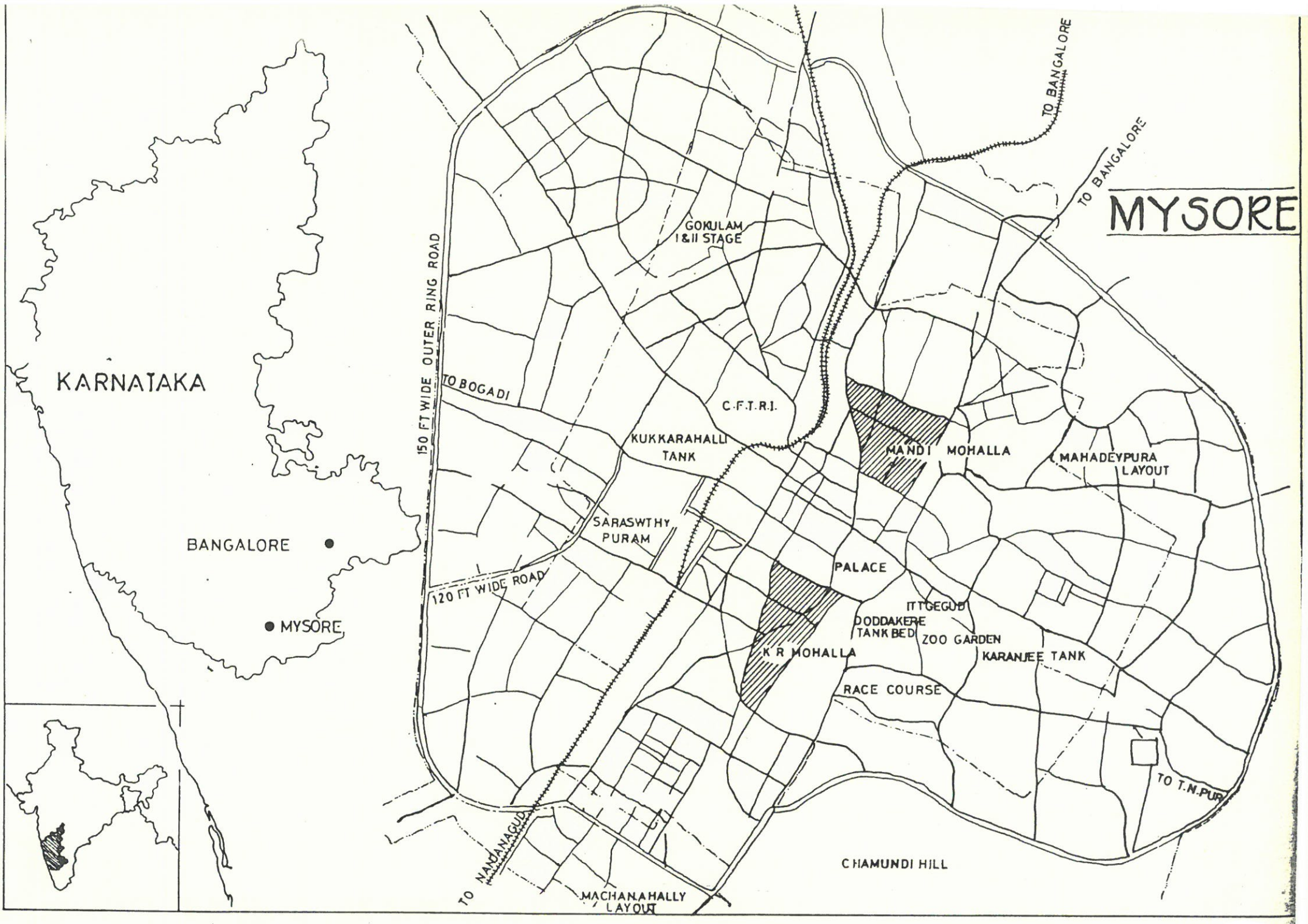
THE INNER CITY

The inner city is the historic core from where a city begins to grow. In Mysore, the city growth started from the palace and its adjoining areas that housed the courtiers and all those who served the royal households. These areas are the K.R. Mohalla, Mandi Mohalla and Laskar Mohalla, which were originally planned for a very small population. Subsequently, with time, the population increased, more so because of the central location of the area, to make it the most congested part of the city of Mysore. Though these neighbourhoods are not physically defined as the inner city by any planning agency, like Shahjahanabad of Delhi or Lad Bazar of Hyderabad, Laskar Mohalla, K.R. Mohalla and Mandi Mohalla have all the characteristics that give the inner city its nomenclature. It also falls within that "urban core" where land values and population densities are at their height.

The high demands on land within the inner city have encouraged the owners to sell parts of their residential plots to raise finances, so that the inner city plots, which were originally not as small, have been subdivided to build more houses, thereby increasing the number of occupied residential houses and the population. This intense use of land has caused the area to deteriorate, giving the inner city a rundown appearance.

Despite many common characterisics, the inner city of Mysore is different from those of large Indian cities like Chickpet of Bangalore or Chandni Chowk of Delhi. Metropolitan cities have extremely congested inner city areas with highly mixed landuses and concentration of a wide range of economic activities, typical of small-firm economies. Consequently, buildings are put to several uses because of the nature of operations. Along with overuse, the rent control laws encourage deterioration of buildings, with owners desisting to repair buildings from where returns are low. This leads to the formation of blights in the inner city areas and the consequent problems for living. But because of the hectic economic/commercial activities, inner cities in India are not essentially poor, as is the case in the West.

In a medium sized town like Mysore the scale of operations is small. With comparatively less concentration and congestion, the area characteristics are different from those of the metropolitan cities. Despite mixed landuses at the macro-level, the inner city of Mysore has small enclaves of residential neighborhoods totally segregated from the commercial areas, though located close to them. Kothwaripura Agrahara (a study area) of K.R. Mohalla is one such enclave, which inspite of being in the heart of the city is fully residential. In fact, the inner city of Mysore has many such agraharas with concentrations of Brahmins from the days of the Maharajas. These areas are noted for their unique ethnicity from their past cultures.


KARNATAKA
BANGALORE
MYSORE
MYSORE
TO BANGALORE
TO BANGALORE
GOKULAM 1&II STAGE
150 FT WIDE OUTER RING ROAD
TO BOGADI
C.F.T.R.I.
KUKKARAHALLI TANK
MANDI MOHALLA
MAHADEYPURA LAYOUT
SARASWTHY PURAM
120 FT WIDE ROAD
PALACE
ITTIGEGUD
DODDAKERE TANK BED
ZOO GARDEN
KARANJEE TANK
K R MOHALLA
RACE COURSE
TO T.N.PUR
TO NANJANAGUD
MACHANAHALLY LAYOUT
CHAMUNDI HILL

Mandi Mohalla (another study area), as the name implies, has typical concentrations of commercial activities found in the inner cities of developing countries, with wholesale and retail trade and small-scale and household industries that create commotion and congestion by increasing movements and traffic. But even within Mandi Mohalla certain sections are totally residential, though some houses still run household industries within their residential premises, especially, agarbatti, bidi and woodcraft industries for which Mysore is noted. Mysore's woodcraft is of national and international repute. It contributes substantially to the income of the State.

Though the physical and the socio-economic characteristics of the inner city of Mysore have many typical inner city features common to all towns, the row-houses of the inner city resemble those of the West, especially of European countries, with well laid out infrastructure right from inception. But over the years, due to population increase, the quantity and quality of infrastructure has declined because of overuse and the houses have deteriorated on account of obsolescence and lack of maintenance and are, therefore, in urgent need of renovation.

Physical Features:

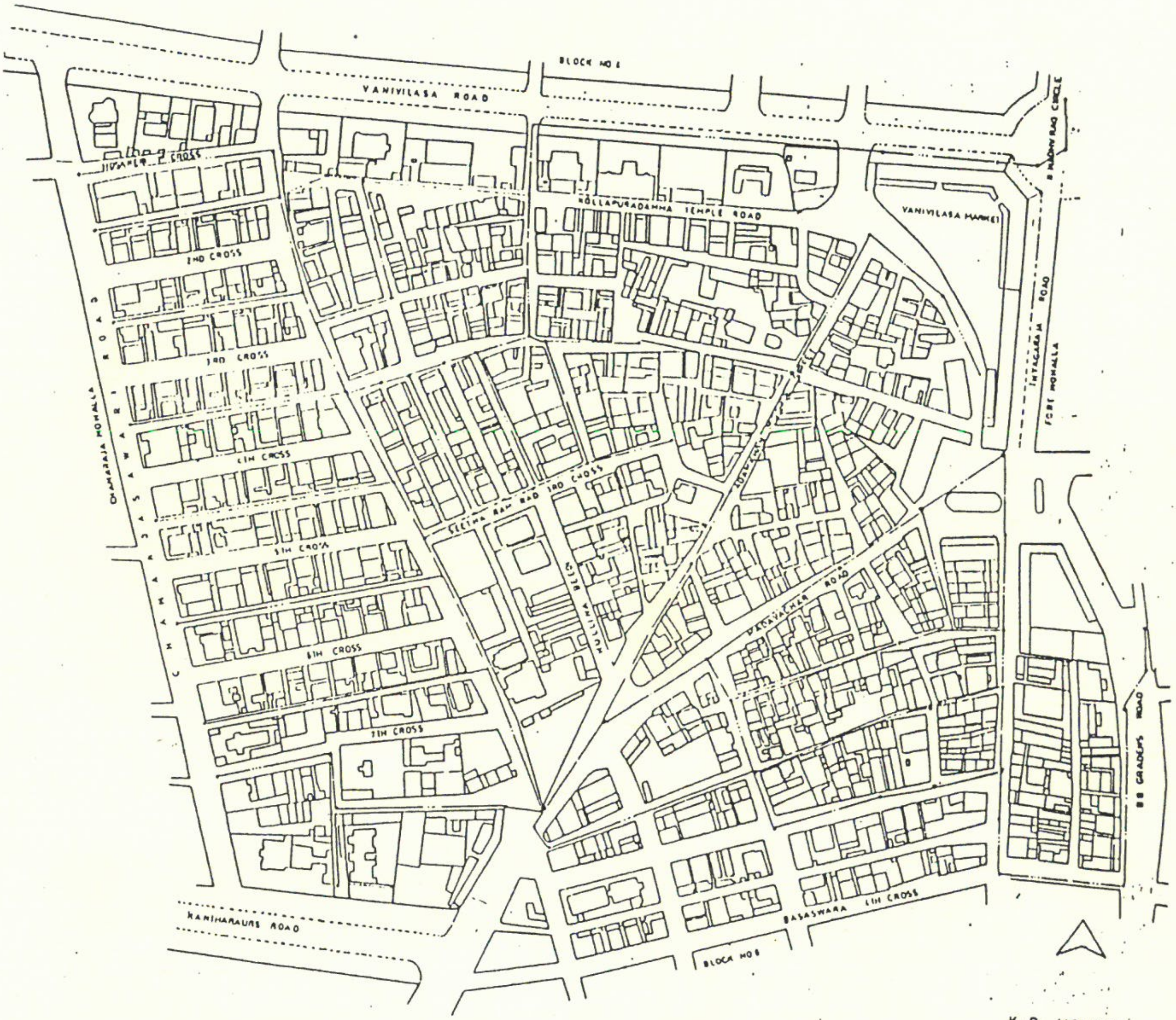
The inner city of Mysore is a run-down area interspersed with renovated and reconstructed houses. The built form exhibits clear cut street imagery and distinct neighbourhood boundaries. The street pattern is grid iron, but the road hierarchy is not rigidly followed. Many narrow pedestrian streets join the main vehicular roads directly. Both the areas, more so K.R. Mohalla, have well laid out but narrow streets with 66.22 percent single - and 31.08 percent double-storeyed row-houses (Table 4.1). There are very few

Table 4.1

Number of Storeys in Building

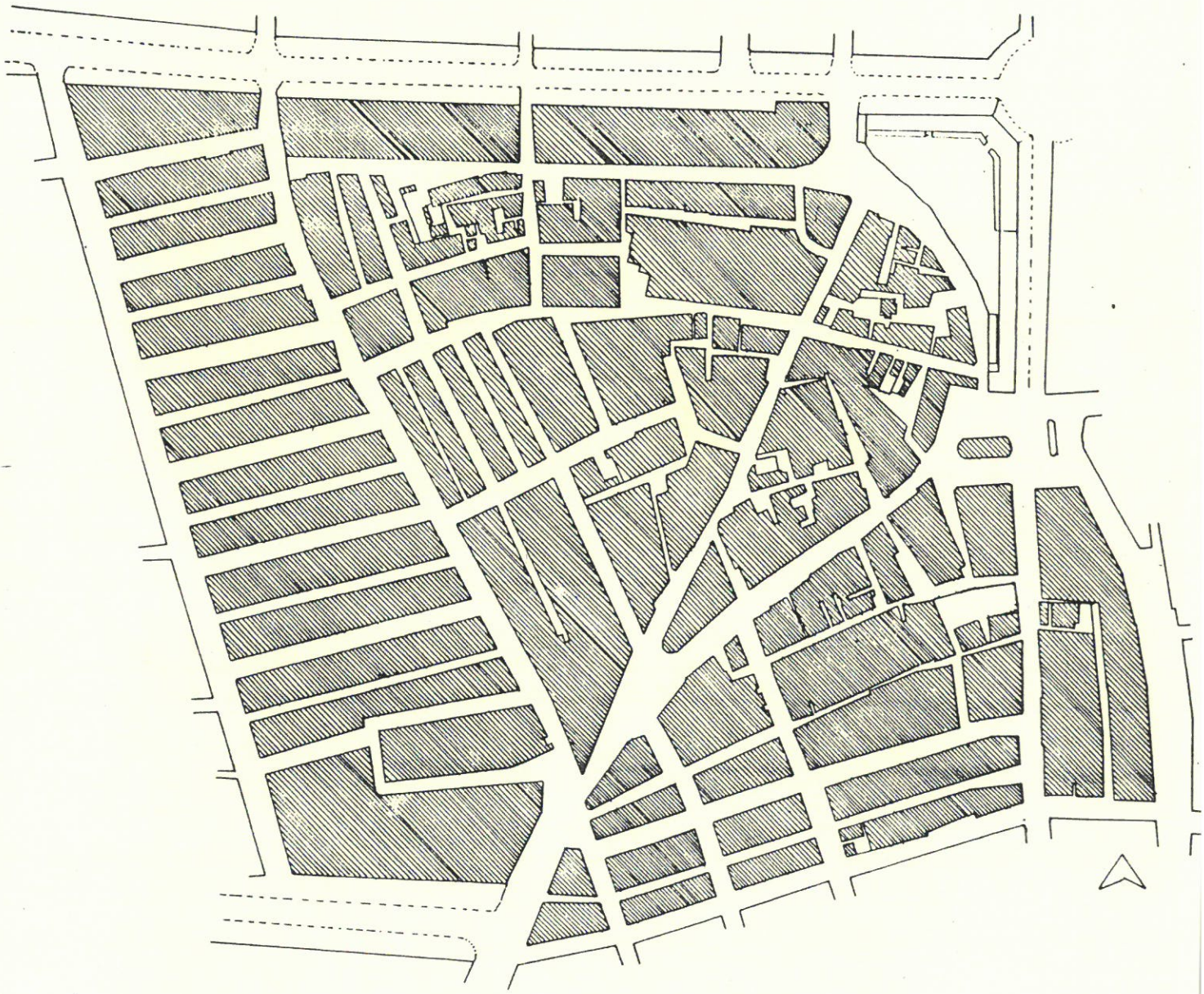
No. of storyes		K.R. Mohalla				Mandi Mohalla				Total
		Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
One		21	19	13	53	20	17	8	45	98
	(%)	84.00	76.00	52.00	70.67	83.33	70.83	32.00	61.64	66.22
Two		4	6	12	22	3	6	15	24	46
	(%)	16.00	24.00	48.00	29.33	12.50	25.00	60.00	32.88	31.08
Three		0	0	0	0	1	1	2	4	4
	(%)	0.00	0.00	0.00	0.00	4.17	4.17	8.00	5.48	2.70
Total		25	25	25	75	24	24	25	73	148
	(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

houses with more than two storeys. Single-storeys are more common in the dilapidated and renovated houses, while double-storeys are more in reconstructed houses, with extra space created during the time of reconstruction. All the



K, R. MOHALLA

SOURCE TOWN PLANNING MYSORE



K.R. MOHALLA

0' 33'0" 99'0"

SOURCE TOWN PLANNIN
MYSORE

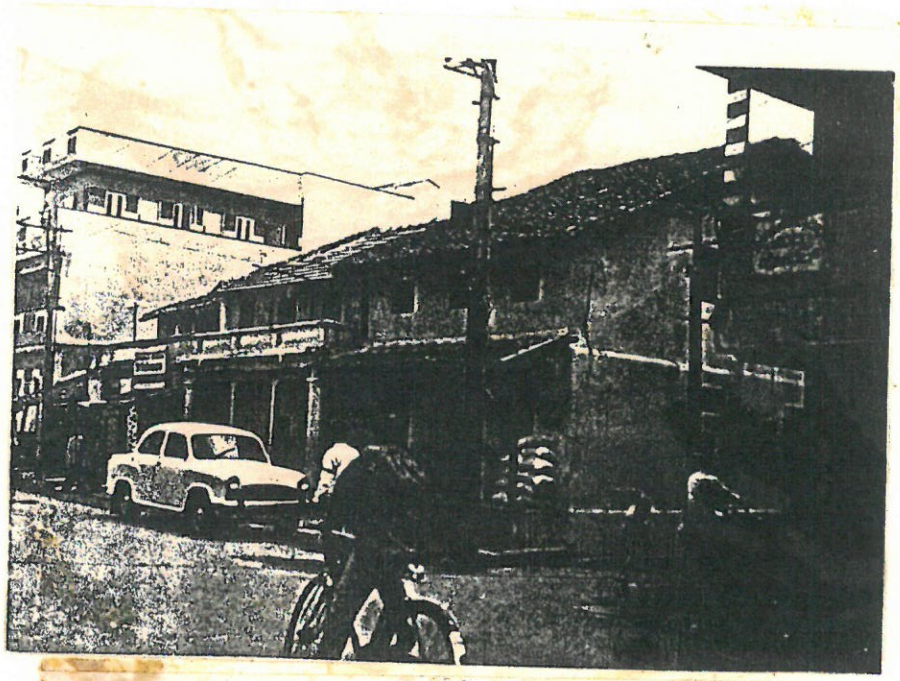

SAWDAY ROAD
AKBAR ROAD
KABIR ROAD
KALAMMA TEMPLE ROAD
MEDICAL COLLEGE
AYURVEDIC HOSPITAL
VISVESWARAIAH CIRCLE
IRWIN ROAD
PUBLIC LIBRARY
K.R. HOSPITAL
MANDI MOHALLA
TOWN PLANNING
MYSORE

MANDI MOHALLA

0' 33'-0" 99'-0"

SOURCE TOWN PLANNING MYSORE

AN INTERNAL STREET WITH A TEMPLE AND WATER POINT.



MANY SUBSIDIARY STREETS OPEN DIRECTLY TO MAIN ROADS LIKE AKBAR OR SAYYAJIRAO ROAD.

ALONG MAIN COMMERCIAL ROADS TRADITIONAL AND MODERN DESIGNS CO-EXIST, BUT THE FORMER IS SLOWLY DISAPPEARING.

houses have very small frontages. Open frontages are more common in K.R. Mohalla. In Mandi Mohalla such frontages are not encouraged because of the "purdah" system. Normally the dilapidated and the renovated houses commence right from the road, with very small open spaces with built-in seats along the entrance, which people use for socialising. In reconstructed houses such open spaces have been replaced by slightly larger verandahs. Discussions revealed that the concept of semi-public space, where family activities used to be performed, are slowly eroding away. Otherwise, the traditional lifestyles have been retained despite social transformations.

There is hardly any concept of urban space, because of socio-cultural reasons. Nevertheless, public spaces have active use. In Mandi Mohalla the pavements in front of the houses are often used as extensions of workshops for the woodcraft industry or for commercial purposes. With change in the landuse from residential to commercial, every bit of space is used because of rising land prices.

The plots on which these houses are built are very small. About 29 percent are within 600 sq.ft. and around 55 percent within 1000 sq.ft. (Table 4.2). The rest of the houses are spread between 1000 sq.ft. to a little over 3000 sq.ft. The average size of plots decreases with the improvement in the condition of the house. In K.R. Mohalla the average plot size is 1678.67 sq.ft. for the dilapidated category, 1322.78 sq.ft. for the renovated houses and

Table 4.2
Plot Size of Properties

Plot Size (Sq. ft.)	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
1-200	1	0	0	1	1	1	1	3
(%)	4.00	0.00	0.00	1.33	4.17	4.17	4.00	4.11
201-400	3	1	4	8	6	0	4	10
(%)	12.00	4.00	16.00	10.67	25.00	0.00	16.00	13.70
401-600	2	6	1	9	3	3	7	13
(%)	8.00	24.00	4.00	12.00	12.50	12.50	28.00	17.81
601-800	1	5	4	10	1	7	2	10
(%)	4.00	20.00	16.00	13.33	4.17	29.17	8.00	13.70
801-1000	0	2	4	6	3	4	4	11
(%)	0.00	8.00	16.00	8.00	12.50	16.67	16.00	15.07
1001-1500	5	6	3	14	2	7	3	12
(%)	20.00	24.00	12.00	18.67	8.33	29.17	12.00	16.44
1501-2000	5	1	3	9	4	1	4	9
(%)	20.00	4.00	12.00	12.00	16.67	4.17	16.00	12.33
2001-2500	4	2	2	8	2	1	0	3
(%)	16.00	8.00	8.00	10.67	8.33	4.17	0.00	4.11
2501-3000	2	1	1	4	1	0	0	1
(%)	8.00	4.00	4.00	5.33	4.17	0.00	0.00	1.37
3001+	2	1	3	6	1	0	0	1
(%)	8.00	4.00	12.00	8.00	4.17	0.00	0.00	1.37
Total	25	25	25	75	24	24	25	73
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

1493.24 sq.ft. for the reconstructed plots. The corresponding figures for Mandi Mohalla are 1294.67 sq.ft., 967.09 sq.ft. and 826.18 sq.ft., respectively (Table 4.3). Of the two areas taken up for the study, K.R. Mohalla has comparatively larger plots. Thus the plot coverage and the floor area are also marginally more in K.R. Mohalla.

ROW HOUSES OF AGRAHARA STREETS

INDEPENDANT HOUSE
AND
ROW HOUSES
WITH COLONIAL INFLUENCES

HOUSE FORMS

FRONT LOW ROOFED HOUSES – TWO ROOF ALTERNATIVES. [IDEAL FOR SHOP CUM HOUSE TYPE]

GROUP OF HOUSES SHARING COMMON ENTRY COURT AND PLAIN WALL TO THE STREET

COUNTRY TILED, COURTYARDED HOUSE WITH MUD WALLS.

HOUSE FRONTS

Reconstruction has helped to increase the floor area of the houses, especially by adding extra floors.

The average number of rooms are between 3 to 5 per house (Table 4.3). There are less number of rooms in the old dilapidated houses than in the new ones, where the space created is utilised to build more rooms.

Table 4.3
Indicators Measuring Inner City characteristics
(Averages)

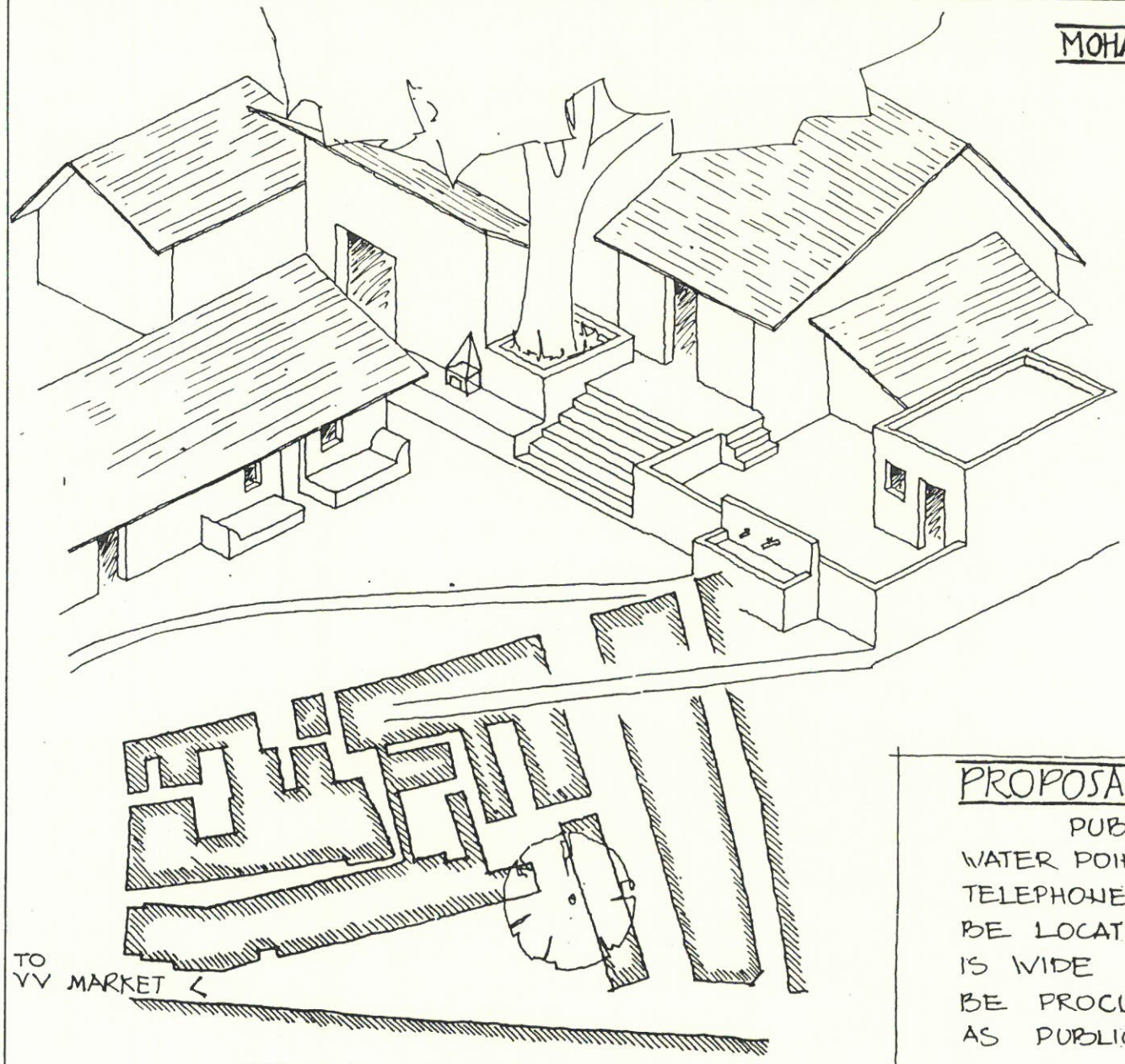
Variables	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
Plot Size	1678.67	1322.78	1493.24	1498.23	1294.67	967.09	826.18	1026.53
No. of Rooms	3.24	3.44	4.84	3.84	3.42	4.33	4.48	4.08
No. of Windows	3.56	3.94	8.67	5.18	3.42	4.04	6.36	4.63
Size of Courtyard	500.44	144.86	294.58	313.29	219.38	200.94	57.92	158.02
Size of Verandah	83.92	68.20	94.47	82.19	27.62	74.21	61.32	54.48
Size of Bathroom	46.73	26.31	27.82	33.62	46.85	49.60	37.93	44.79
Size of Toilet	18.95	19.48	19.11	19.18	22.50	28.98	21.91	24.43
Size of Kitchen	82.28	81.97	104.03	89.42	85.43	93.42	58.44	78.81
Hours of Water Supply	13.48	10.28	6.40	10.05	9.17	6.29	4.82	6.73
Water Tariff Per Month	11.47	20.88	27.24	20.39	14.22	10.22	23.08	16.08
Monthly HH Income	2989.28	4470.40	6355.52	4605.07	2760.83	4838.75	3380.80	3656.99
Size of Household	5.44	5.36	5.20	5.33	7.21	6.29	7.08	6.86
Per Capita Income	549.50	834.03	1222.22	863.45	366.08	774.20	477.80	525.51
Value of House	258640.00	389200.00	620833.33	420216.22	295000.00	377083.33	736521.74	475970.15
Age of Building	79.34	70.36	16.18	55.29	79.17	54.92	16.06	49.58
Monthly HH Expenditure	1788.00	2102.00	2964.00	2284.67	1565.22	2093.75	2622.00	2108.33
Annual Saving	5315.00	8442.11	15694.44	10554.26	7646.67	16671.05	14314.29	12967.07
Property Tax Paid	219.18	464.80	560.13	420.92	333.82	217.08	601.46	385.56
Distance to Workplace	8.00	10.59	6.40	8.38	3.34	4.11	4.30	3.91

Note: Size in Sq. ft.
Age in years
Income/tariff/value/tax/expenditure/savings in Rupees
Size of household in persons
Distance in Kms.
HH = Household

The houses generally have a courtyard and/or a verandah. The latter is a recent addition to practically all the reconstructed houses. There are 26 houses in K.R. Mohalla with open space outside the house, 6 houses with open space inside the house, 36 houses with more than one open space and 7 houses (9.33%) with no open space at all. In Mandi Mohalla 23 houses have open space outside the house, 12 inside the house and 28 with more than one open space. There are 10 houses (13.7%) in Mandi Mohalla with no open space whatsoever. In general, the open spaces are all very small in area. The average size of the courtyards are larger in the dilapidated houses than in the renovated or the reconstructed houses (Table 4.3). In fact, the coutyards are much smaller in the reconstructed houses, as the open spaces have been utlised for construction of verandahas. In Mandi Mohalla the verandahs are larger in the reconstructed and renovated houses than in the dilapidated houses. In K.R. Mohalla the verandahs are of comparable size in all the categories.

About 60 percent of the houses have rooms ranging between 50-150 sq.ft. Only 33 percent have rooms larger than 150 sq.ft. (Table 4.4). The average size of baths and toilets work out to less than 50 sq. ft. Except for the reconstructed houses of K.R. Mohalla, the average size of the kitchens is less than 100 sq.ft. (Table 4.3).

MOHALLA SPACES.



SPACE IN K.R. MOHALLA

OBSERVATIONS

A SPACE STUDIED IN K.R. MOHALLA, APPEARS AS AN EXTENSION OF BOTH STREET SPACE AND HOUSE SPA -CE HENCE HOUSE ACTIVITIES EXTENDS IN TO IT - CONTAINS TREE, SHRINE, WATER POINTS, PLATFORMS ETC.

SUCH SPACES DERIVED OVER THE DECADES SHOULD BE RETAINED.

PROPOSAL

PUBLIC ELEMENTS LIKE WATER POINTS, POST BOXES, SHRINES, TELEPHONES, MILK BOOTHS ETC SHOULD BE LOCATED WHERE THE STREET IS WIDE OR ADJASCENT PLOTS CAN BE PROCURED AND DEVELOPED AS PUBLIC SPACES. BY AUTHORITIES.

URBAN FABRIC

Table 4.4
Average Room Size (sq.ft.)

Average room size (sq.ft.)	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
1 - 50	3	1	1	5	1	0	2	3
(%)	12.00	4.00	4.00	6.67	4.17	0.00	8.00	4.11
50 - 100	9	8	8	25	8	5	10	23
(%)	36.00	32.00	32.00	33.33	33.33	20.83	40.00	31.51
100 - 150	7	9	5	21	4	8	9	21
(%)	28.00	36.00	20.00	28.00	16.67	33.33	36.00	28.77
150 - 200	3	6	7	16	4	6	3	13
(%)	12.00	24.00	28.00	21.33	16.67	25.00	12.00	17.81
200+	3	1	4	8	7	5	1	13
(%)	12.00	4.00	16.00	10.67	29.17	20.83	4.00	17.81
Grand-tot	25	25	25	75	24	24	25	73
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The dilapidated and the renovated houses have 3 to 4 windows. The reconstructed houses have more (Table 4.3). The windows are very small in size. In fact 9 houses have no windows at all. But the inhabitants are not unhappy. For them ethnic ties and good location are more important. As per the residents' perception, 65.75 percent of their houses have good lighting, while 27.40 percent consider the lighting to be bad (Table 4.5). Ventilation is considered to be good by 45.21 percent of the households and bad by 31.51 percent (Table 4.6).

Table 4.5
Quality of Lighting

Quality of lighting		K.R. Mohalla				Mandi Mohalla				Total
		Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
Good	No.	13	12	22	47	13	21	14	48	95
	(%)	52.00	48.00	88.00	62.67	54.17	87.50	56.00	65.75	64.19
Bad	No.	7	13	3	23	6	3	11	20	43
	(%)	28.00	52.00	12.00	30.67	25.00	12.50	44.00	27.40	29.05
Average	No.	5	0	0	5	5	0	0	5	10
	(%)	20.00	0.00	0.00	6.67	20.83	0.00	0.00	6.85	6.76
Total	No.	25	25	25	75	24	24	25	73	148
	(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 4.6
Quality of Ventilation

Quality of ventilation		K.R. Mohalla				Mandi Mohalla				Total
		Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
Good	No.	3	12	22	37	4	17	12	33	70
	(%)	12.00	48.00	88.00	49.33	16.67	70.83	48.00	45.21	47.30
Bad	No.	11	13	3	27	7	4	12	23	50
	(%)	44.00	52.00	12.00	36.00	29.17	16.67	48.00	31.51	33.78
Average	No.	11	0	0	11	13	3	1	17	28
	(%)	44.00	0.00	0.00	14.67	54.17	12.50	4.00	23.29	18.92
Total		25	25	25	75	24	24	25	73	148
	(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The building materials used are not the conventional types with which modern houses are constructed. A large number of the houses have mud and stone foundations.

Infrastructure:

With Mysore being one of the first few towns in India to have well developed water, drainage and sewerage systems, the inner city of Mysore has well-developed networks of

basic infrastructure such as storm water drainage, tap water, w.c.s and pour flush toilets. It also has well laid out but narrow streets and good electricity lines. As mentioned earlier, electricity generation started at Sivasamudram to feed the Kolar Gold Fields from which Mysore and Bangalore benefitted.

Water is generally supplied from the water works by pipelines. About 80.41 percent of the households use tap water. But there are a few households which fetch water from public standposts or use well water also. Since in the olden days filtration of water was done with animal skin, a conservative group of Brahmins of K.R. Mohalla use well-water for cooking even to this day. The wells are a source of gastro-enteric diseases. Those using standposts or handpumps are mostly tenants who are not provided with basic infrastructure by their landlords.

With population increase, the duration of water supply is being reduced. At present 33.11 percent of the households get water for less than 5 hours, 41.22 percent between 6 to 10 hours and 15.54 percent within 11 to 15 hours. Very few houses have longer hours of water supply. The average duration of water supply works out to 13.48 hours in dilapidated houses, 10.28 in renovated and 6.40 in reconstructed houses in K.R. Mohalla. The corresponding figures for Mandi Mohalla are 9.17, 6.29 and 4.82, respectively (Table 4.3). The duration of water supply seems to be declining with house improvement. This may be

because of the newly laid water pipelines, which may be on slightly higher elevations. The water situation in K.R. Mohalla is a little better than that of Mandi Mohalla. As mentioned earlier, the per capita water supply for K.R. Mohalla is 120 lpcd and in Mandi Mohalla 100 lpcd. Water tariffs normally range between Rs. 1-30 (78.38% household), though a few households pay more.

Practically all the houses here have toilets connected to the sewerage system. There is only one sample household in the study area which gets nightsoil collected. Such conditions prevail only when a house is subdivided to accommodate a large number of tenants, to the extent that basic facilities are in short supply.

Toilet and bathing facilities are generally private. In K.R. Mohalla 70 households out of 75, and in Mandi Mohalla 68 households out of 73, have private toilets. The rest of the households use joint facilities. Such shared facilities are generally found in the old houses. There is only one sample household using the community toilet. The toilets are either w.c.s or pour flush types connected to the main sewerage. As for bathing facilities, joint use is common in the dilapidated category. Otherwise, the majority of the houses have private facilities.

Socio-Economic Characteristics:

Just as the row-houses stand out as special physical features in an area of well-laid out infrastructure and deteriorating housing, resembling those of the West, the

socio-economic features also reveal characteristics which are unique to Mysore city alone. In practically all large Indian towns there is a clustering of Muslims, who are the torch-bearers of the handicraft industry of the place. To that extent Mysore is no exception to the rule. Mandi Mohalla of Mysore has concentrations of Muslims who are deft in woodcraft - a rich heritage passed on from the days of the Muslim rule. But the inner city of Mysore also has concentrations of Brahmins in the "agraharas" of K.R. Mohalla, a majority of whom were priests in the royal household of the Wodeyars. Though these Brahmins still retain their ethnicity, circumstances have forced them to diversify their occupations. A few who are well educated, have taken to high-level professions like doctors, lawyers or academia. Those with less education have gone in for clerical posts and general professions such as photography, building contractors and the like. A fairly large section has also taken to business and self-employment. In general, the Brahmins are found in white-collar jobs. Such caste concentrations cannot be found in any other inner city.

Craftsmenship, too, is dwindling away in Mandi Mohalla. As in K.R.Mohalla, the residents are employed in diverse occupations. There were only 3 priests and 15 craftsmen in a sample population of 854 persons (Table 4.7). The net result is that the traditional cultures associated with age-old occupations are today found in a very small section of the society.

Table 4.7 : Type of Occupation

Occupation type	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
1 Housewife	26	36	29	91	39	33	44	116	207
(%)	20.16	28.80	22.83	23.88	23.64	23.24	26.51	24.52	24.24
2 Student	35	36	34	105	62	38	60	160	265
(%)	27.13	28.80	26.77	27.56	37.58	26.76	36.14	33.83	31.03
3 Retired	12	2	5	19	8	12	1	21	40
(%)	9.30	1.60	3.94	4.99	4.85	8.45	0.60	4.44	4.68
4 Unemployed	15	6	7	28	12	10	8	30	58
(%)	11.63	4.80	5.51	7.35	7.27	7.04	4.82	6.34	6.79
5 Manual Labour	7	4	9	20	12	6	8	26	46
(%)	5.43	3.20	7.09	5.25	7.27	4.23	4.82	5.50	5.39
6 Transport	5	1	1	7	4	0	2	6	13
(%)	3.88	0.80	0.79	1.84	2.42	0.00	1.20	1.27	1.52
7 Priest	2	0	0	2	1	0	0	1	3
(%)	1.55	0.00	0.00	0.52	0.61	0.00	0.00	0.21	0.35
8 Administration	12	17	4	33	9	10	8	27	60
(%)	9.30	13.60	3.15	8.66	5.45	7.04	4.82	5.71	7.03
9 SSI/Business	4	10	19	33	5	17	13	35	68
(%)	3.10	8.00	14.96	8.66	3.03	11.97	7.83	7.40	7.96
10 Academics	2	7	8	17	3	5	4	12	29
(%)	1.55	5.60	6.30	4.46	1.82	3.52	2.41	2.54	3.40
11 Agriculturists	6	5	6	17	1	8	6	15	32
(%)	4.65	4.00	4.72	4.46	0.61	5.63	3.61	3.17	3.75
12 HL professional	1	0	5	6	1	3	1	5	11
(%)	0.78	0.00	3.94	1.57	0.61	2.11	0.60	1.06	1.29
13 General/ professional	2	1	0	3	1	0	3	4	7
(%)	1.55	0.80	0.00	0.79	0.61	0.00	1.81	0.85	0.82
14 Craftsmen	0	0	0	0	7	0	8	15	15
(%)	0.00	0.00	0.00	0.00	4.24	0.00	4.82	3.17	1.76
Grand Tot	129	125	127	381	165	142	166	473	854
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: SSI Small Scale Industries HL High Level

Today the inner city is concentrated with the less educated and the poor. Only 24.66 percent of the population has graduate and post graduate qualifications (Table 4.8), or diplomas and training. There is a kind of polarisation of the negative effects of urbanisation, with run-down houses, less education, large families, less remunerative jobs, long periods of stay and low incomes.

Table 4.8: Levels of Education of Household Members

(Number of persons)

Level of education	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
1 Illiterate	30	9	1	40	20	21	12	53	93
(%)	23.62	6.77	0.78	10.31	11.98	15.00	7.10	11.13	10.76
2 Primary	15	37	31	83	23	17	49	89	172
(%)	11.81	27.82	24.22	21.39	13.77	12.14	28.99	18.70	19.91
3 Middle	11	5	3	19	47	15	32	94	113
(%)	8.66	3.76	2.34	4.90	28.14	10.71	18.93	19.75	13.08
4 Secondary	10	12	17	39	38	12	18	68	107
(%)	7.87	9.02	13.28	10.05	22.75	8.57	10.65	14.29	12.38
5 Intermediate	22	31	26	79	17	38	32	87	166
(%)	17.32	23.31	20.31	20.36	10.18	27.14	18.93	18.28	19.21
6 Graduate	22	29	34	85	19	26	13	58	143
(%)	17.32	21.80	26.56	21.91	11.38	18.57	7.69	12.18	16.55
7 Post Graduate	6	6	7	19	0	3	5	8	27
(%)	4.72	4.51	5.47	4.90	0.00	2.14	2.96	1.68	3.13
8 Ph.D.	0	0	0	0	0	0	1	1	1
(%)	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.21	0.12
9 Diploma	10	3	8	21	0	3	6	9	30
(%)	7.87	2.26	6.25	5.41	0.00	2.14	3.55	1.89	3.47
10 Training	1	0	1	2	3	4	0	7	9
(%)	0.79	0.00	0.78	0.52	1.80	2.86	0.00	1.47	1.04
11 Others	0	1	0	1	0	1	1	2	3
(%)	0.00	0.75	0.00	0.26	0.00	0.71	0.59	0.42	0.35
Grand Total	127	133	128	388	167	140	169	476	864
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Results from a purposive sampling of dilapidated, renovated and reconstructed houses display an average income of Rs. 2989.28, Rs. 4470.40, and Rs. 6355.52, respectively in K.R. Mohalla and Rs. 2760.83, Rs. 4838.75 and Rs. 3380.80 in Mandi Mohalla. Though the averages appear high, 7.43 percent are in the economically weaker sections, 31.76 percent in the low income group, 27.70 percent in the middle income group and 33.11 percent in the high income group (Table 4.9). The household income ranges between Rs. 300 to Rs. 17,500 and the percapita income ranges between Rs. 60 and Rs. 2,600. The wide range in corroborated by the high coefficent of variation, which is 75.33 percent for household income and 71.29 percent for per capita income. Hence, even though all the residents of the inner city area are not poor unlike in the West, portions of the inner city have concetrations of the poor, with low levels of socio-economic characteristics that hinder progress.

Table 4.9: Monthly Household Income

(No. of households)

Income categories		K.R. Mohalla				Mandi Mohalla				Total
		Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
1250	EWS 3	3	1	7	2	0	2	4	11	
(%)	12.00	12.00	4.00	9.33	8.33	0.00	8.00	5.48	7.43	
2650	LIG 9	7	5	21	11	4	11	26	47	
(%)	36.00	28.00	20.00	28.00	45.83	16.67	44.00	35.62	31.76	
4450	MIG 10	5	3	18	8	8	7	23	41	
(%)	40.00	20.00	12.00	24.00	33.33	33.33	28.00	31.51	27.70	
+4450	HIG 3	10	16	29	3	12	5	20	49	
(%)	12.00	40.00	64.00	38.67	12.50	50.00	20.00	27.40	33.11	
Total	25	25	25	75	24	24	25	73	148	
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

Exactly 50 percent of the households earn upto Rs. 3000 only while 40.54 percent of the sample population earn less than Rs. 500 per capita income, though the average per capita income works out to be much higher than Rs. 500 for the reconstructed houses of K.R. Mohalla and in the renovated houses of both the sample areas. But this is not so in case of the dilapidated quarters of the inner city where low income households concentrate. Such households are economically not in a position to either improve their houses, or move out. Here, a large proportion of the heads of the households are housewives and the retired, who find difficulty in renovating their houses. Consequently repair/ maintenance or renovation is limited to colour washing or minor repairs that do not increase the longevity of the buildings.

Socially, the inner city, of Mysore constitutes of 78.38 percent Hindus and 21.62 percent Muslims. While the Muslims, mostly Sunnis, are concentrated in the dilapidated and renovated houses of Mandi Mohalla, K.R. Mohalla with more Hindus has an even distribution of Brahmins in all types of houses. The other prominent caste that is concentrated in K.R. Mohalla is that of Lingayats, though they are fewer in number than the Brahmins. Apart from the Muslim concentration, the caste structure of Mandi Mohalla is diverse (Table 4.10).

Table 4.10 : Caste of Head of Household

(Nos.)

Caste	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
Lingayat	2	5	5	12	1	1	1	3
(%)	8.00	20.00	20.00	16.00	4.35	5.00	4.35	4.55
Iyengar	1	0	2	3	0	0	0	0
(%)	4.00	0.00	8.00	4.00	0.00	0.00	0.00	0.00
Vychya	3	1	0	4	0	0	0	0
(%)	12.00	4.00	0.00	5.33	0.00	0.00	0.00	0.00
Brahmin	12	9	11	32	2	0	1	3
(%)	48.00	36.00	44.00	42.67	8.70	0.00	4.35	4.55
Achar	1	0	0	1	2	0	0	2
(%)	4.00	0.00	0.00	1.33	8.70	0.00	0.00	3.03
Sunni	3	0	0	3	8	11	5	24
(%)	12.00	0.00	0.00	4.00	34.78	55.00	21.74	36.36
Nayak	1	0	0	1	1	1	0	2
(%)	4.00	0.00	0.00	1.33	4.35	5.00	0.00	3.03
Telegugig	2	0	0	2	0	0	0	0
(%)	8.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
Gowda	0	3	1	4	1	0	9	10
(%)	0.00	12.00	4.00	5.33	4.35	0.00	39.13	15.15
Chetiars	0	1	0	1	0	0	0	0
(%)	0.00	4.00	0.00	1.33	0.00	0.00	0.00	0.00
Khatriya	0	2	0	2	0	0	0	0
(%)	0.00	8.00	0.00	2.67	0.00	0.00	0.00	0.00
Vakkaliga	0	2	0	2	1	2	0	3
(%)	0.00	8.00	0.00	2.67	4.35	10.00	0.00	4.55
Naidu	0	1	0	1	0	0	0	0
(%)	0.00	4.00	0.00	1.33	0.00	0.00	0.00	0.00
Urs	0	1	0	1	0	0	0	0
(%)	0.00	4.00	0.00	1.33	0.00	0.00	0.00	0.00
Shettyar	0	0	3	3	0	0	0	0
(%)	0.00	0.00	12.00	4.00	0.00	0.00	0.00	0.00

Contd..

Table 4.10 (Contd..)

Caste	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
Mudaliyar	0	0	1	1	0	0	0	0
(%)	0.00	0.00	4.00	1.33	0.00	0.00	0.00	0.00
Nair	0	0	2	2	0	0	1	1
(%)	0.00	0.00	8.00	2.67	0.00	0.00	4.35	1.52
Kurba	0	0	0	0	1	1	0	2
(%)	0.00	0.00	0.00	0.00	4.35	5.00	0.00	3.03
Jain	0	0	0	0	0	1	0	1
(%)	0.00	0.00	0.00	0.00	0.00	5.00	0.00	1.52
Ediga	0	0	0	0	0	2	0	2
(%)	0.00	0.00	0.00	0.00	0.00	10.00	0.00	3.03
Devarga	0	0	0	0	0	0	3	3
(%)	0.00	0.00	0.00	0.00	0.00	0.00	13.04	4.55
Ganga	0	0	0	0	0	1	0	1
(%)	0.00	0.00	0.00	0.00	0.00	5.00	0.00	1.52
Labe	0	0	0	0	0	0	1	1
(%)	0.00	0.00	0.00	0.00	0.00	0.00	4.35	1.52
Sindhi	0	0	0	0	0	0	1	1
(%)	0.00	0.00	0.00	0.00	0.00	0.00	4.35	1.52
Vishwakarma	0	0	0	0	0	0	1	1
(%)	0.00	0.00	0.00	0.00	0.00	0.00	4.35	1.52
Shiva	0	0	0	0	1	0	0	1
(%)	0.00	0.00	0.00	0.00	4.35	0.00	0.00	1.52
Rajput	0	0	0	0	2	0	0	2
(%)	0.00	0.00	0.00	0.00	8.70	0.00	0.00	3.03
Meda	0	0	0	0	1	0	0	1
(%)	0.00	0.00	0.00	0.00	4.35	0.00	0.00	1.52
S.T.	0	0	0	0	2	0	0	2
(%)	0.00	0.00	0.00	0.00	8.70	0.00	0.00	3.03
Grand Total	25	25	25	75	23	20	23	66
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The residents are mainly Kannadigas (96.30%), though not all of them have lived in the inner city for long. Only 78.38 percent of the heads of households are natives. The rest (21.62%) are migrants. A few migrants are from Kerala, Maharashtra, Tamil Nadu and Andhra Pradesh. Generally migration into the inner city is either intra-state or intra-city.

The education level of the heads of the households is not very high - around 14 percent are illiterates, 13 percent have primary education, 9 percent upto middle level, and 15 percent till secondary school. Only 27.21 percent have done graduation and post-graduation. It is this section of the population that constitutes the professionals today. The rest have opted for self-employment, business or for clerical/administrative jobs. The illiterates have taken to manual labour.

The average size of the household is 5.3 in K.R. Mohalla and 7.0 in Mandi Mohalla. There are more children in Mandi Mohalla. In K.R. Mohalla 60 percent of the households have between 1-5 members and 38.67 percent between 6-10 members. Whereas in Mandi Mohalla 48.65 percent of the households have 1-5 members and 43.24 percent with 6-10 members. Mandi Mohalla also has 6.08 percent household with 11-15 members. There is only one household in this range in K.R. Mohalla. The average size of the household declines with an increase in income and

improvement of the houses. Which means, the less poor have smaller families. Or the more the emancipation, the high the income and education and the smaller the size of the household.

The room congestion works out to 1:1.7 in dilapidated, 1:1.5 in renovated and 1:1.3 in reconstructed houses of K.R.Mohalla. The corresponding figures for Mandi Mohalla are 1:2.2, 1:1.6, 1:1.6. In other words, room congestion reduces with renovation and reconstruction, as more space is created in the process. The overall room congestion (1:1.6) is very low, with a slight difference between K.R. Mohalla (1:1.5) and Mandi Mohalla (1:1.8).

The dependency ratio is not very high. For the area as a whole it is 1:1.8. But there are variations within the inner city. In K.R.Mohalla the dependency ratio is 1:1.4, while in Mandi Mohalla it is 1:2.3.

It is interesting to note that none of the household heads are unemployed though there are many housewives and retired persons. The majority of the workers are in regular employment (91.03%). Casual and part-time workers constitute 5.43 percent and 3.26 percent of the workers, respectively.

There are 79 nuclear families (53.38%), 49 extended families (33.11%) and 20 joint families (13.51%) in the area. The majority of the houses are single family dwelling

units which are looked after by the owners themselves. When houses are shared by tenants or rented out, the ratio of owner-tenant maintenance is 50 percent for each category.

Housing and Area Development:

The inner city residential neighborhoods were planned during the Maharajas' rule into very specific social areas and they still retain their ethnicity inspite of all the changes that have taken place around them. With time many houses/areas have been renovated, especially after the plague of 1898 when environmental conditions had to be improved and the area decongested to prevent further health hazards. All over the world renovation has been an answer to environmental health problems and Mysore, too, followed suit. But all this was done more than a hundred years ago. It is, therefore, time to renew the houses once again, as many of them are showing signs of deterioration with age and with lack of maintenance that is vitiating the environment.

The age distribution of the houses indicates that only 4.05 percent of the houses are more than 100 years old (Table 4.11). Those ranging between 61-100 years constitute 25.0 percent, and between 41-60 years another 26.36 percent. The most recent houses with less than 20 years of age form 29.05 percent of the sample houses. The average age of the houses reduces wih improvement and reconstruction. This proves that renovation was not done uniformly. At the same time the figures support the practice of renovation/ improvement of housing from the past.

Table 4.11

Age of the Building (years)

Age of building (in years)	K.R. Mohalla				Mandi Mohalla			
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total
1 - 20	2	1	20	23	0	1	19	20
(%)	8.00	4.00	80.00	30.67	0.00	4.17	76.00	27.40
21 - 40	3	6	3	12	2	5	4	11
(%)	12.00	24.00	12.00	16.00	8.33	20.83	16.00	15.07
41 - 60	10	8	1	19	6	12	2	20
(%)	40.00	32.00	4.00	25.33	25.00	50.00	8.00	27.40
61 - 100	7	8	1	16	15	6	0	21
(%)	28.00	32.00	4.00	21.33	62.50	25.00	0.00	28.77
100+	3	2	0	5	1	0	0	1
(%)	12.00	8.00	0.00	6.67	4.17	0.00	0.00	1.37
Total	25	25	25	75	24	24	25	73
(Percent)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Reconstruction has been a recent phenomenon of house improvement in the last 20 years. The average age of reconstructed houses is around 16 years. With increasing land values residents are selling their old houses in this congested part of the city to buy modern houses in the periphery. In Mandi Mohalla many have converted their residential houses into workshops after renovation or reconstruction and have themselves moved out to the less congested residential neighbourhoods for living. These people retain their old houses in the heart of the city as workshops because of easy accessibility to raw materials, labour and markets.

About 67 percent of the households quoted land values above Rs. 400. per sq.ft. Most of the residents have reported an estimated price of between Rs. 2 - 5 lakhs for their houses. The very small plots and the dilapidated houses cost less. Those dilapidated houses that cannot be repaired fetch less money, for the purchaser in this case has to reconstruct the house. Hence, the residents of the dilapidated houses find it difficult to move out to the more expensive suburbs as very little money can be obtained from the sale of their houses. They, therefore, continue to live in their own property, despite the poor condition of the house. Normally the new entrants into the inner city land market pull down the old structures and build afresh. But this is possible only at the cost of ethnicity. As for the residents, only a very small section is able to reconstruct their houses. The majority of the inner city residents have either renovated their houses or have allowed the houses to deteriorate.

The repair of houses is directly related to the income of the household. The survey showed that there is concentration of the poor in dilapidated houses. This obviously indicates that the poor are unable to undertake repairs because of lack of finance. It is this section of the population that needs public intervention and help to renew their houses.

Records pertaining to the last repair done shows 47.18 percent of the houses have been repaired last year and another 16.90 percent in the previous two years (Table 4.12). But the nature of repair was so flimsy that the

Table 4.12

Last Repair Undertaken

Time in years	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
1	14	13	7	34	16	13	4	33	67
(%)	56.00	56.52	31.82	48.57	69.57	54.17	16.00	45.83	47.18
2	3	7	2	12	5	3	4	12	24
(%)	12.00	30.43	9.09	17.14	21.74	12.50	16.00	16.67	16.90
3	2	2	3	7	1	1	6	8	15
(%)	8.00	8.70	13.64	10.00	4.35	4.17	24.00	11.11	10.56
4	1	0	2	3	0	1	2	3	6
(%)	4.00	0.00	9.09	4.29	0.00	4.17	8.00	4.17	4.23
5	0	1	2	3	0	2	3	5	8
(%)	0.00	4.35	9.09	4.29	0.00	8.33	12.00	6.94	5.63
6 - 10	4	0	6	10	1	4	3	8	18
(%)	16.00	0.00	27.27	14.29	4.35	16.67	12.00	11.11	12.68
11+	1	0	0	1	0	0	3	3	4
(%)	4.00	0.00	0.00	1.43	0.00	0.00	12.00	4.17	2.82
Grand-total	25	23	22	70	23	24	25	72	142
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

condition of the house has not improved. An analysis of the primary data shows that 50.35 percent of the houses got only white wash done and another 26.57 percent had gone in for both white wash and simple repairs (Table 4.13). This leaves very few houses for renovation. In some houses structural changes have been made, while in others only

some minor additions and alterations have been undertaken. Also the types of construction materials used (such as mud and country tiles) do not have a lasting effect. Hence, the houses are virtually under disrepair. In the houses that are not maintained, the condition of the walls, roofs and the external facades are poor. But the foundation which is built of mud and stones is reported to be firm enough for renovation.

Table 4.13
Type of Repair

(No. of Households)

Type of Repair	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
White washing	19	5	14	38	11	12	11	34	72
(%)	76.00	21.74	63.64	54.29	45.83	50.00	44.00	46.58	50.35
Simple repair	1	0	0	1	0	2	0	2	3
(%)	4.00	0.00	0.00	1.43	0.00	8.33	0.00	2.74	2.10
White washing & simple repair	4	14	2	20	7	8	3	18	38
(%)	16.00	60.87	9.09	28.57	29.17	33.33	12.00	24.66	26.57
Structural changes	0	4	0	4	3	1	0	4	8
(%)	0.00	17.39	0.00	5.71	12.50	4.17	0.00	5.48	5.59
Renovation	0	0	5	5	0	1	10	11	16
(%)	0.00	0.00	22.73	7.14	0.00	4.17	40.00	15.07	11.19
Additions	1	0	1	2	1	0	1	2	4
(%)	4.00	0.00	4.55	2.86	4.17	0.00	4.00	2.74	2.80
All types	0	0	0	0	2	0	0	2	2
(%)	0.00	0.00	0.00	0.00	8.33	0.00	0.00	2.74	1.40
Grand total	25	23	22	70	24	24	25	73	143
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The money spent on repairs is mainly from personal savings (76.64%). A few have also borrowed from money lenders (5.84%) and friends (4.38%). Loans from relatives, offices or banks are rare. Loans are normally not taken as the borrowers cannot afford any deductions from their salaries for loan repayment. Many (8.40%) do not borrow because of high interest rates (Table 4.14).

Table 4.14
Source of Funding for Repair

(No. of households)

Source of funding	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
Self	22	14	15	51	20	24	10	54	105
(%)	88.00	60.87	68.18	72.86	95.24	100.00	45.45	80.60	76.64
Brother	2	0	0	2	0	0	0	0	2
(%)	8.00	0.00	0.00	2.86	0.00	0.00	0.00	0.00	1.46
Local Lender	1	5	2	8	0	0	0	0	8
(%)	4.00	21.74	9.09	11.43	0.00	0.00	0.00	0.00	5.84
Relative	0	1	0	1	0	0	0	0	1
(%)	0.00	4.35	0.00	1.43	0.00	0.00	0.00	0.00	0.73
Friend	0	2	3	5	0	0	1	1	6
(%)	0.00	8.70	13.64	7.14	0.00	0.00	4.55	1.49	4.38
Office Loan	0	1	0	1	1	0	1	2	3
(%)	0.00	4.35	0.00	1.43	4.76	0.00	4.55	2.99	2.19
Credit Association	0	0	0	0	0	0	2	2	2
(%)	0.00	0.00	0.00	0.00	0.00	0.00	9.09	2.99	1.46
Bank Loan	0	0	0	0	0	0	3	3	3
(%)	0.00	0.00	0.00	0.00	0.00	0.00	13.64	4.48	2.19
Self Loan	0	0	1	1	0	0	4	4	5
(%)	0.00	0.00	4.55	1.43	0.00	0.00	18.18	5.97	3.65
Pvt Loan	0	0	1	1	0	0	1	1	2
(%)	0.00	0.00	4.55	1.43	0.00	0.00	4.55	1.49	1.46
Grand-total	25	23	22	70	21	24	22	67	137
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The reasons for repair are either a ceremony in the family (65.98%), house improvement (11.34%), a leakage (12.37%) or maintenance (10.31).

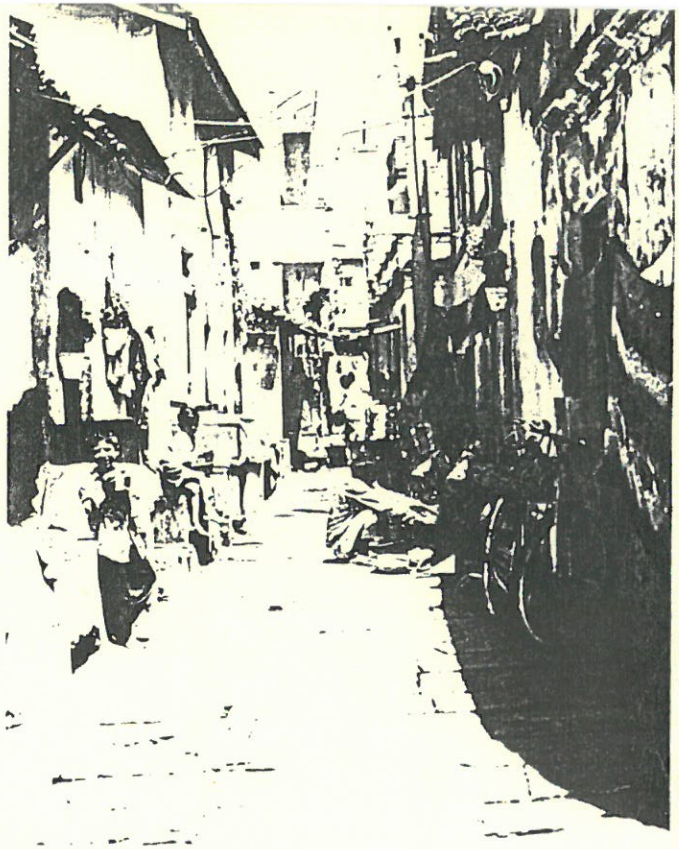
The money spent on repairs gives an idea about the nature of repair and the materials used. Around 40 percent spent less than Rs. 1000, while 52.49 percent spent less than Rs. 3000. About 25 percent spent between Rs. 5000 to Rs. 10,000 and roughly 15 percent spent within Rs. 10,000 to Rs. 50,000. With rising costs of construction, not much renovation can be done within Rs. 5000 (Table 4.15).

Table 4.15
Money Spent on Repair

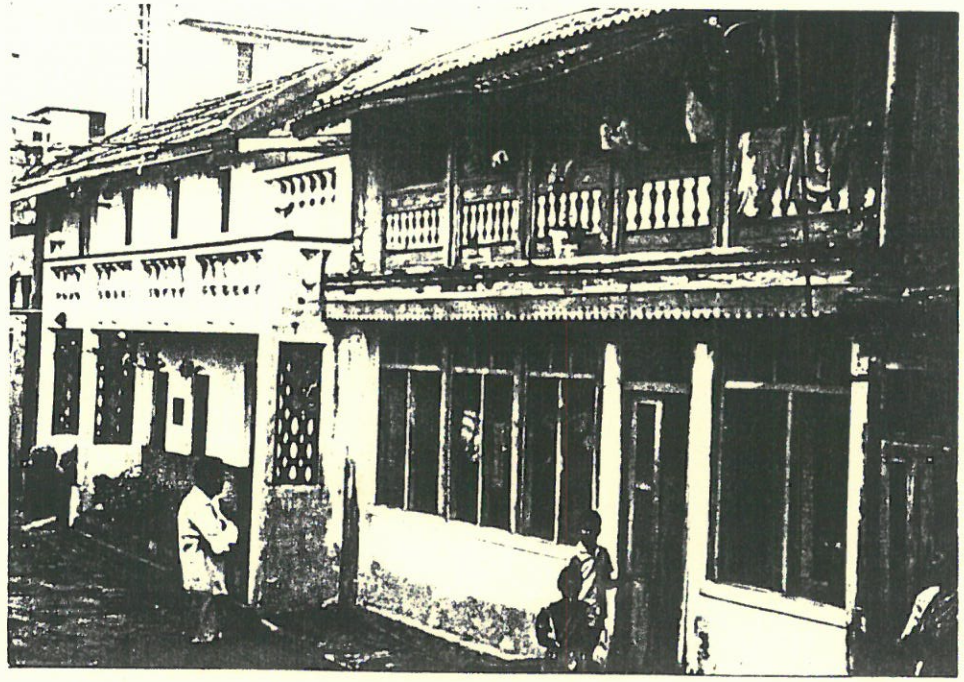
(No. of households)

Amount (in Rs.)	K.R. Mohalla				Mandi Mohalla				Total
	Dilapidated	Renovated	Reconstructed	Sub-total	Dilapidated	Renovated	Reconstructed	Sub-total	
1-1000	18	6	5	29	16	7	5	28	57
(%)	72.00	26.09	22.73	41.43	69.57	29.17	20.83	39.44	40.43
1001-3000	3	2	2	7	2	4	4	10	17
(%)	12.00	8.70	9.09	10.00	8.70	16.67	16.67	14.08	12.06
3001-5000	2	6	5	13	1	3	1	5	18
(%)	8.00	26.09	22.73	18.57	4.35	12.50	4.17	7.04	12.77
5001-10000	2	4	5	11	1	5	1	7	18
(%)	8.00	17.39	22.73	15.71	4.35	20.83	4.17	9.86	12.77
10001-50000	0	5	2	7	3	5	6	14	21
(%)	0.00	21.74	9.09	10.00	13.04	20.83	25.00	19.72	14.89
50001-100000	0	0	2	2	0	0	4	4	6
(%)	0.00	0.00	9.09	2.86	0.00	0.00	16.67	5.63	4.26
100001+	0	0	1	1	0	0	3	3	4
(%)	0.00	0.00	4.55	1.43	0.00	0.00	12.50	4.23	2.84
Grand-total	25	23	22	70	23	24	24	71	141
(%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

EXAMPLE OF A HOUSE REQUIRING UPGRADATION.



EXAMPLE FOR QUALITATIVE UPGRADATION — STONE PAVING, SEATING PLATFORMS, GREEN PLANTS, ACTIVITIES etc.



EXAMPLE FOR PHYSICAL UPGRADATION – HOUSE ON THE LEFT IS UPGRADED, YET FULLY BLENDS WITH THE STREET.

EXAMPLES FOR UPGRADATION

Primary data shows that there is less repair in the reconstructed houses and more repair in the dilapidated houses. This is obvious, as dilapidated houses need more repairs. It also proves that the repairs carried out are ineffective. Also the amount of money spent on the repair of dilapidated houses is not enough for sustained repair.

The houses are generally repaired by the owners. In case of rented houses, 50 percent are repaired by landlords, and another 50 percent by the tenants. In case of joint ownership the person residing in the house takes the responsibility to carry on repairs.

The houses are mostly owner-occupied (unlike in large cities where the inner city is a spring-board for migrants who want rental housing), with 71.62 percent houses occupied soley by owners, 15.54 percent by both owners and tenants and 12.84 percent by tenants only. The majority of the houses have only one household per property (78.38%), though there are a few houses with more. The houses are generally used for residential purposes. Only 9.46 percent of the houses have workshops in them. In Mandi Mohalla the workshops are mainly in reconstructed buildings where more space has been created for the purpose. The owners normally do not stay in these houses. The DIC is gradually providing sheds and working facilities for the craftsmen to work in guilds/groups which entails shifting of home-based industries to more organised premises with better equipments. Houses with workshops are, therefore, dwindling overtime.

Information on the duration of stay in the house reveals an interesting feature. Those who live in the dilapidated houses have been staying there for a longer time than those who occupy renovated or reconstructed houses. In fact, the condition of the house is highly correlated with the duration of stay. The longer the duration, the worse is the condition of the house . This obviously means than the poor residents are neither able to sell, nor repair their houses. They are, therefore, not able to shift elsewhere. Those who shift into this area either renovate or reconstruct the house before occupying.

An opinion survey on house repair reveals that given an opportunity the owners are willing to repair their houses. Around 70 percent reported that they were willing to spend from their own pocket on house repair. But 15 percent of the households would like some kind of government support. Only 2.26 percent gave their preference for community support. Around 75 percent of the residents showed interest in having a new housing scheme or in getting their area improved.

A few prominent amenities lacking in the area are playgrounds, parks, trees and libraries. Residents also complained of narrow and unkempt roads, conservancy problems --with garbage not being removed and with unattended open drains. Despite such disadvantages people live in this area because of its central location and easy accessibility to workplace and markets and other urban infrastructure. Above

all, they stay on for sentimental and ethnic reasons, as these houses are their ancestral homes.

About 75 percent of the population travel less than 5 kms. for work/study and another 10 percent travel within 10 kms. The common modes of transportation are bus, scooter and bicycle in descending order of use. About 60 percent of the people walk.

The suggested methods of upgradation for the area are : to broaden the streets, improve the drainage and keep the roads clean. Many are of the view that some of the dilapidated buildings, which cannot be renovated, should be demolished to create lung space. A few spoke of conservancy and environmental health problems and the need to improve conditions. About 44 percent reported that with the increase in vehicular traffic, air and noise pollution has increased. Around 29 percent complained of odour from open drains. A fact to note is the heavy use of kerosene for cooking (39.33%), which adds to air pollution.

Very few were enthusiastic about efforts being made through community participation. Roughly 40 percent of the residents were unwilling to form community associations, though their views on the functions of an association did not lack any vigour. It was felt that expectations from public authorities especially the municipal corporation were very high, in the maintenance and cleanliness of the area.

Last, but not the least, is the insecurity felt by the residents because of communal disturbances. Though the Hindus and the Muslims had once lived in harmony in this area and the communities intermingled since ages, there is now a rift between them and the gap is widening because of political instability. The citizens, therefore suggested the formation of community organisations that would help to resolve such social problems.

Causes for Deterioration

Usually the inner city area deteriorates because of overuse of buildings and infrastructure, lack of maintenance and use of poor quality building materials. Since the inner cities were built at a time when technology was not so well developed and modern (as of today) building materials not very popular, most of the building materials used are biodegradable and cannot withstand the strain of congestion. Besides, the inner city being the oldest part of the city, the houses are generally very old. Age is a very important factor behind deterioration. Old houses need to be maintained; and repair/maintenance cannot be undertaken if the income level is low, or if returns from buildings are not remunerative enough for reinvestment.

In most inner cities in India economic activities are informally carried out in residential premises, where workers live and work under one roof, or else, the buildings are put to several uses that overstrain them. Such intense use should always be counteracted by regular maintenance.

When this is not done, the houses begin to deteriorate. Such worn out houses fetch lower rents that only attract the poor. As a result, the inner city areas are occupied by a large group of low income residents. This section of the population is unable to spend on repairs, as a result of which the houses deteriorate further. Also, when tenants pay low rents, owners desist maintenance, as returns from such houses are low.

Despite such deterrents, the market mechanism creates a demand for housing because of the central location and existence of economic activities in the inner cities, without ensuring the upkeep of the buildings. For unless the landuse changes totally from residential to commercial and land values rise, rents remain low. The inner city, thus, continues to be occupied by the poor residing in deteriorating houses with a growing population.

In Mysore where the inner city residential neighbourhoods are segregated from the commercial sections, the houses are mostly owner-occupied and not put to several uses. Room congestion is also very low. Here the deterioration of houses is because of lack of repair and the poor quality of building materials used.

An inventory of the building materials showed that the dilapidated houses had mud and stone as the foundation of the house, bamboos mortar/lime plaster for walls, cement and red oxide for floors and bamboos, wood and country tiles for

roofs. All these materials are biodegreadable, except for the stone foundation. Hence, repairs are needed practically every year.

The primary data on repairs points out that 47.18 percent of the houses were repaired in 1991 and 16.90 percent in 1988-90. But 50.35 percent of the repairs were only limited to white washing; another 26.57 percent to minor repairs, and white washing, with very little investment. The expenditure incurred was generally between Rs. 1000 to Rs. 3000. It is obvious that, not much renovation can be done with such a small amount. Inadequate repairs have thus left the houses in a constant state of disrepair and with a recurring expenditure every year, which ultimately turns out to be expensive in the long run.

The extent of deterioration depends on the nature of the building materials used as well as the age of the buildings. As per international standards, a house has to be renovated in a manner to increase the longevity of the building by 30 years. Obviously, this is not being done in Mysore. The older houses, therefore, are in a serious state of disrepair.

To a certain extent this lack of repair is because of the weak financial condition of the occupants. But this is not the case for all the households in the area. Hence, only the households with low income need some kind of financial support, while the rest would need to be motivated to repair

their houses. In both the cases there is a need for intervention to make the people aware of good standards of living and the ways and means of attaining them, without forfeiting ethnicity.

CONCLUSIONS :

Inner cities in India are generally characterised by intense economic activities which are typical of small-firm economies. They are noted for their heterogeneity of population, functions and landuse and are neither deserted nor poverty-striken as in the West, where the operational arrangement of corporate economies lead to a flight of capital. Yet the buildings are in serious disrepair because of overuse and lack of maintenance, as owners desist repairing when returns from buildings are low. Some kind of a vicious cycle develops with lack of maintenance and less returns from houses, as low rents attract migrant population who are generally poorly paid and crowd the inner city for cheap housing.

In Mysore the inner city is an amalgam of the West and the East. Though it has large market areas, the inner city is segregated into distinct residential and commercial segments, and even though at a macro-level there is mixed landuse. At the micro level the inner-city has very typical western characteristics with unique row-houses and homogeneous "agraharas" with concentrations of Brahmins, who worked as priests in the royal households once upon a time.

Otherwise, the residential areas of the inner city have long narrow streets, with well laid out infrastructure from its inception, which is typical in the West. Here the majority of the houses are owner-occupied, and about 91 percent of the people have regular jobs, which is very unusual in Indian inner cities. Despite the assured income and employment, the inner city looks run-down, especially with pockets of dilapidated houses occupied by the poor, who are also less educated and cannot be employed in well-paid jobs. Being poor, they are unable to shift to better areas or upgrade their houses, and continue to live in sub-standard houses by repairing them superficially with biodegradable building materials that require constant maintenance that further adds to their expenditure and poverty.

In these pockets of low-income housing, where negative factors of growth tend to polarise, and where houses are in serious disrepair, the infrastructure is overused, as a result of which the quality and quantity of supply deteriorates.

The inner city of Mysore also has many housewives and the retired who require help to maintain their houses. It is in such areas of the inner city where public intervention is required to help the poor residents.

An inventory of the building materials used, and the categorisation of the sample houses into dilapidated, renovated and the reconstructed has also helped to trace the

causes for deterioration. The materials used in the three different types of houses not only characterise the housing, but also help in identifing the stages of deterioration and the methods used so far in improving them; thereby suggesting the steps that need to be taken to refurbish the houses.

In the dilapidated houses the foundation is built of mud and stone, the walls with mud, bamboos and lime plaster, the floors with mortar and red oxide, the superstructure with bamboos or wooden frames (mainly jungle wood) covered by the roof which is made of country tiles. The doors and the windows are made of either jungle or teak wood. These materials are not very strong and cannot withstand overuse or weathering for long. Houses with such building materials need continuous repairs every year, which work out to be expensive for many residents.

Initially all the houses of the inner city were made of these materials. But subsequently with time and with the popularity or availability of better alternative building materials, a change can be noticed in the use of materials during renovation. While the foundations have remained the same, the mud walls have been replaced by bricks with lime plaster, or occasionally by cement.

The red oxide of the floors was changed to cement. But this is not universal. There are many houses even today, which still retain the mortar and red oxide flooring. A

significant number of houses have changed the red oxide flooring of the kitchen, bath and toilet with stone slabs that can withstand washing. (It is a common practice in India to wash the floors of the kitchen, bath and toilet while cleaning).

Often the country tiles of the roof have been substituted by machine tiles, asbestos and/or G.1 sheets that can withstand weathering better than the country tiles. A common menace in the area is destruction of the tiles by monkeys. Hence, more durable materials help to prevent damage.

The superstructure of bamboos and wood is being replaced by a frame of iron bars and beams that do not rot during the monsoon. Also paint is being used to protect the mud walls and the wood from termites and other pests, as also leakages.

The reconstructed houses are built according to modern specifications with concrete foundations, RBC or RCC pillars, RCC roofs, brick and mortar walls and bricks, mortar and cement or mosaic floors. The wooden frames of doors and windows have been replaced by iron frames and grills and the wooden panels by glass panes.

As already mentioned, the extent of deterioration depends on the nature of the building materials and the age of the buildings, which gives a clue as to the extent of weathering the house has withstood. Generally, materials

which are biodegradable need continuous curing and maintenance. Hence, houses using such materials deteriorate faster than those that use more stronger materials with lasting effect. They, therefore, need to be repaired frequently, which is not very economical, even though the expenditure during each repair is less.

Overuse puts a stress on all buildings. Therefore, with the expansion in the size of the family and the overall population increase, the houses tend to deteriorate faster. Not only is there a decrease in the quantity of facilities/amenities, there is also a decline in quality with constant use and lack of maintenance. Excessive use of the houses has a repercussion on the on-site, as well as on the off-site infrastructures, which in turn influences the level of deterioration of the area.

Also, modern facilities such as wash - hand basins, W.C.s, larger rooms, more windows, verandahs etc. need to be introduced with modern living. Hence, physical upgradation of the old houses becomes a necessity. The question is of how to generate resources and motivate the residents to do so.

CHAPTER V

THE STRATEGY

The status of Mysore and its inner city reflects a past steeped in history created by the Muslim-rulers - Hyder Ali and Tipu Sultan and the Hindu Maharajas - the Wodeyars, intercepted by the short-lived British rule and their European life style. Whereas the entire city is strewn with exquisite monuments of very high architectural value reminding one of the economic and cultural wealth of the city, the inner city, an epitome of unique social areas, that give Mysore a very special place in social anthropology, is an example of subordination and servitude adopted by the rulers towards their employees, which is typically feudal; for the inner city is built on very stringent measures with vernacular housing built on small plots of land with low-cost building materials that require constant maintenance with recurring expenditure. The magnificent palaces of the ex-rulers, which even today stand as strong edifices and draw a continuous stream of tourists throughout the year, have given a boost to the tourism industry in Mysore, which is gaining grounds everyday. On the other hand, the inner city, which is a replica of the traditional societies that lived during the historical rule of the ex-rulers, have deteriorated because of overuse and lack of maintenance of the cheap building materials that were used by the common citizens. Though over time the economic activities of the inner city residents have changed

and their occupations have diversified, the woodcraft industry of Mandi mohalla and the "agraharas" of K.R. mohalla still contribute to the culture that Mysore has inherited from the past. The cultural past, in transfusion with modern technology and productivity, has lent Mysore a transitional character which is not really unknown to many Indian cities. But even then, parts of the inner city of Mysore, which stands out for its concentration of Brahmins, are not to be found elsewhere in India. In planning for such an area care has to be taken to not only conserve the old monuments and buildings that characterise the city, but also to preserve the ethnicity and the culture that is inextricably associated with the social structure of the place, and which is so special of Mysore.

Although planning is always for the people, an area with people living in it, as in the inner city, needs special consideration, as day to day problems are to be resolved. The question is not of planning on virgin land, but of correcting the weaknesses inherent in the already built city and the society living in it. Such action-planning requires cautious handling of the inhabitants who are emotionally attached to the area and are sensitive to any changes being made.

An analysis of the inner city of Mysore shows that residents who were capable of selling their houses moved out to the newer residential extensions. Those who bought the houses were rich enough to pull down the worn-out structures

and build afresh. The study also found that many residents belonging to the middle income group could renovate their houses to suit their growing requirements. Frequently, portions of their plots were sold to generate finance to renovate their existing houses, thereby subdividing the plots. This can be witnessed from the average plot size that decreases in the renovated and reconstructed categories. But the section of the population that continued to live in their dilapidated houses did so for many reasons. Some of them were poor and could not buy housing outside the inner city. Others continued to live there because of emotional ties. Still others preferred the inner city because of its centrality.

The building materials used in the past were mud and stone for the foundation, mud, bamboos and lime plaster for the walls, bamboos and wooden beams for the superstructure, red oxide and mortar for the floors and country tiles for the roof. These materials, except for the stone foundation, are all susceptible to weathering and require continuous maintenance, which proves expensive over time, especially for the low income groups. The tendency, therefore, is to avoid proper maintenance and have minor makeshift arrangements that do not last for long. As a result, the houses are under constant disrepair and need to be attended frequently.

The question now is of introducing modern technology and benefits to help better living. Often such facilities are at a cost which is beyond the means of the low income group. Unable to afford high prices, the residents of the dilapidated houses continue to repair them superfically and inculcate a culture which is inward-looking and less expensive, and which draws them into a vicious cycle of poverty, ill-health, less education, low-paying jobs and poor standards of living - all of which retard progress. There is, therefore, a serious need for public intervention to help such residents who occupy prime land in the heart of the city and which becomes a constant source of irritation or concern for the urban ecosystem and city managers.

When a planning agency takes over such an area for renovation, an overall perspective of renewal is taken into consideration, as all the features of deterioration are interrelated and improving one and not the other might nullify the effects of planning. So far, all successful renewal programs all over the world have taken up comprehensive renewal of such areas, including vocational training to help the inhabitants to get better jobs that make the residents more self-reliant and self-sufficient.

When deterioration begins, it affects all spheres of urban development. It is not just the housing and the area that succumbs to pressures of overuse and lack of maintenance, but the very platform of development-the economic base, is improverished because of negligence,

obsolescence, overuse, and change in technology. Hence everything needs to be renewed and updated, to integrate the inner city with the modern developments taking place around it. Area development for inner city renewal includes upgradation of the physical and social infrastructure, which in turn helps the residents to improve their economic status and their standard of living, along with their housing. In fact, all renewal strategies are based on the philosophy that improvement of the standard of living will lead to increased productivity.

Approach to Upgradation

Urban upgradation is often a natural phenomenon, occurring at its own pace. When interventions become necessary in this ongoing process, they ought to stay as natural and gradual as possible. Attempting rapid or sudden changes may elicit resistance from the inhabitants, resulting in ineffective implementation of the proposal. Hence,

- guidelines for house/area upgradation should be easily accessible to all inhabitants to ensure that they adopt such projects;
- citizen's forum should be empowered to monitor upgradation/ construction activities to maintain the traditional ambience;
- no deterministic proposal should be framed for the area; let change take its own course; initiatives, alternatives and required infrastructure may be extended;
- all decision making should be participatory, with the local authorities and the citizens pooling in their ideas.

Action will have to be taken at three levels - the house and the street, the Mohalla or the area and the inner city as a component of the city as a whole. The scale of operations would be as follows:

Scale of Operation

Scale	Actor	Activities	Facilitators	Level	Aspects
1. House	Household	House renovation	Head of Household	Micro (Residence)	Social, Technical Financial
2. Mohalla (Agrahara)	Community group	Maintenance of community, space, trees, other activities	Social worker (Anthropologist)	Meso (Area)	Corporator, NGO
3. Inner City	Municipal corporation	Street repairs, cleaning of open drains, garbage collection	City managers	Macro (city)	Integrate different aspects

Should be performed in three contexts: fiscal, legal and time frame.

The House

A house is an object of sentiment as it signifies a "home" with family ties and emotional support that make an individual self-confident. Any change in housing should, therefore, come gradually. As people are already living in these houses, they should be renovated part by part. It should avoid rehabilitation of people away from the "home" which might also prove to be expensive. What needs to be incorporated are the modern fixtures developed with new technology, that will make living easy in the present day context.

The steps to be taken at the house level to integrate the past with the present are:

- the frontages of the houses should have a height not exceeding the road. It may step up at the back to provide increased built up area;
- the frontage should have a void/setback, with width not less than half the site width and depth should be half the width. The frontage can be treated as an open verandah or Jagali or left open with greenery;
- vertical elements to connote columns should be employed while closing the verandah as a room. They may be vertical grooves, colour bands, actual columns, or surface projections;
- it is important that the street surface extends as platforms and verandahs into the house and the street volume extends as setback and void. A solid blank front wall should be avoided;
- the slope of the roofs should be at the plane of vision angle while walking along the centre of the street. This results in the house front below the eave level getting highlighted and retains the human scale for the street;
- in streets where houses have no front set backs, new constructions, too, should not have setbacks.

Physical build is also a visual display of the cultural heritage to which residents are emotionally attached. Hence, in upgrading old areas, those features which give the area its characteristics should be retained, to make the residents feel more comfortable and secure, despite the changes in occupation and economic activities.

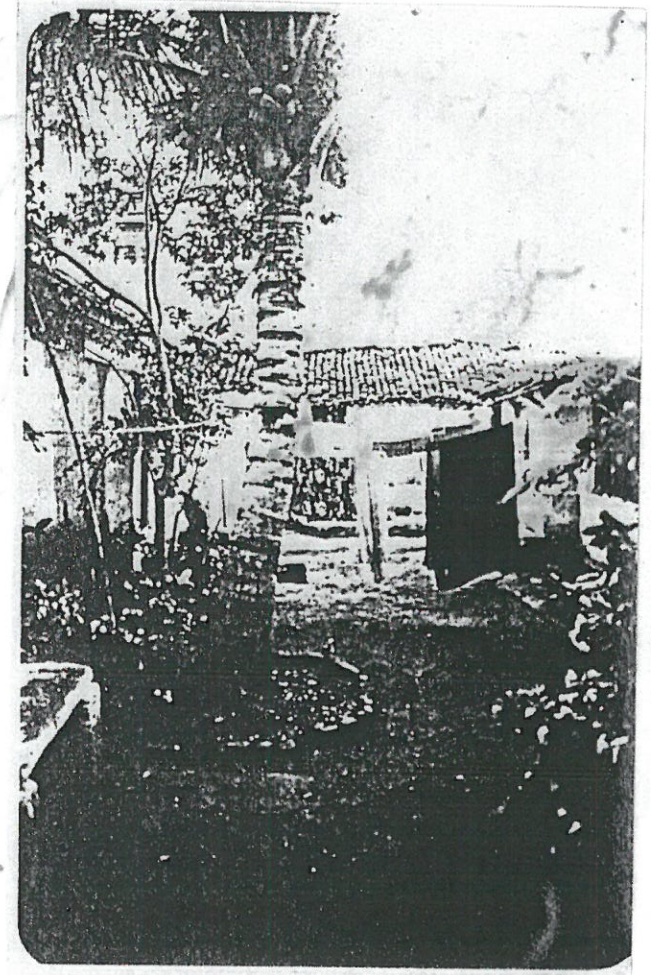
A few issues need to be resolved before the actual repairing of a house is taken up. The first and foremost, is the need for financial resources. In an area where renovation has not been carried out because of shortage of

personal funds, the major task would be to generate resources that would make renovation possible. In the developed countries this problem is solved by making grants available to the low income groups by the government -- be it local or state. In developing countries, especially in a country like India, where the government has to fend for millions, priorities are different. Here help is directed towards provision of infrastructure and houses rather than on renovation. Hence, if the inner city housing has to be maintained, and which should be the case, in order to retain the old housing stock in a situation of perpetual housing shortage, resource generation is absolutely essential. Even in the West the governments are increasingly realising that with more people to serve and help over time, a curb has to put on the generous distribution of grants that were made available in the past.

The distribution of the average income of the inner city residents of Mysore indicate that though the households staying in the dilapidated houses earn less than the households residing in the renovated or the reconstructed houses, they are actually not very poor. Yet these households are unable to maintain a good standard of living or renovate their houses well enough to sustain them for a reasonable length of time.

In K.R. mohalla the average income of those residing in the dilapidated houses is Rs. 2989, in renovated houses it is Rs. 4470 and in reconstructed houses it is Rs. 6356 per

month. The corresponding figures in Mandi mohalla are Rs. 2761, Rs. 4839 and Rs. 3381, respectively. According to the standards specified by HUDCO (a maximum of Rs. 1250 for EWS, Rs. 2650 for LIG, Rs. 4450 for MIG and more than Rs. 4450 for HIG) the dilapidated areas of both the mohallas and the reconstructed category of Mandi mohalla fall into the middle income group. All the other households fall into the high income group. On the other hand, a categorisation of the actual income of each household reveals that 7.43 percent of the households belong to the economically weaker sections and another 31.76 percent are from low income groups. Hence, the inner city is not totally devoid of the low income groups. It is just that there is a wide variation in the income distribution, as can be seen from the wide range and high coefficient of variation. The household income ranges between Rs. 300 and Rs, 17,500 per month and the per capita income between Rs. 60 to Rs. 2600 per month. The coefficient of variation for household income is 75.33 percent and for per capita income it is 71.29 percent. But these are the results emerging from a purposive sample of equal distribution of dilapidated, renovated and reconstructed houses. As mentioned earlier, according to STEM, 70 percent of the houses within Mysore belong to the low income group.



HOUSES NOT FACING ANY STREET NEED NOT FOLLOW THE GUIDELINES SET FOR STREETSIDE ELEVATIONS.

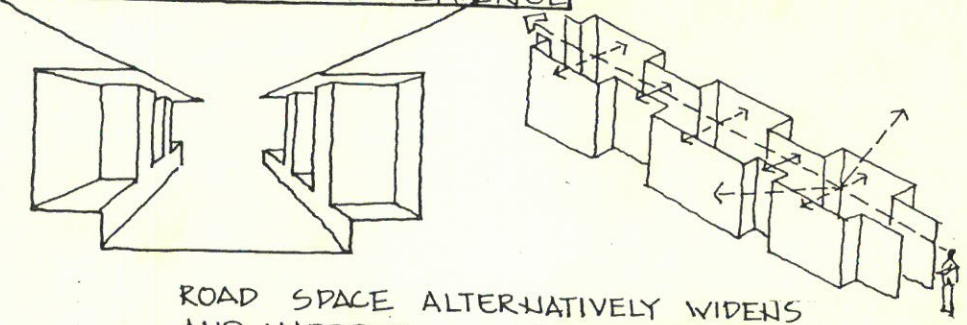
FOR A COHERENT IMAGE, NOT ONLY THE HOUSES SHOULD GET UPGRADED, BUT ALSO THE STREET.

HERE THE STREET IS NOT CARED FOR AND HOUSE DESIGNS UNRELATED.

UPGRADATION SHOULD NOT DISRUPT THE HUMAN SCALE AND SOCIAL INTIMACY.

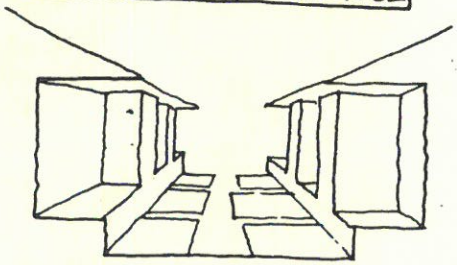
STREET PATTERNS

PERCEPTIONAL EXPERIENCE



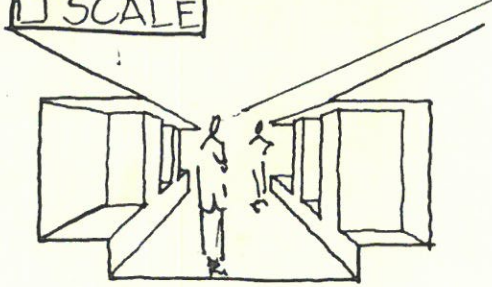
ROAD SPACE ALTERNATIVELY WIDENS AND NARROWS - CREATING INTEREST

RITUAL EXPERIENCE



RITUAL PRACTICES EXTEND THE HOUSE TO ROAD, SOCIAL ACTIVITIES ENABLES THE ROAD TO BALANCE FROM PUBLIC TO PRIVATE SPACES.

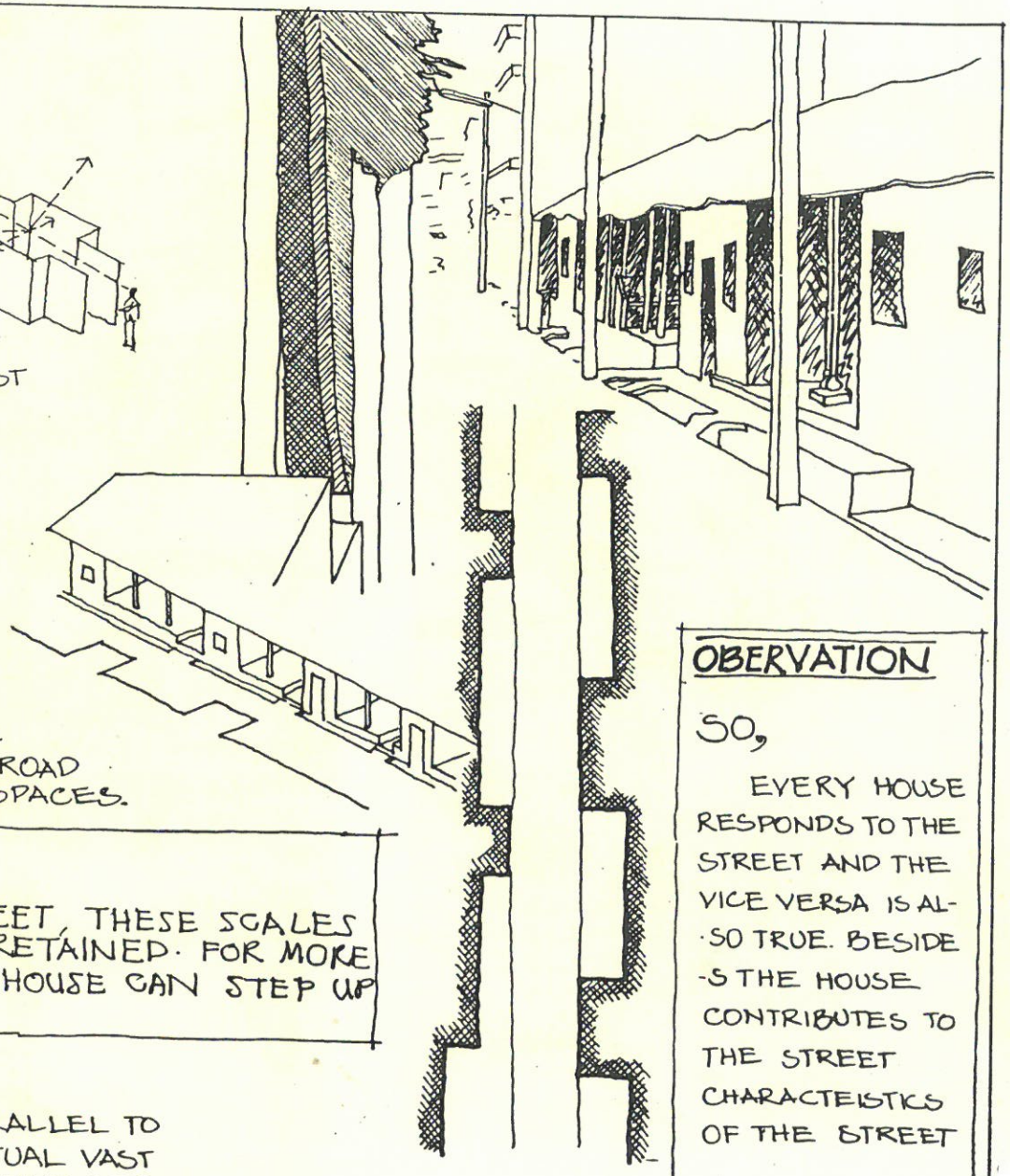
SCALE



THE VISUAL ANGLE IS ALMOST PARALLEL TO THE PLANE OF THE ROOF, AS SUCH THE ACTUAL VAST ROOF AREA DOES NOT DOMINATE. IN PURE ELEVATION THE ROOF IS REALLY LARGE.

PROPOSAL

AT THE STREET, THESE SCALES SHOULD BE RETAINED. FOR MORE BUILT AREA, HOUSE CAN STEP UP AT BACK.



OBERVATION

SO,

EVERY HOUSE RESPONDS TO THE STREET AND THE VICE VERSA IS ALSO TRUE. BESIDES THE HOUSE CONTRIBUTES TO THE STREET CHARACTEISTICS OF THE STREET

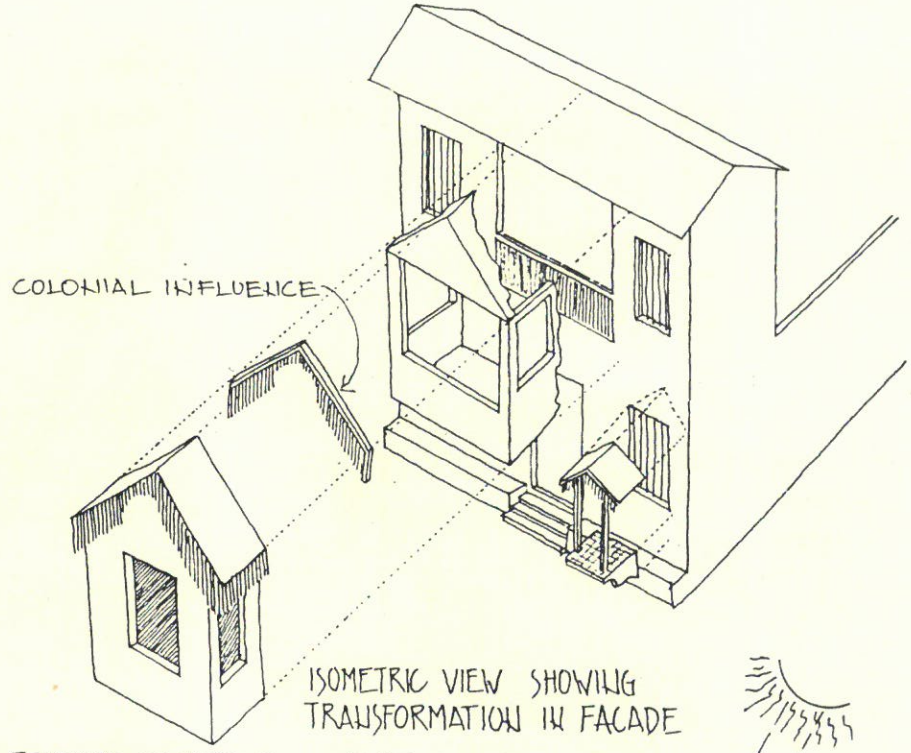
HOUSE FORMS

PROPOSALS —

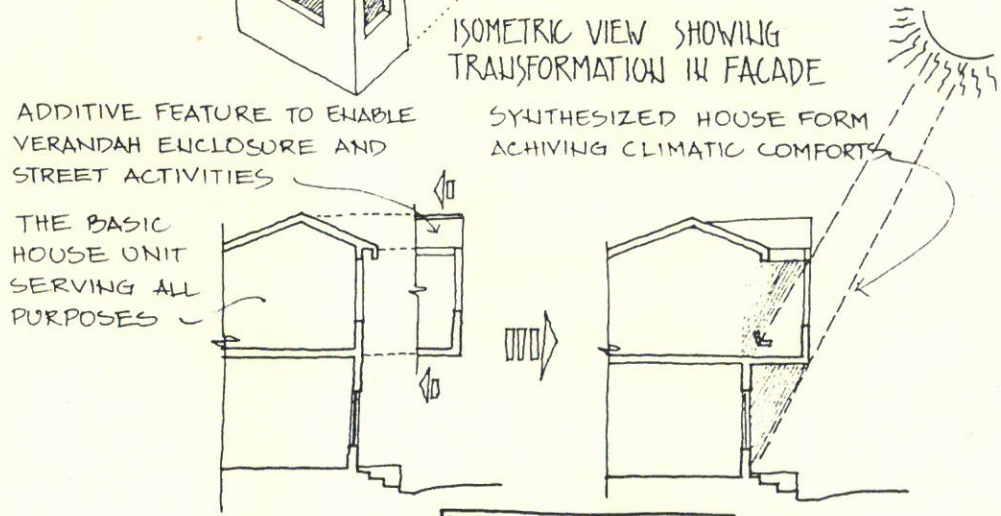
UPPER FLOOR PROJECTIONS.

THEY LINK THE FIRST FLOORS TO THE STREET SPACE AND LOGICALLY CREATE AN ENCLOSURE BELOW - -FOR VERANDAH, ENTRANCES, CYCLE PARKING, ETC

THEY DERIVED FROM MANY STYLISTIC INFLUENCES LIKE COLONIAL, NORTH INDIAN ETC. SUCH FETURES SHOULD BE ENCOURAGED.



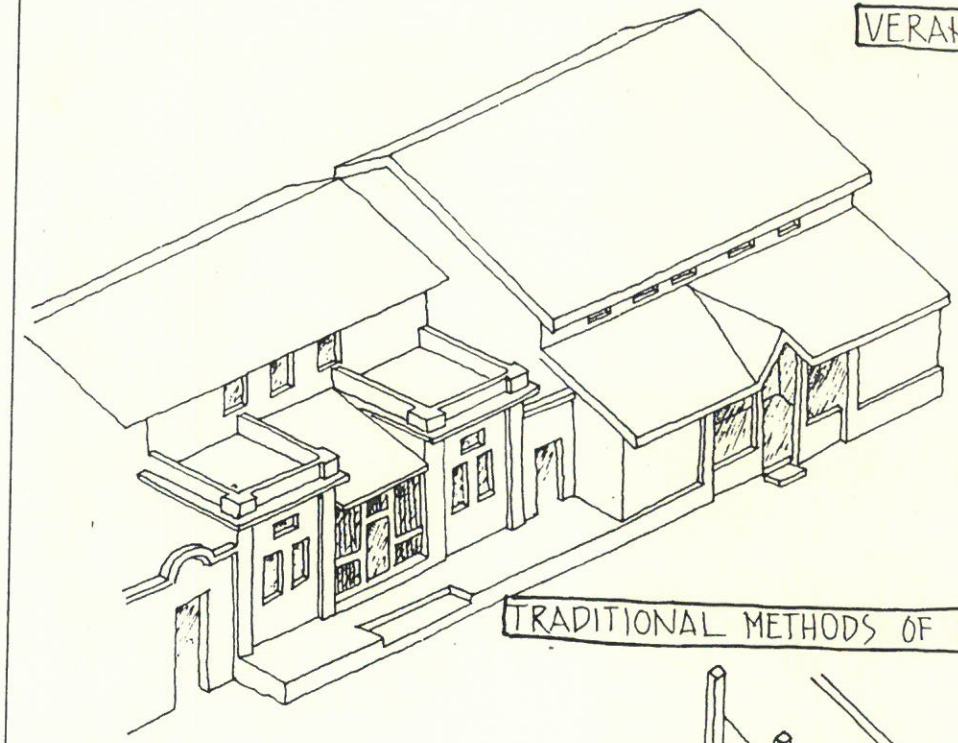
ISOMETRIC VIEW SHOWING TRANSFORMATION IN FACADE



DESIRED HOUSE FORM

HOUSE FORMS

VERANDAH ENCLOSURES



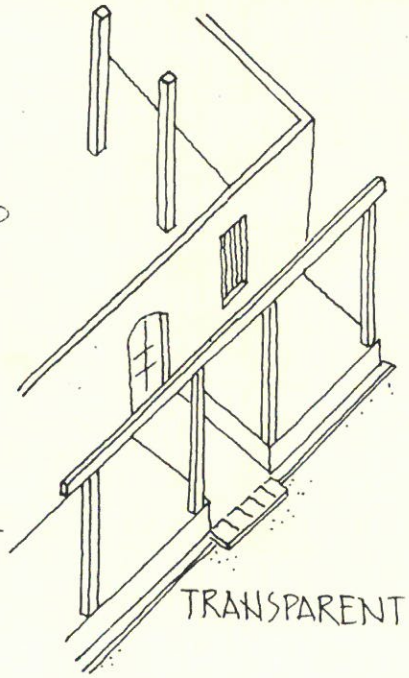
THEY CAN BE TRANSPARENT - TRANSLUCENT OR OPAQUE BUT SHOULD RETAIN THE FUNCTIONAL PURPOSE. THEY ARE IN PUBLIC / PRIVATE ZONE, HENCE VISUAL SCREENING MAY BE NEEDED FOR SECURITY / PRIVACY ETC.

THE ELEMENTS WERE BOTH FUNCTIONAL AND DECORATIVE WITH THE DECORATIVE STYLE BEING VARIEGATED - TOO ELABORATE FOR PRESENT DAY USE.

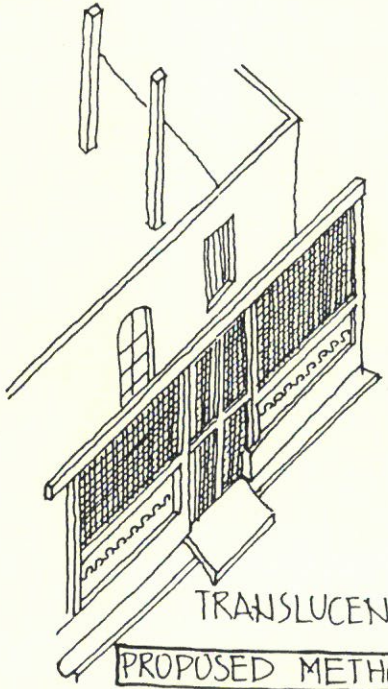
TRADITIONAL METHODS OF ENCLOSING.

THE ELEMENTS ARE MORE FUNCTIONAL, BUT INTERRELATED TO MAINTAIN VISUAL HORMONY AND ALSO THEY ARE SIMPLER AND ECONOMICAL

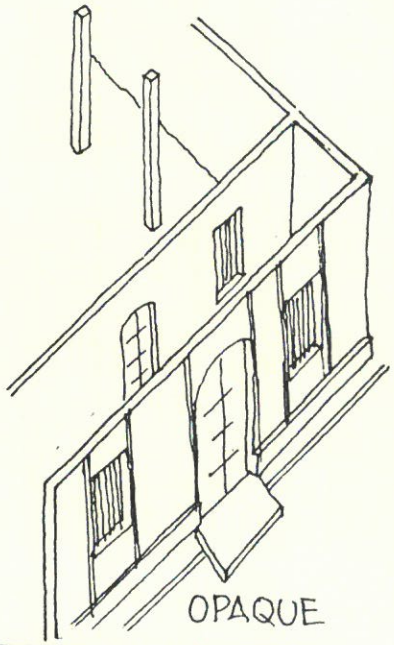
- FEATURES.
  - VERTICAL ELEMENTS MAINTAI -NED.
  - HORIZONTALITY OF THE VERA- -NDAH SPACE, MAINTAINED.
  - ROOF EAVE LEVEL STAYS AT HUMAN SCALE.



TRANSPARENT



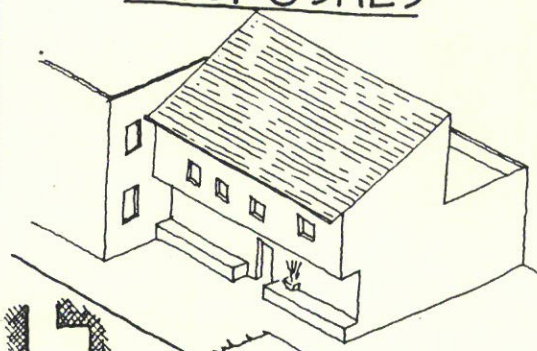
TRANSLUCENT



OPAQUE

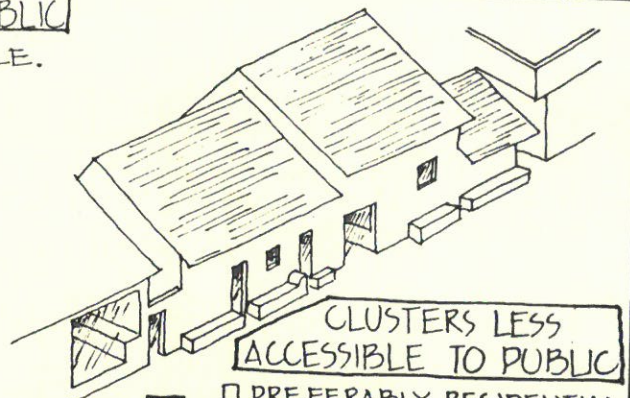
PROPOSED METHODS OF ENCLOSING

PROPOSALS



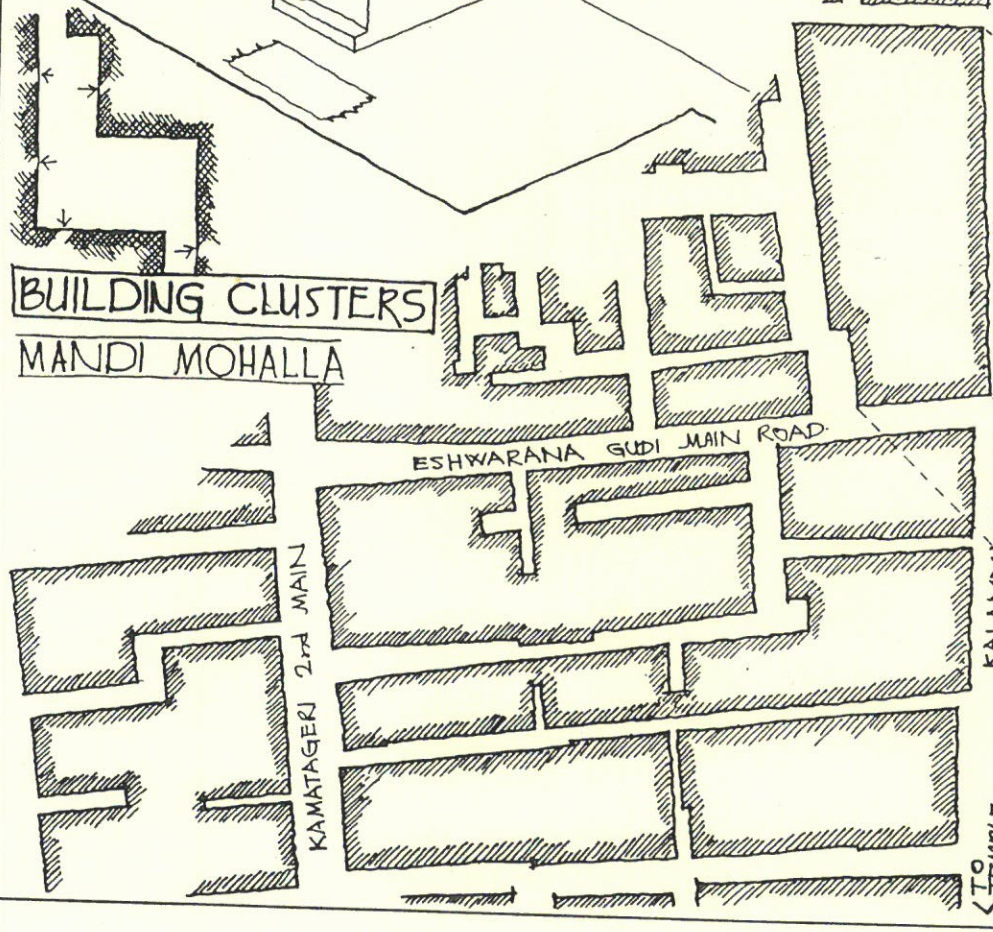
CLUSTERS HARDLY ACCESSIBLE TO PUBLIC

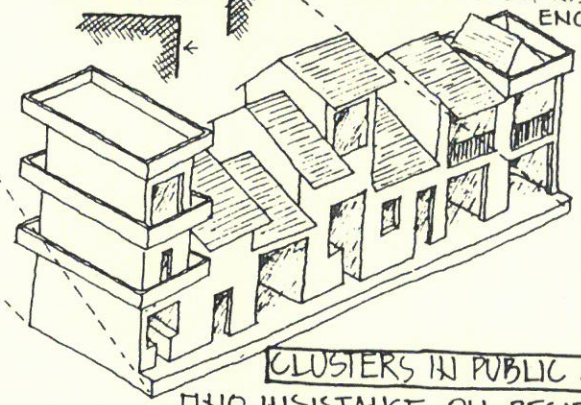
- ☐ SHOULD RETAIN RESIDENTIAL SCALE.
- ☐ STREET AS COMMUNITY SPACE.
- ☐ CLUSTERS FORMED OF COMPARABLE HOUSE FORMS.
- ☐ TRADITIONAL ELEMENTS SHOULD BE USED.



CLUSTERS LESS ACCESSIBLE TO PUBLIC

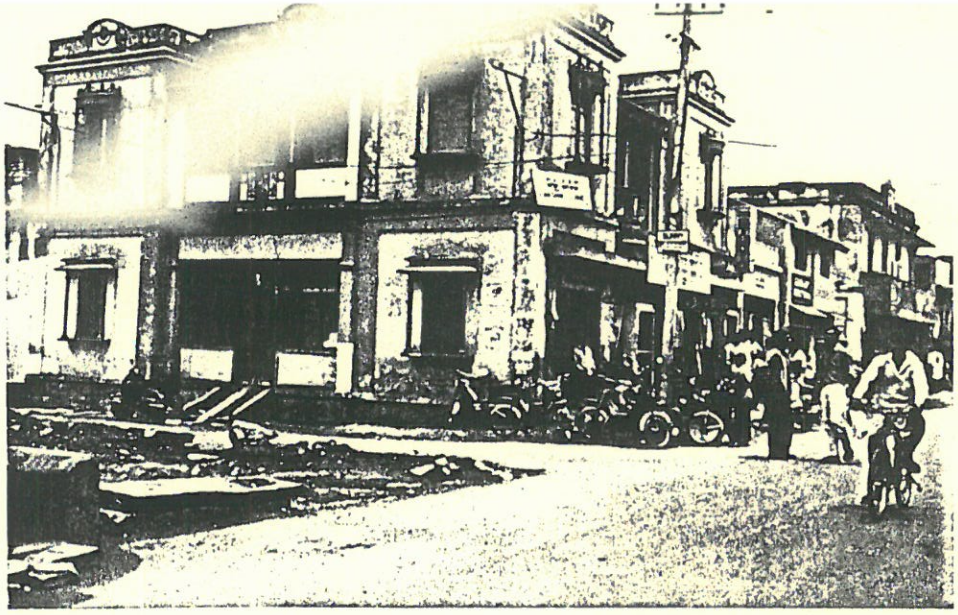
- ☐ PREFERABLY RESIDENTIAL SCALE TO BE MAINTAINED
- ☐ STREET AS SEMI PUBLIC SPACE
- ☐ CLUSTERS FORMED OF FEW VARIETIS OF HOUSE FORM
- ☐ TRADITIONAL ELEMENTS TO BE ENCOURAGED



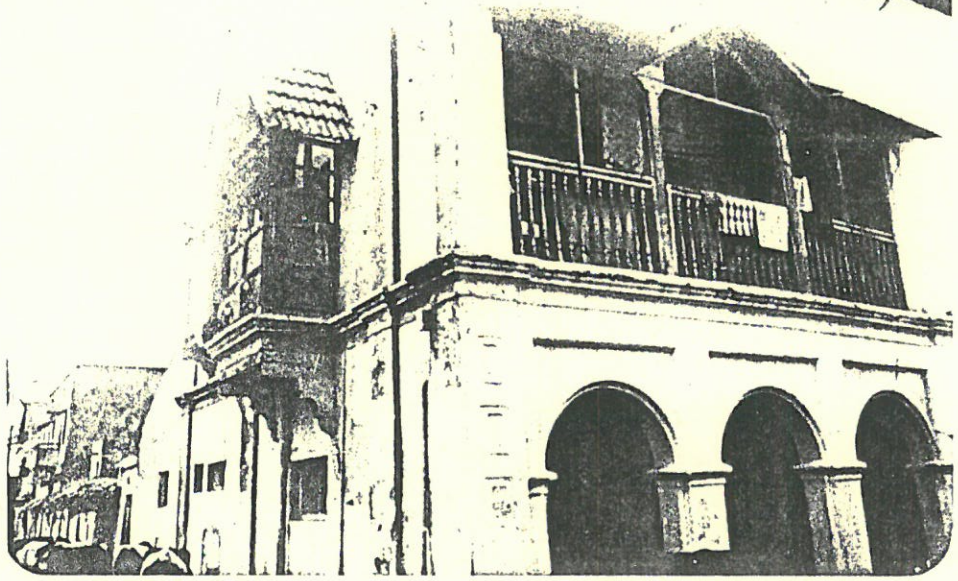


CLUSTERS IN PUBLIC AREAS

- ☐ NO INSISTANCE ON RESIDENTIAL SCALE
- ☐ STREET AS PUBLIC SPACE
- ☐ CLUSTERS MAY BE FORMED OF VARIETIES OF FORMS
- ☐ TRADITIONAL ELEMENTS CAN BE INTERPRETED



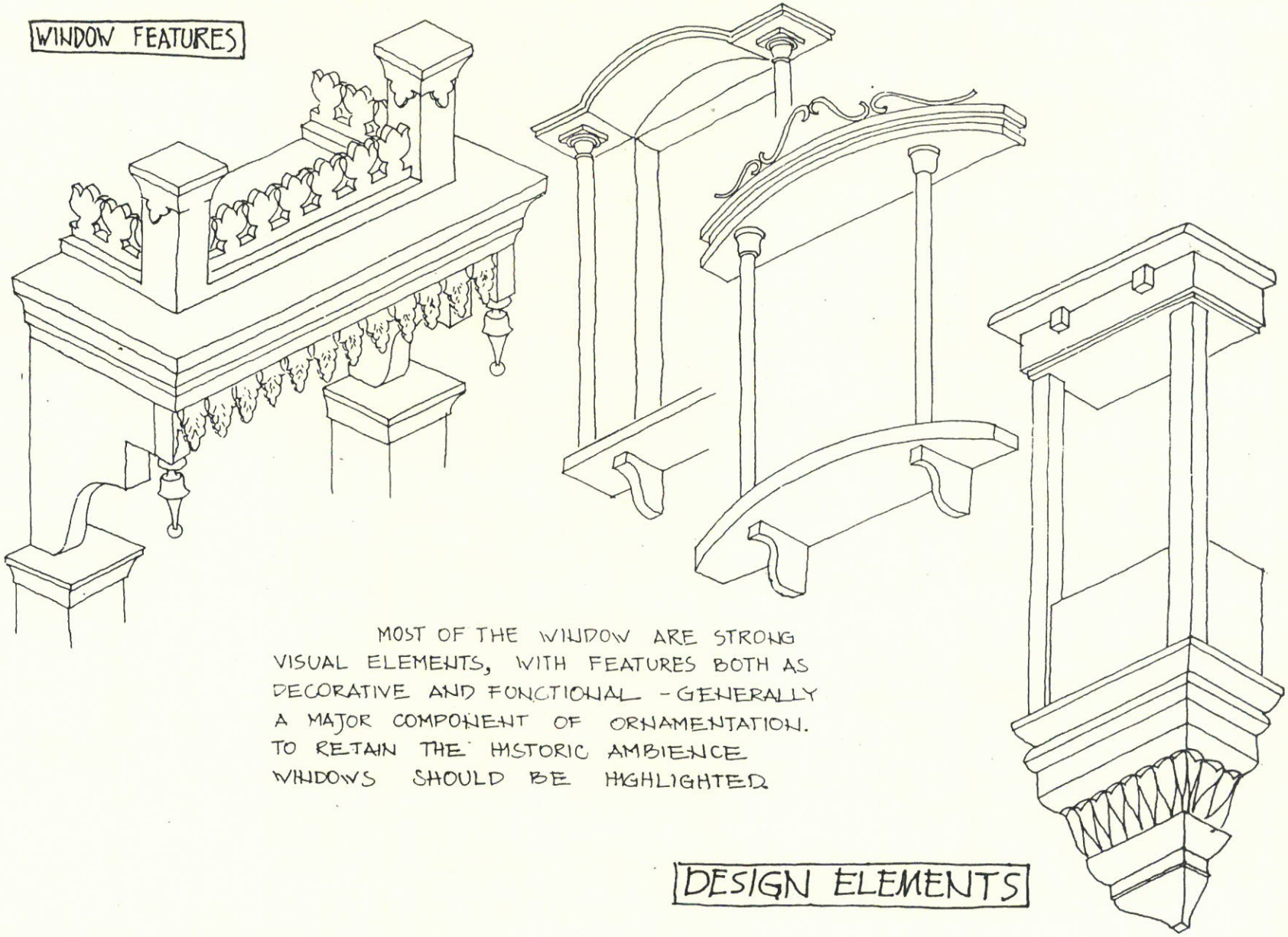
RYTHMICALLY REPEATING TYPICAL DESIGN ELEMENTS PROVIDING A CHARACTER TO THE AREA. THEY SHOULD BE HIGHLIGHTED IN ANY FORM OR DESIGN.



- ENTRANCE STEPS
- FLOOR LEVEL PROJECTIONS
- WINDOWS WITH FRAMING
- PROJECTED BALCONIES
- DISTINCT PARAPETS
- FACADE SURFACE AT DIFFERENT PLANES
- PILLARED VERANDAHS.
- SLOPING ROOFS WITH LOW EAVES AND LOW FRONT.
- SEATING PLATFORMS OUTSIDE.

DESIGN ELEMENTS

WINDOW FEATURES



MOST OF THE WINDOW ARE STRONG VISUAL ELEMENTS, WITH FEATURES BOTH AS DECORATIVE AND FONCTIONAL - GENERALLY A MAJOR COMPONENT OF ORNAMENTATION. TO RETAIN THE HISTORIC AMBIENCE WINDOWS SHOULD BE HIGHLIGHTED

DESIGN ELEMENTS

An accounting of the last repair done shows that 47.18 percent of the households have repaired their houses in the previous year (1991) and another 16.90 percent within the past two years. But these repairs have been done by spending very little money. Around 40 percent of the households have spent Rs.1000 and 52.49 percent within Rs. 3000 for the repairs. The primary data also indicates that 50.35 percent of the households got only white washing done and another 26.57 percent both simple repairs and white washing. Which means, very few renovated their houses. The expenditure was mainly on maintenance.

The pattern which emerged from the inner city analysis is that repairing is more common in the dilapidated buildings than in the reconstructed buildings, which is even otherwise an obvious fact. Repairing is always directly related to the condition of the house. The stronger the house or the better the condition, the less is the repair and vice versa. Repairing, therefore, becomes a constant drain/expenditure for those who live in dilapidated houses, specially when they are unable to move out because of lack of finance.

Inspite of such frequent and regular maintenance of the dilapidated houses they appear run down and are virtually so. This, therefore, brings us to the issue of the extent of renovation required to improve living standards and the targets to be set for the purpose, which will depend upon the financial and the human resources available. The

existing conditions of the houses bring forth a realisation that more funds are required for long lasting repairs; which then leads to the issue of savings and the capability to spend for house repairs.

The average annual savings work out to roughly Rs. 5000 for the dilapidated category, Rs. 8500 for the renovated category and Rs. 16,000 for the reconstructed category of K.R.mohalla. The corresponding figures for Mandi mohalla are Rs. 7,500, Rs. 17,000 and Rs. 14,000, respectively. Though there are many households that do not save at all, the residents of the inner city of Mysore are not destitutes who require subsidised welfare schemes on the lines of the EIUS (Environmental Improvement of Urban Slums) programme. However, they need to be educated to reset their priorities in spending, as well as guidance to save more for house repairs.

For the purpose of generating resources, the inner city residents should be encouraged to contribute to savings-cum-loan investment schemes where loans are given at a lower rate of interest, which should work as an incentive to save more. The savings-cum-loan investments can be done both formally and informally.

Of late, many such schemes have been floated by banks and financing agencies in India. The Unit Trust of India, the Housing Development Finance Corporation, the Home Loan Account Scheme of the National Housing Bank, the Canfin

Homes, the SBI Homes are all examples of loan - related savings that motivate people to save for their housing. The Life Insurance Corporation also gives loans against policies. Generally the lending agencies prefer to give loans to housing cooperatives or associations from where repayment is ensured. Individuals of low income groups are often at default, as their repayment capacity is poor. Also all over the West, especially in U.K., housing cooperatives/associations have been organised to provide and take care of housing, with an emphasis on low cost housing. These associations are generally supported by the local government, or organisations promoted by the government. For example, the Scottish Homes in Scotland is an extension of the State's Housing Department that helps in house building/renovation by giving loans only to housing or management cooperatives. A counterpart of such an organisation in India is the state level Apex Cooperative Housing Finance Society that gives loans for house-building once investments on land are made. Since such societies cater mostly to the private sector, efforts should be made to extend such facilities for house repairs as well, especially in the older parts of the city. Perhaps such help can be made possible by making a small initial investment mandatory on the part of the inner city residents, which can be considered as the seed money and which can be done informally with the help of the community organisations.

The idea of generating finance through non-governmental agencies is to lessen the pressures on the already overburdened state and the local governments. It is here that NGO's can play a role in motivating people and working as a liason between the residents, the public agencies and the private sector. An example sited earlier is the Neighbourhood Revitalisation Services in Bristol that encourage residents of inner cities to register with the National Home Improvement Council, which is a building confederation funded by private sector agencies with the ultimate aim of promoting their own products through renovation. The city council, too, helps the confederation through supplementary grants.

The NGOs can also help the community to pool money informally to create a kitty from where houses can be repaired. In India the Peerless Company and the Chit Fund agencies are examples of such informal management of finances.

Another source which could be tapped is the local business community whose profits would rise with inner city renewal. Just as the Neighbourhood Revitalisation Services in U.K. are helped by the building industries, or the American downtowns supported by the business enterprises within the area, the business entreprenurers within the inner city should be made to contribute towards the upgradation of the inner city, as the floating population

that visits the commercial areas draws on the infrastructure of the area. Hence any kind of fund raising should be shared by the residents as well as the business firms. Since the latter has the capacity to pay more than individual residents or households, their share should be much more than what individuals can contribute. The contribution can be collected in the form of user fees or tariffs or some kind of tax should be levied from which the area and the local body can benefit. Since the inner city is a very special area, restrictions on commercial use of the locality can also be imposed. Also, special activities that will promote ethnicity, or from which citizens get pleasure can be introduced to raise more money, in order to strengthen the economic base of the area.

In any kind of resource generation, an element of cross-subsidization should be built in to help the low income groups of the community who otherwise remain outside the purview of the formal arrangements of resource generation. This can either be in the form of loans at lower rates of interest for all those below a given household income, or by generating jobs to reduce unemployment to improve the household income. Another way of helping would be to give vocational training to those below a certain household income, to improve their capability to earn more.

Another major issue is to decide on the extent of renovation to be done, that will help in setting the

standards for renovation. This task is inextrically linked with the human resources available and the funds accumulated for repairs, both by individuals as well as collectively. Funds, grants, loans from public, private, international agencies should also be taken into account in setting standards for repair.

To set standards for any particular area, details such as the socio-economic status of the households, their housing needs, their life styles which will depend on their life cycle and resources, the physical condition of the house, the building materials used, the urban environmental conditions, all need to be assessed. The existing conditions will determine the extent of help required. This task will have to be taken up by surveyors and assessors who will have to get information from each and every household in order to be accurate and specific. Besides, if house renovation has to be actually done, individual files will have to be maintained for each household, so that all the information regarding the households is easily available to implementors, to take quick decisions. Very often such information is stored in the computers, to be recalled back quickly in times of need. The modern technology of the geographical information system can also help in estimating and projecting future needs of the individual households within a very short time, at a given location. Hence all kinds of technological assistance to help speedy implementation should be incorporated.

The Area

At the area level only broad steps for urban transformation should be envisaged and planned. Certain key issues and activities capable of ripple effects should be initiated by state or local authorities, with freedom for subsequent activities to be vested in the people. Such a blend would initiate concerted actions toward acceptable transformations. Steps for area regeneration could be:

- identification of key buildings in the neighbourhood for upgradation as referral models;
- upgradation of interiors, materials and structures without destroying the external form, scale, skyline and streetspace;
- develop relevant by-laws specifically applicable for the historic inner city;
- encourage additive features like verandahs, street furniture etc. in the existing houses and streets;
- identify spots of problems and potentials and put up boards to that effect with suggestive actions to the public.

Along with the above criteria, tradition based designs like spaces proportionate enough to permit interaction, building volume in balance with street volume, design freedom within broad collective control should become the parameters for desirable street patterns and area development. Also local activities like crafts etc. can be restructured with collective work centres, demonstrative workshops and sale outlets.

Formation of Cooperatives/Community Organisations

To take care of all such assessments and efforts including implementation of renewal schemes, an organisation is required to implement and coordinate all the aspects of area improvement and refurbishment of housing. An area is best understood by the community living within it; for it is the residents who will ultimately enjoy the outcome of such a phenomenon.

All over the world community organisations, in association with the local government, and very often non-governmental organisations have helped in urban renewal. In doing so they have helped themselves as well as the city's planning and management machineries. In other words, what is being suggested is a process of mutual dependence that will benefit all. In U.S.A. the government has also sought help from private firms to redevelop downtowns in return for improved business. Very often it is a partnership between the public and the private sector to reach the optimum levels of development. The local government in Britain is also seriously re-thinking its role from a lender to that of a facilitator.

In India the government is encouraging similar activities for the Urban Basic Services Programme, to provide basic services to the slum population. The urban local government appoints trained social workers as full-time Community Organisers to visit slum communities to break the initial inhibitions and impediments, identify potential

opinion leaders and with their help build a good working rapport with the community, to work together with the community to achieve common goals of improvement. Similar steps can be taken to organise activities for inner city renewal as well. There is, therefore, a need to form community organisations to help the residents of the inner city of Mysore to go ahead with such tasks.

The question which can be raised at this point is on the nature of the community organisation to be formed for an area. This will depend upon the tasks to be performed. There can either be a central organisation with sub-committees looking after maintenance of infrastructure such as the streets, the open drains, the reading of water meters and the billing, collection of tariffs, maintaining the pipelines or the electricity lines and the like, or committees that will help in the developmental activities such as laying of parks, building libraries or neighborhood clubs and so forth. There can also be sub-committees to help the local government to collect property taxes or constructing roads and so on. Yet another sub-committee can advice the residents to generate more resources through savings or various types of employment. A group of efficient social workers are required to help the residents to sort out their problems and educate them on the facilities available.

A link between the different sub-committees or sections of the community organisation to monitor the overall upgradation of the area is absolutely necessary. It is here that the local government should act as a facilitator.

Setting up a community organisation that is expected to look after so many aspects of renewal will require a large number of workers. These will have to be drawn from within the community. The community organisation itself will then become an employer that will solve all unemployment problems of the neighborhoods. To create jobs there is a need for financial backing from the government or the local government, the local business area that will profit from such developments and from the resources generated from within the community. The advantage of such employment is that since the residents are themselves involved in improving their own neighborhoods, work efficiency will be at its best. Besides, such an organisation will require all kinds of personnel to look after the area. Hence residents with their varied qualifications can be employed as artisans, builders, electricians, carpenters, accountants, caretakers, etc.

The size of the organisation will depend upon the areal dimensions of the neighborhoods, which should be determined by the distances to be covered by walking, and the nature and magnitude of needs to be looked after. It is absolutely essential for the community workers to know every resident individually in order to understand their personal problems

and their socio-economic conditions, to determine the nature of help to be given. The inner city of Mysore can be sub-divided into small areas on the basis of ethnicity and proximity. For example, K.R. mohalla can be divided on the basis of the agraharas. In Mandi mohalla social areas will have to be demarcated on the basis of predominant occupation, so that market facilities can be made available to the woodcraft artisans, the sandalwood craftsmen, the agarbatti makers and the beedi workers, and the like.

The City

Achieving desirable environment for the inner city is yet another goal of urban renewal. Hence criteria like visual/hygienic contexts, serviceability, etc. should also be maintained. At the macro level it is related to the city's infrastructure which is looked after by the local body. Perhaps the community can assist the municipality to maintain the inner city better.

Since Mysore has been one of the first few towns in India where planning was introduced in the late 18th century, the inner city is well equipped with infrastructures such as roads, electricity lines, water pipelines, storm water drainage and sewerage, etc.

Roads

As the roads were constructed many years ago to serve a much smaller population, the inner city roads are narrow. In many sections service-lanes can also be seen. The by -

lanes that serve the houses are generally of grid-iron pattern. With subdivision of plots, and with residents adding extra floors/spaces during renovation/reconstruction, the area is getting more and more congested. This is inevitable with a growing population, specially when open spaces between and within the houses get reduced. The congestion also affects lighting and ventilation.

To solve such problems, the residents have suggested broadening of the roads and their maintenance. They feel that rebuilding of dilapidated houses should be stopped and vacant plots converted into open spaces/parks that would help in providing more lung space. But where houses are on either side of the road, it is virtually impossible to change the road dimensions or the physical layout.

Suggestions of this kind are difficult to act upon, unless owners of dilapidated buildings agree to forego their land in the heart of the city, for a substitute outside, which would be at the cost of ethnicity. But unless the developmental agency compensates the owners generously, no owner will agree to part with his land which is centrally located and where land values are rising. With the existing rates of payment for land acquisition, which is much below the market prices, such suggestions cannot be put to practice. It is, therefore, recommended that the developmental agency should increase the rates of compensation for land acquisition.

Another solution would be to check the rising centrality by framing very strict rules prohibiting or restricting landuse changes. Usually land values rise because of functional changes. The change is generally from residential to commercial, where land can be put to more profitable use. This increases the land value. If such changes are prevented, the pull factor of the inner city would be less, because it will provide less jobs or activities to attract people. By this method road congestion can be minimised.

Introducing such checks and balances would be the task of the city's Development Authority that is responsible for landuse planning. What is actually needed is highly controlled land development that will not be guided by the market forces. Such strict planning will prevent the area from getting congested, thereby eliminating the necessity to widen roads. Under the circumstances, maintenance will also become easy. Otherwise, with the existing market forces at work, the magnitude of the problem demands sharing of responsibilities with the Municipal Corporation, which at present is responsible for road maintenance. The responsibilities can be shared by the community itself (details of which will be given in the latter part of this chapter), for it is the residents who will benefit from such improvements. It will also be easy for them to plan and monitor any development activities, for they understand their area better than others.

Electricity

The K.E.B. has divided the entire city into several divisions for efficient supply and management of electricity. The power supplied is categorised into domestic lighting, domestic heating and lighting, commercial heating and lighting, industrial pumpsets and water works, small power industries and large industrial power. According to the subsidivisions Mandi mohalla and K.R. mohalla fall into two different divisions. At present there seems to be no problem with the power which is being supplied. Still, the K.E.B. can be helped by the "community" who use the energy, by facilitating collection of tariffs and monitoring repairs that would help themselves.

Water Supply

As mentioned earlier, the city got its first modern water works in 1896. At that time the population was only 68,000. The per capita water supply was calculated at 31.82 litres per day. In 1910 the pumping station was electrified. Subsequently the water works has been renovated, improved and expanded three times. Yet, by 1981 the demand for water was 78 million litres and the supply was only 48 million litres. With a deficit of 30 million litres, the municipality took recourse to staggering the supply. The storage facility was also insufficient. Though the capacity of the water works has once again been increased in the recent past, the primary data revealed that

24 hours of water supply is not being given to the residents. The average hours of water supply also indicate that the duration of water supply is inversely related to renovation and reconstruction because of the change in the levels of the new pipelines laid. Such problems should be taken care of at the time of house construction.

For purpose of billing, the entire city is divided into 9 divisions. These divisions also control and monitor the supply of water. A bi-monthly bill is sent after reading the individual meters. The cash collection is also done in the respective divisions by the Karnataka Urban Water Supply and Drainage Board Division. Perhaps these services can be taken over by the "community" for more efficient delivery of services. A good example here is that of a senior citizen's club at Vashi, new Bombay, that collects water tariffs from residents at 1 percent commission from CIDCO, which would otherwise have spent 2.5 percent of their collections on human resources. By doing so both the agencies stand to gain, as the club views the commission as a source of income for it, and CIDCO saves 1.5 percent of the tariffs collected. At present 50 percent of the cost of water supply is met from water tariffs. The community can also help in detecting on-line leakages and preventing construction problems relating to changes in the levels of the pipelines.

Sewerage

The lines were laid in Mysore as far back as 1886 in Fort, Mandi, Devaraj and K.R. mohallas. With the expansion of the city the underground system has been extended to the new areas also. But the expansion could not match the city-spread. Hence, in 1955 a comprehensive plan was drawn to improve the capacity of the older areas and to lay new ones. The expenditure was jointly borne by the government and the municipality. There is a need to once again increase the capacity of the sewerage because of rapid population growth. Maintenance of the sewerage system is highly technical. Besides, the sewerage lines within the inner city are a part of the entire city's grid. Hence, this infrastructure of the inner city should be maintained by the local authority or the Sewerage Board. However, to increase the efficiency of the sewerage system the "community" can help through checks on misuse, set standards/rules for use and monitor maintenance in collaboration with the local government or the responsible authority.

Storm Water Drainage

This is done by open drains which are on the sides of roads in front of the houses. These drains require continuous maintenance. A common complaint by the residents is the lack of repair. Very often portions of the drains which are in front of the houses are looked after by the residents themselves. The residents also resent the odour that vitiates the atmosphere when the drains are not cleaned.

With an increase in population and more people using the drains, the capacity of the drains needs to be increased. Also, the drains need to be covered to prevent air pollution. To solve such problems community participation is essential. One way of cleaning, as well as checking misuse is by making the residents pool together some money, on a regular basis, to employ a "jamadar" to clean these gutters. Any expenditure for such a service would make the citizens alert. Such work requires day to day supervision, which can be done by area representatives of community organisations.

Social Infrastructure

The inner city is centrally located and has easy access to educational institutions and health centres or other medical facilities. It is, therefore, not necessary to introduce such infrastructure within the inner city.

Perhaps with 10.76 percent of its population being illiterates, a few adult education centres can be opened, especially to help the residents. Funds to establish such centres should be given by the State's department of education; but the centres can be run from within the "community", which will also become a source of employment for many.

The area can also do with a few vocational training centres, to train the less educated, that might help in improving the income levels. At present the DIC has

arranged for some training in woodcraft in Mysore. Perhaps, silk weaving and toy making (which is the culture in Mysore region) can also be taken up in Mysore city. It may help to reduce unemployment, or improving the household income.

Recreation

There are very few parks and playgrounds in the inner city. Residents have complained about the absence of libraries, parks, playgrounds and recreational centres and neighborhood clubs. Such activities can be taken care of by the community itself, for it is easier for the community to identify their own needs.

Environment

The environment poses various problems. The major problems in the inner city area are -- lack of trees, mosquitoes, foul smell from open drains, neglect of or poor garbage collection and air and noise pollution because of heavy traffic.

The analysis of the physical form of the area pointed out to a past, which was not as congested as it is today. With time, all open spaces have been built by felling trees and by subdividing larger plots. Such indiscriminate construction has reduced the greenery to such an extent that residents now feel their absence. Their suggestion to make parks and playgrounds out of the land occupied by dilapidated buildings instead of rebuilding them, can be honored by the local body with the help of their

horticulture department. However, this is a difficult task. At the same time any open space can be planted with trees. Here the community will also have to play a role. There is a custom in many cities in Karnataka, especially Bangalore, to distribute two fruit trees to every household by the development authority, free of cost, for the newly developed areas, to make the area green. These trees are looked after by the residents themselves. This facility can also be extended to the inner city. But care has to be taken to plant trees that would require less space to grow, as open space is limited in this area. A common practice in Karnataka is to plant coconut palms (for they grow well in this region) that occupy less space and are also remunerative, as the fruits can be used.

All open spaces, which are lying vacant, should be used for either beautifying the inner city or building parks for the children to play. At present the children play on the streets, which is not very safe. It also creates hindrances for passers by. Besides, such practices may lead to accidents. Any inner city certainly has limitations in re-making the greenery, as the area is almost totally built. Perhaps Mysore has better scope as there are less number of multistoreyed buildings.

The open drains should be cleaned, repaired and widened and covered to prevent foul smell and mosquito breeding. But very often storm water drains are easier to maintain

when left open. Such open drains should be cleaned regularly to prevent them from vitiating the environment (see previous section).

Air and noise pollution can be controlled by pedestrainising the by-lanes close to housing. Very often weak buildings are spoiled because of the vibrations from heavy traffic. A traffic survey done by the study team shows motor vehicles passing by important intersections every 10 minutes.

Garbage collection is a sore point with practically all municipalities in India. This is because of three reasons - (1) indiscipline among residents who very often throw garbage just outside their houses instead of the vats located at street corners, (2) inadequacy of vats vis-a-vis the garbage generated and (3) inefficiency in garbage collection. There seems to be a perennial controversy regarding conservancy and street cleaning. Two possible suggestions would be to either employ a "jamadar" for door to door collection (in which case the "jamadar" needs to be paid) or disposing off garbage in bags (which would again mean a small expenditure) to prevent the garbage from littering the streets. Some kind of a public - private partnership should be worked out with the help of community organisations, which would be beneficial for the municipality as well as the citizens. In this case unless the community is alert and responsive, nothing can be done.

A very special problem of the inner city of Mysore is the raising of cows by households right in front of the houses, on the streets, or in the open spaces between houses (if there are any). Since spaces between houses are not adequate and also since the by-lanes are narrow, this practice leads to social problems when neighbours resent breeding of animals close to their homes. As rearing of animals is a rural feature, this practice should be banned. Besides, availability of milk in big cities is no longer a problem. Hence such practices should not be encouraged, as it affects the environment both in terms of air pollution and cleanliness of roads and open spaces adjacent to houses. It creates problems for commuters as well. This would solve both environmental and social problems.

The Role of the Local Body or other Management Agencies

So far, the planning practice for all the cities in India has been to make the Development Authority, set up by the government, responsible for developing new areas and often building the housing and then hand over the developed area to the municipal corporation for maintenance. The local body raises the resources for maintaining the city by collecting the taxes and the fees. It is also financially helped by the state government. The local body organises itself by forming various departments to monitor different types of maintenance. Very often minor developments are also carried out by the local authority in partnership with the government.

Since municipalities are elected bodies, it would be easier for them to help in the formation of community organisations. It is here that a link can be established between the citizens and the local body. The municipal corporation can help to select leaders from within the community, who will ultimately guide the fellow residents. Once a community association is formed, organising the members to look after different aspects of maintenance becomes easier.

There are certain repairs where other agencies also help. For example, road maintenance is often done by the state's Public Works Department. Again, the electricity lines and the water pipelines are maintained by the State Boards. Similarly, building of houses is also facilitated by the Housing Boards. Here the suggestion would be to disturb the existing agencies to the minimum. An easy solution would be to form sub-committees within the community organisation that would interact with the existing management system, instead of reorganising the various departments and agencies. Experience has shown that reorganisation, apart from complicating the management procedure also creates administrative problems. Hence the easiest solution would be to form separate cells within all the agencies, or at least a desk, to collaborate with the residents cooperatives, be it for house repairs, maintenance of infrastructure or community activities. This would mean that sections of the community organisation would be

attached to different government departments, or those of the local body or other management agencies. To organise such cooperatives funds will have to be sought from diverse sources like the government, the local government, the business firms, loans from banks and other financial agencies, and ultimately from the community itself. It is actually a question of accommodating minor changes in the already existing management agencies, rather than creating new departments which will pose problems for the State's budget. Hence minor adjustments should be preferred instead of major changes.

CONCLUSIONS :

The determinants of heritage are normally rooted in the traditional urban centres. But complimentary to references of urban heritage there also exists valuable housing stock with qualitative and quantitative appeal. For years these houses have withstood the onslaught of the external forces, carrying forward the traditional cultural ambience into the current times. But sadly enough external forces of commerce, consumerism and the political economy have now internalised themselves to transform the traditional structure of such areas. Thus the danger of loosing such built up assets and repositories of tradition are more evident now than before. Planning for such urban centres figure neither in the city development concepts (conforming to western standards) nor in the heritage conservation projects that lean heavily towards historic monumentality,

even though the origin of the grandeuse town plans had actually been in upgrading such small neighbourhoods and traditional houses because of environmental health problems. The argument in vogue is that such traditions cannot change as fast as the unbuilt commerce or consumerism. Hence the need of the hour is to include the historic town centres for special consideration in the city's development plan and think of neighbourhood upgradation and civic architecture as criteria for cultural continuation. The factors that need to be considered for such a purpose are:

Accepted Transformation :

Change is the essence of continuity. For a heritage not to disappear, change should occur in a manner where the essence of tradition is maintained within transformed contexts. To this end, issues and elements are observed as part of a building, subsequently interpreted and presented as a kit-of-parts, to be employed in any desired combination to get a new building incorporating the essence of the old buildings. The final new design may be based as much on heritage as on upgradation, workmanship, economy and speed of construction. Design guidelines are limited to prominent issues, ensuring adequate freedom to the owner to incorporate his vision.

Desirable Environment :

Urban rejuvenation limited to spot specific issues fails to achieve any considerable change in the larger context. Renovating one house cannot enhance the qualities

of the neighbourhood. Whereas, rejuverating the neighbourhood can enhance the qualities of all the houses. Also, neighbourhood actions highlight space related issues which are complimentary to built form. Accordingly, streets liked by people are analysed for their residential qualities and guidelines framed for desirable streets and space. Implementation of these measures can be done more effectively by local authorities and citizen's forum.

Modalities of Change :

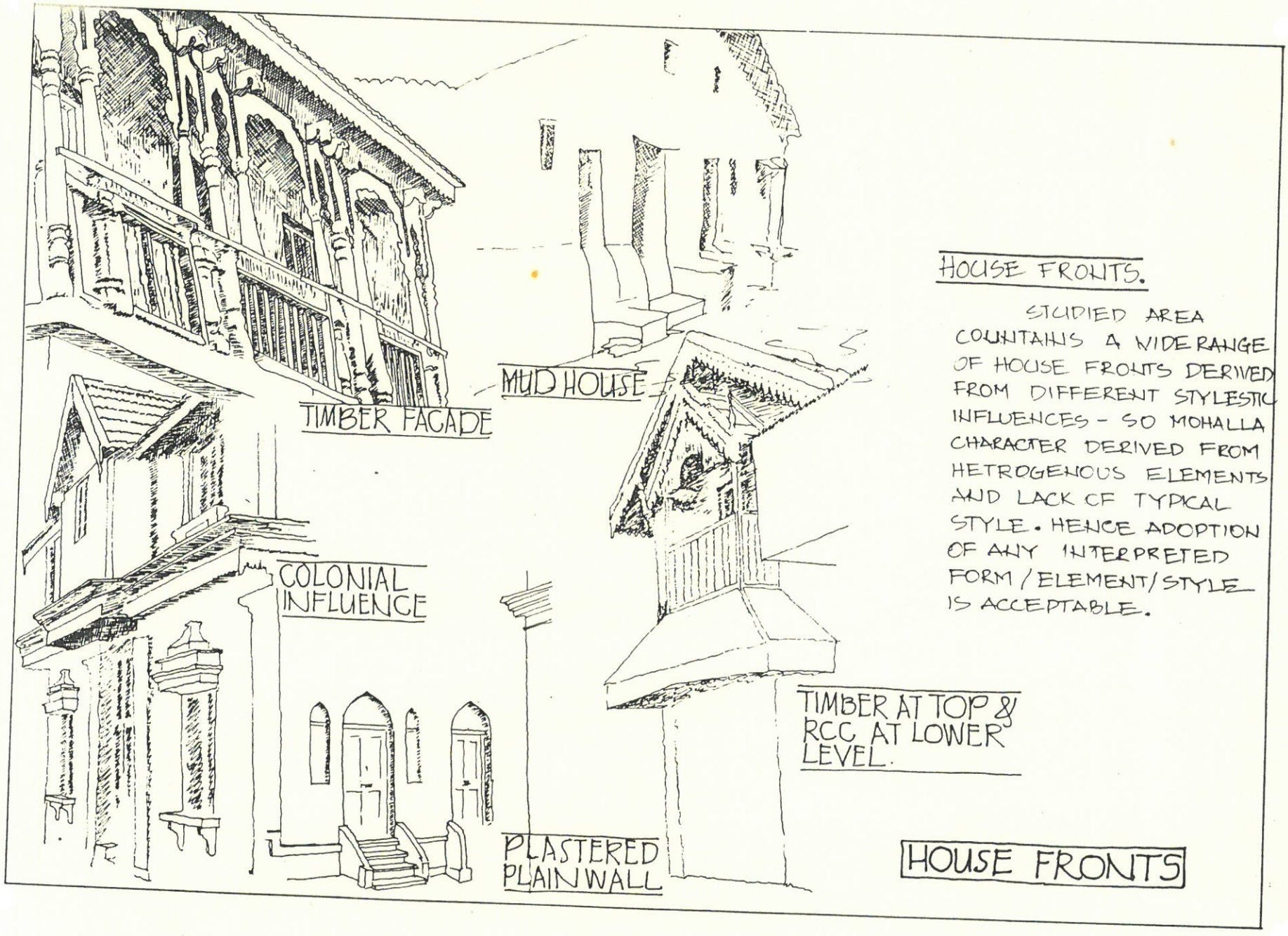
City growth can neither be rigidly controlled nor accurately predicted. It can only be monitored, such that development does not overkill the city. Strategies to this end should not be only policy oriented, as they normally get spotted down by the inertia of our system. Change is best achieved by participatory approach and gradual evolution, and not by top down management.

The strength of such projects lie in the successful retention of the historic ambience amidst apparent heterogenecty. The senior citizens felt that the Mohallas have changed considerably with many new buildings or repairs caused by the replacement of original occupants by subsequent buyers with an impulse to redesign the facade. As such, the once existing uninterrupted continuity of design elements has given way to rhythmic repetition of selected elements. Yet verandahs, pillars, framed windows, floor level projections and sloping roofs appear to have

reached a level of maturity that promotes extensive application. The message is clear -- people still favour certain traditional elements even while adopting modern forms. This collective inclination towards design elements can be the strategy through which sympathetic rejuvenation can still be achieved.

Comprehensive Area Development :

Since any kind of renewal makes an assessment of the existing conditions and the past trends a necessity before taking up any development activity, the work has to be done in great detail at the micro-level. The best would be to select small homogeneous areas within the inner city for which comprehensive area development should be done, so that there should be one community organisation for one social area. The size of the project area should be large enough for a sustainable programme of renewal. At the same time the area selected must not be too large as to obstruct efficient management.



HOUSE FRONTS.

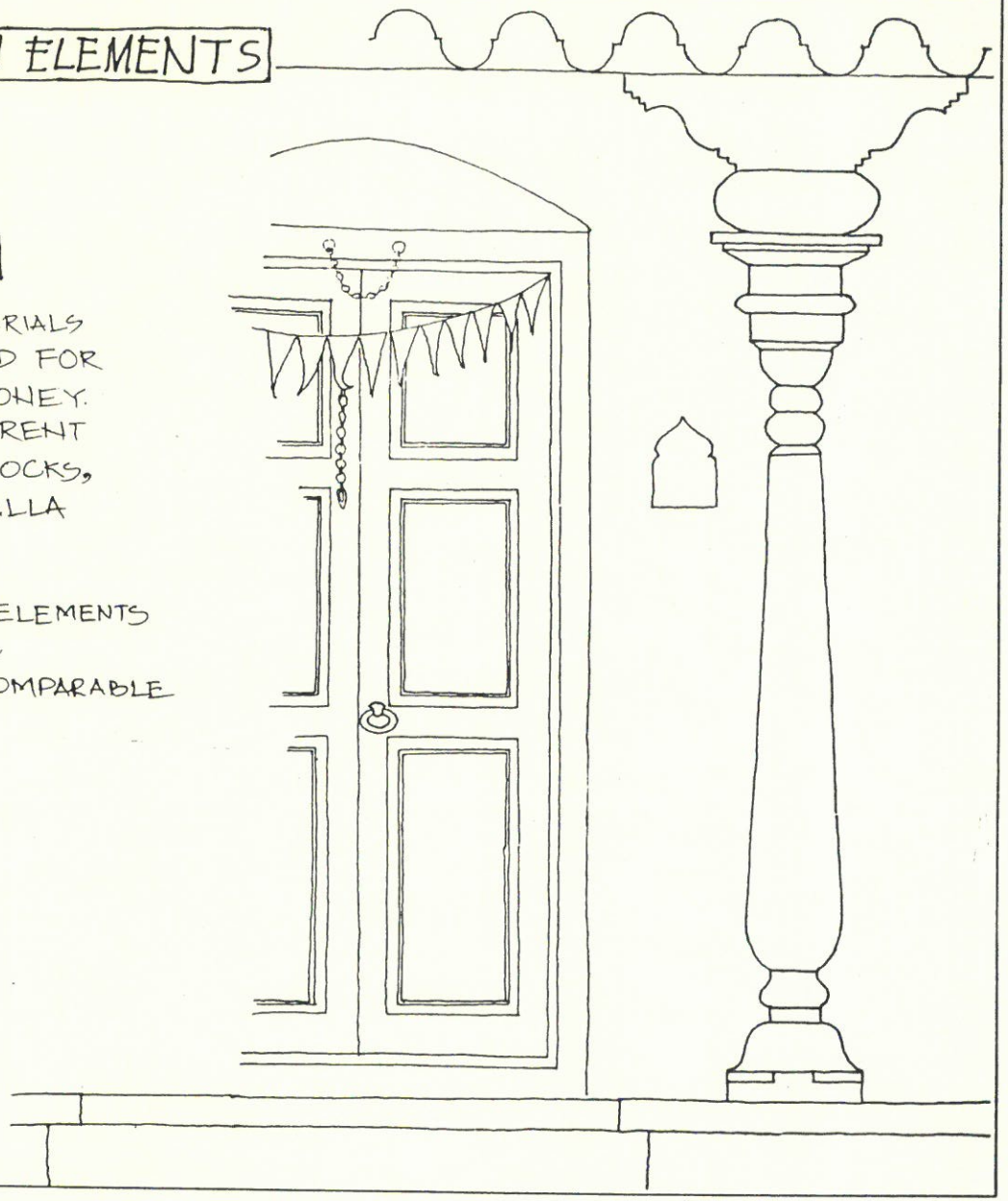
STUDIED AREA COUNTAINS A WIDE RANGE OF HOUSE FRONTS DERIVED FROM DIFFERENT STYLESTIC INFLUENCES - SO MOHALLA CHARACTER DERIVED FROM HETROGENOUS ELEMENTS AND LACK OF TYPICAL STYLE. HENCE ADOPTION OF ANY INTERPRETED FORM / ELEMENT / STYLE IS ACCEPTABLE.

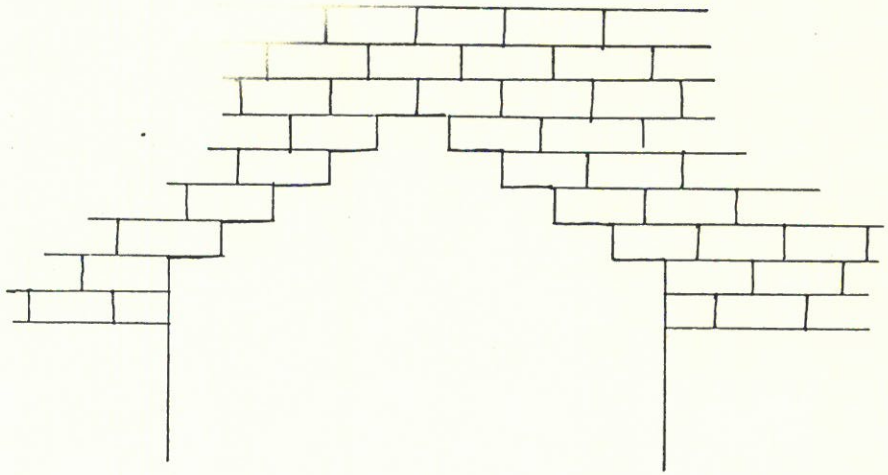
DESIGN ELEMENTS

MATERIAL SPECIFICATIONS

TRADITIONALLY FEW MATERIALS (TIMBER, BRICKS, TILES) WERE USED FOR ALL PURPOSES ACHIVING HORMONEY. NOW WE NEED TO USE DIFFERENT MATERIALS (STEEL, HOLLOW BLOCKS, RCC ETC) TO RETAIN THE MOHALLA ENVORNMENT NEED TO,

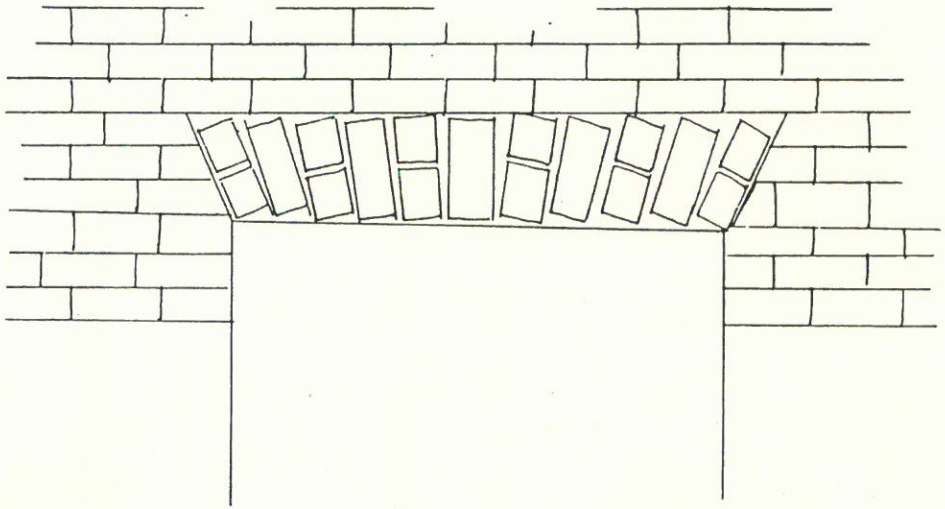
- MAINTAIN THE PROPORTIONS
- ADHERE TO PROFILES OF ELEMENTS LIKE VERANDAH, ROOF ETC
- USE THE MATERIALS WITH COMPARABLE CHARACTERISTICS.

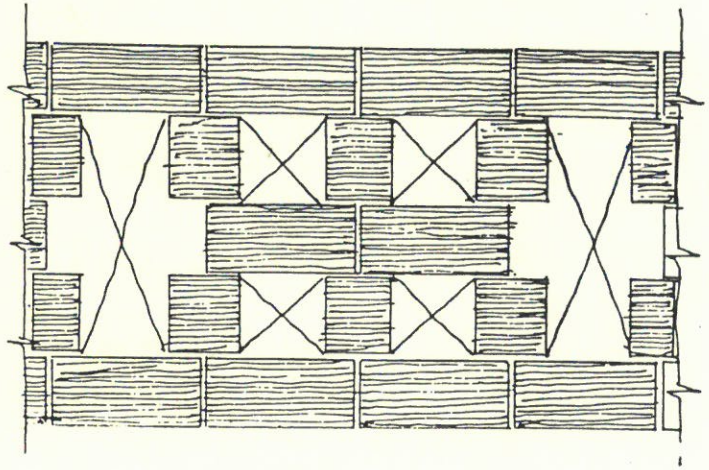


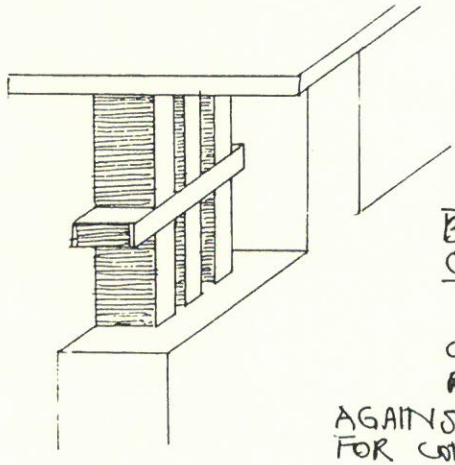


CORBELLED AND
FLAT ARCH LINTELS

TOTAL SAVING ON LINTEL COSTS.



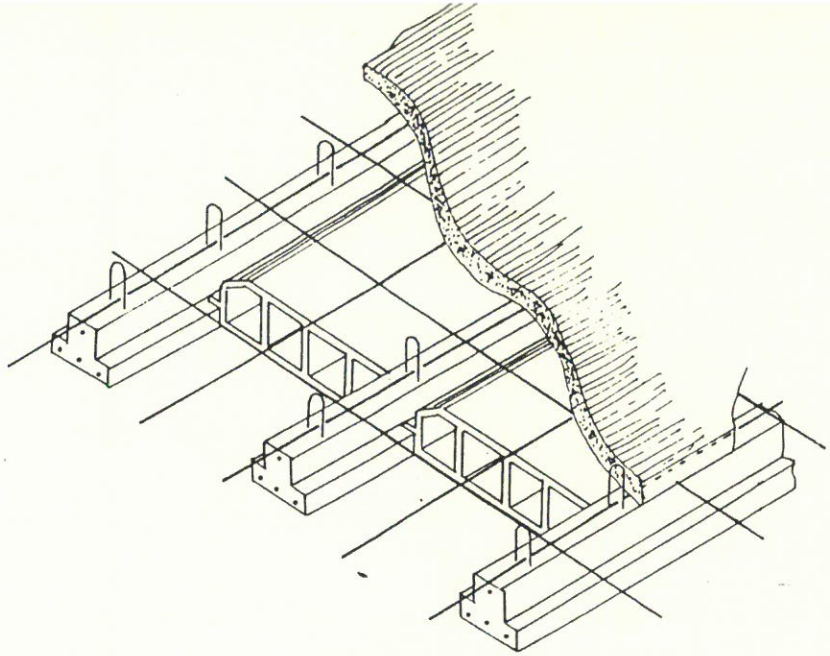




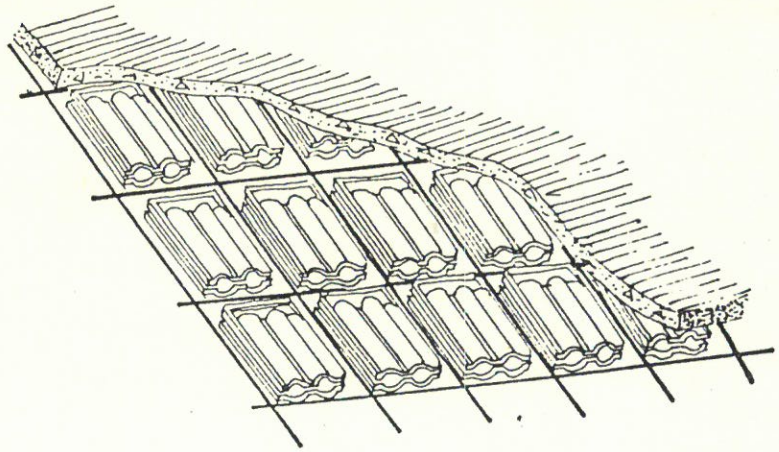
BRICK JALI FOR
OPENINGS

COSTS AROUND
Rs. 20/- SFT AS
AGAINST Rs 50/- TO 100/-
FOR CONVENTIONAL WINDOW.

IDEAS FOR
ECONOMICAL
UPGRADATION



ROOFING WITH PRECAST JOIST & HOLLOW BLOCKS – COST AROUND Rs 32/- SFT.

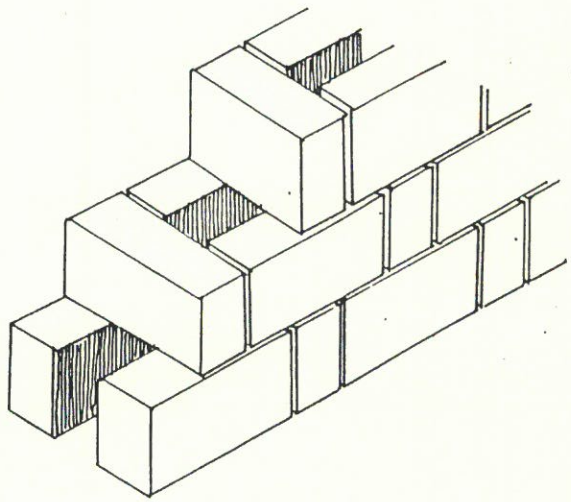


ROOFING WITH FLAT/SLOPING RCC ROOF WITH INFILL TILES

COST AROUND Rs 30/- SFT

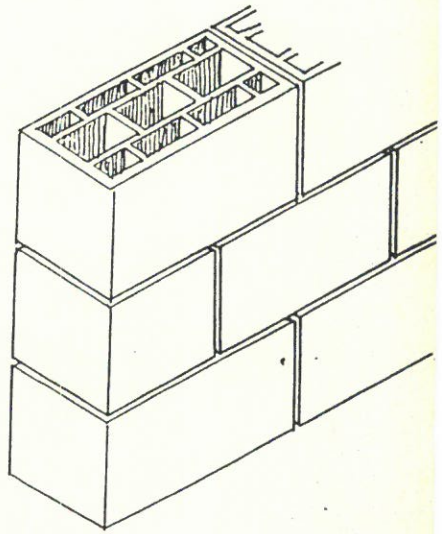
→ AGAINST CONVENTIONAL RCC 40/-SFT.

BRICK RAT TRAP BOND WALL
Rs 30/- CFT.



HOLLOW CLAY BLOCK WALL
Rs 25/- CFT.

* AGAINST NORMAL Rs 38/- CFT.
* STABILISED SOIL BLOCKS WALL Rs 28/- CFT.



IDEAS FOR ECONOMICAL UPGRADATION

UPGRADING COUNTRY TILE ROOF TO MANGALORE TILES	Rs 20,000/—
CHANGING MANGALORE TILED ROOF TO RCC ROOF	Rs 30,000/—
PLASTERING MUD WALL WITH STABILIZED SOIL	Rs 2,000/—
TAR PROTECTIVE COATING FOR TIMBER MEMBERS	Rs 1000/—
PROVIDING PLINTH PROTECTION WITH STONE & GUTTER	Rs 1500/—
LEAVING BRICK WALL EXPOSED	SAVE Rs 8/— PER SFT.
FOR LANES FLAGSTONE PAVING WITH OPEN JOINTS	—
GENERAL IMPROVEMENTS TO DAMAGED MUD FLOORING	Rs 500/—
GENERAL LAYOUT CHANGE WITH REMOVAL/ERECTION OF WALLS, DOORS etc, MATCHING THE LEVELS, SURFACES, REALIGNING POWER & WATER LINES etc	Rs 40,000/—.

THE ABOVE ARE THE AVERAGE COSTS FOR A HOUSE OF 500 SFT. GROUND FLOOR AREA WITH ASSUMED MINIMUM AND MAXIMUM INTERVENTIONS AS THE TWO EXTREMES.

IDEAS FOR ECONOMICAL UPGRADATION

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