CHANGING DYNAMICS OF INDIAN CITIES: A CASE STUDY OF KATRA NEEL, SHAHJAHANABAD

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Abstract: Post independence, adoption of mixed use economy in India resulted in springing up public and private sector undertakings. These economic developments acted as catalyst for urbanization and growth of Indian Cities. Even though the level of urbanization is low i.e. 32% of the total population compared to other developing countries but the magnitude is high i.e. 423 million. It is to be noted that, presently, growth in most of the Indian cities is significantly due to enlargement of existing towns and inconsequentially due to growth and development of new cities. India has 5 cities with population above 10 million, 4 cities with population in the range 5-10 million and 52 cities with the population in the range 1-5 million. Cities are no longer spatially extended material artifacts but more of complex systems which can be considered analogous to living organisms. Urbanization has not only changed the economic and demographic structure of cities but brought significant changes in spatial planning, morphology and social structure of Indian cities. This paper focuses on the changes in spatial structure and morphology of old settlements in cities. As a case study, Katra Neel in Shahjahanabad, Old Delhi has been studied. This paper analyses the changes that have taken place in the settlement throughout its existence, starting from the Mughal period to present times. The settlement has been studied and analyzed on various parameters like demographics, social structure, spatial planning, and morphology and architecture styles.

Keywords: Urbanization, Old Settlements, Spatial Planning, Morphology.

Introduction: In the last century, there has been a swingeing increase in world's urban population. As per UN population division, the urban population has increased from 9.2% in 1900to 55% in 2018.It is estimated that by 2050, 68% of the world's population will be living in urban areas. India, China and Nigeria together are expected to account for 35% of growth in world's urban population between 2018 and 2050. As per Lampard (1965) the concepts of urbanization can be categorized into 3 types i.e. the behavioral, the structural and the demographics. The first is concerned with the experience of individuals over time and with patterns of behavior, the second is related to the activities of the whole population and is primarily related to change in economic structure. The third comprises of demographic concept, where the process is seen primarily as one population concentration.

Cities can no longer be simply regarded as spatially extended material artifacts but as complete systems that are analogous to living organisms. Like organisms cities are separate spatial and social units made up internally of highly connected places and people .Settlements are born, they grow and mature, if further growth is necessary a new entity is formed similar to organisms. Arturo Soria Y Mata (1892) and Ebenezer Howard (1898) linked settlements to organisms. Le Corbusier, Who was prominently associated with machine age functionalism, was also inspired by biology and considered towns to be biological phenomenon. Lewis Mumford (1938) had tried to extend idea of city as an organism to interpret "amoeboid growth" and "Social Chromosomes". Mumford argued that since an organism has a definite boundary and maximum size , so should a city.

Usually, it is found that, in the beginning of formation of a city, some sets of centripetal forces originate, once the main nucleus is formed. The resultant outcomes of the centripetal forces appear in the form of concentric development, in the form of built up area. In some cases these development are fully concentric and in some these are partially concentric. For example, the presence of some religious structure acts as the nuclei and attracts population concentration and different establishments.

Present Scenario of Urbanization in India: India is the second most populous country in the world with a population of 1.324 billion. 32% i.e 423 million of the population lives in urban areas and it is expected that by 2050, 1.6 Billion people will be living in urban areas. On analysis of population growth in urban India in the last three decades, it is seen that migration has contributed a fifth of the population. Most of the population increase i.e. about 60% is due to natural population growth, whereas the remaining growth is either due to expansion of urban boundary or formation of new town. As per URDPFI, there has been significant conversion from rural to urban. In 2011, the number to census towns has increased by 6.37%. This clearly signifies that numerous settlements have attained urban characteristic and are accordingly being classified as census towns.

In India urban centers can be classified into 4 types based on the evolution i.e. (i) Cities which have evolved from ancient towns and villages (ii)Cities that have grown from medieval towns (iii) Cities that have grown from British administrative centers (iv) Cities which were planned and developed post independence. Cities falling under the first two categories retain some elements of social differentiation. The ancient cities had caste based differentiation and the medieval cities had nobility based differentiation. Even in the present scenario, with fast pacing urbanization these social differentiations are still visible in the older settlements of cities.

Introduction to Shahjahanabad (Old Delhi): Delhi is a cosmopolis which is parallel to cities of Rome, Athens, Damascus and Cairo (Jain,1994). It has evolved from Indraprastha of Mahabharat to present day New Delhi. Shahjahanabad came into existence in 1638 AD, when Emperor Shah Jahan decided to shift his capital from Agra to Delhi. Located on the west bank of river Yamuna, the city had twin focal points, i.e Red Fort and Jama Masjid. The formal geometry of the city was aligned to six architectural and planning elements which responded to the natural geophysical condition.viz. As Mumford has stated, the medieval builders had no prior love for symmetry as such, where it was simpler to follow nature's contours , they did so , rather than grading them down or evening them up.

Since its establishment Shahjahanabad was divided into separate quarter for distinct social groups. The zoning was according to occupation, Industries and commerce. In 1650, 80 percent of the population constituted of noble, princely and imperial households. Within 1500 acres of walled city 2,50,000 - 3,00,000 people were residing. About 1, 40,000 -1,50,000 people were residing in 1800 acres of nearby suburbs, comprising of lower ranking mansabdars, soldiers, servants and others(who were not part of great household of noble men) (Blake,2002).

Zoning and Streetscape: The strategic location and defensive parameters of Shahjahanabad attracted residents from older and less secure settlements to the south of the Chandni Chowk. The area falling on the north of Chandni Chowk emained as large private estates of nobility, with the exclusion of north west sector, where a spatial pattern was similar to south of Chandni Chowk. The city fabric constituted of one main ceremonial access (Chandni Chowk) and two other wide streets viz. Faiz Bazaar and Khas Bazaar. These three grid variations were used as processional ways by the ruler and his entourage on different occasions. The other streets radiated from Fort, Jama Masjid and city Gates linking them partially in grid and partly in semi circuitous pattern. These gradually became definite streets and finally important bazaars. Distinct hierarchy of the streets was visible in the planning and layout of city. The lowest in the hierarchy are the *galis* which were paved arcaded streets lined with shops and acted as access to residential areas. These *galis* formed the local bazaar and were treated as an extension of activity spaces in addition to its function as a corridor of movement.

Urban Features: The most important features of Shahjahanabad were its *mohallas*. A **mohalla** is clearly distinguishable area of commercial & residential activity, fronting on a spine street that connects to a primary or secondary bazaar street. Most often a network of lanes & markets penetrates from Spine Street into the interior of *mohalla*. Although many are blind alleys, some leads out through gateways or small chowks. Thus the spine of *mohalla* is well defined, while perimeter is often nebulous. Within *mohallas* are found *Katras* , *Kuchas* and *Gallis*.

Katras are short commercial streets, often specializing in a particular product, enclosed by high wall & entered through a gate. Typically, structures of commercial use on ground floor with residences on upper floors. The Katras are most frequently self contained units communicating with the street outside though gates that can be closed. Neighboring, *galis*, *katras* and *kuchas* with the built fabric would form a mohalla (neighborhood). There were separate wings called Katra for each class of tradesman & guilds of craftsmen. According to survey there are 999 Katras in the walled city only. Next in hierarchy is a lane of narrower width lateral to a street leading to a kucha , which is formed by an enclosure of buildings used only for residential use. Thus these enclosures created a graded transition from public, semi public to private uses organizing the relation of space & building. Vehicular traffic was not allowed in either Katra or Kucha.

Features and History of Katra: There were two main bazaar thoroughfares –The Chandni Chowk, from Lahori Gate to fatehpuri mosque, & the Faiz bazaar. With advent of time other specialized markets, urban gardens., canals , sarais, havelis, residential *mohallas , Kuchas, katras* for different craft communities came up. The word *Kucha* (small Public Street & the neighborhood around it) comes from the Persian. The word *Mohalla* (neighborhood) has been derived from the Arabic word *"Muhalla"*.

Thus it indicates the pattern of urban tissue from Islamic regions was introduced in Delhi. While the word gali & the concept of Katra is very much Hindu & similar spatial organization is seen in Ahmedabad, & Jaipur, reinforcing the fact that the urban tissue of Shahjahanabad is a blended fabric of Islamic pattern & indigenous patterns of Northwest India. Katra Neel for instance, has long specialized in cloths. Though the traditional specializations have not always survived the test of time, names suggest a bewildering variety of products: Ghee ka Katra (clarified butter), Katra Bariyan (lentil and spice condiments called baris), Katra Mashru (a special silk fabric). Many Katras bear the names of individuals, e.g Katra Khushhal Rai, Katra Dina Nath. Sometimes this is because the Katra was established by that person and at other times because it has come to be established in an erstwhile haveli.

Introduction to Study Area-Katra Neel: During Mughal period, area falling under katra neel was inhabited by the elite class, surrounding it was the sahibabad bagh on two sides. In 1739 this area was sparsely populated with the major structures being the haveli of Ghasi Ram & Jahanara Sarai.Jahanara sarai was later demolished & town hall was constructed on its site in the year 1860. Post revolt of 1857, the British occupied the Red Fort complex and the Mughal Empire came to an end. With the end of the Mughal rule, the community profile inside the city began to change at a faster pace. Even in 1820s when the British occupied the city and made the Emperor „a puppet in their hands‟, the middle class population had gained prominence "encroached" into the interiors of the city. Another important change is the decline in "Patron- Client" relationship that once existed between the elite community and the traders and the craftsmen. The middle class of the society wielded more power and significance. The craftsmen who lived in the outskirts of the walled city moved in and occupied the abandoned houses. The larger havelis were divided among the new settlers and now inside a Kucha we can find a heterogeneous population, with people belonging to different class, religion and professions. Originally, the middle class population which settled in Katra Neel were indigo makers & dyers, from which the name of katra was derived. (neel means indigo).

Post 1857, railways were introduced by British. The railway line cut through the Shahjahanabad, railway stations and the railway yards were built next to chandni chowk and gardens resulting to the destruction of begum ka bagh (Sahibabad bagh). The British left their stamp on the city – building some structures in a European style, modifying Mughal buildings with facades, and triggering some experimentation among the local population. Begam Samru built a mansion in a completely European style (now called Bhagirath Palace). St James‟ Church and the Residency building – part of Dara Shikoh‟s mansion with a classical façade added to it, were prominent buildings of this era.
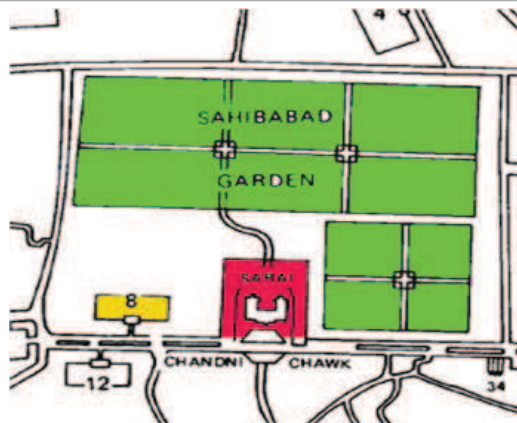
Katra Neel: Pre British Era   **Katra Neel: Post 1857**

The transfer of the capital of British India to Delhi increased the importance of newly constructed new Delhi and altered the role of Shahjahanabad. While New Delhi was the political and administrative capital, populated by the members of the administration from the Viceroy down to the Indian staff, Shahjahanabad, now designated "Old Delhi"was still an important trading centre and home to much of the population of the city. Some of the major British interventions in Katra Neel area are: 1.Jahanara serai was demolished & town hall was constructed there. 2. Style of architecture changed with distinct European decorative style building 3.The entrance gate of katra neel was constructed in 1850's .4. Sahibabad garden and other parts were taken to construct old Delhi railway station

Existing Condition: Most of the housing stock is the traditional housing (Katras, Kuchas). Commercial establishments have shown an increase in number over decades, with some noxious industries & hazardous trades existing within the densely built up area. Different areas of the walled city have dense concentration of various types of heritage resources. Role of Katras in the initial phase was purely residential but with the passage of time the characteristic is changing & commercial usage has increased. Many government initiatives have been taken for redevelopment of Chandni Chowk stretch. However little attention has been given to Katras present along the Chandni Chowk stretch.

Morphology: The pre-1857 map of Shahjahanabad when compared to the present layout of the Mughal City indicates very little change in its morphology. The traditional pattern of mohallas, kuchas and katras continues to this day. After partition, the new migrants who settled in and around the old city started establishing new shops inside the walled city and gradually commercialization crawled inside the residential Kuchas and Galis. The rooms in the ground floor of havelis were rented out to tenants who converted them into shops. The roads that were once meant for pedestrian usage were crowded with heavy traffic. The creeping in of incompatible commercialization inside the katras, increased usage and negligible maintenance further added to deterioration of the place.

As in any 'living' city, the houses were ocassionally, remodeled, renovated and rebuilt, but invariably on the same footprint. The built fabric has constantly been rejuvenated with new structures, but the original morphology of the city has remained intact and the building lines still maintain the rhythm of the historic urban landscape. The land use plan of major streets of katra neel i.e. Krishna gali , Neel Gali & Gali Ghanteshwar depicts that it is mostly under commercial or mixed use. The ground floor of most of the structure is under commercial use & some upper storeys are under residential use.

Functional Role: Both *katra* and *kucha* had a specific role and had unique identity in terms of usage & economy. *Katras* provided accessibility to residential sector. These were the economic generators and work place for local population. Moreover, these commercial stretches had unique identity based on the products sold. On the other hand *kuchas* were mainly for residential use and played an important role in social intrusion of the society.

Social Role*: Katras* & *Kuchas* had an important social role within the society. *Katras* act as the spillover place where people meet, hangout, eat & do shopping activities & in case of *kuchas* which come in hierarchy after *katras* act as a cultural hub where they share beliefs, social education and are attached to each other, creating a sense of belongingness.

Conversion of Landuse: In the latest metamorphosis the walled city has been in a state of flux where families were moving out to facilitate the gradual transition of the mixed use and residential to commercial centre. The ground floor predominantly had commercial use and the first floor were under residential use. But , since families are moving out and many of them could not afford to maintain large havelis , eventually each haveli housed 20-50 families. With so many divisions each haveli has become a katra.

Architectural Styles: A red sandstone gateway, with a plaque inscribed with a dedication to the martyrs of the Indian freedom movement, leads into Katra Neel. On entering the main street i.e. neel gali , an amalgamation of different architectural styles, building material & street forms can be seen. Layers of different architectural styles exhibit the chronology of evolution of the settlement with time .From Indo –Islamic style, to art deco and colonial style structures, giving it a diverse and rich heritage value.

Primary Study: A lot of important heritage structures exist in Katra Neel. Most of these structures are Havelis an Shivalayas. A few shivalayas (temples dedicated to Shiva) are also notified as heritage structuresby MCD. Havelis which are meant for residential use, have seen changes in land use in recent decade. The ground floor of Chunna mals haveli is under commercial use, similarly the heritage notified buildings on Bagh diwar road has faced major interventions, completely changing its architectural character & use. The haveli on gali Ghanteshwar is still being used as a residence. The study shows that havelis which were located on main roads have faced maximum interventions as a result of commercialization. Some of these interventions have completely changed the character & use of these buildings for which they were intended to be in past. Even though a lot of structures have been notified as heritage buildings, there is lack of mechanism for preserving & conserving these structures. Many of them are in ruins or in the process of dilapidation. There is also lack in public awareness regarding importance and conservation of heritage structures.
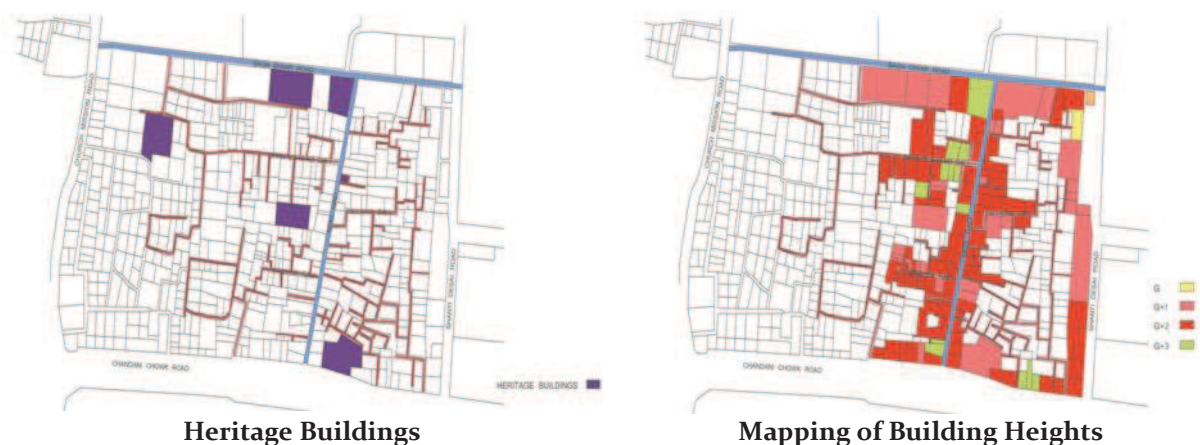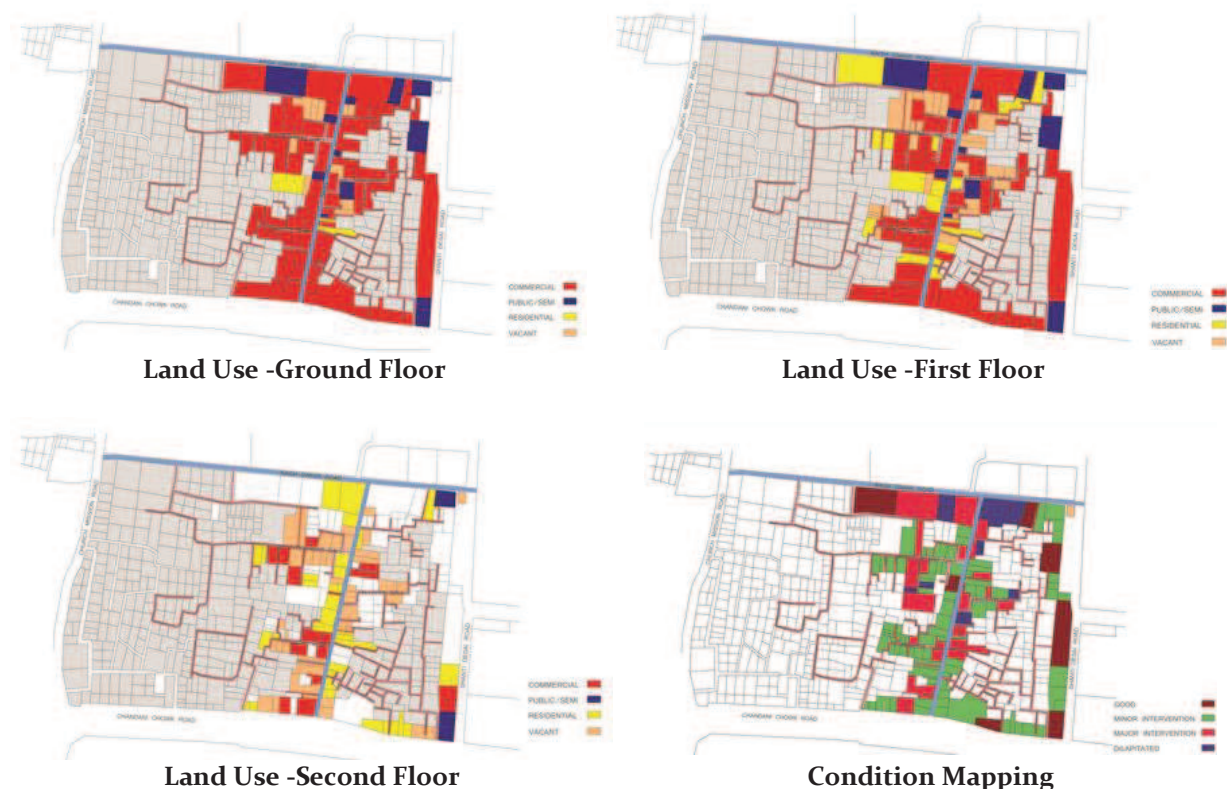

| **Heritage Buildings** | **Mapping of Building Heights** |

The study of Katra Neel shows that most of the buildings are either triple storied or double storied structures. A few four storied structures can also be seen, located mostly on the main streets. Most of constructions of upper storey has taken place post independence. In past, majority of these structures were having residences on the upper storeys & some commercial activities on the ground floor, but, presently, almost all the structures are under commercial use. In few buildings the upper storeys are being used as residences for workers & laborers or else they are lying vacant.Most of the families which were once staying in these residences have either sold their properties to businessman or just moved out to some other less dense localities, retaining the buildings only for commercial usage. In 1980's after

Shahjahanabad got the status of special area, land prices soared & commercialization increased in these areas. Increase of commercial activities & insufficient social & physical infrastructures led to decrease in residential population of this area, resulting in unused upper storey's, which is slowly decaying with passage of time. Unchecked commercialization has resulted in destruction of residential character of this area.

Land Use Mapping And Condition Mapping: The land use mapping of katra Neel gives a detail insight of the present land uses and the extent of commercialization. Most of the buildings have commercial uses on the ground floor either in the form of shops, showrooms or wholesale. The commercial uses have extended to first floor in most of the buildings with few exceptions, where first floors are being used as residences. Second floor of most of the buildings are lying vacant, or are being used as residences for the worker class of the society. The special area status of Shahjahanabad in MPD-2001, played a major role in change of land use. There was an abrupt increase in commercialization & change of building use from residential to commercial. The buildings on the internal streets, I.e. distributor streets from main street, were earlier meant for residences only. There were no provisions of commercial activity and had a purely residential character. But in present times, it can be seen that these streets have also been commercialized, and the residential character of these streets has disappeared loosing it original essence.

Land Use -Ground Floor

Land Use -First Floor

Land Use -Second Floor

Condition Mapping

Only few structures can be said to be in good condition, & doesn't needs any intervention. These structures are mostly present on Shanti Desai road & Bagh Diwar road. These structures are either used for commercial purpose or have residential uses, because of which they have been maintained. Also, since these buildings are located on the major roads, they face less congestion & dilapidation because of negligence. Most of the structures need minor interventions, like façade treatment, time to time maintenance and norms, to bring uniformity in the character of Katra Neel. There are structures which need major interventions like retrofitting & restoration, to bring them back to their original condition. These structures have been lying vacant & neglected for some decades leading to their dilapidation & deterioration. These buildings portraying rich architectural character and having heritage importance

need to be conserved and preserved. These structures represent the unparalleled architectural transformations in Shahjahanabad with passage of with time. Also, few structures were found to be in ruins due to negligence and lack of maintenance.

Conclusion: The study area which had its own unique and distinct character has slowly started to degenerate and the original essence of the settlement has lost due to fast pacing urbanization. Katras in Shahjahanabad, which were originally mixed use residential streets, have now converted to commercial streets, thus bringing a change in its social and functional role. Moreover, the commercialization has brought changes in morphology, land use and architecture of these settlements. Some of the issues that were diagnosed were encroachments by shop owners and vendors, vehicles and carts inside the narrow streets, ignorant renovation of structures which had destroyed the architecture style of these buildings and vacant, unused and under used buildings .The study evidently shows behavioral, structural and demographics change in the settlement.

References:

1. Blake Stephane P, Shahjahanabad:The sovereign city in Mughal India, 1639-1739(1991)
2. Fernandes Boniface G, Fixing flawed urban Planning-The case of Delhi, Copal Publishing(2015)
3. Jain A.K., Dillinama –The cities of Delhi, Synergy Books India,(2013)
4. Lampard E E , Historical aspects of urbanization(1965)
5. Yamane Shu, Fiuno shllj and Ikejiri Takashi: "Space Formation and Transformation of the   Urban Tissue of Old Delhi, India" , Journal of Asian architecture & Building Engineering, November 2008
6. Rajeev Sharat Sunder "A study on community profile of kucha pati ram, Shahjahanabad" (2010)
7. Dutta Bikram Kumar, Bandyopadhyay Sanhita, "Regeneration of Heritage Urban Space of Delhi, Shahjahanabad, the Walled City", *REAL CORP(2012)*
8. Medieval and colonial capital cities of Delhi,Nomination to UNESCO's List of World Heritage Cities, Draft Dossier, (August 2012)
9. Garella Veena, "Safeguarding Shahjahanabad Heritage buildings in a living city", Paper Presented at the Forum UNESCO University and Heritage 10th International Seminar,"Cultural Landscapes in the 21st Century" NewcastleuponTyne,11-16,April 2005
10. Chenoy Shama Mitra, "Urban Morphology of Shahjahanabad: A medieval Indian Experience".INTACH , Delhi Capter(2011)
11. Mohan Rakesh,Dasgupta Shubhagato, Urban Development in India in the 21st century:Policies for accelerating urban growth (2004)
12. Rebeiro E.F.N.,Urban Conservation and rehabilitation in India: The task ahead, Urban India in Crisis(1996)
13. Sharma JP,Colonial intervention And Urban transformation: A case study of Shahjahanabad / old delhi (2005)

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