

INTERNET, SOCIETY & SPACE IN INDIAN CITIES

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Researchers @ Work

Histories of the Internet in India

HISTORIES OF THE INTERNET

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The last two decades have marked the rise and spread of digital and internet technologies in the rapidly globalizing world. Especially in the first ten years of the 21st Century, we have seen governments fall, markets reorganized and civil societies mobilized through extraordinary civic action mediated by easy and affordable access to the everyday citizen/user. Despite the marked change that the digital revolution has ushered in a large section of emerging ICT landscapes, there is a presumption that these technologies were built in specific centres of the developed world and were seamlessly transplanted on to the developing world.

In research, policy and practice, while there is an emphasis to using digital and internet technologies, very little attention is paid to the polymorphous and localized growth and emergence of internet technologies. Although many disciplines, organisations and interventions in various areas deal with internet technologies, there has been very little work in documenting the polymorphous growth of internet technologies and their relationship with society in India. The existing narratives of the internet are often riddled with absences or only focus on the mainstream interests of major stakeholders, like the state and the corporate. We find it imperative to excavate the three-decade histories of the internet to understand the contemporary concerns and questions in the field.

The Centre for Internet and Society's Researchers @ Work (CIS-RAW) series was designed to build local intellectual resources for mapping and understanding the complex interactions between the rise of digital and internal technologies and the spheres of living that they influence. The pervasive and ubiquitous presence of Internet technologies in our rapidly globalising lives, is forcing us to revisit older concepts, formulate new frameworks, and pose new questions within academic and practice based research.

For the first cycle, CIS-RAW adopted “Histories of the Internet(s) in India” as its thematic focus. The impetus in formulating this theme was to complicate the picture of how Internet and digital technologies are perceived in existing discourse and practice. We wanted to first propose that the Internet is not a monolithic object that exists in the same way across geographies and social borders. It is necessary to approach the Internets, as plural, available in different forms, practices and experiences to people from different locations and sections of the society. This pluralistic approach allows us to break away from a grand-narrative of the Internet which generally thinks of the technology as built in the West and seamlessly transplanted on to the East and the South. It opens up the idea that the Internet can be an object, a process, an imagination, and that each of these nuances adds to how we can study its techno-social existence.

The second proposal was that while the digital and Internet technologies are new, they do not necessarily only produce new things. There is a need to map the histories and pre-histories of Internets. These histories cannot be merely historical accounts of infrastructure and access. They have to contextualise and locate the interactions between Internets and Society, through different historical approaches. The idea was to show the continuities and disjunctures that the Internets are a part of, by locating them within a larger technology complex. The histories need to show how the Internets have shaped and been shaped by various concepts, bodies and practices in India. And for this, we went to the histories that preceded the Internets as well as the futures that have been articulated around how these technologies will change the world that we shall one day live in.

To produce context specific, locally relevant and accessible histories of the Internets was the third proposal. We wanted to emphasise that while global referents can be useful in shaping a trans-national, hyperterritorial discourse around the Internet and its practices, there is a need to deepen the research through located knowledges and frameworks. We wanted to suggest that the research that emerges out of this inquiry is indeed very specific to the Indian context. It cannot simply be used as

a framework to understand another geo-political position, because it draws from specific actors' ideas that have influenced and created the complex interplay between internet technologies and socio-cultural-political-economic practices in the country. Simultaneously, we hope that the different modes of inquiry, methods by which new dialogues were generated between different disciplines, and the methods by which frameworks of inquiry were created, would be useful tools for any researcher, on any site, interested in questions of Internet and Society.

The 9 monographs in this series are dramatically different in writing styles, in subjects of study, and in length. Each one pushes the argument from a particular discipline position and concentrates on specific objects and spaces for the inquiry. And yet, it is possible to cluster them around three specific sub-themes which make visible the over-laps and the synergies between them.

I. PRE-HISTORIES OF THE INTERNETS IN INDIA

One of the attempts of the CIS-RAW research was to break away from the utopian public discourse of the Internets as a-historical and completely dis-attached from existing technology ecologies in the country. It was imperative for us to produce frameworks that help us contextualize the contemporary internet policy, discourse and practice within larger geo-political and socio-historical flows and continuities in Modern India. The first cluster of research charts three different pre-histories of the Internets while focusing on specific disciplines and practices from a technology-society point of view.

Asha Achuthan initiates a historical research inquiry to understand the ways in which gendered bodies are shaped by the Internet imaginaries in contemporary India. Tracing the history from nationalist debates between Gandhi and Tagore to the neo-liberal perspective based knowledges produced by feminists like Martha Nussbaum, it offers a unique entry point into cybercultures studies through a Feminist epistemology of Science and Technology. The monograph establishes that

there is a certain pre-history to the Internet that needs to be unpacked in order to understand the digital interventions on the body in a range of fields from social sciences theory to medical health practices to technology and science policy in the country.

This finds many parallels and linkages with Ashish Rajadhyaksha's work that is informed by the 'last mile' which has emerged as a central area of discussion in the domains of technology and governance since the 1940s in India. Beginning by mapping technology onto developmentalist-democratic priorities which propelled communication technologies since at least the invention of radio in India, the project conceives of the 'last mile' as a mode of techno-democracy, where connectivity has been directly translated into democratic citizenship. Giving a comprehensive overview of the different histories of technology mediated governance structures in the country, the monograph explores how the new state-citizen-market relationships gets radically restructured with the emergence of Internet technologies in India. The analysis looks at contemporary debates on policy, pedagogy and practice by offering a new prism to explore instances like the Unique Identity Project without falling into older partisan positions that these projects often inspire.

The third research inquiry by Aparna Balachandran and Rochelle Pinto is a material history of the internet archives, that looks at the role of the archivist and the changing relationship between the state and private archives in order to look at the politics of subversion, preservation and value of archiving. Looking at the dual sites of Tamil Nadu and Goa state archives, along with the larger public and State archives in the country, the project looks at the materiality of archiving, the ambitions and aspirations of an archive, and why it is necessary to preserve archives, not as historical artefacts but as living interactive spaces of memory and remembrance. The findings have direct implications on various government and market impulses to digitise archives and show a clear link between opening up archives and other knowledge sources for breathing life into local and alternative histories.

II. PROCESSES OF THE INTERNETS IN INDIA

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One of the biggest concerns about internet studies in India and other similar developed contexts is the object oriented approach that looks largely at specific usages, access, infrastructure etc. However, it is necessary to understand that the Internet is not merely a tool or a gadget. The growth of Internets produces systemic changes at the level of process and thought. The technologies often get appropriated for governance both by the State and the Civil Society, producing new processes and dissonances which need to be charted. The second cluster looks at certain contemporary processes that the digital and internet technologies change drastically in order to recalibrate the relationship between the State, the Market and the Citizen.

Zainab Bawa looks at the emergence of Internet technologies, the rise of e-governance initiatives and the way in which the rhetoric of 'transparency' has informed different ways by which the relationship between the state and the citizen in India have been imagined. The project produces case-studies of various e-governance models that have been variously experimented within India, to see how Internet technologies through their material presence, through different paradigms of interaction, and through the imagination in policy have brought about a significant change in the state–citizen relationship.

These debates are taken to an entirely different level by Namita Malhotra's focus on pornography, pleasure and law, where she finds a new point of entry into existing debates by looking at legal construction of pleasure through different technologies of mass consumption. She revisits the arguments around pornography, obscenity and affect in recent times. Malhotra produces a comprehensive over-view of different debates, both in the West and in India, to concentrate on how the visual aesthetics of pornography, the new circuits of pornographic consumption, the privilege of affect over regulation lead to possibilities of interaction and negotiation with heteronormative power structures in the country. The monograph demonstrates how the grey zones of pornography and the law's inability to deal with it, offer new

conceptual tools of understanding the spaces of digital interaction and identity.

Anja Kovacs examines another set of relationships as she explores the emerging field of online activism in India. She maps the actors, audiences, messages and methods privileged by online activism as it is emerging in India, to build frameworks which understand the ways in which such activism reconstitutes received notions of activism and activists in the country. As online activism, in the process of its materialisation, reworks master narratives, and refashions what are seen as 'appropriate' processes, methods and goals for political engagement, what are the new contours of the public sphere — of which the larger landscape of struggles for social justice in India, too, is part — is what emerges from the project.

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HISTORY OF THE FUTURES OF INTERNETS IN INDIA

The third cluster looks at contemporary practices of the Internet to understand the recent histories of movements, activism and cultural practices online. It offers an innovative way of understanding the physical objects and bodies that undergo dramatic transitions as digital technologies become pervasive, persuasive and ubiquitous. It draws upon historical discourse, everyday practices and cultural performances to form new ways of formulating and articulating the shapes and forms of social and cultural structures.

The monograph on Internet, Society and Space in Indian Cities, by Pratyush Shankar, is an entry into debates around making of IT Cities and public planning policies that regulate and restructure the city spaces in India with the emergence of Internet technologies. Going beyond the regular debates on the modern urban, the monograph deploys a team of students from the field of architecture and urban design to investigate how city spaces – the material as well as the experiential – are changing under the rubric of digital globalisation. Placing his inquiry in the built form, Shankar manoeuvres discourse from architecture, design, cultural studies and urban geography to look at the notions of cyber-publics, digital spaces, and

planning policy in India. The findings show that the relationship between cities and cyberspaces need to be seen as located in a dynamic set of negotiations and not as a mere infrastructure question. It dismantles the presumptions that have informed public and city planning in the country by producing alternative futures of users' interaction and mapping of the emerging city spaces.

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Nitya Vasudevan and Nithin Manayath bring to light the relationship between queer identity and technology in their work, looking at both the histories and the futures of sexuality and its relationship with internet technologies. They claim that the Internet is treated as a site of knowledge and practice, involving not just the imagined individual with his or her personal computer but also physical spaces, categories of subject formation, ways of knowing, aesthetics and modes of identification. They look at the ways in which Queerness as an identity is shaped by technology and also how the imaginations of being queer propel technology usage in new and unexpected directions. Their focus is to posit the idea of 'Queer Technologies' that challenge existing gender-sexuality debates and provide hints of what the future has in store.

Joining them in keeping a finger on the pulse of the future is Arun Menon, who enters the brave new world of gaming. His project aims to examine 'attention' as a conduit for material and non-material transactions within and outside of game worlds. This includes the internal market in the game world as well as the secondary market which operates outside of the game world. The possibilities of transaction in 'attention currency' and the intricacies of the 'attention economy / gaming economy' in the game world is explored through a series of interviews and participant observations. It produces a glossary of some of the most crucially debated terms in the field of gaming studies and also unravels the complex interplay of gamers, servers, gaming communities and how they contribute to the new gaming economies by looking at case-studies in India.

I hope that this collaborative research series initiates the first dialogues in the country around questions of Internet and Society within the academic and research communities. The monographs are all available for free downloads online and each one is accompanied by a teaching module which can help educators to introduce these questions in their classrooms. I see these monographs as the beginning rather than the end of research, and hope that the knowledge gaps identified and recommendations made by each research inquiry will lead to further collaborative endeavours in deepening our knowledge in each of the areas.

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The scholarship on cities has mainly followed two broad trajectories — one of empirical descriptive studies by urban sociologists, planners and architects and others that are more philosophical, reactionary, or at times, plain manifesto. The researchers engaged in more systematic field research in cities tend to develop a specialization and often are the ones engaged in more proactive engagement with government bodies and other ‘serious’ consultation on the future of cities. More often subject specialization has often meant a more inward looking way of scholarship traditions where fundamental theoretical questions and possible inputs from disciplines other than their own are ignored in favour of more accurate on-field understanding of the ground reality. The limited few engaging with urban theories and philosophies are also an isolated lot, having their sphere of influence limited to academic campuses and it is not surprising that both groups view each other’s work with great suspicion. The gap between the two ways of looking at cities is a serious one and needs to be bridged for a more informed and holistic understanding of our cities. This study is an attempt to combine key contemporary questions of urbanity today with the some important ground realities being faced by Indian cities in the hope that it informs the discussion on future transformations. The dialectic that this study initiates is achieved by engaging with both the spatial form and imagination of cities.

Cities are important from the point of view of their position in society as sites for representation, contestation and identification. The spatial structure of public places, overall form and building of cities is not only the place for carrying out economic and social processes but carry with them immense meanings that embody the ideas of past legacies, future aspiration and present negotiations in the society.

The idea of a city or rather its projection, is one of immense importance for any architect, planner or urban designer. The idea of a perfected Apollian city as against the one that is messy, visually unorganized and unexpected is a common binary

that is presently rather innocently deployed to justify transformation in the fast growing cities of India. There is also a huge underestimation of the abilities of urban communities to self-govern their city spaces leading to transformation of cities that almost appear to be an autonomous phenomenon. It is more worthwhile to understand the nature of this transformation of cities, to partly deconstruct the inherent coding of Indian cities that will allow us to position development strategies for future. The ability of cities to transform and adapt on their own through collective wisdom has largely been ignored in scholarships concerning study. The approach has been to always look at cities as non-living environments that would have to be shaped by experts and powers at the top. Indian cities often seem to defy this phenomenon by demonstrating qualities of grass-root adjustments and change that is governed by collective will and ingenuity of the people. The area of representation needs more attention and has often been seen only as a tool for communication or for work. The representation and imagination of cities are powerful ideas that can change the lived-in perception of cities and inform future development.

There has been, in the fields of design and architecture, a close link between the shape and imagination of the city spaces and the dominant technologies of the time. The study of space (architecture, public places and city form) can lead to very interesting insights into the expression of the society with respect to the dominant technologies. Manuel Castells argues that space is not a mere photocopy (reflection) of the society but it is an important expression (Castells, 2009). Fredric Jameson, in his identification of the condition of post-modernity demonstrates how the transition into new technologies is perhaps first and most visibly reflected in the architecture, as physical spaces get materially reconstructed, not only to house the needs and peripheries of the emerging technologies but also to embody their aesthetics in their design and built form (Jameson, 1991).

Earlier on technologies led to new understandings of the notions of the public and commons. Jurgen Habermas argues on how the emergence of print cultures and

technologies led to a structural transformation of the public sphere by creating new and novel forms of participation and political engagement for the print readers. Within cinema studies in India, Ashish Rajadhyaksha and Madhav Prasad have looked at the 'cinematic city' — how material conditions of the city transform to house the cinema technologies, and how the imagination of certain cities is affected by the cinematic representations of these spaces (Rajadhyaksha, 2009). Mike Davis' formulations of an 'Ecology of Fear' (Davis, 1999) and Sean Cubitt's idea of 'The Cinema Effect' (Cubitt, 2005) also show the integral relationship that technologies have with the imagination and materiality of urban spaces.

I wish to explore the trajectories of transformation and perception of cities in India in context with the rise of information technologies for communication and presence of an active digital space. The issue of imagination is an important one here as is the material realities of our cities. However, to begin with one needs to look at the very idea of cities in the Indian context. The fundamental idea of a city and that of a space becomes important here. This has been explored in the chapter on cities. From this perspective people and history and memory along with social economic processes play a strong role in its definition. Hence, city spaces cannot be understood as a collection of building and other material production alone but rather as an act of social production involving people over a long period of time. The appropriation and representation of cities is another important concern as it creates an imagination structure and often justifies the material transformation.

The research is primarily concerned with first creating an understanding of the cities in Indian context from the point of view of their social, technological and material productions. The ideas and representations of space therefore, become critical issues of exploration to understand the nature of imagination of space with reference to Indian cities. An empirical study of issues of spatial transformation was conducted in Bangalore and Gurgaon to find certain patterns and its correlation with the present discourses on technology and the city. The issue of perception of lived in space, cartography and myth became important issues to understand the nature

of the imagination of space and positioning of the digital space. The contradiction of a networked geography with the present spatial arrangement of cities that is the centre of a larger territory becomes important shifts to be accounted for while understanding the new geography. The patterns and possibilities in these new geographies of information technologies have been understood by studying three building programmes in the city. The question of transformation and future of cities and the position of digital space in these times then became an important one to answer. The initial research concerns with laying out a framework for examining the techno-spatial discourses in cities in general while establishing the key characteristics of its narration in the Indian context.

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Pratyush Shankar

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CHAPTER ONE: CITY, TECHNOLOGY AND CYBERSPACE

TECHNOLOGY NARRATIVES OF CITIES

The story of technological development historically, is closely linked with the genesis and development of cities. The early river valley cities of Mesopotamia, Egypt and Harrapa were very much the result of the hydrotropic systems of the society. The ability to alter the course of nature using techniques, tools and labour organization was central to the birth of cities. The reasons for the genesis of the cities have been attributed to the ability of people to communally organize themselves to carry out water irrigation projects in river valleys. The ability to collect, organize and execute these projects was central to creating surplus in agriculture and was considered the reason founding of our cities (Mumford, 1961). The technology to make canals, city walls and then the symbolic architecture of a large scale (precinct and palace) was central to the formation of the very idea of a city. Human mechanization in the form of stratification was the other important condition as well. The role of the autocratic king to control and administer people became of much importance in such circumstances. It is interesting that the genesis of cities in these river valleys was essentially a combination of technology, bureaucracy and leadership. Cities have always been a symbol of man's triumph over nature and place that represented his will to innovate. Technology was always omnipresent with every material culture but was perhaps never a stand-alone expression till the industrial revolution.

The issue of this research concerns the presence of a new technology of information communication in the society and how it can possibly impact cities in terms of their material production and other cultures. At the face of it, it appears that cities have always been at the forefront of technological innovation. Cities have always been places that allowed and fostered innovation. It is not surprising that cities have not only been sites of development of Information Technologies but at the same time have been quick to adopt the same. The idea of science and rationality as advocated

during the enlightenment becomes, central turning point in the role of technology in cities if not directly then indirectly from the series of inter-connected events.

Does the rush of Information Technology in our society and space mark a radical shift in a manner in which cities will develop or is it a part of a larger continuous process that started with the Industrial revolution and reorganization of cities?

SEEDS OF CHANGE: THE ENLIGHTENMENT AND INDUSTRIAL REVOLUTION

Cities in western world were reorganized in terms of their rhythm, experiences, spaces, times and representation as they were impacted by speed, light and power and transformed into a “machinic complex”. It has also been argued that the key period, which brought about the change perhaps, occurred before with the moral, economic and political choices made during the middle age (Mumford and Winner, 2010). The splintering of urban fabric by railway line, large storage complexes, industrial spaces and migrant workers’ quarters changed the face of many cities forever. The large mechanization of cities led to an altogether different perception of the city itself like the night life of the city, or idea of movement, ideas of community and geography (Thrift, 2004). This ‘machinic complex’ was also responsible for the highly integrated coordination of space and people leading to the explosion of mass production, distribution and consumption. This perhaps was the most important turn in the techno-city narrative in the history of cities. The cyber networks of today have very much been built on the material (ground work) that was provided by this post-industrial infrastructure of electricity, transport and services. The speed and intensity of social interaction and economic integration led to creation of a new society. For example, the idea of time keeping and human synchronization was central to the interaction in a metropolis.

The idea of space in cities and its relationship with the human body was totally transformed with the advent of the “machinic complex”. Space then was not only

seen as, arena for social, economic and economic transaction at the scale of the community but as something that had to support distribution of mass-produced goods, integration of sites of production and consumption.

SCALE

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The overall increase in extent of the city boundaries was first experienced with growth of labour force for factories in the city. Cities now had a very different scale and were not humanly perceivable. The city was much more than the walking cities of earlier times or even some smaller ones today. The industrial revolution also marked an altogether different idea of flow of material in the city. Large number of goods had to flow in to the factories and similar number had to move out. This saw the railway line cutting through the city to reach the factories that produced various goods. The scar created by the railway line left a permanent imprint on even many industrial towns in British India. See Figure 1 of railways lines in the heart of the city. The average plot size of the factories estate was often big enough to accommodate smaller towns.

The industrial revolution in Indian cities also led to creation of new kinds of housing typologies for workers like the *chawls* and tightly compact tenements in some instances. This led to a massive realignment of the city road networks and addition of new facilities like roads, drainage, parks, hospitals and schools. The city now was for the first time witnessing new programs, large distances and new ideas of urbanity in terms of public places and infrastructure. This was a major break from the walled cities of most Indian towns. The role of the state was very important here. Whereas private players were instrumental in introducing new technologies of production and at times even urban infrastructure it was the municipal corporations led by the mayor's that took the ownership of the idea to ensure equitable access and opportunities from these new technologies. The example of introduction of underground drainage system in Ahmedabad is, good illustration of the industrialist's patronage and municipal corporation's execution of new urban

technology in the early twentieth century.

The new typologies of group housing and also design of individual units that were centered on the working male emerged during this time. Apartments clustered together with access through lifts made it possible to explore the vertical dimension. In Europe, the invention of centralized heating led to a revolution of sorts in the design of houses in Europe and America. These houses had areas where one can collect and enjoy different pursuits, which were not possible otherwise. Lewis Mumford has also suggested the transformation of ideas of sensuality, and a pre-occupation with the body as a result of technology of heating in colder climates of Europe. The early part of the twentieth century in Europe is an interesting period of study as cities for the very first time were being formally organized around with high speed transportation networks. This is a major shift in the spatial restructuring of cities and one that was to have a profound impact on future development of cities. Physical movement of people and goods is the central idea here. What parallel does it have with certain cities of the globe that relies on movement of information?



The nature of change in cities can also be studied in the change in the manner of imagination of cities. A fundamental shift occurred during the 1920's and 30's in the way in which cities and its parts were imagined. The cities were imagined in terms of their systemic relationships and properties, like the network of transportation, water supply, road network or sewage. The cities from then on have been increasingly viewed as a systems diagram like the map of the London Tube. Harry Beck created the first diagrammatic map of the London Tube in 1931, a move away from the previous actual geographic ones. See fig 1.

Figure 1:
The London Tube Map of 1931

Cities were the sites of the origins of modernity that can be traced to the enlightenment era. The ideas of rationality, science and technology were central to the imagination of a world that has broken free from the shackles of history to an emancipated future. However, the trajectories and outcomes of the modern project took unique turns in different parts of the world.

The functionalist model of planning of cities took the abstract, systemic and technologized model of space organization to its extreme level while proclaiming that city is a machine to be lived in (Corbusier, 2006). The CIAM (International Congresses of Modern Architecture) was formed to propagate the functionalist idea of planning cities and had a strong European support base. Their Athens charter was built on analyzing cities under the four broad heads — residence, work, recreation and circulation. They encouraged a modern compartmentalized way of viewing a city and traditional cities were considered messy, chaotic and unsanitary. Le Corbusier's unrealized plan consisted of demolition of the northern part of the old city and erection of 18 cruciform shaped towers with open space for movement of car and gardens in between. See figure 2. Surprisingly Le Corbusier's work in India was a huge leap of faith as it combined an uncanny understanding of the Indian context in terms of climate, light and construction but executed in a universal language of modernism. (See section on Indian Cities for more details). The ideas of abstraction, geometry and space were a common concern for sculptor's, painters and also architects during that period. As far as fine arts, architecture, engineering and performance culture goes, this was a revolutionary period as ideas of modernity propelled an imagination of a future society that rests on new ideals of rationality, equity and justice. For example, Corbusier was not only trying to pursue a linear path to truth with a meta narrative but was also trying to work with the contradiction of engineering (rationality & technology) and architecture (human connection, aesthetics, etc.) by creation of a hierarchy of myth (Framtom, 1980). The belief in linear progress, absolute truths, and rational planning of an ideal social orders' under standardized conditions of

knowledge and production was the foundation of most architectural and urban level productions during the 1950's and 60's. The modernism that resulted was, as a result, 'positivistic, techno-centric, and rationalistic' at the same time as it was imposed as the work of an elite avant-garde of planners, artists, architects, critics, and other guardians of high taste(Harvey, 1992).

The industrial and then the modern cities led to extremely altered and engineered ideas of nature in cities. Nature was meant to be dominated by sheer human will and the scientific means to create a new society. This at the same time lead to a movement that imagined a utopian community in laps of nature engineered from scratch. For example, Garden City proposal by Ebenezer Howard was essentially a reaction to both the congested cities of industrial era and the traditional cities of down town. It was Utopian in its visualization of a new community and also a reaction to the mechanization of human life in industrial town of England. It is surprising how contradictory and reactionary efforts were always very much prevalent and often patronized by a section of the society during the peak of industrialization and modernism in Europe and Americas. For example, the Arts and Crafts movement led by William Morris in England sought to create a new aesthetics that acknowledged the presence of machines for the purpose of production of goods and different new materials. The movement went on to inspire the foundation of the Bauhaus School in Germany that was known for its design philosophies and education. Some important modernist thinkers and projects of architecture originated in the Bauhaus. For example, the works of architect Mies Vander Rohe and Walter Gropius. However, at the scale of the city, the modernist ideas of space planning often resulted in extremely inhuman environments. However, within this surge for modernist design there were current contradictory movements as well. For example, the Chicago school during the 1920's by their design and promotion of skyscrapers dominated the skyline of American cities but at the same time the movement of Art Deco style flourished as well. However, impementation of scientific methods and technology was central to city planning and design in post war Europe and Americas. Even there was a huge danger in this kind of approach as

it was about to alter the space of cities permanently. Master planning for the new and existing cities was a top-down, centralized and a highly bureaucratic process that led to the power to alter space of cities in the hands of just few “experts”. Urban blocks were created to essentially make our cities efficient for people to work and cars to move. The practice of clean land-use like commercial, recreational, residential and other amenities meant an extremely compartmentalized view to the life of a citizen. The land-use division and the road network became the means to divide and connect spaces. The human body, family and neighbourhoods and place of work were forgotten in favour of this geometrically clarified and machine-like view of human existence.



Figure 2: Le Corbusier's Proposed Radiant City

THE REACTION

In the west though, it was not surprising that by late 1960s there were huge opposition and disillusionment with this kind of planning of cities that saw space as a functionalist machine. There were voices being raised about the loss of public life, crime, community feeling and overall experience of modern cities. The regimentation of daily life, the inversion of public life to private realm and the loss of the city centre

were reoccurring concerns of the period (Ellin, 1999) in discourses on cities in the western world. The 1960's were marked by counter- culture that confronted the ideas of modern development strategies. Antagonistic to the oppressive qualities of scientifically grounded technical-bureaucratic rationality as purveyed through monolithic corporate, state, and other forms of institutionalized power the counter-cultures explored the realms of individualized self-realization through a distinctive 'new left' politics, through the embrace of anti-authoritarian gestures, iconoclastic habits (in music, dress, language, and life style), and the critique of everyday life (Harvey, 1992).

A whole bunch of theorists were talking about a different way of reading and the planning of cities. Much of the alternatives were a reaction to the modernist planning that kept functionality and hence, technology in the centre of visualization of cities. Jane Jacobs set the discussion going when she wrote “Life and Death of Great American Cities” where she questioned the then current zoning and transport priority planning initiative in New York. Kevin Lynch spoke about the image of a city (Lynch, 1960) from a personal experiential perspective and the issue of time in cities (Lynch, 1972). The other reactionary movements included the Townscape in America and works of Aldo Rossi and Rob Krier in Europe. All these were anti-thesis to the functionalist technologized approach towards modernist planning and gave alternate vantage points to view and conceptualize cities. “Modernist town planners, for example, do tend to look for ‘mastery’ of the metropolis as a ‘totality’ by deliberately designing a ‘closed form’, whereas postmodernists tend to view the urban process as uncontrollable and ‘chaotic’. (Schneider & Harvey, 1991.)

There were however, artistic and creative efforts by people like Paulo Soleri that absolutely defied the mainstream trends and boldly started representing their understanding of a city (in future) that will be extremely system driven and combine the various technologies of the time with an understanding of natural resources (Soleri, 1971). See figure 3. In India some pioneering thoughts were expressed with publication of a series of books on urban planning that had the systemic biological understanding as its base in the work of Sir Patrick Geddes during 1915-18, way before the massive modern town planning activities in India. He proposed “a unified web of life acknowledging the symbiotic nature of the living world based on the life-force”. (Geddes, 1947.)

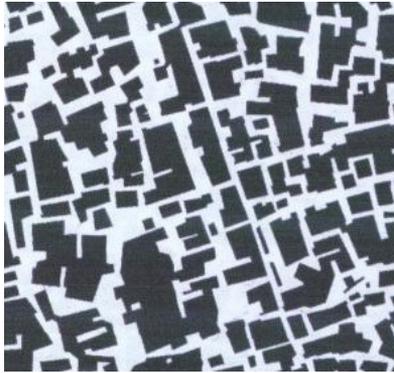
THE SELF-ORGANIZING RHYTHM OF CITIES

Despite these systemic and flow related representation of cities, there existed an altogether different and traditional rhythm of life that almost does not acknowledge the technological complexities of the overall city. Lefebvre mentions about the rituals

and rhythm of the Mediterranean town as something that has been able to absorb the changes brought about by meta-rhythms of state or technology (Lefebvre, 1992).

The space people create usually have a logic of its form and meaning from ideas of identity, culture and economy of different urban communities. Mostly spaces that people create over a long period of time almost always defy the imposed structure of the state or the corporate; and challenge to the modernist top-down planning efforts of urban development authorities or development mediated through the private sector.

Figure 3: Texture of a Slum in Ahmedabad



The Figure 3 (Slums in Ahmebadad) illustrates the fact that communities in many Indian and Asian cities mostly have self-organizing ideas of urbanity. The self-organizing way of forming space is not without any rules but rather has some extremely complex set of rules and parameters that are embodied not at one individual or institution but are tenaciously held through many agencies together. This idea of making space do not engage with the **knowledge domain as provided by the state or technocrats** but rather by historic caste based practices, new urban community practices, ingenuity of material and technologies. This communal knowledge base is independent of the state but is also extremely vulnerable against the changes in the city. These systems are often dismissed as being ordinary as they are too contemporary to be of any heritage value and not really good enough for the future. Some of the root problems of the cities today is perhaps a clash between the two seemingly contradictory systems of existence; the above

mentioned and highly evolved rhythms of existence of many urban communities versus the new mobility and ways of organization due to globalization. The life of so many communities within large cities, like the *dhobis* of Mumbai, the community living quarters in old city, the kite makers of the city or the urban poor of slums is very much about self organized rituals and rhythm irrespective of the state. Many communities seem to exist in an autonomous state of denial of the meta-rhythm of mass transport, media, information technologies and other services.

CYBER CITIES: DOES IT EXIST?

The issue of cities and its transformation due to information technologies or rather the presence of a digital space has been an important concern with scholars of cyberculture and space. The idea of cyberspace having characteristics of placelessness has been explained by an inherent ability by users of the digital network of information to lift their social relationship from their local context and their restructuring across time and space (Giddens, 1991). It is the interest in viewing the cyberspace as some has speculated as a new kind of space, heralding a new phase in the idea of a city. David Bell has used the fundamental longing for a 'heavenly city' to be found in most culture as a starting point towards imagining a new city which will transcend both material and nature as it will be an imaginary city that will stand for a new world of human enlightenment

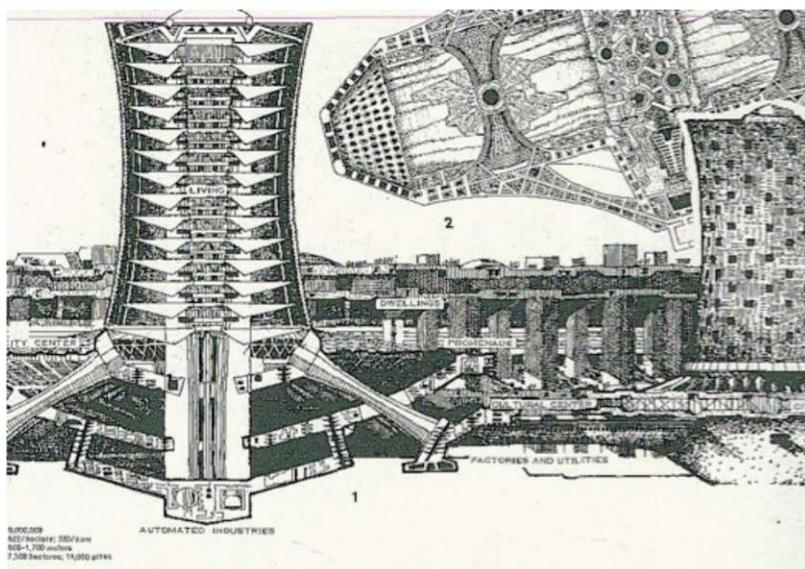


Figure 4: Soleri's Sketches of a New City

(Bell and Kennedy, 2000). The idea of “cyberspace as a consensual hallucination experienced daily by billions of legitimate operators in every nations...” by Gibson in *Nueromanser* set the tone for discourses on the nature on the cyberspace and against the backdrop of a huge disappointment and decay of the industrial city in America and Europe coupled with the domination of mass media information explosion. The anxiety associated with the transformation of space and time relationship, first during the industrial period with railways and then with automobiles and now with networks of flow has been a consistent starting point for many writers to find a way to now understand the space of cities. The idea of cinematic production as an abstract map that a modern city needs for people to making sense of the increasingly complex pattern of movement, assembly, circulation and social interaction has been posited as a way of understanding the city (Mcquire, 2000). The disjunction between the bodily and the visual experience of space has also been seen as one of the fundamental problems for architecture and urbanism. (Scott Mcquire in *Cyberculture Reader*). There have been different lines of enquiries by writers to understand the idea of space in the age of networks of information.

The idea of architecture of a city has been of importance for researchers to test the ideas of cyberspace and its relationship with the city. The issue of architecture as not only a physical shelter but an expression of immense symbolic meanings has fascinated many commemorators of cyber culture. Architecture of the city or the built form of the city is perceived as not only physical material but as something

that connects us to larger meanings of our society and culture. These meanings are often portrayed as more important than the physical itself and has supported the manifesto of the de-materialized space or architecture (Bell, 2004). Often the ideas of the de-constructivists or post-structuralist architects such as reading the text of the city in the form of messages, codes and movement being more important than the object itself has been used to create a scenario for a new kind of architecture, which is non-physical. This argument is a double loaded one; as at one level it almost predicts the dematerialization of architecture or rather an end of the idea of a city and at another level it supposes a new kind of architecture (that substitutes the loss) that is possible in cyberspace.

Aldo Rossi was amongst the seminal writers of idea of a new kind of architecture that emerges from not only looking at history but rather memory as the central device. He goes on to propose the idea of types in building that should replace the idea of an object of architecture (Rossi, Ghirardo, and Eisenman, 1984). Whereas there is a strong emphasis on the non-physical (memory) as structuring method, the recognition of an alternate spatial system is central to the idea. However, the idea of the building and its relationship with the city is central to the manifesto. The idea not just looks at the role of meanings and the process of reading of the space but goes on to suggest a reclamation and foundation of a new city.

The ideas of dematerialization of architecture or cities in cyberculture discourses coincide with the disillusionment with the modern cities of the post-war Europe and loss of the character of cities. It is not necessarily something that emerges independently with the discipline of cyber culture alone. Again the issue of the place has been central to most discourses on architecture and cities that sought to create an alternate urbanity mainly as a reaction to the modern metropolis. The universalism and placelessness was the most important criticism of the modern project in any case.

The ideas of annihilation of space and time have guided such predictions about the end of cities. Writers have proclaimed that the very essence of a city will not survive as we move to a different construct of a large urbanity that is built on networked communication and infrastructure of high-speed flows. Many architects are beginning to ask the question; where is the city in this vast endless urbanity? As many parts of the world move towards rapid urbanization (including suburbs of existing cities) and coupled with a loss of public space and focus on the private, many believe our notions of a city needs a rethought. Others also argue how there is no one city but rather a collection of many interest groups that we call as city.

The ideas that people need not now travel to work and can operate from their homes only fuelled such predictions. The figures say another story. (It seems of 4 per cent of white collar professions in IT sector in the United States choose to work from home!).

It seems that the need to agglomerate is very fundamental for the purpose of work, social life and security. Information technology alone cannot lead to demise of cities but it might certainly transform the same. Some writers have even predicted a total destruction of the ideas of city that has evolved in the last 8000 years. Such predictions are not only alarmist but also noted for not basing their prediction on either material reality of cities or any other conceptual framework. This does not help us in understanding the complexity and finer point of the issue. The scepticism of mainstream urban studies expert towards cyberculture does not help the cause either. The radical prediction about end of cities has been proven wrong through sheer empirical evidence of the last two decades. On the contrary cities continue to grow at a rapid rate and people continue ever so more to agglomerate together for work, homes and leisure! This is not to deny that information technologies are presently disturbing known geographies and history of cities. But the idea of a city development has gained more ground with the advent of globalization led by informational economy. Moreover, the context of geography, culture and social productions are always specific to a place and are absolutely intertwined with city. The relationship of the built form with its context might be changing and will have

to be considered while discussing issues of cities and cyberspace. The recognition of cyberspace has surely led to a very futuristic imagination of cities, which is often emanating from fiction. Rather than try and establish a meeting point between the imagination and material reality of today, this vision is seen as something for the future in a society that has transformed, not very differently from the vision of modernist planners for new cities based on universal values and design. Rather than imagine a brand new non-city due to presence of information technology in our lives, it might be worthwhile to first understand the nature of transformation of our cities both from a physical space and perception realm.

Works of Rossi and other commentators that have viewed city as a text has led to possibilities to view city as not only an artifact or banal space to perform function but rather a series of codes with complex meanings that are of immense societal value. This non-physical ways of viewing cities also meant that the disciplinary boundaries between urban sociologists, street activists, architects and planners become blurred. From a unified meta-view of the city of modern planners, this approach of viewing the city as a text has led to fresh imagination of city and its parts. The imagination of cities becomes as important in this case as the physical form itself. The city is not only made physically but also in minds of the people; but is a cultural production of immense importance.

LOCATING TECHNOLOGY IN INDIAN CITIES

Most cities in India went through the process of urban improvement wherein new technologies of water supply and underground sewerage were introduced in the heart of the city. This was more extensive during 1890-1910 in cities such as Mumbai, Kanpur, Kolkata and Ahmedabad that experienced rapid growth due to mills and other factories. These technologies were meant to improve the congested and often unhealthy living conditions of the incrementally developed old city parts. The introduction of these new infrastructure and technologies that were already being used in the West and were being tried out in Indian towns often led to much

public attention and debate. These discourses very well capture the ideas of the city and its future development during the early twentieth century. For example, the Ahmedabad entrepreneur and President of the Municipal Commission of Ahmedabad in 1880-90's, Ranachodlal Chhotalal, faced immense resistance from the local population when he tried to introduce under-ground sewerage lines in the walled city. This led to years of debates and apprehension amongst the local population that was unwilling to pay more tax and give up their traditional ways of managing their waste. The problem of sewerage and waste water was not so much to do with the absence of any traditional system but rather its efficiency and ill-management in a changing society. The introduction of "modern" technologies such as underground sewerage lines promised to solve these problems but in the process created an impression of traditional systems of cities as being backward and not good for the future. At one stroke the centuries of practices of managing water and waste were reduced to being inferior ones in the public eyes. It is a documented fact that the centuries old practice of collecting rainwater from roof in underground tank below the court was abandoned the moment piped water supply was introduced. Whereas introduction of these urban infrastructures led to better public health statistics, it also led to an abrupt halt to existing urban practices and a gradual erosion of confidence in them.

The next stage of urban upheaval due to new systems of public infrastructure and technology was then perhaps experienced after the independence during the nation building process. But there were ideas of architecture in cosmopolitan places like Mumbai that not only enchanted its citizens but also created an imagination of a city that touched on lives of many through Hindi Cinema.

The films made during the 1930's provided the most fascinating and enchanting experience for people in large cities in India. It heralded a new era in cultural production and the experience itself was loaded with the futuristic technological symbols of the time. The films were screened in large screens with state of the art projectors and immersive sound systems. The characters were captured in the film,

which could be transported to different parts of the country and seen again and again — a very different sense of space and time — the space that housed this urban collective experience that reflected these ideals of technology.

The cinema halls built during the 1930's and 40's in Mumbai were technological marvels of the time. Eros (1934-38), Metro (1938) and Regal (1934) were examples of



Figure 5:
Eros Cinema in Mumbai

the Indo–Deco movement in architecture and made use of reinforced concrete cement for slabs leading to large span structure for seating areas, forced air-conditioning system, mixed land-use (cinema with shops), large lounge, lighting and vertical facades designed to be viewed in the night (JT Lang, 2002).

Many cities in India during that period had new constructions based on technological innovations emanating from the modern and Art Deco movement in architecture in Europe and America respectively. In fact the Indo–Deco was marked by a complete adoption of new technologies of construction with its fundamental language reinforced concrete construction, flat slab, defined vertical circulation, cantilevered overhangs, curved profiles and metal castings.

“Not only was the building modern in appearance (New India Assurance Building, Mumbai 1935), it was modern in its reinforced concrete construction. It had an efficient layout and forced air-cooling. Horizontal projected surfaces protect the building from east and western sun, and sensible airshaft and operable window allow for potential power failure,” (JT Lang, 2002).

But the craftsman also collaborated here to create motifs that had “traditional Indian forms” (or symbols) like the *Swastik* in metal grills or a reference to the huts in the form of ‘mural’ often showing the obsession with ideas of aristocratic folklore (J Lang, Madhavi Desai, and Miki Desai, 2000). Albeit pasted and after thought the adoption of technology was about always accompanied by an attempt to make an apology to the tradition of the land in the form of motifs. Here ‘tradition’ and ‘modern technology’ were about always viewed in an opposite relationship.

THE MODERN PROJECT, TECHNOLOGY AND THE NATIONAL AGENDA

Similar buildings that used new materials and technology like cinema halls, palaces, library, town hall, and universities were built all across India by many different architects that were patronized by the private individuals or trust much before the independence of India. The Nehruvian modern building projects were rather large scale and widespread and are often perceived to be the ones that brought in new technology paradigms in architecture. The post-independence projects rather only continued the construction technological advancement made in the 1930’s but the nation building effort projected the state as the patron of these new technologies. So here is a curious case of an explosion of imagination of new technologies that are not really new from a building design perspective but are rather projected as the instrument for nation building activity.

The 1950’s and 60’s in India were marked by new city projects as part of the national building process. Modern thoughts and expertise were central to the realization of these goals. The city space underwent a very interesting transformation due to these efforts across the country that were marked by the strong role of technology of building, control by government bureaucracy and concern for social equity.

BUILDING CITIES

The idea that cities can be built and man has the ability to create living environment in short period of time using modern scientific knowledge and technology was a huge leap of faith for a country such as India just after independence. New city plans and additions to existing cities became important statements of the new found optimism about Indian nationhood. The projects that were executed in the 1950's and 60's were complete anti-thesis to the old city that existed as a reference. These new townships were not segregated on the basis of religion or caste, they had far lesser density, more open spaces and most importantly a strict idea of segregated land uses. This was a historic first for Indian urbanity. Le Corbusier's design of Chandigarh is a famous example of planned modern city but there were many more like Gandhinagar, Bhubaneswar, Jamshedpur, and Vidyadhar Nagar to name a few.

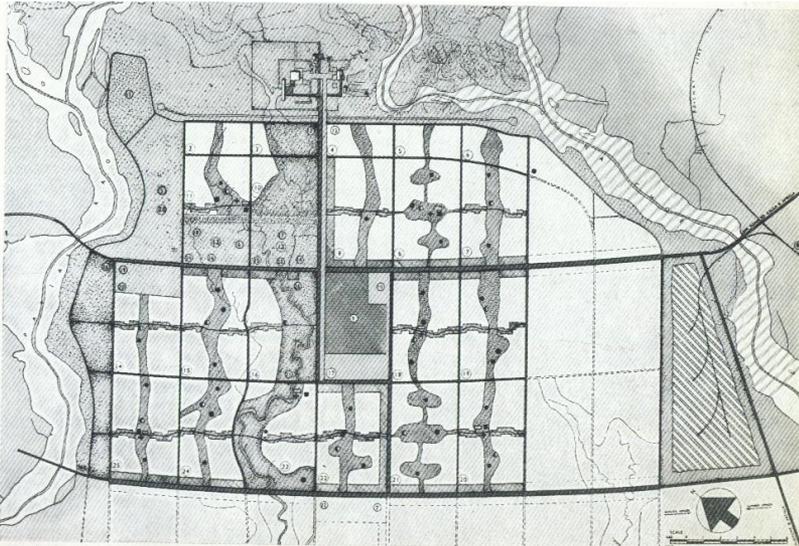


Figure 5A: The Plan of Chandigarh City by Le Corbusier

Some of the key features of these cities during this period (1950-70's) can be summarized as follows:

Context	Examples	Overall Spatial Structure	Institution	Public Place	Housing
Capital Cities	Chandigarh Gandhinagar Bhubaneswar	Sector Based Planning Based on Concept of Ideal and Healthy Living	Government as the Central Provider and in Important Places Schools, Hospitals, Colleges as Important Landmarks of the City	Secular and Open to All Parks as an Idea for Recreation Visual idea of Nature Inside the City	Segregated by Income but Accessible to All Common Facility Always Open To All
Extensions To Existing	New Delhi Bangalore Mumbai	Road and Sector based More Open with Low Density	Markets and Office Blocks as New Recreational Nodes	Secular & Open to All Parks as an Idea for Recreation	Income Segregated by Income but Accessible to All Common Facility Always Open to All

New ideas of infrastructure like piped water supply, centralized sewerage treatment plant, and industrial zones were introduced in cities for the first time. Unprecedented belief in a new city planning, which is open, free, allows for possibilities. Technology of city planning like water supply, sewerage, culverts and bridges will solve these problems. These were technology of the masses for living, for housing, for people to use and were not limited to industrial complexes or areas of recreation or markets. Technology was not distinct for masses and elites. It was the same and it dealt with water, gardens, roads and buildings. Housing and market places was the major thrust during post independence years.

The urban development paradigm in the 1960's and 70's was largely that of the provider state that attempted to build everything — markets, houses and public places. This time was marked by unprecedented focus towards new public places like new markets, gardens and small office blocks in larger cities. In cities like New Delhi the Delhi Development Authority (DDA) attempted to provide housing for all. The waiting list there took almost 15 years to clear. There were no ways by which DDA could provide for all.

More than the architecture of building it was the design of large dams, canals and bridges that captured the imagination of people, wherein technology was seen as being central to solve the problems of the country and make it reliant. The imagination of the future India was built on grounds of solving the problem of poverty, food security and external defense. New technologies of increasing productivity of cattle's, agriculture land and housing were seen as central to achieve the mammoth task of nation building. The technology trust was well established by the 1970's and 80's and institutionalized through various departments and educational institutions in India like the Public Works Department (PWD), Roads and Building Department (R&B), Indian Institute of Technology (IIT) and Center for Building Research Institute (CBRI) to name a few concerning built environment apart from many other in the field of agriculture, water and sanitation, etc. Technology in cities was seen largely as part of the larger nation building exercise and a solution to solve problems of water, sanitation and housing in cities that were growing fast. Technology was the instrument and its representation or projection was not central to the people's imagination but rather the solution that was promised by it. For example, right through the 70's and 80's technology was seen as the central issue with respect to housing problems in India. It was argued that well engineered low cost and at time pre-fabricated building parts can solve the housing shortage in India. Government made massive investment in such efforts but soon it was realized how cultural, economic and issues of water are more central to the problem of housing than technology. The use of pre-fabricated building parts was far more ideal for heavy industries, large buildings and railways.

Hindustan Prefab Limited (HPL) was incorporated in 1953. It was earlier founded as Hindustan Housing Factory Ltd., which was set up at the behest of Pandit Jawaharlal Nehru, the first Prime Minister of India for solving the housing problem created due to influx of refugees from West Pakistan. As years rolled by, the company came to be known as HPL, the change in name being necessitated by diversification of its operations.

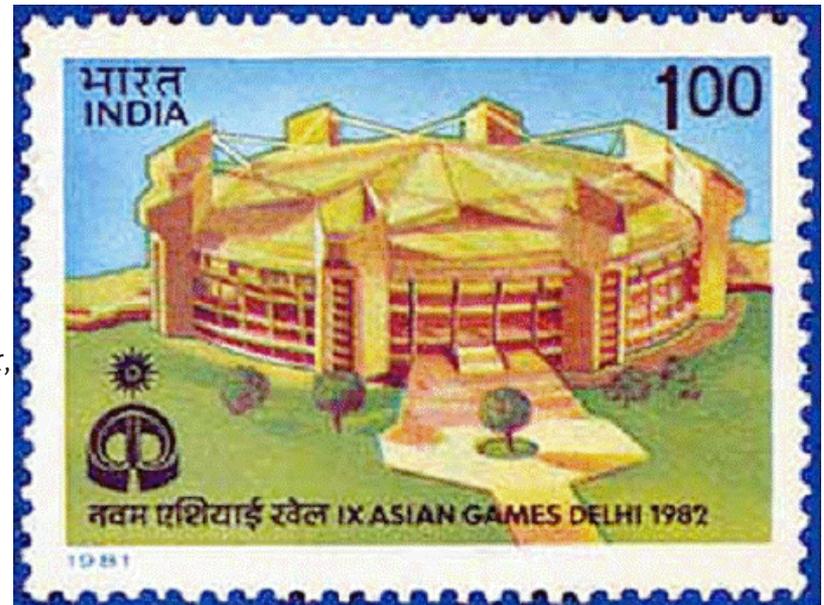
This phase was marked by a naive expectation from technologically complex processes to alter the spaces of our cities. Some of these processes had been adopted and developed in the western industrialized cities and were contextual to their economic and cultural set up.

TECHNOLOGY IN THE CIVIC SPACE

The Delhi Asian Games of 1982 changed the perception of technology and the city to a great extent, and was a turning point in the imagination of cities. The Asian Games witnessed an explosion of urban infrastructure and recreation project of massive scale for the very first time in India. Some new programs of the city like exhibition grounds, stadiums, fly-overs and housing was executed and are examples of very well crafted architecture pieces, which in true modernist tradition, revealed the material (exposed concrete, bricks, etc.) and hence, were a strong statement of the technology of the building. This revelation of building material not as a style but rather as a functionalist need was projected itself into a new imagination of city and civic pride; one that is mediated by technology of infrastructure and built form.

Figure 6: Stamp released during Asian Games 1982, showing the Talkatora Stadium in New Delhi

Many cities envied it, but there was no way they could receive the enormous money and attention that the capital city received during the 1980's. The state in this case was seen as central to the technology narrative of the city as an ideologist, executer and provider. Moreover, as it has been noticed in many other cities of the world it is usually the anonymous projects in public place that became the showpiece of the civic pride in technology and advancement (Vesely, h 2004). Private architectural development (independent or group housing) is more



conservative and practical when it comes to use and symbolism around technology.

The year 1991 was important as it marked the beginning of the process of globalization in India and led to irreversible changes in the development of cities, their management and imagination. The structural reforms carried as part of the opening of the Indian economy meant that the government had to reduce their expenditures in a massive way. The central and state government grants that were available for cities gradually began to reduce. Municipalities were encouraged to be self-sufficient in their financial matters, which in effect meant that property tax and octroi collection became the two important sources for collecting raising capital apart from loans and bonds. Now private equity was not a bad work anymore and private developers were seen as partners in the city building process. The municipalities saw themselves now more as facilitators than as providers. At the same moment the very important 73rd and 74th Constitutional Amendment Act were introduced to encourage democratic centralization and constitutional endorsement of local self-government authorities. This in effect gave powers to the local government to decide their developmental priority and means. The above series of events in the 1990's further reinforced the identity of a city as an independent entity that has to fend for itself. Whereas the purpose of decentralization was to make the small municipalities and village *panchayat* much more stronger, it also led to the cities (larger settlements) undertaking massive restructuring process to become economically stronger. Urban economics became the prime concern as cities were virtually left to fend for themselves.

Today, India has embarked on a very ambitious phase of city building. Central Government schemes like Jawaharlal Nehru Urban Renewal Mission (JNNURM) make available large sums of money to carry out “urban renewal” of some 63 cities in India. But again schemes like these, which are disbursed from the centre, and where the cities develop their CDP (City Development Plan), are essentially financial plans and are not necessarily in sync with the physical development plan of the cities that have a history of their own. What we are witnessing in many cities today

is a rush towards implementation of these large economic packages for “urban improvement”. Whereas the sub-mission of JNNURM is to improve the condition for the urban poor and improve overall infrastructure, it goes without saying that its use for roads, transport and infrastructure projects perhaps helps the city project its global credentials to attract investors.

The next chapter in the imagination and material change in technology and cities is beginning to happen now in a massive way but in a very different manner than earlier times. As discussed earlier and then elaborated in the section on transformation, cities are asserting themselves more as autonomous entities and are positioning their identity irrespective of the state and the country much more now as sites for investment. This is a critical stage in the development and imagination of cities as they are personified as having a strong presence in the national and global network of economy. This shift has resulted in a curious technology embodiment and narratives in the city. The carriers of present techno narratives are infrastructure projects that symbolize flows of a fast moving economy; these are the spaces of flows (Castells, 2009). International airports, fly overs, metro, wider roads, transit hotels, convention centers and such are the focus area of the six largest cities of India. The programmes for these projects are truly geared towards flows of goods and people. These projects mostly exemplify a certain “international” aesthetics that is often made to appear as the language of the particular technology like use of steel cables, glass facade and aluminum cladding and such. Unlike in the past, the state is more actively partnering with the private organization for creation of this infrastructure. The role of R&B and PWD is now reduced being that of a facilitator or coordination. Captain of the industry are part of the steering committee and there is an acute self-awareness of being world class in terms of matching with the best in the world. There are some interesting conditions that get fostered in the process.



Figure 7: Proposal for GIFT City, Gujarat

THE PROMISE OF THE “CITY NEXT” AND ITS SYNECDOCHE INTENTS

The present developmental activities in the city are often portrayed as preparation for the promised next life cycle of the city. **The city is often projected as being in the process of getting restructured so as to better deal with a new world order in which our cities must somehow fit well.** The symbolism of aesthetics of technology in built environment becomes a very important deployment in public spaces. For example, complex engineering feats within a city like digging an underground tunnel, building the highest tower or the largest airport becomes a matter of extreme civic pride. The question of appropriate technology or economics or environmental balance or displacement of people then becomes secondary and is almost seen as an irritant. The technology symbolism in these large infrastructure projects overpowers all our concern.

The fundamental issue around restructuring of cities is explained in the chapter on transformations.

The futuristic idea of information age is an important projection here. This also seems to be a global phenomenon as in the past few decades upbeat depiction of ICT's have been common; used to generate public funds and subsidies for transnational corporate and to make cities "competitive" and symbolically "hi-tech" (Graham, 2004). It is interesting how this symbolism is posited not necessarily as resultant of the technology deployed but rather as a facade that has a life of its own. For example, the core technologies of the building industry even in most public and private projects have not undergone major transformation in past decade or so. The technology of brick, cement and steel are nothing to the new country. **However, what we are witnessing today is a certain projection of aesthetics of the external treatment of the facade as symbolic of the larger technology of the building.**

TECHNOLOGY AUTHORSHIP

The technology authorship of the city has moved out of the hand of the State and is now held by private players in Indian cities. At one level the captains of the industry have been roped in as part of the think tank to chart the future directions for the city and also the role of private developer is not only that of an executer of projects but also equal partner in creating them. This has led to a much efficient management of large-scale projects with faster delivery and seamless integration of various services and has raised some serious questions about the public good at large.

The role of the state now is increasingly getting reduced from being a provider-facilitator (for technology as well) to one that is a process co-coordinator. Whereas the number of urban projects for infrastructure has increased many folds in the last decade, there has been no increase in the number of positions for architects, planners, urban designers and engineers in the municipalities across the nation. The State has almost accepted its inability to build and has outsourced lots of aspects of the city reconstruction and design process. This is unlike many other government organizations like the Indian Railways, which have actively worked with the private parties but have remained firmly in control of key decision-making

It is quite common to find conventional column-frame RCC construction wrapped to materials like aluminum cladding and steel ropes to give a very different impression.

and future planning. At one level the State is playing out the 'future city' card to its political advantage and is totally dependent on varied private groups to draw up that image. This is not to deny the fact that often many visions of the city are drawn up involving different private groups like stand alone consultants, academicians and at times NGOs but in rather piece meal manner. There are no rigorous systems institutionalized to ensure the representation of all the interest groups in charting out the vision for the city. In any case the vision statements and planning intents do give a very rosy and a balanced picture of the future but the reality on ground is often something else.

The private developers and business houses are being increasingly seen as the technology torchbearer for the built environment and hence, hold the key to the future. The argument that business will begin to leave the city if not accorded a red carpet is often a bluff that has been proved in examples across the globe (Sassen, 2006). Usually business houses are in the city because of the immense benefit that the city offers for many reasons and not just one. Corporate (and this is a global phenomenon) will constantly try to take as much benefit as possible for their infrastructure and employees while negotiating with the city municipalities. They have no problems if gated enclaves are created to house their infrastructure; a virtual city in a city cut off from the remaining city and yet symbols for the masses!

TECHNOLOGY AND TRADITION; BINARY SYMBIOTIC

Parallel to the rise of technology, symbolism and presence in the city has also been a certain aesthetisation of the traditional and ordinary practices of the city. The rise of the techno future kind of imagination has also led to the past being viewed now for aesthetical reason and not as something of technical significance. The past is being re-imagined in a very different way in cities now. Cities have wealth of material practices of complex traditional and contemporary systems like the idea of sustainability and climatic response in old city houses, the craft of metal work and its relationship with cultural practices, and the art of making toys from waste to

name a few. It is everywhere; right from the *dabba wala* of Mumbai to the carpenters of Gujarat to the masons in Himalayas, there is a huge tradition of making that has evolved with the people in the centre. These traditions are very much alive and are constantly evolving. They involve great understanding of people, economics, materials, techniques and visual appeal. The current emphasis of 'hi-tech' cities does not consider these 'other' as worth serious projection but rather a lame category under heritage of India. Coupled with this and the fact that cities are essential sites for local and international consumption, and look towards tourism to boast local economy, the packaging of heritage traditions as museum is the order of the day. In fact the recent surge in heritage conservation in many cities is very much a result of providing fodder for consumption of tourist rather than an effort to genuinely understand the past in either spirit or substance. The conservation of the old city is becoming more like an apology and business possibility rolled into one! See comparative diagrams/ charts of city reorganization that took place in certain key periods of change in cities in India.

Time	Key Technological Innovation	Overall Spatial Change	Ideas of Public Places	Idea of Housing
1890-1910	Industries (Mills) Railways Electricity	Periphery of City Changes Splintering of City Periphery By Railways	Remains Same Old City is Still the Heart	Remains Same But Specialized Worker Housing (Chawls)
1920 – 50	Drainage Water Supply Reinforced Cement Concrete	New Modern Extensions of City Partial Segregation of Work and Home	Old City Still the Heart But Some New Recreation Outside the City	Organized Mass Housing
1960-70	None but Aggressive Promotion of Modern Building Technology Urban Transport	Old City is Abandoned as An Idea New Modern City Satellite City	New City Centers	New Typologies of Apartments Bungalows Row Houses Tenements
1970-90	Communication Television	Multiple Centers Urban Revitalization of Existing Centers	Reinforcement of Existing City Centers with Public Programs	Same as Above
1991-Present	Information Technology	Modern City Abandoned as An Idea Spaces of Movement (Automobiles) Define City City Within City - Townships	Privatized Public Places Fragmentation of Public Places	Same Typology but With Gated Compounds

CHAPTER TWO

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CHAPTER TWO

THE IDEA OF SPACE

The role and transformation of cities has been a predominant concern in the informational mode of economy (Castells, 2009). Cities not only provide the necessary environment for such a change but also readjust their own spatial configurations. The study aims to understand the nature of such transformation both from the perspective of the change in material culture and in imagination of cities due to the advent of Internet related technologies.

At the very outset it will become important for us to clarify and discuss certain important concepts for defining city. Cities present themselves as very important sites in any culture; sites that are at once both the symbols and containers of a larger civilization process. The question of “what is a city?” is an interesting one to tackle in this particular research. Our understanding of the city itself will become an important pre-condition for understanding the relationship between the Internet technologies and space. There has been a sudden self-awareness within cities about their identity and position, due to a more autonomous structure of cities in India in the last decade or so. Most large cities in India are presently engaged in an interesting manoeuvre of repositioning and re-inventing itself for the ‘new world’. **Many times such efforts have often resulted in projecting a uni-dimensional aspect of the city such as a ‘global city’ or ‘hi-tech’ or ‘heritage city’.** For the benefit of understanding the concept of the Internet technologies in context of the city, we need a more holistic and critical understanding that comes from an overall societal concern.

The need to constantly debate the meaning of a city is more urgent now than anytime before. The pace and force at which cities have been brought in the focus of massive developmental activities in India is perhaps unprecedented. Moreover, the interest group is also more varied and involves massive private equity. In this

The origins of such self-awareness amongst cities and its citizens can be traced back to the post liberalization condition of Indian economy where as part of the structural reforms, cities more or less were made responsible for generating their own resources.

atmosphere, the ability to define the meaning of a city becomes very important, as it becomes a pre-cursor to prioritize and propose new developmental works. The dangers of dismissing the years of slowly evolved urbanity, which might appear visually simple, as being “not good enough”, or “ordinary” is very high. The idea of an “Appollian or Victorian” city that is visually pleasing, well measured and conducive for healthy living”! The morphological texture of Indian cities both new and old is very much a result of the participation of people and has enough intricate systemic and physical characteristics to demand a closer look while imagining the future of cities.

HOW DO WE DEFINE A CITY?

The census of India uses a fairly simple demographic criteria for deciding the connotation of a settlement. A settlement with less than 5000 people is a village, more than that a town and so on. But this is the administrative definition of the settlement, which is not of much interest here as one should look for a more cultural and socially relevant term. For example, if one of the census designated village with a population of 4999 were to have a family giving birth to twins late during the night, the place will still be a village the next day. It will never be called as a town from that day! We will need a more rooted definition so that we understand and relate to in terms of our experiential perspective. Physical size and its shape have often defined the settlement. Whereas it might be true of many cities (that they happen to be of fairly large size), these spatial criteria might not be enough to understand the basis of the city. The city is something, which demands us to look beyond number, area and shape. Spiro Kostof in his seminal work articulated the conditions of a city as a place that allowed for energized crowding, innovation, and specialization and is characterized by a boundary (physical or non-physical), leadership and bureaucracy of some sorts (Kostof, 1993). This is a rather interesting definition of a city that argues for a more cultural and social parameters to be taken into account. Lewis Mumford has looked at the economic and social basis to understand cities as places of surplus, human mechanization and leadership that

commands the same (Mumford, 1961). The surplus that the river valley owns was reflected in the form of granaries in the main precinct as storage places for the resource in an agricultural economy.

The concept of 'granary' as the storehouse of community asset is an important one to consider. The expression of such storage can be either explicit (as seen during the river valley agricultural civilization of Egypt, Mesopotamia and Indus in the form of granaries in the precinct) or rather implicit (during the medieval period dominated by both agriculture and trade) in the form of town hall, markets and universities. The vast state archive, banks and museums were perhaps the modern "granaries" of the post-industrial modern cities. Together these building programs contained with them the memories of the past, the currency of the present and the ideals for the future.

A settlement with its houses, streets, public buildings and markets, etc., is the stage for complex social, economic and political negotiations. It is the arena where individuals and groups are constantly engaged in charting, modifying and testing ideas of production in material or non-material terms. It is the place, where people with different skills, varied cultural backgrounds and divergent belief systems come together to forge a common identity and yet retaining something of their own connecting them back to their roots. This milieu of different people, contradictory systems and varied aspirations creates a state of constant negotiations and flux that gives rise to the ingenuity of a city; be it arts, literature, engineering, performance or governance. City is really about a set of relationship that shows immense complex attributes of social and material culture in a limited space.

A CITY OF COLLECTIVE MEMORY

The city and its material practices not only provide for space to conduct the daily rituals of life but also connect us with the larger aspect of the human civilization

itself that are stuff of the collective belief. Idea of time becomes very important, as it gets symbolized in various material and non-material forms. The past and the future both seem to collapse in the space of the city. The built form (urban design and architecture) is the container of the collective memories of the place. Collective memory is a shared entity that gets framed in both time and space (Boyer, 1996) and is an important condition for a 'desirable' city environment; a city that has subtle reference to time in the form of collective memory.

A city perhaps is the site that not only produces material practices to satisfy human occupation and living but also does a lot more than that; it collapses the past in the form of memories, mythologies or stories and shows the dream of a better future. Cities in that sense seem to offer the site that promises to connect us with the pride of the human endeavours of the past and hope for the future. This is not to say villages do not have similar aspects but cities collect and concentrate this aspect of time in a limited space. This space and time description of the city is an important one for the kind of research that is being attempted here. **Whereas there is a need to look at issues of architectural typology and spatial configuration (morphology) of the city at different scales, we will also need to consider the aspect of the non-physical in terms of shared past and ideas specific to the place. These descriptions are also the result of the socio-cultural conditions of the city with its unique geographical landscape.**

By scales I mean from a community open space to housing cluster to city level public place to transport nodes, etc.

The characteristics of global cities and their material culture have been posited as ones that are ignorant or purposefully moving away from the context of

I am deliberately putting the word geography to establish the contextual basis to any city. To say that city form and shape and the culture it supports is very much a result of the context of its geography. The other way could be to say that landscape is not only providing a condition for cultural evolution but also shapes the nature of cultural practices.

their existence (geography, local culture, etc.) and towards a more global and homogenized one. For example, Lebanese restaurants, pubs, multiplex foyers or sushi bars (in many cities like New York, Mumbai and Shanghai) that look alike irrespective of the city they are housed, partly catering to the 'networker' who are global nomads looking for familiar spaces (Castells, 2009). Whereas this might be true for select global cities and their special white-collar districts that are part of the information economy, there has also been a contrary development in the form of heightened 'self gaze' of one's geographical surrounding due to Internet based representation of cities, forests and landscape. What impacts will such form of development have on the city? Will it create a new type of urbanity that never existed before? Will it lead to flattening of diversity or will the city spaces assimilate such changes and prevail over new development?

EVOLUTION OF INDIAN CITIES

The trajectory of urbanization in the last 60 years or so has been unique and should not be directly compared with experiences in the western world. It is also important to single out this distinction, as any discourse on information technologies and space should be in the context of the city development in this region. The Indian cities in the last few decades have undergone major stages of evolutions. Many Indian cities today are repository of layers of the past which still is very much part of the present. The British colonial built form such as post offices, bungalows, mall roads, *Sadar Bazaar* and the military cantonment are to be found in many cities of India such as Delhi, Chennai, Mumbai, Bangalore, Pune, Lucknow, Kanpur, Varanasi, Kolkata, Almora and Shimla to name a few. The colonial spaces in India were marked by a range of institutional and urban typologies and are still part and parcel of our urban consciousness and imagination. **With its stronger association with the state and old power structure these spaces do tend to reflect this relationship in the society; that of the state (bureaucracy and political heads) with the general population that inhabits the other spaces.**

For example most circuit houses in India have been built during the British period and continue to host the heads of various government organs.

The old cities (of pre-British origin) continue to function as important residential and market places, often right in the heart of the city with its proximity to railway stations and other natural advantages. For example, the old city of Ahmedabad, which has a population of five million, continues to serve as a very important market of the region. This is true for most old cities in India as they continue to host vital urban function of wholesale trade in most cases and often retail, apart from community housing. Many old cities have transformed in terms of their architectural characters or land-use but they have never been abandoned in India. One of the indicators of the vitality of the old cities is the participation of its residents in local politics. These places continue to be the political hotbeds of the region for both ideological and cultural reasons. The old parts still function as the 'hearth' for the city. For example, the election wards of Chandni Chowk in Old Delhi or Khadia in Old Ahmedabad continue to capture the imagination of the common man and attention of the political parties as special trophies and it is also the space for settling identities of caste and religion.

The modern urban planning was marked by iconic and well-crafted project of new cities like Chandigarh by Le Corbusier, Vidyadhar Nagar by B V Doshi, New Mumbai by CIDCO, to name a few. Apart from new capital or other town projects the international modern movement in architecture and urban design began to influence the built fabric in India as well. The Nehruvian ideals of a new modern and secular nation propelled many projects of spatial transformation in India. The civil hospitals, universities, new market places, residential sectors, cinema halls, research centres and others were very much a result of the thrust for modern institutions in the 1950's right till the 1970's (Bhatt and Scriver, 1990). In fact this 35-year period was marked by unprecedented building activity in India not only in terms of its volume but also the sheer variety of building typologies all across the length and breadth of the country.

Over the last two decades as Indian cities are gradually transformed to service sector based economies, development in urban areas can be characterized by

broadly two phenomenon': one is the private sector participation in commercial and housing sector marked by reluctance of the local bodies to actually build and two, the emphasis on large infrastructure development projects in the city. The result of this massive dependence on private sector for urban development is mixed. **At one level it not only led to higher housing ownership for large sections of the lower and middle income group but also led to the mushrooming of large gated communities of both the housing and work environment in many metro cities specifically catering to the upper section of the society leading to more segmented city morphology.** Stratification of living areas have always existed in Indian cities; be it by caste, religion or economic reason (smaller quarters but with shared amenities) but only this time it is water-tight, stark and massive almost like another city. Not surprisingly these gated communities are designed around families with disposal incomes and car ownership; modelled on examples of the worst form of depressing American suburban living. At the same time massive urban re-structuring efforts are underway to essentially make our cities more efficient and 'world class'. The vision for such city development has almost always been towards massive investments on roads, flyovers and services in order to make the city more efficient. China has always been an aspiration model and about always cited by real estate players who have a huge influence in the decision making process (Avasthi, 2009). Unfortunately many of these efforts have also been directed towards creating spaces that support private car ownership, more privatized areas of recreation and consumption made possible by massive tax holidays for multiplexes and malls, and beautification in the form of plantation drives and few parks with statues of some departed leader to maintain a high moral ground.

However, what is more contradictory and interesting is that individuals and small groups still continue to appropriate spaces and reinterpret them either in public and private and make our cities softer and more livable. The informal markets, small tea shops, tiffin services, cobbler, newspaper stalls or the barber in the shack continue to provide valuable service to the citizens ensuring more humane and safe streets.

The trend has been of restructuring based on a preferential centre and residual periphery phenomenon. More on this is discussed in the chapter on transformation.

This situation is not very different from what has been professed by writers like Jane Jacobs as a reaction against the top down master planned American blocks (Jacobs, 2002).

This informality has been responsible for the great tradition of public streets in India, which is very different from the cities of the West.

Religious festivals, political rallies, marriages and funeral processions, all these all rituals of the city are orchestrated in the streets.

There seems to be an inherent ability of our cities to self-govern, adjust and transform. This aspect of the city has often been ignored and has not only attracted considerable attention. Often it is dismissed as being ordinary and visually cluttered. The visual messiness is often associated with it being not efficient, un-hygienic and not “world class”.

There have also been many instances where smaller municipalities have used immense common sense and the city development processes have kept the interest of all the sections of the society while drafting new plans and policies but the larger cities today are under tremendous stress of developing faster than the rest. They are competing for investment of the private capital. **Whereas we will discuss the issue of urban restructuring in greater detail it might be apt to also discuss some fundamental aspects of the space in Indian cities.**

CONCEPT OF SPACE IN INDIAN CITIES

The ephemeral nature of the digital space and the practices that produces it becomes an interesting aspect to be considered from the perspective of both time and space in a city. The city as a product is both in imagination and substance. **But here we are particularly curious about the imagination and physical manifestation of space, which is specific to the place; that of Indian cities. So at the outset let me articulate**

The continuity of old and new is very strong in the case of Indian cities. At the surface and at a

the characteristic of cities, which can be attributed as being specific to India but not necessarily exclusive to it alone and these are not limited to old towns in India alone.

“There is no outer space without inner space” (Panniker, 1995). This is a statement that can aptly summarize the concept of space in the context of the Indian sub-continent. This is the Hindu philosophical position while understanding the space around us. The space around us exists and gets expressed in relationship with the inner self. The space then is rather invoked with participation of the self. This is an important conceptual account for two reasons; one, it establishes a need to study space with respect to the meaning that have been communally attached (the collectives selves) and two, the nature of invocation of space needs to be understood further as it has some parallels with the nature of creation of space within digital networks.

The idea of space that is necessarily transient is very much rooted in the Indian traditions and supported by religious cultural practices over a long period of time. Let me try and illustrate this idea further.

Ramanath Sahai had by now squinted his eyes so much that all he saw was smoke and the fire below. Being the eldest in the house, and always sitting closest to the prayer altar had its disadvantages. By now his eyes itched and he could barely read the Sanskrit book of Vedic mantras in his hands, but somehow it was always satisfying. “The smoke not only cures small ailments it also purifies your soul”, he could still remember these words of his mother. Somehow whenever he performed the havan he imagined his long departed mother sitting beside him. This was a very satisfying time for him and these days he was always looking for opportunities to do the pooja; festivals, birthdays or exams of children. Somehow it was not just about the Vedic mantra and their meanings (the worship of nature and God) but rather a connection with his past and his childhood memories of his mother, five brothers and three sisters sitting together in the brick paved courtyard of their ancestral Lakhmipur house

spatial level the two seem to be very different but the nature of interpretation, appropriation and the meanings that get attached to the space are not very different.

for such havans. Ramanath threw the cold water from the pot in four different directions marking the cardinal direction first. He then marks an imaginary square around the havan kund and recites the gayatri mantra that invokes God to come in the space. The sindur with water is used to mark the four sides of the altar with the swastic sign. The place is now marked and the central space is now purified and marked as a square. This is the quadrant that is also created in mind of the person sitting around. He indicates to his nephew to take his feet away from this space as now this is the space that is invoked for the purpose of the pooja. This is the ritual that is repeated many times of the year.

Space is invoked or created for a period of time and then it disappears. The space that is created is marked by symbols, has a certain field of occupation and takes an important position in the mind of the person that participates in it. Imagination of space is important, as without the same you cannot perceive it. For someone not familiar with the ceremony, the space just does not exist. So the concept of space here is temporary and fast changing. The same place becomes the children's play area the very next day. This ephemeral aspect of space and its imagination is an important consideration while studying Indian cities. These are not concepts of space that are limited to special sacred sites and building in the city but rather are embodied in the ordinary domestic spaces, street corners (during festivals), open spaces (marriages) in the city. The use of open spaces like a road corner and open *chowk* (cross roads) for secular and religious activities is very much facilitated by the gesture of first marking and then invoking of space through small rituals which now becomes conducive for such use. This ephemeral idea of space has influenced the characteristic of built form in cities in India. Let us now dig deeper to find the key characteristics of such spaces.

MULTIPLICITY

Indian cities are characterized by multiple interpretation of the same space. A plinth below the tree becomes the place to socialize in the morning, to gamble in the day and a refuge for the homeless in the night. The footpath is used for walking, selling *nimbu pani* and discussing politics. The *otla* (semi covered verandah) of the house may be used by a passing tired traveller to rest for a while, by ladies to gossip and by old persons to sit and watch the world go by.

Multiplicity is the essential characteristic of the public places in India and strict modernist labelling of spaces (like commercial, residential and recreational) works in exact opposition to this fluid attitude. It is not surprising that a lot of effort that went into creating modern cities in India while using a master plan for zoning or creating “parks and gardens” has not really succeeded in the Indian context and has only added to the abuse and safety concerns in such spaces.

SYMBOLISM

The collective use of signifiers as indicative of the nature and value of the place seems to be a reoccurring phenomenon in Indian cities. For example, the route taken by the *Rath Yatra* or the *Tajiya* procession is also a marker of territory and forms a notion of space that it covers. The markers are sometimes in the form of symbolic artifacts like the shrine near the large old tree, the *tulsi* tree in the courtyards of the religious places or the tomb besides the road. These are symbols of the faith and practices of the community within the city and important devices that carry the memory of the past. This attitude is carried forward in secular gestures as well; the water spout at the (cross roads), the plinth below the tree where the old gather, the steps leading down to the water bodies and up to the town hall. These are just some of the examples of urban situations that connote the sense of the community, nature, activities or official urban functions. Cities are formed by these symbols.

Many times these symbols due to their special configuration become the generator or influencer of the nature of built form around them apart from carrying immense memory of the place and collective belief. This is to say that a lot of what we know of typical Indian cities with bustling bazaar, on street activities and variety of expression contains these places of symbolic value.

The symbols in this case are not only physical but

Figure 8: Street Plan of a Temple Town

at times also involving the body, sound and light. The symbolism is held by action of people (like processions, gatherings, etc.) and not so much the physical fabric. The architecture of buildings supports these symbolic acts in public realm. So the building really does a lot; apart from performing utilitarian



function of housing people, goods and activities it also responds to the outside to acknowledge these acts of public symbolism. See figure 8 showing the plan of a street structure leading to the temple complex at Dakor showing the dual purpose of the house as private realm but with a strong public commitment.

ORDER IN EXPLICIT CHAOS

The Indian cities on the surface appear to be bustling with chaotic conditions and to a western mind seem to be a collage of seemingly disparate objects, people and their activities.

Ask a person working in one of the establishments on the streets about their business and you will be amazed by the sophisticated and elaborate system of personnel's, their roles and relationships that support their businesses.

The intricate or refined order that supports establishments and processes to take place need not necessarily get reflected or expressed absolutely explicitly (or in expected form) in the built form. The apparent messiness of an Indian bazaar should not be mistaken with disorder. On the contrary here is an inherent order that allows for freedom of interpretation at the grass roots. This interpretation of the whole in a part by an individual or community (meaning participation in the design process) is a very important component for public places in India. The design and its execution is an absolutely bottom up (grass roots) phenomenon involving the people using it. **The bazaar, the temple complex (not so much Jain temples though), the housing clusters in traditional Indian cities are examples of such a phenomenon.** Together many such individual expressions at the level of the house or the shop give a sense of a collective whole and order. The order is not directly expressed by geometrical clarification but there is an element of repetition of certain patterns (like scales, colour and material) that gives the place a harmonious sense.

It is very apparent that the idea of space in the Indian sub-continent is not directly visual or only Cartesian. The meanings and processes attached to the physical space is the one that gives us the clearer definition of it or the space is defined by both the physical and non-physical attributes. Moreover, the definition is finally achieved by bottom up processes of expressions in a larger order. **So the space itself is as ephemeral or temporal as time or memories.** It is created and destroyed by the collective will of the people who use and traverse it. Flexibility of usage, multiple meanings and symbolic gestures are important characteristics of space in Indian condition. Unfortunately, the planning efforts in large cities work quite in opposite manner. Space is defined by ideas of ownership, tenure and size, shape and use and is governed through a top-down centralized system. This forms the rock bed of subsequent planning efforts, as central to the development proposal is the idea of space as a property with specific size and shape. It is not surprising that project of modernity or urban design and architecture in India has taken a curious and a unique turn. “Modernity” becomes another context to be accounted for rather than it becoming the universal system that guides the overall process. The

This phenomenon is most prominently expressed in the older cities of India but it continues to influence the appropriation of modern cities as well including the so-called global metros.

modern ideas of space planning and use co-exists with almost 'vernacular' ideas of space usage in most cities in India leading to a paradox of sorts that has often been acknowledged as being the defining aspect of our cities. Do we find opportunities in such contradiction or try to remove these fundamental characteristics of our city and sanitize it as one-dimensional entities? Is not the messiness of the city the glue that holds public life of the city together?

THE ANXIETY OF THE WESTERN CITIES AND THE SPACE IN "ASIAN CITIES"

If there is a distinct idea of space, which we can call Indian or Asian, then how does it compare to the "other" or western ideas of the same? It might be worthwhile to attempt this subject by visiting an important landmark movie (Blade Runner 1982) propounding the idea of cyber-cultures and which has been a popular study for understanding the conceptual frames around issues of cyber communities and networks. Blade Runner portrays a world of future (New York 2019), where ICT plays a major role in running of the city and services. Revisiting the movie from the aim of understanding larger issues of portrayal and conceptions of space may help us in understanding the parameters of this study better. The portrayal of the city and its spaces in the movie needs further examination here. The fact that city is imagined as an agglomeration of high rise structures that are cold, faceless and impersonal is one image that is shown during the long shots that introduce us to the setting of the place. These structures are also the ones that are made of "new age" material and their design language resembling mechanical engineering objects and less like the buildings we know.

The juxtaposing of the physical messiness (in most scenes of the city spaces) with an advanced and networked information technology is a reoccurring theme in the movie. In some sense the messiness is a counter or the very opposite of the existing order of classical or modern metropolis of the western world with its organized and geometrically clarified spaces; thereby questioning the very basis of cities in a changed world where perhaps the modes of production are not the same anymore.

But apart from these generic images there are portrayals of two conditions of space that need further attention.

THE ABANDONED CITYSCAPE

Humanity it seems, has undergone some massive reorganization and certain painful displacements and hence, the repeating portrayals of abandoned buildings and hollowed out public spaces. This condition of space seems to be consistent with the fear and dismay at the loss of the public place and their inversion in the form of private malls and entertainment districts that many American cities were experiencing during the late 1970's and 80's. The loss of the city centres and its public life had dominated the discourses on cities and citizenship in the western world during that period. People advocating an alternate development paradigm were discussing alternate voices on issues of environment, community, women and the old. In some sense the hallowed and abandoned spaces of Blade Runner portray the fear of the modern capitalist towns of the west.



Figure 9: Blade Runner- The Abandoned City

THE ORDER IN A MESSY STREET

The street scenes in the movie have an extremely Asian inspiration in the form of life, commerce and conversations. The street is full of people, restaurant and a place to meet and connect. The similarities with Asian streets are un-mistakable. By choosing to portray the traditional Asian street life in a situation of the future the creator is perhaps asking some interesting and provocative questions; what the meaning of culture of a place is, and how it will get relocated and transplanted in a different geographical context. The fear of the Japanese companies taking over the American economy has been part of the psyche of average American since the 1980's

when companies such as Toyota and Mitsubishi started dominating the American market. And two, does the Asian life on street with apparent chaos on surface hold together a very well organized spatial structure due to larger or higher invisible order? The movie seems to suggest towards an implicit order in the street unlike the explicit physical one that exists in most modern western cities. It imagines a city where the known order of city planning and design is no more valid and a new order of space, one that is networked, ephemeral and made by people, slowly takes over the city.



Figure 10: Blade Runner:
The street full of People and
Visual Disorder.

Blade Runner raises some important questions regarding the idea of an imagined city in a new and a networked economy. The anxiety and experiences of post-war cities of the west has informed the new imagination of space to quite an extent. This is also posited against the Asian cities which are seen as quite the opposite and having a more implicit expression of its structuring order. The lack of visual coherent structure that the movie projects in the scenes is perhaps an indication of dominance of the virtual space over the physical; one not very different from traditional Indian cities where the space of belief and social structure at times dominates the city.

CHAPTER THREE

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CHAPTER THREE: THE IMAGINATION

City is lived in but also imagined. Representation of the city and its part play an important role in shaping the imagination. The imagination is one that often collapses the past with present and future. The perception of the city is as much mediated by the collective imagination (as well as individual interpretation of the same) as by our experience of the space itself.

One can view the “grid of spatial practices” as one where a city can be defined by the material practices (experienced by us), representation of space (perception through different mediums like maps, radio, TV, Internet, etc.) but also the spaces of representation (the imagination either utopian or other). Paintings, illustrations and maps then become important material to define the perception of the city and also to look for clues of its imagination.

The role of collective imagination (not fantasy) as a condition of the world in digital medium is an important one to consider while analyzing a city at large or its public places. Imagination of masses has the potential to create change and feedback into action (Appadurai, 2008) and hence, the material production of societies.

The constant and at times wave like flow of information is always working upon us and informing the perception of our space but also time. The idea of annihilation of space by time has been suggested as a conceptual framework to understand the space-time relationship in the network economy (Castells, 2009). This condition has also been described as one of perpetual present where the future comes instantly and past can be recalled instantly as sound bites (Bell, 2004). What do such changes mean to the imagination of our space and also how will it feed back to the material production in space? This process of perception and imagination with its reverse loop feedback to the material production in the city needs to be understood better from the specific context of the Internet in India. Unlike mass media or other forms of communication or creative production, the Internet now offers a virtual

Wave like because often during crisis and emergencies the flow and imagination of cities get heightened.

ecosystem (new environment) in which information moves, builds and transforms in a very different manner and has a distinctive form of existence.

The imagination of space is as important as the physical space itself (material production). The imagination is one that is largely mediated through a variety of expressions like expectations of a future city, utopian ideas of society, fiction of places or mythology. For example, the presence of myths, a collective representation in a society has been seen as an inversion of the social and cultural world into the natural or matter of course idea of the lived in reality (Barthes, 1989). The structure of the myth is a part of the imagination of cities and sometimes even in places (like places of religious significance). So there is a tenacious relationship between the collective representation (myth) and material reality of space in the form of certain symbolic artifacts. Temple is a direct example of such a material anchor of mythology-mediated imagination. Similarly, there are other non-formal signs in Indian cities like the thread around the banyan tree, the *tilak* on the door step or the religious objects on the cross roads are indicative of other spatial engagement of the myths within the city. The imagination is collective and the spatial gestures have evolved over many years. **So in the case of religious myth structures there is a well formed acknowledgement of the imagination in spatial practices of today.**

The nature of representation of space and also the imagination (spaces of representation) in digital realm becomes an important question to ask? The representation of the city becomes an important area of enquiry here and has been explored from the point of view of its historical trajectories to the present condition. The Internet has for the first time offered an unprecedented medium for visual communication available to a large section of the society.

You can see it all; the tigers of the Sundervans, the beaches of Brazil, the tea house in Kyoto or the colonial Parliament building in New Delhi. All can be called upon within microseconds in the computer screen in front of you. Your mind transposes from one climate to another and from one

So religious symbolic structures, iconography, etc., reveal this imagination quite vividly and at times in a subtle fashion.

geography of space and culture to another. The place itself is not important and after a while the image themselves become the place. The brightly lit beaches, the samba dancers, the skater in the Central Park or the coffee shop are full of office crowd. The city is only a piece of information that is attached to these images because the image is the city.

The images bounce continuously with tags, comments, key-words and are being constantly reinterpreted in the cyberspace. They move from people who created it to ones who know the place to ones who express their understanding of the situation. It may not be there the next time and it might be at many other places. By virtue of its mobility the image is an absolute counter to the physical space of city, which is stable, constant, and not subject to rapid change. However, cities themselves are not constant and undergo the rhythms of the daily rituals of people, their activities and on top of all the burden of past and dreams of the future. The spaces of the cities are interpreted and transformed throughout the day and night leading to the feel of the 'city'. It is rather interesting how the many different strands of information (imagery and text) on the Internet together gives the feel of the "soft" side of the city now. This itself is a move away from the abstract representation of cities through maps and other diagrams.

The representation of cities is about always referring to the ephemeral aspects of the city; the life, people, their rituals and their existence. They are portraying a life as staged in cities rather than the space of the city itself. The space is incidental and forms a backdrop. **The images of the cities on the Internet are not only of space itself even though they might pretend to be so, but that of people and their stories as staged in the city.** These images are never a dry documentation of space but of life; as observed personally by the viewer. The images then are not mere reflections of the city but rather its interpretations. Hence, these images become very important, as they not only document the space but also carry with them messages and stories of the city. This representation of the space is the perception of our cities and is something that can feed on the imagination (or the spaces of representation). The construct of

The images of purely space would then be the ones of technical representation of the built form of the city. Usually pictures of city or towns are always narrating a story.

cities in cyberspace is modifying our imagination. The images that float around the Internet are the fiction that feeds the mind of the viewers. They are fiction because they promise, cajole, direct and at times warn about the place. The aspect of the fiction of cities has been further understood by examples of street poster.

CITY IN POSTERS

Representation of space in various mediums was of special interest here, as it reveals a lot about our cities, both in terms of what physically exists and what gets imagined. The aim was to capture the ideas of such representations both in popular as well as classical mediums. The search started with the old part of Ahmedabad, which is the centre of trade and commerce for not only the city but also the region at large. Unlike earlier, the notebooks these days are full of illustrations in the front and back cover. The bullet trains of Japan superimposed on the Eiffel tower of Paris, the natural environment and the deer chewing grass in strange oblivion, the view of the skyscraper of Singapore or a globe with a tree on top are all seemingly inconsequential images on textbooks these days.

The cheaply printed bright coloured wall posters are a wonderful reflection of our society and by virtue of their content and have a pan-Indian appeal. Salman Khan soaked in blood, Katrina Kaif with pouted lips, the solitary rural lady sitting below a pine tree with her head down and singing "When will you come back my love", an idyllic rural street with bullock carts or the view of fort area of Mumbai are some such illustrations on these posters.

THE BINARY

The yearning for nature or an apparent moral quest for some kind of a harmony seems to be a prevailing attitude in a lot of the popular representation. The intensity of development is often proportionate to the 'prestine-ness' of the nature that

surrounds it. Development is seen as a clean activity in the lap of nature! But on further examination one observes a consistent effort to juxtapose nature and city life in a binary relationship. Even though mixed up together to suggest a kind of romantic co-existence, the treatment makes it obviously as two different realms. The imagination of cities and nature as two different realms is an important concept and will be explored further in the section on miniature paintings.

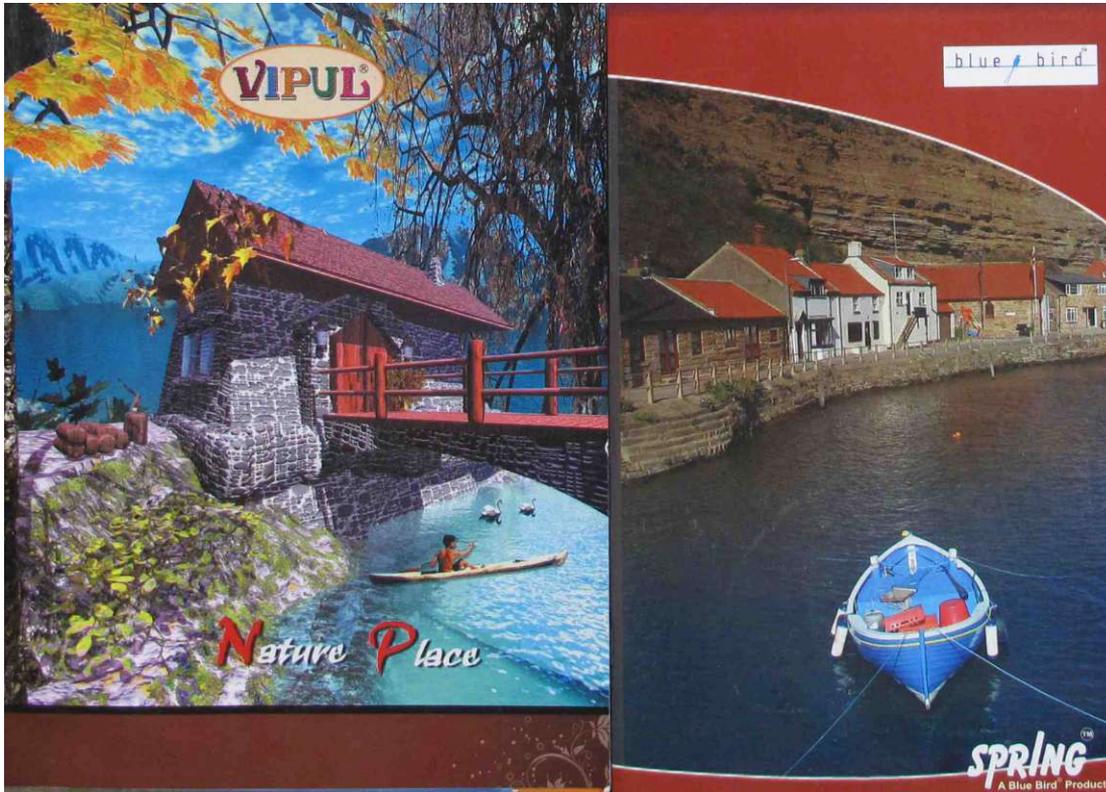


Figure 11: Development in the Lap of Nature

THE SURREAL CONTEXT

A large number of posters had an interesting collage that somehow brought together picturesque images of iconic building from around the world in a kind of new juxtapositions. Authenticity does not matter, nor does context as long as it is reflective

of the 'developed' countries. Iconic buildings like the Eiffel Tower, Sydney Opera House or Mumbai VT Terminal capture the imagination of the people as symbols of human habitation. But what is more important is the fact that these symbols almost purposefully are far removed from the context in which they are produced and consumed. This is interesting as by the virtue of its cultural, spatial and contextual differences, the representations have a dream or unreal aspect to its existence.

This feeling of disconnect and the unreal is important in this form of representation as it floats as an imagination that should never ever come anywhere close to reality; a space which is so fictitious that it hardly needs to connect at all with the physical world.

Figure 12: The Made up Context in Street Posters



Similarly, many posters tried to portray the romance of the rural life of India. The lady waiting for her lover, the village hut and the bullock cart drawn not as a reality but as symbols, juxtaposed to remind its viewers the virtues of rural living. The caricatured symbols of rural life that are shown

in these illustrations elevate the production into a fictional and surreal space that is far removed from cities where it is consumed and also very different from the vast hinterland of the country that they pretend to represent. The surreal or fictitious nature of representation seems to be an important aspect of the imagination of space.



Figure 13: The Romance of the Rural

The posters represent the spaces of imagination by the people. This imagination in this is at one level apologetic to the loss of both the innocence of earlier existence with nature and at the same time optimistic about a future that will be made by advanced technologies of building and transportation. Nature is then “managed” and taken care of and its pristine state restored.

CITY IN PAINTINGS

It becomes evident that the juxtaposing of different contexts in one fictitious representation in street posters is an important phenomenon that aims at lifting the present state of imagination to a different level whereby creating a condition far

removed from the context of its production but still very much part of us. Miniature paintings of various schools within India (Rajasthan, Kangra and Madhubani) have been an important documentation on the life and times of the place and its people, as samples the different Rajasthani Miniature tradition has been further studied to understand issues around representation of the city.

IMAGINED GEOMETRY

Cities are represented through use of geometry; a man-made system to organize and visualize the surroundings. Geometry becomes the basis to attain clarity. With the absence of perspective, the use of geometry becomes even more creative and division of paintings into various planes allow immense variation of expressions. But parts of the city like streets, sidewalks, palaces, and houses are all neatly placed in geometrical orthogonal planes. The character of the space is then attained not by photographic representation but juxtaposing and shifting of planes.

The reliance of geometry for creation of the image is not only utilitarian but symbolic as well. It is in fact a statement on how people perceive the city and the surrounding nature. Geometry complements what is missing in nature. A visual order that is predictable and symbolic of the human will in face of harsh unforgiving surroundings.

Thus, the creative play of planes creates a sense of illusion, mystery and spontaneity usually associated with Indian cities. These paintings are a good example of the language of expression that captures the spirit of the place from both spatial and cultural perspective. How does the digital space mediate our imagination of cities? Does it deploy the binary of nature and cities or does it create a new language of representation?



Figure 14: City shown through Clarified Geometry

CITY AS THE VIEWPOINT TO NATURE

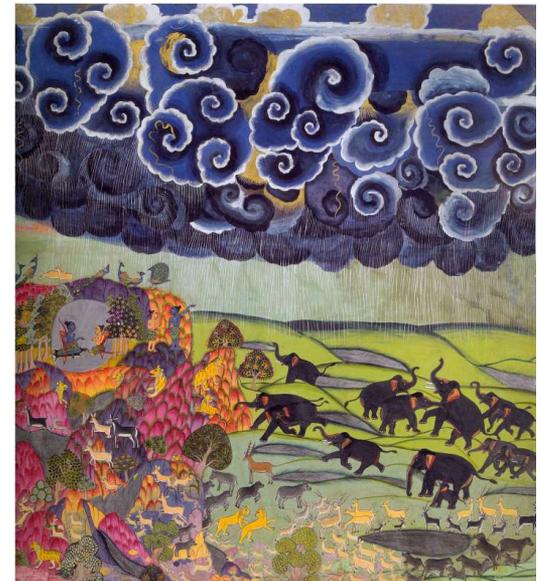
It becomes very obvious, while pouring through different painting styles of India that city and nature were posited in a binary relationship. Nature is the antithesis to the city. Nature was wild with dense forests, dark clouds, water and animals whereas citizens organized cities. Nature was also the ground for forays by men and their army or the ascetic but they all came back to the city. So city was the refuge for mankind and its civilization. Nature was wild, rich and also unpredictable. Still there are patterns in nature that humans understand; the waves of the water, the vegetation cover of the trees, the dance of the rains and cities were the viewpoints from where nature that exists outside were seen. The dichotomy of the city and the surrounding forms the backdrop of most visual expression dealing with the space.

It is very clear that cities are not only seen as formal productions using man invented system (technologies) of built form but are also the vantage points to view nature. Natural environment is essentially understood as juxtaposed in binary to cities. This creates an imagination of perfect world in the middle of the wider wild space of nature. The idea of an imagination or quest towards the 'heavenly cities' is very much expressed through such expressions (Bell, 2004).

BODY, SPACE AND IMAGE

The use of maps through the Internet websites has seen a many fold increase in recent times. With the availability of satellite information to anyone through various digital technologies, we are witnessing a sea change in the manner in which our space (cities, countryside and landscape) is being gazed upon. This is an important time historically, as it has the potential to fundamentally alter our imagination of space; right from the scale of a country to our neighbourhood block.

Figure 15: City as a Viewpoint of Nature.



“The estuaries that flirt with the land mass before they finally perish in the vast deep blue ocean beyond were perfect in their shape and grace. And you know what; from top it appears like a surreal landscape that is so restive and peaceful, almost heaven. The countryside is actually very beautiful”. A random conversation between two persons discovering the joys of seeing our existence through Google Earth!

The Internet today is perhaps right in the middle of such mediation of the city and people. The Google maps, satellite imagery, road maps, place markers, are leading to a re-imagination of our own environment.

GEOGRAPHY IS SENSED AND LIVED IN

As a child growing up in a not so small town of Kota, Shailendra and his group of friends swore allegiance of silence and if needed deceit when it came to their weekend forays outside the city; a swim in the river Chambal. The swim was a big no-no for kids, as stories of people being washed away in the strong current of the merciless river that had steep banks, were drilled into every potentially aberrant child of the town. If not the force of the water it definitely had to be the crocodiles that wait for days together, at the dark bottom of the river for that one sweet sound of a child swimming above. After that it is only gore and blood. But Shailendra and his friends could not resist the temptation of a good swim in the cool water. He often boasted about his dives and his long swims and that he saw a crocodile come his way but swam faster than that wretched creature. And sometime during a leisurely mood as he and his friends sat on the banks of the river, smoking Charminar with the Chambal swiftly passing below, he spoke about his dream of leaving this small city of aunts, cousins, family festivals, marriage, river and crocodile for the ‘big city’; the city of lights, new friends and endless possibilities. This is how he understood his city; small, protective and

the big river on its periphery. The city was compact, the river dangerous, the slopes of the city lead to a valley which had rich but soft soil; not so perfect for foundations of buildings but great for mango orchards they frequented last summer. The orchards were owned by the Garasia's, the land owning class of the villages around, and they made good money. They could marry off their daughters to neighbouring villages and throw a lavish dinner for the community. Not bad at all, he thought considering the fact that this community had small land holding and almost no access to credit. Further, downstream the villagers were much richer. The Patidar community here had access to capital from their ancestral assets and strong community networks as they used the river water for intense irrigation; they grew basmati rice, export quality very much 'Made in India'. Their sons studied in boarding school at Mt. Abu and would often show-off their recent shopping booty from Mumbai or Delhi. Enough land and plenty of water can do wonders he thought!

The boy in the above story understood the geography as much as he understood the economic processes that are associated with land. The agricultural modes, as linked to the geography of land are as common a knowledge, as the fact that one has to remove slippers before entering the temple premise. The geographical understanding of a place or region is necessarily one of soil, surface drainage, river, canals and how it impacts building and agriculture activity. This is true for most souls of the large number of villages and towns of India. Land is understood through immediate examples that affect and lets us understand the structure of space around; the relationship of land, its water bodies, forests, its produce, livestock, agriculture and people. It is this web of relationships that provides the primary reading of landscape — a reading emerging from survival and dreams — an understanding that is bodily and involves all senses.

*The push and the subsequent fall was bad, considering the fact that it was only supposed to be a friendly game of football with the boys from the municipal school. Pyjama chhap, that's what Ajay used to call these boys. Ajay's knees were badly bruised, something he had got used to since he joined the school football team. But the injuries and the resultant bandage were in fact trophies he did not mind showing off in his neighbourhood. Sweet pain eh! But today his encounter with the boys from Municipal School No-32, Kandivalle in the football match left him a bit shaken. There was something about that push, something strange in the eyes of the boys who did him in. No apology, no shake of hands but a brutal look as if that bunch might kill him if he come anywhere close to them. Ignoring the skirmishes, he soon carried out with his show of bandages in the knee and slight limp in school; a typical John Travalto one". And life goes on. A daily ritual of updating the Facebook profile, completing the homework, sourcing the 'ultimate porn', avoiding dad, recharging the sim and football practice. Life rolled on till the day Ajay was again confronted with the same pyjama chhap kids of the municipal school. This time it was beyond the security of his school compound in the market street exposed to the elements. The same dirty look and menacing stare. He tried to smile but before he could realize the one in the centre with a dark face and curly hair shouted "mat*er**od bahut sh**na ho gaya hai tu" (mother f***er you have become too smart these days). Now this one was a pure googly. Ajay was stumped, confused and more than anything else he was sweating with fear. Why me and why here in full public view. But...but what is the matter boss, he said? Matter is very clear, said the other one with a squint eye; your dad is behind eviction of two shops, one house, three families and four dogs. You assholes have brought these families to street because your dad brought the municipal bulldozers to clear the plot in front of his clinic so that he can plant trees*

and have a nice parking for his clients. Now this was heavy... very heavy. Ajay just could not fathom why it had to be him. And... and what is in that piece of land anyways. A large neem tree, dusty rough surface, some shanty and a nullah flowing with the exposed water pipe.

The encounter lasted a few seconds but it was devastating. He ran to the comfort of his house and immediately asked for hot masala Maggie. Oh sweet home; it felt so good to curl up on the couch, switch the channels of the television, check the emails; all so personalized and predictable. He wanted all the familiar comforts that day.

The protagonist in the above story soon outgrew the incident and went about planning his daily inactions, weekly bunks and occasional dates. But that incident also changed him. He had a keener eye now, for both sensing trouble and also to things around him that he earlier had failed to notice. He understood how the rivulet that flows from the *ghats* to the sea, actually is the lifeline of some twenty thousand families that stay there with their dogs, cats, shops, scooters and some even cars. He knew that the mangroves of the city are now a piece of trophy used by the environmentalist to rally for protection and stop the international airport project. He knew how the Mumbai floods were actually man-made as subsequent corrupt municipal officers choose to ignore the fundamentals of topography and water. That is how he learned about the geography of his city; from being absolutely ignorant about his surroundings, he suddenly knew how his city was the space of conflict, emancipation, deceit, opportunity and corruption. The fractured geography of his city told the story of survival and human relationship with land and water. This is how the idea of the geography of place gets enshrined in most places in Indian cities.

THE “IMAGE FROM TOP”

“The view of the earth from the moon fascinated me—a small disk, 2, 40,000 miles away. It was hard to think that that little thing held so many problems, so many frustrations, raging nationalistic interests, famines, wars and pestilence don’t show from that distance.”

Frank Borman, Astronaut aboard Apollo 8, ‘A Science Fiction World—Awesome Forlorn Beauty,’ Life Magazine, January 1969.

The view of the earth from moon and satellites in the late 1950’s and 60’s contributed to imagination of the planet as an artifact that is small, vulnerable and alone in space. It fed a whole generation of activists, scientists and media to speak about the earth as a unique place. The image of earth with its deep blue surface, clouds and spots became the single most important symbol that fueled the hearts and minds of the generation that questioned the development model of the western world. It attacked the core values of modernity and growth that was drunk on technology, performance and confidence to master the elements of nature. However, at the same time, it heralded a very different way of reading space. Riding on the growth of both print and visual mediums it led to an explosion of imagery that showed God’s view of earth— a fantastic collage of calm blue oceans, neat forests and swirling clouds. The good old map that existed in Geography- II textbooks of schools were so boring now; way too abstract and almost a diagram.

The maps on the other hand were very different visual expressions. It had these lines where none existed — the straight lines of longitude, the dark red meridian, the political boundary of nations and the dark circular one of the capital city. Maps are often the statement of a certain processes of spaces, which may or may not express visually. For example, the map showing the per-capita consumption of cereals in a district may or may not manifest as a form. It is the story of the people, their ability to access food supplies, etc. The map is telling a story that made you develop an imagination of space. It requires an engagement where the spatial message is coded

and the viewer imagines a space from a certain vantage point (for example, theme of the map — political, tourist, housing typology, caste distribution, etc). But the view from the top has often been perceived to be the real space; as it actually exists. Unlike maps that are either surveyed or drawn, websites like Google Maps among others use an “image from top” as a basic conceptual ground to explore space.

The image of space below taken from top is important from the point of view of creating grounds for further information. The image pretends to be complete, authentic, accurate and real. There is no possibility for error. The cameras are special, lens accurate, the satellite is state of art and the image is updated. This portrayal assumes that the visual image is the baseline reality to be recognized. The image then claims to be ‘the’ window to reality and becomes the mediator between the person and his/ her imagination of the surrounding space. Unlike maps wherein the first cut documentation is a bodily involvement of people with space while conducting physical surveys, it is the snap of the camera in case of satellite images.

Whereas it is common knowledge that ground physical surveys are way too accurate in terms of their spatial dimensional characteristics, the ‘image from top’ is perceived to be closer to reality. This raises interesting questions from the point of view of our understanding of space be it the forests, oceans, rivers, countryside or cities. Will the dependence on the image (satellite pictures) and its derivative maps that we are witnessing through the Internet today for visualizing space lead to a viewer that is satisfied with the ‘happy’ image of his surroundings? Does it mean that the visual (image) becomes more important than the ‘process’ (be it processes of environment, social or cultural) when imagining space? In short are the meanings attached to the image limited now than before? So are we moving towards a more homogeneous imagination of our space and its parts due to the mediation by same image through the Internet? The forests are dense, the plantations green, the coastline smooth, the old city organic and water bodies deep blue.

The maps that are created by the state are the ones that propagate with them ideas of territory, boundaries, nationalism, community, geo-politics and such. But at the same time there exists plethora of practices of representation that help in forming mental maps of places we live and work in or symbols that represent space as we understand them. For example, the paintings discussed earlier, calendar art, symbols in the street that connote ideas of space and help form a map that is closer to our lived in reality. It seems representation of spaces seem to follow a very clear binary trajectories. At one level the state and corporate project and appropriate this representation to encourage certain ideals and at the other end people develop their own or appropriate representation that shows their perception of space.

THE ELUSIVE GOVERNMENT MAPS

The Survey of India office on the first floor of the Janpath office and shopping complex is a curious location for an outlet distributing maps of all the parts of India. Paritosh Mukherjee had been going around the building for ten minutes to find the elusive office, but like all things 'Dilli' and 'sarkari', you got to be a man to find it. When he asked the person selling the 'imported' shoes in the shop below, he got a rude answer "age chalta ban. yeh enquiry office nahi hai bhai". Somehow Paritosh was always reluctant to ask directions in this city. Maybe it was his small stature or perhaps his accented Hindi he picked while at Doon that made him stand out. He knew being so self-conscious in this big city doesn't help, but deep inside he feared the public places and would rather prefer the comfort of his office or his barsati in Greater Kailash. The pan stain in the stair was a relief, and its aroma immediately alerted his brain that intuitively told him a government department is very near.

"Aap kaha se aarehe hai?" (Where are you coming from?) asked the lady at the counter wearing the red lipstick. Paritosh was about to say Saath; the NGO where he was doing his research project but some of his Delhi

training took over and he said “Sir has asked me to get some maps. I am doing research for the Department of Agriculture, Delhi University”. The red lipstick warmed up and gave him the catalog of Maps. Wow! he said to himself; he just crossed the first hurdle to reach the circle of bureaucratic trust. He remembered how his local friend had once explained the nine concentric circles of babus trust that need to be crossed to reach the inner sanctuary of the Indian government bureaucracy. He called it the Garba Graha (the sanctum of a Hindu temple), where all the prayers are answered. Being a son of a Lajpat Nagar contractor, he knew the value of being in the centre!

“They are out of print. If you need anything else, let me know?” said the thin bespectacled man at the payment counter, who reminded him of Ritwik Ghatak’s film characters. He sat behind the heavy wooden counter with glass partition separating the rowdy public from the sacred babus space. The counter was the symbolic physical manifestation of the eighth circle of trust. The bespectacled babu looked surreal in the inner circle; as if he had always been there, since India became independent from the British Raj. Piles of files behind him, ashtray that came as a gift from a Karol Bagh stationary trader, the dak-dak of the fan above, the filtered sunlight from the concrete jali exposing the dusty layer on the counter where Paritosh stood trying to make sense of the situation.

The exercise was becoming frustrating now. The maps were either out of print, or out of stock or restricted. Moreover, the clerk was getting more and more irritated by him and in a second snapped; “the government is not making maps for you. Moreover, with the security concern these days, do you think we will give all these to the terrorists on a silver plate? Do you know these maps were measured by the British and Indian engineers for years together and are some of the finest maps in the world? Do you know that we have details in 1: 5,000 where you spot the difference

between a cow and a buffalo? “These maps are restricted. Tell your department people to write a letter to our director. You cannot get these maps like this. Please come through proper channel.”

MAPS AS STATE INSTRUMENT

The issue of imagination of our cities is very much related to the legacy of cartography in the country along with the shift that we are witnessing in geographical representation on the Internet. The origins of maps as we have know today was definitely inherited from the British colonial period in India but really has its birth during the enlightenment period when the concepts of space and time were radically reorganized to construct a more organized, healthier and more affluent society (Schneider & Harvey, 1991, 249). Maps during this era were then reduced to being factual, functional for ordering space that needed human intervention. The imagination of a new world and the fact that people will shape nature seems to be the inherent assumption in the maps post renaissance in the western world. And state is the proprietor of the ‘scientific’ and ‘authentic’ imagery of this space. It is perceived to be so important and authentic that it is denied to common citizens. The accuracy of the documentation is in fact an important condition that becomes the reason why the state is perceived to be in the position to decide future development, present taxation and other policies applicable to various parcels of land. The claim to scientific accuracy coupled with secrecy is a potent combination that a state perhaps deploys to control space. Maps are the perfect instruments of such control, not to forget many others like census data, archaeological information, geological data, etc.

Maps have traditionally been associated with the state in the form of local government bodies, its survey departments and scientific arms. The initial mapping exercises in India for example were efforts as part of the larger objective to control and rule over the colonized territory by the East India Company and then the British Empire. The army of the East India Company carried out the first survey of India during the eighteenth century. The survey itself was done under various categories

such as revenue survey, topographical survey and economic survey. The reliance on the correct scientific methods for accuracy and speed were important considerations. For example, the use of geodetic survey by Colonel William Lambton while initiating the “Great Trigonometric Survey of India”. The British took extreme pride in their work, as evident by the words of A. S Waugh, the Survey General of India, “This magnificent Geodetic understanding, which at present times extends from Cape of Camorin to Tibet and from Meridian of Calcutta to that of Kashmir” (Edney, 1997).

The survey amongst other activities of documenting was in some sense concerned with the efficient management and utilization of all the resources. This was also the means by which the ‘native’ population was dominated both at economic and cultural realms. The idea of the superior western scientific culture that is extremely accurate, precise and understands the geography of a place (unlike the uneducated locals) got further reinforced in the process of surveying and production of maps. In the process the rich history of the Indian traditions of geographical representation was perhaps seen as inaccurate and not scientific enough. The older traditions of maps making were perhaps almost forgotten and relegated to the background.

Figure 16 is a historic map of Swai Madhopur old town indicating the water management and engineering plans for the area (Gole, 1989). Older maps often represented the built form and also express the context of its existence; the mythological stories, the festivals, wars and imagined position of the town in the regional geography of forest, animals and water bodies.

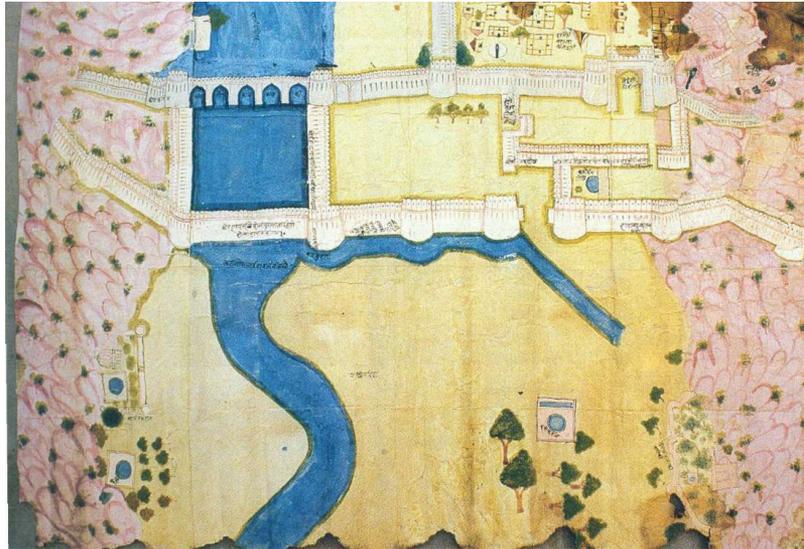


Figure 16: Historic Map of Swai Madhopur showing Water Management

Interestingly enough the surveyed map of the British India also became the basis of the partition of India and Pakistan. In some sense the arbitrary line drawn on a piece of map for the partition of India leading to displacement of some 12.5 million people and perhaps a million deaths, demonstrates the power of the “scientifically measured maps” in the hands of a few.

These maps are very different from the survey maps that the British made in India. Obviously the later is based on accurate ground surveys, and hence, claim to be true representation of the exact physical condition, as it exists on the surface of the land. The older maps on the other hand, almost always told the story of the place, its people and their belief systems. But more importantly the older maps (medieval period and earlier) showed a very different idea of space and time as compared to the British maps of India. Space and time were defined by the social and cultural context of the place (which included ideas of scale, size, distance, territory but also of lives of people, their belief and routine) and not by abstract ideas of land as a commodity that needs to be controlled by roads, infrastructure, aqua ducts, etc., as we notice in maps that were drawn post-enlightenment in the western world.

MAPS FOR NATIONAL IDENTITY

The British maps were part of the large legacy, India received apart from efficient railways, post and telegraph, census and so on. But maps were important as they were the tools for forging a new national identity at one level, but also the tool to reinforce cultural identity (especially language) through drawing up of new state boundaries. The map was the mediator of the imagination of our territory; “The Indian subcontinent extends from the great high Himalayan mountains in the north, seen here as green undulations to the tip of the southern coast of Kanyakumari where the three seas meet”, as said by our school geography teacher. The good old map was the perfect companion of the children that had to be taught about the diversity of India, its flora, fauna, people and their distinct culture. We grew up imagining a lot of India through these maps.

Apart from the fact that all the maps that were available in the pre-Internet era had similar visual quality (and seem to be the offspring of the mother map), the information of the map was essentially the function of the state. The state was the surveyors' authenticator and producer of these maps. Access to maps is not necessarily the right of common citizens. The state has the right to refuse to general public the sale of map of certain areas like restricted border zone till this date. The state was central to the imagination of national, state and city spaces, which was mediated through maps. More often than not, maps became the medium in the hands of the state to 'teach' or orient the citizens of India the wonders of India, like the uninterrupted Himalayan mountain ranges, holy rivers, Western Ghats and the long coastline. Maps really were seen as important means for maintaining national identity and pride. Apart from their symbolic value maps also had some practical value for navigation and locating spots. The medium that carried this visual was also varied but the image was more or less constant. The visual construct of the map had many constants like use of lines, fills, land-marks, natural and man-made features to name a few.

MAPS AS TOOLS

Map as a tool to navigate in a city is a recent phenomenon for India. Use of map to find a direction is essentially the result of the modernist framework (emerging from the developed western nations) where the individual is the centre in the imagination of the society and technologically advance information the key to solve problems. The individual with his preference, freedom and choices has to be preserved at all cost. The self becomes the centre of existence and must never be violated. The use of maps to navigate in cities or countryside is the perfect way of preserving the 'self' in a public domain. Why be dependent on the advice of the person on the street when one can get the job done in a more efficient fashion?

In contrast to this people, many other cultures love to ask directions and most like to give direction in most animated and excited fashions. There is no fear or shame in

asking directions, and in the bargain people often strike a conversation about family and kids.

This chance interaction, the meeting of strangers, the conversation about life, the meeting of the eye and a shared smile is the glue that binds our cities and creates the public realm. The “public’ of cities is not defined through spaces alone but how people interact on the streets. The reliance on people rather than a piece of paper for locating oneself in city space is a symptomatic case that very much explains the nature of our cities. Indian cities are as much defined by community action in public places as much by their form.

The issue that gets raised is about how people, their verbal description, and animated gestures are preferred to visualize a route or landmark in space of cities. So the imagination of space is not always mediated through the ‘top view’ of a map. The personal interpretation and description are as important as the spatial triangulation. The use of place-markers, text and pictures in maps site such Google Maps and similar such sites seem to be mimicking this aspect of the city; the opinions of people, their memory and impressions.

THE GAZE

“The gaze is outside; I am looked at, that is to say, I am a picture”, (Lacan, 126). The map in Internet websites is a reflection of the obsession with the “self gaze”. The tendency is to see us through the gaze, which is outside. Similar is true for our spaces and cities, which we wish to view from outside as an image from top.

These maps (figure 15) show the worms eye view superimposed on the bird eye view. The individual interpretation in space is a consistent pattern that one finds in most of the geographical representations of space on the Internet. Two conditions come together here — the representation (in this case a satellite picture) of space that

Maps perhaps were never tools to find directions. Are they not the storytellers of a place?

CITY IN DIGITAL SPACE

The digital space sometimes draws a strong reference to the city spaces in form of either its reflection or in form of a simulation that informs our imagination. So it should be viewed as a cyclic feedback loop where the material transformation in city and its imagination are constantly influencing each other and so are in a state of constant flux.

The example of real estate imageries in digital space has been studied to understand the issues of imagination of our cities. The India real estate market has grown exponentially in the last decade or so. The real estate is also an extremely competitive market with new players sprouting and getting lost practically every month. The competition to attract attention of prospective buyers is immense and the image of the development becomes a very important tool to attract people. Moreover, the real estate is now viewed as an important commodity for speculation and profit.

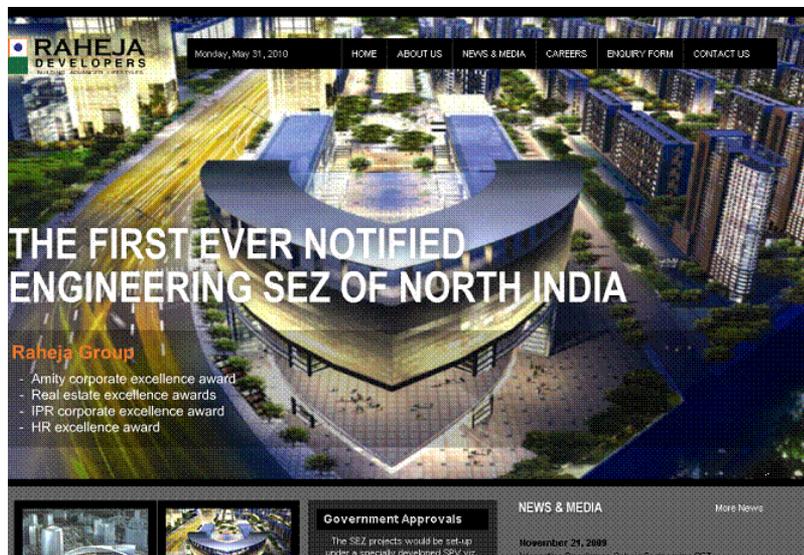


Figure 18: The vision for a new Urbanity in Real Estate Advertisement.

The image of such real estate in a city is not only a vision of the specific project but also a visualization of a city of future. If looked carefully the image is very strategically positioned as

it shows the notions of the developed cityscape which is wider roads, glass facades, cars all around and essentially an urbanity cleared of all the small structure, people on the street and auto rickshaws. It very strategically sells not only the project but also tries to project a vision of an urbanity which is gentrified and promises to enchant the upper class with places of leisure and recreation. Architects owing to their advance software rendering skills, then become the perfect messenger to deliver such images!



Figure 19: A Real Estate Website Image.

This image is now played out in popular media and feeds on the collective imagination of cities. The digital mediums like website, walk-through and three-dimensional model reinforce these ideas of a new urban setting. The over reliance on images to

create an imagination of the future is a recent phenomenon and leads to some very interesting and urgent questions. The clarity and precision of the images creates a very vivid idea of the future. Perhaps this in itself is a slightly problematic situation. The image then often becomes the goal:

It is rather interesting how in many such images of new real estate the women is depicted as relaxing while reading a book and men taking care of the young kids! Perhaps the dream merchants know how to work on the sense of guilt of today's fast paced corporate life; where men hardly get time with kids and women are stretched managing home and office leaving no time for pursuing something of their own.

The Internet today along with mass media is in the centre of such image flows. The network of information flow is value-free as it does not make any distinction between one with another. Moreover, there is no transmission loss as in the diffusion model of innovation. The network then becomes the carrier of images, capital, knowledge, technologies and people and leads to further division between the places that receive the images and its regional realities of geography, state and nation.

Such constant bombardment of the vision of the future has created a skewed imagination of our cities leading to an aspiration of the image of the developed nation as a goal. The image here is playing a major role in stirring up such an imagination of aspiration in popular domains. Such aspiration for ideas of city has taken stronger roots in the recent time with the gung-ho around the great India growth story. Unfortunately most of these discourses paint an extremely innocent, one sided and graphical vision of the future; a city with wide roads, lots of fancy cars, without beggars, removed of slums, glass facade shopping malls and large houses. Essentially a dream of a gated enclave for the upper class extrapolated as the model for the city.

The notions of progress, efficiency and order become important ideas that get represented over and over again with the promise of achieving city, which is global and hi-tech. The model of such imagined development is an extremely flawed one as it ignores the very contextual basis of what our cities are all about; a vibrant cultural mix, small and medium scale entrepreneurs, different religious identities and a strong local economy. The stereotyping of everything that we have as being messy, ordinary or lacking character then becomes an important notion on which the ideas of advancement are mounted. The conflict around representation of cities will become more pronounced in times to come. It has been observed by some scholars how the identification of the long standing city patterns being ordinary and sometimes messy becomes the basis for proposing a new restructured city that is 'global and developed' with heavy investment in infrastructure and gated enclaves. See the section on transformation for more on this.

CITY IS AN ARTIFACT OR A PROCESS?

The recent advancement in three-dimensional representation has led to an extremely visual way of imagining the past, present and future of cities. The issue is essentially one of deployment of a very vivid and perfect image of the past or the future. Recent advancements in technologies of visualization (3ds Max, Maya, Rhino, etc.) have meant that one can quickly create form in space that depicts the materiality of a city scale development. This has led to a more visual (hardware) description of cities. The advancement in technologies of depictions such as plasma screens, touch screens, Led-pixels screens have meant that each of these images have increased mainfolds. See figure 20 for a comparison of advertisement hoarding sizes with respect to the known architectural landmarks of Ahmedabad city. This phenomenon however, is not something specific to India but a lot has been discussed on the issue of technology and representation in the literature in other countries. (Vesely, 2004). See figure 20 for a comparative scale diagram of a prominent landmark building in Ahmedabad and its comparison with the height of the advertisement boards.

Figure 20: The Image now Dominates our Skyline



The city and its parts now are often depicted more as a visual and less as a larger economic, social and cultural phenomenon. The visualization and spectacle is at times a means to conceal repetition of architecture (Lefebvre, 1992). City is seen like an artifact to be viewed from all around in a museum unlike a representation which describes the city in a holistic fashion; the processes of economic transactions, social negotiations, cultural practices, etc. Moreover, the city depiction is not a fictitious account of its future but rather tries to portray a precise and sure one. This lack of fiction and an air of scientific precision in these images make them appear increasingly achievable if the patrons of the image are allowed to prevail. There are no grey areas in such images, no chances of different interpretation or any other form of engagement of others. The image is clear, precise, and cartographically correct and claims to represent the aspiration of the city at large. The lack of ambiguity or space for manoeuvring for future innovations and viewpoints in such representations is sometimes disturbing. The digital space is beginning to counter this unified way of viewing the city by offering spaces that capture the lot many facets of the city. The blogs on cities, photo essays, historical records or stories of its citizens together are slowly building a mosaic of the imagination of our cities. The space is wide and slowly evolving; with number of people writing about their lived in experiences and other stories are increasing. The digital space holds lots of hope and promise to create varied narratives of the city. We are now moving slowly to a description of cities, which comes from the experiential narratives of people. The city now (through blogs and other personal accounts) is also imagined through the eyes of the many. It is in absolute opposition to the imagination of an abstract idea of a space of the state (Lefebvre, 1992). The imagination is also being mediated through a bottom up process in exact opposition to the visualization of a modernist city, which was top down and master planned.

This conditions raises two fundamental questions:

Can the digital space hold potential to create alternate perception of the city through various new forms of representation?

Will this new imagination of cities that is mediated in digital space be then contextual to the place or will it try to detest from its immediate history and geography like other network cultures?

THE CONTEXT AND THE IMAGINATION

The imagination of the city and its landscape has been a central theme in much fiction specific to a place. The analysis of consistent pattern in these stories can give us lot of clues about the legacy of imagination of cities and also help us understand the possible change that presence of digital space might bring about in the same.

THE AUTHORSHIP OF THE VIRGIN LANDSCAPE

“The royal hunting caravan of the King of Udaigarh with his procession of queens, ministers and courtiers made way in the dense jungles that existed at this very place”, said the tourist guide in the city fort. During the hunting expedition the king killed many dangerous wild beasts that even towered way above his elephants casting their evil shadow on his dozen odd queens. The king on one such expedition killed a pregnant deer thinking it was a fully-grown wild hog. On realizing his mistake the king could not hunt or rest any longer. The guilt of the kill almost seized the king and he went into deep conversation with himself. He called upon sage Vishwananth who stayed in the forest and told him about the incident. The sage asked him to do something for the forest whose animals he had plundered and may be God might forgive him. When the king emerged from his meeting with the holy sage, he announced to the horror of his ministers that this forest will be his home and he will make it into the most magnificent capital city where there will be place for everyone — trees, animal, water and humans!

So this is how the foundation of this great city was laid and you see those two old trees said the tourist guide; those are the remains of the great forest which the king protected and worshipped.

Most cities in India justify and sanctify their existence at the very place through some such story of its origin. Such stories are usually marked by a strong claim on religious and moral ground that explains the reason for its origin. The role of a founding father of high nobility like a king or sage is important to sanctify the decision and process of city building. Cities are often portrayed as being planted or planned and are rarely depicted as overgrown settlements. The historical authorship is an important myth for most cities in India. The land was deemed fit and important to start human habitation. The genesis of city is about always portrayed as a very conscious human act of locating oneself in a special landscape condition.

THE ANXIETY IN CHANGE

You know the story about Lala Ramji Chaudhary asked my grandmother. No, I said even though I had heard it hundred times from my grandmother. Knowing very well how forgetful she was, I got ready for the short story from my granny as she applied the stinking oil in her silver grey hair in the morning sun.

You know the richest trader of Kanpur was the mill owner by the name of Lala Ramji Chaudhary, she said as she cleared her throat. He was not only rich but also a hard task master and much feared by the mill workers for his fits of temper. One day as he was taking a round of the large dyeing yard where all the large fabrics were spread for drying in the sun, he finds an old worker of the factory sitting and well doing nothing really. On being asked for the reason, the old worker tells him about the ill health he has been keeping because of the constant problem of Asthma. Lalaji threw a fit and even before the old worker could say anything more, he is

humiliated and thrown out of the factory.

The same night while there was a large storm building up on the dark banks of the Ganges, the old worker jumps from the railway bridge to his death in the holy river. His body is recovered the next day and soon Lalaji comes to know the identity of this person; the old man was no one but the person who sold the farm land on which his mill was built 30 years ago. His sons had made way with the money from the sale of land and he was abandoned to fend for himself. Lalaji now also remembered how Kishanji (that was the name of the dead old man) had helped him get workers for the mill from neighbouring villages and how he never insisted on all the payment of the land and asked Lalaji to pay once his mill breaks even. Had it not been for Kishanji, Lalaji could have been a nobody. But it was too late; Lalaji was a cruel master now and Kishanji was dead. Soon everything changed though.

The mill had union problems to start with and then the machineries became obsolete and then soon enough, it was taken over by the National Textile Corporation during the emergency. Lalaji went bankrupt and was a broken man as his only son and wife perished in a car accident near Lucknow. He was alone and with everything around him gone, he soon lost his mental balance. He had to be chained to his room and was soon shifted to the mental hospital in Agra where he eventually died a lonely and painful death.

This is what happens son when you show disrespect to the weak and the poor said my granny in the end. We are lucky to be blessed with so much. Always help those in need and you will never be alone in this city.

Such stories exemplify the anxieties of the societies in industrial cities in India. The erosion of values and the massive inequalities that the societies faced for the very

first time between the working and the bourgeoisie classes were the fodder for not only literary works during the 1960's and 70's in India but also mainstream movies with its "Angry Young Man" depictions. **Here the imagination of city spaces is of much interest. Large estate of mills, were often perceived as places of exploitation of the poor by the rich. Such industrial properties had prominently scarred many cities in the 60's and 70's, while radically reorganizing the spatial order of the city.** The connection of the city with the sacred landscape is also a very important condition in most imaginations as it perhaps provided the much-needed relief from the man made built environment; the river just outside the city: the solace of the lonely in the night and the pious in the early morning and the place for final rest. This imagination of city spaces from a social morality and political perspective is an important component of large cities in India.

There is a very strong connection of cities and their residents with the land and its context; the river, forest, temples and to elements of landscape that existed even before the city. The information network is on the contrary context free (value free). The very nature of digital space that is much the outcome of flows in networks and nodes makes it absolutely not aware of the immediate context. **To start with issues of geography and territory do not bound this space and secondly the nodes and networks irrespective of their territories can influence it. It is a space that comes from flows of network and not from territories.** But whereas the network ignores the historical and geographical context, it does build up another one of its own that leads to spatial imagination of a different kind. The context now is not only the space of our physical existence but rather the one that is being created by the networks as well.

WHAT IS THE DIGITAL SPACE LIKE?

The cyberspace has definite characteristics and predictability and has a rather ephemeral quality. It could be fleeting and temporal in its nature. However, it is not formless or dimensionless and it does have specific size as well. The space exists for us only when we decide to participate in it and in that sense it is fluid or ephemeral.

Industrial cities such as Mumbai, Kolkata, Ahmedabad and Kanpur are good examples of places that went through massive physical change while large factories and mills were set up. The railways that entered the mill compound played an important role in cutting the city into pieces.

Many authors have further discussed issues of spaces of flow in cities of the world economy. Refer to Maneul Castells and David Harvey.

It gets created at the moment of our engagement, in the digital realm. It has a dimension, as it could vary in scale from being a very personal one or to a public one, it has a character as it sometimes allows and sometimes restricts others, there are norms of behaviours particular to the space, it is personal to the extent that it is created by the user at the very moment and will perish or become dormant once the user logs off. In terms of characteristics, the cyberspace has more parallel with the notions of space in Hindu philosophy as discussed in the first section where it is argued that the inner space (of the self) is fundamental for the existence of the outer space. The self holds the space of our dreams, and that of our passions and that of our perception (Bachelard and Jolas, 1994). The experience of space here then should emerge out of the combination of the material and the inner space.

The other construct that can be deployed can be that of the utopias and heterotopias or the 'other spaces'. Utopias are not spaces that are located in any place but are an important imaginative structure of our society and a direct inversion of our reality presenting society in a perfected form or turned upside down (Foucault, 2002). The cyberspace is being perceived and believed to be the space of utopia by flow of information and its neutral nodes and networks; it challenges the known arrangement of power, geography and history. But unlike a clear and abstract idea of space of utopia the cyberspace is often perceived as one that might offer an alternative to the power relationships of the society. It is a utopian space by creation of an imagination that comes by appropriation and interpretation of cyberspace and not so much by intent. This perhaps will be the fundamental challenge while understanding the cyberspace as a heterotrophic space (or the other space). It is a lot more than that but it does house more heterotrophic spaces within itself.

Heterotopias on the contrary are real sites that sometimes allow for the 'other spaces' of the city to be structured in them, often housing in them things or ideas that the city cannot. The digital space also plays this function as by the virtue of its networked configuration, it collapses space and offers it for the 'other' function that the city cannot hold — the libraries of the world, the artists from every corner of the globe, Japanese anime porn and the speech of the great thinkers. There is no space in

The idea of heterotopias has been elaborated by Michel Foucault in the form of various principals and expressions in different cultures.

a city that has all these. Presently the digital space plays out the heterotopias across time and space. In the sense that it is not specific to the context and that is where it is loosely connected with the city unlike the heterotypic sites in the city that are the 'other' but particular part of the city.

The cyberspace does seem to present itself as the 'other' combining both utopian and heterotypic kind of spaces within them. But does the spaces of the city acknowledge the presence of heterotopic spaces? Even though these are non-mainstreamed space but they do make their presence felt in other parts of the city. For example- the road leading to the graveyard is desolate and does not have the life like in other cities, the land often slopes down to burning *ghats*, with large trees announcing the presence of something coming. One is able to sense upcoming spaces by various symbols and conditions in the city. Spaces in city always leave clues. One need not enter them to know that they exist. Are we not able to sense the under-ground culture of cities when we roam around in the roads, do we not feel the presence of something "out of bounds" or "un-known" when we walk in certain parts of the city? "Other" spaces do not reveal themselves to everyone but their presence percolates many parts of the city.

Does cyberspace in any way engage or leave clues in parts of the city?

SPATIAL ANCHORS OF IMAGINATION

As mentioned in the last chapter, signs of faith and belief structures occupy various parts of the city. The small roadside shrine, the banyan tree with the sacred thread, the temple complex and similar such gestures have not only occupied space in old cities of India but also sprout in newer areas. The notion that these are symbols of older tradition alone is not true as they continue to occupy space and imagination in newer development as well. Needless to say, there is no provision in urban planning for such cultural gestures. They happen nearly "on their own", meaning that they are illegal and result from spontaneous productions, not to forget that these structures form a way of claiming space by the marginalized groups in the city as well.

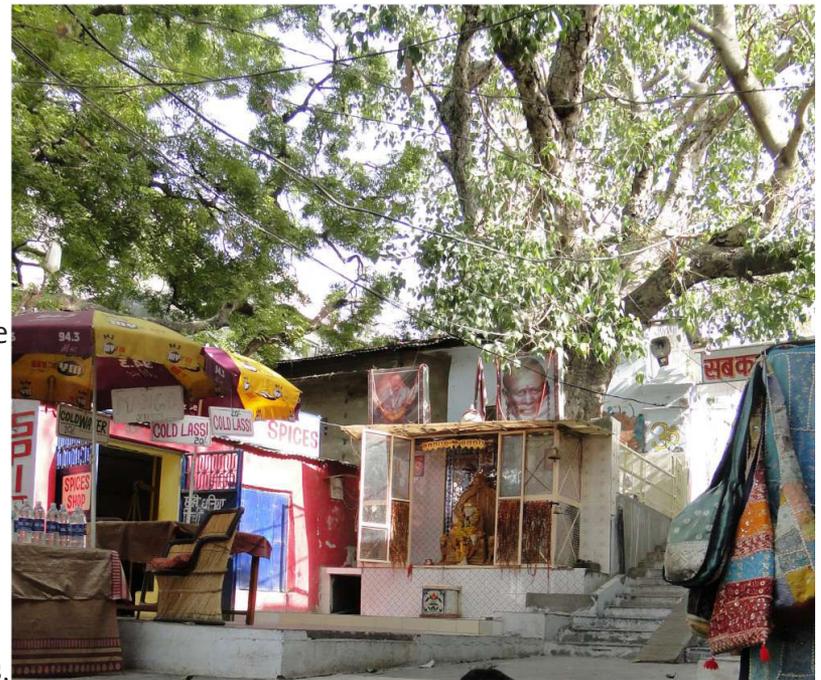
These structures (such as shrines, temples, sacred tree, holy ghats) are of interest to us from the point of view of their position as spatial anchors that symbolize fiction (the sacred space) of the city. These anchors are the material culture that connects bulk of the city dwellers with the fiction of the city. There are perhaps two conditions that become important for such a material expression; one is the collective imagination that forms the basis of production of such physical anchors of associations and two the ingredients for spatial expression (language of architecture) which is also a well established tradition.

If the cyberspace has qualities of temporalities and collective belief that comes from the technology, then it surely will add to the collective imagination. But within the imaginative structure there would be a promise of the future city as well. The current rush of state and corporate to portray their plans for the city through websites and blogs are an attempt to claim that space of imagination to manufacture consent for new development.

The state will prefer to see the democratic and bottom up digital space as the 'other', which gets relegated to the periphery of the mainstream discourses.

Can the cyberspace and the imagination therein get physically anchored to the city in any way? I speculate that it should eventually have specific spatial anchors. As we have seen in the case of the traditional myth structure that spatial constructs are needed to connect and reinforce the ephemeral imagination with the concrete space of the city. The two do not exist in isolation or in constant states. The city (with its material culture] and digital space are both regular and variable. They rather only look for conventional forms of anchor (complete architectural examples), one should also look for patterns,

Figure 21: The Spatial Anchors (tree and temple) of Imagination.



systems and symbols of the cyberspace in the city that are perhaps transforming the landscapes of our cities.

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CHAPTER FOUR: THE TRANSFORMATION

THE CITY IN GLOBAL NETWORK

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Internet, Society & Space in Indian Cities Pratyush Shankar

The generic reasons for transformation of geographies in the last two decades have been attributed to three epoch occurrences in the late 1970's and 80's; the information technology revolution, crisis of capitalism and statism and the cultural revolution. The new mode of production which has been referred to as informational is marked by a strong technological backing and also uses knowledge not only do work but create more work; so knowledge is acted upon knowledge (Castells, 2000). The speed, scale and the networked nature of the new economies in terms of its spatial spread means that known geographies and histories get disturbed. The other feature of this new economic order being that it is global and interdependent and seems to almost act like an autonomous being.

The post-Fordist mode of production is the central pattern of operations of large and small businesses alike. A mode where sites of production, design and coordination's can be spread across all parts of the globe but works in seamless coordination and precise outputs by the use of information technologies as the structuring armature. In this scenario there seems to be two kinds of preferred sites (a mark shift from yesteryears) that large firms look for; large parcels of land on off-shore locations (read cheaper locations) which can house many people with low wages and smaller spaces in the heart of city centre to function as command and control nodes for global operation to house their white collar professionals. On top of that financial transactions like currency, FDI, banking, etc., now account for a large percentage of trade and it has been growing at a rapid rate. The resurgence of cities as mentioned earlier can be very much attributed to this rush and agglomeration of firms to the city centers (Sassen, 2006). Irrespective of the networked nature of the economy people still wish to agglomerate for the purpose of work. Like service sector comprising of legal services, designers, financial services will agglomerate

around large firms command and control operations. Together it creates a kind of eco-system of inter-dependence in a small space. This also leads to a very different visualization of a city. **From a traditional one where the city was the command and control point of a larger immediate region now it is a node in the global network.** By participating in the global economy through technology some cities have taken huge advantages of the investments, wealth and power and not surprisingly cities that are left out of the network are struggling and continue to decline in terms of growth rates and new work opportunities. Around 70 per cent of FDI gets rooted through six global cities of the world (Sassen, 2006).

The network itself is value free and does not discriminate in the nature of flows. So as a result there is a flow of ideas, people, images and technologies. But the flow is also binary; it is either there or not there at all. The situation has even been called as one that creates uneven cartography but enduring architecture. The concept of “spaces of flows”; or built form programmes that are essentially geared towards catering to these flows.

It has been argued how cities are undergoing massive infrastructure changes to accommodate these new facilities and restructure the space in the race to be part of the global economic network. This standardized public or private infrastructure monopolies are receding as broadly hegemonic forms of infrastructure management eventually leading to a ‘splintering urbanism’ (Graham and Marvin, 2001). It becomes clearer through sheer empirical evidences that the conflict in cities over issue of access to infrastructure, representation of identity and dislocation of people is becoming more and more common. This is not something limited to one city in India but in fact has become a reoccurring theme in many cities that are getting globally connected. These are testing times for most cities, which are part of the global economic networks. How will cities escape their context of people, history and geography and still connect globally. How will these two contradictions be reconciled? Is there any pattern of hope anywhere?

The issue of relationship of cities with hinterland is discussed in the section titled Center and Periphery.

The restructuring of the Indian cities took a unique turn in terms of both the mode of change and its scale beginning the late 1990's. This phenomenon of change and new development was often represented in popular media as IT City, Global City or Information City associated with earlier settlements like Hyderabad, Bangalore, Gurgaon, etc. The hype and attention around projects like Cyberabad (IT facilities around Hyderabad) reached a peak by the start of the year 2000 when Chandra Babu Naidu the then Chief Minister of Andhra Pradesh put his weight behind the project. Hyderabad was competing with Bangalore to attract investment in the new area of IT.

Cities like nations were now competing for investments from private corporate. This kind of positioning of cities as places for investment was the typical pattern being enacted all across the world due to the process of globalization in many developed and developing economies. This marked a paradigm shift in the manner in which cities were visualized now; as destination of investments and sites for housing new ventures. The same period is also marked by reduced grants from the state and the centre to the city and leaving them to largely fend for themselves. This was part of the larger process of structural reforms within the government as the economies were being liberalized. The city was now being visualized as a large corporate that had to attract investments and make profits by the way of property and other form of taxes. There was a massive shift in the nature and composition of the local governance model to gear up for these new challenges that the globalized world offered. New posts such as Chief Financial Officer, CEO, etc., became dominant positions within the working of municipalities. International airport projects were seen as the point of massive flows of goods and people from across the world and became important in the network economy often executed with a mix of private and public capital.

Bangalore International Airport Limited (BIAL) is a Public Limited Company under the Companies Act formed to build, own and operate Bangalore's Greenfield private sector-owned and operated airport - the Bengaluru International Airport. Private promoters hold a 74 per cent (Siemens Projects Ventures – 40 per cent, GVK – 29 per cent and Unique Zurich – 5 per cent) stake in BIAL while the government holds the remaining 26 per cent (Karnataka State Industrial Investment and Development Corporation – 13 per cent, Airport Authority of India – 13 per cent).

This period also marked a shift in the way development work was carried out in the city. The city administrators now slowly started playing the role of a facilitator and manager rather than being actually builders of the city. Large private players were welcome to participate in providing housing and commercial space to the city. The local government themselves now were building only infrastructure and not anything else. For example, one will find very few instances of commercial buildings, market place, library or schools being conceived and built by the local bodies these days.

This essentially meant that the municipalities could boast of being working for public good if they could attract large investments in real estate projects of housing and commercial nature. The cities prided themselves as having large real estate development in their territory and an indicator of their efficiency and worth.

NETWORKED CITIES IN INDIA

Gurgaon and Bangalore have been studied further to understand the phenomenon of this IT related restructuring from the point of view of its transformed physical morphology and its repercussion on the nature of its public places. Gurgaon has been selected as it represents a green field project approach towards providing spaces for housing information communication technology infrastructure and Bangalore, as a case where earlier city fabric underwent a churning to accommodate the new modes of production.

Gurgaon houses a massive service industry for information technology driven business processes (this includes ITES-BPO and software development firms), not to mention the fact that many multinational software companies had set up their administrative offices way back in the 1990's. Bangalore has for the past 15-18 years or so provided a stable base for many software firms as their main research and development facilities.

WHERE THE STREETS HAVE NO NAME: GURGAON

The district of Gurgaon comprising of 11 towns and 730 villages is quickly developing as a thriving satellite town to the capital city. Suitable topography and living conditions, strategic location to Delhi (about 32 kms from Connaught Place) have been key attributes in the growth of the city from an inconsequential small town in Haryana over the past three decades. Gurgaon has been an administrative headquarters as early as 1816. The period post independence witnessed the urbanization into a city. In 1950 Class-II Municipal Committee was set up in Gurgaon, which was later, revised to Class-I Municipal Committee in 1969. The growth of the city propelled with the formation of Haryana Urban Development Authority (HUDA) under the Haryana Development Act, 1977.

In order to accelerate urban development, the Haryana Development Act enabled the participation of private developers such as UNITECH, DLF (Delhi Land and Finance) and Ansals, who have since played a pivotal role in development of residential and commercial areas. The objective of this Act was to provide developed land and housing at a faster pace to channelise non-government resources towards the growth. The tax benefit for new multiplex cinema halls for a period ranging from four to six years as part of the Government of India policy has seen a number of them agglomerating around the Gurgaon-Mehrauli road.

The total land-use distribution in Gurgaon is as follows:

Total Area	1,749 acres
Industrial Area	1,300 acres
Residential Area	256 acres
Commercial Area	193 acres
Total Area	1,749 acres

Source: *Gurgaon.nic.in*

URBAN PATTERN

The city can be classified under two distinct parts, the old town area (municipal area limit) and HUDA development. Urban development under HUDA can further be categorized under the following:

Residential sectors developed under HUDA

Residential and commercial areas developed by private developers with the license from HUDA

Industrial areas developed by HSIDC

Urban villages **Sector**

The older part of town before the conception of HUDA is recognized as Old Gurgaon. This part of the city, unlike the planned development all over, has grown in the absence of an overseeing authority.

MODEL

Sector model of development was prevalent in many new towns in India after independence. In residential sectors a minimum of 45 per cent of area under particular use is kept for parks, open spaces, roads and community buildings including community centres, dispensaries, and schools, etc., as per the norms adopted by HUDA. The sector planning accommodates the entire economic spectrum by providing residential property for LIG, MIG and HIG.

PRIVATE DEVELOPMENT

Gurgaon exemplifies a unique collaboration of public and private sector in an effort to accelerate the city's urban development. The developments have been varied — residential development — sectors, high rise apartment enclaves, etc., commercial developments and corporate oriented development. While the growth of sectors undertaken by private sectors under the license from HUDA, had to provide for special compensation for the economically weaker class by providing 20 per cent of the land for them.

URBAN VILLAGES

The urban villages in Gurgaon have fundamentally changed in their characteristics due to the advent of private developers. Though they are known as urban villages but most of them have been fully urbanized with very few people engaged in primary sector.

STATE OF THE PUBLIC REALM

Bazaar: The traditional bazaar type, a commercial street, is the most successful model of the Indian public place. A place for all cultural festivities and political dishevels, the heart of the city is where the bazaar is. Traditionally the bazaar has exhibited mixed land use, with the residential sector and institutions forming the next layer after the commercial edge.

Sector Market: The sector market as a part of the larger planning envisaged to catering to the local requirements of the sector residents. Often described as convenient shopping centres, these block markets were built in many cities in India and were touted as the new, modern, secular and accessible public realm.

Office cum commercial centers: such as DLF Qutab enclave is a variant to the sector market. Functionally, such centres house retail activity on the lower floors and office activity on the upper levels incorporating other public facilities. Although situated in

Sector market is an example of an interesting transition between the earlier bazaar and the aspirations of a modern living. The block does make an interesting study a democratic public place. Relationship with

similar urban density, these centres vary in scale from the sector markets. **Malls**, in popular discourses have been projected as the new public places. The advent of malls in the Indian cities can be described as a recent phenomenon, not dating back until before the last decade. The sprouting of malls in many such cities has raised serious questions concerning the right to public places and social control. Malls are usually singularly controlled interiorized set-up's, which is at the same time comparable to the scale of any *bazaar*; retailing out a diverse range of commodities and mostly tries to create a private space within the public realm. The advent of a certain kind of building typology and urban transformation, which is very closely related to the growth and imagination of Gurgaon as an Information technology hub needs closer examination here. See the comparative diagrams. It is very clear that the malls are a fundamental departure from the earlier bazaar and block types.

the outside immediate context
is well established and that of
seamless continuity.



Figure 22: The Sector Market

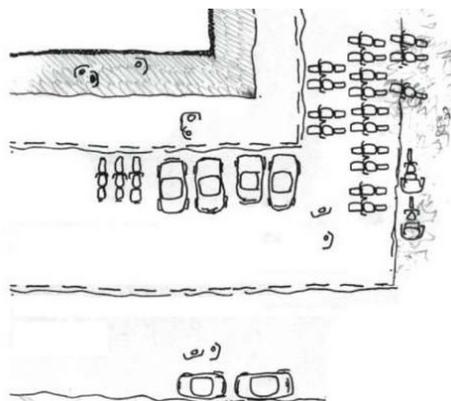


Figure 23: The Public Edge of the Sector Market



Figure 24: The Old Market.

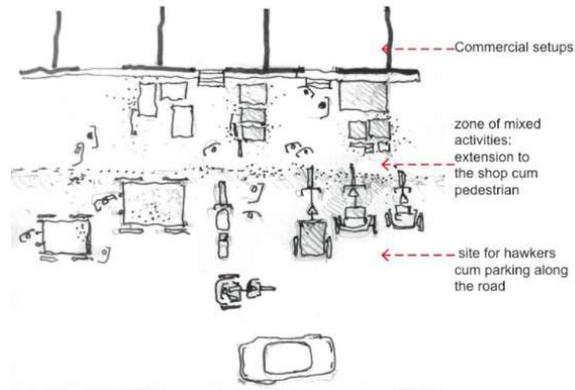


Figure 25: The Public Edge of the Old Market.



Figure 26: Sahara Mall.

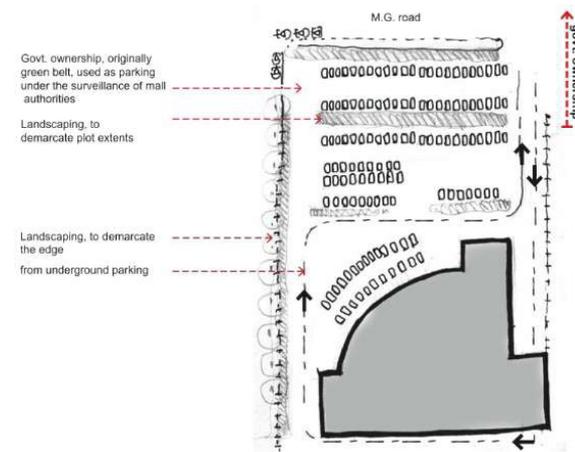


Figure 27: The Public Edge of Sahara Mall

PRIVATE PARTICIPATION AND POLICY CHANGES

The urban development policy of HUDA is heavily dependent on the role of large private developers for providing housing and residential areas. The role of DLF, Ansals and now UNITECH is well known in development of commercial and residential real estate. The tax benefit for new multiplex cinema halls for a period ranging from four to six years as part of the Government of India policy has seen a number of them agglomerating around the Gurgaon– Mehrauli road. Along with that the policy for retail in India allows for 51 per cent FDI in ‘Single Brand’ product retail and 100 per cent FDI in wholesale.

ARCHITECTURE TYPOLOGIES

The emergence of mall typology in cities like Gurgaon and Bangalore were often associated with the rise of global information nodes. Sahara Mall, Metropolitan Mall and the MG Road were the main areas of study. These have been studied on the basis of parameters such as built form, the levels of control, the attitude to the modes of transportation and the edge conditions.

THE BUILDINGS

Large parcels of real estate are now controlled by individual entities (companies or consortiums). The typology that evolves out of such ownership condition is that of a self contained and sufficient environment of shopping and recreation. The spatial structures of these new shopping complexes are closer to that of a five star hotel or a private hospital. The bottom line for the promoters is to create the right mix of commercial activity that can lead to maximum return on investments of the retail outlets. The new malls are extremely controlled spaces in terms of entry-exits and acceptable behaviour. There is a clear attempt to encourage access to people who are potential spenders.

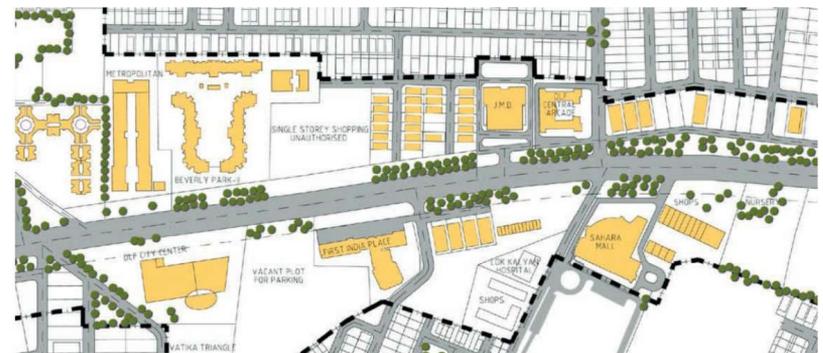
In comparison with the variety of experiences that a traditional Indian bazaar or even the urban sector markets (Greater Kailash, Defence Colony or Khan Market) seem to offer, the malls are more like sanitized hospital environments. The earlier market spaces offered much more in terms of variety of experiences due to the rich mix of different activities that were possible by participation of many in space making. The earlier markets supported and depended on a public space as the grease that helped established a seamless relationship amongst various activities. The new mall spaces do offer something else that compensates for the loss of matured urban experience — the connection with the ‘progressive’ world. Signage, architecture, material, sound and goods are all indicating towards how this space is connected to other cultures and countries (especially the west). This is an important aspect of the psyche of the urban population on easier side of the digital divide. **It reinforces the idea that information related business processes have led to creation of a large class of people in India that use the same tools to connect either actively or passively to global cultural practices.**

THE EDGE

The edge condition of the building and the plot also create the same distinction. The building edge is like a wall that stops access from all but one or two points in the building for entry and exit. The facade does not participate in the space around it. The bright colour and signage on the blank wall might add a lot of colour to the space around but does not help in any other fashion by the way of either engaging people with certain activity from the outside. This is an opportunity lost as softer edges of the building can add another level and scale of activities that can be of immense value for the common public domain around.

There is no reason why such an expression of reality and aspirations should be done at the cost of public places. For example, Khan Market in New Delhi is a very mature example of such a space that signifies the new realities of a globalized world while retaining the democratic characteristics of a public place.

Figure 28: The Uneven Plot Size in Gurgaon.



THE NEIGHBOURS

The foremost problem with Gurgaon development is the mismatch of the urban grain sizes. The new commercial development covers a large plot size which is a big shift from the smaller plot size of the surrounding areas. The relationship with immediate surrounding is very uncomfortable and is about always a mismatch.

Gurgaon is the classic case of large sprawl with no character of a 'city', massive unequal spatial constructs, no concern for creating a public realm and total surrender of the state to private corporate.

THE CHURNING WITHIN: BANGALORE

Bangalore has been closely associated with the information technology related developments in India and has been the hub for research and development in the sector. Bangalore presents contrasting scales in close proximity to each other. Large elevated roads lead into the heart of villages; sports complexes occupying tank beds share boundaries with settlements, large hotels and offices line-up along major roads concealing temple towns within. The city consists of various settlements, such as Halasuru, Sampagiramnagar, Guttahalli and Domlur, which sustain like islands undergoing little or no change during the city's growth. After independence the city of Bangalore was formed with the fort and the cantonment united under one administration. This led to an integration of various settlements to form the city. Growth of Bangalore city exemplifies a case of agglomeration of smaller settlements. The villages, which were formerly distanced from each other, are now a part of the larger whole — the city. Thus, Bangalore comprises of a number of urbanized villages such as Halasuru, Domlur, etc. The traditional market centre of each of these settlements still exists and has expanded over time. Planned intervention from the colonial times and later through government endeavours resulted in the genesis of townships like Malleshwaram, Basvangudi, etc., wherein the growth of commercial activity was restricted till the designated area. Based on the sector

model of planning, with the centre exemplified, arranged residential areas around it, was followed until the 1970's initiated by the government. With the advent of private developers a new model of growth emerged, those of gated communities and enclaves with large expanses of residential towers and internal recreational activities. Certain stretches of road and blocks were taken up for detailed study.

CUNNINGHAM ROAD

This street lies within a kilometre from M.G Road and was formed during the 1950's. Planned as a residential area, this particular street has become a hub of activity related to the IT field. Bungalows being the primary character of this area provide for sufficient space and plot sizes required for the formation of IT offices. Residential enclaves comprising of apartments are interspersed along the street. M.G Road being the second CBD of the city, providing for necessary infrastructure, makes it a prime location for such establishments to agglomerate.

MORPHOLOGY

With plot sizes remaining the same, the morphology has changed. Larger establishments have arisen, like apartments and large offices on previously existing bungalows. Land holding capacity has increased with amalgamation of plots for building large offices. This trend can be seen very recently. Cunningham Road reflects a complex mix of commercial and office activity, wherein numerous eateries and other facilities cater to the office going working class. Cunningham Road was previously a residential street housing bungalows on spacious and open plots. The remnant character of the main street is still visible along side streets wherein bungalows still exist.

Thus, the characteristic feature of this street is its intimate scale. The shops on the ground floor are open to public access due to the absence of boundaries between public and private property. The public footpath spatially extends till the building

line due to the absence of strong physical demarcation. The boundary is maintained mostly through landscaping and low walls, which often become seating space for passers-by. Open spaces along the street edge are largely absent since they are used for parking purpose, the exceptions being Sigma Mall and Food World. The level difference between the high ground (bund road) and low ground (former settlement) has been mediated through bridge connections between the street and the upper floor of the commercial property.

Most of the deep-set spaces are used for open air restaurants and parking. Though physically separated, the deep inset and the street are visually connected. Offices along the road are typically characterized by a central atrium space along which offices are organized. The atrium and the vertical circulation are usually placed in the street abutting area, connected to the street through a bridge. The other characteristic condition of Cunningham Road is the continuity between the footpath and the private property. Sigma Mall with underground parking has a sizeable open stretch along the footpath with street furniture like benches and small kiosks. The mall is strategically designed to draw in passers-by. This condition is a representative case of a privately controlled open public stretch.

KORAMANGALA

Koramangala was planned as an extension of the city in the 1960's. It is situated in the south-east of the city and was not too long ago a sought after residential locality with its wide boulevards and posh bungalows. Divided into eight blocks, the third and seventh blocks are more commercial than the others, with all major banks and finance houses having their branches. Several software companies are located in Koramangala. Koramangala currently boasts having The Forum, one of the city's biggest shopping malls and Raheja Arcade, a big shopping cum office complex. A large number of restaurants relatively upscale houses and apartment complexes and a number of Indian and multinational software companies distinguish Koramangala from other parts of the city. Koramangala has undergone a gradual transformation

from a residential street to an 80 feet wide commercial district with numerous offices and few bungalows. The plot sizes of the bungalows have been a constraint for the upcoming offices and shops. Instead, the emerging morphology of office spaces has adapted itself to the constraints of smaller plot sizes squeezing in the entire necessary infrastructure and functions at various levels. Small time eateries, which cater to the fast moving office goers, open on to the footpath utilizing even the two metre footpath. Extension of shops on to the foot path can be seen through extension of paving material and through privatized control over the immediate footpath fronting the shop. Apart from the eateries, the footpath is also used by the grocery shops, STD booths, etc., through temporary and semi open extensions. Thus, the resultant street edge lacks the otherwise strong divide between inside (shops) and outside (the footpath).

The following buildings were studied in depth : Shoppers Stop, 1995, Lifestyle, 2002, Big Bazaar, 2003, Bangalore Central, 2004, Fifth Avenue, Mota Royal Arcade, Forum Mall, Garuda Mall, Sigma Mall and M.G Road Mall.



Figure 29: The Sector at Kormangala. (left)

Figure 30: The Engagement and Privatization of Street. (top)

THE INTERNAL TRANSFORMATIONS

The new development in Bangalore is largely a result of transformation of the earlier condition; there is certain continuity in design of new structures. The building is designed on a very tight plot that rubs shoulders with everything around. The new buildings have to be designed in places that already have strong public space characteristics. See photographs showing roadside public activities as a universal feature throughout Bangalore. Some common observations are:

- Edges are often given away for the public functions of the outside rather than inside
- The inside – outside relationship in many places is more blurred and not so hard and hence, the idea of an exclusive interior is not so strong
- The area around edges of building often houses eating joints or kiosk that help in breaking the scale and in some sense maintain the traditional pattern
- Variety of street furniture (including low boundary walls that double up as seats) creates a pedestrian friendly street environment
- Pedestrian connection through the shopping malls to connect the front with the back street through bridges and pavements is a very interesting feature that has been observed in some complexes.

It is very evident that gradual transformations at different locations are much easier to integrate in the existing practices than large-scale new developments. Malls for that matter or any other building type cannot for now affect the existing public place characteristics of the city owing to a strong character of the street life that exists.

BUT WILL BANGALORE LOOK INWARDS OR FOLLOW THE GLOBAL BANDWAGON?

Neither gradual transformation of the urban fabric nor the scattered development of new facilities (for new mode of production) is considered to be popular choices in

public discourses. On the contrary the consensus has been created for having brand new facilities such as new towns or suburbs with state of the art infrastructure for the new economy. The existing patterns of public place are ignored and considered ordinary and efforts are made to create massive investments on roads and on infrastructure of exclusive zones on the periphery of the city in the last few years. The Bruhat Bengaluru Mahanagara Palike (BBMP) spent just Rs. 14.68 crores of the allocated Rs. 51 crores for construction of new market places in 2009-10 and only Rs. 20 crores for providing footpaths. Compare this with the fact that it is going ahead with the Government of Karnataka approved development of 512 km of arterial and sub-arterial roads and development of seven dedicated signal free corridors at a total cost of Rs. 3248.40 crores. This is however, a part of the overall plan of providing Rs. 22,000 crores as part of capital investment plan by the state government for comprehensive development of infrastructure (BBMP 2010).

Our study shows how the strong public space of the city has initially fostered a very integrated development of new facilities that came about as Bangalore became more prominent in the global information based economy network. Rather than work on issues of public transport, inclusive space and restructuring of the existing, the tendency has been to create large infrastructure projects that will help and is seen as the means to create productivity. The projection of technologies in urban space becomes an important device to show a 'promised' future of the city that is truly global and well networked. Roads, flyovers and new buildings become important symbols of such a projection.

THE CENTRE AND THE PERIPHERY

As seen in the last section, the tendency of the captains of the ICT industry has been to bargain for exclusive spaces for their facilities in parts of Bangalore. This is the classic case of the 'centre and periphery' phenomenon as predicted and observed by Saskia Sassen from studies of many cities that are part of the information economy network. According to the author (Sassen, 2006), cities that are able to leverage

a position of strength in the informational economy, experience massive influx of business related to financial institutions, trade and information technology command and control headquarters. These are also the business that are very affluent and wield power in terms of wealth and political clout way beyond their actual physical presence or numbers. Global surveys have indicated on how soon the city is restructured to suit these powerful organizations to create exclusive facilities like office, shopping, recreation and housing complexes with state of the art infrastructure like wider roads, flyovers, un-interrupted services (water, electricity, solid waste, etc.,) whereas very often the rest of the city gets slowly neglected and remains poor in even basic infrastructure. This tendency of powerful business organizations to leverage their position to create their own centres of affluence in the form of small cities within cities comes as the cost of splintering of the urban fabric and loss of public character of the city. Such disruptions of the city character (not just visual but morphological) have become pretty common in cities such as Gurgaon, Bangalore, Pune and Hyderabad.

The population in the 'periphery' (the ones left out) will either choose to follow their fate or create resistance for their rights to equitable quality of space. This conflict or resistance is becoming more frequent in most cities that are part of such newer economy.

The issue is often not so much about creating infrastructure which will specifically support the ICT related processes but often an opportunity and an occasion by the dominant group to create exclusive built environment that insulates them from the 'others' of the city. However, the 'others' like the low wagers, small contractors and poor are the needs of these exclusive enclaves without which the city functioning will collapse. Not only are they needed but are very much part and parcel of a city like any other citizens.

For example, the Gujarat International Finance-Tech City (GIFT) project has been promoted as a brand new world-class destination for information technology

companies to come and invest in Gujarat. It is not surprising that such initiatives are reduced to being real estate speculative ones that are more bothered about creating large exclusive spaces than anything specific for ICT specific infrastructure in the form of connectivity and hardware (express). The tendency is to create large sanitized areas catering to the needs of the corporate business operation. The effort is to position and project the city as one to be a favourable node of the global network of flows so that private business can flourish.

Whereas the pattern of only certain organizations benefitting immensely from the global information technology business processes is here to stay, we will have to decide on how to deal with this asymmetrical situation while visualizing the city spaces. The first step perhaps is recognition that the balanced morphologies of our cities will most likely be disrupted by these new changes and secondly a very conscious effort to create an environment that can be inclusive to all citizens and support of the new economic paradigm of networked operations. This will need an attitudinal shift in the visualization and execution of urban projects by the local government. Rather than gift land to large private developers to create their own mini townships, the municipalities will have to be an active participant in these processes in detailed design and execution.

KEY SPATIAL FEATURES OF THE TRANSFORMATION



Figure 31: Large Road Projects disrupt the Morphology of Cities; A Clover Leaf in Bangalore



Figure 32: Railways splintered the city during the advent of Industries in India during Colonial Period: Kanpur City

The above figure 31 and 32 show the impact of large infrastructure projects of movement on the city fabric in terms of scale and divisions.

The chart below shows a comparison of different models of city transformation and its impact on key aspect of the city morphology and life.

Nature Of Change	Spatial Structure	Idea Of Public Places	Idea Of Housing
New Specialized It Townships	Stand Alone Urbanity Movement Centric Spatial Form	Consumption And Recreation As The Idea Of Public Scenic Nature For Visual Consumption (Golf Course, Lake Front, etc)	Gated And Self Sufficient
City Restructuring And Extensions	Connectivity And Transport As Defining Features	Gentrified Places Of Consumption As Public Place	Privileged Infrastructure And Gated
Urban Inserts And Scattered Establishments In The City	Follows Existing Urban Patterns	Connects With Immediate Public Places Uses Existing Ones	Follows Existing Patterns

WILL OUR CITIES BECOME DE-CONTEXTUALIZED?

The known relation of the city with its hinterland and the larger area is now being defined. The city has traditionally been visualized as command post (both for resource, political and economic reasons) of a larger area and representing not only itself but also as the storehouse of history, identity and memories of a larger cultural practice of the region. Certain cities in India have become more autonomous and now the centre and state are bypassed by many cities while dealing with foreign investors and charting out visions for the future. It is not surprising that we find the World Bank starting direct negotiations with cities in the mid 1990's in India for their financial needs.

Many Indian cities are now breaking free and are trying to develop an identity, which is irrespective of the context in which they geographically exist. There has been consistent denial of their context and very conscious effort to don a new identity of being 'global' and 'information cities'.

CAN CITIES ESCAPE THEIR LANDSCAPE?

The geography of networks and nodes of the new mode of information economy urges us to reconfigure our imagination of our cities with a different kind of spatial configuration. Rather than understand cities as centres (spots) in a large region, we are facing the imagination of cities as nodes that are of a network (recipient of global flow of information, wealth and innovation by being part of the network). As a node of a global network, certain quarters of the city then will be closer to the homogenized material production of global cities that have the element of sameness; the same coffee shops, Spa, restaurant, hotel lobby, sushi bar or lift lobby.

Figure 33 shows the existing and gradually evolved relationship of the city with its periphery. Figure 34 shows the break in the relationship with the immediate surroundings as cities try to identify more with other cities of the globe rather than their own surroundings.

Figure 35 shows the long existing patterns of rituals (like *yatras* and *parikramas*) by which the relationship between the city and countryside is reinforced. Often these relationships is acknowledged in the religious rituals of the place.

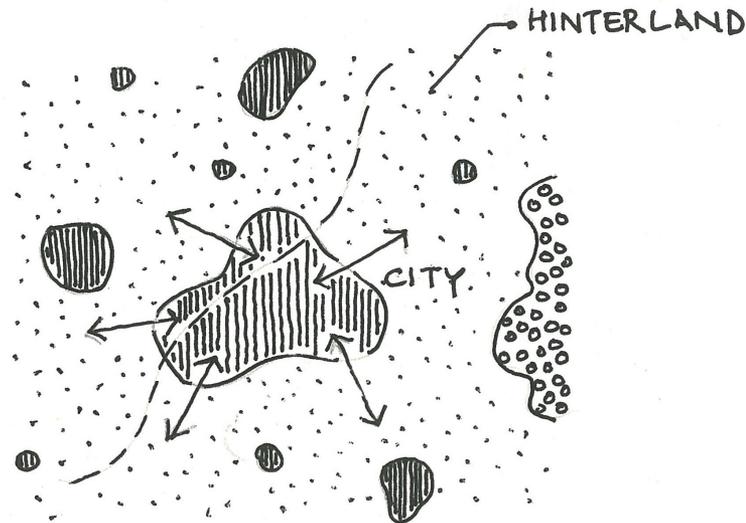
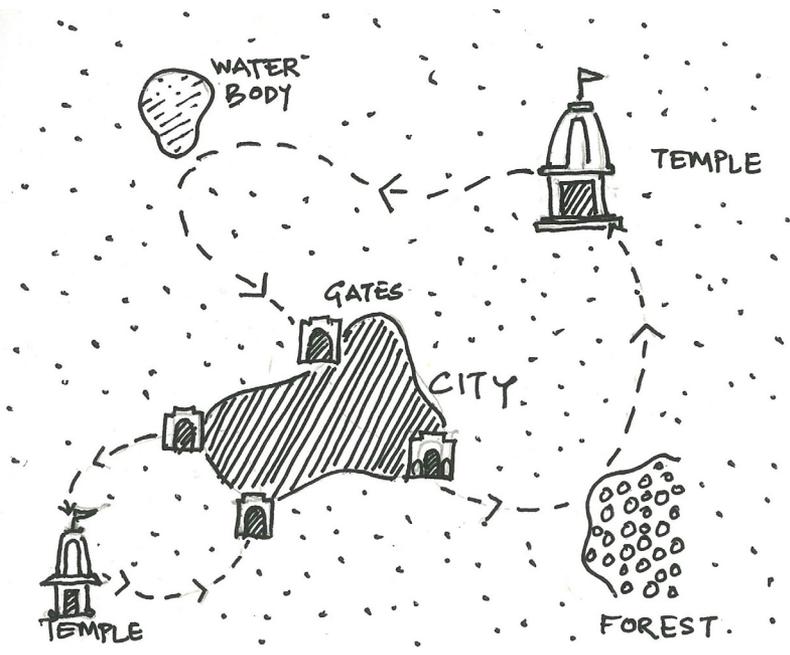
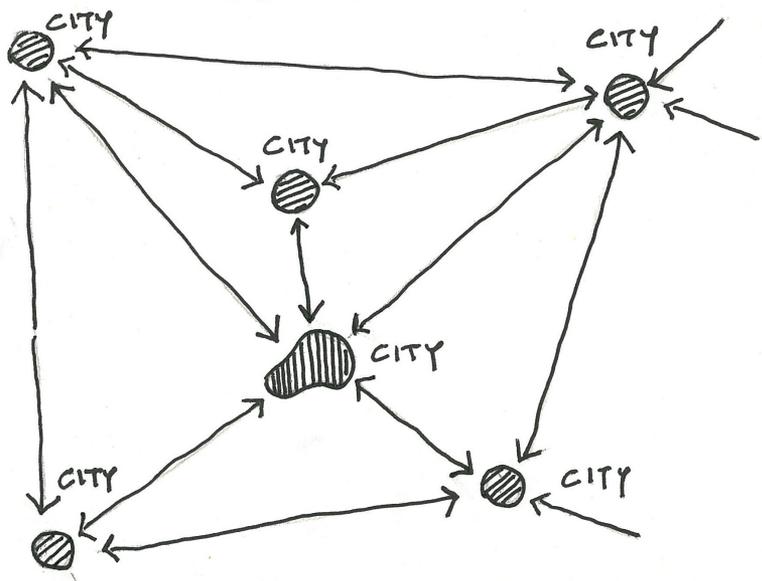


Figure 33: The City and the Immediate Surrounding.



127

 149

Figure 34: The Networked City.

Figure 35: The City Acknowledges the Surroundings.

Cities have traditionally been also visualized in binary opposition to the countryside, which were wild, unpredictable and dangerous as opposed to spaces of city that were protective and fostered a new material culture. This aspect has also been explained in detail in the section on street posters and miniature paintings. Whereas the city was the absolute opposite of what the countryside was not, there were always a sense of dependence and careful acknowledgement of the indebtedness to the countryside. Cities survive on the countryside that they daily consume for the food, water, and other materials of human comfort (building material like bricks, stone or lime is one such example). There is no escape from the fact that cities cannot run the moment these supply of sustenance are blocked even for a few hours.

The city is in a constant osmotic flow condition with the countryside. It is so fundamental and regular that it does not find mention in any discourses anymore; an almost taken for granted attitude. Not only are cities sustaining on such material flow but also that of people both as a daily rituals and historic instances of communities that have made the city their home.

Cities also have material and ritualistic imprints of this relationship with the outside. **The wholesale grain market, vegetable markets, the truck parked on the outskirts, the presence of the pastoral community in the city and such.** These ever changing activities and their spaces are the places of the osmotic flow between the city and its hinterland.

A lot many times there are more permanent features in the built fabric that signify the connection of the city with the surrounding; the city civil courts, civil hospital, collectors office, etc. These are some of the state's symbols that also signify the relationship of the city with the larger communities of the region at large. There are also gestures of public places that emphasize the connection with the far-flung landscape of the countryside in a more direct fashion like the places in the city where one can see the river flowing through its fabric; coming from the slopes of the countryside and going down to the vast ocean beyond. The relationship with the outside has also been enshrined in the ritualistic tradition of cities like *parikramas* and *yatras* that leave the city to a place outside. It is not uncommon to find the guardian deities of the city being housed in a temple outside the city. Many cities still have an active tradition of *yatras* that leave the city, circumvent the peripheries of the city and then return back. A lot of these cultural practices reinforces and acknowledges the binary relationship between the city and the outside.

Cities then are curious paradoxes. They are the very opposite of the vast countryside by the way of their material culture but at the same time having a constant symbiotic relationship with them. Cities are also the storehouse of the human civilization and presence of the fiction of the past and future is an important condition of its present existence and vibrancy. Cities are the most important container of the collective memories of the past and one can find material expressions of these all around us.

It will however, be very interesting to now see if cities in the middle of global flow simultaneously deal with the two different paradigms; one of global connections

Like the Yadavs community which keep cows and buffalos in the city and supply milk in Mumbai or the Rabaris in towns of Gujarat. Not surprisingly the move towards making Mumbai for Marathi manus saw the Yadav community to be the worst hit during the violence.

and networks and a strong centre in the city and the other of connections with their landscape, local culture and memories.

PATTERNS OF HOPE

The questions posed in the last section essentially deals with ways of restructuring and reimagining our cities. The questions are broad based and will need a major academic and policy level shift to first recognize that information technology related processes have the potential to alter both the geography and the history of the city space. The politics of space and class are central to this discussion and cities will have to begin to acknowledge the recent rupturing of its public realm to fully understand the repercussion of massive restructuring programs in cities.

There are also some patterns that are a result of technology mediated restructuring that may offer some hope and clues as to how best to visualize the transformed city.

GEOGRAPHY OF THE NETWORKS: ATM

Automated Teller Machines (ATMs) are an accepted part of the city landscape. They are omnipresent and are expected to be near you anytime anywhere. Not surprising the other common interpretation of the acronym, ATM has popularly been 'Any Time Money'! The functioning of ATM is absolutely dependent on the connection of these machines with the mother server of the bank. Without the networked connection through Internet, the ATM machines are dead and practically cannot do anything. ATMs are dependent on Internet and the very presence of thousands of ATM spaces in our cities is perhaps the most reoccurring reminder of the spatial alteration of the urban landscape.

What is the nature of the ATM spatial typology and how does it fit with the physical context?

What are the meanings that are attached to the ATM space and are their lessons here for future development?

OCCURRENCE, REPETITION AND ASSURANCE

ATMs like the hoardings of a recent advertisement campaign repeats itself at most parts of the city—the same banner, colour, bright light and the bored security guard at the gate. This is absolutely predictable, repetitive and thoroughly efficient. These ATMs are supposed to do the simple function of vending currency notes most of the time. But they are now an important element—repetitive element of the city

ATMs dot the urban landscape while glowing in the night when every other shop and establishments are asleep. A 24-hour petrol pump, the all night coffee shop and of course the railway station tea shop that are open all through the night are the other such night owls that reassure us that the city is not dead and everything will start again tomorrow. These all night establishments have an important urban function; that of sheltering the lost souls in the night and keeping alive the idea of a city on the move.

THE PRIVATE IN PUBLIC: BANKING IN THE CITY SPACES

The ATMs are extensions of the banks that reach out in the city. They are the point of receiving money (our money) from the bank. Banking has now extended to public places and this is a very important phenomenon. Historically of course, informal banking has been taking place in street corners and small shacks in most old areas, but again only in certain parts of the city that are associated with such activities. The ATMs extend banking in public domain, but through rather scared and conditioned spaces of the room where the solitary ATM machines lie. But ATMs as extension of the banking space are creating a rather interesting contradiction. Banks were never public places really and privacy was always a very important component of banking. Traditionally customers never performed transactions in full public view. Money was collected, counted and snugly inserted in wallet or a non-noticeable bag in the comfort of the high counter and inside a fairly semi-public space of the bank. The

space of the bank became the place of transaction in extremely limited public view. Moreover, the 'view' was not really of strangers but of fellow customers as worried about privacy as the 'viewed' subject themselves.

The ATMs present a new problem; as at one level they create a space in many parts of the city where a customer can carry out transactions (mostly withdrawals of currency notes) but in full public view of the market place. This is rather interesting and the situation demands a public display of one's rather private (not necessarily secretive) exercise of doing financial transactions. Not surprisingly there is always a swiftness of action when people withdraw money from an ATM! It is not surprising that waiting outside an ATM machine is not as comfortable as waiting for our turn to buy vegetables or a boarding pass before a flight.

ATM's spatial typology is still reflective of this fundamental contradiction. It is not clear whether the ATM can be as public as a grain shop or as private as a public toilet! At one level the ATMs have to be very accessible and visible, making it easier for people to use but at the same time they have to be guarded, controlled and monitored. That is why perhaps there are two distinct parts of the ATM space; the facade, which is formed by the backlit name of the bank written in a particular manner and the window from which one can view the ATM machine lying inside. This together becomes like a two dimensional graphic (visual brand) that announces the presence of the ATM. The second is essentially the conditioned room that keeps the machines, which tries and gives some sense of the privacy to the customer and perhaps facilitate the security of the machine. Not to forget the security guard, who sits and practically does nothing!



Figure 36: The Typology of a typical ATM

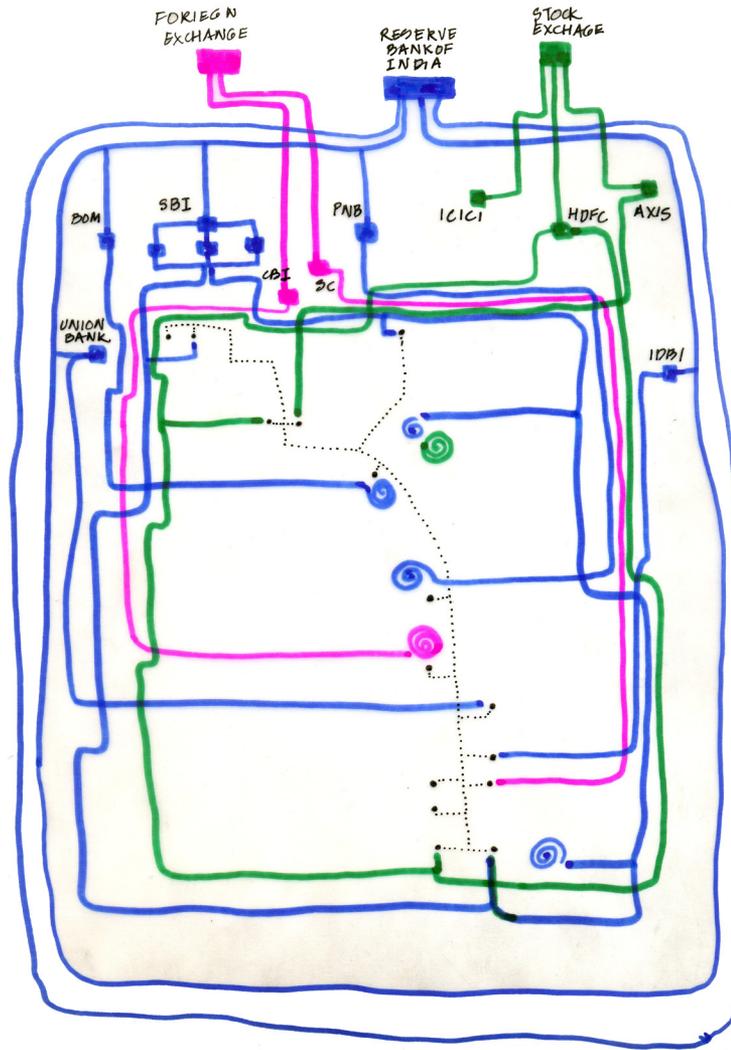


Figure 37: Map of a City drawn through the Network of ATM.

the black sheep unless of course it can be viewed and designed as urban furnitures like a bus stand, parking meter and letter box, public toilet or a telephone booth. This again will need a re-evaluation of what we consider as public space and re-imagination of its furniture. Is it also not possible to create a new community space that allows similar function of banking, personal finance and come together as a meaningful public space?

The ATM in its present form has not really integrated with the other elements of the city as it essentially sits in the building typology that is meant for small shops. It does not exist in any particular combination of other shops.

One of the reasons for vitality in Indian city is the nature of combinations of various agglomerated shopping and commerce. For example, tea shops on street, balloon vendors, chat walas, cold drink and ice-cream shops, pan shops, florists, newspaper vendors, Archies card gallery, stationary shops and so on!

It is not surprising that the ATM on the walls on public streets have practically failed to inspire any confidence of privacy and are rather rare to find these days. I do not think it is only the concern of the security of the ATM machine. I guess the machines are more secured as embedded objects in a wall rather than being stand alone in a room. It seems that it is to do with discomfort associated with doing financial transactions in full public view and hence, the closed room.

ATM machines are surely

Also the networked units like ATMs in cities can lead to possibly other representation of the city space. See below a drawing of the ATM networks in Ahmedabad. The larger question here is about the relationship of nodes of a network (here ATM as a node) with the immediate surrounding context. It is something that will be of concern at all scales (from the ATM to the city) as cities get restructured in near future.

NEW PUBLIC PLACES: DISTRIBUTED STOCK MARKET

The stock markets have been the symbol of trade and commerce of the city and the region. Here I will analyze the stock market— an important commercial institution and try and articulate its changing architectural configuration and its impact on neighbourhoods and other public domains of the city. The change in information technology has had a profound effect on the business methodologies of the stockbrokers and traders in the last few years with possibilities for buying and selling during the market hours from any Internet enabled device. The pundits have announced that the “market is in your pocket or at the comfort of your home”. Is it really so or is the change more subtle? Moreover, how will our cities and their public place transform from such shift?

The market refers to a system, institution or arrangement by which certain transactions are executed. The stock market space (building or group of buildings) is usually unique to a larger space (city, region or country) and indicative of the economic interest of corporate, organizations, government and individual investors. The stock market space itself, is one that has traditionally been a highly networked node, collapsing together communications with other national markets, financial institutions, agents, investors and government bodies. Communication technology in the form of telecommunication, fax and telegram has been the lifeline to support transactions in the stock market space.

The floor of the stock market is the physical manifestation (both of symbolic and utilitarian value) of the institution of stock trade. It has been the place where the agents using information, negotiate and transact on shares for their respective clients. The space of the floor with information being displayed on the sides has been the image that is used in many movies to symbolize trade and commerce. The floor is projected and perceived as the centre sanctum of the stock trading activity at large.

Trading of stocks of all possible kinds is possible from a computer connected to Internet using real time information of the market. Stock market building space as well as the floor continues to function as central places of trade but immense volume of trade is being done through Internet enabled devices across the country. Moreover, the program and structure of stockbroker's office has radically changed in the last few years. The stock broking office has now become the mini floor of the trade where decisions are taken about buying and selling. The stock broking offices are now the decentralized units that are everywhere, like the ATM machines in the city. They are the neighbourhood investing space.

WHERE TO KANTI BHAI?

Kantibhai was worried that morning. He was running late and was driving swiftly to beat the railway crossing. His old Bajaj was holding well competing with the jazzy Japanese collaboration bikes as he raced towards the crossing. He could never understand why people spend that kind of money on bikes when it cannot even hold the vegetable pack or for that matter even their wife in the pillion seat that well. He was rather proud of his Bajaj Chetak 2-stroke smoke spewing machine and it had served him well for the last 17 years. As he wriggled past the traffic coming from the right side (well he was on the wrong lane) and swiftly crossed before the crossing gates closed, he slowed down on the turning and signaled with a shake of his head to the kid on the street. To a stranger the nod of the head was perhaps just an empty gesture but Raju the kid was the code breaker! He knew Kantibhai wanted the masala tea real quick

delivered on the first floor office of Om Shanti Stock Brokers. Raju also understood that Kantibhai was going for a big kill; bottom fishing since the market fell real hard yesterday. Raju was barely eight when he came from Dungarpur (Rajasthan) to help his uncle at the road side tea shop at Maninagar. Now the road side stall, the commercial complex in front and the shop shack besides the temple were his foster home. The masala tea that his uncle made was the fuel of most office goers in the area and it was a local institution that also provided but information on real estate, family problems of residents and mobile number of the bootlegger.

Raju with all the tea cups in his hands moved swiftly from the tailor shop below the stair to the picture framer besides it to the Raymond shop in the semi basement to the lady selling the toys on the pavement. He resembled a bee moving from one flower to another in a garden and he quickly climbed the awkward spiral stair to the first floor stock broking office. This was always the place he enjoyed most and it was always teeming with boisterous characters that were perpetually excited; laughing aloud, shouting to be heard, making fun of the other and generally having a good time. These were the stock traders whose baithak (regular sit-out) was the Om Shanti broking office. The office itself was nothing but a room, with a swanky air conditioner and four terminals (simple computers that are connected to stock exchange) where people took turns to sit and execute their order. But the space of the office spread way beyond this room. They sat in the corridor in front, at the travel agent shop besides, below the hoarding for a commanding view of the traffic snarls in front. The place oozed with people like Kantibhai's, and resonated with animated interactions about the stock market, discussions about son's marriage or the rising price of petrol.

The place has in the recent years, come to be associated with share trade and had given rise to a whole eco-system that supported it; the stock

broking office, pan shop, tea stall, bhajia center, ATM, photo copiers, stationary shops and the newspaper stall. Raju the tea boy knew much about 'circuits' and 'stop loss' these days, as much he understood the right ingredients of the tea.

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These are not only spaces for carrying out transactions but have become 'places' for the trader community to meet and connect. The place itself is small and allows the local neighbourhood stock traders or investors to meet. This decentralized community public place characteristics of the space is an interesting development, which have been made possible due to the Internet based online trading activities in market places. Moreover, this new programme of online stock broking has integrated well with the various processes of the Indian bazaar like informal food, roadside vendors, service sector and active retail. This is also the sign of the strength and vitality of our contemporary markets that have evolved over the years and are the mainstay of the Indian retail.

The general notion that tall glass buildings and international style real estate is the face of the Information technology led changes in the city is just one part of the imagination in popular discourses. But at the same time, these technologies also led to the creation of a small scale but wide spread changes in the city built fabric where communities have used their common sense and ingenuity to create new spaces. The above example shows how decentralized stock brokers/ investors community creates a new kind of community space by anchoring on to know patterns of the spaces. Figure 38 shows a sketch one such decentralized but typical Indian market place that is also highly networked and performs efficiently.

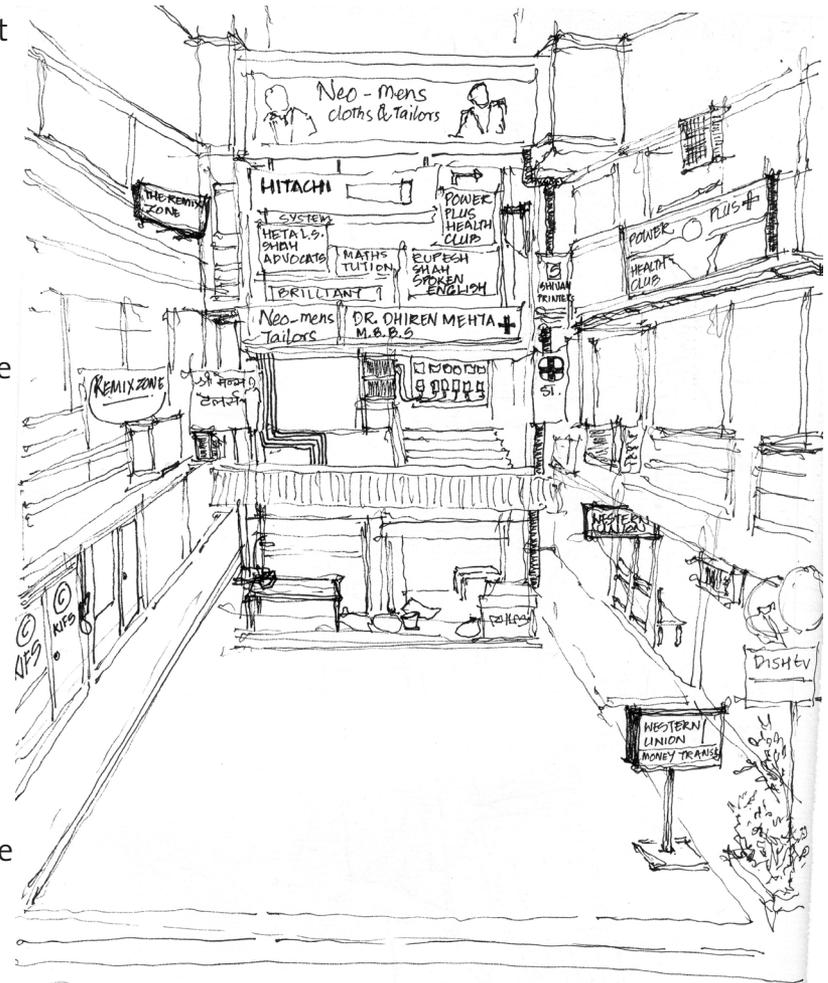


Figure 38: A Typical Indian Market Place with Highly Networked functions like Trading and Money Changers.

The stock market space is now scattered across cities as a network of many decentralized nodes that also hold interesting community function. The malls and IT complexes by turning inwards and showing off only a pretty facade have failed to offer anything to the city and do not seem to hold any promise of public good to its citizens or user. It is actually these little markets where persons like Kantibhais' rush every morning and the little Rajus' run around serving cutting chai, that small stock broking office, ATMs and travel agents (all program that use IT for work) are slowly transforming and complimenting the public places in India.

SCATTERED ARCHITECTURE: ART GALLERY IN THE CITY

An art gallery is an interesting architectural program that provides a semi-public platform to gather a community of artists, writers and critics in one space. The program itself includes the display space, front office, sitting lounge, services and storage. Art gallery as an architectural program has remained more or less constant from the time it became a popular urban feature in many large cities of India. There has been a variation of size, mix and perhaps ownership, which have been reflected in some variety of expressions in its design. The gallery always had a largish display area and a place to lounge around, to meet, discuss and meet old friends.

A new program of art gallery has been experimented within some cities in India. **Here the gallery program (Gallery One) is broken up into parts and distributed in space.** This includes a show window like that of any other shop in different locations of the city displaying the work of art with some information, along with the website url of the webpage of the art gallery. There is however, no gallery as in the



Figure 39: The Street Gallery One, Udaipur.
<http://www.worksatone.blogspot.com/>

traditional sense. The gallery is the combination of the show window, the digital space mediated through the Internet and the text on the show window. This is a unique and an unexpected outcome made possible by the information technology and communication. Let us look at each part of this new program carefully.

The show window: A brightly lit small space that is to be viewed from the street edge whereby engaging the public domain of the city. The space is open to all and does not differentiate between anyone and allows possibilities of casual or accidental encounter with a work of art. In some sense it mimics the aspect of discovery that we find in many medieval cities of India.

The digital space: The gallery blog is important here as it connects the visitors with the gallery space with information on present show, past archived ones and stories about the artist, interviews, etc. Here the digital space becomes the space of participation for many who wish to dig deeper. Whereas for many accidental or casual visitors the involvement with the art work begins and ends after viewing it through the show window, for other the digital space is always available.

Gallery One is an interesting example of how individuals are visualizing space in the context of technology and challenging known notions of architectural programs and its expressions. Space here is intentionally splintered (not really annihilated) to create new architectural forms and at the same time engaging with the public domain of the city.

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DISCUSSION

I will now attempt not to conclude, but to articulate the key issue that has been raised in this research. It is clear that the idea of defining the digital space and evolving a framework to view it has been a predominant concern in this work. Moreover, both the material practices and representation (oral and visual) have been used to understand this issue of space.

Cities seem to derive their identities with two kinds of imagination structures when it comes to space. First and foremost is the imagination resulting from the meta-narratives of mythology, religious belief structure, position of humans in this world, etc., like the imagination of the Himalayas, Vindhyas, the forests of hermits to name a few. This has been a fairly constant phenomenon. The other imagination structure is the one, which engages with the land, folk and the immediate cultural practices of the community group. This is the one that connects and justifies the people with the place; the myth of city, its river and its past glory. Both the meta and contextual imagination is somehow anchored to the material production in specific spaces of the city and also in representations. This imagination always has symbolic anchors in space and often architecture or other built form that symbolizes this imagination like religious structures, banks of the river and vegetable wholesale markets, etc. In the recent times though the connection of people with the contextual imagination structure of a place has been gradually breaking down, as cities become more the centre of flows in the network at regional, national or global level. The 'network-ness' of the city should be inversely proportionate to the connectedness of people with the imagination space of the context.

The cyberspace comes at a very interesting time as it promises two things. Firstly, it promises an imagination of a utopian space that is able to break free from existing order and proposed an inversion of the known world by the way of hierarchy, idea of the state and relationships. It tries to reach the space of the meta-imagination of mythology and of the city and pushes for a utopian space of imagination.

Secondly, the digital space posits itself to be able to act as the 'other' space of the city; the heterotopias by taking up functions that the mainstream of the city is not comfortable with, like personal narrations, advocacy groups, pornography, gay and lesbian expressions. The state would be rather happy to see 'other space' exist more in the digital realm rather than in the reality of the city spaces for obvious reasons!

The issue of physical anchors becomes important here. Can this 'other space' of the city that exists in the digital find places to rest and influence material practices in the city? The meta-imagination of the digital as the utopian space then guides such efforts. But at the same time there is a danger that the utopian space of imagination that the digital world proposes gets appropriated by the powerful, that is the state and corporate to create a promise of a new world of development made possible by a 'hi-tech city'. This appropriation is already beginning to happen. The imagination of digital space as that of utopia can change known order of power and lead to emancipation. It has perhaps been already appropriated in large global cities in India to push for a meta-imagination of a brand new city.

The cyberspace however, has a potential to create a new meta imagination of the 'public' through a renewed idea of citizenship. The trick however, would be to have enough material culture to work as anchors in the form of institutions contextual to the city. Cyberspace alone without any material synchronization with the space of the city is not capable of hosting such an idea of citizenship. The question then is really about the nature of these places where the anchors of digital community can rest. These anchors should be spatial like the temples but secular in access. There are no institutional structures within cities that presently recognize the legitimacy of the cyber space or community.

The cyberspace is not an imaginary space alone but rather a space of active participation and from the point of view of the 'self' it is real. The cyberspace has characteristics, boundary and rules of conduct but also the space has loads of imagination structure as part of the space. The cyberspace is both real and

imaginary at the same time and needs both to be alive. Without one it just does not exist. The imagination and reality of cyberspace are enshrined in its structure and are difficult to separate. It is neither totally fiction nor totally spatial. The idea of symbolism, temporality and identity becomes an important one to explore in case of further developing the idea of cyberspace.

The fact that, to be in religious space one follows certain protocols and at the same time the fiction of imagination is always omnipresent. But the religious space is limiting, as it does not allow other imagination structures to rest within it. In the cyberspace the imaginative structure foremost emerges from the geography of the networks themselves. But it also emerges from the imaginations that different “self” brings by participation.

Digital networks are already beginning to feedback on the city in the most unexpected fashion. The new networks as seen in the case of ATM and art gallery have the potential to slowly alter the geography of cities (spitting of building program, etc). It can also be a wonderful opportunity to re-conceive parts of our city. The integration of ICT centres (stock broking) with the existing community spaces is also telling about the resilience of Indian cities that are essentially built from the grassroots through people and their small little changes. The resilience of people and community structures should not be underestimated. So there are huge strengths and opportunities in our current cities and there is no real need to imagine a fresh urbanity. No one person or group should have the right to do so in any case. We perhaps need to rekindle our imagination much more and find opportune moments to tentatively anchor that imagination in our cities that can bring people together; a kind of a churning of our cities. Creative representation is needed to find out new ways of creating maps for city that represent these changes.

The city restructuring process in India, as mentioned earlier is supposed to symbolize the existence of the information technology but it is really real estate and economic opportunism more than anything else. The social economic and

environmental reality of cities is being ignored to create a narration of techno-futures and a promise for the next phase. These narratives ignore the spatial cultural dimensions of the cyberspace and are loaded towards seeing an emancipated state to be achieved through technological tools. In some sense it is a return to the modernist authoritarian views of people, society and their spaces (and this time without the socialist concern of a welfare state). State will have to play a huge role as a mediator to stitch and heal the wounds of a fractured urbanity. Whereas the centre and periphery aspects of city development might be inevitable we need to be able to create other systems that can traverse these divisions in space and society and counter them. The role of State is becoming ever so crucial in being in the forefront of efforts to recognize these issues.

At the level of academics there is an urgent need to do studies on the changing nature of the geography of networked cities in India. Such techno-social narrations of the present state of urbanity can go a long way in creating consensus on development and change. The city also needs to be represented and understood from actual lived in perspectives of people. Project and research that can bring about alternative representation of cities is becoming rather urgent today. **The need for urban designers and planners to acknowledge this restructuring process as a historical phenomenon and not just any other innocent development scenario and propose strategies that Indian cities can follow to counter the negativities will also be very crucial.**

Both Global City and Heritage City kind of initiative are two sides of the same coin where the city is projected as site for investment and consumption.

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FIGURE 1 - <http://www.guardian.co.uk/artanddesign/2009/nov/26/london-tube-map-design>

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FIGURE 3 - Patel, Nehal. *Understanding and Analysing the Dynamics of an Urban Slum and Complexity of its Re-Habitation : A Study of Gulbai Tekra & Odhav, Ahmedabad. Unpublished Thesis. CEPT University. 2006*

FIGURE 4 - Soleri, Paolo, *Sketchbooks of Paolo Soleri.*

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FIGURE 8 – Parmar, Krishnakanth. *Study of Temple Town and its Public Realm : Dakor. Unpublished Thesis, 2004. CEPT University*

FIGURE 9 – Film “Blade Runner”, 1982

FIGURE 10 – Film “Blade Runner”, 1982

FIGURE 11. 12. 13 – *Various Text Books and Street Posters*

FIGURE 14, 15 - *Garden of Cosmos, The Royal paintings of Jodhpur. Thames and Hudson Publication. 2008*

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FIGURE 17- *Google Earth Picture*

FIGURE 18 - <http://www.ashokpiramalgroup.com/real-estate.html>

FIGURE 19 <http://www.rahejabuilders.com/>

FIGURE 20 – *Drawing by Sinali Ratan Lal*

FIGURE 21 – 30 – *Author*

FIGURE 31- 32 – *Google Earth*

FIGURE 33 – 36 – *Author*

FIGURE 37- 38 – *Drawn by Sinali Ratan Lal*

FIGURE 39 - <http://galleryoneindia.com/>

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