Making Legible CITY FORM

da case for Urban Design

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he last three decades in India have seen phenomenal urban growth — this has often been chaotic. What were essentially structured, traditional Indian towns or colonial settlements have now been inundated by waves of distress migration, unchecked urban growth and incoherent built form. This has produced strange and yet familiar images which have been slowly weaving themselves into the existing urban fabric and producing fragmented, random and highly illegible urban structures. Further, architecture is no longer seriously considered by planners as an instrument for structuring the urban landscape, making contemporary Indian cities visually and perceptually chaotic. Take, for example, the crowded bazaar streets of Hubli, or the outskirts of Hyderabad, Madras, Baroda — these have now been reduced to settlements with no visible physical structure or identity.

In contrast, the Victorian British architects working in India in the last century were adept at large-scale city gestures and structuring devices. Their work, in a sense, was simpler, as they had a clear task of employing infrastructure and imagery relevant to the representation of power. This necessitated a clarity and integrity of architectural and urban form. Similarly, traditional Indian cities (Madurai, Varanasi, Jaipur) were also diagrammatic representations of their implicit programmes. Their designed physical structures held together the dispersed fragments of individuality, and a coherent architectural language provided the necessary identity.

Today, with the added social responsibility of coping with and responding to drastic population fluctuations and political indiscernibility, the role of the architect and planner has blurred. To add to this, the planner’s repertoire has become extremely limited to quantitative analysis of urban issues. In fact, it is becoming clear from the present state of our cities, that income distribution maps, transit and commuter diagrams, employment statistics, etc., are not in themselves sufficient to explain a city’s existence, aspirations or emerging urban form.

Cities, unlike villages and small towns, are plastic, for we mould them in our image. They, in turn, shape us by the resistance they offer when we try to impose our personal form on them. This is what makes living in cities an art. It is, therefore, crucial that we develop a vocabulary and style to describe the peculiar relationships between people and the physical form of the city. The city is also a place of illusions, of myths, aspirations and nightmares; of imagery — a text that offers us perceptual experiences. These perceptions should complement the more quantifiable aspects of the city; the ones located on maps, and in statistics, in monographs of urban economics, sociology and demography.

Over time, inscriptions emerge in a city which together form its image — a palimpsest where you can read the different layers simultaneously. The combination of these layers and the way they are held together is what distinguishes one city from another. This particular pattern of relationships could be attributed to an ‘implicit programme’ — the genetic code that makes a city grow in a particular fashion both physically, and in more abstract terms of, culture, economic sustainability, etc. However, to keep a city alive, what is important is that the implicit programme be understood, reinforced and sustained to avoid the city mutating or facing extinction.
New Delhi, a highly structured, low density colonial settlement. (Charles Correa, The New Landscape).

Banganga Tank, Bombay - lack of urban design controls for new development produces an incoherent city form and destroys the structure and identity of the old.

Horniman Circle, Bombay, is a typical example of Victorian structuring of the city with large-scale gestures.
Reading the City

Unfortunately, in India today, cities are not discussed so much in view of their long-term historical rhythms or genetic codes, but in relatively short-term readings of their existence. This stems from our limited research base and the uncertainties inherent in discussing culture, values, and the qualitative aspects of city life and form. A fall-out of this phenomenon is that a majority of data and explanations of the existence of contemporary Indian cities is based on a quantitative analysis. Although valid in the context of what it sets out to do, the reduction of problems in the city to a single ‘currency’ limits our understanding of the larger entity of urban space. As we know, there is little connection between statistics and perceptual experiences of a city. Which is to say, that statisticians do not necessarily project a complete image of the city.

What is worth looking at in this context is the work of illustrators, film makers and novelists who use the city as a medium. In a novel, for example, every description functions as an aspect of the writer’s vision, having passed through the filter of his imagination and found to be accurate in a symbolic sense. Indeed, the symbolic truth of a particular city as represented by a novelist may sometimes supercede in importance the literal representation of that city. The importance of the novelist lies in what he records in the relationships of a city — not just in the details he captures, the buildings he describes or the people he sets stories around, but in relationships between them.

The urban design equivalents of this method of reading the city are the studies done by Kevin Lynch and Gorden Cullen (who incidentally, made some proposals for Calcutta and Delhi). Lynch, through his writings, dealt with methodologies to ‘read’ and perceive the city; the patterns that are formed by the sensations, by the biological sense of time and how these affect the way we view and change our cities. He wrote about the placement of buildings, of objects in the city, and how they orient us and mould our perceptions of urban form. Gorden Cullen, on the other hand, through his drawings captured movement through towns; the emerging and ever-changing views that structure and reveal urban experiences and relationships between different components of the city. What Lynch explains in words and diagrams, Cullen draws up as images.

Cities have often been described using the analogy of the machine — the grand design with the little parts all adding up. This is both pertinent and misleading. It is pertinent in that the dispersed fragments of a city must connect in a unified design as simple as the diagram of a machine (that enables us to know how it works). It is misleading because, unlike machines, cities are rarely built to order. Most contemporary cities are the outcome of successive adaptations to differing functions — shifts in the implicit programme which were rarely foreseen by the creators. Therefore, the city is more like an organism that, in the process of its evolution, is committed to carrying (as part of its burden and identity) relics of a bygone era — sometimes functionally totally redundant — but vivid reminders of its implicit programme. These hold vital clues to the city’s origin and its very basis of existence, like Gordon Cullen’s sketches illustrating how the town is a composition of engaging views (Gordon Cullen The Concise Townscape, 1971).
organs that no longer correspond to vital functions but which perhaps, some day, under transformed conditions will save the city from extinction.4

In this context, statistics, transport diagrams, employment charts, demography, etc., by themselves cannot map all the terrain that architects and planners must cross. This is true for most of the Indian urban landscape which does not lend itself to rational analysis. Its ever transforming, chaotic overlapping dualities of images are like layers of collaged snapshots. These require numerous lenses and more complex ways of reading, understanding and reinforcing its physical structure, as well as of creating representations of its implicit programmes to give urban sprawls legibility.

Statistical data without qualitative or judgmental inputs are like unannotated maps. They can tell you a great deal about the problems and territory you must traverse, but cannot tell you anything about the purpose of the journey or whether you should undertake it to start with. Therefore, to read, understand and design for the implicit programme of the city, the planner requires a judgement which is intuitive as well as empirical. Planning in India desperately needs to be infused with ‘meaning’ in addition to being inundated with the ‘data’ that city development authorities have hoarded over the years. It is time we realized that quantitative accuracy alone does not give the entire picture. A truer reading of the city should be one which is subjectively sensed and objectively observed — always vigilant of the fact that ‘readings’ are not value-free. It is an acceptance of these simultaneous readings that can assure us of a legible city.

As cities are ever evolving entities, they also lend themselves to re-readings and interpretations. Their ever transforming nature causes their myths to change. For example, the physical form of Bombay, until a few decades ago, responded to its implicit programme. It was a symbol of wealth, of capitalism. Its flourishing port and dynamic administrative structure, coupled with a clear patronage system ensured that its infrastructure was vital and robust. However, after the 1960s, with unprecedented distress migration and the simultaneous loss of the paternal capitalist patrons, the city suddenly slipped into disrepair. Random overlays of imagery and unchecked growth led to a rapid loss of legibility of urban form.

Today, daily bouts of pessimism regarding its future have led the citizens of the city almost to accept this pathological state, and the idea of decline is now developing its own self-fulfilling inertia!

To create a city is far easier, for it is an act of optimism, not knowing what the problems are going to be. The mindboggling task is really to keep a city going, to constantly energize it. This requires imagination and will. To convert the disadvantages of a city’s implicit programme (its relics of bygone eras) into assets is the role of the architect and planner. They have to weave into urban structures contemporary aspirations, values and forms.

Drawing Pictures

Thus far, most contemporary urban expansion in India has been conceived by planners using statistical descriptions of the problems and issues. Often, these solutions do not progress beyond blobs of colour on landuse plans. A major reason for this is that ‘end-state planning’ — where the final product is explicit, has been out of fashion among planners. In a democratic political system, for obvious reasons, the idea of the superimposition of a grand design or a definable image is taboo. Participation, incremental growth, pluralism, etc., are the prevailing dictums. While these approaches are valid at the scale of housing or the neighbourhood, in the context of city design they spell doom. The laissez-faire growth that results from these processes is precisely what make our cities highly illegible entities. Further diminishing the potential of cohesive urban form, is the immense schism in India between the abstractions of the planning vocabulary and the specificity of ‘styling’ employed by architects. On account of this, architects dare not ‘draw pictures’ of what the planners imply, thus dissipating all connections in the feedback loop that is crucial to structuring the physical form of the city.

For example, in the conception of new cities such as New Bombay, or even in the efforts to restructure Greater Bombay, Calcutta or Madras (Development Plans 2001, etc.) the urban design components are lacking. All descriptions of the city are quantitative, giving statistics, efficiency ratios for transportation systems, economic formulae and other administrative issues. There are no urban design guidelines or conceptions of what the crucial spatial components of the city might look like. No architectural renderings or projected images of the central business districts (CBD), main avenues, bazaars, promenades, etc. There are no attempts to make explicit a visual structure which would give the city legibility. This has resulted in a collection of schizophrenic images and forms that make the emerging city totally illegible. Building a city requires the politician, local community leaders, activists, economists, planners, etc., to all work together as a team, and urban design processes have to be geared towards creating and energizing these teams. To achieve this, targets must be established — possible images of what the various efforts might produce. This is where pro-
jections and simulations are invaluable, for they establish a tangible goal.

The immediate effect of imagery, of projections, is that the image itself colonizes and structures the landscape (be it a greenfield site or an infill situation). Besides, pictures provide neat visual analogues and help keep ideas alive. In terms of the design process, they can fill in for the lag time between ideas and their implementation as public policy. However, what is important is that they form critical components in the feedback loop between abstract policy and potential physical manifestations. Theoretical explanations, through the use of drawings, could be analytical tools which facilitate the understanding of the morphological structures of cities. (This technique is best demonstrated in the works of Rob Krier and Mario Gandelsonas). Similarly, computer drawings could help considerably in understanding the complex contradictory layers of Indian cities and could effectively be used to mould policy.

Pink City

Jaipur is a pertinent example of a city that responds to the dualities of urban India while keeping its physical form legible. Its form represents a planning attitude that combined end-state planning with the obvious need for flexibility at the neighbourhood level. Starting from the city wall, as one traverses the city along the main avenues or bazaars, the overall structure and cohesiveness of the city becomes evident. The avenues with their crossroads punctuated by chaupars suggest a rational system of traffic movement and a logical placement of commerce along the main arteries. The important public institutions (temples, police stations, etc.) are placed at the crossroads or other strategic points, depending on their importance. These components form the public face of the city. The individual facades of these buildings carry their own messages but are held together as part of a city composition by the larger regulating order of the nine-square grid (with its own mystical connotations).

Yet, when you enter a mohalla, the informality (the break from the pink colour) is startlingly wonderful — irregular streets, wayside shrines, hawkers — the entire microcosm of chaotic urban India. What is more, the physical entity of these neighbourhoods is forever transforming. Houses are pulled down, added to, new interventions appear — a flexible, everchanging, organic city. Yet, the skeletal structure from which its citizens derive their identity stays intact and ages gracefully. Although the pink city of Jaipur has managed thus far to keep most of this structure and retain its legibility, others, like Hyderabad, are examples of cities that were cohesive structures but are now rapidly mutating. Obviously, what made cities like Jaipur and Hyderabad such highly legible entities was the power structure — singular and monarchic. But in both these cases, it was an example of vision and principle, of relating science and technology to the perceptual world of experiences. Looking at the contemporary Indian context, one might well ask whether we can identify the ‘engine’ that will pull us through our chaotic state?
Identifying this 'engine' will necessarily involve harnessing the inherent energy of the city. For example, in cities like Bombay (where private initiative is ingrained in the implicit programme) is it not possible to allow more individual participation in city development? Through well conceived incentives, private initiative could well become the 'engine' for meaningful urban design. However, to harness this energy for collective good would require fixing parameters — some outline definitions of what the larger organisms of the city might look like. It requires norms, guidelines and urban form typologies, all designed to let the otherwise seemingly random energy coalesce into a legible city form. An urban structure that responds to the pluralism that is India — this is the challenge for the architect, planner and urban designer.

Urban Design

In contemporary India, we seem to have little idea as to how the emerging images of the city will connect. As architects we have not developed an understandable language of connections between the various parts we are creating. It is precisely to fill this lacuna that the discipline of urban design should be considered, bridging the void between architecture and the larger concerns of cohesiveness and legibility of the overall urban form. Large-scale architecture in cities is usually site specific, bound by client intentions and restricted (more often than not) to superficial styling. Planning (in the sense of master plans) has rarely even attempted to represent issues pertaining to the physical outcome of its abstract number crunching exercises, and is expressed in words and numbers, not as images.

It is the gap between these extremes that urban design must bridge. Planning policy should be evaluated and transformed to include qualitative determinants in its formulation. The precise goals of urban design should be the creation and maintenance of those parts of the public realm that are crucial to the collective urban memory. For this, the urban designer has to identify and understand the key elements that structure and bond the various components of the city. This also necessitates deciphering the implicit programme of the city and interpreting the needs and aspirations of its citizens. It refers particularly to the poor, under-represented groups, and rural migrants, whose aspirations must be woven into the emerging form and public image of the city.

The potential sphere of an urban designer's contribution can be categorized into three areas: First, to unify new (most often large) interventions and fit these 'new parts' into the larger 'organism' of the city. Projects usually include large office or residential complexes, redevelopment of streets, open spaces, etc. These could occur in city centres or at the edges of cities in the form of satellite towns or suburbs. The issues here have to necessarily go beyond architectural styling to include vital urban connections (physical and visual) which create a better 'fit' between old and new. Although cities today cannot be designed with the superimposition of a singular grand design or conceived as comprehensive wholes, the role of the urban designer is to deal with facilitating cohesiveness among these parts. This can be done either through structuring precincts within the city, or evolving comprehensive strategies and policies for new growth, that is, creating a physical framework that would make the product legible in spite of a pluralism of attitudes, varied needs, lifestyles and emerging aspirations.

The second major area of work for the urban designer is the conservation of the existing fabric in city centres and historical precincts. As the probability of a major reversal in population concentration in cities is unlikely, efforts should be aimed at improving the internal efficiency of the existing urban structures. This should include exploring the possibilities of re-hab, re-use and approaches of recycling land and buildings — working with existing urban centres and weaving traditional environments into the larger growth patterns of the city. Sometimes this means conservation in its strictest sense. It could also be extended through design to transform the logic of an urban system for an intermittent period. This would mean identifying those components of the urban system that can be transformed to other uses without destroying the essential physical structure of the city. In fact, the essential components of a city would have greater ability to survive because of the adaptability of more flexible parts of an urban structure. This is particularly pertinent given the phenomena of distress migration. The urban designer's role here must necessarily encompass the needs of the poor in evolving the form of such a city — in a re-interpretation of those spatial elements that could be responsive to their needs.

As cities grow and spread to colonize barren landscapes, they run the danger of dissipating their essential images. City centres, historic precincts and urban symbols then play the magical role of representing myths, of putting identities 'on hold' till fresher ones emerge. The schism between conservation and planning must necessarily be bridged by the urban designer, as the two are inseparable.

Lastly, urban design efforts must simultaneously be directed at the formulation of programmes and policies aimed at improving the physical environment of the city. This would
include guidelines and controls with a view to influencing the physical form of the city, both in its larger structure and in its detail. In fact, detail design is the critical link in humanizing the grand design to include the experiential aspects of city form. Well thought-out details have humanizing effects, however superficial we might deem them to be. For example, much of the success of Victorian public spaces (parks, boulevards, promenades, etc...) in Bombay derives from the attention to detail — the scale and articulation of arcades, railings, placement of statues, drinking troughs, pavement curb-stones, benches, etc., all thoughtfully situated to punctuate the urban composition.

At the macro level, the urban designer’s responsibilities lie in conceiving the abstract mechanism that would structure the city physically. In areas of high activity and susceptibility, specific urban design controls may be necessary, while in other areas, looser, more general rules may be appropriate. Sight-lines, view corridors, arcades, set-backs, mandatory frontage and uses, height policies, etc., if effectively built into the design rules can, in turn, strongly affect and improve the environment. These rules must necessarily influence existing regulations and zoning ordinances to include qualitative factors in addition to concerns of landuse, hygiene, safety, etc. In designing codes that are sympathetic to the aspects that imprint our visual senses with images of the city, lies the essence of urban design.

Although in the first two areas, the urban designer would usually work for private or public clients, in the last category his task would also encompass creating constituencies — energizing local citizens’ groups, neighbourhood leaders, etc., and working with other activists towards moulding the environment. The task is to evolve an appropriate strategy which could create cohesiveness in a city and yet allow individual parts to retain their separate flavours and images. Solutions lie not in freezing parts of the city itself. The advantage the designer has in this situation (as opposed to the planner, policy maker, geographer or sociologist) is that he conceives these inventions, these readings and insights not as a “specialist” but as a generalist — one who goes from the larger overall concept down to the smallest detail and back again, in a continuous and reiterative process. To achieve this, the (designer) develops a non-dualistic frame of mind, wherein he or she knows that disparate tenets can be simultaneously valid, and to deal with them effectively and truthfully as a designer, one must accept them on these terms.” For to work in urban India, where the environment is charged with duality, involves the re-interpretation of existing contexts while simultaneously creating newer ones. This is the greatest challenge.

To meet this challenge, it is imperative that we raise and define the relevant questions and issues for making legible the Indian city form. It is to initiate such a process that this introductory Architecture + Design issue on Urban Design has been formulated. The selected writings cover issues ranging from traditional precedents to recommendations for policy and urban design methods. Included are articles on inner city issues, urban transformation methodology, traditional precedents and recommendations made by the Urbanization Commission for urban design policy. The authors are design practitioners and have naturally focused on the physical aspects of city form, and on projecting images of preferred realities. This bias must necessarily be viewed in the context that as architects and urban designers, we are metaphorical beings — migrant people, who live more comfortably in images and ideas than in specific places. The writer Salman Rushdie once used this analogy to describe the migrant, whose intellect roots itself in itself in its own capacity for imagining and re-imagining the world. Similarly, designers thrive on images rather than pure substance — mere simulations of self certainty. But this love for images contains great potential; for a world seen through images, ideas through metaphors, becomes a richer and clearer place. This is crucial, for once we clarify, understand and accept the artificial nature of our existing urban reality, we too, like migrants, will be obliged to enter the process of re-making it.

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Footnotes:
6. Salman Rushdie explains how migration in fact "... offers us one of the richest metaphors of our age. The very word metaphor, with its roots in the Greek words for ‘bearing across’, describes a sort of migration, the migration of ideas into images. Migrants — borne across humans — are metaphorical beings in their very essence, and migration, seen as a metaphor, is everywhere around us. We all cross frontiers, in that sense, we are all migrant people." (Rushdie, 1983, in an introduction to a book by Gunter Grass).