"READING INTO" TEXTURE:
Preparatory Understanding of Design in Urban Settings
by
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Submitted to the Department of Architecture in partial fulfillment of the
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Abstract.

This thesis stems from a dissatisfaction with the quality of much of the designed urban environment produced by architects and urban designers in the Indian context. There is often a mismatch between the intentions of architects and the manner in which their designs are utilized by their inhabitants in reality. This thesis argues that the reason for this mismatch is a lack of depth in the preparatory understanding of the multi-layered urban matrix within which the design will be placed. Critical forces, such as the activity patterns, values & changing aspirations of the user, are often ignored or even neglected. These forces are of course inevitable components of urban settings, and become particularly significant where growth is exponential. Urban systems are undergoing stress and uncertainty has become a way of life. The influence of these forces on any environment is unavoidable. This thesis argues that a deeper preparatory understanding of these forces will improve the quality of design in the urban environment.

Developing techniques of 'reading into' the texture of the urban setting is proposed as a strategy to improve such a preparatory understanding. There are several possible levels of 'reading into' the texture. Visual and morphological analyses constitute only one among these numerous levels. This thesis attempts to underscore one of the many levels of 'reading into' the texture which have been neglected or even ignored. This level essentially deals with the question - what forces shape and transform the urban setting? This level of 'reading into' the texture is especially important in the case of residential and commercial areas, the fundamental components of the urban environment. This discussion, for practical reasons, focuses on residential development.

The discussion is set in a case study of the specific urban context of Delhi. First, an analysis of an unplanned, 'incrementally-evolved' urban village Shahpur Jat exposes some of these forces, their complex, interwoven and , most important, varying nature. The forces are innumerable - it is almost impossible to understand all of them. This thesis calls for an understanding of some of those forces which undergo the most variation over time. In the case of residential environments, the thesis identifies the user's perceptions of their environment' as a significant force influencing their development. This is followed by an examination of the manner in which the varying nature of this force is dealt with in architect -designed housing estates.

In designing within an 'average environment' the architect is seldom aware of the actual users, their changing values and aspirations and so on. This makes the task of understanding these forces difficult. This heightens the already prevalent reluctance of the architect to extend his preparatory understanding beyond the level of morphological analyses into the level of user aspirations and values. However, at least in the case of residential environments, the neglect of a concern for these forces is detrimental. The technique of 'reading into' the texture of the urban setting attempts to encompass these multiple levels of preparatory understanding.

Thesis Supervisor: Ronald Lewcock
Title: Professor of Architecture and Aga Khan Professor of Design for Islamic Societies.

Acknowledgement

My last two years at M.I.T. have been full of tumultuous and exhilarating experiences. I would like to avail this opportunity to thank the people who made this thesis possible:

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> - Prof. Peter Serenyi, for consenting to be my reader in such short notice despite his busy schedule;
> - Akhtar Badshah, for his continuous support and encouragement.

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Abstract.
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'Reading into'Texture: Preparatory Understanding of Design in Urban Settings

1. Introduction.

The Scope of the thesis

The discussion in this thesis will primarily focus on techniques for preparing to design within 'average environments' in non-western urban contexts. In this thesis, I have defined the term 'average environment' to mean any characteristic urban environment composed of mix of 'average' building types such as housing, commercial complexes and so on. These developments constitute a major portion of the built environment emerging in the urban setting.[1] Furthermore, these developments are vital components which figure in the daily activities that take place in an urban setting. In most situations involving the design of 'average environments', the prospective users are unknown until the

buildings are built and begin to function. The architect, in concurrence with his client (often a governmental agency or a developer), makes assumptions about the nature and characteristics of the development, establishes a set of intentions and produces his contribution to the 'average environment'. What efforts can an architect make to improve the quality of the 'average environment'that they assist in producing? What preliminary design studies can an architect undertake in order to produce designs such that his 'assumed intentions' corelate with the manner in which final development works? - these questions are the central focus of this thesis.

In India, as in many others countries, the emergence of architecture as a major determinant of the quality of the the 'average environment' is a recent phenomenon[2]. Architects are becoming increasingly involved in large-scale projects including housing colonies and urban design projects which involve commercial and residential areas. In spite of the positive aspects of this development, the consciously designed 'average environment' that they have been produced lately seldom 'come alive'[3] in terms of the relationship between man and the environment. Ironically, this quality is still found in abundance in many organically-evolved or incrementally-grown traditional environments. In spite of the fact that there is no professional architect involved in shaping these settings, they generate a variety of activities. Perhaps the reason for the success of these settings is the fact that they are naturally shaped by unseen urban forces such as the lifestyle, activity patterns, values and

aspiration of the people and so on. Irrespective of the involvement of a professional architect, these urban forces will eventually influence and shape the new built form that emerges. **These urban forces are inevitable components of the urban setting.**

By 'forces' I mean external and internal stimuli which have an impact on the urban setting. They have the ability both to transform and retain in stability existing characteristics of the urban environment. The use of this term is very similar to Habraken's employment of the term 'powers'[4] - i.e. any person or group of persons with the ability to transform the site. However, his usage of the term, to my mind, appears to focus largely in the human actions that directly shape the environment. The present definition of the term 'forces', besides including these 'powers', also includes some of the more indirect products of human action such as land value, economic structure and so on. In this sense, the term 'powers' may be seen as a subset of the term 'force'. Some of the common forces that shape the built environment are location, accessibility, land value, economic structure, social cohesion and so on. While some of these forces are directly recognizable in the physical environment, others involve the human psyche and hence are not readily recognizable in physical terms.

The basic hypothesis in this thesis is that a majority of architects seldom take enough account of the forces that operate within the urban setting within which they are designing. Since these numerous forces cannot be
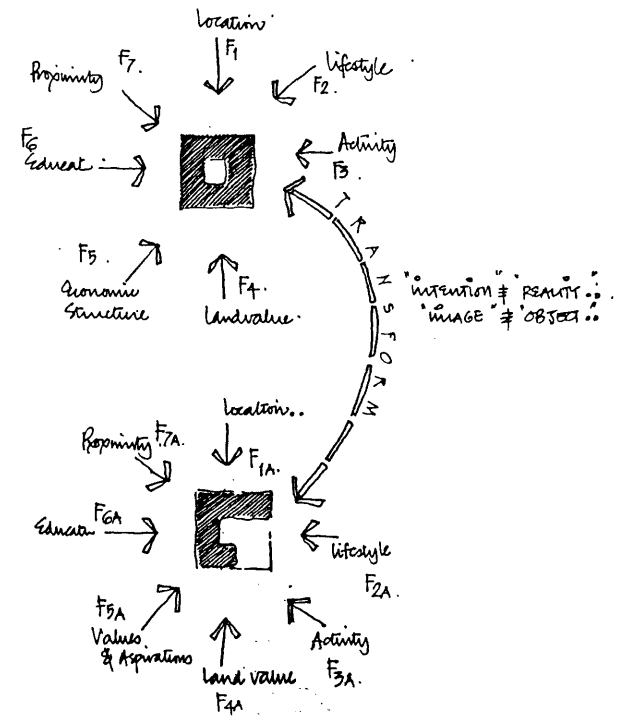
isolated from the urban context, the architect-designed 'average environment' will inevitably be influenced, shaped and transformed by them. If the architect has taken some of these forces into account, then there is an increased probability that his design works or functions in the manner he visualized it. However, based on what is reflected in a majority of the end products, it appears that a majority of the architects tend to 'smother their designs with their personal feelings and artistic biases'[5].

This thesis argues that the problem lies essentially in a **preparatory understanding of urban setting.** Of course, the concept of preparatory understandings are not unknown to architects. In fact, they have made conscious efforts to study the urban setting they are acting upon. However a majority of such studies have intuitively tended to stress spatial and morphological analyses.

'Our strongest facet, our visual expertise has led us into errors which stem from an imbalance between visual and the non-visual modes of thinking in our work. Many of the well-intentioned and harmonious buildings or environments end up defeating the wider social aim of which the exercise was undertaken'[6].

Habraken would distinguish such designs as mere 'images' far removed from the 'real objects'[7] (the designed buildings which fit among the urban forces prevalent in the setting). Such studies are undoubtedly vital, but not in all design situations. Critical issues such as those dealing

with user-aspirations and activities often are down played or even ignored. There seems to exist an apparent reluctance in the profession to go beyond morphological analyses and to invest much effort in the task of understanding such forces[8]. There is an apparent need for a unbiased understanding of the urban setting and its relationship to forces such as the activities and aspirations of the people operating in it. Preparatory understandings should be treated as "acts separated from personal thinking, feelings and intending. This allows us to recognize finally how designing makes us join others who will work at or live with that same form."[9]

These forces will unavoidably influence and transform the environment designed, the moment it is put in action, especially in the case of 'average environments'. By accounting for these force to the best possible extent in their design approaches, architects could produce realistic 'average environments' that 'come alive'[10], Their intentions may come close to the manner in which their designs actually function in reality.

'Reading -into' texture

In an attempt to develop a tool for a well-balanced preparatory under-standing, the technique of 'reading into' the texture[11] of the urban fabric is proposed. This technique involves several levels of analyses, includ-ing those of an interdisciplinary nature, for instance, socio-economic surveys. Spatial and morphological analyses form only one of these several levels of analyses.
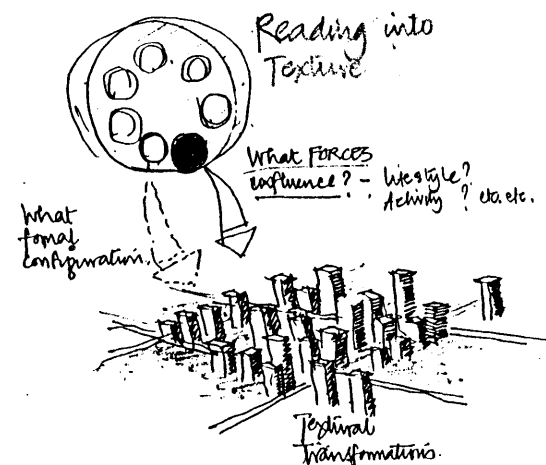
The concept of 'reading into' the texture can best be illustrated by the analogy of the method of analysis used by a doctor. In his diagnosis of his patient, he begins by recognizing physical symptoms. Then by a series of questions, he extrapolates his observations and makes deductions in the non-physical realm. Similarly, the technique of 'reading into' the texture[11] begins by posing a series of questions to the observations made in the texture of the urban setting. Each question may generate a level of analysis. Different sets of questions may yield different sets of inputs into the design situations. One can 'read-into' the texture of a setting in several ways. On one hand one can focus purely on its spatial and morphological configuration: on the other hand one can pose questions such as "what forces actually shape and transform the texture of an urban setting?".

Obviously, different design situations call for different methods of 'reading-into' texture. From the arguments made earlier, this thesis will focus on the level of 'reading-into' the texture which poses questions like **"what forces shape and transform the texture of the average environment?"**, reasoning that the success of an intervention in an 'average environment' is determined by the extent to which the end product matches the designer's intentions. If the designer has consciously taken into account the discoveries about the forces made in his preparatory studies then the environment produced will have a better chance of being utilized in the manner in which it was intended. Such a setting will most naturally 'come alive'. The people who will ultimately work in or use these environment are deemed as the most appropriate judges.

If interventions in 'average environments' are designed primarily with an eye to generating a stylistic debate among experts and architectural critics, they may run the risk of not being conducive to the actual users. Eventually that part of the urban environmentwill be transformed to suit the user's needs, values and aspirations, whether the designer likes it or not - the nature of such a transformation may not always be inaccordance with the architects' intentions. Such an unbiased effort to understand, as many of the innumerable forces as possible that operate in the urban setting, would be a valuable preparatory exercise for designers. Such a preparatory analysis may be interdisciplinary in nature and may even call for a willingness to set aside visual biases in order to understand the critical nature of some of the forces.

In illustration, the main discussion is set in the urban context of Delhi, a city which is expanding at an accelerated pace, engulfing several villages which are situated on its fringes. The historic city of Delhi presents a variety of textures in its different areas. These textures have been formed and transformed over the centuries of existence in the city. This city is used as a the setting to explore the technique of 'reading-into' the forces operating in it.

The second chapter introduces the reader to the context of Delhi. Simultaneously, it is demonstrated that the forces shaping the texture of a fabric are constantly varying. The present day forces are the products of the acculturation of their traditional counterparts. The third chapter, through a study of Shahpur Jat, an 'incrementally-evolved' urban

village, stresses the need to understand the nature of the radically varying forces as part of a preparatory understanding. It is also identified that the "shared image" [12] or the users perception of a residential environment is the most radically varying force in this case. The fourth chapter then examines the manner in which professional designers deal with variations of this force. The case of architect-designed housing colonies is chosen for this purpose.A specific focus is on the Siri Fort housing colony. The final chapter will reflect on the conclusion from this exercise.

[1] While this includes the so-called vernacular architecture it excludes 'image-based' institutions such as research institutions, governmental buildings, educational campuses and so on (the so called 'high' architecture)Dogan Kuban, in his article 'Modern versus Traditional: A False Conflict?" refers to these environment as "the middle way".

[2] Architect-designed average environments became a major development in the post independence period.

[3] Alexander Christopher, The Timeless Way of Building,

[4] Habraken N.J . Transformation of the Site. Awater Press.

[5] Habraken N.J The Appearance of the Form. Awater Press,
To help form come about, we must not smother it with our feelings, but try and let it find its place among us: what attracts us in designing is the opposite to self-expression: it is the application of all our knowledge and creative powers towards something outside us. the reward is that while making form this way, we forget our private interests and to the degree that we help the form and engage in its creation.

[6] Prakash, Sanjay. Visual Bias. Architecture plus Design.

[7] Habraken N.J. The Appearance of the Form. Awater Press, Cambridge, 1985.

[8] Lang Jon. Emerging Issues in Architecture, 1974. p.

[9] Ibid.

[10] Alexander Christopher, The Timeless Way of Building,

[11] Throughout this thesis, the term texture is used to denote the physical manifestation of built environment which has grown incrementally over time

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[12] Habraken N.J. Transformation of the site.1988.

2. The Texture of Delhi.

Modern cities are frequently accused of being 'chaotic' or 'disordered' in comparison with traditional cities.[1] One of the reasons for this accusation may be that present day cities are actually 'pluralistic'-consisting of a number of cultural systems. The problem of understanding them is aggravated by accelerating changes introduced since the advent of mass communication. Within each of the different cultural systems there are social, economic and political forces which shape the texture and embed their own 'cues' in the built environment. When these cultures overlay one another, the cues are diffused to the extent that they remain unnoticed or are even misunderstood. Relatively subtle cues that could be used as indicators in the traditional environments do not work in modern cities- a higher level of redundancy is

involved. [2]

How do we understand the present day forces shaping the different textures of modern cities? How can we account for the apparent chaos or disorder in them? What are the social, economic and political forces that affect design in such urban fabrics? Are these forces changing with time? If so, then are there patterns in the manner in which they change? These are some of the questions that will be addressed in this chapter.

The case of post-independence Delhi is a classic illustration of the phenomenon stated above. Backed by a long history, present day Delhi circumscribes the physical remnants of 21 different towns founded by Hindus, Rajputs, Muslims and the Europeans over 800 years. Consequently, the texture of Delhi today comprises an overlay of textures shaped by different cultural forces.

The discussion in this chapter will continue to employ the technique of 'reading-into' the texture to expose various forces such as the user activities, lifestyle, living patterns, aspirations, values etc. shaping the 'average environment' in Delhi. The first half of this chapter will argue that the apparent variety perceived in its texture is the expression of differences in the nature of these forces. The second half of this chapter will attempt to demonstrate that these forces themselves may vary over a period of time. The variation of these forces is not uniform. While some of these forces vary radically others persist over time. It will also be argued in the second half that the nature of variation of forces can be

SKETCH of the ENVIRONS of DELHI

References

PALUM
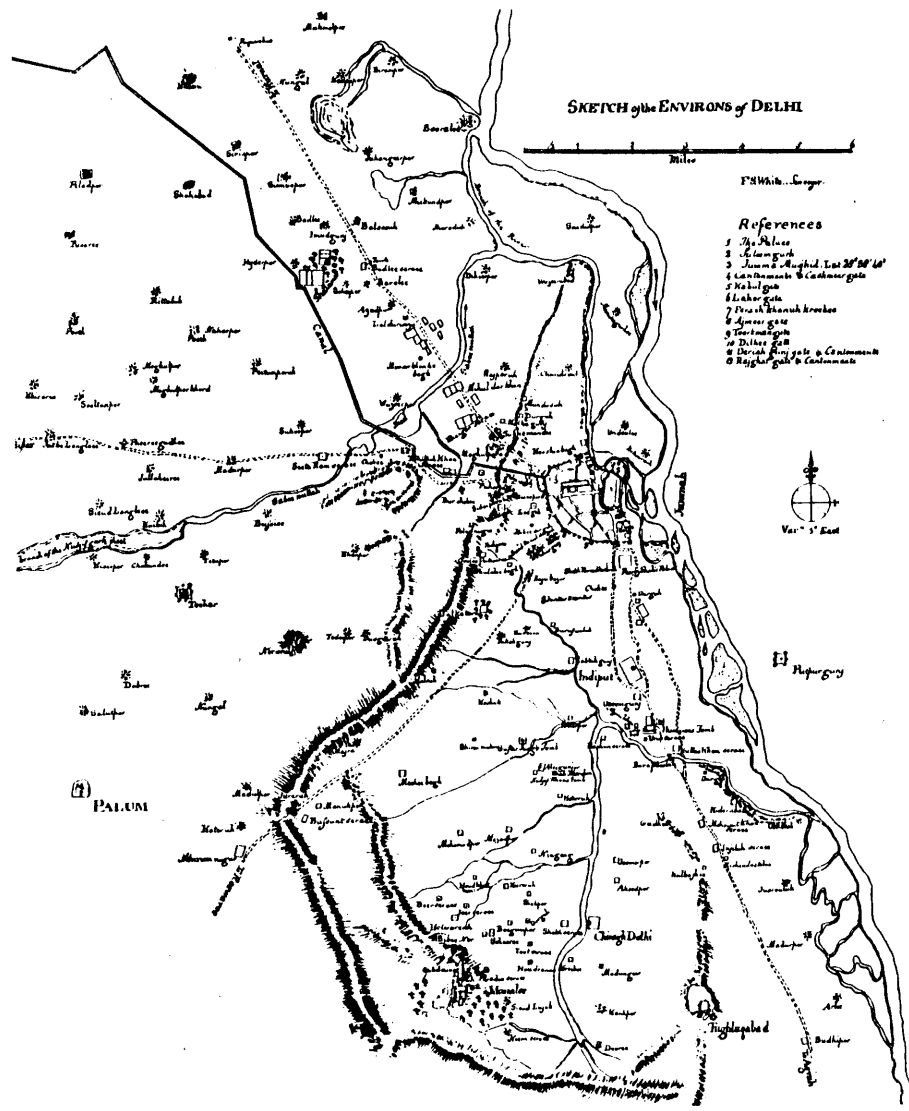
traced through an understanding of the kind of variation that these forces have undergone from pre independence times till this date. The concluding part of this chapter identifies some of the most important of the radically varying forces that influence, shape and transform the texture of the 'average environment' today. The 'average environments' in this discussion, largely be examples from residential settings in order to focus the discussion in the following chapters.

Delhi, a historic sketch.

A brief outline of the historic background of Delhi will form an ideal introduction to the discussion to follow. Arguably one of the oldest cities of civilizations, Delhi is situated on a triangular piece of land sandwiched between the ridges of the Aravalli ranges and the river Yamuna. Located on the major trade route from the north west and forming the gateway into India (The Grand Trunk) this strategic triangle was the site for the formation of several cities. A number of dynasties including moghuls, Rajputs and Europeans have held control of this area during different periods in history. Beginning with Qila Rai Pithori, which was founded by the Rajputs in 1040 A.D there is evidence for the formation of at least 21 cities on this location. Some of these cities have been reduced to a state of ruins while others are still actively in use with a distinctive cultural character.

Of those that remain, the physical spatial structure or the texture of Delhi is predominantly determined by the

Grand Trunk Road.

Aravalli hills.

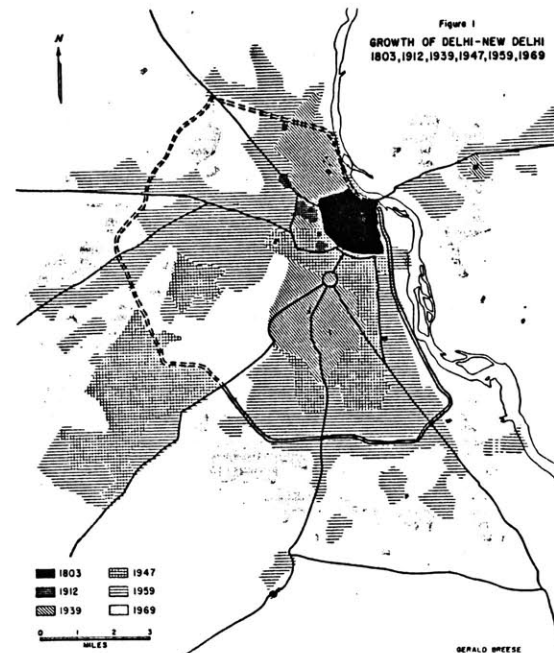Strategic Triangle.

River Yamuna
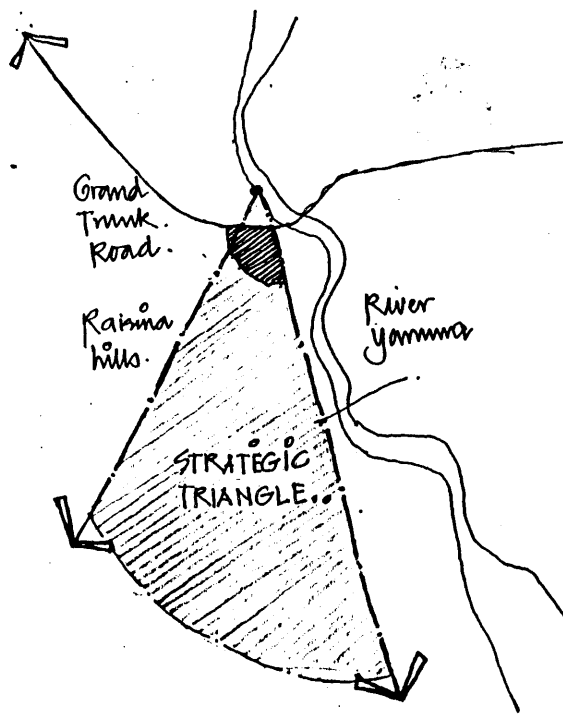
- the 17th century 'pre-industrial city ' of Shahjahanabad
- the colonial city, including its earlier developments within and north of the walled city
- the post independence developments including, those areas that were developed to rehabilitate the refugees and the migrants from the rural areas.

Together these cities extend beyond the limits circumscribed by all the earlier cities of Delhi, and beyond also the natural boundaries that had restricted the earlier cities. It can be argued that these three cities, essentially determine the texture of present day Delhi.

For the purposes of the present discussions, some clarification is necessary in terms of nomenclature.

Figure I
GROWTH OF DELHI-NEW DELHI
1803,1912,1939,1947,1959,1969

- The **native city** is that part of the walled city which was predominantly occupied by the indigenous people during the colonial period. This definition excludes areas such as Daryaganj and Cashmere Gate which were occupied by the Europeans.
- Those early colonial developments within the walled city along with the areas developed in the north which constitute the **early colonial city**.
- The Lutyens-planned capital, south of the walled city which will be referred to as the **later colonial city**.
- The remaining areas developed south and west of these cities, which will be referred to as **post-independence development**.

Figure 3   OLD DELHI WITHIN THE WALLS

¼ MILE

GERALD BREESE

Even at a glance, the texture of the native city presents itself as in distinct contrast with that of the colonial city. The former reflects a closely knit fabric undifferentiated into individual units. The meandering access streets appear to have been formed in the left-over spaces between the dwelling units. On the other hand, the colonial developments, have a fairly rectilinear configuration of streets even in areas within the walled city, even in areas such as Daryaganj, within the walled city. The built form comprises isolated buildings surrounded by gardens and green spaces.
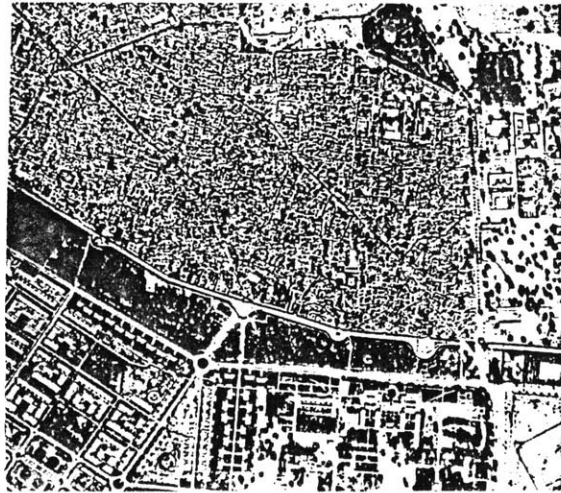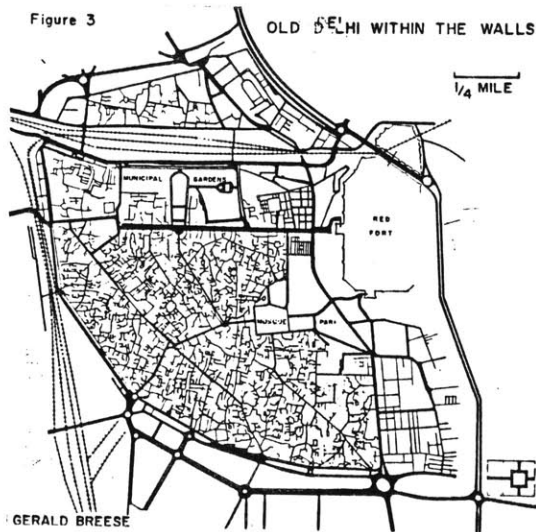
What other physical cues in the built environment bring out the contrast in the textures? What forces influence the formation and transformation of these contrasting textures? Where do the reasons for the contrasts lie? - these are some of the questions that the first half of this chapter will analyze. The analysis will usually pick on physical cue from the texture and then speculate what forces shaped and transformed it.

On a careful analysis of its texture, it is clear that the physical structure of the native city today revolves around two important commercial spines - Chandni Chowk (Siver Street) and Faiz Bazaar, running at right angles to each other. Other commercial streets such as Nai Sarak, link these main spines, forming a framework of commercial streets providing access into compactly arranged residential neighborhoods called *mohallas*. In other words the commercial area provided a linear core around which the residential areas were organized. Hence it played a

significant role in the daily activities of the people. In order to commute from one part of the native city to another, one has to cross the commercial spines.

In distinct contrast, the colonial city was planned with the administrative complex, namely the Viceroy's house, forming the focus. Independent business and wealth had almost a negligible role in determining the core of each development. Unlike the situation in the native city, land uses were segregated. Commercial areas were developed in specific isolated areas well removed from residential developments. Thus, commercial areas were not necessarily included in the daily experience in the colonial lifestyle. Even in the early colonial development, however haphazard and incremental it may have been, the tendency clearly seems to have been that commercial activities; in the case of the first colonial city, were concentrated in the areas around the Casmere Gate.
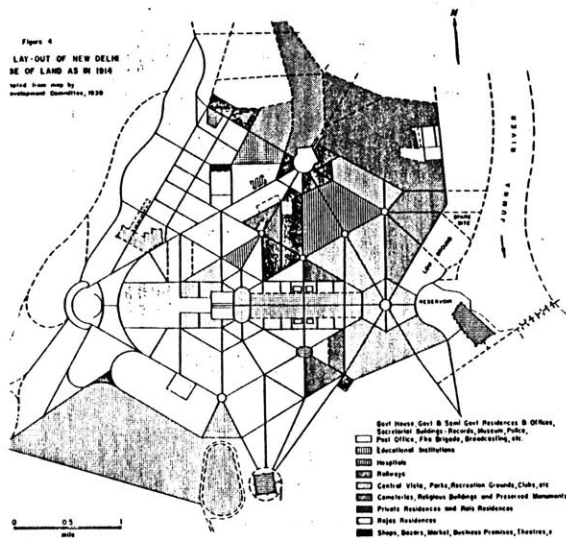

The influence of many forces, such as proximity to the place of work and the mode of transport, can be attributed to this contrasting phenomenon discussed above. However, the explanation in terms of the social forces seem most important and relevant to the discussion which follows.While the colonial elite saw the commercial spines as creating unwanted hustle, loss of privacy and unhygienic, the natives, even the elite among them, perceived the same spines as providing opportunities for encounters with familiar people, and for interaction on their way to and from their residential neighborhoods. The Colonial concept of interaction was focussed on specialized buildings such as clubs and restaurants.
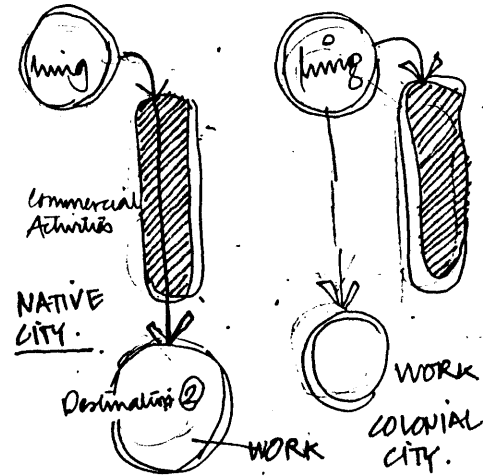
Commercial activity in the colonial city almost became an evening ritual. A trip to the "colonnades of the 'shopping parades' of Connaught Place" was more than a necessity-oriented outing. It provided an opportunity for the assertion of social status and for gossip and socializing.

"Usually a friend of mine drove me to shop in Delhi, her car was much bigger than mine. In the back, she took bull terriers to guard any parcels. Not infrequently, we stopped for 'elevenses' at Davicoes in Connaught Place, an excellent pattesserie, which provided hot chocolate, cream and rich cakes and not only that, but lots of gossip as well.- Stokes Roberts, 1939.[3]

The Later Colonial City.

Figure 4
LAY-OUT OF NEW DELHI
SE OF LAND AS IN 1914
spied from map by
evelopment Committee, 1939

Govt House, Govt & Semi Govt Residences & Offices,
Secretariat Buildings: Records, Museum, Police,
Post Office, Fire Brigade, Broadcasting, etc.
Educational Institutions
Hospitals
Railways
Central Vista, Parks, Recreation Grounds, Clubs, etc
Cemeteries, Religious Buildings and Preserved Monuments
Private Residences and Flats Residences
Rajas Residences
Shops, Bazars, Market, Business Premises, Theatres, c

The textures of both the colonial city and especially the later colonial city clearly express a measured, hexagonal(grid) frameworks of tree-lined streets. Isolated units, typical in their organization, surrounded by a garden and compound wall and placed at regular intervals on either side of the streets, reflect a sparse density. Although not very clearly reflected in the early colonial areas one could definitely speculate, by 'reading-into' the texture, that the above trend was incrementally setting in.

One could attribute these textural qualities to several forces: the introduction of the motor car, the standardization of services and utilities, and so on. However, the explanation in terms of the values and aspira-

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tion of the people seems most relevant to the present discussion- the colonial desire for isolation from the indigenous people, for open spaces and so on.

The measured, symmetrical grid was evidence of three levels of colonial control. It expressed total control over the environment, with the power to define boundaries and order the spaces within them, to represented total control of over the social structure, the power to order precedence, create communication and control social relations between them. Third, it expressed total control over the process of allocation; once the places were created they would be filled according to plan.[4]

The geometry reflected in the texture is the most explicit expression of order. It can be visually experienced and readily understood alike by both the 'insiders' and 'outsiders' to the culture.[5]

Within the residential areas, the allocation of plots was based on the criteria of race (whites and non-whites), occupational rank and socio-economic status.- Areas were created for "gazetted officers", for indigenous clerks, European clerks and so on. Further, the areas closest to the Viceroy's house were alloted to the officers with the highest rank while those farthest from for indigenous employee of with the rank of peons and the like. Thus, the abstract 'social structure' existing in the minds and expressed in the behavior, was liberally concretized into reality by the physico spatial forms [6]
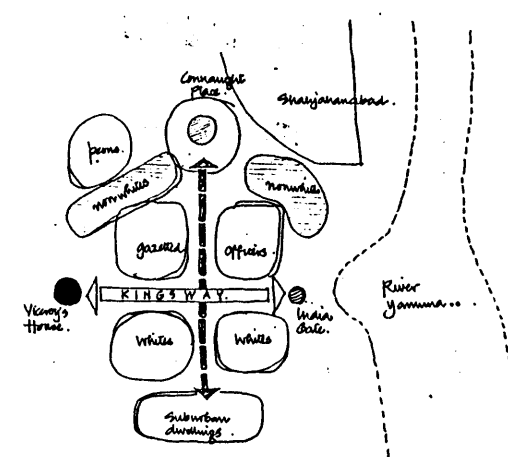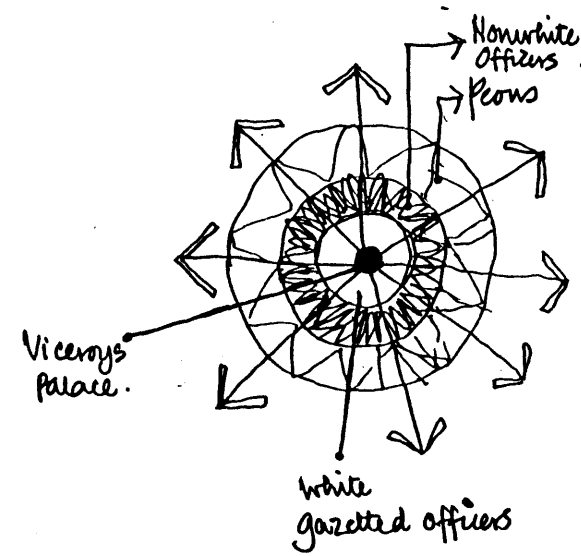
At a cursory glance, the native city may appear 'chaotic', in terms of its geometry, its irregularity and so on. However, it has been demonstrated[7] that there is an underlying a strong social order with the neighborhood *mohallas* leading into the linear bazaars. The *mohallas* are occupied by people with the same occupation, place of origin, clan and so on. The street network reflects a clear hierarchy leading from the public realm of a bazaar to the relatively more private realm of the cul de sacs. An access doorway or *darwaza* connects the primary spine to a secondary street, doubly loaded with residential units. In turn, these secondary streets branch out further. These branches terminate in cul de sacs. So access to the *mohalla* is controlled and thoroughfare was uncommon.

Thus, the apparently chaotic neighborhood units can be understood in terms of access, control, penetration gradient, publicness versus privacy, residential allocation and so on- Each of these units is hence socially homogeneous - there is a social order.[8] The entire native city is an agglomeration of such units.

Similarly, the first impression about the distribution of commercial activities is that it appears chaotic - on the one hand shops ranging from the scale of a street hawker to the scale of a retail showroom co-exist, while on the other commercial activities take place at all levels both wholesale and retail side by side. On careful examination, however, one discovers a pattern, with the same and related activities grouped together in *katras* : retail activities situated on the main spine while the

wholesale activities were situated on the secondary areas.

In short, there exists a complex system of ordering stemming from forces such as activity patterns, lifestyle, economic pressures and hence the culture of the people. If one reads chaos in the texture of these fabrics it is only due to one's lack of knowledge of these cultural forces[9].

In the early colonial city, even in areas within the walled city such as Daryaganj, the colonial residences were detached bungalows, each surrounded by a garden and a boundary wall. Space was a symbol of power and well being..

In the original plan of 1912, the relationship of size to status in the official hierarchy had been
> Member of council - 6 acres.
> Class of Officers   - 5 acres [10]

The street facade was more than the mere expression of the functional organization of the bungalow[11] interior. It was the expression of the social status of the individual relationship to the public realm.

As Anthony King has argued, the social status of an individual was determined by the status of his accommodation, which were based not only on the street facade, but on its distance from the Government house, the size of the garden, the name and size of the road on which it is situated, and the type of facilities and vegetation[12].
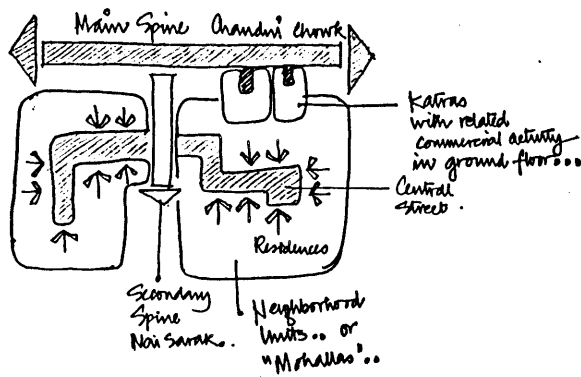
Unlike the situation in the colonial city, where the residential activity took place within the limits of the bungalow compound (and was screened off from the street), in the native city, the residential activity spilled onto the streets and the cul de sacs of the *mohallas*. In other words, the domain of the houses extended into the streets of the neighborhood. Territoriality, communal integrity and security within the *mohalla*, instead of individual privacy, were the important issues. To carry this further into the built form, the continuous street fronts were never the expression of distinct individual identity. Even the dwellings (*havelis*) of the wealthy projected a relatively modest facade, undifferentiated from the street front of the *mohalla*. Of course, these dwellings occupied larger areas, with bigger courtyards and most importantly elaborately embellished interiors. In the native culture, the wealth of an individual was not necessarily externalized (as is the case in the european culture).

In fact, if we compare the spatial organization of a native dwelling or *haveli* with that of the colonial bungalow, we find that 'the activities and movements in the native traditional dwelling are focussed inwards towards the courtyard and hence centripetal. This is in contrast with the colonial bungalow which is cntrifugal with the activities directed outwards to the verandahs and further onto the compounds'.[13]

In the native city, the streets were more than linkages for movement. They were the sites for a variety of communal activities, leisure and gossip. At points these streets enlarged to form nodal *chowks* or squares

to facilitate such activities. Leisure activities took place more along the street edge than in specialized buildings.

Streets in the colonial cities were mainly arteries for movement. Of course , one could argue that the modes of transport had changed considerably when the later colonial city was planned. Leisure activities took place either in specialized clubs, or cinema houses or restaurants. Still, there is evidence that these attitudes to the streets pre-dated the era of mass transportation and reflect colonial "snobbish" preferences.

Leisure formed a very important part of the colonial lifestyle. For instance, the first golf course was located in the cantonment of the early colonial city when the development was incremental and haphazard. There were only a handful of Europeans living in the city then. Other specialized buildings for leisure such as cinema houses, race courses, cricket fields and so on soon emerged. Again there was a degree of social status assigned to each of these leisure activities and buildings for recreation.

All the above comparisons and contrasts are intended mainly to demonstrate the argument that variations in the urban texture are the reflection of the differences in the social, economic and political forces shaping and transforming it.[14] By carefully 'reading-into' the texture one can identify these subtle differences. One other reasons for the choice of the native city and the colonial city for the analysis is to construct the platform for

the argument to follow in the next portion of this chapter.

Present day, post independence Delhi is an aggregate of a number of textures overlayed to form new ones. Almost all these textures contrast with those of the native city, or the colonial city in term of density, land use, street network, zoning and so on. Hence the cultural forces shaping these textures have changed. What are the present day urban forces that shape and transform present day Delhi?

The following half of the chapter suggests that present-day urban forces may best be understood as,predominantly, a product of the influences of the colonial culture and of mass media on the native culture. It can be demonstrated through 'reading-into' the texture of post-independence Delhi, that vestiges of native and colonial cultures remain. It can also be evidenced that present day culture is rooted as much in its colonial progenitor as it is in the native indeginous culture. In other words, present day cultural forces are derived from a new culture which, it can be argued, draws heavily from the native and colonial cultures. Here, one cannot discount the influence of the changes that have resulted from the introduction of mass communication .

I will begin by providing evidence for the presence of vestiges from the colonial and native culture, going on to a 'reading into' the texture and its physical cues. Next, I will trace the influence of the colonial culture on the native culture. Finally, I will conclude with the emphasis on the need to understand that the present day urban forces   are in fact a

product of a third culture which is different from both the colonial and the native cultures. An attempt to begin to understand these cultures will simplify the process of understanding the complex social, economic and political forces that shape and transform the urban textures of Delhi.

The shared image of a contemporary house, was no longer inward-looking, as was the case in the native city. In spite of the fact that 'they are effective and efficient climatic control devices', courtyards units are no longer preferred. The complicated rules of privacy and spatial order are no longer relevant. 'There is a shift towards 'concrete free standing bungalows-like structures, that can only be inhabited if controlled by means of noisy air-conditioning equipment[15] and which are surrounded by garden spaces and a boundary wall.

Of course, the public regulations that govern these developments are more or less extensions of those that were in action in the colonial times (those based on the 'garden city model'). Further the officials involved in the framing and the changing of these regulations were trained and conversant with European models. Whether these regulations need a complete overhaul or to what extent is the modification necessary will constitute another thesis in itself.

In distinct contrast to the situation in the native city, the street facades in areas developed in the post-independence period seem to reflect a definite tendency to distinguish individual units. The street front is more than a modest expression of the functional organization of the

interiors. The emphasis on individuality seems to have been achieved by the variation in materials, the use of decorative motifs and so on. (Facade for facade's sake). This tendency of externalizing individual social status and wealth in the street front of dwelling is undoubltedly a vestige of colonial times.

There is a significant change in the lifestyle of the people in the zones developed during post-independence period as compared to the lifestyle in the native city. Of course, all such changes are not the products of colonial influences alone. The development of mass communication in the country has accelerated the process of change in lifestyle. In any case, one can definitely trace some vestiges of colonial culture in the present lifestyle. For instance, the importance of the concept of 'leisure', the concept of 'shopping as a ritual' have already been elaborated. To add to this list are the concept of a 'vacation'. In the native culture, people travelled on business or on pilgrimages. The concept of taking a 'vacation' in a 'hill station' or a beach town,etc. appears to be another vestige of the colonial culture. These concepts have percolated from the elite to the upper middle class of today.

The present day lifestyle still retains a substantial vestige of the native culture. The degree of this retention probably varies with the income group and the background of the people involved. Several forms of interaction characteristic of the native culture have survived in spite of the extinction of their originating impetus (an example for such extinction may be the change from the extended family system to the nuclear

family system). Such things survive because they have been translated into social systems to become an integral part of the values of the society[16] For example one can recurrently find a delicacy cooked in one household being sent to many neighbors to share: the borrowing of household articles of daily use is taken for granted. One household may have a telephone and the entire community have the access to it, as if it were theirs. Such instances point towards the custom of sharing, doing things together and the implicitly understood rights and the privileges of neighbors persisting as cultural values, rather than necessities.What is remarkable is the persistence of values in spite of the change in the built environment - for example, the introduction of the bungalow type of dwellings.

Forces such as lifestyle, activities, values and beliefs, aspiration of the people and so on, have changed by a process of 'acculturation' over a period of time. What was perceived and understood as 'order'[17] in native times may not be recognized in the same manner in the present day. It is therefore important to recognize the present forces shaping the texture. These forces will originate from a third culture which may probably relate to the Colonial culture as much as they would relate to the native culture.

To what extent have the forces changed? Have these forces changed to the same degree for all the people? If not, how do we decide the true situation today? Before we probe into these questions it may be interesting to trace the process of 'acculturation' during colonial times.

This process forms an important factor in shaping the present day culture. It should be noted that the introduction of mass media and communication have significantly accelerated the process.

The early years of British rule, in sharp contrast to the later years, after 1857, were characterized by an easy conviviality between prominent Indian and British officials. Western civilization was not regarded as superior but as one (culture) which was useful and could be a source for learning[18].

While in power, the British employed the policy of stratification and dominance-dependence[19] by which they built up an air of superiority with a distinctly decadent lifestyle, with all possible privileges and facilities, which the natives could not afford. At the same time, important facilities such as the railways, the post and telegraph, electricity, motorized vehicles and so on were introduced. The physical form of the colonial developments naturally provided for all these facilities. Since the indigenous areas were mostly developed in the pre-industrial times, they lacked such new facilities. Hence the indigenous elite who could afford to move to the colonial urban areas and suburbs moved into these areas.

"In Physical terms, the break with the native city was radical, but the later colonial city provided for modern facilities and hence built an image in the minds of the people. At least the citizens who could afford moving to the new housing did so.[20]
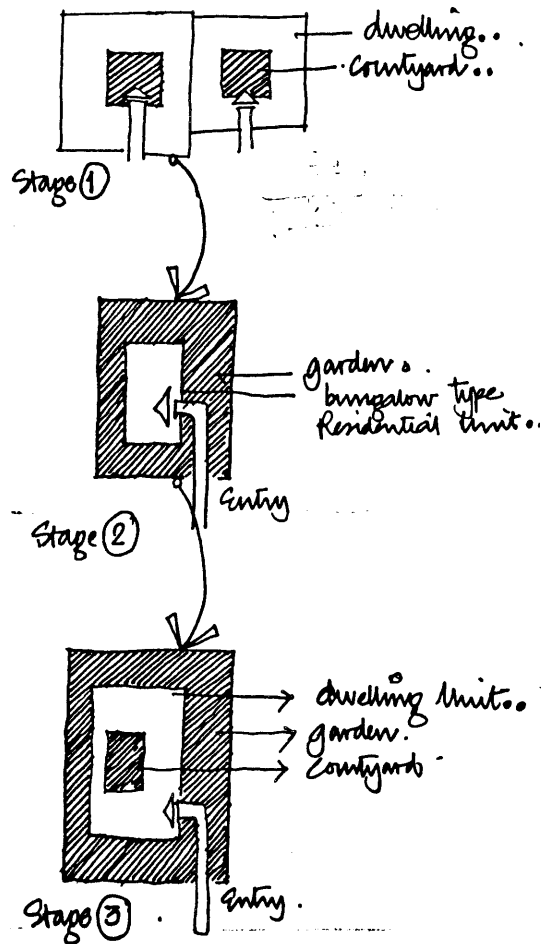
On the cultural level, the colonial settlements in the city were instrumental in dividing the society into two spheres- the upper class aspiring to move into the new colonial areas associated with the aura of prestige and status while the rest continued to hold onto their traditional lifestyle. Of the former, those families that did shift not only adapted themselves in their new homes, but also at least superficially assumed the mannerisms and customs of the rulers in an effort to gain their approval.[21]

In due course, with the rise of the educated middle class the number of natives aspiring to live in the colonial areas increased further. The growth of the population also began to make the lower class spill out of the traditional areas.

What is most astonishing is the shift from the courtyard type of dwelling which was climatically and socially appropriate to the native culture, to the free-standing bungalow type structure set in a garden.

All these changes make sense only if we accept a system that allows us to behave in accordance to the values and aspiration that we share. Physical discomforts are secondary to the pains of social pressure. Utility and use are only one reason for change; it is often hard to judge what has been considered most important[22]

With the declaration of independence, the urban elite took over the

Stage ① — dwelling..
— Courtyard..

Stage ② — garden o.
— bungalow type
Residential Unit..
Entry

Stage ③ → dwelling Unit..
→ garden.
→ Courtyard -
Entry .

colonial bungalows. The colonial 'urban image', based on the Garden City model, became the aspiration of the upper middle class. Today, after four decades of independence, the urban elite have moved a step ahead- they have reverted to the recreation of a 'Pseudo-traditional' image in their detached bungalow type of dwelling through the use of traditional furniture and so on. Guessing by the patterns observed so far, it comes as no surprise that this image percolated down into the middle class too.

In short, some of the urban forces that shape the its texture seem to have changed radically while others seem to have persisted. Forces such as the lifestyle, activities, values and aspirations of the people appear to have undergone radical variation. In fact, some of these forces seem to have varied to different extents for different social groups. These forces are especially important in the case of 'average environments'. The next chapter will examine a sample of an 'average environment' and identify the most important among these forces with reference to residential environments. It will choose the case of an unplanned, incrementally-evolved urban village for the exposition of the most radically varying force. The fourth chapter will then look at the case of a planned 'average environment 'and examine the allowance that has been provided to take account of such variations.

[1] Rapoport, Amos. Culture and Urban Order. in *The City in Cultural Context,*.1984.
[2] *Ibid..*
[3] *King, Anthony. Colonial Urban Development. 1976. p. 256*
[4] *Ibid p.*
[5] *Rapoport, Amos. op. cit. p.*
[6] *King, Anthony. op. cit. p.*
[7] *Rapoport, Amos. op. cit. p.*
[8] *Ibid. p.*
[9] *Ibid p.*
[10] *King, Anthony.Colonial Urban Development. 1976. p.*
[11] *The term bungalow has been coined during the colonial rule in India (especially in Calcutta) to refer to the individual residential units. It is derived from the word 'Bengal'.*
[12] *King, Anthony.op. cit. p.*
[13] *Arshad, Shahnaz. Reassessing the Role of Tradition in Architecture. 1988.p.*
[14] *The picture that is provided so far is intentionallly simplified and a black and white picture is presented. the grey areas rich with a series of subtleties are not discussed since the basic intention was to identify the differendes in forces. The actual picture in reality is a lot more richer different levels of greyness.*
[15] *Habraken, N.J. The transformation of the Site.1983.*
[16] *Arshad, Shahnaz. op. cit. p.*
[17] *Rapoport, Amos. op. cit. p.*
[18] *King, Antony. op. cit. p.*
[19] *Ibid. p.*
[20] *Ibid. p.*
[21] *Ibid. p.*
[22] *Habraken, N. J. op. cit. p.*

3. The case of Shahpur Jat

The basic intention in this chapter is to expose some of the forces operating in an urban setting. For reasons elaborated in the course of this chapter, the setting of an unplanned, incrementally-evolved urban village, Shahpur Jat is chosen for the exercise. Shahpur Jat is an old village situatedwith in the moder urban limits of Delhi. It is suggested that the technique of 'reading into' the texture be developed to uncover some of the most important forces.

The discussion in the previous chapter, through a study of Delhi and its background, dealt with the varied range and number of forces and the changing nature of many of them. In this chapter an attempt will be

made to explore the techniques necessary to penetrate this complicated intermesh of forces as a preparatory understanding for design.

Among 'average environments' the discussion in this chapter and the next will both focus on residential environments. While the former will focus on an unplanned setting, the latter will analyse an architect's intervention in a residential environment.

The Case of Shahpur Jat.

Shahpur Jat, an unplanned and incrementally-evolved urban village, within the city limits of New Delhi provides a good case that demonstrates this phenomenon. Originally a fringe village with an agriculture-based economy, the village was incorporation into the urban limits of Delhi between 1951 and 1961. What was once a system of rural forces has now been replaced by a fresh system of forces arising from the urban setting. Hence, such an urban village provides an ideal case study of an 'average environment' wherein there is a clear variation in the nature of the the forces. The present discussion will focus on some of the radically varying forces and to demonstrate both their positive and their detrimental effects on the texture of the fabric.

An added advantage in the selection of such an urban village is that such a vilages have been declared as *'lal doras'* i.e. they have minimal or no regulations public regulations governing them. Hence, the transformations that are evident in the texture of these settings are largely the product of the changing nature of the urban forces that shape and

reshape them.

In other words, the village is an incrementally-evolved 'average environment', with minimal or almost negligible formal intervention from architects or urban designers. Essentially, it is a manifestation of how the ordinary people (the actual users) would shape their own 'average environment'.

The analysis of the selected urban village is presented first, in the form of a narrative of the stories of two families. This is followed by an analysis of the forces revealed in the village by these accounts. This format of presentation has been employed in order to preserve the richness that arises out of the interwoven nature of the system of powers or forces in action. The details of the story are filled in from the findings of the author in a series of interviews with the people of the village. The specific details of the interviews are drawn upon to expose as many forces or powers as possible. Also, an attempt will be made to underscore the importance of the lateral influences, among the forces within the system. Most importantly, due to the uneven nature of the lateral influences some forces vary radically while others persist. Given this complex set of urban forces, this chapter will suggest that directed on-site research presents a simplified way of understanding some of the important forces - a study with sufficient depth for the equipping of designers to operate in 'average environments.'
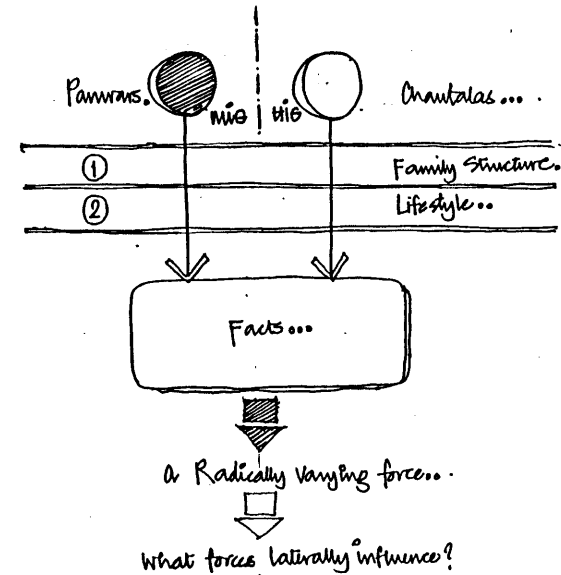
Background of the Village.

Shahpur Jat is a small village founded about 600 years ago within the walled enclosure of the Siri Fort and is situated near what were the southern boundaries of Colonial Delhi. The post-partition expansion of Delhi led to the incorporation of this fringe village into its urban limits in 1961. The surrounding agricultural land which is the main source of sustenance to its villagers was acquired to meet the growing urban need. Presently, the village is enveloped by newly developed 'desirable' housing colonies such as Panchasheel Park, Haus Khas and so on for the affluent people. As a consequence of this change in its surroundings, a significant variation has come about in the nature of the forces shaping the texture of the village.

The Story

Om Prakash Panwar is one of the farmers of Shahpur Jat, whose lands were acquired by the Municipal Corporation of Delhi in 1960. Unlike a selected few of his relatives, who migrated to Gurgaon, a distant village southwest of Delhi, he followed the example of the majority of the villagers in remaining in Shahpur Jat. Earlier on, he had been preparing his own agricultural tools. Om Prakash was familiar with carpentry. In fact, he had a work space in his "*baithak*". At present he makes a living out of these carpentry skills. He prepares wooden patterns for machine dyes which he supplies to a factory in Okhla Industrial Estate.

Om Prakash has three sons, two of whom are married and have children. The eldest son Raghunath assists his father in wood work besides

working at the 'IIT Engineering college' as a pattern maker in the workshops. He earns 900 rupees every month. His second son Prathap, who has passed the matriculation examinations, now works as a clerk in Vignan Bhavan. He earns about 1350 rupees. The youngest son Raju is studying Arts at the university.

"...In those days, when we used to cultivate land, our *haveli* consists of a *baithak* and a *ghar*" describes Om Prakash. The former was the streetside men's domain, besides being used for storage of fodder, agricultural equipment and so on: the latter area was essentially the womens' domain. Joint family system was prevalent and the spatial organization of the *haveli* is intended for collective living activities.

" Our living, activities and lifestyles were all identical. Today, we no longer work in the field; each of my sons has his own different occupation and sources of income.......".Om Prakash describes.
As a consequence in the lifestyle, his family no longer needs his *baithak*. Hence he has converted a portion of into his wood workshop. He has rented out another portion of the *baithak* for a shop which runs a video library. There are many such video libraries which cater to the local people. Several people have videos and televisions in their residences.
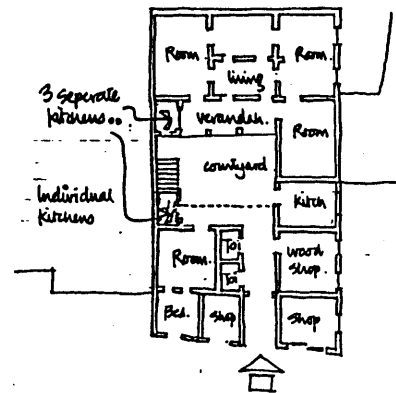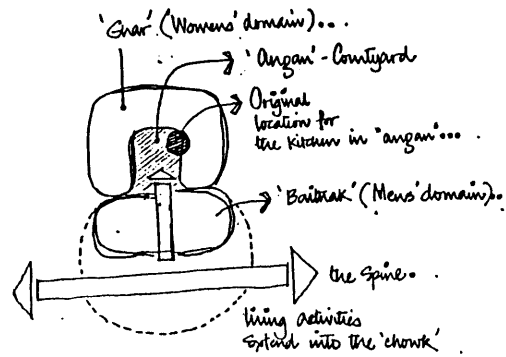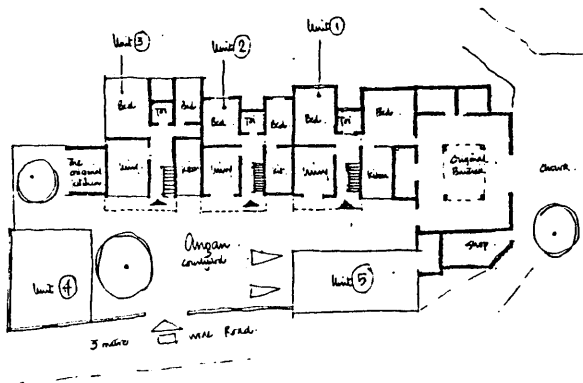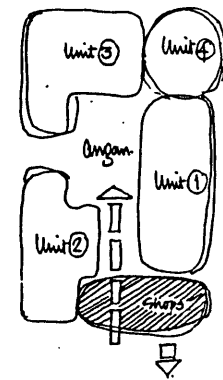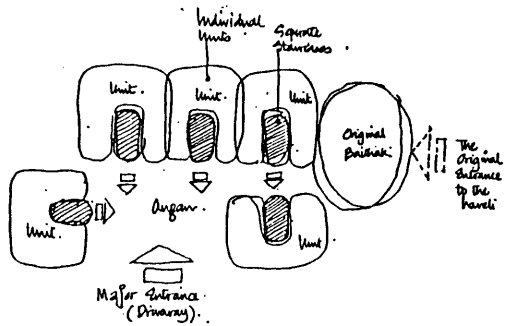
Om Prakash has modified his single house divided it up into four separate parts. Three for the nuclear families of his married sons and one for his own self. Hence three separate nuclear households live in this modified *haveli*. However, the central courtyard and the toilet facilities
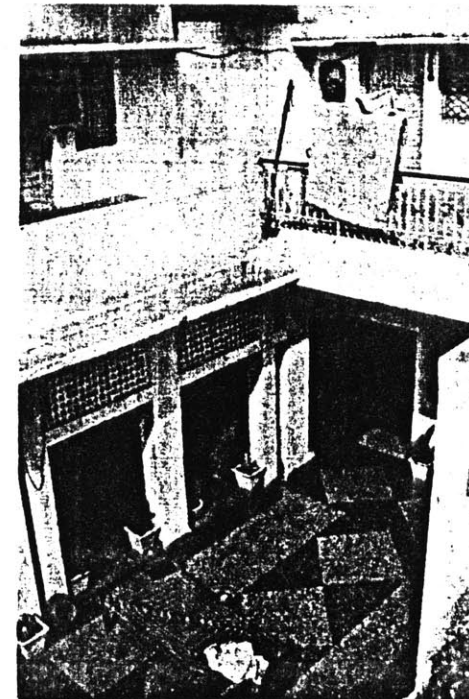
which were recently added to the *haveli* are shared alike by the entire household (which includes all the nuclear families). Also, religious observances and community festivals are celebrated together by the entire household in Om Prakash's quarter.

As the families of his sons expand, there will arise a need for additional accommodation. Om Prakash will have the option of either building into the *chowk* which is situated adjacent to his house or to build on the upper floors. He would choose the second alternative since he values the chowk as an important social space for community activities. At the same time, in areas where the road was wider than require, the shops appear to have encraoched onto the road by adding a step and spilling over activities into this step.

Already, to augment the income of the entire extended family, Om Prakash has built two rooms on the first floor and has rented them out. His tenants Padmanabhan Nair and Rajesh Thakur are migrants who came to Delhi in search of employment. Both the tenants have left behind their families in their native towns. Padmanabhan Nair, a South Indian from Kerala works as a clerk in a private office at Nehru Place, a nearby district center. He finds the village to be centrally located and easily accessible. At the same time he only needs to pay a rent of 450 rupees as opposed to 850 rupees which he may have, had he stayed elsewhere in the colonies. All he needs for a living is a room with proper toilet facilities attached.

Individual Units — Square Staircases

Unit. Unit. Unit. Original Baithak — The Original Entrance to the haveli

Unit. Angan. Unit.

Major Entrance (Driveway).

PARK — OLD VILLE

Unit ③ Unit ④

Angan. Unit ①

Unit ② — Shops

Unit ③ Unit ② Unit ①

Bed — Toi — Bed — Toi — Bed

The original addition — Original Baithak — Chowk.

Angan courtyard

Unit ④ — Unit ⑤ — Shop

3 metre — Main Road.

'Gnar' (Womens' domain)..
'Angan' - Courtyard
Original location for the Kitchen in 'angan'...
'Baithak' (Mens' domain)..
the Spine..
living activities extend into the 'chowk'

3 Separate kitchens..
Individual kitchens

Room — living — Room
verandah. — Room
courtyard — Kitch
Room. — Toi — wash shop
Bed. — shop — Shop

The second tenant, Rajesh Thakur came to Delhi from a village in Bihar in 1979 to work in the workshop of a Garment Factory in Shahpur Jat. He is one among many other such migrants working for a chain of work-shops of Garment Factories dispersed in different parts of the village. Rajesh works for Mohan Exports, a factory located in the baithak of an old haveli across the road from his tenament. The garments that are produced in this factory are packed in the main factory situated in Okhla Industrial Estate and then exported to European countries. The owner of the factory, a 'baniya', or a businessman has situated his workshop in Shahpur Jat village,, because labor is available in plenty, the chain of related industries like embroiders etc. are nearby and because the establishment and rental costs are relatively low.

One of Om Prakash's relatives who migrated to Gurgaon, owned a housed on the outskirts of the village. With the emergence of the new colonies in Panchasheel Parks, he was able to sell his house to some promoters who have built a new structure to house private offices and companies - the owners of which have no connection or associations with the village or its dwellers.

Living Patterns

While his sons go to work (or to the college) early in the morning and return late in the evening, Om prakash spends his mornings working and making patterns. Once in a fortnight, his eldest son takes his finished product to the factory and brings back further order. After lunch he joins the men of his age under a Neem tree in the *angan* or
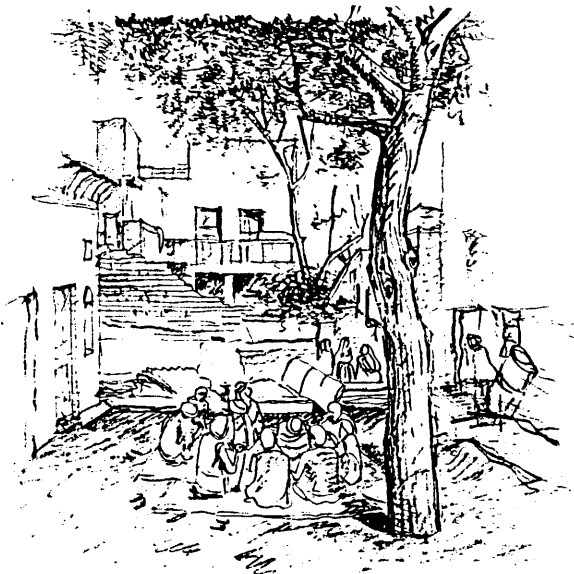
courtyard in front of the *chaupal* for their daily game of cards and smoke of *hooka*. On his return home, Om Prakash either resumes his woodwork or spends his time talking to the older men in the small portion of his *baithak* which remains. His sons, on their return home from the day's work remain indoors and relax. Often the entire family watches the television in Prathap's quarter of the house- the television was received as part of the *dowry* for his wedding. With the exception of summer, the sons prefer to sleep indoors rather than outdoors as was the practice in the Om Prakash's younger days. In fact, even today he sleeps in the *baithak* during all times of the year.

The women spend most of their day around the courtyard. Each of them cook independently in their enclosed kitchens[2]. The only source of water, a municipal pipeline, is situated in the common courtyard to which all the households have access. The introduction of the sanitary network into the village was a recent phenomenon. Hence Om Prakash incorporated the toilets with minimal changes to the existing structure of the haveli. He constructed the toilets in a portion of the common access areas by the entrance. Several facilities are shared by the families of the sons. In other words these families are brought together to perform certain activities collectively. If the families could afford more expenses some of these collective activities may cease to take place. However, activities like religious observances and community festivals are not so much the exponent of affordability.

The entire village acknowledges the next family that we will be discuss-

ing as 'affluent'. Living in a *haveli*, situated adjacent to the main *chowk* of the village (where the Saturday market is held), the family owned a major share of the agricultural land that the M C D acquired. The present head of the family Ramprasad Chautala was at one time (in 1970s) the elected representative from the constituency at the local administration. He has five sons, all of whom are well educated and married. Each of them run their own private business- the eldest one runs the brick factory which his father started: lately, he is assisted by his third brother who has passed his Civil Engineering at Delhi University: the second son runs a transport company and so on. Although all the sons live with their individual families in separate houses, they share the same compound on the site of the original ancestral haveli.

In his younger days, Ramprasad Chautala lived in a joint family. Agriculture was the main occupation then. The *haveli* then had a large *baithak* addressing the most important *chowk* of the village where the Saturday market was held. Behind the *baithak* was the *ghar* with a courtyard where the women folk spent most of their time during the day. Food was cooked for the entire family in the only kitchen area in the corner of the courtyard (there were no enclosures around the kitchen). Men slept separately in the *baithak* while the women folk retired inside the *ghar*.

With the acquisition of land in 1964, the Chautalas had to begin a fresh business venture with the wealth they received as compensation. Ramprasad Chautala started a small brick factory which his eldest son

took over and expanded. In the 70's all the members of the next generation of Chautalas had begun their own private business enterprise. The large *haveli* was divided up into smaller units for the separate households through additions and alteration. Finally in the 80's, the old building was demolished and newer individual units were constructed. Each unit has its own individual facade, kitchen, living room, bedroom and even a separate staircase. Although the arrangement of the rooms in the residences of all the sons were more or less typical, the facade of each of the dwelling are distinctly differentiated in their treatment. Yet all these units open onto a common open area which would be used during *holi* and other cultural festivals. The original common kitchen of the *haveli* in the rear, still remains intact and is used to cook in large scale during such festivals. Each son has his own automobile which served as the primary means of commuting for the entire family. Hence, the entrance from the *chowk*, which is accessed by a narrow spine no longer serves as the main entrance to the group of houses. A side entrance which opens into a three meter wide road and provides direct access into the courtyard or *angan* forms the main entrance. This road links the village to the newer colony of Panchasheel Park. The original *baithak* still remains intact and forms the area for receiving the elderly guests of Ramprasad Chautala.

While the majority of the other villagers, especially the poorer people, bought most of their essential commodities in the Saturday markets, a selected group of the affluent people, like the Chautalas, who could afford to and who owned automobiles, drove to Haus Khas market or
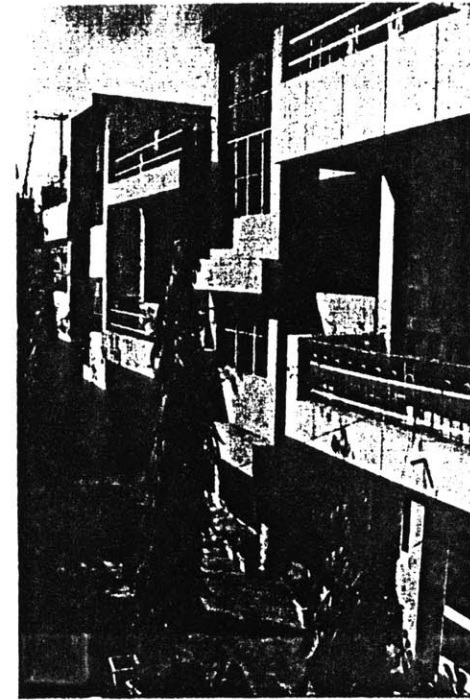
the market in Panchasheel Park for their shopping.

The people of Shahpur Jat seemed to have changed their ways of relating to their built environment, through contact and proximity with the newer colonies or the outside world around it. even the poorest of the poor seem to aspire for the facilities and comforts of the newer colonies. the richer people who can afford to , have changed their ways according to these aspirations. Why then are these people who can even afford to move out chosen not to do so? Perhaps factors like- proximity to the city center, the ancestral property they are living on, the presence of all the infrastructure facilities that one may expected in the city and the importance of living together with other members of their own community (the Jat community) may explain their decision to remain in the village.
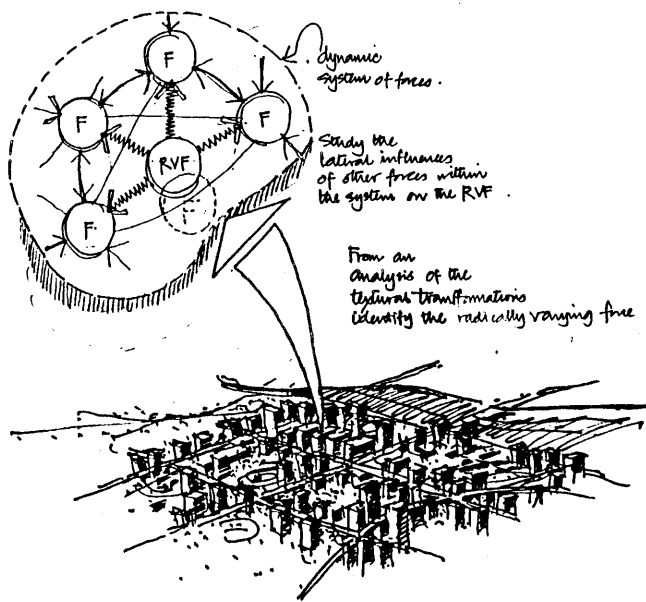
The Analysis.

The texture of the urban village reveals several transformations before and after its incorporation into the urban limits of Delhi. The narrative attempts to expose one of the radically varying forces operating such transformation. What are the reasons for its radical variations? Presumably, this force is are influenced by the other forces within its urban setting. Let us call these influences from the system of forces operating in the setting 'lateral influences'.
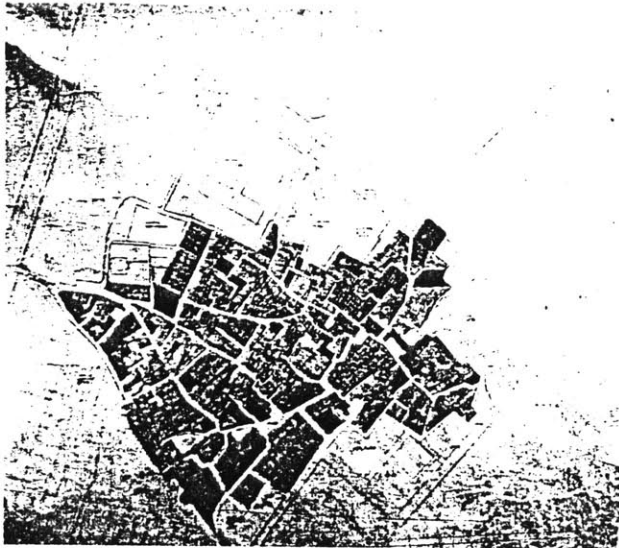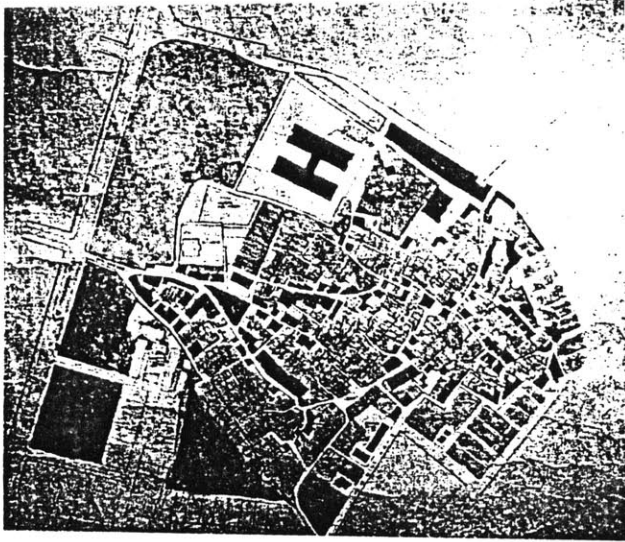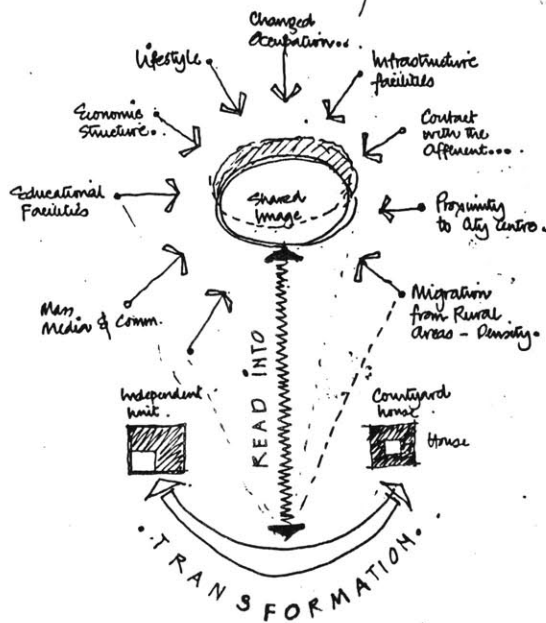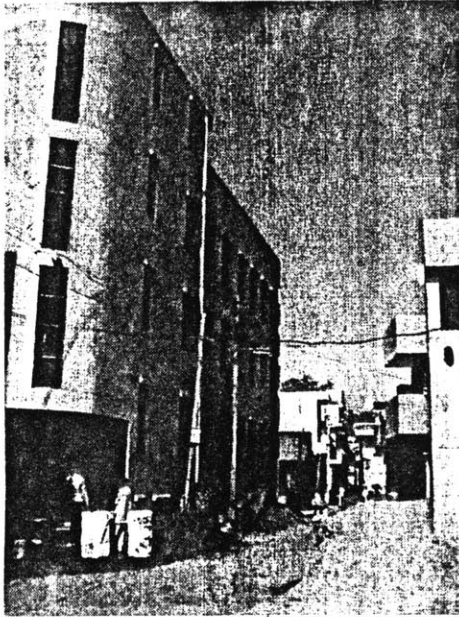
The transformations in the texture are numerous - The larger *havelis* have been broken down into smaller units in many cases. With the advent of factories and many types of new commercial activity into the urban village there has been a variation in the land uses. The edge of the village has assumed new importance through the development of commercial activities there which cater to the adjacent areas of the large city as much as they cater to the urban village. Larger buildings have emerged in areas close to the Panchasheel market (refer to the adjoining map) which is situated adjoining the village. There has been a large migration of people into Delhi primarily in search of jobs. This has led to a marked increase in its density, especially in the of the urban villages, since the rent in these residential areas were comparitively lower than the other areas of the city The older *haveli have* assumed a newer roles, with the *baithaks* often being converted into one or two room tenements, shops or even workshops for factories.

.As depicted in the stories, systems of forces seem to shape and transform the texture of the urban village. While some of these forces vary radically over time, others persist. Analysis distinguishes some of the important forces that vary from others that persist.

Through 'reading into' the texture of the of the urban fabric, and its transformations, one of the most radically varying forces can be identified. The nature of the variation of this force has to be analysed. From the narrative, one of the most radically varying forces that emerges may be termed the 'users' perception of their own dwelling environments'. The

variable nature of this force appears to be amplified by the lateral influence of a combination of other forces. The rest of this analysis will focus on identifying the other forces which influence this variation and on attempting to understand them.

One important force is the new lifestyle, including many new activities of the people. The older generation of the village still maintain a rural lifestyle with very little adaptation, while the younger generation is relatively more educated and work beyond the limits of the village. Due to their changed occupational structure and the contact with the outside world, members of the younger generation lead a very different life-style. Changes in their lifestyle and the contact with the outside world has produced a radical change in the **ordinary peoples' perception or shared image³** of a residential environment. Some pieces of evidences that emerge out of the situation underscores the points that we are making are:

a) In the residential environment of the village before its incorporation into the urban limits of Delhi, the role of the semiprivate or semi-public spaces, such as *chowks* between individual dwellings, was significant. This tendency appears to continue even today with the older generation of the men.- eg. the area around the *chaupal* with the *neem* tree. In fact, their perception of the *chaupal* is that of a collective facility for afternoon gatherings and so on, which is a common practice in the rural hinter-land.

b) Even at the level of the individual dwelling, as far as the older men
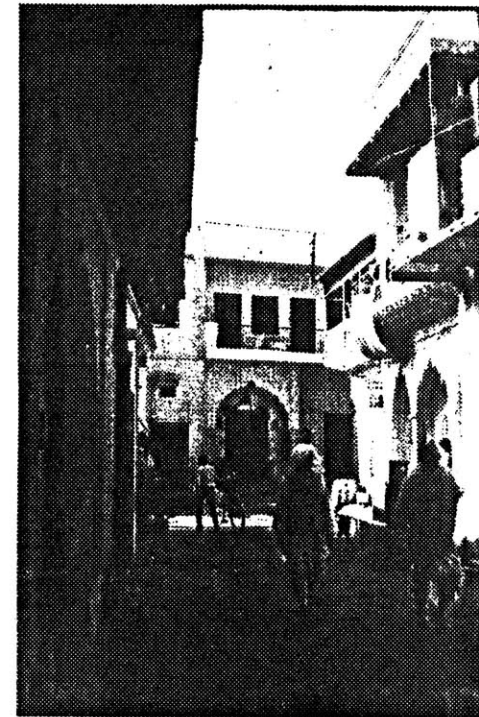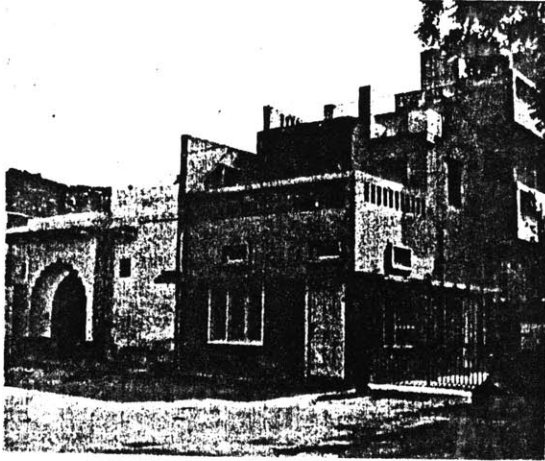
are concerned the domain of the dwelling appears to extend beyond the physical boundaries of the site. The distinction between the what is public and what is private is not clearly defined. However, in the case of the young men the distinction between public and private appears to be, relatively speaking, more defined.

c) Unlike the situation in the earlier *haveli*, where social status was symbolized by the size of the room, the courtyards and so on, the present day dwellings seem to indicate the level of social status by the number of facilities that are provided within the dwelling. In pre-independence days the *dowry* was mainly offered in the form of gold or silver ornaments, but lately amenities like the refigerator, television and so on are frequent items offered as *dowry*. It was observed by the author during the field survey, that these items seemed to be usually located in the room meant for receiving their guests. It is worth pointing out that the house seems to be perceived to a large extent as a storehouse of objects or suchexhibits as the television, the fridge and so on.

Given the level of contact and interaction with the world outside the village, and their changed occupational and educational background, the residential units that they now build for themselves seem to indicate a greater need for separate units providing privacy, and for individualistic identity rather than for the community life provided by a single *haveli* as was the case only a few of decades ago.

With changes in the life style and the occupation of the people, some of the spaces, for instance, the *baithak*, became redundant. These redun-

dant spaces accommodated newer functions that arose due to the increasing size of the larger city. The availability of these redundant areas coupled with the abundance of cheap labor allowed the garment factories to be brought into the village. Naturally, the establishment of these factories/workshops has led to the development of small scale commercial activities in the form of eating places, shops etc, and so on next door on the main spines. A number of 'outsiders' now visit the village, especially in the spines. As a result, the activities of the local residents became restricted to within the neighborhood. In other words, **there was a basic change in the manner in which the people related themselves to the spines and the secondary streets.** Portions of the spine which in the past were termed as semi-private have now been turned into public streets with the advent of the factories and the workshops. Many of the residential activities that used to take place in the spines and the chowk no longer occur there because of the presence of outsiders in them. In other words changes in the economic forces produced changes in the shared image of the envoronment to the people.

Over time, Shahpur Jat has become relatively centrally located with respect to South Delhi, with improved facilities, increased accessibility, improved transport and so on. This has reinforced the immigration process. with the result that the need has arisen for more residential accommodation. The residents have begun to convert redundant *baithaks* into one or two room tenements. The house has also become a source of income.
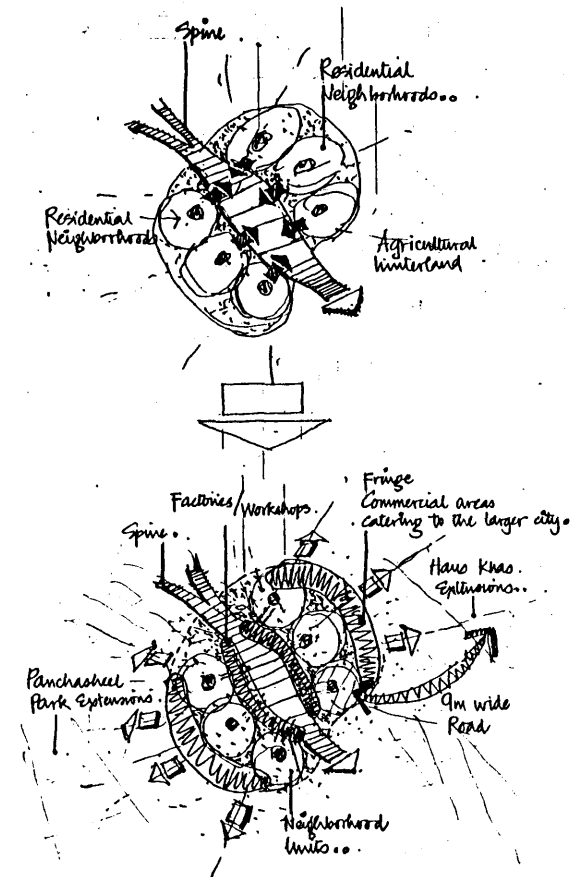
Another important force that seems to influence the fabric significantly is the 'location'. Now this force can be dealt with at several levels - at the level of the larger city, which is growing at a phenomenal pace, the location of the urban village is changing constantly. Coupled with this level of 'location',are forces such as 'accessibility' to facilities, infrastructure and so on. At another level the 'location' within the urban village also makes a significant difference. Before independence, the fringe areas of the village had a lower land value or monetary income. Today, with the growth of the larger city, the fringe of the village has assumed a significant land value and has been developed by private promoters.

At another level, the centrality in location provided an opportunity for the younger generation of the village to gain education. It also brought the village into contact with the newer colonies such as Panchasheel Park and Haus Khas which are occupied by the higher income groups. This contact with the world outside the village led to the development of 'individualism' as opposed to 'collective-living' as was the case earlier on. Hence we see dwellings with distinct facades, separate staircases and so on emerge in the fabric of the village.

It seems a reasonable conclusion from the analysis of the narrative that one of the most radically varying forces that needs to be understood is the users' perception of the residential environment. Forces like location, lifestyle, activities, economic distribution and affordability and so on influence this 'shared image'. As far as residential environments are concerned, **it seems that an attempt to understand this force is the most**

important prepapratory understanding at this level of 'reading-into' the texture of the urban setting.

While this force, namely the 'shared image of the residential environment' varies radically, there are some forces that persist over time. For instance, the need for territorial integrity. Despite the changes in their occupation and in the urban surroundings, the villagers, all of whom belong to the same community, namely the Jat, chose to remain together. Even the affluent, who can afford to move out and live comfortably in the newer colonies, chose to remain in the village.(Instead, they have brought in all the facilities of that are associated with the affluent in the neighboring colonies). One of the reasons that can be put forward for this phenomenon is the persistence of the fundamental desire to live with their own community, their own relatives and friends.

In the case of the first family discussed in the first narrative, although the sons had individual quarters demarcated for their households, religious observances and community celebrations are still performed collectively.

One cannot generalize that the persistence of allegiance to the traditional community is uniformly over all groups of people in the village. For instance, the affluent (the case of the second family) no longer relate with or participate in the Saturday market- a weekly fair for the supply of essential commodities to the villagers. Their sources for such supplies are the Haus Khas market and the Panchasheel market, where the affluent people from the newer colonies shop.

An understanding of the radically varying forces and other forces that laterally influence their varying natures **is a necessary** and perhaps the sufficient condition to preparatory understanding of design in an 'average environment'.With reference to residential environments, the users' perception of the residential environments seems to beone of the most varying force. The next chapter will analyse some of the architect developed housing colonies and examine the manner in which the they have responded to the variable nature of this force.

While the term ghar is used to refer to the inner areas of the dwelling it is also used to refer to the entire dwelling(including the baithak)- Tyagi V. in Urban Growth and Urban Villages: the case of Delhi.

[2] *The concept of an enclosed kitchen is a recent phenomenon. In the earlier days the kitchen was located in a portion of the open space of the courtyard or the angan.*

[3] *Habraken N. J. Transformation of the Site. 1983. p.*

[4] *At the time of Indian weddings, the family of the bride offer a token presentation to the family of the bridegroom. In olden days this offering was in terms of ornaments. However, in today's situation, amenities like Te,evision and so on are offered.*

4. Architect Vs User's Perceptions.

The previous chapter discussed the radically varying nature of one of the forces acting to produce an urban fabric in the developing world, namely the 'user's perception of their residential environment'. The variations of the forces have produced significant transformations in the urban texture. To what extent does the architect take such variations into account? The present chapter will examine the attitudes of architects to the design of an 'average residential environment', specifically the case of the new housing colonies in Delhi. The discussion will focus around the design of the Siri Fort Housing colony, which is a planned housing colony situated on a site adjoining Shahpur Jat, the village discussed in the preceding chapter.

One of the arguments of this thesis is that the 'shared image' or the 'users' perception of the residential environment's varies from social

group to social group, influenced by income and many other factors. The nature of the variations in Shahpur Jat may not coincide exactly with those in the Siri Fort housing colony, even though they are geographically juxtaposed, for they cater to differing social groups.

How has the architect of the Siri Fort Housing Colony reacted to the varying images? To what extent do the intentions of his design match with the manner in which it works in reality? These are some of the questions that this chapter will address.

Before commencing the analysis of the project, it seems essential to provide a brief outline of the recent development of architect-designed housing in Delhi.

From Lutyens to the present: Housing colonies.
In spite of the fact that Lutyens envisioned residential development as rows of repetitively arranged bungalows, with tree-lined avenues, some of the lower and middle income group residential development designed by his assistants in the 1920's are noteworthy for their sensitive response to climate and provision of social open spaces within a classical U- shaped plan. Walter George, through his handling of details, sensitivity to function and climate, attentiveness to scale and context, became as important an inspiration to the present generation of Indian architects as did Corbusier, Maxwell Fry and Jane Drew.

The post-independence colonies for the refugees from Punjab at Sundar

nagar, Golf Links and Jor Bagh were laid out on the basis of the 18th century Bloomsbury district of London with its peripheral row houses defining central squares. A central road penetrated these squares[1].

The early 60's mark the beginning of new concepts of housing. Beginning in 1963, with the YMCA Staff Quarters by The Design Group, a series of schemes made conscious attempts to create an environment evocative of the narrow residential streets in older Indian cities. In 1964, Kuldip Singh joined this effort through two significant projects, namely the Usha Niketan Development and the Saket Housing Development. Besides continuing the process by incorporating the entry gates, narrow shaded streets and neighborhood courtyards in his schemes, he also introduced into them Kahn's idea of 'service' spaces by clearly separating service towers and staircases.

In the 1970's The Delhi Development Authority introduced a scheme by which new kinds of clients, namely 'co-operative housing societies', could develop housing. There was opportunity for a cohesive social and cultural group or for people with similar income group levels to become organized. Projects such as the Tara Group Housing (catering to Members of Parliament) and the Yamuna Apartments (catering to government officials belonging to the South Indian community) were realized.

In these projects, besides schematic references to the traditional inward-looking communal streets, the designs catered to the specific spatial requirements of the social groups. For instance, the Yamuna Apart-

ments, designed for a group of South Indian government officers, provided for some of their specialized social requirements. The kitchen is the most sacred part of the house after the shrine room. The architects have therefore located the kitchen in such a position that it does not form a part of the primary circulation areas of the house. In fact, for the sake of space optiomisation, the shrine had to be provided in the kitchen itself.
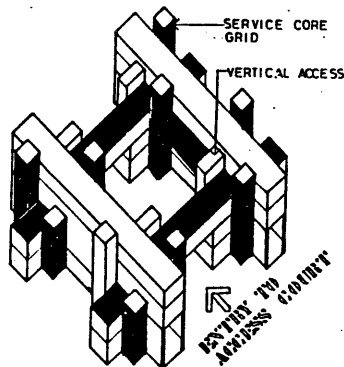
The continued effort to reinterpret traditional urban pattern in the contemporary idiom is, perhaps, epitomized in the housing schemes of Raj Rewal. In his project for The Sheik Sarai Housing in 1976, Rewal picks up where Kuldip Singh had left off in Saket. The 500 units were organized in terms of neighborhood clusters and internal pedestrian streets. Both of these were defined by striking sculpted-looking buildings which in turn were highlighted by colorful doorways.

The climax of this approach to designing housing is manifest in Raj Rewal's scheme for the Athletics Village of the Asian Games, afterwards called the Siri Fort Housing Complex. Assuming that one of the main intentions of the scheme was a need to portray an 'Indian' image to the visiting foreign athletes, the architect seems have done a commendable job in reinterpreting the urban patterns of the traditional desert towns in the present day idiom. Several authors are justified in comparing this complex with the HABITAT Center in Montreal designed for the EXPO '67. The complexity in the formal configuration, the variety of vistas, the interplay of light and shade and the use of appropriate material,

together with many other positive qualities present an interesting 'artifact', an image which in many ways represents the indigenous built environment. However, this was only one of the many requirements of the scheme. The development was intended to become a part of the housing stock of the Delhi Development Authority after the events were over. It was equally, and even more importantly, the responsibility of the architect to provide a housing scheme which worked for its permanent occupants. These permanent occupants proved, in the event, to be members of the higher income group. Whether this design functions as successfully today as a public housing scheme for them is something that we may have to examine and analyze. Were the original intentions of the architect realized in the way in which it functions at present? The rest of the chapter will carefully examine the Siri Fort Housing Scheme and analyse the architect's 'readings-into' the texture.

The analysis will begin by describing the project as far as possible in terms of the architect's intentions and concepts . Then it will present a critical appraisal and try to use the technique of 'reading into' the texture to account for what appears to be the shortcomings of the design approach as reflected in the end product.

The Siri Fort Housing Scheme - A description of the project.
The Athletic Village for the Asian Games was Raj Rewal's Winning Entry of a Limited Entry Competition[2]. The competition brief specified that after the games the village would be sold by the Delhi Development
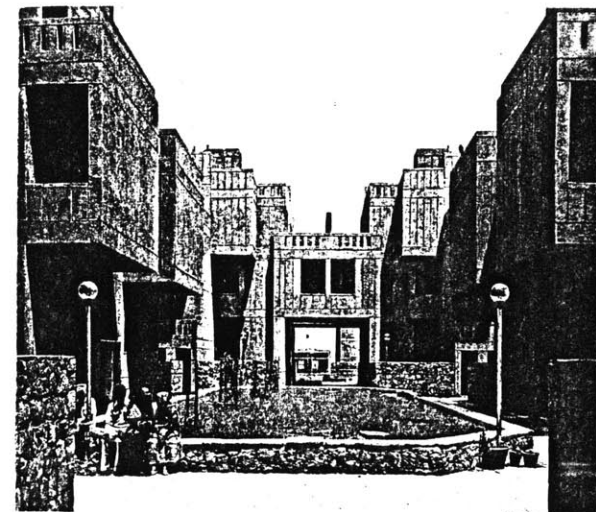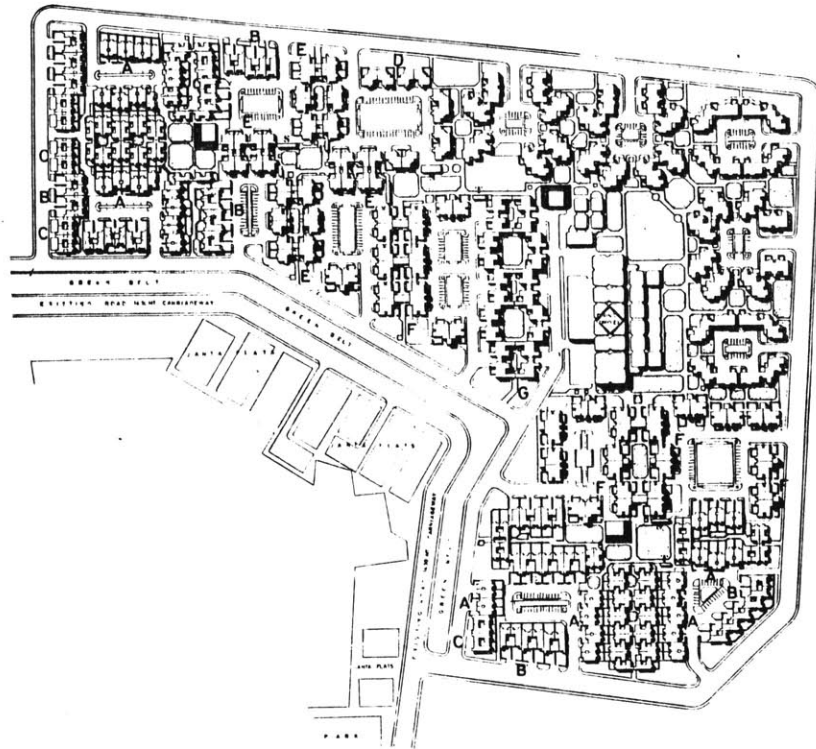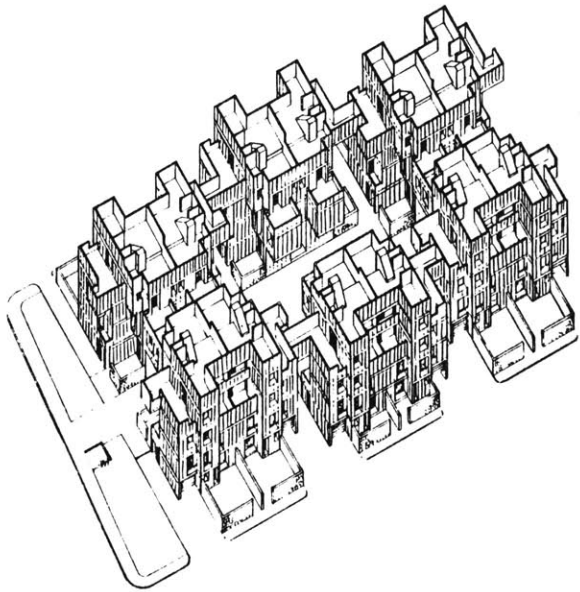
Authority to the general public. Given its prime location near the ruins of Siri Fort in South Delhi, high value of land and so on , the architect should have realized that the target user- group would be from the higher income or upper middle income groups.

Spread over 35 acres, the complex comprises 700 units of which 500 units are apartments and the rest, i.e. 200 units, are "Town Houses". 12 to 36 units are combined into 'clusters' arranged around residential squares to form neighborhood units, which the architects refers to as *mohallas*. These clusters are axially arranged together and connected by narrow pedestrian streets. Each neighborhood cluster is highlighted by a gateway, a *darwaza*. Several pedestrian streets meet to form the commercial-cum-recreation focus of the development.

A peripheral road forms a belt around the entire edge of the site and feeds cul de sacs and parking spaces which in turn give access to individual garages or to car ports attached to the houses or the apartment blocks. About 80% of the houses and the apartments have access from the parking spaces as well as from pedestrian streets About 75% of the units have garages attached to them.

Each cluster comprises seven different types of individual units ranging from duplex units to split-level units, with living-dining below and bed rooms above. Terraces overlooking the other units and the residential squares are a common feature. The ground floor units usually have two private courtyards - often one in front and one in the rear - to form

private outdoor extensions of the units.

Nearly all of the units in the neighborhood quarters focus inwards towards the spine streets. The architect has sought inspiration from traditional neighborhoods for the design of these central pedestrian streets. Essentially, access and activities in the traditional quarters take place through the spines. In the case of Siri Fort Housing, although the street does formally echo the traditional streets, they do not function as 'the main modes of access' and the 'activity generators'. Visual observations on the site reveal that the main entrances, the name plates, mail boxes and so on are all located on the cul de sac side of the units instead of on the side facing the spines. The cul de sacs serve the purpose of rather than activity generation and mode of access than the spines which serves as a mere service entries.

The reason for this phenomenon can be attributed to the following factors:

Bearing in mind that, the inhabitants are members of the higher income group, it is not surprising that the most of the families own at least one automobile. Given that 80% of the units can be accessed from separate cul de sacs and that automobiles are the major means of commuting for the occupants, the cul de sacs have become the most frequent means of access, replacing the spines. So the units, in reality, can be considered to focus outwards onto the cul de sacs. The problem seems to be compounded by the fact that some of the commercial activities that were initially proposed by the architects did not materialize. So, if the spines

no longer serve as the foci of activity and as an essential part of the daily experience of the actual users, then the architects ideas of providing "personal encounters", "changing vistas" and "pauses", however fascinating they may be as ideas , seem to be futile.

In fact, the people no longer relate to some of the values which allow for ideas like "keeping an eye on the neighbors" in the manner in which they did in traditional townscape. Several residences have raised their parapets or artificial blinds to restore the sense of individual seperation that has been forsaken due to the juxtaposition with the neighbors' terraces.

The Siri Fort Complex attempts to revive some of the lost symbolic and functional values which are clearly evident in the traditional townscape. This is done through the definition of the neighborhood clusters with entry gates called *darwazas'* to increase the feeling of belonging to a specific territory and to define the identity of communities i.e. this is a reflection of the architect's declared attempt to recreate the concept of the *mohallas* in the neighborhood clusters. Now, does this idea work in reality? Peter Serenyi's argues in an article about housing in Delhi - "...in traditional Indian cities *mohallas* were inhabited by members of the same caste and often of varied income groups. Hence this term is inapplicable to a modern high income housing development which attracts people of different castes though a similar income level." Hence the residential squares that Rewal has designed are but morphological emulations of the *mohallas*.. In other words, the architect has commenda-

bly read into the texture of traditional *mohallas* at the purely spatial, morphological or visual levels. However, by simultaneously providing an individualistic suburban, residential image, he has either failed to understand, which seems unlikely, or deliberately ignored the symbolic values that originally accompanied these morphological forms. That these values are no longer dominant in the present day society may be the reason for some of the conflict between the architect's intentions and the manner in which his design works in reality.

Peter Scriver and Vikram Bhatt have spelt out the problem in a different manner: "..residents can still drive their cars directly into their units, however, and live a life of perfect privacy within spacious dwellings and adjoining terraces and gardens. There is an uneasy dichotomy between the perpetuation of the suburban lifestyle through one door and the option to step out into communal fantasy through the other."[3] As explained earlier on, the visual implications tend to reflect that the actual users seem to prefer the former lifestyles to the latter, while the architect's intentions stressed the latter.

At the level of user values, symbolic images, and new functions, the architect seems to have begun to understand and cater to the aspirations of the present generation through the provision of "town houses" with front and rear gardens opening onto the cul de sacs which serve as parking space for automobiles. However, 'reading into' the texture of this new development as a whole, this understanding does not seem to be his primary concern. There seems to be a natural tendency in the

architect to prioritize the visual and morphological levels of 'reading-into' the texture of the traditional town or quarter above other levels of doing so, and above the expression of the texture naturally produced by his new functional solutions. The result is a essentially only a formal reflection of the traditional texture.

The above approach might, however, be more justifiable in the kind of housing that forms part of large scale research institutions, which are isolated islands relatively removed from a majority of the urban forces that we have discussed. The National Institute of Immunology, a research institution designed by the Raj Rewal himself, serves as a good example. In the design of the housing areas of this campus, the portrayal of the cohesive image of the campus seems to be an over-riding priority. In this case it is arguable that he is justified in focussing on 'image' and formal configurations. There is no doubt that the architect has excelled himself in creating an "image" that echoes the "rasa"[4] of the built form in desert towns as well as in the traditional urban patterns of Delhi. While one might accept this approach in such "image-based" instances, it is not so easy to accept it in public housing, in which it is not possible to create isolated islands, nor indeed anything but unpredictable and heterogenous communities.

The attitude of the architect towards public housing design as reflected in the Siri Fort Housing Colony seem to have been something like the following:

His intuition did convince him that the traditional urban environment

Above The courtyard of the essential staff housing becomes a meeting point for four households.
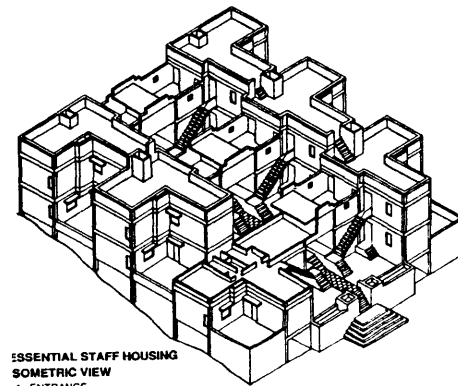
ESSENTIAL STAFF HOUSING
SOMETRIC VIEW
1 ENTRANCE
2 LIVING ROOM

is the most ideal residential environment; there are some underlying qualities about traditional settings which the architect thinks are important and are disappearing with time. In his designs, he is, perhaps, trying to inform the people of the inherent potential of the traditional environment which actual users seem to have ignored for various reasons - he is trying to be 'reformist' in his approach. This discussion leads us to an important force that determines the manner in which planned architectural intervention takes place in the average environment namely, the **'ethical stance' of the architect.** This force raises questions like "should the architect merely reflect the values and aspirations of the general public - the actual users? Or should he, by virtue of his professional understanding decide what is the ideal residential environment that is most conducive to the user?" In other words, should the architect serve as merely an agent who caters to the present day values and aspiration of the people or should he be 'reformist'?-
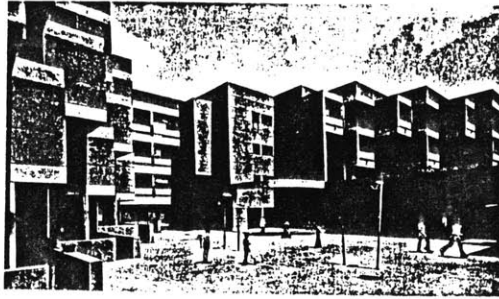
The Siri Fort Housing Colony reflects a reformist ethical stance. The architect atttempted in his design to compensate for the fact that not all the values of the traditional environments are the same in the present day and made adjustments accordingly, through the provision of 'town houses' with front and rear gardens. However, since he appears to have prioritized the morphological level of 'reading into' the texture above the level of fully appreciating the attendant values, the product appears to be only a half-hearted attempt at learning from the traditional urban patterns. The lack of attention to 'reading into' the texture at the level of all the forces has led to a solution which does not respond satisfacto-

rily to the present day lifestyle.

The author had the opportunity to question Raj Rewal, the architect, on these issues. His rejoinder was that such a scheme has to be given time to work. The inhabitants have yet to discover the advantages of his design.

This opinion is countered by those of some of the inhabitants whom the author was able to interview. Oneof the residents said "Living in a ground floor 'flat', we have the advantage of a direct entrance from the garage. We have two entrances - one for the road and the other from the pedestrian spine. Even if it means bringing our guests through the dining room we prefer to make the entrance towards the road the entrance to our house". Another resident living in the upper floor remarked "the ground floor flats have the advantage of the capacity to expand if necessary. Look at our next door units- they have closed up their garagea and converted them into further guest bedrooms." Athird resident, when asked if his children played in the community space within the cluster, replied that "My children go to Dehli Public School. After they return from school, my chauffer drives them down to the Tennis courts in Panchasheel where they play. They seldom play in the community space." The architect's intention was that these areas would attract children to play in them. This was the main reason behind the architect's strong emphasis on keeping vehicular traffic away from the spines and clusters.

Some of the visual transformations are 'unimaginable' - a few apart-

ments have changed the exterior aggregate plaster finish. In fact, the units taken up by a central goverment organization, HUDCO, have finished with mud plaster. All these variations reflect the user's aspirations to become individualistic. This contradicts the architect's intention of restoring a 'sense of oneness' and 'belonging' which was an abundant quality in the traditional mohalla.
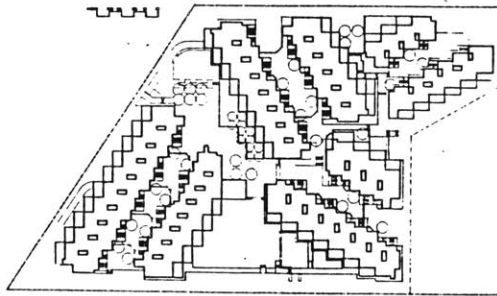
Another scheme with which the Rewal one might be compared is the Yamuna Apartments designed by 'The Design Group'. The pedestrian streets in this scheme seem to be more successful than the pedestrian spine in the Siri Fort case. This is because circulation is forced through its streets. Residents must park their vehicles on the periphery and must pass through the streets to reach their dwellings. Furthermore, the layout of the units in this complex has the important living areas - the womens' domain, the verandahs and the living rooms -facing the spine. In yet another housing scheme, that of the Golf Links Colony developed almost immediately after independence, the streets seem to be more inward-looking than at the Siri Fort Colony. In the Golf Links development, the houses open onto an inner public square which is accessible to vehicles along a main road which axially penetrates the clusters of houses. Colonies such as this are, however, developments of the earlier Delhi Housing schemes based on prototypes in London, and not on traditional Indian urban patterns. The success of the project raises the question, whether those architects who have 'read-into' the traditional Indian texture, the segregation of pedestrian and vehicular traffic might have been mistaken due to some inadequacy in their preliminary

studies.

To summarize, Siri Fort Colony project seems to be merely an 'image' of the traditional urban pattern and falls short of functioning as a 'real object', Had the architect combined his 'reformist' attitude with an acceptance of the forces like the present day lifestyle, aspirations, and values of the future inhabitants, his product might have been made to work the way he intended it to. It is because he has overemphasized his ethical stance and paid less attention to the actual values and aspirations of the users that the disparity betwen 'image' and present day use has occurred.

Since the 'ethical stance' of the architect seems to have influenced the design in an unbalanced way, it is important to consider it further. Should the architect impose his interpretation of what is the ideal residential environment? If the architect sets out to educate the users then this effort needs to be cleverly handled space- it should not be forgotten that he is setting out to convince a majority of the population. He has to use his judgement to decide as to how many of his ideas will be acceptable to the actual users. He must be aware of the forces that take over the residential environment, the moment that it is put into use.

There is, however, another viewpoint:

"even if we as architects know that the users aspirations may not necessarily coincide with what is best for them, it may probably be realistic to accept their aspirations as they are and provide them with what they aspire to. In this situation the architect needs to view the

situation from a distance without letting his emotions interfere."[5]
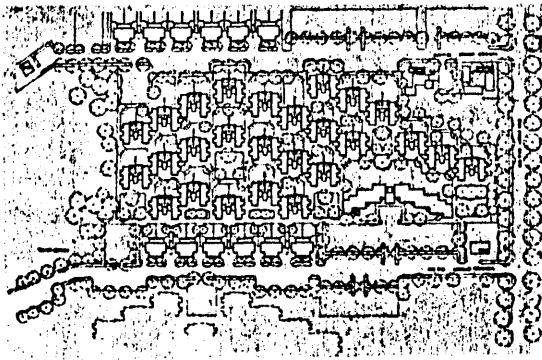
In other words, such an attitude calls for the architect or interventionist to allow the force of the "shared image" to shape the built environment. Projects like the competition entry of Ashish Ganju & Ashok Lall for the Delhi Development Authority Housing Scheme at Badarpur reflect such an attitude. "The architects' scheme calls for low, medium and high rise housing which contains a mixture of two bedroom flats and three bedroom duplexes. In their designs the architects paid particular attention to the market forces and the psychological needs of the middle class and upper middle class prospective users. ....Duplexes and high rises are the prestige symbols, largely because of their association with Bombay, the norm-giver for upwardly mobile professionals. No wonder, therefore, that it is only duplexes that are proposed for the high rises, while such apartments occupy the most desirable spaces within the other two types of housing."[6] Here is an effort wherein the architects are absolutely clear about their ethical stanze. This stance seems to be realistic if rather materialistic. Certainly, one would expect the manner in which the executed scheme ultimatelly works to match with fairly closely the intentions of the architects.

The long term implication of the adoptation of such an attitude by the architect may be an undirected and haphazard trend of development in the 'average environment'. One might perhaps prefer an architect to have an 'ethical stance' which motivates him to use his professional skills and design ability, combined with thorough understanding of the

situation he is designing for, to create developments which might offer the urban inhabitants options for the realization of a richer and more varied life in their society.

The author has endeavored in this thesis to show how the technique of 'reading into' the texture of an urban environment might uncover the major forces which were operating within it, and particularly those whose those whose rapid variation was inducing change. It is my contention that it is only by careful preparatory work such as this that an architect can hope to fit his project, large or small,into the environment in such a way that it has a hope of functioning as he intended once it is built.

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[1] *Serenyi, Peter, From Lutyens to Young Indian Architecture: Sixty years of Housing in Delhi. Techniques et Architectures. #361. September 1985.*
[2] *It should be mentioned that this colony was designed and executed in only a year's time.*
[3] *Scriver, Peter and Bhatt Vikram. Contemporary Architecture in India. Spazio & Society. # 38., 1987.*
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[5] *Habraken N. J. Transformation of the Site, Awater Press.*
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Reflections.

In an urban setting the 'average environment' is influenced, shaped and reshaped by innumerable forces such as the user lifestyle, aspirations, values, economic structure, land value etc. While some of these forces change with time, others persist. A preparatory attempt to understand some of these forces, the manner in which they operate, will help designers frame realistic interventions on 'average environment' and will result in a process for development of residential and commercial tissue which 'come alive'. In other words, the architect's interventions coincide with the manner in which the final solution works in reality. In this way, it is possible to aim at the transformation of the 'image' into an 'object' without any unexpected or unpredictable failure.

This thesis suggests a technique based on the concept of 'reading into' the urban texture as a preparatory analyses wherein the understanding of the urban forces constitutes one of the many levels of understanding that would enable the architect to come to terms with the urban setting.

Having identified some of these forces and having analyzed the architect's responsiveness towards them, it seems that the problem does not lie solely in the identification of these forces but at least as much in the depth to which these identified forces and their variations are analyzed and the manner in which this understanding is used as a platform for the actual design process.

Through analyses of the textural transformations in an urban setting, one of the readily recognizable' *radically varying forces* is identified. The variation of this force is analyzed to endeavor to determine what causes these radical variation? As seen in the urban village, this radical nature of the variation is often the product of the lateral influences of other forces within the setting. This thesis suggests this level of understanding as reasonable in terms of 'reading into' the texture with reference to urban forces. Such an understanding would possibly enable the designers to produce 'average environments' which have more activities and vitality.

An understanding of the environment in which the designer intervenes has usually come only through his experience and acquaintance with the urban setting. This study proposes preparatory research that would enable architects to consciously identify and understand the many forces involved and the nature of their variation within the given urban setting. The concept of 'reading into' the texture of the urban setting is selected as a means of identifying the forces. Understanding them can be then amplified and confirmed by specific site investigations.

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