"Informal" architecture: an examination of some adaptive processes in architectural traditions

by

MASOOD A. KHAN
National Diploma in Architecture
National College of Arts, Lahore
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Signature of Author..............................
Department of Architecture, May, 1983

Certified by..........................................
Stanford Anderson, Professor of History and Architecture
Thesis Supervisor

Accepted by..........................................
N. John Habraken, Professor of Architecture
Chairman, Departmental Committee on Graduate Students
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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ABSTRACT

A greater part of urban built environment in Pakistan and similar countries may be termed "informal," as not being the result of architects' work. This study seeks to understand the historical nature of this architecture by looking at its past and present relationships with social practices, the social groups that practice it, and the various cultural forms that affect it. This is done by a comparative analysis of formal types as arising in indigenous tradition as well as in the colonial context, in the context of both morphological form and surface treatment and styles. The emergence of the architectural profession during colonialism and its alliance with emerging tendencies of modern architecture than with indigenous artistic urges is examined. The hypothesis is made and supported by empirical evidence, that both tradition and modernity reside in "informal" architecture but are modified, controlled or moderated by factors such as varying social attitudes among the differing social groups that represent its practice.

Thesis Supervisor: Stanford Anderson
Title: Professor of History and Architecture
To Shabnam, Sa'adi and Danyal
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PREFACE

The present inquiry is about the general conditions of cultural growth and regression in which an architecture can come to exist in the overall environment of nationalism, development and social change. It focuses on informal architecture as that regressed yet vibrant mode of human behavior in the environment that nevertheless cannot escape from its links and bonds with history.

Accordingly, in seeking to discover greater knowledge about it, one has had to treat it at par with any other serious object of architectural inquiry — and one is surprised at the results obtained. For "informal" architecture exists in a very serious purposive area of social reality — that of a society still struggling to free itself from the socio-cultural and economic aftermath of colonialism.

To learn more of this reality, I have been inescapably drawn into its historical aspects and the problem of its historical continuity — particularly as it should affect the instrument of its probable and hopeful future absorption into the folds of legitimacy — i.e. the architectural profession. Accordingly the persistent theme of this thesis is how I, as an architect, must perceive "informal" architecture.

In addressing it with a method of investigation in which two
primary instruments are the concepts of "formal structure" and "materialization," one is perforce led to respect the "informal" about our subject of inquiry and use these terms with flexibility and suppleness, without losing their heuristic merits. These two attributes would, consequently, appear to be inconsistent and at times totally absent from our discussion. But as it will appear both eventually do acquire a certain fusion that is caused by the very nature of our transforming subject. "Informal" architecture appears to relentlessly reflect and echo the same ontological complexity as modern architecture's indicated by the latters progression through the conditions of its recent history would indicate.

Many different sources of thought would appear. I have tended to avoid a scholarly development of an epistemological argument preferring to adopt a certain informality perhaps necessarily in keeping with "informal" architecture. If formal, disciplined thought is necessary, as it might be for inquiries of greater depth than this, then it may be applied to the many different areas of inquiry that are implied or suggested here.
INTRODUCTION

The practice of architecture in a situation such as that of Lahore, Pakistan poses some special problems arising from the recent history of the colonial period and from contemporary conditions as well.

Today Pakistani architects and their buildings must be seen in a variety of societal contexts. The architect's role within each of these contexts can be assessed according to that aspect of the built environment which is significant for that context. For instance, political power as vested in governments relates to the building of public buildings, monuments and monumental cities which are intended to perform civic functions as well to reflect national aspirations, symbolize national identity and raise public hopes for a better future. In such a context, the architect may help resolve disparate needs and interests as well as interpret national aspirations and desires. At the other end of the hierarchy of building, intervention in the housing conditions of the urban poor as facilitated by international agencies like the World Bank evoke an interest in the architect to participate in sites and services projects and the upgrading of slums. Rampant real estate speculation as a result of the post-1973 oil-boom and the income remittances of Pakistanis working in oil exporting middle eastern countries have expanded the architect's customary role of
building houses for affluent clients who pick their notions of taste from imported glossy magazines. Still another area of professional activity is designing offices and industrial and commercial buildings for corporate clients or governments. The multiplicity of these channels of professional activity and the kinds (if not the amount) of opportunity for architectural practice is not unlike that found in any other country.

These normal activities of the architectural profession can become unimaginative and prosaic when the things that motivate sound professionalism (patronage, research and development, critical and historiographic traditions, ethical motivations, relevance to social and cultural contexts, clearly defined professional functions) go amiss one way or another. Yet for a profession that is rooted in the rational tradition of today — in science, technology and production — and in concepts of progress, excellence and civilization, the demands made on it can be onerous and complex. Expectations are often at considerable variance with results, and architects often feel themselves afflicted by ordinariness, lack of response, or fleeting fashions prompting self-critical introspection if not self-condemnation and remorse. These feelings, too, are not particularly specific to the Pakistani situation. They are part of a universal tension between a fascination with architecture's place in science, technology and progress, and the so
far neglected reality of the historically evolving ordinary environments where tradition dominates. As a result there is a growing set of professional concerns that have begun to touch on some aspects of this vast universe of human action and discourse that had not been the concern of the modern profession as we have known it since its first stages of formalization at the beginning of the sixteenth century.

A large part of the built environment in most parts of the world still falls outside the purview of the architect's active concern. Often called the "vernacular", "urban vernacular" or "popular" architecture, it exists quite often completely independent of any professional intervention. Architecture of this kind appeals to the mainstream architectural profession only peripherally. This may be because it is by and large rural and traditional. But because it may be ecologically well integrated with its natural or human setting, and as such often acquires "age-value" and historic or cultural sanctity, architectural interest in the primitive, and the rural or traditional "vernacular" has existed at an anthropological or historicographic level both nationally and across the world cultures. In the former case it has often provided incentives towards "regionalism" in contemporary architecture.\(^1\) Treated at a cross-cultural, ethnographic level, it has produced powerful insights into the cultural and symbolic, ecological and social determinants of primary formal typologies.\(^2\) All the same, the
rural, pre-industrial, or even primitive location of "vernacular" architecture and its duration in a tradition has been quite naturally inimical to the concerns and drives of modernism in the contemporary architectural profession. These concerns relate to industry, technology and modern materials while the rural vernacular is built of traditional materials and techniques.

In the urban context, this domain of built form outside of architectural practice exists in varying kinds of relationships to the formal product of the profession, and borrows increasingly from modern materials and precedents. It is often the area of operation of paraprofessional architectural or civil engineering expertise, and that of the small contractor and the owner-builder.

In the older neighborhoods of North American and European cities, the quiet persistence of its tradition occurs within tacit but continuously evolving frameworks of social behavior. This induces piecemeal rebuilding and regeneration and a "resilience" and congeniality of "urban tissue", the value of which is being increasingly realized. ³

The countries that have recently emerged from colonialism appear to have lost the continuity of evolving popular domains of architecture that simultaneously retain aspects of the past while accommodating changing social norms. The rupture caused by colonialism seems sadly enough to be a permanent one. There can be no going back. The struggle of most such nations to
merge into the world of scientific reason without continuing to lose materially and spiritually has not been a very successful one. Its lack of success on all fronts is reflected in its built environment — that all too perfect mirror for reflecting the material, moral and spiritual measure of a society.

The urban built environment in a country like Pakistan consists almost entirely of a popular "architecture without architects" that can, perhaps appropriately, be referred to as "informal" architecture. It is built without much recourse to the profession due to such factors as cost and the limited number of professionals, but more importantly because informal architecture arises in an unstable and little known cognitive and creative framework which it does not share with the profession. Architects tend to adhere to a relatively longer lasting cycle of artistic and cultural beliefs that, although dear to them, may not even have originated for the most part in the context of a new and developing nation that is in search of material well-being as well as ideological moorings and cultural identity.

The reason for the use of the term "informal" for the phenomenon that is the subject of this examination is simple: I find in it a basic similarity with the conditions that generate the "informal sector" of economics. Just as the "informal sector" is the result of a surplus reserve of labor, unemployed in the formal sector production processes, that utilizes small-scale
Social, material and organizational resources and that exists
tcontingent to and in subordination to the formal sector, so the
"informal" architecture of this study is the product of similar
economic realities in alliance with a surplus of barely realized
cultural drives and motivations. It, too, resides in forms,
deVICES, rules and norms that are contingent to the history of
its own indigenous origins, and to that of the "formal" built
environment of a recent colonial past and its extensions into
the present. It may well be that it is the product of the same
processes that result in the "informal sector" of the economy.
If that is so, then it is not my intention to unravel that
relationship; I do not consider myself qualified for it.

This "informal" architecture has not yet been the subject of
serious study. What is proposed here is a small beginning
towards that end — a beginning motivated by the many instances
of frustration I have felt in trying to reconcile my values,
through the buildings I have designed, with the values of those
who had built the informal architecture around them.

But I think my frustration arose not as much out of the near-
obstinacy I had inherited from the tradition in which most
architects are trained today — I was actually trying to make
amends for that; not even out of the gnawing realization of
failure when what I had designed was not occupied, rented or
sold because the class of people who would want to use it
did not "like the locality". I have felt driven to inquire because, as a self-professed shaper of the physical environment, I knew so little of this vast phenomenon that proliferated in every direction in Lahore and dominated urban development all over my country. This informal architecture would probably continue to be the backdrop of every new building I, and others like me, designed in the future unless we began, in some unthought-of way, to participate in it.

Informal architecture is spread across a large expanse of urban space and represents a majority of people living in Lahore. It is found juxtaposed with three other historically and socially structured categories of architecture. Firstly, buildings built for public agencies, including all official and institutional buildings of the city built by the public works department and other government agencies responsible for the city's maintenance and upkeep. Like these agencies, many of these buildings date from the colonial period and include the housing estates built for the colonial officers. Secondly, buildings, including residential buildings, owned by the private corporations, companies and individuals. Designed and built by architects, these buildings satisfy certain criteria, explicit as well as implicit, from an international set of architectural values of both the profession and its clientele. Since in Lahore the profession, too, had its beginning in the colonial period, some
of these buildings date from the turn of the century and have even earlier precursors that were not designed by architects.

The third category of buildings with which informal architecture is juxtaposed in the urban environment is the buildings that survive from the pre-colonial past. These are monuments built by the ruling figures of that era or are buildings of the city's wealthy but less powerful gentility. The more monumental buildings are more permanent. They are valued as the "national and cultural heritage" and as such obtain the attention of the conservationist, the historian, and of architects in search of cultural symbols. The latter buildings, the traditional houses of the rich, are often in a sad state of repair. However, recently these too have received the attention of conservationists.

This is an institutional context, one which encompasses architects, historians, politicians and administrators. In contrast, in not being the result of professional activity or intervention, at least at the scale of the individual building, informal architecture is primarily an architecture of default. This is of interest, since quite a lot of it is owned and used by the powerful and the wealthy. The qualities that arise from that default must have some value to its users.

These values may be historically rooted. In being a product of processes lying outside the domain of the architectural
profession, it is akin to the architecture of the precolonial period. But although certain aspects of tradition — the reliance on popular, custom-based practices, and the use of ornament — have continued, these very continuities have changed in basic ways. The immense social and technological changes that have occurred over the period that separates informal architecture from the pre-colonial tradition have brought about architectural morphologies, building methods, ornament and the manner of its use — all of a markedly different character. Yet the realization that something from the past continues, provokes our imagination. The mere presence of ornament, however different, prompts questions not only as to the reasons of the change and the manner in which it came about, but also as to whether and how and to what extent the past continues to affect the very fact that people still use ornament.

According to J.G.A. Pocock, the multiplicity of relationships with which a society relates its past to its present is "socially conditioned in a variety of ways."\(^6\) The institutionalization of the manner in which things are received from the past to the present, will determine the nature of that continuity as well as the authority the object suggesting the past will bear for the present. This reasoning makes it possible for us to entertain the notion that the images of certain things from the past might exist with little institutionalization of their exegesis or
interpretation or use, and that in such cases both meaningful continuity and authority will diminish correspondingly in those objects. Lack of continuity or of authority does not necessarily connote the cessation of its existence, and the object may thus just exist (out there) in weak "past-relationships." Furthermore, the lack of institutionalization may affect the interpretation or authority of only those aspects of the object that are of interest and therefore perceptible to us. There may be other aspects to the past relationship that may strongly validate the authority the object bears to the present, obscured behind the (changed or uninteresting) appearance that our particular interest makes possible for us to perceive.

Informal architecture is a phenomenon that has a past relationship but about which "no need of any explanation has hitherto been felt." It "... has been thought of as discharging no particular function or none that requires exposition." What prompts us into undertaking an exercise such as the present one is the hope that somewhere in the unexamined relationships with its past might lie possibilities of resolving problems of historical and cultural identity with which architects in Pakistan wrestle.

I regard this realization as an example of the historian's problem to which Pocock refers. As in that sense I believe that the approach adopted in this study is an example of the
"way of thinking which criticizes traditions and images of continuity and provides instead accounts of the past and its relationship with the present, built up according to methods of its own."9

In societies, such as Pakistan, the set of objects that receive attention for the explanation of their presence or significance in relation to the past misses out on the entire realm of entities like informal architecture. As opposed to that, the notion is here presented that this largest proportion of the built environment could and should be looked upon as valid expression of society's past relationships as they really are, even if that constitutes a hitherto weak set of institutional linkages with the past.

One way of examining continuities with the past is to consider an object as having undergone an "emergent evolution"10 along with its general cultural context. To do that in respect of a living tradition entails the consideration of its many facets, perhaps with greater emphasis placed on some than on others. Such an emphasis would be the result of the special terms that, according to Pocock, must be set up to give accounts of the past, particularly where none have existed. In the following, I will attempt to describe the changing and evolving past of two important aspects of informal architecture.
Informal architecture is not something born spontaneously, although it has often been convenient to thus perceive it. Even the mildew on decaying organic matter has an explanation: its own bio-reproductive origin and the fact of organic decay. But a simplistic analogy like that may not be necessary if it is realized that like all architecture, informal architecture has a genealogy, that may be capable, at least in theory, of being analyzed and traced to its sources. One can make a beginning by attempting to define certain traits or qualities that we can look for in its forbears. There may be thought to be two levels at which these characteristics can be defined. These levels are (i) physical form and (ii) applied features. They are derived from Preziosi's two categories of the architectonic entity: *formal structure* and *material structure*, and I shall explain them in simplified versions of the terms used by Preziosi.

Physical form, or the "formal structure" of a house tells us the essential ways in which its spaces, forms and their sub-elements are put together. Since this usually happens within the context of intricately shared social values, the morphology of a house will tend not only to belong to a singular corpus but through it also to have the same meaning for a particular cultural setting as other houses in the same corpus. This relationship between form and culture is based upon the prevailing notions of use or function and many other associative and "referential" categories.
Old (Walled) City, Lahore
Detail of wooden joinery and carving, on extant house, ca. 1700

New facades on old houses
What mediates between this core of the architectural form and the external cognitive cultural environment is the second level; the "material structure" of a building — "the coloration, texture, material size, the modular patterning of materials, etc." with which physical form is realized. Thus, preferences for particular materials and ornamentation are included in the ways in which "material" aspects of the building are brought into existence.

Both morphological structure and the organization of these applied surface "materials" operate as "semi-autonomous systems," i.e., they are derived in use and culture, yet exist in their own right as normative factors that affect cultural behavior. In this semi-autonomy, they are interrelated in a systemic unity and together, they "mediate between the cognitive environment and the physical environment."

The two aspects may have a wide spectrum of relationships with respect to their mutual existence and in the role they play with respect to each other. In each architectural tradition and style, in each corpus of architectonic phenomena, this relationship is manifested in specific combinations in which the subsystems of formal structure and applied features are articulated, juxtaposed, superimposed, embedded, or absorbed into each other.

If we look at morphological structure first, we find in the
realm of informal architecture a wide range of variations of the ways in which its morphological features are organized. But given a closer look all houses in Lahore fall into the two basic categories of plan form: (i) an inward looking courtyard type in which the rooms of the house are built up against the boundaries of the site and open onto a space in the middle of the site; and (ii) a "freestanding" type with at least two sides of the house, the front and the back, facing open space. That the courtyard type of residence has existed in cities of the basin of the Indus river and its tributaries for millenia is well-established.\textsuperscript{15} The arrival of the freestanding type in the form of the bungalow residence of the colonial administrators, its roots and the cultural framework in which it evolved has been demonstrated at considerable depth.\textsuperscript{16} It will be attempted to elucidate in the following the manner in which these two recognizable types have been propelled by social and cultural motivations towards a kind of architectonic merger. In this it will be attempted to demonstrate that the dominance of one of these types over the other is the result of the only formal intervention that has been made in informal architecture — that of the constraints of building regulations that promote a certain type. However, this is articulated in terms of physical form and applied features in a way that suggests that very little, if any, of the behavioral and referential/associational values relating to the traditional type is lost.
The process that has led to this condition has taken place over the course of the duration of colonialism, although it has continued in the post-independence years as well. It seems to have contributed significantly to present day disjunctures between the social and cultural relationships of architects to the built environment and the built environment itself. In order that we are able to conceptualize it as the object of a more comprehensive role on the part of architects, it is necessary to take the recourse to historical reconstruction that I have suggested in the foregoing.

Chapter 2 begins this ahistorically: it is simply an attempt to describe as searchingly as possible the traditional house in the Walled City of Lahore as it exists in its historic setting. In doing this we attempt to build up a qualitative framework against which subsequent developments may be viewed comparatively. Having done this in respect of one of the two types and its range of architectonic organization, we introduce the other type in Chapter 3. This chapter, nonetheless, begins with a discussion of changes in cultural perception that are generated as a result of the contact between Indian culture and Europe, and leads to a discussion of the urban and architectural trends generated over the later years of colonial occupation. Chapter 4 then extends this survey into the post-independence years and outlines certain conditions that have arisen in areas
peripheral to formal architectural practice. Chapter 5 is the examination of an architectural type that has arisen as the result of these conditions, a case study of a certain locality in Lahore with the purpose of testing the concepts so far developed.
2. THE TRADITIONAL HOUSE

In Pakistan, as in most traditional eastern civilizations, the pre-colonial physical environment of cities came about without recourse to the profession of architecture as it has existed in the west from the Renaissance onwards. The pre-colonial tradition presumably comprised of three components: (i) a well articulated, but oral (and therefore quite flexible) set of conventions of form and ornament and of systems of planar and geometric articulation shared between master-masons and the nobility; (ii) an orally transmitted and well-guarded, but growing and vigorous tradition of visual, manual and technical skills that were restricted to the master-masons themselves and (iii) generally accepted but loose cultural norms and rules within which the conventions and skills were allowed to operate.¹

The traditional house exists as an element in a dense neighborhood within (literally) arm's reach of a half dozen other houses and within speech range of a dozen others. People living in about a hundred houses in the vicinity would know (or know about) the house and its inhabitants. Such a house is comprised of a range of cellular elements variously separated from each other and from the street. Various planar and volumetric devices accomplish these separations and integrate the whole into a system of signification.
A typical morphology of a traditional house in the Walled City of Lahore consists of a central space — a courtyard — which is almost fully covered except for a central (six by three and one-half feet) hatch at second floor level which admits the necessary light and air from the upper floors. The floor immediately on top of the ground floor is almost identical; but in the one next above, the courtyard is usually fully open to the sky, and may or may not be completely surrounded by rooms corresponding to those on the floor below.

The structural organization consists of an outer shell of heavy masonry walls, small bricks laid in thick mortar beds that remove the necessity for modularity of the bricks. The walls that separate the rooms from the courtyard are usually arcaded. The pillars and arches are usually in the same brickwork. But in rare instances they are built in a trabeated and extensively carved timber system, in which the arched form is reproduced in timber panels, again quite heavily ornamented.

Few rooms in the traditional house had any designed function-specific features, although the force of custom would have dictated their use for one or another purpose. The front room on the ground floor, with windows reaching to the floor, enabling stepping out onto the street or the thara, is still used as a baithak or aiwan — a specifically public, male use.
The room on one of the sides is a service space (allowing, in the case illustrated, a corner house, entry for women and servants from the side). The large room at the rear would be a retiring room for the men. Corresponding rooms on the upper floor would have been used as living sleeping rooms for the family. In either case the central courtyard-room would be an all purpose living room but a room also heavily used for ceremonial use and for rites of passage.

The house illustrated has the characteristic size, scale and other features of a fairly typical middle income traditional house of the Shahjehani period. It is completely integrated into the overall sensory fabric of the city — a fabric loaded with multiplicity of form, motion, sensory experience and meaning, at all levels of space and scale. Its place in that fabric is anonymous: despite its singularity of features, which I will come to shortly, it is easy for the newcomer to miss it even after a few visits; its recognition depends to a great extent on the cues established by a number of references in the cognitive framework of an individual. These references can be those of geographical or topological orientation in the neighborhood, the 'memorization,' through a number of visits, of landmarks some of which may be strong and shared, others varying from individual to individual; or the establishment of associations with specific activity.
House number 57, Mohalla Kakezayyan, Old Lahore; first (ground) floor plan and facade
(top)
Main entrance door

(top right)
View of facade at second floor

(right)
View of terra-cotta tile awning at third floor roof line; part view of chatri with third floor facade

HOUSE NUMBER 57, MOHALLA KAKEZAYYAN
OLD (WALLED) CITY, LAHORE
Window and facade on third floor showing exterior fresco work

Portion of facade at second floor showing molded brick-work, fired terra-cotta lamp-standards

A view of fourth floor addition of mid 18th century; lower portion in front, part of 17th century structure

HOUSE NUMBER 57,
MOHALLA KAKEZAYYAN,
OLD (WALLED) CITY, LAHORE
of the people of the neighborhood, and with places, smells, sounds, etc.

The singularity of visible features of some traditional houses evades immediate notice. Despite highly ornate facades, one can walk by them without noticing them. This has only partly to do with the age factor. It is the relationship of scale of the ornament to the massing of the built volumes that makes it blend effortlessly into the context: the entire visual and spatial environment that has its own aura of monumental aging. Yet if one stops with the intention of surveying the facade visually, an entirely different mode of empathy begins to occur, and one becomes aware of the formal vocabulary of which that facade is composed.

Although the house illustrated is a corner house, greater emphasis is placed on the treatment of the front of the house, even if it opens onto a street not more than four feet wide. But the angular corner is oriented to a strong relationship with the small public space and the frontal public aspect of the facade does turn the corner in deference to it. However, this is more of an incidental fact, emerging out of the significance of the room immediately on top of the entrance vestibule, the windows of which on the northern side, combined with a wooden 'bukharchi' on the west, compose the formative features of this orientation.
The vertical functional unit of the entrance and staircase assembly on the ground floor, the corner rooms on the floors above it, and the summer pavilion right on top comprise one stack element of the facade. The remaining part of it relates to the fenestration of the rooms on the three successive floors on the front of the house, and the system of horizontal and vertical delineations framing those windows and expressing the floor divisions. A full treatment of these stylistic elements, their classification trends belongs to another discussion. Here I will only attempt to provide a brief sketch that will aid in comparing these indigenous stylistic elements with the European elements that they gave way to, and with the popular stylistic trends of today. In Lahore, these fall into three categories: firstly, volumetric elements such as the *jharoka* or lotus-shaped *chatri*; *bukharchis* projected and screened balcony windows, either as isolated units projected from an expanse of the facade or as continuous balconies more or less akin to the middle-eastern *mashrabiyyas*: as single elements they were often covered with the curved roof. Secondly, structural elements, such as arches and columns (in extant traditional architecture these are invariably of the same style the Shahjehani segmented arch and the lotus motif in the base and capitals of columns); these elements also occur extensively as embedded elements in brickwork, stuccoed brickwork and in wooden structural or decorative elements;
thirdly, the secondary or infill elements like screens, wooden framed doors and windows in which the motifs of the structural elements can be found extensively embedded; finally, tertiary elements which were often terracotta scale models of the actual architecture itself, and were stuck onto the facade for decorative richness as well as to function as lampstands etc. The variety of scale and size, textural differences, and functional characteristics of these elements, as they were embedded onto the planar field of the facade, which in the later Moghal and the Sikh period came to be increasingly decorated in brilliant frescoes, provided in the typical upper class traditional house an immensely rich experience. This was enhanced by the ambiguities of the accepted systems of design — the essential two-dimensionality of the facade — in relation to the three-dimensional characteristics of the formal elements themselves that decorated it.

The constitutive nature of the larger urban fabric played no small role in engendering this richness: physical form, the diffuse nature of private and public domain created by the public-private hierarchy of the street system, codes of decorum that respected neighbors' rights to privacy and the strong appeal to the sensory perception of this environment created a cultural insularity that is strongly perceived to this day.
In examining traditional architectural vocabularies we are led to inquire how such a sophisticated expression of a shared value system should have found its full treatment only in a handful of buildings belonging to the wealthier sections of the population. Yet in a system of shared values the rules and canons of artistic expression run through the entire fabric of society, here dense and fully articulated in stylistic and symbolic forms, and there only half-articulated or even fleetingly referred to. In the more humble traditional houses in old Lahore, the morphological possibilities of the environment find dozens of variations in house types. Yet they generate cohesive patterns of visual expression drawn from a range of formal idiom, from families of elements and manners of executing them. The possession of comprehensively defined rules of meaning and behavior makes for myriad uses and extrapolations and at times allows even a gentle hint, a single piece of carving, for instance, to carry the message. Although new rules are evolved all the time, certain rules last longer and provide the ground in which new images and their meaning can be implanted. Little wonder that in the traditional urban schema, as in the Walled City, when the time came to let the traditional motifs and elements pass away from the cognitive/perceptual framework, it happened so hesitatingly and selectively, but with the least effect on the traditional spatial configuration of the house.
3. CROSS CULTURAL PROCESSES IN COLONIALISM

There is a conspicuous lack of historical sources about the built environment in the Indian subcontinent, especially from the point of view of the study of evolving conditions in the popular or vernacular built environment of the cities. The available material relates only to the study of monumental buildings of the past and is the product of nineteenth century exertions of British archaeologists — the extension to India of the blend of positivist empiricism and romanticism that established the systematic study of European antiquity in the eighteenth and the nineteenth century.¹ The work of Cunningham² and Havell³ was the source of many others that followed. But Indian civilization itself seemed to rely more on the legitimacy of the ritual and sacred canons of ancient texts for the continuity of the ancient Hindu traditions, than on historiography of events.⁴ And even during the Muslim period, historiography is restricted to events that were recorded by royal historians.⁵

The documentation of monuments carried out by archaeologists like Cunningham and the commentaries that were made on them later is narrative historiography and offers little in terms of historical explanation. This deficiency exists, perhaps, because of the same absence of texts of local origin. In Pakistan, at least, the lack of critical historiography of architectural traditions adds to this problem. The only explanations that can be
made are arrived at through a "reading" of the monument as a text; a reading such as the obviously different technical and stylistic persuasions of the Indian sculptor-architect and the Persian/Afghan brick mason and how their two traditions came to fusion in the architecture of the reign of Akbar and Jehangir.  

It would, perhaps, be impetuous to regard a lowly architecture, transient and ephemeral for all its pervasiveness, at the same level as the monumental "text" of a great tradition. Studying informal architecture as a document of recent history, that may be thus interpreted, may, nonetheless, still be the only heuristic that we may employ to advantage for an explanation of its recent past and its ongoing transformations.

It appears that in Lahore, the existence of these two basic types in recognizable corpora is because of the presence of two very different cultures. The courtyard house has been the archetypal form of the traditional house in Lahore, and thus, of the indigenous culture of the subcontinent. The "free-standing" type represents the culture of the European colonialists, who, prior to 1947, had administered this region of the British Empire for just about a hundred years. Although the two different cultures have mingled to a substantial extent over that century and in the years after independence, the two systems of residential built form still underlie substantial architectonic admixtures.
The cultural diffusion which brought about this qualified admixture happened in two ways: firstly, as an unbalanced cultural flow from the dominant colonial culture to the subordinate culture of the indigenous people, imparting more to the latter than receiving from it; and secondly, after an initial period of "direct" diffusion, as a process whereby a section of the indigenous population was "co-opted" into the colonial culture. As these people were absorbed into colonial commercial financial and administrative institutions, and into judicial, professional and military functions associated with them, they began to exhibit a substantial assimilation of the culture of the European population. Being a part of a different culture, and the power and affluence that association entailed, they still retained a cultural relationship with the traditional culture from where they came. They were thus the channel through which the colonial culture continued to be transferred, to the indigenous culture. This secondary diffusion was much weaker. As an indirect mode of culture transfer, it had to take place across a culture gap created by the social and culture polarization that was brought about among these two sections of the indigenous population.

The culture that represented the emerging power of capitalist Europe and that of the declining feudal empire of India were noticeably different in their origins, in their forms and the
intellectual constructs of the people who were part of them. The early contacts which European travellers and merchants made with the intellectual scene in India appears to have been a much more benign one than the later conditions of colonialism. In terms of the development of their respective material civilization, there were not too many differences. Sixteenth century European accounts appear to still contain the same awe of the fabled splendor of the East as it had since antiquity.

Nonetheless, the very parity at which the two cultures initially accepted each other might give us an opportunity to examine the cultural divergence that accompanied the economic processes of later mercantile capitalistic growth and, eventually, colonialism. A brief look into the result of sixteenth and early seventeenth century cultural contacts will give us some notion of the essentially different ways in which the two cultures perceived visually. This factor affects later developments in architecture and visual design in very significant ways, particularly as it relates to the second level of our method of analysis: applied features or "material" realization.
Early Cultural Diffusion

The earliest effects of European architecture on Indian culture appears to have occurred through the medium of drawing and painting at the level of royal patronage. European merchant missions to the moghal court at Delhi, Lahore and Agra appear to have made considerable impact on the artistic scene, which consisted of thriving schools of painters drawn from Persian, Indo-muslim and Hindu-rajput traditions, from the time of Akbar through the early years of the reign of his great grandson Aurangzeb. It was Akbar, in whose reign the European missions began, who had accounts of the religion of the European merchants depicted visually. In Jehangir's time there was only copying from European originals — prints, etching and miniature portraiture. Moghal enthusiasm for the exotic and their eclecticism led to a marked change in the artistic trends in Jehangir's and Shahjahman's courts through this contact with European painting. However, the borrowings from European art were not direct and obvious; "Moghal artists . . . were extremely selective as to which elements they chose. Akbar's artists eagerly partook of European landscapes, following their examples in depicting distant towns set on craggy hills, winding roads and spatially convincing overlaps of form . . . Scientific perspective was seldom attempted . . ." although " . . . During the reign of Shahjahman (1627-1657) . . . vanishing point and atmospheric perspective was effectively employed by progressive court
Prince Aurangzeb spearing an Enraged Elephant

Mughal, ca. 1635
reproduced from Welch, (1978)
Although the painting adduced by Welch in support of the last part of this quotation, does contain in the far distance a couple of buildings executed in careful one-point perspective, the painting demonstrated, in the rows of beautifully drawn soldiers and animals the power with which perspective could be used where it was wanted. But the relationship between perspective and idealized architectural form was never established. We are dealing here with a framework of historically derived visual practices that have no room for that relationship. It is no surprise that within the next century after Shahjehan's reign, with the removal of royal patronage from painting and the general cultural regression that followed the decline of Mughal political power, we find interesting examples of perspective being played with as a frivolous and exotic toy, at least in the setting of the indigenous artist-patron relationship.

With the ascendancy of the economic and political power of the East India Company, the patronage of artists passed increasingly from the central Moghal court to the provincial courts of the Deccan, North Eastern India, and the foothills of the Himalayas in the North West. In that process the selective influence of Europe on Indian art was dissipated, and fresh indigenous tendencies emerged of exceptional artistic merit. At the same time, however, representatives of the company began to increasingly use Indian artists for portraiture and to describe the
new and strange surroundings in which they would have themselves portrayed. This was the beginning of an immense amount of cultural diffusion of which some aspects will be discussed in the following chapters.
William Fullarton receives a visitor
by Dip Chand, ca. 1760
reproduced from Welch (1978)
British art education and its effects on indigenous artistic and craft capability

During the late years of the nineteenth century and the beginning of the twentieth, there was a rather widespread effect of the cultural policies of the British administration on the arts and crafts scene in Lahore, and in India in general.

The establishment of formal training schools for art education in India around the middle of the nineteenth century had a background of intense controversies that raged in England around the question of decoration and ornament in the design of the industrially produced article. They began in full earnest with the Great Exhibition of 1851 in which the deteriorating quality and appearance of industrially produced articles of Europe were thrown into sharp contrast by the exhibit of craft objects from India, contributed to the exhibition by the East India Company.

The main issues over which the debate took place appear to be related to the increasing distress with which known connoisseurs of art, designers and critics were beginning to look upon manufactured products. An energetic and vocal group of designers and critics, among them Henry Cole, William Dyce, Richard Redgrave, Owen Jones, Digby Wyatt and Gottfried Semper, set out to "reformultae the essential principles of good design." Since their main concern was the problem of ornament, they naturally looked for inspiration towards ornamental traditions
beyond the European.

Indian art objects had by that time become fairly common among the English aristocracy and became an obvious source of such inspiration. In a short while after the Exhibition of 1851, the art and craft from India became the leading example of the kind of ornamentation that Henry Cole and Owen Jones, the leading exponents of the group, set out to propagate. The main influence on them was that of August Welby Pugin who propagated flatness and the avoidance of the use of shadow, as also the rejection of extravagance of detail. The group also advanced the notion of the application of art to manufacture, which, though intended to improve the visual appearance of manufactured articles, was opposed by the manufacturers for whom industry and art were not reconciliable.

The victory of the reformers over the defenders of illusionist ornament led to establishments such as the South Kensington Museum* and the beginning of institutionalized collection and cataloging of Indian craft objects. It also created a new Department of Practical Art under the aegis of which "flat, non-illusionist design, deriving mainly from Eastern traditions" were encouraged to be taught, the emphasis shifting from liberal art

* later the Victoria and Albert Museum
education to vocational training for industrial workers.

The establishment of Schools of Art in India were an extension of these concerns. The Indian crafts that made the Company's exhibit in the Exhibition of 1851 had come into the Company's possession over decades of acquisitions, through purchase, force or tribute, from the principates and people of India. By the time of the Exhibition, however, the traditional craft industries of India had been nearly snuffed out. India exported largely raw materials for the British industry and British manufacturers were finding a growing market in the urban anglicized middle and upper classes, where they were underselling local manufactu-

ces. The heightened interest in Indian art led to mounting concern over the disappearance of its very source: India's craft tradition. 22

With the establishment of the new art schools in England promoted by the establishment of Henry Cole in South Kensington, the demand was soon made for similar schools in India. 23 By this time, too, the political climate was also ripe for such concerns. The establishment of the Indian schools of art were also the repercussions of the Educational Reforms that had been begun earlier on in the century on in the century. The reforms, begun in 1813, involved certain sums of money allocated for state sponsored educational institutions for the education of Indians in Sanscrit and Arabic literature and for "Vernacular Education." 24
In 1835, however, the emphasis was completely shifted and the funds were reallocated for the promotion of the study, by Indians, of the English language. The arguments given by Macaulay in favour of this change are famous, and the import on the subsequent history of Indian culture crucial.25 The launching of the schools of art in India had similar intentions insofar as they "would 'set the natives on a process of European improvement' in such a way that 'the national activity [would be] fully and harmlessly employed in acquiring and diffusing European knowledge and naturalizing European constitutions.'" 26

While some English teachers who manned the new schools, set up in Madras, Calcutta, Bombay and Lahore, were of the general inclination toward Indian arts and crafts emanating from South Kensington, others came from a more traditional academic mould. The controversy spilled over from London to these Indian cities as to what was a better method of instruction: the Western one of free-hand drawing and modelling of the human figure and Greek orders from plaster casts shipped from England or systematizing training in Indian modes of craft production, in which design vocabularies were memorized orally through direct working on wood, metal and other materials. The paucity of agreement was, in fact, an expression of a curious reversal of attitudes: while the collection at London's South Kensington Museum had spurred interest in traditional Indian ways of production, the art
A wood workshop at the Mayo School of Arts, Lahore, ca. 1907; reproduced from Victorian Studies, 24, 1980-81
schools in India were perpetrating precisely the tendencies (i.e., the idealization of classical form and ornamental vocabularies) that the reformers in London were struggling to erode from the scene of training for design in industry. The "early schools operated largely as vehicles for a kind of cultural imperialism in which curiously misplaced models of western academic art were imposed on Indian students to the detriment of any training whatsoever in native techniques." 27 Nonetheless, some of the English teachers who manned the Indian schools had had close associations with the intellectual climate at the South Kensington Museum, by virtue of either training or work. One such person was John Lockwood Kipling who arrived in Bombay in 1867 and who headed Lahore's Mayo School of Arts from 1875 to 1893. At Lahore Kipling launched major reforms which turned the emphasis of education from commercial art to one in which the dwindling local traditions were sought to be preserved through intensive workshop education in wood and metal arts. "Although technical precision and proficiency were emphasized in keeping with the western modes of production, traditional Indian forms were kept as exemplary models and the institute's center of gravity rested firmly on the native tradition Kipling had studied and admired." 28 The upshot of using this approach was the commissioning of Kipling and his best student, Bhai Ram Singh, to do a number of commissions for official buildings, which, however, consisted essentially of ornamental dressing up
of existing buildings. Entire buildings such as the cricket pavilion in Lawrence Gardens were rare, and even substantial involvement in architectural projects involved ornamental concerns. The most prestigious of these commissions was the Durbar Room in Osborne House: a project which was executed by Ram Singh under Queen Victoria's personal supervision. A number of Lahore's more imposing monumental buildings date from the years of these two figures at the Mayo School of Arts, and are even attributed to them.

But even as these brief moments in the resuscitation of a dying tradition are important for reasons of Kipling's sensitivity and his genuine understanding of the ways of local tradition, a significant stylistic change was brought about.

In speaking of stylistic change, I refer to the introduction of a new intentionality in visual perception that intruded in the person of Kipling, and in the temperament of the culture he represented. What was produced at the Mayo School of Arts under Kipling was something quite different from traditional craft. Despite his apparent deep and genuine sympathy for the cause of saving Indian craft from total corruption and/or oblivion, he saw no contradiction of that cause with the stated purpose of his school, i.e., "to improve the taste of native public as regards beauty of form and finish in the articles of daily use among them," particularly since, by his own
admission, he was at the same time addressing the task of enabling the local craftsmen "to fashion his ware to European uses." That he did this with restraint and with a respect for the creative aspect of craft production is beyond any doubt. Yet he was open to the idea of change and adaptation of Indian crafts. In this and in the unconcealed purpose of his presence in Lahore — that of creating a version of local craftsmanship more attuned to Victorian taste, he was successful.

There appear to be three aspects of intervention in the local craft vocabulary that were thus brought about. Firstly, the ornamental motifs were wrested clean from their traditional confinement in the particular product, trade or material. Already made autonomous — from tradition in the catalogues of the South Kensington Museum, and from everything else in Owen's Grammar of Ornament — Kipling, or anybody else, could do what he liked with them. In drafting them down in pencil, in understanding them free of their complex life as integral parts of the objects to which they belonged, they were imbued with a completely new existence — one bestowed on them by the "concrete elaborations of specific intentionalities." As such they could be enlarged, modified, isolated, made deeper or shallower, combined freely with each other and at whatever scale deemed necessary.

Secondly, there was an enlargement of scale. The indigenous
ornament passed over from its relationship with families of form in the culture that had given it birth, to become part of an Empire, one of an incomparably large ego. The question was not only one of physical magnitude. Although, by and large, indigenous design existed as part of small-scale objects (doorways, utensils, furniture, jewelry), even where it was used for monumental Moghul buildings, it appeared to have the same degree of reciprocity and respect for the whole as it did on a small carved doorway in the Walled City. In the hands of Kipling and Ram Singh, it was blown out of proportion, as part of large edifices as well as on pieces of furniture. The Durbar Room of Queen Victoria is a good example of the combination of these two aspects.

The third aspect of Victorian intervention is that of eclecticism, and this is a combination of the first two aspects. The eclectic tendency was brought in not only by a combination of ornament from diverse stylistic origins from the indigenous scene (which subsumed families of style in general), but from a combination of scales as well. Architectural brackets, floral and leaf motifs, motifs from furniture and jewelry were freely combined into entrance portals (such as that of the Lahore Museum) large-scale facades or the monumental chamber for the Queen.

Seen as an aggregate of these three aspects, there was a decisive shift in the nature of that which is of artistic value.
From entire systems of cultural expression, which were constituted largely of ornament, the new values had brought ornament to exist for its own sake. Design was lifted off its organic, integral contexts to be entrapped in arbitrary proportions, rectilinear frames, turned (paradoxically enough, when we remember Pugin), into three-dimensional relief. As the citizens of Lahore perceived the new images the new values of a dominant culture were powerfully diffused. They still do, as people continue to use buildings like the Lahore Museum.

Generations of Lahorites who were trained at the Mayo School of Arts became absorbed in the school-art curriculum as drawing teachers, where these new values, and new skills like free-hand and "scale" drawings were imparted to ensuing generations of high school students. Many of these people may have eventually found occupation in popular areas of expression, and become masons, sign-painters and painters of decorations on the sides of buses and trucks. Even if there has been an all-round deterioration of taste, some of the design motifs and ornament on buildings, trucks and buses are recognizable as coming from the traditions created at the schools of art.

People like John Lockwood Kipling made a strong contribution to the revivification of a healthy respect for traditional architecture among the citizens of Lahore, while recognizing the link of architecture with the domain of (essentially the minor) arts with which
colonial Schools of Arts were associated. In so doing Kipling also appears to have pointed out the mistake that was being made in the monopolization of architectural design by the Indian Public Works Department. 35 Despite Kipling's early efforts at laying the foundations upon which future curricula in architecture could be built at the Mayo School of Arts, this essential dichotomy between the engineering and the architectural professions has continued to be the bane of architectural instruction in the part of British India that later became Pakistan.

The years traversing the latter half of the nineteenth century saw tremendous impetus in the development of the full extent of the transportation system of the Raj in India. Since the Punjab and the North Western territories were only newly acquired their colonization was accompanied by a huge public works program that consisted of railroads, bridges, roads and the further development of the irrigation system left behind by the Moghals. This naturally produced the need for training engineers; the training of architects was not considered as necessary and whenever required, architectural design of the more important buildings was done either at the more metropolitanized cities of Bombay, Madras and Calcutta or at Delhi, which had become the headquarters of colonial government after 1857. For all other less important buildings designs were produced by the engineers of the Public Works Department.
This preeminence of the engineering profession has continued to this day — that profession still existing as a powerful lobby which would turn to architects as only the furnishers of artistic facades, a service that Kipling and Ram Singh provided in their day.

As more architects, initially quite often British architects, set up private practices in the larger cities, there was a small stream of people from the Punjab who received training at the Bombay J.J. School of Arts; this school was the principal source of architects for the region until the Mayo School of Arts developed its own program in the mid-forties, and again in the early fifties. Until then, however, training of architectural expertise was restricted to draftsmanship, and few buildings were built on the basis of thoroughly conceived architectural designs.

Exactly who designed the hundreds of houses built in Lahore for the new indigenous elite in the hundred years or so before independence is not certain. It is highly probable that the very engineers of the Public Works Department who were responsible for the design and execution of bungalows for the official residential estates also designed in their spare time, private residences. But, although there were only two architectural firms in Lahore at independence in 1947, it appears that prior to that a number of architects some of them trained in England
were practicing in this region. But a majority of even British architects were engineers who had graduated on to becoming full-fledged architects, associated with the RIBA.

Thus, architects working in the far-off cities of Calcutta and Bombay, engineers working for Public Works Department, and draftsmen from the various work-related agencies seemed to have been the means of bringing about the modern idiom to Lahore. By the mid-thirties essential features of modern architecture—roof cantilevers, cantilevered windows, awnings, simplified cast iron and steel balustrades and the general reductions of facades to simplified forms were to be found even in the neo-traditional buildings of the denser areas of modern Lahore.

In his essay "Sight, Symbol and Society," Professor Marx Wartofsky refers to the "historicity of visual perception," and that "human vision... is transformed by the very practice of visual representation, i.e. the making and use of pictures, or of other forms of visual representation." This takes place through "visual intentionalities... a class of human actions which are elaborated as a result of the contexts of vision which culture and history provide." These contexts are generated by the "requirements placed on (visual) perception by new modes of social, technological, scientific and artistic activities." Thus, they are "concrete elaborations of specific intentionalities."
In thinking about the influence of British art education in India, it is conjectured that just such a transformation of human and cultural vision was brought about. What I would suggest in addition is that the "concrete elaboration of specific intentionalities," insofar as it affects objects, conditions and sensibilities (conventions) of the physical environment that occupy a semi-autonomous existence in the movement from social praxis to the purely arbitrary, does not necessarily imply a progressive development of abilities to discriminate; rather, under certain circumstances, when the things (traditions, cultural relations, self-regulatory mechanisms in society) that hold up conventions are themselves precarious, as in nineteenth-century India, a breakdown in the semi-autonomy of conventional entities leading to regression in the ability to discriminate. This affects tradition and its recognized ability to accept change only critically, which it partially loses.
Architecture: imitation and selectivity

What can eventually be described as influence of colonial architecture on the indigenous traditions began as early as the sixteenth century as rather a fusion of European and Indian concepts of residential architecture. There appear to have been two main tendencies in which this arose.

In the eighteenth century, European settlements at Calcutta, Madras and Bombay had a character marked by a profusion of European architecture. Calcutta's development, for instance, could "be compared with Georgian London, noble buildings surrounded by a cluster of service buildings in a system of alleys and passageways lying behind . . ." Increased self-confidence as rulers was marked by architectural forms intended to as much replicate metropolitan forms as to give a distinctive appearance to the colonial culture, symbolizing its dominance. As British political domination increased, there was an increasing adaptation of British life-styles on the part of the indigenous Nawabs and Maharahahs who had now begun to accept British suzerainty. This was the beginning of the cultural overlap through which the political domination was in fact exercised.

The nobility were at the top of a pyramid of indigenous consumers of British manufactures. King, resting authority
on Archer, describes the intense cultural transfer this brought about:

"British fashions in household furnishings had been adopted as early as the 1770's: the Nawabs of Lucknow imported 'all sorts of European manufactu-"res,' including mirrors, lustres, framed European prints and Worcestershire china. Lord Valentia, visiting Lucknow in 1803, noticed that the palace was equipped with English chairs, tables, a service of plate, knives, forks and spoons, wine glasses and decanters. In the South, the Raja of Tanjore had a sitting room furnished with English chairs. In Western India, . . . palace walls (were) covered with English prints. Apart from this attachment to Western furnishings, many of the Indian princes built palaces, modelled on the 'Classical' residences and public buildings of the colonial community in the metropolises and the provinces." 43

It seems that initially at least the palaces referred to by King in the above passage — in Lucknow as in other parts of India — were of the traditional type and in traditional parts of the city. Before the palaces 'modelled on "Classical" residences and public buildings' came to exist, there appears to have been a transitional phase in which the imposing new architecture of the colonialists began to register itself on the nobility in the areas that were close to the three Presidencies, Bombay, Madras and the Bengal. 44 The Indian artist here again has an important role to play as the documenter of a problematic of cultural perception which the indigenous society experienced as a whole. This was achieved by the artists either independently as did the artist engaged by
Two views of a European residence
ca. 1770
reproduced from Welch (1978)
the British owner of a house near Calcutta or as a sympathetic response like the artist recording collectively, as was done in the court of a Hindu raja sufficiently interested in British architecture to become the first Indian member of the RIBA in 1834.\(^45\) The inscrutability of perspective on the artist's part is only the beginning of various stages of the movement from indigenous tradition to a never accomplished complete assimilation to modes of perception that are a part of the history of western visual sensibility.

The "eclectic adoption of (stylistic) elements from the uniformly 'Classical' buildings which characterized European urban buildings in the first century of (British) settlement"\(^46\) and that first started with the nobility appears to have filtered down to the richer sections of the urban middle classes who still happened to be living in the traditional physical environment.

In Lahore, evidence of this tendency is still found in the surviving houses of the rich Hindu businessmen all of whom migrated to India during Partition and the communal riots accompanying it. What is of significance is that in the use of European elements, the essential fabric of the traditional facade is preserved. This facade is conceptually uniplanar and employs the third dimension only at a secondary level by the introduction of volumetrically conceived window elements.
(above) Lahore: a Hindu house in Old City, ca. 1910

(below) Lahore: Delhi Gate, the Old City; rebuilt after British annexation of the Punjab, post 1850
Most of all, the traditional facade is like a fabric, to be touched and experienced outside the geometric confines of form; this quality is facilitated by the use of fine ornament. Much of this tactile quality is lost in the transplantation of 'neo-classic' semantic elements onto the facade, as in the Hindu house illustrated. Still, by the retention of certain basic features like the movement of parts of the facade plane in the third dimension, some of that tactility is conserved. The total experience of an entire facade, never feasible in old Lahore's narrow lanes, is made possible in the illustration only because the houses across the street have now disappeared. The employment of 'neo-classic' elements indicates that traditional importance of ornament experienced at very close distances was by this time (the early nineteenth century) diminishing and European images were exerting strong displacements in visual tastes.

Let us now review the other tendency through which European and Indian concepts of residential architecture fused together. From the late seventeenth century onwards, the life of the English agents in the Bengali countryside had to be adapted to conditions of isolation in culturally alien circumstances. This gave rise to the make-shift adaptation of a particularly available and suitable indigenous manner of building — the Bengali peasant hut. A distinct architectural type, the bungalow, thus came into existence. Over the course of the
(Top and right) The Bengali peasant hut; 1849 sketch reproduced from King 1973
(below) Transformations in European Calcutta, 1860; from King (1973)
the seventeenth and eighteenth centuries this prototype became increasingly stabilized, drawing on European habits and attitudes towards residential space and form. Thus English prototypes such as the cottage, and neo-classic and palladian formal images, encountered in cities like Calcutta and Madras, became absorbed. Eventually the bungalow appears to have had considerable resonance in suburban residential architecture globally. In India alone it became the institutionalized residential form of colonial officers and administrators, and the architectural/spatial unit of colonial urban development. 49

In the conditions of India, colonial rule produced easy access to urban land for the vast new low-density colonial urban settlements. Space became not only a symbol of power and well-being; as space around the house it was the beginning of the hierarchy of spaces that eventually separated the house from indigenous culture. Space was not merely a dominating entity, loaded with the significations of power, but also a means of security, physical and psychological: "... sufficient space had to be provided around the house as a visual assurance for the occupants to know that they were safely located in their own cultural territory." 50

The encirclement of the habitat by large open but bounded space (the 'compound') is repeated again in the form of the verandah: a transitional space involving climatological
7, North Circular Road, Peshawar Cantonment
(a later colonial bungalow)

16. Bathroom
significance, but also playing an important part as the container of many culturally based activities.\textsuperscript{51} The verandah was almost always of a lower height than the main core of the building which protruded out from this encircling semi-enclosed covered space. It enabled the introduction of a 'ventilator'.\textsuperscript{*}

Typically the plan consisted of two major sets of rooms in the front: a 'drawing room' placed across the central corridor from a dining room which was connected to a pantry and, further away, a kitchen and 'outhouses.' Behind this front set of rooms and reached by the corridor, was a series of two, three or four bedrooms. The outer lower structural element providing the verandah was also used to contain bathrooms, attached to the bedrooms, and other adjunct rooms such as dressing rooms, storage rooms and a study.

Typically this meant a constructed area of between 3,000 to 10,000 square feet (est.), placed in a 'compound' ranging anywhere between one to five acres.\textsuperscript{52} Even in the most arid places this compound was intensively planted and was tended to by a multitude of servants.

This was indeed an attractive recipe for luring middle-class

\textsuperscript{*} a small window placed high on the wall near the ceiling, typically about 16 feet high. It was opened by a system of strings and pulleys
people from the metropolitan population to an otherwise arduous life involving long years of their lives thousands of sea-miles from home. It also placed them far above the indigenous population and symbolized their power, stature and well-being.

The enormous spatial, economic and human resources consumed in the building, use and maintenance of urban environments based on the bungalow form have had crucial long term repercussions on urban development in Pakistan. Equally crucially, the bungalow form left deep scars on the value structure of contemporary society and the society that was to come after Independence. In the middle of the nineteenth century, at the time of the Punjab was annexed, it had already become adopted as the norm for colonial life. Hitherto, it had been used in the main for the purpose of wayside rest-stations, and if used in the city, it was not part of an urban spatial system derived from its own formal and spatial dictates. As new residential areas in the 'civil stations' and the cantonments were being laid out in colonial settlements, the bungalow became the basic unit of spatial organization for vast tracts of the new city.

With the establishment of a physically distinct part of the city associated with colonial establishment, and the residences of Europeans, indigenous society appears to have
been divided into two cultural spheres; a whole class of indigenous upper and middle income groups was affected by the question of where they should continue to reside: in the traditional city or the new colonial areas. In Lahore these classes included a feudal nobility that was raised from among the tribes who helped the annexation of the Punjab and in quelling the 1857 struggle. They also included bankers, wholesale importers, distributors and retailers of metropolitan produce, and contractors to the expanding railways and the civil and military establishments.

Of the nobility, only those elements that were part of the revenue administration of the Punjab settled first in the colonial part of the city. Hundu and Parsi merchants were the other large groups, as indicated by early establishments that traded in metropolitan consumer articles and that still exist. Nonetheless this mixed community of indigenous people were the pioneers of accepting and assimilating an alien culture that was unknown to the generation that preceded them. Writing about a second generation Parsi family in the Lahore of the late twenties, Bapsi Sidhwa stages their life thus in her vivid novel *The Croweaters*:

"A way of life was imposed upon Tanya and Billy by the locality in which they lived, by their independent bungalow, and by their new possessions. They made friends with modern couples equally determined to break with tradition. It amounted
to no more than a fanatical faith in the ways of English society in India, and a disciple's knack at imitation. They were not of the masses, this young crowd. If their wealth did not set them apart, their ability to converse in English certainly did. They were utterly ashamed of traditional habits and considered British customs, however superficially observed, however trivial, exemplary. They entertained continuously at small, intimate, 'mixed' parties where married couples laughed and danced decorously with other married couples. ... The parties were fashionably cosmopolitan including ... Hundus, Muslims, Sikhs and Christians, the Europeans, and the Anglo-Indians."
The movement toward post-independence and informal architecture

We have seen the fascinating contrasts which even a brief description of the traditional house and the colonial house in their respective contexts brings to light. These differences are not only typological although that was the premise on which we began to deem the comparison necessary. Nor are the differences solely the result of any particular intrinsic affinity of one type or the other for the larger physical or cultural environment in which we observed them to prosper as types. It is rather the historical circumstance through which they were placed in a colonial context to perform the roles that they did.

The colonial residential form was at once the vastly more powerful and charismatic entity. It had an institutional significance that made it one of the enabling instruments of "the penetration of one social structure by another." On the other hand in the traditional part of the city, the indigenous house was a passive repertory of tradition as it had existed for centuries, changing only very slowly. In so doing it was the conscious or unconscious referent of the cultural behavior of the colonized people even when that behavior was deviant from tradition.

Up to a certain time, however, both types of houses — the traditional and the colonial — existed quite independently as parts of corresponding spatial continuities, the traditional and the colonial parts of the city; and there appears to have been only minor transfers of morphology or stylistic idiom from one
(above)
View of fourth floor pavilion added in mid 18th century

(below)
Fireplace of European extraction in roof pavilion shown in plate above

HOUSE NUMBER 57, MOHALLA KAKEZAYYAN
OLD (WALLED) CITY, LAHORE
to the other. One of the first indications of the influence of European life-styles are found in certain additions made to old houses in the Walled City, around the middle of the nineteenth century. However, European presence in the Punjab antedates its formal annexation by the British in 1849 by at least a few decades — in the army of the Sikh rulers were employed Europeans like General Ventura and Colonel Allard who appeared to have become quite well absorbed into the ways of life in the old City; and we can conjecture a certain amount of diffusion of European life-styles even before 1849.

In these additions to old houses, we find noteworthy departures from traditional modes of building, often intermingled with the Sikh propensity for a more vernacular provincial tendency in architecture, like the preponderance of the use of an archaic pointed segmented arch in favor of the finer engrailed arch of the Shahjehani period and the profusion of exterior frescoes using the fauna and flora of a debased vernacular drawn from Mughal and Pahari traditions. The departures were of a strictly European origin, like the introduction of glazed windows, with panes of colored glass, the use of "ventilators" (in our example a hexagonal kind faintly resembling Renaissance roundels) and fireplaces of a distinctly European extraction. But these departures were nothing more than "the stylistic interpretations that are picked up and propagated with cultural exchanges . . . their more superficial nature (enabling them to be grafted)
easily to the more permanent spatial organizations without disturbing them.\textsuperscript{55}

If a century later, as we shall postulate further on, the two formal types came to exist in a near fusion, that process was started off almost imperceptibly — in an almost total adaptation of one of them by the wealthy indigenous "Europeanizing" families, breaking loose one by one from the traditional physical environment and settling down in the colonial part of the city.

The acceptance of these "Europeanized" elite into the folds of the colonial urban space could not, in the beginning, have posed many problems for the latter. The wealth of these early migrants from the Walled City acquired for them a certain acceptance among the colonial population that was as much cultural as it was useful for its intermediary role in extending colonial political control. However, with the rise of the "educated" middle class that "emerged in consequence of changes in the system of law and public administration,"\textsuperscript{56} and the advent of the indigenous lawyer, doctor, engineer, civil servant, and, even later, the military officer, the number of natives aspiring to live in or adjacent to the colonial areas of the city rose rapidly, prompting the institutions of colonial urban administration to evolve in order to accommodate them. In Lahore, as elsewhere in India, legislative and administrative institutions were created at the turn of the century that helped orderly
settlement of indigenous populations in areas of the colonial parts of the city. The actual physical planning aspects of these legislations were affected by the seminal influences of Patrick Geddes. Invited by the Governor of Madras in 1914, Geddes' association with India lasted till 1924. Over this period he produced plans and planning reports for dozens of Indian cities and popularized his methods of sensitive appraisal of cities as living artifacts that should be embraced by planned growth through a process of strategic "conservative surgery." But it was not Geddes' painstaking proposals for conservation and adaptation of the existing structure of the older cities that were influential all over the subcontinent, but rather his method of planning modern extensions of these cities.

There appears to have been an ambivalence of attitudes quite in keeping with the colonial ethos. The difference between remedies for older cities from the formal quality of the new city posed no problems. As Geddes said:

"... for your suburbs and extensions, give up all ideas of more walls; enough to repeat them by lines of trees; the great thing will then be to go on laying out proper avenues. Thus your new town will develop in due continuity and harmony with the city's past, and yet with the character of modern times, of the surrounding country and of modern cities at their best." 57

The suburbs and extensions of all cities of the Indian subcontinent from that time onwards were built up of wide avenues and curved serpentine roads connecting them. This was the fertile
Lahore Improvement Trust: Area plan of Gulberg Schemes.

(courtesy Lahore Development Authority)
ground for the proliferation of the bungalow, and it was obviously meant for the rising number of the "co-opted" middle classes, who were to become administrators and rulers in the post-independent scheme of things.
In addition to the "westernizing" intelligentsia of the professional classes, there was also a natural push of lower income, people from the traditional areas principally on account of growth in population, and we now had two kinds of indigenous populations to be settled outside the traditional city. This was done in housing areas that were markedly different in urban morphology. Low density settlements like Zaman Park were accommodated closer to the colonial administrators' residential "estates," but either at the periphery or tucked away in unused parcels of land behind existing institutional or commercial buildings on the main thoroughfares. These low-density areas used the bungalow as the basic unit. High-density settlements like Krishna Nagar, Canal Bank and Dharampura were intended for the more traditional cross section of new settlers, and were placed in locations in the vicinity of service zones such as bazaars, etc. These used the traditional courtyard morphology for their houses. This difference in urban fabric was brought about simply by adopting zoning and building regulations that were different for the two kinds of settlements, the difference lying chiefly in the size of the lot made available and in setting out building lines. In the case of the bungalows, the percentage of the land to be built upon was also specified.

Houses in the neo-traditional areas, those occupied by the lower income traditionalist populations, were very much like traditional
(Top) The indigenous "bungalow" in the colonial city

(left) House in "neo-traditional" settlement, Qila Gujar Singh, Lahore
houses in their essential topological configuration. The difference lay only in the lower densities, which allowed larger courtyards, the wider streets laid out in rectilinear grids, better lighting, sanitary conditions, and so on. The easiest way to build in a residential zone containing lots not larger than 200 square meters* was to adhere to the traditional plan, the houses often rising up to three storeys high. In many places, including the Walled City, however, there were exceptions made to the main tendency (i.e., to accept only superficial stylistic influences and conserve the plan form). The principal manner in which this happened was the adoption of a doubly loaded corridor as the spine of the plan, on both sides of which would be rooms. The corridor would lead to the back of the house which was the surrogate courtyard space. Stairs were contained in the corridor itself, toward the front of it and would rise enough in the first flight as to afford clearance for passing through. Sporadic and infrequent, these deviations did not affect the overall tendency in these "neo-traditional" areas to produce environments that, although less dense and more regimented, nevertheless closely approximated the underlying traits of the physical and social fabric of the Walled City.

The presence of deviations indicates a certain conditionality of pattern. It implies the impossibility of a complete and watertight distinction between the "neo-traditional" abadis (settlements)

* The average in the Walled City did not rise above 60 square meters.
or the "westernized" suburbs, despite the marked contrast between the two. The same conditionality of pattern afflicts the suburbs and the inhabitants of the adopted bungalow. No matter what level we examine, the likelihood of complete or absolute assimilation of the colonial life-style seems remote. The picture is actually more complex and rich in detail. Many of the so-called modernized families adopted relatively "Europeanized" external modes of behavior mainly for reasons of security in employment with the colonial services and in answer to the concomitant requirement of a minimum of "westernized" social habits. They were at best only one or two generations removed from a fairly Indian cultural existence. The segment of the joint- or extended family thus absorbed into the colonial culture still had a fairly traditional main body of the family consisting of parents, siblings, their children, etc., who continued to live traditionally in traditional environments. In this situation, a two-way exchange of values, however unequal and imbalanced, seems to have occurred. In the same house would be received the authentic European counterparts and superiors of the serving or retired "native" officer as would parents, relatives and the munshis and tenants from rural areas.

Thus, there was a large set of indigenous links to every family

* Most indigenous officials had hereditary or recently granted land holdings.
that had become "westernized." The imitation of western dress, overwhelmingly more in the case of men than women did not alter deeper values towards culture. The architectural counterpart of the change of attire was the front of the "indigenous" bungalow, the traditional part was the rear. This resulted in certain basic shifts in the plan formation of the bungalow.

We will consider how one functional element of the house, the kitchen, effected such a shift. Right up to the early fifties of the present century, wood or coal was the primary cooking fuel. Kitchens of colonial bungalows were, partly for that reason, run primarily by servants and were separated from the main house and, if at all, were attached to it by means of a covered walkway or a corridor. Traditional kitchens for the same reason, among others, were always a part of the courtyard. One of the first changes we find in bungalows of the "westernized" indigenous elite is that the kitchen is spun around to the rear of the house so as to face the space in the rear. This space was often reduced in scale, paved and surrounded completely by a low wall or "outhouses," the kitchen being one of them, to recapitulate the ambience of a traditional courtyard; almost always, even the nomenclature of this space was the traditional one — seh. A number of traditional activities, like the drying of clothes, vegetables, the pickling of achars, and women drying their hair, continued in this space, even among the more modernized elite. To relate the
Lahore; 156 G Model Town; ca. 1940; architect not known

17. Garage
kitchen to the front of the house, the dining room, which in the colonial bungalow was in the front, opposed across a corridor to the "drawing room," was now placed at the rear of the latter.

The creation of this surrogate courtyard was aided to a great extent by the fact that the average size of the plot was in all cases smaller than in the case of the official bungalow of the colonial officer. Since having a large lawn in front was prestige related, symbolic of associations with power, the "indigenous" bungalow was often pushed as far back on the site as possible.

The access from this private backyard to the front of the house was effected by going either through the house or around it. This was important, for among the values transferred to the indigenous elite from the Europeans were those that related to the spatial exclusion of the less well-placed groups. Natives and tradesmen, etc., were not allowed inside the colonial homes, nor were servants except those employed specially for housework. This spatial exclusion is not found in the traditional house. In the traditional Hindu house, with its problems of caste and pollution such an exclusion might be encountered. While this might have been a source of cultural behavior contributing to European behavior, it seems that in the Hindu habitat more ritualized solutions were also used. It is, however, encountered in the indigenous bungalow and despite the dwindling plot size, necessitates a corridor to be left on one side of the house —
between it and the outside enclosure.

The morphological characteristics that unfolded in the indigenous use of the bungalow archetype — the front lawn, the courtyard, the outdoor access space from the rear to the front, soon became a matter of commonly accepted pattern. But when an elitist notion of what a house must be is embodied in strongly laid down codes of behavior, such as building and zoning regulations, then traditional preferences for small plots and an imposed form came to be superimposed. Such houses then became the nexus between the "modernized" elite and the traditional social groups.

In the next section we shall examine this at greater length.
4. POST INDEPENDENCE DEVELOPMENTS

The trends in residential architecture that developed during colonial days continued after independence, but with some important changes. What marked the early post-independence days was the phenomenal increase in the size of the city, mostly in the form of low-density suburbs. The main impetus to these developments arose in the richer and more powerful sections of the population, chiefly the civil servants and other professional groups of the colonial era, who now wielded considerable political power.

But this development did not occur exclusively as a means of catering to the upper most income groups. In the early fifties, in two quite different parts of the city, two different scales of residential areas came into existence. Of these the larger and more ambitious one was the suburb of Gulberg: an upper income residential estate, whose physical layout strongly resembles Geddes' plans for extension of cities like Indore, but which bore a strong resemblance to the densities and spatial characteristics of the colonial GOR (government officers' residential) estates. So strongly did Gulberg draw on these characteristics that one could use to advantage Anthony King's description of the colonial settlement; which had "large residential plots containing spacious one-storey houses, broad, tree-lined roads, low-residential density (less that 20 persons per acre), and the
Metropolitan Lahore, 1981 showing the Old (Walled) City, Gulberg and Samanabad (map courtesy BKM Associates)
generous provision of amenities (water, electricity, sewerage, telephones, open space)." Further within each residential plot would be an isolated bungalow; this "bungalow-compound complex . . . best understood as an extended form of 'personal' space,' 'a small circle of physical space with the individual at its centre, and a culturally determined radius,' the whole of the compound area being 'a territorial unit.'

The other main residential area developed by the Lahore Improvement Trust in the early fifties was Samanabad. It is a much denser area with a lot size not higher than 4500 square feet, (as compared to over an acre in Gulberg). Although Samanabad was intended for middle- and lower-middle income people, the densities at which the lots have been built upon indicate that the income levels of the residents are more or less the same as in Gulberg, compelling us to look for an explanation of the choice of location in reasons other than income alone. The reason might lie in Samanabad's greater proximity to Lahore's "downtown." Or even in the fact that it preceded Gulberg by a few years. But as we shall see, there may be other, broader explanations.

The two settlements were originally separated by a large tract of the colonial civil station, occupied by one of the largest jails in the province of Punjab. Between 1947 and 1965, this institution was demolished and new upper income adjuncts to Gulberg were built. Gulberg took a long time to be fully settled,
indicating the speculative nature of investments made in its lots.

The statistics available to us, relate to the number of lots made available between these two areas, and their sizes. Of the total of 8469 lots made available by the Lahore Improvement Trust from 1947 till the time it was dissolved in 1975, 85 percent were of a size (ranging from about 1 acre [0.33 ha] to 2250 square feet [209 m²]) that enabled the construction of free-standing or semi-detached bungalows.

Over the period 1951 to 1975, the population of Lahore rose (from 850,000 to 2.5 million) by 200 percent. With the average family size of 6 persons prevailing in 1972, this would have meant an increase of 275,000 households over the same period. A comparison with the 8469 lots provided by the Trust over the period 1947-1975 indicates the general ethical and social trends of those years. The remaining 266,500 households were either absorbed into the city's fabric by a densification process utilizing unused land or old houses within the city, or settled in privately parcellled, unserviced or partially serviced, land in areas of the city less favored by the elite-oriented planning agencies. Although there are no detailed statistics available for these privately released areas, they seem to be catering overwhelmingly to the lower middle and lower income categories of people, if the size of the lot or the type of building in it is seen as dependent on income alone.
However, this may not entirely be the case. If we remember that the average sized lot in the Walled City measures only 1350 square feet (125 m²) which is only a little more than one-half of the least-sized lot in the planned settlements referred to above, we are reminded of traditional residential patterns and architecture. Even with the very skewed income distribution of the city considered, in 1972 twice as many people with more or less the same incomes as settled in Gulberg and Samanabad, actually finished up building houses on smaller lots in privately released partially developed land.

I argued in the previous chapter that the adoption of the bungalow style of life did not mean adopting western ways in toto. For instance, the presence of a traditionally used courtyard at the rear of the bungalow is an indicator of the conditional nature of the transition to more "westernized" ways of life. This courtyard was often also the by-product of smaller lots that created spatial relationships at the back of the house that encouraged it to be transformed into the replication of the traditional courtyard. The argument can be stretched to say that smaller lots in general would have a positive correlation with traditionality.

My other argument about the continuation of tradition in the adopted bungalow related to the applied stylistic features in a house. To recapitulate briefly, we observed that the image
of a bungalow as it was used by the colonial administrators,
was culturally modified by the indigenous upper classes during
the process of their assimilation of colonial culture. While the
bungalow still remained as such, it represented cultural modifi-
cation not only in functional adaptations, but also in the over-
all character it bore in its stylistic affectations.

The stylistic sources, from which the builders of what we call
the "indigenous bungalow" borrowed, were many and their applications
intermixed; it was easy to combine styles as long as there were
graspable stylistic elements that would lend themselves super-
ficial eclecticism.

Given that initially there were hardly any architects to design
the one-off bungalows of the "westernizing" indigenous groups,
the responsibility for proposing and incorporating the stylistic
content of his house was carried almost entirely by the owner
himself. However, as the number of architects or engineer-
architects available for this purpose increased in the years leading
to independence, that responsibility was not shifted correspondingly
from the owner to the architect, as it should have. The increase
in the number of architects was coterminous in time with the
steady introduction of modern architecture, a prospect that
seems to have generally preoccupied early Indian and Pakistani
architects much more than the stylistic motivations of their
patrons. As a result, the bungalow type had to undergo yet one
more adaptation — this time the tacit stylistic language
Bungalow of Inayatullah Khan, Lahore, ca. 1948
Architect S.M. Chishty
(reproduced from Chishty, 1949)
of the international modern, that was being spoken with concepts like function, economy of space and the use of the technology that came with it. But even then, while functionalism, "honesty of expression" and the consciousness that one can design for climate began to affect architects, the formal entity of the bungalow type modified only gradually.

S.M. Chishty's book *Homes of the Day* is an intriguing illustration of this process. Partly a manual of "design ideas," partly didactic, and partly an advocacy of the profession, it shows how the early Pakistani architect was mediating between "international style" and the object of his creative endeavors — the bungalow. Sandwiched between seven already built bungalows in Lahore, designed by various Pakistani, Indian and British architects and architect-engineers, and a section displaying a range of designs for bungalows and associated types, is a section illustrating the works of fourteen "foreign architects, showing their way of living, construction, etc.," among them Gropius, Mies van der Rohe and Richard Neutra. There is no commentary, only a brief description of the houses. But the sheer juxtaposition of the Chishty bungalow with Gropius at Dessau and Mies at Brunn provokes speculation as to the exact nature of the message of "international style" that was filtering through to the bungalow in Lahore.
Although the education and competence of the architect in Pakistan has changed over the years, the manner in which the architect has mediated between international and local conventions has perhaps remained the same. This is evident in the ways in which the essential bungalow archetype has modified over the years: a gradual selective modification in a process in which the architect's naive creativity is powerfully moderated by prevailing conventions of user needs.

Over the perspective of thirty-five years, the role of the architect in introducing innovations has, nevertheless, been a powerful one. But even at the present moment the profession continues to be too small and too allied with the innovations themselves to register the stylistic aspirations of his clientele and to respond to them. That need is addressed by the owner himself, or by the builder, or both acting in concert once the architect is finished with the terms of his engagement. In the case no architect is engaged, and this is often, this need is addressed by the technician (draftsman or trained overseer) that might be engaged. What this amounts to is the owner moving away from taking recourse to professional help which becomes more and more sophisticated in its emulation of the images of international architecture, to an increasing alliance with popular tendencies — towards informal architecture.

Through this alliance, both "formal structure" and
"materialization" move from the domain of "formal" architectural practice into the domain of the conventions of form and meaning and the more traditional values that are represented by the small contractor and the technician on the one hand and the owner on the other.

To recall again, we had observed that the indigenous or traditional typological corpus had prevailed through the colonial period even in "neo-traditional" planned built environments of the middle and lower middle classes. After independence, however, that continuity prevailed only in the unregulated, often unplanned, privately sponsored settlements that I have mentioned above. In the officially planned low- and middle-income settlements of recent years the regulations adhere surprisingly to the principles governing those for larger lots in the less dense areas like Gulberg. These regulations provide for space around the house, and where frontages are small as in the case of lots of 2250 square feet (209 m$^2$), they are designed to bring about semi-detached houses. For even smaller lots, of which the number has increased in recent years, the regulations provide for row houses with space at the back.

The discontinuation of pre-independence regulations that allowed the built-up area on small lots to extend to lot perimeters, thus enabling a courtyard to be created, seems to have come about either as an acknowledgement of possible pervasive popular
wishes to own "bungalows" or because of the value frame of the planners and legislators themselves. To my mind the latter is the more likely.

The result has been a built form imposed by the regulations themselves, particularly since the flexibility of user interpretation is drastically restricted in smaller lots. Moreover, the intention of the regulations — and one can imagine they are only the lingering turn of the century notions of air ventilation, hygiene and the spread of diseases — does not seem to have been fulfilled. The image of the built environment that the framers of the legislation might have had was the last thing that actually got built.

This has been for two interrelated reasons. It was not always that the small lots in middle-income settlements were bought and used by those for whom they were intended. In fact, more frequently, and in areas proximal to the city center, they have been used by tradition-minded upper middle- or upper-income families. Now in such families, and this is our second reason, the values assigned to open space are of a completely different reason than in the "westernized" groups who choose larger lots of land. In the traditional order of values, open space is an integral part of the whole house, just as the rooms are. In fact, in the peculiar high-density conditions of old Lahore, the open character of the courtyard space is obscured to a large
extent by the (gradually evolved) reduction of the courtyard opening to the size of a large window. This enables the replication of a similar courtyard space on each successive floor; and to render the entire court on upper levels to be fully used, even this opening if framed and provided with grated iron shutters across which one can walk. Thus, instead of open space, the prime consideration is that of the commodiousness of the house, expressed by the term "makanyat."* The large front lawn which would be the prime consideration of a "westernized" home builder would not be important at all for the tradition-oriented home builder in the criteria for the choice of a lot. On the other hand, density of allowable construction, such as that in smaller lots, would. This tendency of preference pushes the price range of lots in this and similar categories to inordinately high levels, as compared to lots of larger sizes. Thus, for the same price one could have access to a 2000 square yard lot as for one of 500 or 250 square yards.

These tendencies and the stylistic predilections of the tradition-minded home owner have an important effect. The very high price of land in preferred locations in the city tends to draw like-minded, tradition-oriented affluent home builders into residential clusters in such areas. In this a high degree of social

* Translates loosely as "residential accommodation."
homogeneity is created. All houses start looking alike, in spite of pronounced individual variations of style. Moreover, in spite of the traditional attitudes to accommodation and lot sizes, these home owners are not consciously averse to the life-style of the bungalow and the range of values associated with it. On the contrary, they might even share many of those values. The house thus becomes an aggregate of all these diverse factors. This shows up in the morphology of the houses, and in the behavioral aspects of life that is lived in it. We will examine one such location in Lahore.
5. **RIVAZ GARDENS**

The Rivaz Gardens scheme is a housing estate in the central area of Lahore. The name originates in the colonial period. Until the mid-nineteen sixties, there used to exist on the same site a low-density cluster of colonial-style bungalows. These were used in pre-independence days by middle-order European officials. The forty or fifty houses in those days gave the site a quiet, garden-like character, giving the name a seeming reason. But the over six hundred dwelling units that exist today on the site have turned it into one of the densest planned settlements of the city.

Rivaz Gardens was brought about by the Housing and Physical Planning Department of the provincial government — an agency that carried province-wide responsibility for the affairs that its name suggests and in Lahore was responsible for the planning and zoning control of two other areas* besides Rivaz Gardens. The intentions behind Rivaz Gardens were to make available small-sized residential lots to retired and retiring government officials, and to persons who were either deemed sufficiently needy or had rendered meritorious services to the country. Such people were allotted land, i.e. were given the right to buy it from the government at nominal prices. A number of the remaining lots were sold in public auctions. In spite of not being allowed to sell their land until they had completed

* Shadman Colonies I and II
building a house on it, a large number of "allottees" actually did sell their land by means of powers of attorneys delegating most rights that attend building a house, and signing an undertaking to the effect that the title would be made over when the house was completed. Few of them live in the houses that they built for themselves.

The site flanks one of the busiest thoroughfares of the city — the Lower Mall. It has a roughly polygonal shape and is surrounded on all sides by main roads or small streets. Across Sanda Road on its north are mostly institutional buildings — the M.A.O. College, the Game Warden's office and the dormitories of the National College of Arts. To the east, across Lower Mall* are the old University Grounds — comprised of playing facilities for cricket, field hockey, soccer, etc., which are the only publicly accessible green area in this part of the city. On the west and northwest are the localities of Prem Nagar, Rajgarh and the eastern most parts of Krishna Nagar. These are densely populated, in the main by middle and lower middle income people. Core areas in these settlements, described in Chapter 3 as "neotraditional" settlements, are based on gridiron plans and were laid out in the mid-twenties and thirties. They still have brick paved roads and courtyard houses.

Rivaz Gardens contains a total of 304 lots for individually owned residential buildings. Nearly ninety percent of that

* Multan Road
number are lots of 2250 square feet (209 m²) area. These lots have frontages of 32 feet except for corner lots, which are 35 feet wide. The lots are 70 feet deep. However, some of these lots that were sold as commercial lots were intended to have an arcaded row of shops in the front. These lots are of the same width but have a depth of 75 feet. They exist on both sides of a commercial spine. Lots that constitute the perimeter of Rivaz Gardens, fronting on the two principal bounding roads are larger — those on Sanda Road being of 4500 square feet (418 m²), while those on the Lower Mall being twice that, i.e. 9,000 square feet (836 m²).

In general the orientation of these lots is either north-south or east-west, the two orientations divided almost evenly over the lots, which suggests that lot orientation was not high in the planners' priorities.

About 36 of the original number (369) of the lots were used in the early seventies to build twelve blocks of four-storeyed walk-up flats each consisting of two rooms, a verandah, a kitchen and a bathroom. These flats, originally intended for low-income families are now highly valued and fetch a sizable income from rents to their owners, who mostly live in other parts of the city.

Commercial lots in Rivaz Gardens have a mandatory and continuous arcade in front of the shops; the rear of the ground floor,
used as a residence, is usually rented out. Each of the two floors above contain two apartments available for rent.

Although the planned residential density in Rivaz Gardens was quite high, with the building of the walk-up flats it has risen to a current density of 90 persons per acre (220 persons per ha) and that too at conservative estimates. This density is twice as high as the highest densities prevailing in low density suburbs like Gulberg. It seems inordinately high particularly when we realize that residents of Rivaz Gardens belong to the upper ten percentiles of the city's income distribution and that the widespread pattern of post-independence urban growth has normally entailed that these income groups settle down in the low density suburban situation.

All internal roads in Rivaz Gardens are fifty feet wide, and the configuration of the layout suggests that some care was taken to make the locality as inward oriented and as less susceptible to through traffic as possible.

The device of placing the larger lots on the perimeter, facing the main roads and the configuration of the locality's layout itself creates a marked insularity for the smaller lots that have been placed in the interior of the site. This is helped to no small extent by the care which the planners took to avoid through roads — even the main commercial spine is truncated,
bounded at its western extremity by the mosque, at the end of a vista flanked by the arcaded shops. Buildings containing the shops have been built so far only on the right flank, facing west. But this has been only because of delayed sale of the plots on the left hand side.

Different locations within Rivaz Gardens have different characteristics of urban public space. There are many factors that appear to influence this. The most important appears to me to be the relationship which Rivaz Gardens bears to the old localities of Rajgarh, and Premnagar. These adjoin Rivaz Gardens on the west, and are dense aging neighborhoods whose residents are by far poorer to those of Rivaz Gardens. Yet in terms of environmental wholesomeness, these older settlements are lively and robust — full of the kind of richness of physical well-being and social cohesiveness that is associated with complexity, admixtures and variabilities of human as well as physical-spatial components.

Rajgarh and Premnagar are only an edge of a series of such low/middle income settlements that stretch away a couple of miles right up to the dyke that prevents the Ravi River from flooding Lahore during the monsoon rains. But the residents of Rivaz Gardens live in continuous anxiety about the real or imagined territorial threat the people who live in these poorer neighborhoods pose to them. Even if by the propitiousness of
the physical layout of Rivaz Gardens through vehicular traffic is in fact discouraged, there is a constant stream of people from Rajgarh, pedestrians as well as bicyclists, motor scooters, etc., that use certain roads of Rivaz Gardens to gain access to the Lower Mall, or the University Grounds. This pattern is increasing as Rivaz Gardens shops, which stock better provisions or consumer items not available in the Rajgarh bazaar, are starting to acquire a substantial clientele among the Rajgarh population. In addition children from the poorer localities have used two of the three playlots in Rivaz Gardens to the perennial annoyance of many residents for whom Rivaz Gardens exists as an image of a sophisticated lifestyle and enhanced prestige. Houses on streets thus affected by pedestrian circulation have a closed-up and impregnable appearance. The facades face the streets in a manner that suggests little or no relationship between the life within and any potential communal use of the street.

The spatial relationship between the houses is also affected by the fact that only a minority of the houses are in a "frontal" relationship with other houses across the street, i.e. in the sense that a row of houses may have their fronts facing those of another row. Out of a total of 274 inner lots, only 80 (29 percent) share this characteristic. 55 lots (19 percent) have frontages or sides facing the sides of corner lots. The
remaining face open space: either badly managed parks "invaded" by children from Rajgarh, or vacant lots taken over by the power-supply agency for use as a storage area for vehicles, poles, drums of cables, etc.

These open spaces suffer from a lack of clear definition: the height of the houses which face them, the dimensions of the spaces themselves and the gaps in the enclosure formed by the streets leading out of them are all of such dimensions that none of these dimensions is highlighted. However, there is only one space out of the three that was designated as play areas that has some congeniality of environment. Greater participation of the owners of houses which flank this space has brought about greater supervision and maintenance of the lawn and shrubs that were planted a couple of years ago by the Municipal corporation. This could not have arisen without the greater sense of belonging brought about by the intrinsic nature and the physical proportion of the space itself, which has sufficient expanses of the enclosing vertical facade on the two oblong sides, compared to the dimensions of the streets leading out of it at the corners as to create contrast and a deeper articulation of solids and voids. But what seems to bring the whole together is the presence of about a dozen old trees that exist in the oblong court, and that appear to have survived the laying out of Rivaz Gardens.
Except for the people residing in the flats, nearly 75 percent of those who live in Rivaz Gardens are wealthy traders,* and have businesses in regional markets within or around the Walled City or elsewhere in the downtown shopping areas. Some are owners of small scale industrial units, like assembly/manufacturing of agricultural machinery. Others are distributors of major products of the agriculture and food sectors. Others comprise, in the main, professionals, of whom lawyers and doctors are the most numerous.

Car ownership is nearly one hundred percent, many families owning more than one car. Color television sets, household appliances and stereo systems abound, and there is at least one air conditioner to each family unit.

Considering that a large majority of people of similar affluence would choose to live in the low density bungalow-suburbs, access to lots in which has been of an order of magnitude higher than to lots in localities like Rivaz Gardens, the preference to live in the latter needs some explication; and although a social analysis is not the intent of this study, some conjectures will nonetheless be made in the following as to its causes.

One of the most interesting things about Rivaz Gardens is that nearly all of the buildings were built in a short span of five years, i.e. between 1970 and 1975. This is in sharp contrast to

* The Rivaz Gardens mosque was paid for by a single resident.
larger developments in the suburbs where lots keep lying unbuilt for decades. Thus land acquisition in Rivaz Gardens demonstrated less of speculative investment; this is borne out also by the fact that in a large majority of cases, the complete house, i.e. both storeys, was built in one single operation.

The houses of Rivaz Gardens are nearly all double storeyed, and built right up to the property line. Nearly all repeat the ground floor plan on the upper floor, and almost all are double family houses. Occupancy patterns range from single owner occupancy, to both houses being rented out. The most usual practice is for the owner to live on the premises and rent out the other house. In the case of a single extended family occupying the house itself, the family may comprise more than one family unit and the upstairs portion doubles as an independent house for the married son or daughter.

Nearly all houses in Rivaz Gardens fall squarely in the category of informal architecture. Except for the nominal signature of a "licensed architect" on the building plans submitted to the Department for approval, these houses have nothing to do with architects. They exhibit a freedom from whatever architectural tendencies that might be current at any one time. Operating without the constraints of visual traditions of design, the owner/contractor participation that creates these houses nevertheless operates within the confines of conventions of
current materials, designs available and the idiosyncracies of the contractors trade. Yet there may still be quite a lot of room for improvisation of style and effect. The garish facades denote a naivete of cultural expression that sometimes tends towards the tasteful and even the subtle. The remarkable similarity that they exhibit is not only of outward stylistic characteristics but also of certain common morphological traits that are integrally related to the behavioral characteristics of the typical family that inhabits such houses. Each of three constituent factors — building regulations, morphological qualities, and behavioral tendencies — are so thickly interwoven in the entity that we find in the Rivaz Gardens house that it becomes worth at least an attempt to describe them if we are to study the architectural entity that together they constitute.

Building regulations may be considered first. A total of 60 percent of the lot area was allowed to be built upon. The maximum number of storeys that one could build was three. This target appears not to have been achieved in the houses built on the small residential lots. These stop at two storeys, although the staircase is carried further up to gain access to the flat roof terrace. The houses were conceived of as semi-detached. Accordingly, the side of the house that was to be attached to the adjacent house was shown on the site-plan handed over to the owner; on the other side a five feet wide space was to have
BUILT FORM
RIVAZ GARDENS, LAHORE

ACCORDING TO BUILDING REGULATION

AS BUILT
been left running the entire length of the lot. The houses were allowed to abut on the street line, and at the back, the building line was to have been set fifteen feet away from the rear site line.

One can only guess at precisely what kind of residential form the framework of regulations was intended to allow to come into existence. But as these things work, it is entirely possible that the planners and legislators who framed these regulations were affected by the morphological tendencies that had been evolving in pre-independence days and in which the house type of the day, the bungalow, was being interpreted and re-interpreted. In fact it is quite unlikely that there was any conscious realization of these processes, rather a tacit understanding that the houses in Rivaz Gardens were to be of form thought to be prevalent in lots of this size. On the conscious plane, it is likely that the planning norms followed were of the same stock of ideas that emanates from Patrick Geddes work in India. Contemporary tendencies in British planning, such as terrace housing, as they were being interpreted in India and Pakistan may also have had a hand.

In any case what actually took place in the small lots in Rivaz Gardens was nothing entirely beyond the expectations of the planners. This did not happen through the intermediary of responsible, creative architects, but rather through the sheer
force of conventions as they had up to then evolved.

Although this description of the building regulations is clear and quite unequivocal, the regulations appear to have been followed completely only in one or two cases. Most of the houses bear evidence of deviation from the regulation. These departures relate uniformly to one particular part of the regulations: the part relating to the mandatory five foot space. In all cases this involves the construction of a shelter for automobiles with part of the shelter extending into the five feet wide space. Given the narrow frontage of the lot, this seems like a natural thing to have happened. Yet it also seems to depend on the fact that a very uniform pattern of plan form necessitates the provision of the shelter for the car in this particular way. The two cases illustrated here are typical of how this has happened. The plan form leaves no other way for a car to have been accommodated within the confines of the lot, without seriously impairing its utility and its ability to accommodate the functional program of the typical house-owner in Rivaz Garden. The deviation from the regulations that I have cited is only one aspect of that program, its other aspects being equally stereotypical. A cursory examination of plans of Rivaz Gardens houses would indicate the essential similarity the plans bear to the plan of the bungalow form as adopted by its indigenous users. The front and back arrangement of the "drawing" room
and the dining room on one side of the house, the central passage through the house leading to the "courtyard" at the back, the bedrooms on the other side, all demonstrate the tenacity with which the patterns set in the modified indigenous bungalow are adhered to. The dimensions may now be so substantially reduced that it seems that the strain at trying to conform to the type, in the confines of only a fraction of the physical space that the progenitor type existed in, is undeniably evident. In the reduction of the overall physical dimensions, and inasmuch as accompanying this are patterns of values that are strongly traditional, certain essential qualities of the European colonial origin of form and space are obscured beyond recognition.

As suggested in Chapter 3, the tendency to build more on less land is itself characteristic of traditional behaviour. Reduction of the land area and the proportional increase in the constructed area results in the diminishing and finally the disappearance of the open space in the front of the house, in that process necessitating the need for elements to compensate for the lack of privacy thus produced. Privacy, moreover, is dictated by the traditional norms of institutions like purdah. At the same time, conventionalized elements of the bungalow, such as large glazed windows must be aspired toward. To add to this are the problems of security. The sum total of all these ambiguities
can be read in the curious frontages of these houses in Rivaz Gardens.

To accommodate the car, the five feet wide space at the open side of the house is widened to about ten feet. This is then covered over by a roof, partially punctured to provide a trellis within the confines of the five feet wide space, thus escaping the regulatory prohibition of construction. The car now has a garage or, properly speaking, a carport. The enclosure of this by a steel gate, kept closed more often than not, begins the conversion of the semi-detached frontages into those of row houses. For the reinforced concrete trellis provides a ready means of converting the partial roof into a complete one, and this is only a step removed from using that roof as the floor slab for an additional room on the upper floor, accessed to by the staircase at its back. The facades thus built up eventually become one continuous series of walls in the same plane, differentiated according to the manner in which they have been treated by the various owners down the row. The facades thus have the inherent potential of becoming terribly monotonous; and the reason they do not is the access which the building team has to an array of available designs, elements, materials and to the creative capacity to bring more into existence. However, this constitutes only the plane which forms the street front. The much heavily textured geometry than what the treatment of the
facades might suggest is made possible by the different stages of the construction of the room atop the garage/carport for each of the houses forming the street.

If one carries out an intentioned scrutiny of these facades in Rivaz Gardens, one discerns certain qualities that might appear unique on the surface. A detailed consideration will, however, reveal interesting parallels and sources. The underlying common traits of these seemingly similar facades are difficult to locate beneath the stamp of excessive individuality. However, beneath the superficial resemblances suggested by the use of similar material, the informed eye can locate elements of a class of modern architecture of the fifties in which elevations were commonly divided into fenestrated and windowless panels, the former recessed with respect to the plane of the brick facing employed to express the solidity of a wall without windows. Other floating idioms of modern vocabularies also prevail, like the stone facing made to look like massed rubble masonry, or thin courses of ashlar suggesting sources in Frank Lloyd Wright's work. These hints of elements derived from contemporary western architecture are combined with reminiscenses of traditional architecture—versions in concrete of Mughal arches; and the verandah of the colonial house is absorbed into what stands for the traditional bukharsh. Even further beneath these still obvious relationships, however, one can interpret certain traits
and propensities. Two of these traits revert us, it seems, back to a re-consideration of some qualities of the traditional house. One of them is simply the ability of all these houses in Rivaz Gardens to evoke a tacitility of sensory experience similar to one of the traditional house. This, we may recall, was achieved in the latter by the primary reliance on a fine scale of ornament, which only very subtly gave way to larger elements of the formal corpus of elements: for example an embedded column, or even a window or a balcony. Although the scale and the nature of the ornament is now completely changed, the manner in which it is brought to exist on the planar entity of the facade remind us of nothing else but the traditional facade. The second quality relates to the formal structure of the house, especially in respect of the location of the staircase. In both the traditional house, and in the countrywide tradition of present day houses represented in this respect by the Rivaz Gardens house, the staircase is accessible almost directly from the outside: in the former through the *dewrhi* or the vestibule, and in the latter through the carport. The similarity continues on the upper floor where a room exists in the front, in both category of houses between the staircase and the facade. It may be argued that there is nothing remarkable about this; and that the similarity of the location of the staircase in the two instances is merely a by-product of the function. But then my point is made: a traditional way of dealing with the problem of privacy of access to the upper floor has
has survived despite stylistic differences of extensive magnitudes; and it can be reasonable assumptions that an entire range of traditions may have thus covertly survived.

There are other aspects relating to the manner in which the house is used that have strong bearing on its formal qualities. These aspects also remind us of the fact that the residents of Rivaz Gardens have only begun the movement from traditional ways of living to more "westernized" ones.

All houses have strong front/back relationship. This is expressed not only in the strong manner in which the exterior is treated but also in ways in which rooms in front of the house are used as compared to the rooms in the back. The symbolic importance given to rooms in the front of the house, like the drawing and dining room ensemble, is still reminiscent of the bungalow of the "westernizing" civil servants of the pre-independence era. As is common in such situations, the presentations aspects of the use of these rooms is strong. Valued objects are often displayed here and the rooms are therefore sparingly used. Even if this pattern undergoes a drastic change in the evenings, when the family settles down around the television; that is only a transient happening. The well appointedness of these rooms is in marked contrast to the rooms in the back.

The family rooms in the back of the house are not as much use
ground floor plan
house number 29

second floor plan

ground floor plan
house number 47

second floor plan

Rivaz Gardens, Lahore: house plans
Rivaz Gardens, Lahore

(top) front view of Chowdry Mohammad Aslam's house, number 29

(bottom) oblique view of the same row of houses
Rivaz Gardens, Lahore

(above) Shiekh Mohammad
Akram House

(below) Ayub House
Close up of facade of house number 47
Rivaz Gardens, Lahore

House number 187, Rivaz Gardens, Lahore
differentiated as size differentiated. Allocation of rooms for different purposes could well depend upon the number of persons occupying them. The only difference between this and user patterns in the traditional house is the lack of furniture in the latter. But even the use of furniture does not demonstrate a very high degree of assimilation to accepted ways of modern use of furniture. Only the principal bedroom is really equipped with furniture in any real sense of the word. This room is also used as a second family living room. It will usually have the air conditioner and an extra television set. Close friends and relatives are usually received in this space of the house; the drawing room constituting a formal receiving space much like the baithak of the traditional house. Both these factors — the prestige aspects of the rooms in the front, and the traditionality of the rooms in the back — produce dichotomy that is expressed in relationships like formal versus informal; public/male versus family/female, etc., that cleaves the arrangement of the entire house into two.

A brief examination of the case of Rivaz Gardens has indicated that a continued presence of traditional attitudes in certain sections of the urban population will invoke ambiguous sets of behavioral relationships towards the built environment. In Chapter 3, we examined the manner in which a conditioned adoption of the colonial bungalow had taken place. The dominating influence
of colonial culture on the indigenous culture was then seen to have filtered down to the level of a traditional but affluent class of people residing in Rivaz Gardens. However, the mechanism of dominance in this case was the role of the professional, in the form of building regulations that were framed for Rivaz Gardens. It has been shown in other instances, that absence of such dominating influences can result in the recreation of traditional forms, albeit modified at a more natural and self-regulating level.

The manner in which rural immigrants adapt to urban patterns is a similar instance, particularly when it takes place in the absence of professional intervention. The crucial thing here is the recognition of modifying trends that penetrate to traditional social strata from overlying social strata, to the life and culture of which the respective substrata are all the time aspiring to one extent or the other. These modifying trends are sufficiently independent to affect the professional as well as those who become more directly affected.

The planners who conceived and realized Rivaz Gardens and formulated the building regulations that governed it and the house-owners and contractors who brought it into existence appear to have been affected by the same movement that the intermingling of the indigenous and the colonial traditions created. But each acted in their own world of reality, hardly aware of the exis-
tence of the things that bound them together in the artifact of their creation.
6. **INFORMAL ARCHITECTURE**

During colonialism, the architectural profession was identified more strongly with the ruling powers and had greater legitimacy than at present. Consequently, the unequal, dependent and subordinate relationship that traditional practice came to acquire with the imported architecture were clear and unequivocal; this relationship consisted of simply transferring, with only a nominal degree of selective adaptation, the formal and/or stylistic components of colonial architecture and placing them in the indigenous architectural milieu, albeit at the cost of its own repertoire of form and style. The clarity of this relationship was helped in no small degree by the discrete and overt signs of the neo-classical and Renaissance idiom with which Western architecture was equipped at the turn of the century: this was the primary and recognizable vehicle of semantic transfers from the colonial to the indigenous spheres of architecture.

That condition has not changed. Although present day versions of traditional modes of building still depend to some extent for their images on official or professional architecture, the latter no more possesses signs as clear and unambiguous as the neo-classical elements of colonial times. Furthermore, the authority of professionally delivered architecture of today is not as powerful as was the official architecture of British India. This change has occurred over the better part of this century, keeping
The indigenous bungalow: Colonel Elahi Bakhsh Clinic, built ca. 1860

The indigenous bungalow: Taj Palace, Jail Road, ca. 1930
pace with successive propensities of architecture prevalent in the West. The disappearance of ornament and the advent of the abstract idiom of modern architecture had corresponding reflections in the professional architecture of Pakistan. In the popular realm, the traditional need for a strong recognizable vocabulary of ornament could find little satisfaction in modern architecture's muteness. Besides, the paucity of professional competence turned modern architecture itself into crude caricature, far from even a pretense to aesthetic pleasure. With no other source offering an alternative, traditional needs for decorative ornament in architecture has taken refuge in a popular creativity that manipulates the formal elements, materials and technology and the stylistic conventions of the exemplar furnished by debased modern architecture, combining them with a barely coherent vocabulary of decorative idiom drawn from the subliminal levels at which traditional urges still survive.

Such a survival may be more than subconscious psychic phenomena; traditional manners of life, customs and behavior, meaning and ritual, and the practices of traditional building processes, including the roles various individuals play in it — all exhibiting a comparatively significant degree of continuity. In comparison, the traditional knowledge and skills of building, of assembling formal, spatial and stylistic units into conventionally accepted architecture, have decayed and almost died out. The significations conferred on the built environment by the
27, Main Gulberg, Lahore, architect not known
ca. 1955

Syed Munir Hussein house, Gulberg, Lahore,
architects N.A. Dada and Hashim Khan
confluence of familiar architectural systems and traditional social behavior are no longer there. What exists instead is a confluence of that behavior with extraneous spatial systems that bear little relationship to the original tradition.

The "informal" architecture thus produced is the result of a long process involving this atrophy and decay of traditional building techniques. It has its beginnings in early colonial times when neo-classical and Renaissance elements and ornament were grafted onto buildings in traditional areas of the city. But it has come a long way from those beginnings. Spurred by rapidly swelling ranks of the social classes which it represents, it tends to exist increasingly in defiance of the culture of the elite dominant classes and of the architectural profession which is embedded in it: it presents an insistent challenge for the understanding of environmental change and the role of the architectural profession within that pattern of change.

This challenge may carry an alternative to the oscillations of formal practice between a position of total capitulation to the images emanating from "universal" modern architecture and one of grafting the overt traditional images found in surviving traditional monumental architecture. The assimilation of contemporary architecture is a corollary of the participation of nations, social groups and individuals, in the international culture of today's world system of economic relationships.
Two houses, Shadman II, Lahore

House, Allama Iqbal Town, Lahore
But apart from easy sentimentalism, the tendency of Pakistani architects to take superficial recourse to traditional images also evinces society's occasional fundamentalist re-assertion of traditional dogma. The alternative carried in informal architecture is a discord with both tradition and the images of contemporary, modern architecture. It is a kind of acceptance-rejection in which elements of both are adapted to a prevailing sensibility. This selectivity from available types may happen on a level somewhat subordinate to the conscious and critical faculty of the mind. But it is not completely capricious and arbitrary; the preferences expressed are culturally conditional and modified. There is an element of collectively held values so strongly expressed in informal architecture that it starts endowing the environments created with the character of a cohesive urban fabric, however loud and raucous. This character is not shared by formal architecture with its tendency to adhere to values that promote individuality and freedom.

An opposition strengthened by the divergent preferences for site the two kinds of architecture appear to possess. Included in formal architecture are the bungalow-villas of the elite who prefer to live with as much garden space around the house as possible, in suburbs laid out in the manner of the colonial "residential estates." The preferred location of the groups that promote informal architecture are housing schemes that are denser and offer smaller lots, or denser pockets within the
elite suburbs. This preference is accompanied by the propensity to build as much as possible on the site and partly responsible for the streetscapes and urban fabrics generated.

Lahore is a fast growing city. It has a population growth rate of 4.6 percent, and requires upwards of 20,000 houses to be built every year to match population increases.² While most of these houses are only realized as squatter settlements, about 5,000 middle income houses are of the variety of informal architecture. This entails, under current trends, some 300 hectares (750 acres) of middle class informal urbanscape every year.

This context of rapid growth is spread over the upper sixty percentiles in the income distribution of the city. It occurs largely in an intermediate area between two opposed cultural forms: on the one side the substrata of surviving tradition, and on the other the potentially complete transformation to an elitist "ideal type" of westernized behavior pattern. Figure A is a simplified and very schematic model of this configuration, and need not be taken for anything other than what it is: a device to explain complex patterns that came to my observation, as an architect participating in them. The three vertical columns
Diagram showing the domain of informal architecture, as compared with incomes, traditionality and transition to modernity, and the role of the architectural profession

FIGURE A
indicate the transition from traditional ways of life to a progressive attunement to a "westernized" suburban lifestyle.

The horizontal bands indicate income ranges. (Highest at the top and the lowest at the bottom.) The darkest patches indicate the sphere of involvement of trained architects. The lighter patches indicate the area of involvement of the fringe professionals: architects (who are not recognized as such by the professional core), architectural draftsmen, overseers and other paraprofessional expertise drawn from the engineering profession.

The area within the thick broken line indicates the domain of informal architecture. Professional involvement within the low income range refers to architects who have been drawn into issues of housing for the poor. Seen in relation to the figures quoted above, this schematic diagram indicates the distance between the role of the professional and, external to it, the process through which a very significant part of the urban physical environment is brought into being. Although there is correspondence of that distinction with income distribution, there are obvious anomalies. While there may be a level of "modernized" elite from the middle classes (mostly on account of exposure to the West through Education or occupation) that find employing architects useful or prestigious, the proportion of upper and middle income groups who do not use architects is overwhelming in comparison. This large distribution of income
groups who contribute to informal architecture within the transitional zone consists of several layers, distinguished by their distance to either the realm of indigenous traditionality or to the realm of the "modernized" elite culture.

The meagre resources available for an adequate development of the built environment create a continuous crisis of urbanization. One major aspect of this crisis is the continuous increase in the number of the urban poor, and the ever-increasing pressure on social and administrative institutions for the alleviation of their needs. But, another, equally serious problem is posed by society's inability to structure relatively coherent frameworks of cultural values which can assist in the realization of a collective identity and a built environment that is symbolically and aesthetically satisfying for a wide cross section of the population.

But while the question of urban poverty appears to be an empirically grounded reality, that of culture implies intractable issues of nationalism, history, and historically rooted dogmas and beliefs. In recent years, nevertheless, both questions have received attention on the part of governments, administrators, intellectuals, professional planners and architects. The issue of urban poverty has benefited substantially from new concepts that reassess the role of housing as an evolving social process that, instead of being a burden on urban and national resources,
actually aids the development of a healthy urbanism. On the other hand, despite oft repeated assertions of the need to create a viable culture, and to address the issue of national identity, an architecture that is coherent with national cultural aspirations has remained as difficult to grasp as ever. The difficulty lies in the elusive nature of culture, identity and meaning, especially when seen in the context of a recent colonial past.

These two dimensions of the built environment — physical/economic on the one hand and the cultural/symbolic on the other — have tended to be dealt with by scholars and theoreticians as separately as they are perceived. In the physical/economic approach, the emphasis is on the built environment defined in terms of social groups alone, with a preoccupation with ameliorating the housing conditions of the poor. As a result, all things that cut across analytically convenient social groupings are relegated to positions of secondary importance. Matters that relate to society as a whole, or at least to large subgroups within society, are subsumed within the discussions of problems related to the income groups associated with squatter settlements. Thus, the optimism for "housing by the people" tends to lead theorists into assumptions that the "source of culture" lies in "personal and local control." 3 The existence of classes in social structure may have a reality more aggregative than that. Its appreciation is implied when "low income owner-builders in rapidly
urbanizing areas" are acknowledged as copying "features of the commercialized society to which they aspire or belong . . ." 4 (italics mine.) But at the same time, the "crude vernacular" his is said to produce is argued as containing the "seeds of a new culture." 5 The reference to the realm of a "commercialized society" external to a hoped-for "new culture" implies the acceptance of larger cultural forces at work in society that impinge on the generation of built environments that are economically, ethically and aesthetically acceptable. Yet finding in local control a panacea for avoiding the influences the culture of the whole society exerts on each of its subsystems indicates either a conceptual inability to deal with problems of cultural expression, or their wilful avoidance, in developing healthy urbanism in the poorer countries.
7. CONCLUSIONS

Although the present study places the problem of informal architecture in the context of a single country or, more properly, in that of a single city, there appears to be a somewhat widespread realization that similar processes have occurred in almost all developing countries that were colonies of European powers over the course of the past century. If there is anything universal about this phenomenon, it has not yet been explored to any great extent. But it may also be said that the validity of the knowledge that might thus be gained will depend upon the specific historical and cultural factors that attend informal architecture in a particular locale. The circumstance of colonialism merely adds to the specificity of the culture. But then so do geography and climate, conditions of economic development and the specific social and political and economic circumstances. If the usefulness of an investigation of informal architecture is to be anything more than the purely academic, then we must admit that specificity. We may work within the framework of the realization that attending informal architecture are questions relating to the current state of development of the country concerned, and of the level to which the cultural perception of its people has made adjustments to the conditions created by the increasing impact of modern technology and communications, and by their exposure
to the products that impinge on their culture from the other side of a huge developmental "divide."

In Pakistan, the inability of the small architectural profession to become a socially valid instrument of intervention in the built environment combines with this set of historic circumstances to make possible a large and flourishing informal architectural tendency. The architectural profession, however, has nowhere entrusted itself with concerns of the design of, or intervention in, all aspects and scales and every social context of the built environment. But in countries like Pakistan, unless the nature of larger cultural processes is comprehended, fast evolving circumstances will make even minimal interventions in the built environment progressively difficult. Here, as in most poorer countries, urbanization remains an unabating and relentless process, its complexities compounded by the pace of improvement in global communications. Urbanization and the international movement of goods, capital and human skills work in combination to affect the social value sets of the most ordinary citizen of a city in a developing country at a commensurate pace.

As a phenomenon related to the attenuation of a tradition, informal architecture has its roots in the processes attending colonialism in which the indigenous traditions became deeply eroded. The impact of the trends of the second half of the twentieth century have only exacerbated cultural erosion. But
unlike the conditions of colonialism, there is an aspect of
today's international civilization that engulfs both cities
and the rural countryside. Even the most well-hidden refuges of
tradition are being affected. It may be only a matter of time
before what we have called informal architecture will replace
everything of traditional value. As more and more people come into
the ambit of urbanization, and hitherto less accessible parts of
the country become increasingly dependent on the innovations that
accompany urbanization and urban development, people over all
regions of Pakistan appear to react towards the built environment
in a similar manner. As regional cultural differences within
Pakistan become absorbed into a changed condition of visual and
spatial perception, they nevertheless show through the adaptations
of modern construction elements, often as functions of bio-
climatic dictates.

In recent years large numbers of Pakistanis have been removed
from the protection of traditional environments into conditions,
such as those prevailing in a typical Arab oil-exporting country,
where modern technology and traditional values are placed in
another, different and much more dramatic scenario of adjustment
and cultural adaptation. The effect of such exposure on these
people has been one of an even greater aberration of the visual
and spatial-physical component of culture: it is often found
in houses that are built in the newer residential developments in
Houses: Allama Iqbal Town, Lahore

(above) House with diagonal mirror inlay in exterior stucco

(left) House with stylized ramparts
Lahore, by returning expatriate workers and skilled technicians. These houses are intense expressions of traditional urges trying to be reconciled, in architecture, with the powerful cultural images picked up in those situations. Even then it remains a point of further investigation whether flamboyant treatments of house exteriors are inspired by a hotel lobby in Kuwait or by the Shish Mahal of the Lahore Fort. Whether the impulses and motivations that underlie informal architecture arise within the country, as they did in colonial and earlier post-independence times, or in another country, as they often do now, the cultural roots of these motivations are liable to find some degree or the other of expression. Informal architecture does indeed become an integral part of the condition of modern life in a dependent cultural and economic situation.

These changes seem to be inseparably linked with the pace at which the stability of tradition is called upon to make way for the dynamic of the transformation to more technology-adapted modes of social existence. The external manifestation of these changes, expressed in art and architecture, transformed quite radically in recent years given the economic impetus of employment in the oil exporting countries of the middle-east. The antecedents for these transformations—the telecommunication revolution, and popular access to a large variety of manufactured goods from developed countries—have been equally radical and unique.
As unpredictable as these conditions are, they affect the predictability of all that arises from them, including informal architecture. However, this is only one side of the picture. For the traditional sensibilities that make way for "modern" attitudes act powerfully in shaping the very mechanisms that allow for change to be incorporated. In so doing, these sensibilities come to rest in new and ever emerging states of existence for themselves.

There are abilities in informal architecture to incorporate diverse and divergent tendencies. The absorption into one corpus of architecture of tradition, "modernity," indigenous sensibilities, influence of modern architecture, modern technology, small-scale institutional and occupational frameworks, may be understood as a mechanism that brings about a scale of order entirely in consonance with the cultural and economic conditions of national life. If that is so, then the day-to-day, small scale cultural happenings that attend that mechanism must be recognized and absorbed into the larger institutional settings within which the professions exist. Without this, not only are the potentialities of enterprise and freedom inherent in informal architecture allowed to drift towards unstructured chaos, but values originating in the dominant national or "international" cultural contexts may be reposed in, for example, building regulations that encourage the creation of stifled architectural
Salahuddin Ahmad's house, soon after completion, 1967; architects N.A. Dada and Hashim Khan

Same house as above, after purchase and re-modelling by new owner, 1977
artifacts. On the other hand, it is perhaps impossible to conceive of screening out from informal architecture, cultural yearnings for the ways of life for the dominant sections of society. If it has any positive form-making inclinations, informal architecture denies itself their full flowering by being burdened by influences that negate those possibilities. The ambivalence of this situation is growing as dominant life-styles are divested of their distance and awesomeness, and appear within cultural reach of everyone. This is a situation of a lesser or greater ambivalence of cultural values. This may be compared with colonial times when the nearness and grasp of dominant life-styles were the privilege of a very few, and to be traditional was much more clear and unambiguous than today.

Perhaps as a result of this, informal architecture in Lahore today is spread over a large cross-section of society. As a consequence, ambiguous cultural values may be found in various degrees of emphasis on one or the other side of the ambivalence. We can on the one hand cite the example of the suburban bungalow-villa built in the informal way, or on the other hand point out the self-constructed house of a traditional family in the poorer localities of the city. The Rivaz Gardens house, caught in between through its subscription to a building code that transfixes its values is perhaps an example of the impasse where one can conceive professional intervention should be directed.
But to be caught in such an impasse is not the only occasion where informal architecture can be at fault. In it the curtailment of an intrinsic ability to thrive in an independent domain of enterprise and inventiveness by a self-restrictive tendency to aspire toward social values of an extraneous origin is not its only limitation. The ability to contrive, choose and adopt more or less arbitrarily out of an expanding range of available ideas, materials, components and formal idioms is seriously hampered by the very thing that sets it at liberty to do so: the scarcity of historically evolved traditions of assembling form and its ornamental attributes. It is this absence of a governing and independent, but socially determined array of conventions that results in its inchoate appearance. But, as has been pointed out already, the need for playful and energetic manipulation of form and ornament is only a traditional urge that has nowhere-else to reside but in these contrived architectonic formations. If this is a limitation, it is at the same time a powerful suggestion of the void that has come about in form making traditions and conceptual skills.

The first limitation, that of the ambivalence of values, is strictly dependent on the particular social class that we might be considering. The presence or absence of building regulations, for instance, that prevent owners from building according to traditional dictates means little to the poor or very poor: they are already operating in an absence of regulatory mechanisms in
their unregulated and unplanned settlements; the least that can be done being to accept what they do as legitimate. For the people who have access to slightly larger lots, as are normally available in the land market, the urge to build a free standing bungalow-villa type of a house is strong, even if they may otherwise be strongly traditional. Vagueness of building regulations can arouse fears in such social groups as to the ultimate quality of the neighborhood about which they may have fairly fixed ideas. One reason why houses were built with such readiness and speed in Rivaz Gardens could be the reciprocity between what people could see was beginning to be built in Rivaz Gardens and their social aspirations. As we saw, in Rivaz Gardens the regulations actually allowed a bungalow configuration to occur however much it might be modified by predispositions and effects to the contrary.

To my mind there is nothing intrinsically objectionable about this. Ambiguities and complexities can contribute to the validation of an inner condition in the external reality of a lived-in architecture. They can also be desirable in terms of the elimination of bareness and monotony in the built environment and the incorporation of richness of meaning and experience. But these desirable qualities can fail to arrive if the context of form and form-making at all scales of the built environment does not contain a certain amount of flexibility of interpretation.
in which historically evolved values and socially conditioned norms can be manipulated to reach the best fit, for the moment, with form itself. Such a fit cannot be brought about purely by design, although a certain sensitivity on the part of the designer may contribute to it. What really makes it possible is the reciprocity of socially conditioned desire and the enabling formal conditions, both in a condition of mutual arbitration. The framework in which this can happen must therefore also be socially derived (the designed environment can be such a framework, but more often, it is not). It must be formulated in a context of, and as extensions of shared values pertaining to the use of the built environment.
NOTES

Chapter 1.

1. Frampton, (1980)
2. Rapoport (1969), (1971); Oliver (1977)
4. A large and growing body of writing is available; relevant to our discussion are Amin (1974), McGee (1974), Tokman (1978), Mazumdar (1976)
5. Lahore Development Authority (1980). The upgrading operations in the Walled City have been proposed to be accompanied by an elaborate financing mechanism whereby owners of historically valuable houses will be enabled to conserve/restore/improve these houses.
7. Ibid., p. 216
8. Ibid., p. 216
9. Ibid., p. 215
10. Steward, Julian, Theory of Culture Change, p. 51: the concept of "emergent evolution" is introduced as a synonym for development "levels of social integration" in which

"...simple forms...do not wholly dissappear when a more complex stage of development is reached nor do they merely survive fossil like....They gradually become modified as specialized dependant part of new kinds of total configurations."

12. Ibid.
13. Ibid.
14. Ibid., p. 77
Chapter 2.

1. These calculated surmises are based upon long personal observations of professional modes of behaviour and conduct of master-masons and wood workers who, outside of the department of archeaology, still sporadically exist in remote areas of the Punjab; also to be noted: the intensive personal involvement of Mughal royalty in architectural projects, so much so that the name of the leading member of the royal family who might have been dealing with the construction of a particular project is often remembered as the builder of the work; Sjoberg's (1962) description of the pre-industrial city give good general insights as to how such relationship might have been structured.

Chapter 3.

2. Cunningham, (1865-77)
3. Havell (1913)
5. Spear, (1966)
10. Spear (1966); Welch, S.C. (1978)
11. Welch (1978)
12. Ibid.
13. Ibid.
14. Ibid.
NOTES
Chapter 3. (continued)

16. Welch, op. cit.
17. Mitter, op. cit. p.222
18. Ibid., p.223
19. Ibid., p.222
20 Ibid.
23. Ibid.
24. Mukherjee, op. cit. p.422
27. Ibid.
28. Ibid.
29. Mumtaz, K.K., "Architecture," in the STAR, special issue Lahore through the ages, August 1982
30. Tarapor, op. cit.
32. Tarapor, op. cit.

Tarapor implies that this was a strategem to induct the Indian craftsmen into the British system of manufacture. This line of thought was part of the fallacious principle
that sought improvement of industrial design in ornament. That the policy did not mature is explained by the passing away of the fallacy, along with movements like the arts and crafts movement and art nouveau, and its replacement around the turn of the century by more progressive trends in industrial design.

33. J.L. Kipling, quoted in Tarapor, op. cit.
34. Wartofsky, M., (1981)
35. Tarapor, op. cit.
36. Chishty, S.M., (1949). There seems to have been a considerable amount of inter-regional demands on available architectural practices; cf. Tafel, Edgar (1945)
37. Wartofsky (1981)
40. Nilesen, quoted by King (1977)
42. King, (1982)
43. King (1977)
44. Archer (1963)
45. Ibid.
46. King (1977a) p. 35
47. King (1977b); Mukherjee (1955)
48. King (1973)
49. King (1976)
50. Ibid.
51. Ibid.
52. Ibid.
NOTES

Chapter 3, continued

53. Sidhwa (1980)
54. Castells, E., (1977) p. 44
56. King (1976)
57. quoted in Lotus International, No. 34, 1982/I
58. King (1977)
59. King (1976)
60. Douglas (1976)

Chapter 4.

1. King (1976)
3. Chishty S.M., (1949)
4. Preziosi, op. cit.

Chapter 5.

Chapter 6.

1. Khan, Masood (1982); although this was the preponderant tendency, there were exceptions in which the morphological traits of the bungalow were recreated in transformation of the traditional house by simply building an addition.
2. Lahore Development Authority (1981)
4. & 5. Ibid.

Chapter 7.

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Glossary

abadi  
a settlement

achar  
a hot Indian pickle

aiwan  
a reception hall, a space for receiving publicly

baithak  
literally, a sitting room; a public, male lounge in a house

bukharchi  
wooden balcony with lattice, or carved wooden screen

chatri  
literally, an umbrella; also used for lotus shaped oriel with carved, panelled windows in wood

dewhri  
An entrance vestibule, just inside the main entrance door

jharoka  
an open balcony

mashrabiyya  
projecting oriel window with a wooden lattice work enclosure

sehn  
paved courtyard of the scale of a large hall

tharra  
any platform, particularly one which projects at plinth level out into the street
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