JOURNAL OF RESEARCH IN

ARCHITECTURE
AND
PLANNING

URBAN DESIGN CASE BASED: THEORY & PRACTICE

JOURNAL OF RESEARCH

IN ARCHITECTURE

AND PLANNING

JOURNAL OF RESEARCH IN
ARCHITECTURE AND PLANNING

CONTENTS

EDITOR'S NOTE

The present issue of the Journal of Research in Architecture & Planning is based on the theme of Urban Design with a focus on case based understanding. This issue with its special feature article by the Asia Link team is undertaken to share the work on the case of 'Urban Design and its theory and practice primarily in the third world. The Asia Link NED-UET project has been underway for the past three years. This project of the European Union has brought together the various prominent universities including KU Leuven (Belgium), Technische Universiteit Eindhoven (Netherlands), University of Moratuwa (Sri Lanka), NED University of Engineering & Technology (Karachi, Pakistan) and CEPT University (Ahmedabad, India) on a project of "URBAN AND CITY DESIGN CURRICULUM DEVELOPMENT", hence, working together to develop knowledge related to urban and city design issues.

The present issue of the journal is an attempt to broaden understanding of urban issues, urban design, planning and development. A vast field as it is, with a growing number of contributions, the following issue shall be a continuation of the same theme.

A pertinent matter addressed in most papers has been the "application" of the various urban themes, ideas, processes and designs in the various contexts. In other cases a documentation and critical analysis of on-going processes is carried out to understand how they can be controlled and improved upon.

This is because the term 'urban' covers a vast span within which fall many stakeholders, whose ownerships are usually not completely defined. These grey areas with overlapping, unclear domains of functioning and operation make urban space dynamics complex.

The safeguarding of the integrity of an urban space and its unbiased user rights may or may not be protected in such unclear stakeholder participation. The lack of or excessive use of power and authority by a few interest parties for limited personal gains can have social, cultural, ecological, environmental and physical impacts on an area or a region of a scale unimagined and unforeseen. At the same time, dialogue, competition or natural interests of stakeholders may also result in urban development or urban space formation that is well balanced and sustainable.

City centers, urban conservation, urban public spaces and thier social, cultural and physical parameters are other issues addressed in the papers within.

The present volume is an attempt to broaden understanding related to the various issues mentioned above. It is hoped that this volume shall modestly add to the existing literature on the themes in design and associated topical issues.

Editorial Board

DYNAPOLIS AND THE CULTURAL AFTERSHOCKS: THE DEVELOPMENT IN MAKING OF ISLAMABAD AND THE REALITY TODAY[1]

Ahmed Zaib K. Mahsud
OSA Research group,
ASRO, K.U. Leuven, Belgium

"Cities are amalgams of buildings and people. They are inhabited settings from which daily rituals – the mundane and the extraordinary, the random and the staged – derive their validity. In the urban artifact and its mutations are condensed continuities of time and place. The city is the ultimate memorial of our struggles and glories: it is where the pride of the past is set on display.

Sometimes cities are laid out by fiat, as perfect shapes and for premeditated ends. They may aim to reflect a cosmic rule or an ideal society, hi be cast as a machine of war, or have no higher purpose than to generate profit for the founder. A myth of propitiousness and high destiny may come to surround the act of founding. Or this act may be nothing more than a routinized and repetitive event. But whether born under divine guidance or the speculative urge, the pattern will dry up, and even die, unless the people forge within it a special, self-sustaining life that can survive adversity and the turns of fortune."[2]

ABTRACT

Islamabad represents Pakistan's first major postcolonial project, and one of the biggest new town developments in the sub-continent comparable to Chandigarh in India or Brasilia in Brazil. As a city built from scratch, Islamabad is one of the boldest and probably largest in scale Modernist experiments in planning, design, and architecture of the twentieth century.

Islamabad was conceived as an adequate model for capital building in a developing country, which guarantees rapid growth of the city. Scientifically speaking, the 'idea' of the new town is formalized in a plan prepared before the site is altered by the arrival of the first new residents. Once started, they are rapidly built to achieve 'critical mass' within a crucial initial time span. This process is in sharp contrast to the genesis and evolution of the towns of an 'organic' or agglomerate type which emerge from pre-urban nuclei, and grow by a slow and sometimes disjointed process of uncoordinated actions, which is, mostly, the case in developing countries. To address this problem of urban development, C. A. Doxiadis (Greek Architect / Planner, 1913-1975) developed a unique concept based on the hypothesis that, traditional urban growth is dysfunctional because the core areas of the city must be continually renewed as the periphery expands outwards. Instead of expanding in all directions, cities should expand preferentially in one direction, creating a gradually widening linear city known as dynametropolis or dynapolis. Such cities, exemplified by the models of Islamabad in Pakistan and Tema in Ghana, facilitate continuing growth without the need to demolish and rebuild existing areas.

The paper intends to explore, generally, the historical development of Islamabad, major concepts of the plan, and its relevance and situation in the urbanistic field. Besides, an analysis is made of the way transformations have taken place. However, the objective of the paper is to make an attempt at understanding the social structure of the city and, specifically, to comprehend the way cultural landscape of the city is emerging.

1. INTRODUCTION

The idea of Islamabad[3] was imagined as a national symbol of unity amongst the geographically, ethnically and socio-politically divided country (the then East-West Pakistan), and to aspire the society for modernization. The assimilation and concentration of 'power' (in the broadest sense of

---

the word) was assumed as a prerequisite for the 'symbol of unity'; to be represented in the new capital as a seat of central government for administering and controlling diversity of the nation and her political life.

The agenda of the capital project was to act as a hinge in transforming a tribal culture and an agrarian society into a modern, civilized, and industrial nation. The regime (President Ayub Khan 1958-1969) believed that this was to be achieved by centralizing political power, administration, technocratic sectoral planning, and following an economic policy based on 'trickle down' effect, which by and large reflects the agenda of high modernism. The modernization project of nation building was viewed from above;[4] visualizing an optimistic and, somewhat, static view of national identity and culture as a progressed and modernized nation in the future.

The modernization process has become fragmented as it evolved into a confrontation between indigenously rooted cultural practices of the majority and the west-oriented modernized society, in creating an un-ending ambivalence between this, so called, Janus faced 'modernity and tradition' in the culture of Pakistani people. Nowhere else is this ambivalence better illustrated then in the case of Islamabad.[5]

Capital project was considered as prime manifestation of nation building in the eyes of the new military regime; imagining the new capital as assimilation of the cultures, traditions, hopes, aspirations and dreams of the diverse ethnic, linguistic and regional groups that constituted the Pakistani nation. In this way, Islamabad provided a testing grounds for social engineering besides the conscious creation of a specific place for central administration, with ambition of casting in concrete the representation of a 'Modern', 'Progressive' and 'Islamic' society. It was considered, ironically, in national interest to locate the federal capital where it could be insulated from the onslaught of economic, business and commercial (Karachi) interests and yet be easily accessible from all parts of the country.

The Pothowar region was chosen for the new capital (Fig. 1) as a geographical centre in the historic linear pattern (G. T. Road) of ancient capitals of Tehran, Kabul, Peshawar, Lahore, Delhi and Calcutta. The Greek architect / planner C. A. Doxiadis (1913-1975, pre-occupied with his idea of a "City of the Future"- COF as a planned unidirectional linear city) was appointed as chief consultant, who conceived Islamabad as an adequate model for city building in a developing country, guaranteeing rapid growth. The 'idea' was
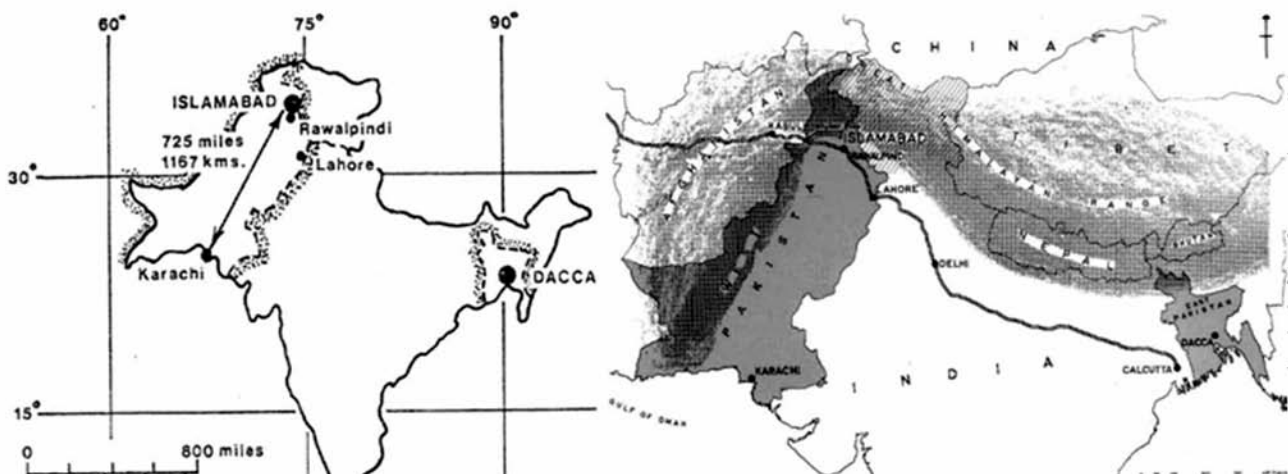

Figure 1 : Location of the new Capital

4   Scott J.C. (1998), "Seeing Like a State: How certain Schemes to improve the Human Condition have Failed" Yale University Press
5   Mumtaz K. K. (1999), "MODERNITY AND TRADITION-Contemporary Architecture in Pakistan", Oxford University Press, pp. 113

formalized in a plan (1959-60) and a program (phased construction strategy); starting from houses in G-6 (the first sector) for the government employees along with a considerable portion for private residences to subsidize the former, was initiated with a belief that it would achieve 'critical mass' within a crucial initial time span. The planned process of acquiring a critical mass for the settlement is in sharp contrast to the genesis and evolution of the towns of an 'organic' or agglomerate type which emerge from pre-urban nuclei, and grow by a slow and sometimes disjointed process of uncoordinated actions.[6] To address this problem of urban development, Doxiadis developed a unique concept based on the hypothesis that, traditional urban growth is dysfunctional because the core areas of the city must be continually renewed as the periphery expands outwards. Instead of expanding in all directions, Doxiadis believed that cities should expand preferentially in one direction, creating a gradually widening linear city known as 'dynametropolis' or 'Dynapolis'(Fig. 2). Such cities, exemplified by the models of Islamabad in Pakistan and Tema in Ghana, were believed to facilitate continuing growth without the need to demolish and rebuild existing areas.[7]

Today, Islamabad has grown into a city of over a million inhabitants – and yet, the city stands in contrast to the pseudo feudal-cum-vernacular lifestyle of its residents. The mis-match of planning concepts and ideas with socio-cultural inhabitation practices of the people, is appearing through the physical reality of Islamabad's development causing a metamorphosis of the plan into a hybrid socio-cultural amalgam typifying a Pakistani urban.

This paper intends to explore, the historical development of Islamabad, major concepts of the plan, besides, making an analysis of the way transformations have taken place. However, the objective of the paper is to make an attempt at understanding the social structure of the city and, specifically, to comprehend the way cultural Landscape of the city is emerging. The methodology employed concentrates on the development dynamics of Islamabad, by putting the qualities of Doxiadis´s plan in confrontation with the way every day life that has taken possession of it. The way this costume was knitted by Doxiadis four decades ago, as a forceful, strong and bold founding act, presents a complex picture of surprising achievements for the 'plan' and a problematic definition of the 'city' in making of Islamabad.

1. THE PLAN OF ISLAMABAD: A UNIQUE URBAN FORM

The master plan of Islamabad covers an area of 1165.5 sq km (450 sq miles), with three main divisions, the Islamabad Urban area covers 220 sq km (85 sq miles), the Islamabad Park of equal area and the existing city of Rawalpindi. According to the Master plan, the park space has been reserved exclusively for recreation, sport and entertainment. The Urban and park area together form the Islamabad Capital Territory or Federal Capital Area, which has the equivalence of an administrative district since 1981. The concept of 'Dynapolis' is central to the Urban design of Islamabad, giving the city a unique urban form (ref. Fig. 2). Generally speaking, Changes in urban form is most striking in the central area, which is linear in the case of Islamabad and is designed to grow along with the residential and overall urban areas. This linear shape of the city center provides the required flexibility so there is no need to plan and build it with an `open texture' to allow for future needs. This is, in fact, an answer to a big question about urban centers, the concept of finality - that a center will be complete by a certain date. The center of Islamabad will be in a constant stage of growth, as long as the city grows. From traffic point of view as well, this will be a unique center, which is never likely to encounter the problem of traffic congestion. It is served by a high-speed dual carriageway road, properly linked with adjacent residential areas and fully integrated with shopping precincts. So in future, public transport as part of the mass transit system can carry mass movement to the center from all parts of the metropolitan area and the region, without disturbing it in the least. In this way, it is designed to meet the changing character of the functions and cultural activities that bring together people in large numbers. and means a dynamic city as

---

6   E.Y.Galantay (1975), "George Brazilles N. Y: New Towns, Antiquity to the Present"
7   Bromley R. (2003), "Joseph Nasr eds, Willey Academy: Constantinos A. Doxiadis as International Planner, Visionary and Ekistician, in Urbanism: Imported or Exported – Native Aspirations and Foreign Plans"
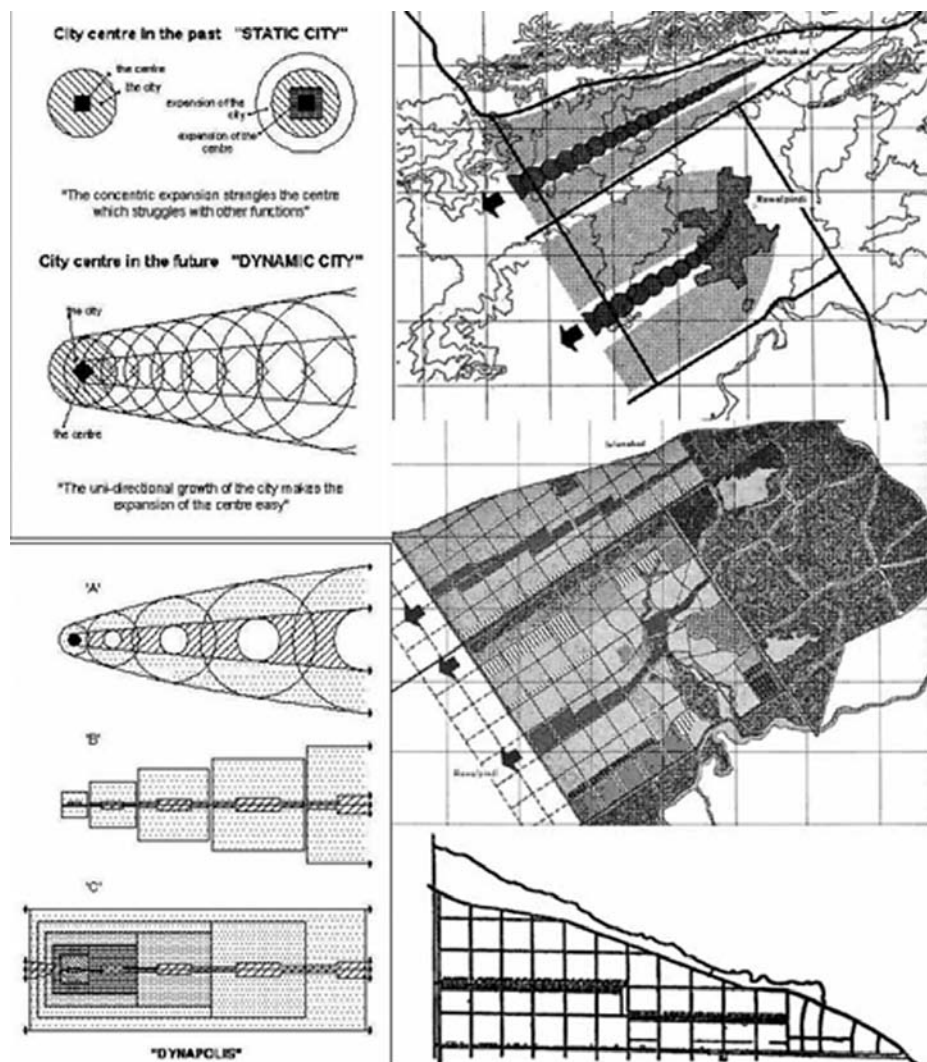
Figure 2 : The Concept of 'Dynapolis', application in the original Master plan and the later revision
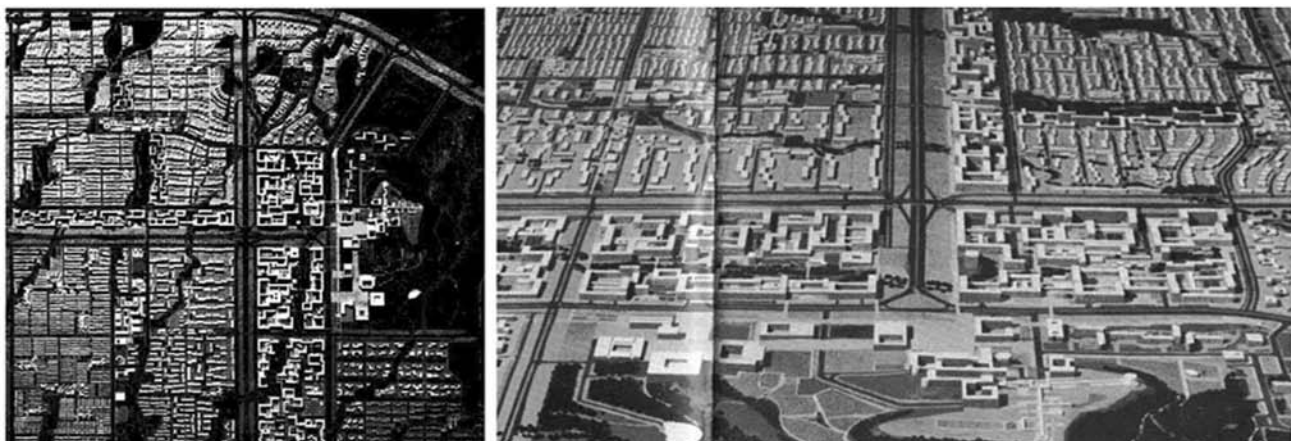

Figure 3 : Architectural aspect of the Master Plan

opposed to static one. Generally speaking, Changes in urban form is most striking in the central area, which is linear in the case of Islamabad and is designed to grow along with the residential and overall urban areas. This linear shape of the city center provides the required flexibility so there is no need to plan and build it with an `open texture' to allow for future needs. This is, in fact, an answer to a big question about urban centers, the concept of finality - that a center will be complete by a certain date. The center of Islamabad will be in a constant stage of growth, as long as the city grows. From traffic point of view as well, this will be a unique center, which is never likely to encounter the problem of traffic congestion. It is served by a high-speed dual carriageway road, properly linked with adjacent residential areas and fully integrated with shopping precincts. So in future, public transport as part of the mass transit system can carry mass movement to the center from all parts of the metropolitan area and the region, without disturbing it in the least. In this way, it is designed to meet the changing character of the functions and cultural activities that bring together people in large numbers.

The form proposed for the city is an elongated triangle wedged between the east-west range of Margalla hills. The agglomeration of Rawalpindi is contained within the grid of four highways. Two separate spines (two foci dynapolis) are proposed, one each for Islamabad and Rawalpindi. The government center with the administrative and public buildings has a fixed position being placed at the tip of the triangle, where the main axis (Northeast-Southwest direction, with central spine parallels to Margala hills) of the city terminates, whereas the city can grow infinitely towards southwest along the same axis. All city wide functions (administrative, public, diplomatic, residential, commercial, institutional, and industrial, etc.) overlap and follow linear possibilities of gradual expansion within a rigorous framework of square 'sectors'(approximately 324 ha. each). The sector (approximately 324 ha. with average gross density of 100 persons / ha.) was supposed to become a self-contained community with its own center, when the city would become large. The sectors designated by letters and numbers in checkerboard fashion, with letters of the alphabet for vertical strips (North – South) like E, F, G, H,

I etc. from the hill downwards and numerals for the horizontal strips (east-west). Thus the "G" sector would be horizontally divided into G-1, G-2, G-3, etc. Each sector has a centre called 'markaz' catering for the needs of 40-50,000 inhabitants, and is divided into four sub-sectors in a clockwise way as 'human communities' with pedestrian circulation inside and vehicular restricted to periphery along with secondary school, playgrounds and local market. The sub-sector is further sub-divided into three to four communities of a village scale with civic infrastructure such as primary school, mosque, a small market on a public square, and corner-shops, etc.

The central area (CBD - also known as 'Blue Area') extends in a linear form from the apex of the central administrative area from Northeast towards Southwest. In the original urban design scheme, CBD is a gradually widening city-centre having service roads on both sides, and the central avenue (Khayaban-e-Quaid-e-Azam) on its south (Fig. 3). The design vocabulary consisted of linearly placed mixed use (commercial / office, residential) 8-12 storey continuous buildings, interconnected through a series of courts, arcades and colonnades. The articulation of the space followed a 100' x 100' grid with standard width of the block and arcade as unifying element, whereas the range of heights (8-12 storeyed) and a multitude of courtyards (full and half open, from square to rectangle in shape) provided the variety. The design was clearly a break from the main stream modernist practice of detached / isolated towers in the green, and provided continuous public open spaces for human association in the form of a variety of courtyards evoking Pakistani vernacular.

The urban design of CBD suggested a sophisticated overlapping of various functions in correspondence with scale of the landscape for development of an integrated urban structure through an extrovert synthesis of urban form, and its translation into an implementation mechanism needed a thorough understanding of the complex design philosophy. However, the original design was abandoned due to lack of urban design expertise of Capital Development Authority's (CDA) architects to translate the continuous structure of CBD into an incremental mechanism of development. They preferred a simple / straightforward scheme of

lots, with fixed sizes for the ease of development control and avoided the complex matrix of public-private ownership of spaces embedded within the original design scheme. To disguise the urban design incompetence of dealing with the complexity of CBD layout, CDA officials argued that residences on both sides of the commercial area would have their view of the Margalla Hills destroyed by these continuously build 8-12 storey buildings. Therefore, a study was commissioned by CDA to a team of French consultants M/S Pickard and Cazal, which resulted in a major departure from the original design of CBD. The new design incorporated the Khayaban-e-Quaid-e-Azam as the central avenue flanked by CBD on both sides, with a metamorphosed version of Doxiadis´s original design in the form of 6-storey structures on the southern and 15 to 19 storey isolated tower buildings with alternating parking lots in between on the northern side. Thus, the original concept of staggering alignment and varying depth of the central spine and its ultimate length, were revised as it was considered not to be corresponding with the economic base of the city.[8]

The CBD at present is developing as a high-speed artery, with commercial / office buildings on both sides. The artery effectively bifurcates the CBD into two disconnected sides, and far fetching any sense of being a city-centre due to replacement of the originally designed CBD core of pedestrian environment with vehicular Main Avenue. Besides, the central administrative functions (Capitol Complex and secretariat etc.) are located on the eastern end of the spine, whereas, all residential areas are growing towards the southwest, which creates a strong one-way peak hour's traffic flows on the central artery of the Blue Area.[9] The problem of the CBD not acquiring the sense of the city centre, is also aggravated by the system of central areas in Islamabad (Centres Class Ill, IV, V), which were allowed to develop in an unbalanced way. Some of the lower level centres grew well beyond their programmed range of functions and service radius, thus leaving other centres and especially

the Blue Area starved of facilities which would normally have gravitated there. Some of the commercial and service facilities (ranging from private offices, show rooms, clinics, schools, parlours, guest houses, restaurants, etc.) have been allowed to locate in areas never intended for this purpose, such as in the light industrial and trade zone, and even in purely residential areas. On the other hand, several desirable applications for commercial plots in the Blue Area were turned down, such as two large international hotel chains. This was an important loss, since these hotels would have attracted a large number of related small businesses, which would in their turn have constituted a critical mass needed to attract other complementary uses in the central area.[10]

1.1 MORPHOLOGICAL STRUCTURE AND OPEN SPACE SYSTEM OF THE CITY

In the plan of Islamabad the concept of Dynapolis was put into practice to deal with growth and yet another difficulty of combining ordinary housing with monumentality of the capital city. The morphology of the city as a dynamically growing organism (Dynapolis) was complemented with a principle that Doxiadis termed 'unity of scale'.[11]

The articulation of the built environment through 'Unity of scale' by means of architectural layering was considered absolutely necessary to achieve cohesion between various elements of the city. According to Doxiadis, 'the city is not a conglomeration of isolated and unrelated spaces, but one entity of interrelated spaces'.[12] The monumentality of the capital city is represented through huge size of the grid – with sectors, linear CBD, and monumental buildings at the tip of main axes, alongwith the majestic Margalla hills as background. The monumentality of the capital is attempted to reconcile with ordinary housing by stimulating through architecture and housing; breaking the scale of architecture of the central spine of the city and taking it inside to the sectors in a much finer grain, thereby, homogenizing it with the scale of the ordinary housing (ref. Fig.

8   The economic basis of Islamabad did not justify the ultimate development of an ever increasing commercial-cum-shopping center for nearly 5 miles…Islamabad was never aimed to be a major commercial or industrial center like Karachi, and neither in terms of commercial offices nor in terms of the needs of retail shopping that such a vast central commercial zone was justified."; quoted from: Capital Development Authority (C.D.A)-1987, "Islamabad : Review of Islamabad Master Plan, Master Plan Cell – Planning wing", pp. 69
9   CDA., Review of Islamabad and Master Plan.
10   Botka D. (1995) Islam abad after 33 years, "Ekistics", Vol. 62, No:373/374/375, July-Dec., pp. 231
11   Doxiadis Associates (1964), "Islamabad: The New Capital of Pakistan", Bulletin No. 64, Athens Greece
12   R.A. (1967), "Islamabad: A Progress report on Pakistan's New Capital City, in: Architectural Review, Vol.141", pp. 212
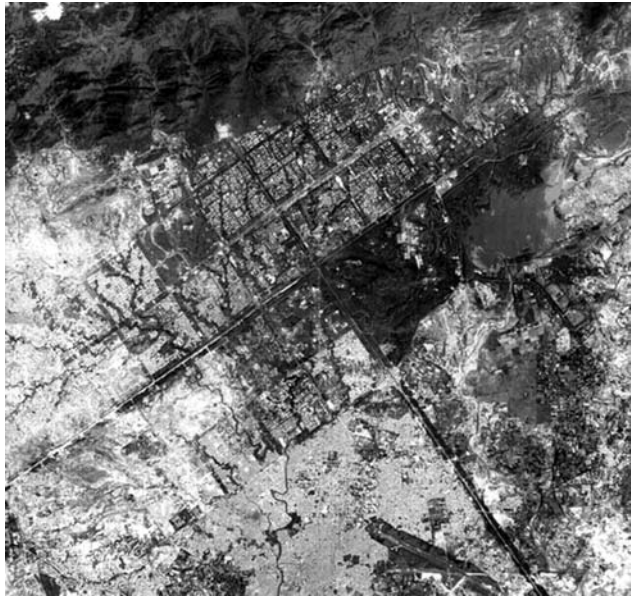
Figure 4 : Satellite image of Islamabad (2000)

3). Doxiadis, determined a scale measurement to govern the elements composing the city, such as plots, streets, open spaces, squares, roads, etc. The overall space of the city is composed through a system of axes derived from the direction of historical G. T. Road and an analysis of the landscape with consideration for its deepest lines and prevailing orientation. Main axes including the central spine runs northeast to southwest with secondary axis in southeast to northwest direction, and all the residential plots follow this orientation. Doxiadis specified volume, heights, densities, and floor indices of the buildings, for each particular sector, based on a study of the scale of the city. His provision of generous public spaces in graduated amounts for each class of community was paralleled by a careful ecological analysis of the four main categories of natural landscape: the mountains, the hillocks, the plain and the ravines.[13]

The gridiron structure of sectors divides the space of the city into 2100 x 2100 yards parcels, assuming that the civic and commercial centre of the given sector would be within walking distance from all sides. These sectors are classified as 'Static communities' of the city, where the final dimension of plots, roads and open spaces can be planned

in advance. However combination of these sectors, divided by high-speed arteries, were designed to allow for what is termed as 'Dynamic Growth' of the city. Doxiadis attempts to make a synthesis of human and mechanical scales; by juxtaposing auto routes around the sector and pedestrian network within the sector. The square grid iron pattern with wide right-of-ways marking the exterior periphery gaves the sector isolation, and the internal organization in the form of orthogonal layout of streets, row houses and market squares, made it look somewhat rigid when viewed from the top. Doxiadis incorporated straight but undulating high speed traffic corridors in his plan following the lines of the grid, with huge widths (right-of-way) of 1,200 ft for principal and 600 ft for secondary transportation and utility corridors.

The reason for over dimensioned widths can, partly, be argued as the need for a majestic dimension surrounding huge size of the grid to reflect monumentality, dignity and force that the capital city would form its foundation upon, though Doxiadis´s discourse explains the huge size as a capacity to accommodate the future expansion of infrastructure, and called them a concept of 'Utilidors'. Besides, they form the structure through which the open spaces of inside the sectors are connected to the larger open space system (landscape) surrounding the city (Fig. 4). The open space system gives the city an unparalleled environmental economy and a unique morphological structure. According to Doxiadis, within them certain strips would be used immediately for infrastructure (roadways and utilities), the remaining part should be enclosed within fences or if this is not practicable, at least enclosed by planting. The idea behind this strategy was to prevent any informal building activities in these open areas within and around the sectors. Even the recommendation made by a panel of experts to CDA was that, since the present motorization and general consumption levels in the Capital and in the country is still quite low, in the meantime, the unused portions of the rights-of-way can be used as parks or recreational areas, or even be rented out as temporary gardens.[14]

13 R.A. (1967), "Islamabad: A Progress report on Pakistan's New Capital City, in: Architectural Review, Vol.141", pp. 212
14 Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62, No: 373/374/375", pp. 230-231
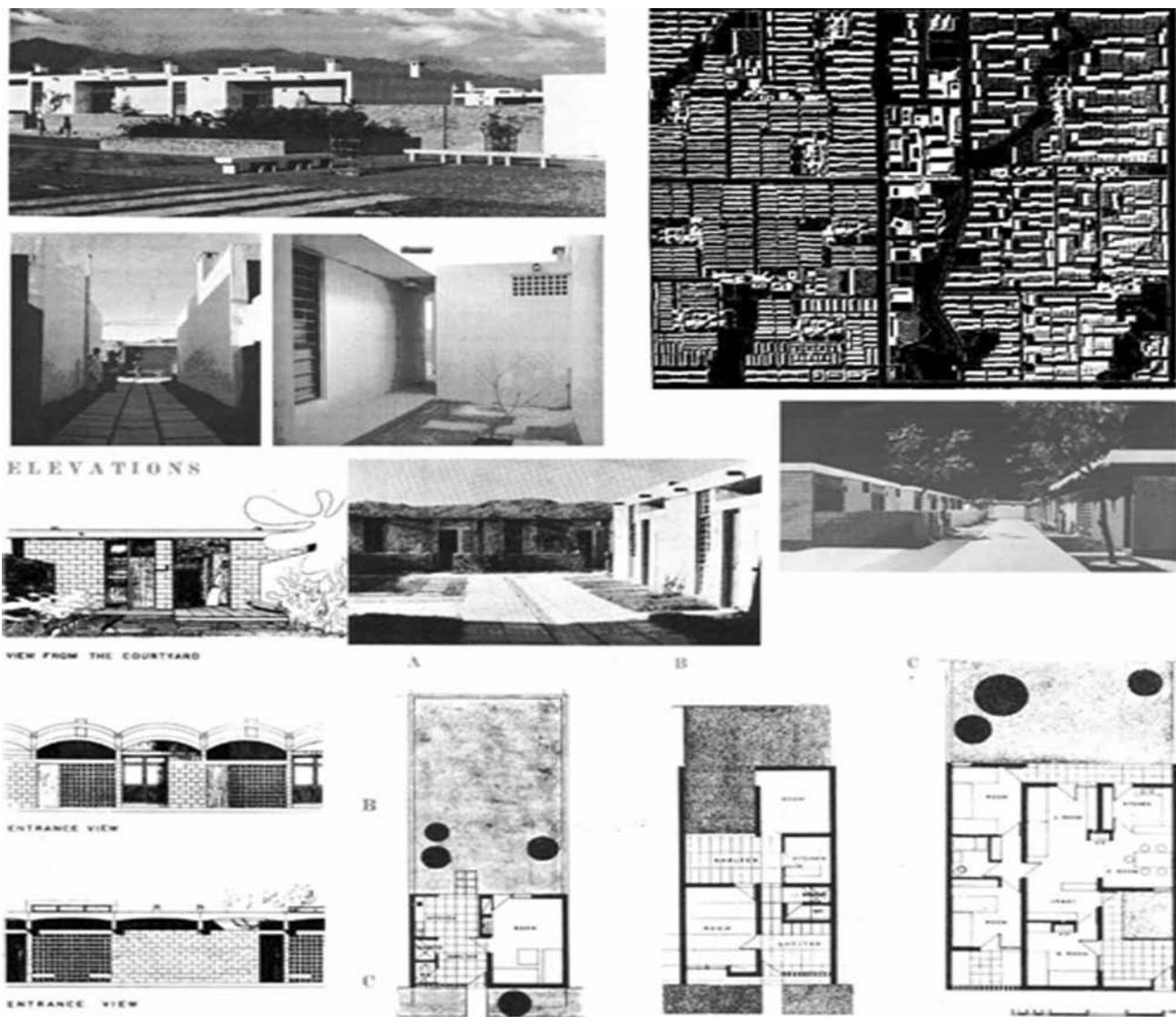
Figure 5 : Model of the G-6 sector, Design of House type, and views of newly constructed houses

1.2 THE SECTOR : A NOTION OF 'HUMAN COMMUNITY'

Doxiadis deals with the Human Development aspect in COF through the notion of 'Human Community', i.e. urban expansion through self contained and well integrated residential communities of human scale free from the interference of fast moving vehicular traffic. What Doxiadis discerned from these utopias was not their radical / reactionary content; rather he reduced them to suit his conservative agenda about urbanization, i.e. the idea of escape from the growing / chaotic, and intense urban environment of the emerging metropolis (representing a 'Dystopia' for Doxiadis) and transforming it towards a set of small-village-sized, isolated communities (representing Doxiadis´s idea of a city – the 'entopia').[15] In the case of Islamabad, while the overall urban area constantly grows and expands, this expansion

15 C.A. Doxiadis (1996), "USA: Between Dystopia and Utopia, The Trinity College Press.".S.A.

is affected through the addition of static residential communities of optimal size – the 'sector', capable of offering their inhabitants all basic services of recurrent need. There are three to four such 'human communities' within each sector, with a population of some 8,000 to 12,000 inhabitants. Inhabitants of such communities can shop, send their children to school, and take part in recreational activities, etc., without ever having to cross a major transportation artery, assuming that the principle of pedestrian and vehicular separation is systematically applied. These communities (sub-sectors) are systematically related to the overall system of hierarchical organization of the entire urban area. The expansion of urban area occurs by the multiplication of these sectors, each of them to be planned individually on the basis of a feed back obtained from the development of previous sectors. This design strategy makes the planning and implementation process much simplified and easy, though at the same time it looses the diversity of urban form and becomes completely inorganic.[16]

The housing Scheme in G-6 sector (Fig. 5), originally designed and implemented by Doxiadis Associates, is usually credited as the most successfully designed neighborhood.[17] Accommodating residential requirements of Government employees along with private housing, G-6 has present population of over 40,000, inhabitants.[18] The sector is subdivided into 5 sub-sectors, four of these are residential (G-6/1, G-6/2, G-6/3, G-6/4, in a clock wise manner) and the fifth being the commercial and civic centre called Markaz G-6. The first sub-sector at the south-western corner i.e. G-6/1 contains low-income group housing i.e. of 'A', 'B' and 'C' categories, with 'A' being the lowest income group. The G-6/2 sub-sector occupying the north-western corner is formed of lower and middle income group housing i.e. 'B', 'C' and 'D' categories. The sub-sector G-6/3 and G-6/4 that forms the

eastern half of the sector comprises of houses of higher-income families both private and government employees. The gross density is 70 to 100 persons per hectare,[19] with 85% inhabitants living in government and only 15% in private housing. Whereas, the difference is not as great in terms of land occupation, i.e. Government housing occupies 59 % and Private Housing covers 41 % of land area for housing in the sector.[20]

In the original design, the concept of separating vehicular and pedestrian network was rigorously applied in which the human scale as pedestrian paths and motor-vehicle movement with cul-de-sacs were differentiated.[21] The sub-sectors were to accommodate a range of functions and facilities for the residents in a hierarchical manner according to the activity and population concerned.[22] However, the development policies of CDA and the increasing vehicle ownership of residents have disrupted the separation of vehicular / pedestrian network in most cases and Doxiadis´s carefully designed connected operating pattern stretching from the threshold to public spaces, markets, and other amenities have been reduced to only two centres, i.e. class III and class V whichare retained, eliminating the other levels of the hierarchy.

1.2.1 OPEN SPACE STRUCTURE IN THE DESIGN OF G–6

The land in Islamabad forms a general slope in Northeast to Southwest direction, with many ravines giving a characteristic of continuously undulating ground. The possibilities embedded in the landscape make a great variety and challenge for architectural treatment of buildings and green spaces, whereas, the Cartesian layout of G-6 seems to be, at first instance, in confrontation with topology of the site (ref. Fig. 5). Considering morphology of the site, Doxiadis defends his approach of imposing rectilinear straight layout of

16 Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62, 373/374/375, July-Dec.", pp.230-231
17 Mumtaz K.K. (1999), "Pakistan: MODERNITY AND TRADITION-Contemporary Architecture in Pakistan", Oxford University Press.
18 CDA / Pak PWD (1991), "Islamabad: Outline Proposal for Redevelopment of Sector G-6, Islamabad", CDA Library.
19 Botka D. (1995), Islamabad after 33 years, in :Ekistics, Vol. 62, No: 373/374/375, July-Dec.", pp. 230.
20 CDA / Pak PWD (1991), "Islamabad: Outline Proposal for Redevelopment of Sector G-6, Islamabad", CDA Library.
21 Doxiadis explains the way in which this segregation is done in between the Vehicular and pedestrian movement as, "The internal transport requirements of the community are met by the use of cul-de-sac roads running from the perimeter, where the high speed motorways constituting the city's main road network are located, to the key points of the community. Thus the movement of pedestrians inside the sector is served by means of a network of pedestrian roads, which is not interfered with by vehicular traffic.
22 Doxiadis describes,"Adequate space has been provided for buildings serving certain functions at various scale levels, according to the number of the people served by these buildings. In each sector or community Class V there is space for three or four secondary schools, each for a community Class IV. There are three or four primary schools per community Class III and a Kindergarten or children's play ground in each community Class II.

streets cutting each other at ninety degrees over an undulating land, by advocating the idea that it creates high degree of variety in the built environment in the most economical way. As he says, "It was attempted to lay the houses as much as possible in accordance with the morphology of the site. The undulating landscape of Islamabad offers the city a high degree of variety in the most economic way. Further marked variations to the plan would have deprived it from simplicity and led, in many ways, to tiresome results."(abstracted and quoted from: Doxiadis Associates, ISLAMABAD – The New Capital of Pakistan, Bulletin No. 64, March 1964, Athens – Greece).

Systematic organization of pedestrian movement within the human community in a hierarchic manner is translated through open space structure; from a small pedestrian footpath beginning from the threshold of the house towards a street and then to that of a small public space of a community Class II, which is connected to the centre of the community Class III by means of pedestrian paths, streets and green spaces. According to Doxiadis, spaces and perspectives created along the line of this movement follow the same hierarchical order. Open space and street design within the sector is treated as positive space through rows of attached housing (continuous structures and avoiding isolated buildings / houses) as Doxiadis argues that, "The usual weakness regarding the shape of space within the contemporary city is that it becomes negative in contrast to what happened in the past when space in the old city was positive. In the arrangement of isolated buildings, space is quite often lost."[23]

At the level of a house, the traditional open space of a courtyard is spilled over to the front and back forming the front yard (set back) and backyard (set back) along with small patios in-between. The distribution of the singular space of a courtyard into setbacks and patios devour the house from both the street and the tradition of court yard houses. The front setback creates a condition of double scale; as a space in-between street and the house, and seems to be evoking the colonial past where bungalows with green spaces / lawns in the front were provided for the detached houses

to impress the locals and to create a difference in the living environments of the masters.

At the scale of neighbourhood / sector, the open space structure is what Doxiadis uses to organize the land occupation discernable from the design of G-6 (ref. Fig. 5 – model of G-6), whereas, his discourse relegates the layout plan to hierarchy of functions. The way Doxiadis organizes the sector, although considering the hierarchy of functions, is not like C. Alexander's 'city is like a tree', rather, the open space structure interconnects the sub-sectors, besides, overlapping with natural level. The plan also displays a certain degree of ambivalence by keeping the orientation / layout of some rows of housing in sub-sectors towards the next (neighboring) sector. The tree becomes more interesting and more complicating; something more then hierarchy – hybrid, using the diagonal through landscape as an ordering element; a collector of extra ordinary thing within an ordinary environment. Orientation and geometry, a precise system of sizes; a very regular organization but not leading to stereotypical rigid grid, but a variety, that is, at the same time fitting within the grid and also not stereo-typical formulation, a handsome dealing of architecture with open space system becomes poetry.

1.2.2 TYPOLOGY OF HOUSING

The architectural significance of housing in G-6 is its elevation from ordinariness to an integral element composing the overall space of the city, which develops its capacity for dealing with the internal dynamics of the socio-economic state of residents, and on the other side, the house 'type' itself which negotiates with the cultural dualism of its users.

Doxiadis evolved standard house plans for the eight established levels of government housing (A to H), corresponding closely to income and status. Each man moves to an appropriate house on being promoted in the civil service. The housing typologies were formulated on the basis of income groups, and standardization in order to provide ease and economy in the construction, and devoid of any socio-cultural criteria. The plot size and covered

---

23   CDA / Park PWD (1991), "Islamabad: Outline proposal for Redevelopment of Sector G-6, Islamabad, CDA Library"

area gradually increased from lower to higher income house-type, rectilinear and regular irrespective of the irregularity of the ground on which they were plotted, with smaller frontages and larger depths (ratio of width to depth varies generally from .5 to .3), in order to improve urban economics.[24]

The minimum accommodation for the lowest grade of government employee was two rooms and a kitchen, W.C., and a shower room, despite the fact that the lower the scale of the employee, usually the larger is his family in terms of number, which is compensated by making a provision for outdoor living. The design of each house (ref. Fig. 5 – House Types) followed a criteria that Doxiadis claims to be discernable from the local / traditional way of dwelling as 'each house had closed, semi-

covered or open living spaces, necessary for comfortable living in a country with cold winters and very hot summers.' [25] In most cases, varying ceiling heights were provided in order to obtain direct cross ventilation and isolation. The main living spaces like guest room and family room were at one level and the utility rooms like wc, shower, kitchen and verandah at another level. A side yard was provided in some cases through which visitors could easily enter the guest room, protected by an open and low-roofed corridor. [26]

The consideration of privacy in design generated a two fold phenomenon i.e., on one hand it was the requirement of the society at that time which resulted in more independent single storey row-houses (although, the lack of men and machine for modern construction is usually cited as a reason

Figure 6 : The domestication of space and transformations

24 Doxiadis Associates (1964), "ISLAMABAD - The New Capital of Pakistan", Bulletin No. 64, March, Athens - Greece.
25 Ibid.
26 Doxiadis Associates (1961), "HOUSE TYPE AND COMMUNITIES IN ISLAMABAD", Bulletin No. 32, July 1, Athens - Greece.

for this) than apartments. On the other hand, considering the transition and development of the culture towards modernity, the notion towards incorporating multi-storey apartments (4 to 5 storey - being more economical, emancipatory through shared life style, besides, giving greater density and cohesion) was strictly negated and thereby reinforcing the ambivalence between tradition and modernity.

2. THE INHABITATION OF SPACE AND TRANSFORMATIONS

Doxiadis tailored a costume in his design scheme for G-6 that was a bit forward from the contemporary modernist approach of erecting skyscrapers in green parks, as he opted for the production of a rationalized version of garden-city; single storey attached row housing with pedestrian internal walkways and external vehicular cul-de-sacs. However, his plan over estimated actual requirements as much as his plan was for the administrative centre. Thus the chances for the development to become too low or too broken up were quite high,[27] which gave way to certain adjustments, appropriations and transformations.

Besides, the inhabitants of the new capital were accustomed to spaces for human interaction in a hierarchy of local syntax and grammar, which stretched from internal courtyard (family) to 'ahata' ('muhalla'/ community) to external street-square. The two ends of open space (courtyard and ahata), one internal and the other external were usually weaved through an inorganic sequence in the form of 'dewarhi'(entrance lobby) and 'tharha' (threshold / doorstep) onto the winding street without having a formalistic / cartesian denominator of straight and clean lines connecting them. The traditional open space system for community organization was shaped, rather, over a period of time that let the deposition of various layers with memory, history, and events in casting social cohesion. The hope for instant community formation and modernization through planning in a global format for human settlements (housing) of rationally mass produced dwelling environments developed the tension between the global 'costume' and the local customs of inhabitation. This tension can be witnessed in the emerging reality of the physical

structure of G-6 and in its every-day life that is being communally produced as a palimpsest through various forms of transformations and can be read as attempts at localizing the modernization process.

The transformations (Fig. 6) range from the use and abuse of front yard (set back), back yard (set back), vertical extensions (upper storey), erecting enclosures at the dead-end streets, annexing the incidental open spaces for communal use as washing, parking areas, the erection of corner shops (khokhas) at left over, neglected or badly maintained public spaces and so on. The mechanism employed is usually to encroach a space temporarily first, and then gradually enhance through incremental investment as a check for the reaction of public authorities and then fully domesticating it by making it an integral part of the living space / dwelling environment. The domestication of these spaces unfolds a chaotic (in certain cases, almost anarchic) process of appropriation not necessarily devoid of social harmony, rather it presents a portrait-in-bold-strokes of government-neglect with a bleak texture of emerging communal solidarity merged with undertones of adhocism.

The lack of community planning, non-appreciation and non-recognition of community stakeholders in partnership with public agencies for maintenance and improvement of the neighborhood, coupled with the socio-economic status of the residents (low paid government employees), has accumulatively resulted in a speedy deterioration of the physical environment of G-6. Different governments have made false political promises of giving ownership rights to the residents of these quarters (originally allotted only for active period of government employment), which has given way to a series of encroachments in order to show their right of ownership of the dwellings, besides, accommodating their traditional way of life. The addition of a room or two on top, in the side or front / rear set back and at some places beyond there property limit; almost on the street, has created a slums like situation in G-6 today. The government's response has been 8-phased redevelopment proposal[28] of constructing 4-storeyed apartments in the left over green spaces

27 R.A (1967), Islamabad: A Progress report on Pakistan's New Capital City, in: "Architectural Review", Vol. 141, March, pp. 212
28 CDA / Pak PWD (1991), "Islamabad: Outline Proposal for Redevelopment of Sector G-6", Islamabad, CDA Library.
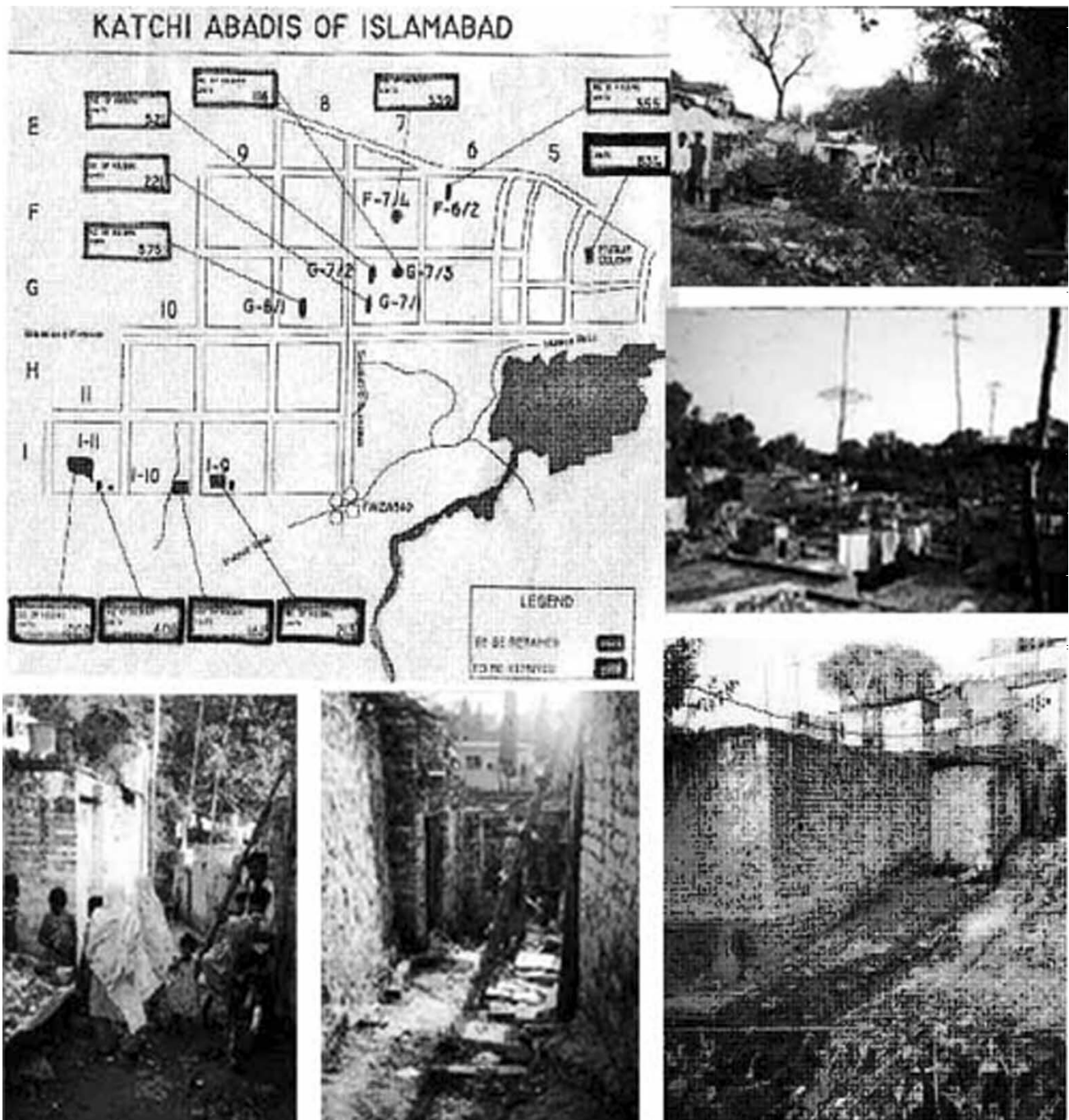
Figure 7 : The domestication of space and transformations

at first, and then bull dozing all the Doxiadis´s designed quarters of G-6 for constructing four-times the existing government housing and releasing the remaining land to private sector for high-rise development. The proposal is speculative in content and aims at densification of the sector considering its close proximity to the administrative centre (major employment hub of the city) and Aabpara (busiest commercial centre of the city). The emerging urbanity is hybrid in its form as a result of the fusion of differences which continuously displaces any intended / master planned agenda.

The genesis of such a kind of urbanity through transformations is in itself enriching and localizing the advent and attempt of modernity[29] and displays itself in the physical reality and every day life of G-6 sector. The transformation of the way G-6 was conceived and materialized, and the way life has taken possession of it, shows the evaporation of planning. The confrontation of the 'costume' with the every day life of its residents portrays a contradiction between tradition and modernity, which has become an undeniable part of the reality.

2.1 THE GENESIS OF INFORMAL SETTLEMENTS-"KATCHI ABADIS" IN ISLAMABAD

The emergence of 11 informal settlements (recognized / official katchi abadis) in Islamabad with 45 to 50000 inhabitants within the urban area,[30] is yet another layer of transformations (Fig. 7). This resulted due to inadequate provision in master plan for low-income housing or more specifically, housing for the people involved in rendering services to the city and its residents, such as servants / maids, municipal janitors, washers, milkmen, construction laborers, etc.

The katchi abadis are developed mostly on vacant areas along nullahs (water channels) and other incidental open spaces within the sectors, provided they are in close proximity to the public transportation routes.[31] One of the representative katchi abadis of Islamabad is located in sector F-7. The residential sector called F-7 is one of the prestigious sector for the upper class, is located in the heart of the city and in very close proximity of Blue area and "E-7"(The Residential sector for the aristocracy of Pakistan). Besides its prestiguous location having most of the features appropriate for an informal settlement to emerge; the close vicinity of Nullah (water channel) going through the sector with maximum width in F-7/4, the rich neighbourhoods (F-7 and E-7), the main commercial

spine of Blue Area and next to one of the famous sector market called Jinnah Super Market of F-7 Markaz, makes it simply the most appropriate location to squat. Most of the people living here are involved in rendering their services as cleaners for the city and are employed by CDA. Some of them are also working as servants, maids etc to the residents of the formal areas. This colony has already been chosen for improvement and upgradation by the Katchi Abadi cell of capital develoment authority. Although, these open spaces were not simply left over, rather carefully planned voids by Doxiadis as natural structural and ordering elements and were used as decompression for the dense footprint of the sector. The open spaces along nullahs gave way to both formal and informal appropriations due to their loose definition; being considered as vacant because of not being owned / looked after by CDA like other public parks. The formal appropriations emerged in the form of extended lawns for private use of houses bordering nullah´s open space, and the informal appropriations metamorphosed the promising settings of these voids into perfect venues for katchi-abadis. However, the official discourse only focuses on the katchi-abadis, rendering them as a source of environmental degradation (contamination of natural streams, deforestation etc.),[32] and inconvenience / discomfort for the formal residents of the city for the miserable, unhygienic and congested environment that the informal dwellers maintain due to their socio-economic standing as being the poorest class of the society.

The initial policy of CDA of considering these settlements temporary is now replaced by recognizing them as required and needed social groups in the city, although their growth has been phenomenal i.e. within sixteen years (1984 to 2000) there population has increased from 13000 to almost 50000 inhabitants. The efforts of recently established "Katchi Abadi Cell" of CDA in

---

29 At the beginning of the century, the Modern Movement, with its heroic manifestos, had set out to transform the world. Architects, planners, the champions of industry and the new mass production technologies were going to bring prosperity, happiness and joy to all mankind. With mechanized production of buildings and new modes of transportation we were going to build clean, healthy, well designed, comfortable and aesthetically satisfying new cities. At the centre of much of these dreams were the habitations of the common man. At the close of the century, after some remarkable 'progress' and 'development', and despite a profusion of ingenious planning of towns and buildings by a galaxy of brilliant planners and architects, the world, the real world inhabited by a very large section of humanity, has been transformed not into the promised paradise but into a living hell.";quoted from: Mumtaz K.K. (1999), "Pakistan: MODERNITY AND TRADITION-Contemporary Architecture in Pakistan, Oxford University Press", pp. 113
30 CDA (2000), "Katchi Abadis Cell: KATCHI ABADIS IN ISLAMABAD"
31 Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62, No: 373/374/375, July-Dec., pp. 222
32 Ibid.

collaboration with community stakeholders, sponsored by donor agencies like UNDP and some foreign missions, is to regularize and upgrade some of these settlements, and their effect is yet to emerge.

3. SOCIAL STRUCTURE OF THE CITY

The social life of the city formally began with the arrival of first residents in 1963 to sector G-6.[33] Whereas, social planning marked its beginning with a few year's earlier question of whether government employees should live in colonies separated from other citizens of Islamabad or intermix with them? Although, the Federal Capital Commission (F.C.C.) favoured grouping of government houses in specific areas, as the new regime was against any social contact between business community and the central administration. To them 'the capital should be in a place where the business community does not come into contact with administration on a social level'.[34] According to Doxiadis, the opinion of sociologists for gradual integration was accepted.

Both, F.C.C and Doxiadis Associates, drawing largely upon PWD style formula for government housing, agreed on a criterion to achieve a social breakdown based on income level. The system thus formulated, reminiscent of colonial administrative norms, implied that the resident would will leave his allotted house and move into a higher class of community with his rise in the official hierarchy. However, the government has not been able to keep up with the growing demand of public housing, running a net shortage of approximately 60 % at present. Doxiadis suggested that private houses should be constructed by higher-income groups to generate revenue (from the proceeds of plots sold through auction or belting) for CDA to subsidize low-income housing, but made it largely a prerogative of the state, there by discouraging from the beginning, any possibility of low-income housing in private sector. The dim prospects of further acquisition of land for development by CDA, the ever-increasing demand for residential plots coupled with intense

speculation, have skyrocketed the prices of residential plots making the city simply out of reach for low-income groups. With the result, now people belonging to upper and middle classes can only afford the residential plots (including those reserved for the low-income groups) in the city, and a large proportion of low-income work force (30-40%) in government offices and private sector, still commutes from Rawalpindi.[35]

In spite of well-projected claims of the planners, that these sectors are designed to cater for the people of divergent socio-economic backgrounds, in reality different series of sectors are increasingly becoming localities for the people belonging to specific income groups and social status. By the name of the sector one can ascertain which class the person belongs to.

Presently, Islamabad attracts young professionals from all over Pakistan, and represents all the advantages of being at home with western-style facilities for expatriate Pakistanis to settle in their old age. Islamabad continues to expand rapidly according to design and absorbs immigrants virtually every day.[36]

3.1 SOCIO–CULTURAL INFRASTRUCTURE

The city at present is characterized by its opens space system as a city-green, a grid pattern ensuring order, along with its physical infrastructure of wide tree-lined avenues, good roads, etc resulting in an environment that is far removed from the hustle and bustle that characterizes the typical Asian city.

In a short span of forty years, Islamabad hosts a number of institutions actively engaged in research, development, and propagation of social and cultural activities such as Pakistan National Council of the Arts (PNCA), Institute of Folk Heritage (LOK VIRSA), National Film Development Corporation; However, some activities have emerged in the disguise of indigenous / traditional lifestyle such as, 'chand-raat' - the night before Eid-u- Fitr, when

33 Doxiadis Associates (1964), Athens – Greece: "ISLAMABAD - The New Capital of Pakistan, Bulletin", No. 64, March.
34 Doxiadis Associates (1960), "Islamabad: Programme & Plan", (32) Vol. 1, EDOX - PA - 88, pp. 54.
35 Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62, No: 373/374/375, July-Dec., pp.222
36 Nayyar A. (2002), Islamabad in: "Grolier Encyclopaedia of Urban Culture", September, [in press]

hundreds of people of all ages and walks-of-life dressed in their best come together at the main "drag" promenade of Jinnah Super (F-7 Center), where, the open space of Jinnah super metamorphoses into a cascade of henna, bangle, toy, and gift stalls, besides the corner cigarette and betel leaf shop makes a roaring business on that night, as do purveyors of soft drinks. The market centers of the F sectors thus become important magnets for promenade. Currently, the center of F-7 is considered as the most important part of Islamabad, if not of the country. The term "Jinnah Super" is applied to this market, while the center of F-6 is simply called "Super", F-8 markaz is called Ayub and F-10 is yet to acquire a name. These terms (markaz names) have evolved from oral tradition. If the dynapolis design is correct, it is conceivable that the main promenade will move with the city into new sectors, as they become activated with the passage of time. This constant movement appears to activate sectoral centers and sustain activity even when the center continues to shift.[37]

Periodic markets popularly known as 'Jumma bazaar' (Friday market) is a truly Islamabad phenomenon, despite the fact that the weekly holiday now falls on Sunday instead of Friday, the bazaar has retained its old name. The Jumma bazaars reacting flexibly to changing patterns of demand have won a dominant position for themselves, particularly in the foodstuff sector, and have helped to smooth out supply deficits.

Owing to high demand, the Jumma bazaars proliferated to the rest of Islamabad within two decades and are now held thrice a week (Jumma, Itwar (Sunday) and Mangal (Tuesday) bazaars). Most of these markets are located in the wide right of ways of the main sectoral roads and in some cases in the open areas within centers of class V. The Jumma bazaar phenomenon presents the metamorphosis of a broad pavement or part of a green belt into a vast open-air flea market as an

oasis of informality and social intercourse within the formal tree-lined boulevard grids of the city. To shop out in Jumma bazaar is regarded as an important social interaction event for the families as the trip is usually planned in advance with other women of the neighborhood. The visit, which usually comprises of 3 to 4 hours once a week, gives a major opportunity to talk about personal and family matters, socializing and interacting, knowing new comers in the community thus helping to improve the social cohesion at the neighborhood scale.

The F-9 sector, originally designed as a residential area, presents yet another transformation through its formal appropriation into a large park (2x2 km) and a central recreational area for Islamabad, owing to its location, facilities for indoor sports and clubbing, extended heart-shaped jogging tracks and other play fields. The place is fast becoming a meeting ground for all ages of the society, where young and old keep on passing a hello smile while jogging. The park holds numerous socio-cultural events, ranging from fund-raising ceremonies, open air music and annual 'Basant' (kite-flying) festival attracting mass gatherings, besides, the week long tent-pegging event organized by local riding clubs, and several other organized activities.

The formal spiritual focus, a place of mass gatherings and a tourist attraction, besides, being the major landmark of the capital dominating the skyline of Islamabad, is the imposing and monumental Faisal Mosque at the foot of Margalla Hills. The scenic effect is imposing and the architectonic outline represents a desert tent with eight-sided roof and supported from four massive master beams. The structure acquires its dominant character with four minarets eighty-eight meters high, all dressed in white marble, with its straight-lines and no curves shows the modernistic aspect of this land mark.[38] The informal counterparts to the spiritual focus of Faisal mosque are marked

---

[37] Ibid.
[38] Designed by a Turkish architect, the mosque covers an area of 189.705 sq m (226,885 sq yd) with 88 m (288 ft) high minarets and a 40 m (131 ft) high main prayer hall. The prayer hall accommodates 10,000 worshippers, while the entrance verandah and portico provides a covered space for a further 24,000. In all, the mosque can accommodate up to 75,000 people.; abstracted from: CDA, Islam abad, The directorate of Public Relations, Capital Development Authority, Islamabad.Designed by a Turkish architect, the mosque covers an area of 189.705 sq m (226,885 sq yd) with 88 m (288 ft) high minarets and a 40 m (131 ft) high main prayer hall. The prayer hall accommodates 10,000 worshippers, while the entrance verandah and portico provides a covered space for a further 24,000. In all, the mosque can accommodate up to 75,000 people.; abstracted from: CDA, Islam abad, The directorate of Public Relations, Capital Development Authority, Islamabad.

by two Sufi shrines namely Bari Imam and Golra, the former being managed by CDA and the later, left to the descendants of the Golra Pir through an ordinance.

The shrines associated with a Sufi saint, deals with the spiritual dimension of the city in a traditional manner. The 17th century Sufi shrine of Bari Imam (Saint Imam Bari Shah Latif) in the village of Nurpur lays between the diplomatic enclave and the Quaid i Azam University. Every year in spring, the passing of the saint from his mortal life to the eternal is celebrated with dancing, singing and music and the normally sedate city of Islamabad is treated to colorfully dressed groups of pilgrims who pass through the city on their way to the shrine. The other shrine in the old town of Golra inside Islamabad has the classical architecture of a Sufi hospice, with open spaces, white marble pillars, water tanks, fresco and stucco work.

3.2 THE EMERGING CULTURAL LANDSCAPE OF THE CITY

Being the inhabitat of the 'capital city'- the leading one and the best amongst the rest, has given rise to a common belief of being superior with a higher level of sophistication and knowledge than the rest of the country, enhanced by the presence of a large international community in the city. This belief is an element of pride as well as a source of attraction and desire to live in the city. Besides, the hierarchical planning of the city has complemented the hierarchy of status in cultural terms as acute attention to bureaucratic hierarchy is also an aspect of Islamabad culture, where people pay close attention to the grade held by any civil servant. This tends to divide most of the citizenry into a 22 point scale – Grade 1 being janitorial services and Grade 22 a Secretary of State.

The majority of Islamabad's inhabitants, coming from rural areas, are lead to live a dual life; the citizenry drifting between two lifestyles - the vernacular back at hometown or village and the so-called modern one of 'kothi / bangla' type in Islamabad. One carries, talks about, values,

appreciates, and upholds the invisible luggage of tradition (vernacular lifestyle) while living in Islamabad and the reverse happens when one is back in his village home. This reversal of lifestyle is maintained in order to associate one with prestige and identity of both the traditional and modern cultural environments. The continuous back and forth of cultural appearance and reappearance or masking and its shifts causes the ambivalence, which is an important components in shaping the cultural landscape of Islamabad.

The performance of the act of lifestyle-reversal as a ritual without a deeper understanding of what is being followed results in keeping modernity and tradition apart. Both notions are accepted as societal norms, their supremacy upheld, and being worshiped like an idol rather then questioning them. For instance, the traditional extended family common in Pakistan has taken a sharp blow in Islamabad, where modernizing trends have led to fractures and fissures in traditional family structure. Households filled with relatives and servants are becoming less common, and there are an increasing number of ageing parents and widows living alone. However, the recent proliferation of multi-national corporation's offices in the capital giving opportunities for jobs with a dress code requirement, along with increasing fast food chains, and an aggressive return of expatriate Pakistanis from Europe and U.S.A. in post 9/11 era, are yet to unfold their effect on the cultural landscape of the capital. However, Islamabad, more than any other city of Pakistan, combines representation of people from all over the nation in a freshly cosmopolitan culture, blending with the presence of the diplomatic corps and international agencies, has virtually become a melting pot. In addition, the influx of people from Lahore, Karachi and other larger cities in Pakistan during times when Karachi in particular was being plagued by endemic violence has led to a more 'metropolitan' mix of people in Islamabad. The city thus acquires the feel of a futuristic metropolis open to all influences from the outside world. For the young nation of Pakistan, it symbolizes the culminations of its aspirations to become a modern, enlightened nation with progressive western style values.[39]

---

39 Nayyar A. (2002), Islam abad in: "Grolier Encyclopedia of Urban Culture", September in press

CONCLUSION

New capital cities such as Brasilia, Chandigarh, Abuja, Dodoma, including Islamabad, besides all other factors, had predominant political objectives. The designers of these cities, in most cases, had preconceived ideas about the monumental aspects of the town structure and the geometric relation of street pattern to the buildings. The hierarchical planning of these cities is rooted in to traffic considerations, whereas residential areas for different categories and the issue of social planning has been looked at from a non-context-specific perspective i.e. taking little consideration of local social conditions. Instead, the hierarchical planning of physical structure has created de facto segregation by housing patterns based on the income, thus perpetuating class barriers in the form of physical spatial order.

The military regime conceived Islamabad, primarily, to be a capital city, accommodating government functions, state infrastructure, and housing their employees and support staff. However, Doxiadis´s belief that a greater mix of population and functions can only become the true capital of the nation on one side, and the logic of economizing / subsidizing and speeding up the construction of the city on the other side, lead the planner to incarnate the idea of a multi-functional city in the Master plan and program, besides, as a test case for his obsession for practical demonstration of his theory for the city of the future.

Although, in the beginning, Islamabad worked as a uni-functional administrative city due to state and CDA policies, but the capacity of the plan altered this notion in favour of a dynamically growing metropolis. Unlike Chandigarh where all the energy is concentrated in and flows towards the head (the Capitol complex), in the case of Islamabad, owing to Doxiadis´s concept of dynapolis, and the carefully designed open space structure, the energy goes to the whole city structure. This flow of energy through open space structure from monumental to commercial, to residential to industrial and going infinitely in to the shaping of 'Megalopolis', is what makes Islamabad exceptional case / example of the Planned Capital Cities of the 20th century.

In Islamabad, life took possession at every level accompanied with some in-compatible confused decision making by CDA as to whether retain katchi abadis or remove them. The katchi abadis can be read as an inorganic reaction to the top-down / master planned agenda of Islamabad, and at the same time, a phenomenon that is trying to erase the original plan. The unplanned (Informal settlements) has become a layer on the grid giving an impression that the "planned" has been taken over by "unplanned" in Islamabad. However, the original (lines of the plan) is still there and has acquired even greater strength and character due to the capacity of the plan; the huge grid, the porosity of the grid to absorb the informal development within, shows the flexibility of the plan for absorbing change and even transformations. However, the deteriorated physical environment of public housing in G-6, besides other emerging dynamics suggests a inter-disciplinary approach to community planning and a more open / democratic way of decision making with all stake-holders aboard, for a socio-environmentally sustainable development within the urban environment. The fact that Islamabad is turning more and more into an exclusive urban area, with the average income of its inhabitants far above the national average needs the application of specific and continually evolving policies with spatial logic for social development. One of the keys to approach this issue is the current land development practices and their renewal.[40] Present procedures of land expropriation and development result in very long delays- frequently further extended due to court litigation. The fact that readily developable land is in short supply drives up prices to unjustifiable levels and gradually makes Islamabad accessible to only the very rich. The original landowners receive very little compensation unless they build illegal structures on their land so as to claim a better rate of expropriation. Compared with the expropriation prices paid to the original owners, the developed plots are about a hundred times more expensive when transferred to the selected beneficiaries, and their value can rise a further five to seven times

---

40 Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62

when they are eventually offered on the open market. This artificially high cost of land is very important because of its social dimension: Islamabad, as the national capital and a symbol of national development, cannot become an urban centre increasingly accessible to only the very rich. Policies with other approaches to land development and pricing are necessary so as to make the city accessible to all social strata and to restore the equilibrium, which is gradually being lost.; abstracted and quoted from.

The test is not the diagrams of Islamabad, but the living environment it meant to create. During the forty years of its existence, Islamabad continues to grow. However it is too soon to qualify the success of dynapolis but the major problems, if addressed, that would make the city sustain itself in the future, range from enhancing a more democratic process of decision making, integration of low-income housing to develop a socially equitable environment, investment in public space infrastructure and public transport / mass-transit, besides prioritizing the dry-port project as economic base and the crucial water crisis.

Islamabd evolved as the city of diplomates, civil servants in the beginning but now the share of the rest of the population is increasingly becoming dominant. although, Islamabad has some way to go before it shakes off the tag of being a beautiful but soulless city lacking in intellectual and cultural vibrancy. however, the culture landscape of Islamabad represents an ongoing struggle for modernization with a hidden luggage of traditional values, characterized through layers of duality and complemented by ambivalence in almost every asepct of life. Islamabad reflects development within Pakistani society and has established as the capital - a national symbol, though evolved its own dynamism reflecting a sector of Pakistani society. Despite confronting cultural aftershocks, Islamabad is increasingly turning out to be a success story.n

BIBLIOGRAPHY

Nayyar A. (2002), ISLAMABAD in: "Grolier Encyclopedia of Urban Culture", September [in press]

R. A. (1967), Islamabad: A Progress report on Pakistan's New CapitalCity, in: "Architectural Review", Vol.141, March

Bromley R., A. (2003) Constantinos Doxiadis as InternationalPlanner, Visionary and Ekistician, in: Urbanism: Imported or Exported-Native Aspirations and Foreign Plans", Joseph Nasr eds., Willey-Academy.

Botka D. (1995), Islamabad after 33 years, in: "Ekistics", Vol. 62, No: 373/374/375, July-Dec.

C.D.A. (Capital Development Authority) (1987), "Islamabad: Review of Islamabad Master Plan", Master Plan Cell – Planning wing, CDA Library

CDA/Pak PWD (1991), "Islamabad: Outline Proposal for Redevelopment of Sector G-6,", working report / document - Pak PWD Islamabad.

CDA (2000), "Islamabad: KATCHI ABADIS IN ISLAMABAD, Katchi Abadis Cell", CDA Library

CDA, "Islamabad: Islamabad, guide book - The directorate of Public Relations", Capital Development Authority

Doxiadis Associates (1960), "Islamabad: Programme & Plan", (32) Vol. 1,ÊDOX – PA – 88

Doxiadis Associates (1961), "Athens – Greece: HOUSE TYPE AND COMMUNITIES IN ISLAMABAD", Bulletin No. 32, July 1.

Doxiadis Associates (1964), "ISLAMABAD: The New Capital of Pakistan", Bulletin No. 64, March, Athens – Greece.

Doxiadis C.A. (1965), Islamabad, in: "Town Planning Review", Vol. 36, April

Doxiadis, C. A. (1966), "Between Dystopia and Utopia", The Trinity College Press- U. S. A.

Doxiadis C. A. (1968), "Ekistics: the Science of Human Settlements", Hutchinson Ltd, London.

Doxiadis C.A. (1975) , Ecumenopolis in: "Ekistics" May.

E.Y.G. (1975), "New Towns, Antiquity to the Present" George Brazilles N.Y

Scott J.C. (1998), "Seeing Like a State: How certain Schemes to improve the Human Condition have Failed", Yale University Press.

Herman Kreutzmann (1992), "Erdkunde, Archiv für wissenschaftliche Geographie: Anspruch und Realität einer geplanten Hauptstadt: Islamabad in Pakistan", 46.

Kostof S. (1991), "The City Shaped", Thames and Hudson Ltd. London

Mumtaz K.K. (1999), "MODERNITY AND TRADITION-Contemporary Architecture in Pakistan", Oxford University Press

G. V. S. (1970), "Two Newly Created Capitals: Islamabad and Brasilia, in: "Town Planning Review", Vol. 41, October

Yakas O. (2001), "Islamabad: The Birth of a Capital", Oxford University Press, Pakistan

THE CHANGING LANDSCAPE OF ASIAN CITIES:
The Case of Karachi

Arif Hasan
Architect and Town Planner

INTRODUCTION

The Asian Coalition for Housing Rights (ACHR) is an Asia-Pacific Network of professionals, NGOs and community organisations. Its headquarters are in Bangkok. The decision to create the ACHR was taken in 1987 and was formalised in 1989. Its founding members were professionals and NGO and community projects working on housing and urban issues related to poor communities. Since then, through an orientation and exchange programme between innovative projects and interested communities and professionals, the Network has expanded throughout South, South-East and East Asia. Links have also been created with Central Asia and Africa through the savings, credit and housing programmes of the Shack Dwellers International.

The ACHR senior members have been very conscious that conditions at the local and international level today are very different from what they were in 1989 when the ACHR was created. They are also conscious that these conditions are affecting the shape and form of our urban settlements and the living conditions of the poorer sections of society. As a result of this consciousness, the ACHR in 2003 decided to carry out a research on a number of Asian cities so as to identify the process of socio-economic, physical and institutional change that has taken place since the ACHR was founded; the actors involved in this change; and the effect of this change on disadvantaged communities and interest groups. Eight Asian cities along with researchers were identified for the purpose of this research. The names of the researchers and the titles of their reports from which this paper is derived are given in bibliography. An enormous amount of material regarding these cities has been generated and is available with the ACHR Secretariat. The research

and logistics related to it have been funded by German funding agency Misereor.

It was decided that the cities chosen for the research should be as different from each other as possible in political, social and physical terms and that all the researchers should be local people. A synthesis of the case studies has been prepared by David Satterthwaite, Senior Fellow of the International Institute for Environment and Development (IIED) UK and published by the ACHR under the title "Understanding Asian Cities". The cities chosen for the research were: Beijing (China); Pune (India); Chiang Mai (Thailand); Phnom Penh (Cambodia); Karachi (Pakistan); Muntinlupa (Manila, Philippines); Hanoi (Vietnam); and Surabaya (Indonesia).

This study was aimed to understand the process of socio-economic, physical and institutional change in Asian cities through identifying the actor involved and their role in the process of change documenting community movements and promoting national and international forums of NGOs and CBOs on housing and development issues. The research outline also involved establishing socio-economic and housing trends through analysis of census data and networking with organization working on these issues. It further included making poverty profiles of each city marking its indicators and their causes and repercussions, identifying accessible poverty alleviation funds and a critical analysis. The research also includes a description of institutional setups of the various countries / cities, the trends in physical growth of cities over time, the master plan, its features and supporting and non-supporting elements; housing policies ad programmes; a critical analysis of the various types of civil society organizations and an

assessment of the impact of globalization and structural adjustment on society.

FINDINGS OF THE RESEARCH

The research has identified many differences between the eight cities. However, there are a number of strong similarities which are the result not only of how these cities have evolved historically but also of the major changes that have taken place in the world since the late eighties. It has been identified that these changes are the result of structural adjustment, the WTO regime and the dominance of the culture and institutions of globalisation in the development policies (or lack of them) at the national level.

The most important finding of the report is that "urban development in Asia is largely driven by the concentration of local, national and increasingly, international profit-seeking enterprises in and around particular urban centres"; and that "cities may concentrate wealth both in terms of new investment and of high-income residents but there is no automatic process by which this contributes to the costs of needed infrastructure and services"[1].

The more negative aspects of the changes identified in the reports that adversely affect the lives of the more disadvantaged groups in Asia's cities are given below.

· Definitions of what is urban is determined by political considerations that seek to support the political and economic status-quo in favour of more powerful sections of society[2].

· Globalisation has led to direct foreign investment in Asian cities along with the development of a more aggressive business sector at the national level. This has resulted in the establishment of corporate sector industries, increased tourism, building of elite townships with foreign investment, gentrification of the historic core of many cities and a rapid increase in the middle classes. Consequently, there is a demand for strategically located land for industrial, commercial, tourism and middle class residential purposes. As a result, poor communities are being evicted from land that they occupy in or near the city centres, often without compensation, or are being relocated formally or informally to land on the city fringes far away from their places of work, education, recreation and from better health facilities[3]. This process has also meant an increase in land prices due to which the lower middle income groups have also been adversely affected and can no longer afford to purchase or rent a house in the formal land and housing market.

· Due to relocation, transport costs and travel time to and from work has increased considerably. This has resulted in economic stress and social disintegration as earning members have less time to interact with the family. Incomes have been adversely affected since women can no longer find work in the relocation areas and children can no longer go to school[4].

· Due to an absence of alternatives for housing, old informal settlements have densified and as such living conditions in them have deteriorated in spite of the fact that many of them have acquired water supply and road paving and have better social indicators such as higher literacy and better infant mortality rates[5].

---

[1] Satterthwaite D. (2005) "Understanding Asian Cities", ACHR

[2] For example, the definition of urban in Pakistan was a settlement that had a population of 5,000 or more and had "urban characteristics" related to density and employment. This was changed for the 1981 and 1998 Census to a settlement that had urban governance institutions. As a result, 1,462 areas having a population of more than 5,000 were no longer classified as urban in 1981 Census.

[3] ACHR Monitoring of Evictions in seven Asian countries (Bangladesh, China, India, Indonesia, Japan, Malaysia, Philippines) shows that evictions are increasing dramatically. Between January to June 2004, 334,593 people were evicted in the urban areas of these countries. In January to June 2005, 2,084,388 people were evicted. The major reason for these evictions was the beautification of the city. In the majority of cases, people did not receive any compensation for the losses they incurred and where resettlement did take place it was 25 to 60 kilometres from the city centre.

[4] In Karachi, due to the relocation of over 14,000 households for the building of the Lyari Expressway, the schooling of more than 26,000 children have been disrupted. In the Philippines, they have decided that evictions will only take place after the final exams have taken place in schools.

[5] In Pune (India), in the settlements surveyed for the report, densities in the last 25 years have increased by over 300 percent without any major improvement in infrastructure and housing resulting in massive environmental degradation and deterioration in living conditions.

- Local governments in all the research cities have evolved an "image" for their cities. This image is all about catering to the automobile, high-rise construction and gentrification of poor areas. For this they are seeking foreign investment for building automobile related infrastructure and elite townships. Much of this is being implemented through the Build-Operate-Transfer (BOT) process which is two to three times more expensive than the normal local process of implementation. Foreign investment has also introduced foreign fast food outlets, stores for household provisions, mobile phone companies and expensive theme parks and golf courses. Much of this development has pushed small businesses out of elite and middle income areas and occupied public parks and natural assets of these cities for elite and middle-middle class entertainment and recreation at the expense of poor and lower middle income communities.

- An increase in the number of automobiles in Asian cities has created severe traffic problems and this in turn increases time taken in travel, stress and environment related diseases. Much of the financing of automobiles is being done by loans from banks and leasing companies[6]. New transport systems (such as light rail) that have been or are being implemented do not serve the vast majority of the commuting public and in most cases are far too expensive for the poor to afford[7].

- As a result of the culture of globalisation and structural adjustment conditionalities, there are proposals for the privatisation of public sector utilities and land assets. In some cities the process has already taken place. There are indications that this process is detrimental to the interests of the poor and disadvantaged groups and there is civil society pressure to prevent privatisation and to reverse it where it has taken place[8]. An important issue that has surfaced is as to how the interests of the poor can be protected in the implementation of the privatisation process.

- The culture of globalisation and structural adjustment has also meant the removal or curtailing of government subsidies for the social sectors. This has directly affected poor communities who have to pay more for education and health. In addition, the private sector in education, both at school and university levels, has expanded creating two systems of education, one for the rich and the other for the poor. This is a major change from the pre-1990s era and is having serious political and social consequences as it is further fragmenting society into rich and poor sections.

- As a result of the changes described above, there has been an enormous increase in real estate development. This has led to the strengthening of the nexus between politicians-bureaucrats and developers due to which building bye laws and zoning regulations have become easier to violate and due to which the natural and cultural heritage assets of Asian cities are in danger or in the process of being wiped out.

- There are multiple agencies that are involved in the development, management and maintenance of Asian cities. In most cases, these agencies have no coordination between them. In addition, in most cities there are central government interests that often over ride local interests and considerations.

---

[6] For example, 502 vehicles have been added to Karachi per day during the last financial year. It is estimated that about 50 percent of these have been financed through loans from banks and leasing companies who have never had as much liquidity as they have today. This means that loans worth US$ 1.8 billion were issued for this investment which could easily has been utilised for improving public transport systems.

[7] Cities such as Bangkok, Manila, Calcutta have made major investments in light rail and metro systems. Other Asian cities are following their example. However, these systems are far too expensive to be developed on a large enough scale to make a difference. Manila's light rail caters to only 8 percent of trips and Bangkok's sky train and metro to only 3 percent of trips and Calcutta's metro to even less. The light rail and metro fares are 3 to 4 times more expensive than bus fares. As a result, the vast majority of commuters travel by run down bus system (for details, see Geetam Tiwari; Urban Transport for Growing Cities; Macmillan India Ltd., 2002 and Arif Hasan; Understanding Karachi's Traffic Problems; Daily Dawn, January 29, 2004.)

[8] The privatisation of Manila's Water Supply System has benefited the rich and upper middle income areas and has had an adverse effect on lower middle income and lower income areas. The privatisation of Karachi Electric Supply Corporation has created immense problems of power distribution and there is now public pressure to de-privatise it.

- In all cities but two governments that are already heavily indebt are seeking loans from International Financial Institutions (IFIs). Development through these loans is exorbitantly expensive, loan conditionalities are detrimental to the development of in-country technical and entrepreneurial expertise and to the evolution of effective municipal institutions[9].

- In most cases IFI and bilateral agencies funded projects seldom have any coordination between them and/or with national programmes resulting in duplication and a waste of resources[10].

However, the city case studies also bring out a number of positive changes and trends that have taken or are taking place. The more important changes are given below:

- Over the last two decades urban poor organisations have emerged in most Asian cities. These organisations are backed by professionals and/or NGOs. Where they are powerful, governments are forced to negotiate with them. Their involvement in the planning and decision-making process is increasing.

- Civil society organisations have successfully come together in a number of cities so as to put pressure on governments for the development of more equitable development policies and/or to oppose insensitive government projects.

- There are now a number of government-NGO-community projects and programmes. It is true that the lessons from these programmes have yet to become policies in most countries but the lessons learnt from them have been understood and appreciated by politicians and city planners whose attitudes to the

disadvantaged sections have changed considerably since 1987 when the ACHR was conceived.

- In all the case study cities, there has been a process of decentralisation. This has opened up new opportunities for decision-making at the local level and for the involvement of local communities and interest groups in the decision-making process. In some cases, this has also meant a weakening of the community process in the face of formal institutions at the local level. In this regard the synthesis paper asks two important questions "Does decentralisation give city governments more power and resources and thus capacity to act?" and "If city government does get more capacity to act does this actually bring benefits to urban poor groups?"

THE CURRENT KARACHI CONTEXT

In the last decades, the whole approach to planning has undergone a change in Karachi. The local government is obsessed by making Karachi "beautiful" to visitors and investors. As a result, it has adopted the following thinking.
- Karachi has to be a "world class city". What this actually means has never been explained but it is one of the objectives of the Karachi Master Plan 2020.

- The city has to have "investment friendly infrastructure". Again, what this means has not been clearly defined. However, it seems from the programmes of the local government that this means the following.

- Flyovers and elevated expressways as opposed to traffic management and planning (See Figure 1)
- High-rise apartments as opposed to upgraded

---

9   According to research carried out by the Orangi Pilot Project in Karachi, the government develops infrastructure at 4 to 6 times the cost of labour and material involved. When loans are taken from IFIs the cost goes up by 30 to 50 percent due to foreign consultants and related purchase conditionalities. Where an international tender is also conditionality the cost can go up by an additional 200 to 300 percent. Thus something whose cost is US$ 1 in material and labour terms is delivered at a cost of US$ 20 to 30. According to a paper by the Cambodia Development Resource Institute titled "Technical Assistance and Capacity Development in an Aid-Dependent Economy, Working Paper 15, Year 2000", in 1992, 19 per cent of all aid money was spent on technical assistance. In 1998, it had increased to 57 per cent.

10   For example, there are currently seven IFI funded studies being carried out for Karachi who have little or no interaction with each other. These studies will result in a proposal for IFI loans. According to a report "The Asian Development Bank: In Its Own Words: An Analysis of Project Audit Reports for Indonesia, Pakistan and Sri Lanka, prepared by ADB Watch, July 2003", over 70 per cent of all projects funded by the ADB have been unsuccessful and/or unsustainable.
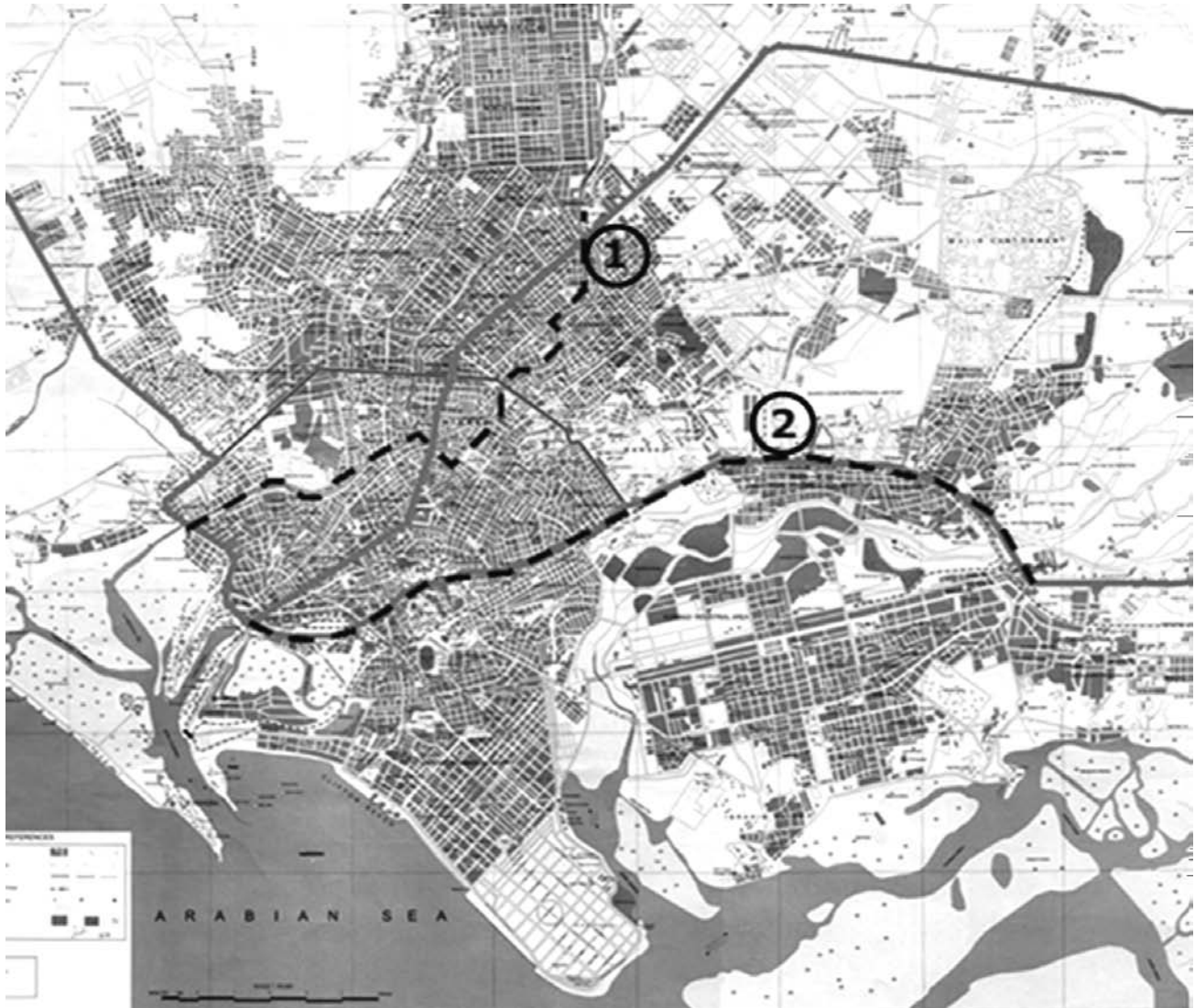
Figure 1 : Map of Karachi showing the (1) Lyari Expressway route and (2) Shahra-e-Faisal Elevated Expressway. Recent development projects underway.

settlements
- Malls as opposed to traditional markets (which are being removed)
- Removing poverty from the centre of the city to the periphery to improve the image of the city so as to promote direct foreign investment
- Catering to tourism rather than supporting local commerce

· Seeking the support of the international

corporate sector (developers, banks, suppliers of technologies and the IFIs) for the above.

The above agenda is an expensive one. For this, sizeable loans have been negotiated with the IFIs on a scale unthinkable before[11]. Projects designed and funded through previous loans for Karachi have all been failures[12]. Given this fact and the fact that local government institutions are much weaker in technical terms than they were in

---

[11] Between 1976 and 1993, the Sindh province in which Karachi is located borrowed US$ 799.64 million for urban development. Almost all of this was for Karachi. Recently, the government has arranged to borrow US$ 800 million for the Karachi Mega City Project in 2006. Of this, US$ 5.33 million is being spent on technical assistance being provided by foreign consultants.
[12] ADB-793 PAK (1996) Evaluation of KUDP and Peshawar Projects

previous decades, it is unlikely that the new projects will be successful. Also, it is quite clear from the nature of projects being funded that they are not a part of a larger planning exercise. In addition, there are also projects that are being floated on a BOT process. They are also not a part of any plan. It is obvious that projects have replaced planning and that the shape of the city is being determined increasingly by foreign capital and its promoters and supporters. This agenda is also anti-people and has resulted in increased evictions both of settlements and hawkers and the creation of conditions which make it difficult for working class people to access previously accessible public space. As a result, multi-class public space for entertainment and recreation is rapidly disappearing in Karachi.

The power of the national and international corporate sector has strengthened the already existing nexus of developers-bureaucrats-politicians and as such existing legislations and bylaws and zoning regulations are being bypassed far more easily than ever before. In this connection, Shehri, a Karachi based NGO has put together a document[13] identifying the commercialisation of beaches, building of an elevated highway through the city centre without an environmental impact assessment as required under law and illegal conversion and commercialisation of parks and playgrounds. In addition, the commercialisation of railway land is also being undertaken in violation of the leasing rules and regulations of the Railways Commercial Manual 1935.

The commercialisation of beaches in Karachi is going to have a major physical, social and environmental impact on the city. The city government has built a park along six kilometres of the beach. Though the park is most welcoming, its development has removed all hawkers, sea-shell salesmen and performers from this stretch

of beach and replaced them by expensive food outlets as a matter of policy. As a result, low income families can no longer enjoy this beach. The planning of the beach park could have accommodated hawkers and other entertainment providers but there was a conscious effort by the planners and decision makers to "gentrify" the beach. In addition, an entrance fee to the park of Rs 10 has been imposed for every adult and Rs 5 for a child.

Another project called Defence Housing Authority Beachfront Development is under construction. It is a 1,500 million US dollar development along 14 kilometres of the beach. It is being carried out by investments from Dubai and Malaysia based companies. Much of this project is on reclaimed land and restricts access to the beach. Multi-storey office blocks; theme parks and expo centres (experience in Karachi shows that such parks are too expensive for the poor and expo centres are not used by them); railway tracks along the water's edge (NED University students research shows that the fare will be Rs 90 per trip); condominiums and exclusive clubs (which will certainly be cordoned off for security reasons); expensive water sport facilities and most surprisingly, multi-storey car parks on the water's edge, have been planned. A potential multi-class recreational and entertainment asset has been usurped for the exclusive use of the rich and powerful (See Figure 2). The President approved on 19th February 2007, a plan to sell 60,000 acres if Karachi's coastal land along Hawkesbay and Sandspit to a Dubai based real estate developer for a multi-dimensional real estate scheme. Beach owners and other stakeholders have already received notices to vacate the beach[14].

In another move the government has sold two islands on the outlet of the Korangi Creek to a Dubai based company for US$ 43 billion for similar developments. These islands have been used by

---

13   Shehri has put together a list of amenity plots and / or protected land that is being commercialized in Karachi city. This includes commercialization of public beaches at Defence Housing Authority, Karachi Port Trust, Port Qasim Authority and property of City District Government. The projects under these are Usmani Park / Minhal Project, Mac Donald's/Kubla Khan/Kinara/Village Restaurants, 94 MW Power/Desalination Plant, Crescent Bay (100 acres land reclamation), Creek Marina, Rest of Waterfront Development Project (EIA) Port Tower Project (200 acres reclamation off Clifton), KPT-OCHS Mai Kolachi (130 acres reclamation), Manora takeover from Pakistan Navy, Sandspit being effected turtles and mangroves, Bandal/Buddro Islands sold to a Dubai based company for real estate development, Waterfront Development Project at Bin Qasim and Hawksbay (KDA Scheme 42 for BoR industries). This list also includes conversion and commercialisation of parks and playgrounds which include Webb Ground, LARP (5 acres, Makro-Habib Store is being built these), Kidney Hill "Falaknuma/Ahmed Ali Park" (62 acres, total 40 acres is being taken over for housing); Railway yard; amenity/public trust land (Ensha NLC Karachi Financial Towers' are being built); Railway Stadium, I.I. Chundrigar Road; Old DC (East's) Office, Gulshan-e-Iqbal; KPT Stadium, West Wharf Road; KMC Ground, Baba-e-Urdu Road; and Ejector-14, Kharadar; Gutter Bagicha.
14   Dawn Newspaper, 20th February 2007.
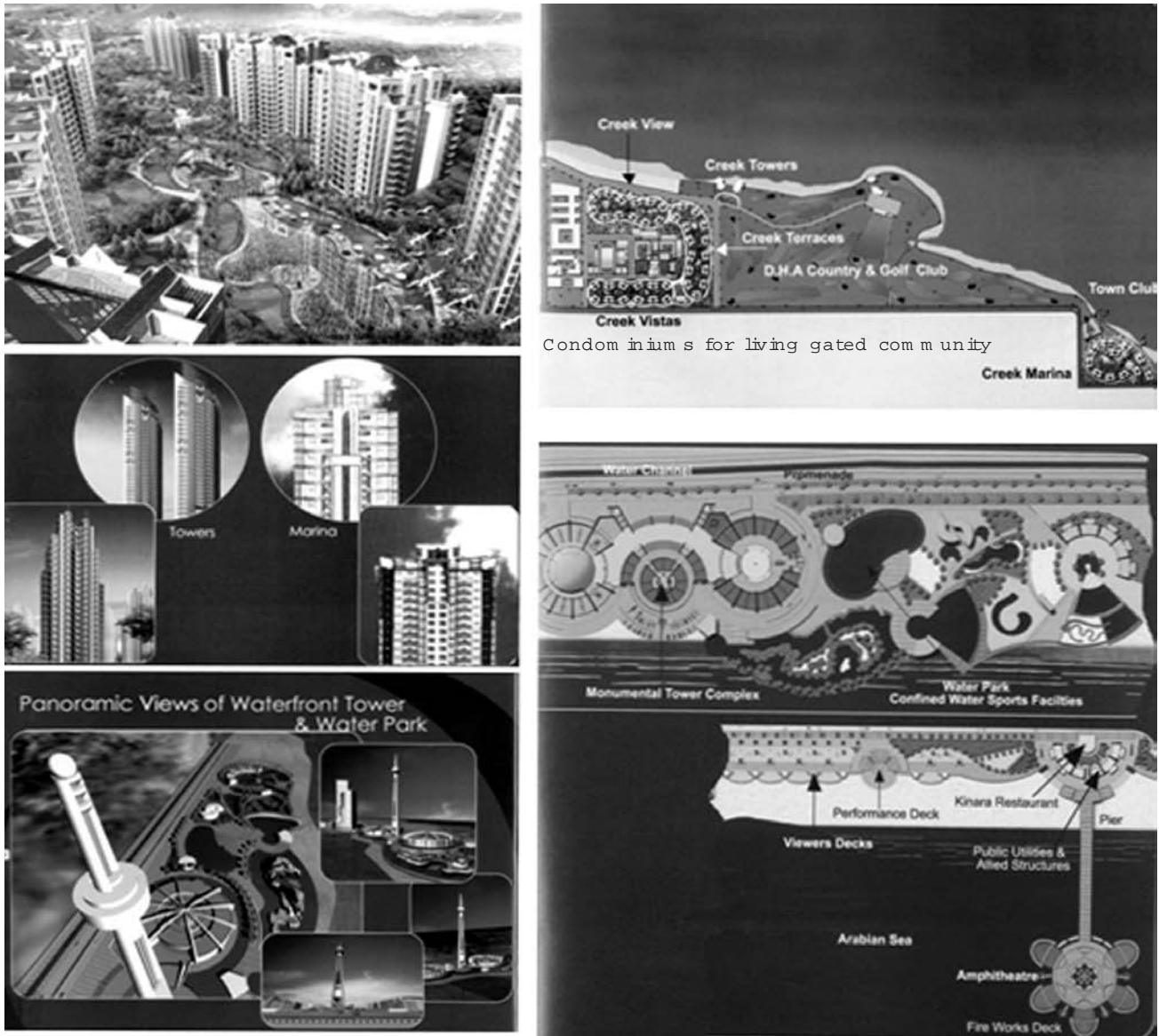
Condominiums for living gated community

Figure 2: Examples of water front development projects on the coast line of Karachi.

fishermen from time immemorial for fishing related and cultural activities. The mangroves adjacent to them are nurseries for fish, prawn and shrimp and migratory birds such as flamingos, pelicans and crane visit the waters around the islands in the winter season. The islands are ideal for the development of eco-tourism which could have integrated the biodiversity and the fishing communities and their activities into a development plan – but that did not happen.

The developments described above are bound to have serious ecological repercussions. They are being built by destroying the mangrove eco-systems and through land reclamation tampering with the coast line of a region that is subject to violent cyclones. They are adding to sewage and solid waste problems of an ecologically sensitive area and in addition adding to the number of cars that will not only use the road along the beach but will be parked there. In addition, these developments are adversely affecting the biodiversity of the region and the possibility of developing eco-tourism for the citizens of Karachi.

However, the most serious repercussion is social. Karachi is being further divided into rich and poor communities. The long term repercussions of this divide will lead to Karachi becoming like Rio, Johannesburg, Mexico City and many other urban areas where there are serious rich and poor conflicts leading to the ghettoisation of the rich and the exclusion of the poor from civic life.

The "investment friendly" infrastructure that is being developed is "signal-free" roads. These are being created on existing corridors by building flyovers and underpasses at important junctions and closing all other entry and access to these corridors. Although this has facilitated movement, especially during non-rush hours, it has created enormous problems for pedestrians wishing to cross the roads. In addition, public transport cannot stop on these flyovers and underpasses and has to use the old routes below the flyovers which have become increasingly congested as a result of them not being made a part of the "signal-free" roads schemes. As such, the commuters and the pedestrians have not benefited from this enormous expense. Karachiites believe that the "signal-free" roads are only met to facilitate VIP movements.

It is not possible to prevent the onslaught of global capital. However, it is possible to develop some basic principles for urban planning as a result of which a level of social equity can be achieved and ecological damage can be contained. For this to be achieved, it is recommended that for all urban planning in Karachi four basic principles should be adhered to. These are:

- Planning should respect the ecology and the natural environment of the region in which Karachi is located.

- Landuse should be determined on the basis of social and environmental considerations and not on the basis of land value or potential land value alone.

- Planning should give priority to the needs of the majority population which in the case of Karachi belongs to the lower income and lower middle income classes, the majority of whom are pedestrians, commuters, informal settlement dwellers and workers in the informal sector.

- Planning should respect the tangible and intangible cultural heritage of Karachi and of the communities living in it.

These principles do not suit international and local capital, greedy developers and politicians and professional driven by megalomania. However, an organised civil society consisting of professional institutions, concerned citizens and community organisations can push for this planning agenda and succeed, if it is properly organised and if its advocacy is supported to solid research.n

BIBLIOGRAPHY

Satterthwaite D. (2005) "Understanding Asian Cities", ACHR

Ali, R (1999) "How urban is Pakistan" Daily DAWN

Fernandes, K. (2006) "Some Trends in Evictions in Asia", ACHR.

Urban Resource Center, Karachi, (2005), "Lyari Expressway: Citizen's Concerns and Community Opposition"

Tiwari G. (2002) "Urban Transport for Growing Cities", Macmillan India Ltd.

Hasan A. (2004) "Understanding Karachi's Traffic Problems", Daily Dawn, January 29.

ADB-793 PAK: Evaluation of KUDP and Peshawar Projects; 1996

Dawn Newspaper, 20th February 2007.

Cambodia Development Resource Institute (1992) "Technical Assistance and Capacity Development in an Aid-Dependent Economy, Working Paper 15, Year 2000".

NAMES OF RESEARCHERS AND TITLES OF THE REPORT

- Beijing: Alexander Andre, Yutaka Hirako, Lundrup Dorje and Pimpim de Azevado (2004), Beijing Historic Case Study;

- Pune: Bapat Meera (2004), "Understanding Asian Cities: The Case of Pune"

- Chiang Mai: Charoenmuang, Duongchan, Apavatjurt Tanet Charoenmuang, Wilairat Siampakdee, Siriporn Wangwanapat and Nattawoot Pimsawan (2004), Understanding Asian Cities: The Case of Chiang Mai;

- Phnom Penh: Crosbie, David (2004), Understanding Asian Cities: Phnom Penh, Cambodia;

- Karachi: Hasan Arif and Asiya Sadiq (2004), Understanding Asian Cities: The Case of Karachi;

- Muntinlupa: Karaos, Anna Marie and Charito Tordecilla (2004), Understanding Asian Cities: The Case of Manila, Philippines;

- Hanoi: Thi Thu Huong, Nguyen (2004), Understanding Asian Cities: The Case of Quynh Mai Ward, Hai Ba Trung District, Hanoi, Vietnam ;

- Surabaya: Johan Silas, Andon, Hasian and Wahyu, the Laboratory for Housing and Human Settlements, ITS, Surabaya (2004), Surabaya and People's Role;

CHALLENGES OF URBAN DESIGN
IN POST-SOVIET EASTERN EUROPE:
The Case of Pärnu, Estonia

Vaika Haas
EDAW - Denver, United States

Kelly Shannon
KU Leuven, Belgium

ABSTRACT

Estonia, smallest of the Baltic states, is often heralded as a success story when it comes to transition from a command to market economy. Yet, in Estonia's remarkable evolution from socialism to democracy and the free-market, urbanization has witnessed sweeping changes – not all of which are laudable. With the withdrawal of Soviet occupation, city building is less centrally controlled. Not surprisingly, the public realm is shrinking, and suburbanization and strip retailing colonize urban peripheries. Historic urban fabrics are simultaneously upgraded to attract tourism.

This paper will discuss the complexly layered narratives of the Estonian city. Estonia has been, until recently, under near-continual domination by Denmark, Germany, Poland, Sweden, and Russia, due to its geo-political position on the maritime trade route between the West and Russia. Estonia today is influenced by the elegantly sober urban and architectural forms of Scandinavia. This paper will also review Estonia's contested urban territories, which result from processes of political, fiscal and administrative de-centralization, privatization and market development. The bottlenecks of land reform will also be outlined. After discussing issues in general terms, this paper will then focus on a recent strategic urban design project for an eastern extension of the city of Pärnu, a secondary city and the country's 'summer capital'.

The Pärnu case study is emblematic of the spatial, environmental and programmatic challenges in present-day urban Estonia. Located at the confluence of the Pärnu River and Pärnu Bay on the Baltic Sea, the city attracts tourists with its beaches, bustling summer events, fresh air, mud baths, and relative provinciality. With 45,000 residents, Pärnu is only about a tenth of the size of Estonia's largest city; yet Pärnu attracts 400,000 visitors each summer. Although Pärnu experiences extraordinary fluctuations in its population due to heavy summer tourism, the small city nevertheless represents issues typical of post-Soviet Estonian urbanism and planning. The urban history of Pärnu has seen upheavals and subsequent recovery. The case study project was the winning entry for an international competition. The site is strategic in the urban context, and the project addressed the interface between urban planning, architecture, and landscape ecology, mediating among various scales and conflicting interests (local vs. tourist, public realm vs. private development).

The Pärnu case study project put forth an urban design agenda, being more inclusive than the design of objects as such. Urban design and strategic urban projects prioritize public benefit and the shaping of the public realm. However, throughout the world, the role of urban design is sometimes marginalized as urban form follows financial and development priorities. The proposed project in Pärnu represents the difficulties and pressures of un-developed sites within Estonian cities; its status remains ambiguous and in Estonia, urban design has yet to prove its post-Soviet relevancy.

1. POST-SOVIET URBAN DESIGN IN ESTONIA: MODEL AND EXCEPTION

Urban design as a discipline is re-emerging in the Baltic States and Eastern Europe as a Janus god, with one head looking towards the future and the other looking back. For former Soviet Socialist

Republics (SSRs), reasserting independent national identities was a complex process. After the dissolution of the USSR, economic and political structuring took first priority; with improved stability, former SSRs are now in a better position to consider issues of urban planning. The shift from Marx to the market heralds a new public realm with a proliferation of internal, more private spaces – evident in the increased demand for single-family housing and shopping malls, which threaten to sprawl across Eastern Europe.

Eager to erase the scars of Soviet occupation, former SSRs seek to obliterate, transform, or beautify the extant relics of Soviet urban planning. Displaced urban orders re-emerge, sometimes under the guise of the traditionalist neighbourhood planning movement known as 'New Urbanism'. Much of Eastern Europe seems poised to adopt wholesale (and uncritically) the urban models of the West. While centre cities enhance their tourist-appeal as an economic asset, increased car-ownership sprawls single-family housing and shopping malls across city peripheries. Massive Soviet-era housing estates, once symbols of social equity for new immigrants to the 'Soviet West', have decayed into ghettos for the poorer sectors of society, although occasional buildings have been re-dressed as homes for the rising middle class. Due to the privatization of property, renovations must be preceded by the formation (and consensus) of cooperative associations, resulting in unpredictable progress for rehabilitation.

The practice of post-Soviet urban design encounters economic challenges, along with fragile public administrations and blurring professional disciplines. Architects become developers in several Eastern European countries (For example. Romania). The dramatic shift from totalitarian occupation to a deregulated free market has deep repercussions for urban planning and design, primarily as a shift in the scale of focus.

The withdrawal of central control has left the roles of state, municipal and local authorities sometimes unclear. While rapid-fire votes of no-confidence for elected officials have settled down, foreign investment and improved economies fuel a fast demand for development, which can undermine the enforcement of newly developed regulations. Meanwhile, the improvement of public services and infrastructure is struggling to keep pace with the mushrooming development of consumerist logics.

Figure 1: Estonia's position in northern Europe. Pärnu is favourably located on Pärnu Bay, linking the town's trade to the Baltic Sea. Source: K. Shannon/C. Vilquin.

Estonia, the northern most of the Baltic states (See Figure 1), has been a success story in the transition from a command to market economy. Of the ten countries that joined the European Union in 2004, Estonia recorded the highest GDP growth (12%) in 2006.[1] However, like other cities in 'new Europe', Estonian cities still hold uncertain urban territories, the results of rapid political, fiscal and administrative transformation, as well as privatization and market development.

For example, in post-Soviet Tallinn, the question of, which historic and cultural elements should be preserved and which must be erased remains contested. The ziggurat-like Linnahall (Town Hall), which looms along the seashore near the busy passenger ferry terminal, drew debate as controversial as the Palast der Republik in the former German Democratic Republic capital or Ceauºescu's House of the People (now the Parliament) in Romania. As of summer 2006, Tallinn's mayor stated that plans were to re-develop Linnahall's interior while preserving its shell as a historic element.

Across Eastern Europe, the process of land restitution was a fundamental step in independence. In Estonia, all properties seized in 1940 were returned to their pre-war owners. This radical (nearly overnight) shift in ownership coincided with de-regulation and land reform. The level of privatization in Estonia has been astounding. Property privatization and restitution have been compounded by the State sale of holdings to balance civic budgets. The shift in property ownership is most evident in the housing sector. In 1994, when the last Soviet troops withdrew from Estonia, 70.8% of housing fell within the public sector and 29.2% was privately owned. As of 2006, only 25,300 dwellings (4.0%) were owned by the public sector (6,300 by the State and 19,000 by local government); the private sector claimed the remaining 607,800 dwellings (96.0%).[2]

Similar to architecture in Poland, Hungary, Czech and Slovak republics,[3] Estonia had a rich Functionalist modern tradition from the inter-war period (1918-1940), a brief yet important window of independence. Across the former SSRs, a body of interesting architecture is emerging. Termed Neo-Functionalist, this architecture references inter-war Modernism, thus carrying distinct political and symbolic connotations nuanced with vernacular traditions.

2. COMPLEXLY LAYERED URBAN HISTORIES

Urbanization in Estonia mirrors the complexly layered narratives of the country's cultural history. Under the shifting domination of Denmark, Germany, Poland, Sweden, and Russia, Estonia occupies an important geo-political position on the maritime trade route between the West and Russia. Estonia's capital city of Tallinn, in particular, features deep, ice-free trading ports. Each subsequent occupation regime brought its urban design and architecture to Estonian cities, with the result that the built layers remain visible as fragments in the contemporary cityscapes.

Estonia has a long-standing and close relation with Scandinavia, particularly with Finland, due to linguistic, cultural and economic ties. Contemporary Estonian urbanism and architecture reveal the elegantly sober influence of Scandinavia. Finnish architect Eliel Saarinen designed the 1913 master plan for Tallinn under the principle of 'organic de-centralization'. Saarinen connected local squares with radiating streets, monumental vistas, and asymmetrical compositions of enclosed spaces with key buildings. According to architectural historian Mart Kalm, Saarinen was thus able to combine Hausmann's monumentalism with Camillo Sitte's picturesqueness.[4] Amongst Saarinen's urban planning ideas that were employed in Estonia are green belts, satellite centres, focal traffic arteries, linear greenways and the formal, axial arrangement of streets.

The early Soviet (1940-1941), Nazi German (1941-

1   'Shadows at Europe's Heart', The Economist, 12 October 2006 (http://www.economist.com/world/Europe/displaystory.cfm?story_id=8032834)
2   STATISTICS ESTONIA (http://pub.stat.ee/px-web.2001/Dialog/Saveshow.asp)
3   Croci, V. (2004) 'New Europe: Place(s) Without a Sense of Place', in: "Architectural Design", May 2004, pp. 6-10.
4   Kalm, M. (2002) "Eesti 20. sajandi arhitektuur. Estonian 20th Century Architecture". Tallinn: Prisma Prindi Kirjastus

1944) and later Soviet (1944-1991) occupations left distinctive marks on Estonia. World War II brought massive population loss and bombing, along with the 'City of Socialist Man' agenda during the extended second Soviet occupation. Soviet planning left harsh marks on Estonia's landscape, which Estonians today are eager to eradicate. For instance, Soviet mandate established collective farming, which was characterized by reduced agricultural productivity and formidable pollution. Soviets also established the industrial POW city at of Sillamäe, and massive (but poorly built) housing districts which replaced bombed areas of Estonia's cities.

At the edge of the USSR and clinging tightly to their sense of cultural autonomy, Estonia, Latvia and Lithuania became 'model republics' behind the Iron Curtain. While 'model republic' status conferred some special economic privileges, the USSR's political and socio-economic transgressions against the Baltic republics could not be forgotten. After more than 50 years of occupation, Soviet withdrawal in the early 1990s was met with relief on all fronts, including in architecture and urbanism. The era of imposed ideology and control was quickly replaced by the logic of the free market.

3. PÄRNU: ESTONIA'S SUMMER CAPITAL

Pärnu, located along the south-west Estonian coast, has been termed Estonia's 'summer capital.' Located at the confluence of the Pärnu River and Pärnu Bay on the Baltic Sea, the city attracts tourists with its beaches, bustling summer events, fresh air, mud baths, and relative provinciality. With 45,000 residents, Pärnu is only about a tenth of the size of Estonia's largest city; yet Pärnu attracts 400,000 visitors each summer. Although Pärnu experiences extraordinary fluctuations in its population due to heavy summer tourism, the small city nevertheless represents issues typical of post-Soviet Estonian urbanism and planning. Pärnu's favourable seaside location is shaped by the outlet of the River Pärnu, which runs for a few kilometres parallel with the coast of Pärnu Bay and forms a low, 2-km wide peninsula between the river and sea. This location and a desirable port precipitated Pärnu's participation as an important trade city in the medieval Hanseatic League. Like Tallinn, Pärnu's urban history reveals a richly layered historic and cultural narrative, coloured by occupation and war.

The oldest and northwest district of the present city of Pärnu, located nearest the Pärnu River, dates back to the 13th century, but was badly damaged by fire in 1263 and during war with Poland in the 1600s. Pärnu was an important trade and garrison town during periods of Swedish (1561-1710) and Tsarist Russian (1710-1917) occupation. Punane Torn (Red Tower) and Tallinna Värav (Tallin Gate), which date back to the 15th and 17th centuries respectively, are the most visible remains of Swedish planning.

Under tsarist rule, Pärnu was transformed into a health resort town, and was deleted in 1834 from the list of fortress towns of the Russian Empire. Pärnu's port grew to rival Tallinn's in importance during this period, as Pärnu attracted visitors from St. Petersburg and of the rest of the tsarist empire during its relatively long (3-month) summers. Acknowledging Pärnu's tourist appeal, city planners emphasized the city's relationship to the coast. In 1882, the city constructed Ranna Park (Beach Park); in the 1890s, bathing cabins on stilts were a common sight in the low waters of the sea (see Figure 2). In the drive to create a resort town, tsarist rule enhanced Pärnu with tree-lined avenues and increased recreational amenities, including sports fields, a velodrome and children's playgrounds. Shady avenues linked the centre city to the sea and connected public buildings to recreational spaces. Pärnu's local government regulated the renting out of apartments to holiday visitors, and planned certain streets as summer

Figure 2: Bathing cabins on stilts were part of Pärnu's shallow water landscape during the late 19th and early 20th centuries. Source: Pärnu Museum.

housing districts.[5] Similar to the case in Tallinn, tsarist industrialization complemented the economy generated by tourism, and Pärnu continued to grow under tsarist occupation until the early 20th century.

The larger political events of World War I had a significant influence on Pärnu's physical structure. Pärnu's port ceased to operate; fishing boats were intentionally sunk by the army at the mouth of the Pärnu River to block maritime invasions. Interrupted flow accelerated the deposition of sand at the river's outlet. Invading armies also burned bathing establishments and bombed the town.[6]

The February Revolution of 1917 led to the fall of the Russian Empire and initiated the birth of independent statehood in Estonia. In the 1920s, early in the period of Estonia's first independence (1918–1940), Pärnu re-established itself as a resort town and flourished while beach culture gained hold in Europe. In the 1930s, the city solidified its reputation as an internationally renowned spa town. Two new districts grew around Pärnu's old town, bounded by the sea to the south and crossing the river to the north and northeast. During this

Figure 3 : The Pärnu Rannahotell (Beach Hotel), by Olev Siinmaa and Anton Soans, introduced Functionalist style to the health resort town in 1937. Source: Kalm 2002:164.

Figure 4 : This ceremonial entrance to Pärnu exemplified the grandiose Stalinistic urban style that was applied across the USSR. Source: Tönu Laigu archive.

Figure 5 : Pärnu's Khrushchev blocks, dating to the 1950-1960s, were typical of the 5-story mass-constructed housing blocks built under Soviet occupation. Source: Tönu Laigu archive.

---

[5] Kriiska, A. Vunk, A., Laurik, I. Idvand, K. (eds.) (2002) 'Brief History of Pärnu. Pärnu': Museum of Pärnu
[6] Ibid.

same period, Olev Siinmaa, Estonia's most famous Functionalist, became Pärnu's town architect. As a result, the city witnessed the construction of a number of remarkable buildings, many of which were strategically situated along the coastline (see Figure 3). The hotels, casinos and 'kuurorts' (an Estonian term for therapeutic cure spa resorts) combined a rationality and playfulness that continue to animate Pärnu's coast today.

If Pärnu's glorious days were in the 1930s, its tragic ones were in the 1940s. World War II brought Estonia much suffering, with successive occupations by Soviet (1940–1941) and Nazi German (1941–1944) troops. Estonia was illegally annexed as part of the 'Soviet sphere of influence' through the August 1939 Molotov-Ribbentrop Pact between Adolf Hitler and Joseph Stalin. Altogether, Estonia lost one quarter of its overall population as a result of World War II.[7] Pärnu was damaged extensively, and heavily bombed by the Soviet Red Army on 22 September 1944. During Estonia's second Soviet occupation (1944–1991), Pärnu was rebuilt under the heavy-handed influence of Stalinist urbanism. Influenced by 'gigantomania,' as it was later termed by Gorbachev's economic advisor Abel Aganbegyan, centralist Soviet urban planning emphasized massive housing and industry over local and cultural considerations.[8]

Totalitarian urban planning left Pärnu, like other Estonian cities, with an uncertain legacy of over-scaled industry and contamination. Soviet planners considered Pärnu River an industrial rather than tourist asset, and emphasized the construction of textile factories, wood and fish processing plants along the river. In the mid-1970s, Parnu accounted for 20% of Estonia's textile industry and 10% of its forestry and wood processing production.[9] By 1989, the E. coli index on Pärnu's beach was 5000 times the permitted level[10] Nevertheless, during the second Soviet occupation, Pärnu was able to retain a portion of its economic stake in spa tourism primarily through the Finnish market.

In sharp contrast to Estonians' own strong cultural emphasis on nature and preservation, Soviet planning failed to take into account local and cultural considerations. As a result,

> "Estonian cities are a mixture of natural and totalitarian views of the world. Urban space has evolved as the random cumulative effect of former uninterrupted developments, classical, Stalinistic or unregulated planning, zoning and engineering networks. The focus of attention has been the system rather than the person for more than two generations. The result is many forgotten areas, illogical situations and spatial conflicts that frequently are situated right in the heart of the city."[11]

The urban history of Pärnu has seen upheavals and subsequent recovery. Since Estonian independence was restored in 1991, Pärnu has established itself as a 21st century city, sensitive to local traditions and conditions, yet at the same time pressured by the global market.

Pärnu's present real estate pressures are enormous, as tourism continues to grow and transportation to other parts of the country improves. Due to its tourist draw and perceptively growing market, foreign investors make significant real estate purchases in Pärnu. Foreign investment has had a remarkable impact on real estate prices between Pärnu's beach and city centre (the Beach Region); prices here sometimes equal those in Tallinn.

The imposition of the ideals and 'gigantomania' of Soviet planners delayed the onslaught of post-WWII suburban housing in Estonia by 50 years. However, since the restoration of independence and the free market, Estonians in their new

---

7 Rahi-Tamm, A. (2005) 'Human Losses' in: Salo, V. (ed.) "The White Book: Losses Inflicted on the Estonian Nation by Occupation Regimes". Tallinn: Estonian State Commission on Examination of the Policies of Repression, pp. 25–46.
8 Hill, F. and Gaddy, C. (2003) "The Siberian Curse: How Communist Planners Left Russia Out in the Cold". Washington, DC: Brookings Institution Press.
9 Kriiska, A., Vunk, A., Laurik, I., Idvand, K. (eds.) (2002) "Brief History of Pärnu". Pärnu: Museum of Pärnu.
10 Rahi-Tamm, A. (2005) 'Human Losses' in: Salo, V. (ed.) "The White Book: Losses Inflicted on the Estonian Nation by Occupation Regimes". Tallinn: Estonian State Commission on Examination of the Policies of Repression, pp. 25–46.
11 Laigu, T. (2006) 'Good City. Search for the Vision of Urban Centres in Estonia,' in: "Maja" 25.11.2003 (accessed through, December 2006).

affluence have re-asserted a preference for single-family suburban housing over Soviet high-rise housing blocks. Fortunately for long-term urban planning in Estonia, low population growth has prevented the wholesale spread of piecemeal cul-de-sacs (as seen in the USA). Pärnu residents today demonstrate a preference for the single-family housing typology, in keeping with the city's return to more traditional forms of city-making and general trends in Eastern Europe.

The real estate market in Pärnu has maintained an upward trend since the post-Soviet privatization of property. In the Beach Region, about 50% of buyers are foreigners (mostly Finns, Swedes and Germans). About 20% are residents of Pärnu or their relatives, and about 30% are residents of Tallinn and other parts of Estonia.[12]

The large demand for central Pärnu real estate has interested developers in new construction, especially of housing. A number of new construction sites in the city demonstrate the 'internationalization' of Pärnu's urban fabric. For instance in the Beach Region, Tervise Paradiis (Health Paradise), a massive 8-story aquatic centre and spa hotel designed by Raivo Puusepp, introduced a new scale and architectonic style to Pärnu. A number of new public buildings carefully composed a revival of Estonian Functionalist architecture. Examples of neo-Functionalism include: a new concert hall (by Coo Architects), sports hall (by Kavakava), Automobile Registration Centre (by QP Architects) and housing projects (by Kalle Vellevog).

In the rush of new development, the city has experienced a shortage of local professionals to fill its public sector jobs. Professionals are drawn to Tallinn and abroad in pursuit of higher wages. In fact, Pärnu has delegated a share of its municipal work to outside consultants. A consultant firm from Tartu, Estonia's university city, developed the 2001-2025 Pärnu Masterplan. Pärnu's city architects complain that the plan is more political than spatial, but also too detailed; any changes require permission from the city council.

Figure 6: Lasnamäe, a housing estate in Tallinn with a population of 110,000, was part of a larger programme to encourage immigration to Estonia from other parts of the Soviet Union. Soviet-era 'colonists' were literally given keys to new housing at the railway station. Source: Tõnu Laigu archive.

Figure 7: Financed directly by Moscow, Lasnamäe was constructed following modernist Le Corbusier's principles separating buildings from infrastructure. Today the district's buildings and interstitial areas have fallen into disrepair. Source: Vaike Haas.

12 Kurg, A. & Trumm al T. (2004) 'Europan 7 in Estonia', in: "Maja" 26 May 2004
    [http://www.solhess.ee/majaeng/index.php?gid=62&id=330]

" . . . as a legacy of the Soviet era, administration of Estonia's environment on a national basis is fragmented between different departments. Planning and environmental protection are in the hands of the Ministry of the Environment. Regional development and local government are partly handled by the Ministry of Internal Affairs, and partly by the minister for regional development. Construction and housing administration is the responsibility of the Ministry of Economic Affairs, while heritage conservation is the domain of the Ministry of Culture. At the more local level, county councils mediate the aims of the national architectural policy and sustainable planning principles for the municipal governments through their planning activities. County governors are responsible for the drawing up and official supervision of planning and development in the county".[13]

While enthusiasm is high and the intentions of politicians and city architects are laudable, the Pärnu Master plan can also be vulnerable to the wily manoeuvring of real estate developers.

4. SECOND NATURE: A STRATEGIC URBAN PROJECT

Reflecting Estonia's enthusiastic 'return to Europe,' since 1997 Estonia has been an active participant in Europan, the architectural federation of 19 national organizations that hosts bi-annual architectural competitions launched simultaneously across Europe. With common themes and with common objectives, these competitions aim to attract young architects (under forty years of age), as well as advertise the talents of winning architects to Europe's building scene.

In 2004, Europan 7 focused on the theme of 'Suburban Challenge: Urban Intensity and Housing Diversity'. At 68 sites across Europe, participant architects sought to intensify diffused towns, transform usages while preserving the identity of places, urbanize mobility networks, and restructure districts of modern housing.

Of the 2100 submissions entered in Europan 7, there were 57 winning projects, 62 runners-up and 67 special mentions. Estonia hosted two Europan 7 design competition sites, one in Tallinn and another in Pärnu.

Europan 7 elicited 14 proposals for the redevelopment of Tallinn's challenging Soviet-era Lasnamäe housing district (see Figures 6-7). Lasnamäe, a relic of 1970s Soviet central planning, houses a population of 110,000 in regimented high-rises. Because the privatisation of property

Figure 8: Pärnu's Europan 7 site, a beautiful wetland landscape, fronts directly onto the Baltic Sea. The site connects the medieval city centre to the Soviet-built Mai housing district to the east. Source: Europan 7 competition brief.

Figure 9: The Mai housing district is Pärnu's equivalent to Lasnamäe, epitomizing Soviet 'gigantomania' in housing. Source: Tonu Laigu archive.

---

[13] Architectural Policy of Estonia 2002: 4-5

has made it difficult for residents to organize and finance building renovations, the district's buildings, for the most part, languish in various states of bleak disrepair. In this case, the post-Soviet property ownership structure of Soviet-era housing has left Tallinn's officials uncertain of how to address the district's problems, despite the progressive design ideas put forth by Europan 7 and the willingness of foreign investors, often Finnish, to purchase apartments overlooking the Baltic Sea.

Also in 2004, 47 entries proposed plans for an undeveloped coastal area east of Pärnu's city centre. Tallinn's well-respected architect and critic, Andres Kurg, observed that, in the case of Pärnu,

> "It appeared that most of the architects were impressed by aerial photographs of the site made in late autumn: the exotic seaside brushlands, an area in the midst of the city that had remained wild for some unaccountable reason...".[14]

The low-lying and marshy 21.5. Ha site was formerly a town pasture, once used for grazing and haymaking, but now overgrown with reed beds. A network of ditches and footpaths to the shore punctuated the site (See Figure 8).

As a threshold between the city and the Baltic Sea, the site mediated the ecology between the groomed tourist beach and adjacent tidal wetlands. The site also had the potential to integrate strategically Pärnu's urban structure, by linking:

· The fine-grain fabric of the medieval district,
· The heroic monumentality of Functionalist beachfront hotels, casinos and spas;
· The traditional low-density suburb of Eeslinna, and
· The imposing scale of the Soviet-era 1970s Mai housing estate (See Figure 9).

The site's seaside location, distinctive tidal wetlands, and reed landscape proclaimed a unique identity. Because developable sites within central Pärnu were rapidly being built up, the location, spaciousness and quality of the site were extremely attractive to private investors. Ownership of the site was divided between the Republic of Estonia and the City of Pärnu.
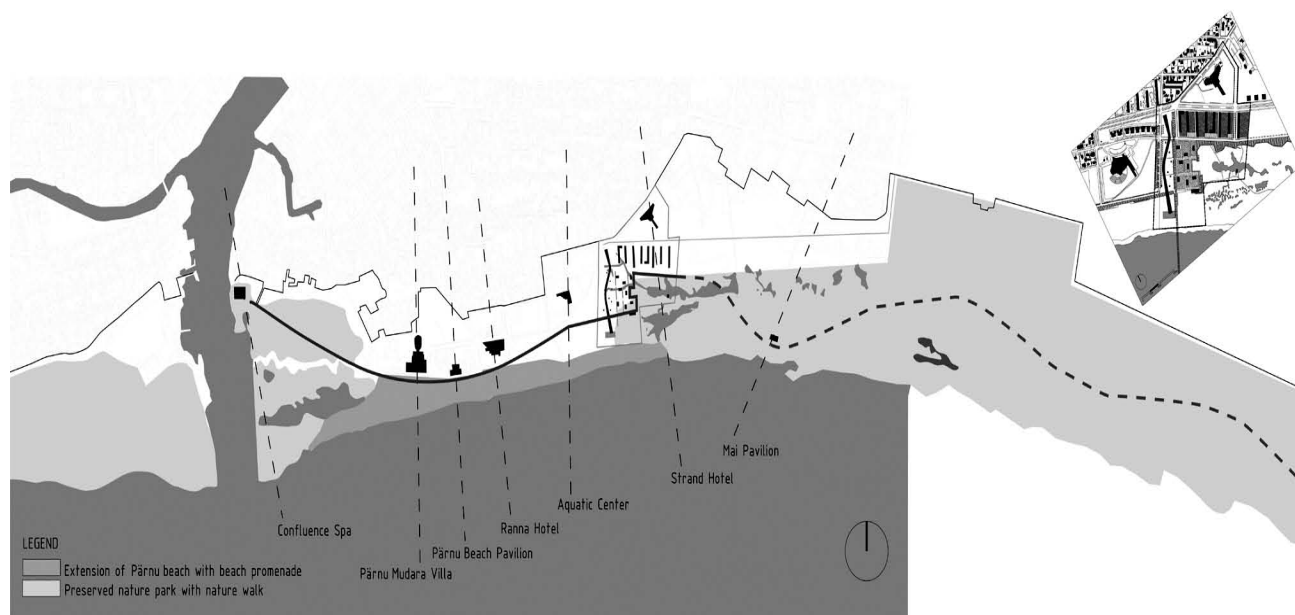

Figure 10 : Second Nature addressed the larger urban scale of Pärnu, while preserving areas of natural flora and tidal wetlands at both ends of the constructed beach. A beach promenade linked the project's large-scale public buildings. Source: BLU-net/C. Vilquin.

---

14   Kurg, A.; 'Estonia: The Remarkable Afterlife of the Linnahaal Concert Hall,' in: "Architectural Design", May 2004, pp. 46-53.

The city welcomed the Europan 7 international design competition as a means of bringing the site's development into public debate, and city officials hoped the winning entry would be soon built.[15] Several of the competition projects included raised boardwalks to access the sensitive tidal environment, or created expressive structures to demonstrate the extreme climate range in Pärnu. According to Andres Kurg, one of the competition's jury members:

> "Even though there were plenty of flights of fancy and visionary projects regarding seashore buildings, new typologies and bold hybrids, those who had actually made the trip to the site in addition to seeing the enticing aerial photographs clearly had a leg up on the competition. And even though Pärnu has a fairly strong identity, an understanding of the significance and relevance of modern architecture and a clear view of future developments, even the craziest ideas on what to do with the town are all well and good, if only in that they keep the identity from getting too rigid and self-defeating".[16]

The winning entry for Pärnu's Europan 7 site, Second Nature, emphasised the site's relationship to the public realm and to the larger city scale. The design intended to protect and enhance the site's potential by:
1. Broadening the public realm,
2. Separating urban sprawl from fragile, natural environments, and
3. Mediating between the local community and the pressures of seasonal tourism.

BLU-net, an international group of architects based in Brussels,[17] configured the site as a strategic 'third space' (see Figure 10). BLU-net also linked the planned extension of the Beach Region with the proposed nature preservation park on the site.

The sensitive ecology of the site's tidal wetlands was 'preserved' in the design, with the understanding that wetland areas are constantly in motion. The architecture proposed for these delicate areas was raised above ground to minimize ecological footprints. A 400-m long building anchored the western edge of the site to the city,
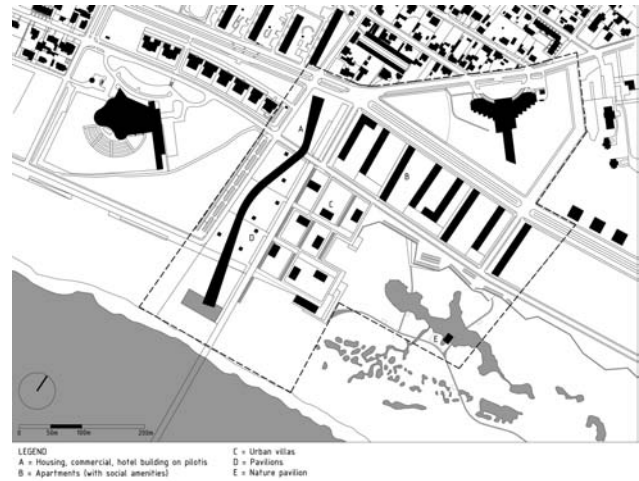

Figure 11: A figure-ground study of the site shows the citywide scale and the residential fabric of piecemeal, single-family housing. Second Nature added a 400-meter building (A) to provide an animated backdrop to the preserved nature park to the east, and created housing diversity through different types of housing, ranging from apartments to urban villas. Source: BLU-net/C. Vilquin.
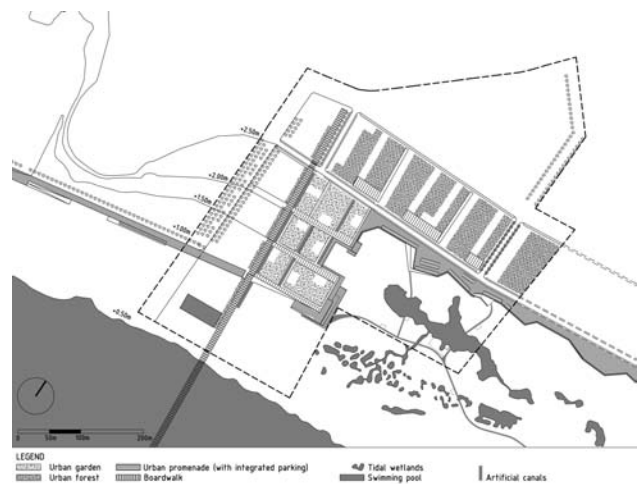

Figure 12: The landscape structure enhanced the public realm with a series of promenades, boardwalks and pathways, and linked the beach and natural areas to the city. Source: BLU-net/C. Vilquin.

---

15 Mets, A. 'Pärnu ranna areng sünnib arhitektide mõtetest.' 03.07.2004, accessed January 2007.
16 Kurg, A. & Trummal T. (2004) 'Europan 7 in Estonia', in: "Maja" 26 May 2004 [http://www.solness.ee/majaeng/index.php?gid=62&id=330]
17 The BLU-net Architects who designed Second Nature were: Kelly Shannon (American), Oana Bogdan (Romanian), Raquel Colacois (Spanish), Ivan Llach (Spanish), and Laura Vescina (Argentinean).

and provided the finale in a rhythm of large public buildings along the seashore. This building also provided a strong urban edge to the Mai housing district (See Figures 11-15).

Second Nature addressed the interface between urban planning, architecture, and landscape ecology, mediating among various scales and conflicting interests (local vs. tourist, public realm vs. private development). However, after BLU-net completed the urban design guidelines, the ownership of the property came into dispute. Development was delayed pending the resolution of restitution issues, as both the State and municipality owned parts of the site. Thus, the realization of the winning entry for Pärnu's Europan 7 site remains ambiguous, despite the support of Pärnu's planning department, mayor, and private investors. With increasing implementation of Estonia's planning and building policy, perhaps the roles of various levels of government will become clearer.

> "The ultimate authority and responsibility for planning, design and construction has been delegated by the state to local government through the planning and building law. Local government can institute and implement the rules (building regulations, etc.), long-term programmes, and strategies for planning and architectural design. They can coordinate planning activities by procuring planning services or executing the planning themselves. Since the planning and building law came into force, general planning has been implemented, or is in the process of being drawn up, for 30 towns and cities and 110 rural municipalities. Fourteen county plans have already been completed. Only a few of Estonia's 247 local governments have the resources to implement the planning and construction responsibilities assigned to them by law. Only the largest towns have an architect on the city council, and only every fifth county has one on its county council".[18]

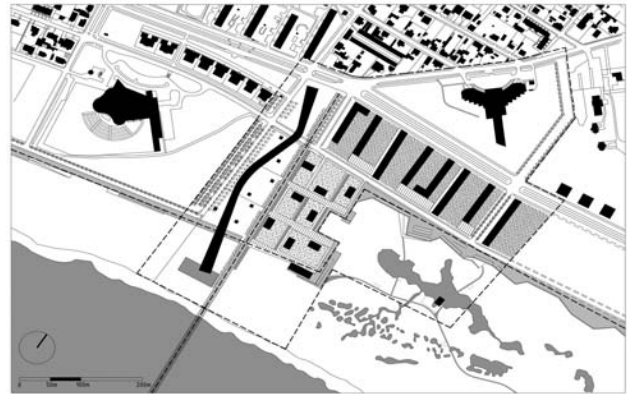

Figure 13: This detail plan was approved by Pärnu's Town Council in 2006, setting Second Nature's building regulations into law. Source: BLU-net/C.Vilquin.
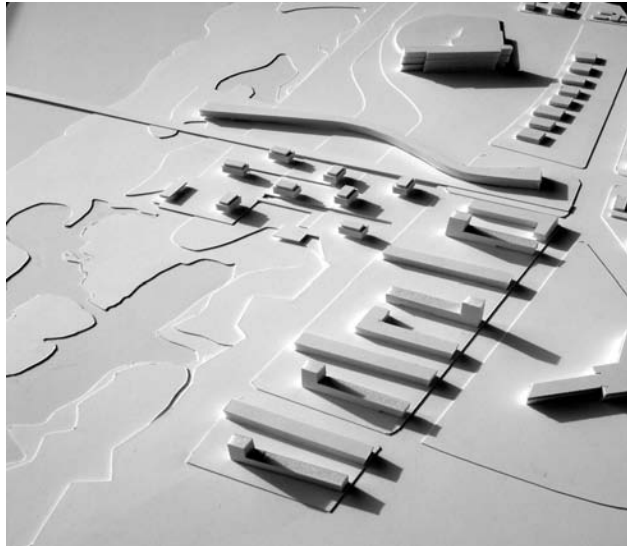

Figure 14: A possible massing simulation was based on the detail plan regulations. Source: BLU-net.

Figure 15: A boardwalk linked the city to the Baltic Sea. Source: BLU-net.

---

[18] Architectural Policy of Estonia 2002: 4-5

5. THE CHALLENGES OF POST-SOVIET URBAN DESIGN

As stated by the modern master architect José Luis Sert in 1956, urban design "is that part of city planning which deals with the physical form of the city." The field evades a more commonly agreed upon and precise definition, although architect/planner Manuel de Solà Morales offered one that is quite convincing. According to him, urban design is:

> "neither architecture nor planning… Urban design means taking the geography of a given city, with its demands and suggestions, as a starting point, and introducing elements of language with the architecture to give form to the site. Urban design means bearing in mind the complexity of the work to be carried out rather than a rational simplification of the urban structure. Moreover it means working in an inductive manner, generalizing what is particular, strategic, local and generative."[19]

> "And thus, the urban project has the following characteristics: 1. territorial effects outside their area of intervention; 2. complex and interdependent character of the contents; superseding of monofunctionality (park, road, typology, etc.); mixture of uses, users, temporal rates, and visual orientations; 3. intermediate scale, to be completed within a limited time scale of a few years; 4. voluntarily assumed commitment to adopt an urban architecture, independently of the architecture of the buildings; 5. a significant public component in investments and in collective uses of the program."[20]

Urban design is more inclusive than the design of objects as such. It bridges planning and architecture, and requires shuttling between multiple scales. Urban design and strategic urban projects prioritize public benefit and the shaping of the public realm. However, throughout the world, the role of urban design is sometimes marginalized as urban form follows financial and development priorities.

The Planning Act of 1995 (up-dated in 2002) in Estonia solidified the legal mandate of the architecture and planning professions in terms of territorial design. The Planning Act regarded zoning and land-use planning as the most important tools to implement sustainable development. The Planning Act established a planning system on four levels: (1) national planning, (2) county planning, (3) local comprehensive planning and (4) detailed planning. The Act set forth requirements to be met at each level.

In Estonia, the challenge remains to create a climate that fosters the development of innovative urban design projects. Strategic projects can establish public-private partnerships (PPPs) of financing and programming and help speed Estonia's 'return to Europe' at the urban scale. Since Estonian independence was restored in 1991, 'the little country that could' has overhauled its political and economic structures.[21] Now that the turmoil of economic 'shock therapy' has settled, Estonian officials are in a better position to consider the post-Soviet transformations that gather momentum within urban design and planning.

In the rush to privatize property, Estonian municipalities relinquished some planning control. According to architectural historian Mart Kalm,

> "Previously state and municipal lands were developed with state money – which is now less readily available. Land privatization and de-nationalization was a slow process and in the end developers gained the upper hand".[22]

An administrative and financial environment conducive to the principles of urban design must actively encourage the protection and expansion

---

19 de Solà Morales 19990: 7
20 de Solà Morales 1990: 13
21 Smith, D. J. (2002) 'Estonia: Independence and European Integration' in Smith, D. J., Pabriks, A., Purs, A.. Lane T. (Eds). The Baltic States: Estonia, Latvia and Lithuania. New York: Routledge
22 Kalm, M. (2002) Eesti 20. sajandi arhitektuur. Estonian 20th Century Architecture. Tallinn: Prisma PrindiKirjastus

of the public realm through strategic projects. Unfortunately, short-term economic goals or political ambitions can supersede public interests. In urban planning, Estonia has perhaps erred on the side of political caution, allowing its real estate market to enjoy for too long the "the thrill of the laissez faire" to encourage foreign investment. In 1998, a Financial Times survey called Estonia "Europe's purest free market economy".[23] In the early 1990s, the minimal regulation of Estonian planning was also perhaps an ideological counterpoint to the repression and central planning policies of the Soviet era; now, however, municipalities are willing to recognize the need for stronger planning to structure sustainable development and investment.

The Europan 7 competition site in Pärnu represents the difficulties and pressures of undeveloped sites within Estonian cities. Development pressure is enormous, city planners are overwhelmed, and land ownership remains in some cases ambiguous. Pärnu's mayor and planning department, with the support of the Estonian Union of Architects, have tried to keep the Pärnu Europan 7 site in the public arena. As architect / academic André Loeckx[24] recognized, public debate is half of the battle: "The art of urban design consists of keeping [the] debate on design going, by constantly amending the development proposal without sacrificing its essential qualities." In Estonia, urban design is poised to prove its post-Soviet relevancyn

BIBLIOGRAPHY

Croci, V. (2004) New Europe: Place(s) Without a Sense of Place', in "Architectural Design", May 2004, pp. 6-10.

Feldman, M. (1999) "Urban Regeneration in Eastern Europe: Waterfront Revitalization and Local Governance in Tallinn, Estonia". Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Geography in the Graduate School of Syracuse University.

Haas, V. (2006) "A Review of Urban Planning in Tallinn, Estonia: Post-Soviet Planning Initiatives in Historic and Cultural Context", Master of Landscape Architecture Thesis, School of Natural Resources and Environment, University of Michigan.

---

[23] Feldman, M. (1999) "Urban Regeneration in Eastern Europe: Waterfront Revitalization and Local Governance in Tallinn, Estonia". Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Geography in the Graduate School of Syracuse University.

[24] Loecks, A. (2005) "White Paper, The Century of the City, City Republics and City Grids". Flemish Ministry, p.171-2.

Hauben, T. (2004) 'Places without a Sense of Place: New Icons in Central and Eastern Europe,' in C. Wagenaar & M. Dings (eds.) "Ideals in Concrete: Exploring Central and Eastern Europe". Rotterdam : NAi Publishers, pp. 70-74.

Hill, F. and Gaddy, C. (2003) "The Siberian Curse: How Communist Planners Left Russia Out in the Cold". Washington, DC : Brookings Institution Press.

Jaakson, R. (1996) 'From Marx to Market: Deciding the Urban Form of Post-Soviet Tallinn, Estonia', in "Journal of Urban Design", Volume 1, Number 3, October 1996, pp. 329- 354.

Kalm, M. (2002) "Eesti 20. sajandi arhitektuur. Estonian 20th Century Architecture". Tallinn: Prisma Prindi Kirjastus

Kriiska, A., Vunk, A., Laurik, I., Idvand, K. (eds.) (2002) "Brief History of Pärnu". Pärnu: Museum of Pärnu.

Kurg, A. & Trummal T. (2004) 'Europan 7 in Estonia', in: "Maja" 26 May 2004 [http://www.solness.ee/majaeng/index.php?gid=62&id=330]

Kurg, A.; 'Estonia: The Remarkable Afterlife of the Linnahaal Concert Hall,' in: "Architectural Design", May 2004, pp. 46-53.

Laigu, T. (2006) 'Good City. Search for the Vision of Urban Centres in Estonia,' in: "Maja" 25.11.2003 (accessed through , December 2006).

Loeckx, A. (2005) White Paper, "The Century of the City, City Republics and City Grids". Flemish Ministry, 2005, p. 171-2.

Mets, A. 'Pärnu ranna areng sünnib arhitektide mõtetest.' 03.07.2004 , accessed January 2007.

Rahi-Tamm, A. (2005) 'Human Losses' in: Salo, V. (ed.) "The White Book: Losses Inflicted on the Estonian Nation by Occupation Regimes". Tallinn: Estonian State Commission on Examination of the Policies of Repression, pp. 25-46.

Ratas, R. (2005) 'Environmental Damage' in: Salo, V. (ed.) "The White Book: Losses Inflicted on the Estonian Nation by Occupation Regimes". Tallinn: Estonian State Commission on Examination of the Policies of Repression, pp. 126-132.

Salo, V. (Ed.) (2005) "The White Book: Losses Inflicted on the Estonian Nation by Occupation Regimes." Tallinn: Estonian State Commission on Examination of the Policies of Repression.

Servinski, M. and Kivilaid, M. (2005) "2000-2004 Maakonnad Arvudes (Counties in Figures)". Tallinn: ESA Statistikaamet, Statistical Office of Estonia.

Smith, D. J. (2002) 'Estonia: Independence and European Integration' in: Smith, D. J., Pabriks, A. Purs, A., Lane, T. (Eds.). "The Baltic States: Estonia, Latvia and Lithuania". New York: Routledge

Sorkin, M.; 'The End(s) of Urban Design', in: "Harvard Design Magazine" (Fall 2006 / Winter 2007), pp. 5-18.

STATISTICS ESTONIA (http://pub.stat.ee/px-web.2001/Dialog/Saveshow.asp)

Wagenaar, C. (2004) 'Ode to the European City: the example of Central and Eastern Europe', in: Wagenaar C. & Dings M. (eds.) "Ideals in Concrete: Exploring Central and Eastern Europe". Rotterdam : Nai Publishers, pp. 7-10.

'Shadows at Europe's Heart', The Economist, 12 October 2006 (http://www.economist.com/world/Europe/displaystory.cfm?story_id=8032834)

EMERGING URBAN DESIGN THEORY
AND PRACTICES IN KARACHI

Case of:
Lyari Corridor and Expressway,
Khuda Ki Basti III, and
Orangi Nala and Environs

Professor Noman Ahmed, NED UET
Associate Professor Asiya Sadiq, NED UET
Architect Masooma Mohib Shakir, NED UET
Architect Suneela Ahmed, NED UET
Architect Mariam Karrar, NED UET

INTRODUCTION

The discipline of urban design is understood to a limited extent in the context of Karachi (and even other parts of the country). Several reasons are responsible for this state of affairs. The overall professional awareness about design disciplines related to the domain of built environment is one major cause. At best, architects contribute design services of individual clients that eventually shapes up the fragments of neighborhoods, commercial corridors and streetscape. The holistic considerations, both at the level of design or control, about urban areas are non-existent. Similarly large scale urban development projects are often confused with urban design. In addition, different types and formats of inputs are generated by a wide variety of stakeholders that give a composite appearance to the urban environment in the context of Karachi. Understanding of urban design in the conventional sense needs to be created by a conscious effort. The concept and definition of urban design for the context needs to be generated after a thorough understanding of the city's on-going planning and development processes. The field research undertaken in the auspices of Asia Link Programme is an attempt to initiate the building of this understanding.

Urban research and analysis exercise has been undertaken at the Department of Architecture and Planning (DAP) at NED-UET as part of Asia Link NED-UET project being undertaken for the past three years, starting with:

- The Lyari River Corridor (LRC) in Karachi,
- Urban development models within the context for low income housing formation and upgradation, and

- The Orangi Nala and Environs

These projects have helped in understanding past developments and current dynamics to be able to propose future urban design and planning strategies. This is a multifaceted study partially funded by the Asia Link Project of the European Union and the NED University, Karachi. Asia Link Project of the EU has brought together the following universities; KU Leuven (Belgium), Technische Universiteit Eindhoven (Netherlands), University of Moratuwa (Sri Lanka), NED University of Engineering and Technology (Karachi, Pakistan) and CEPT University (Ahmedabad, India) on a project of, "URBAN AND CITY DESIGN CURRICULUM DEVELOPMENT". All these universities have worked together in developing knowledge related to urban and city design issues.

NED-UET, Karachi is working with TUe as partners on these case studies in Karachi. Many people have contributed in putting this case study together and we thank the following especially, for taking time out to share their points of view, providing all kinds of intellectual inputs and professional and archival support.

- Urban Planner, Architect Arif Hasan
- Economist Mr. Akbar Zaidi
- Architect Fazal Noor
- Associate Professor Ms. Shabnam Nigar (DAP, NED-UET)
- Urban Resource Centre (URC)
- Batch of 2001 (DAP, NED-UET)
- Batch of 2002 (DAP, NED-UET)
- Orangi Pilot Project (OPP)
- Technical Training & Resource Centre (TTRC)
- Saiban

THE LYARI RIVER CORRIDOR (LRC)

Research Team :
Architect Suneela Ahmed, Associate Professor Asiya Sadiq
and Surveyor Yunus Khan
Supervised by:
Associate Professor Asiya Sadiq and Professor Noman Ahmed
Compiled by:
Architect Suneela Ahmed and Associate Professor Asiya Sadiq

ABSTRACT

The objective of this paper is to highlight and present some of the research findings and analysis of the Asia Link NED-UET on the LRC, that is the documentation of the heritage core, the analysis of the impacts of the Lyari Expressway (LEW) on the urban morphology of the LRC and the identification of possible urban design insertions through this research and analysis exercise. The paper starts out with the definition of the context of the LRC and goes on to the identification of the stakeholders and their physical, social and economic dependence on the Corridor. Based on the analysis and findings the later discussion revolves around the identification of urban design potentials and possible urban design insertions with respect to urban paradigms such as; ecology and heritage, socio-economics, governance, traffic, transport and land use, culture and history, space, architecture and real estate.

DEFINING THE CONTEXT

The DAP NED-UET looks at the LEW as an infrastructure development adversely impacting the city and overlooking the process of development which is apparent through the history of the LEW itself, as its design has been revised many times in itself and is still under the process of revision with no clear identification of the users of the Expressway. DAP NED-UET believes that through the involvement of designers and the identification of urban design potentials and documentation of the LRC, through which the LEW passes, the adverse impacts of the LEW can be minimized. Thus the definition of the historic, ecological, cultural and physical value of the LRC and the complexity of its developments as an urban design case required a contextual study of the LRC both at the micro and macro scales, of its immediate environs and their relationship to the structure of the city that the DAP-NED UET undertook[1].
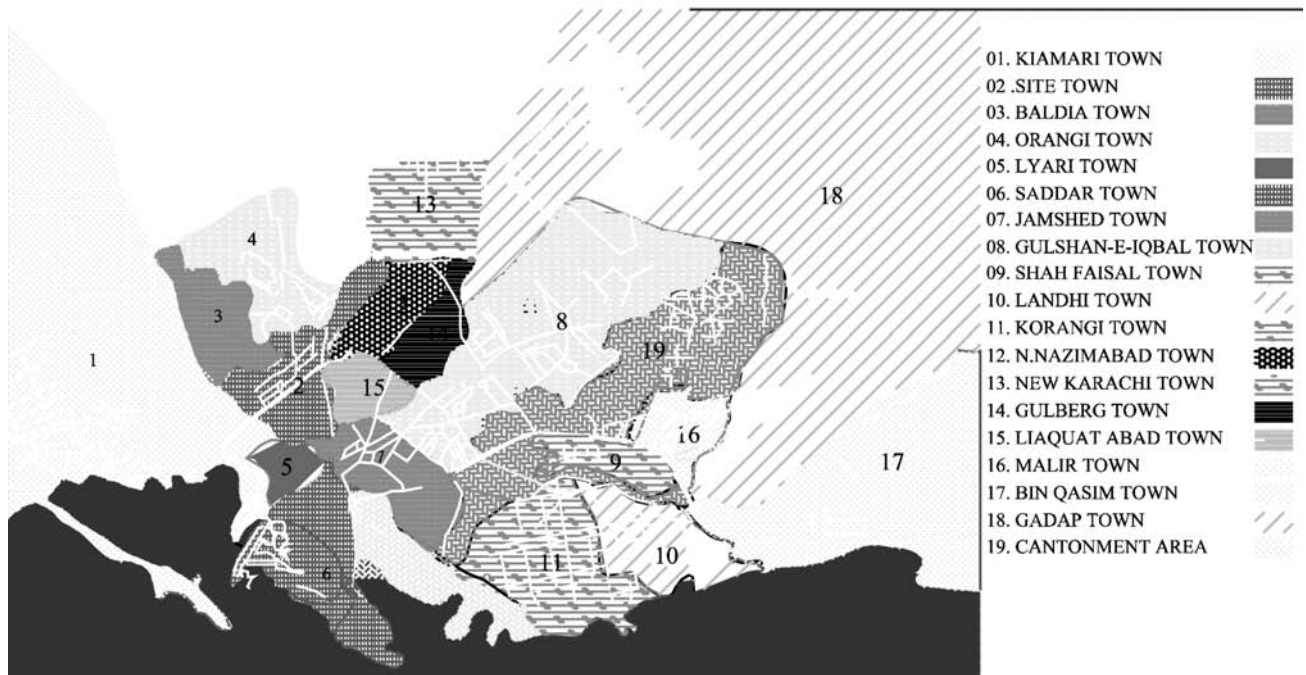
Different urban design scales and interventions within the corridor and the context ranging from town to neighborhood to street level and their urban analysis involved looking at the heritage, ecology, land use, traffic and transport, socio-economics, culture, history, spatial, architectural, real estate and governance concerns along with implementation, operation and maintenance issues. The stakeholders identified and addressed ranged from the diminishing state, to the non interested elite, to increasingly empowered poor to the interested international contractors and funding agencies and the increasing middle class in the area and the city.

The three main spatial components of the corridor identified included, The Lyari Expressway-LEW 'a mega transport infrastructure in the making, The Lyari River Corridor-LRC 'an amalgamation of old and new natural and man made structures and The Lyari River Bed-LRB', an ecological asset and one of the biggest dying public open spaces in the city.
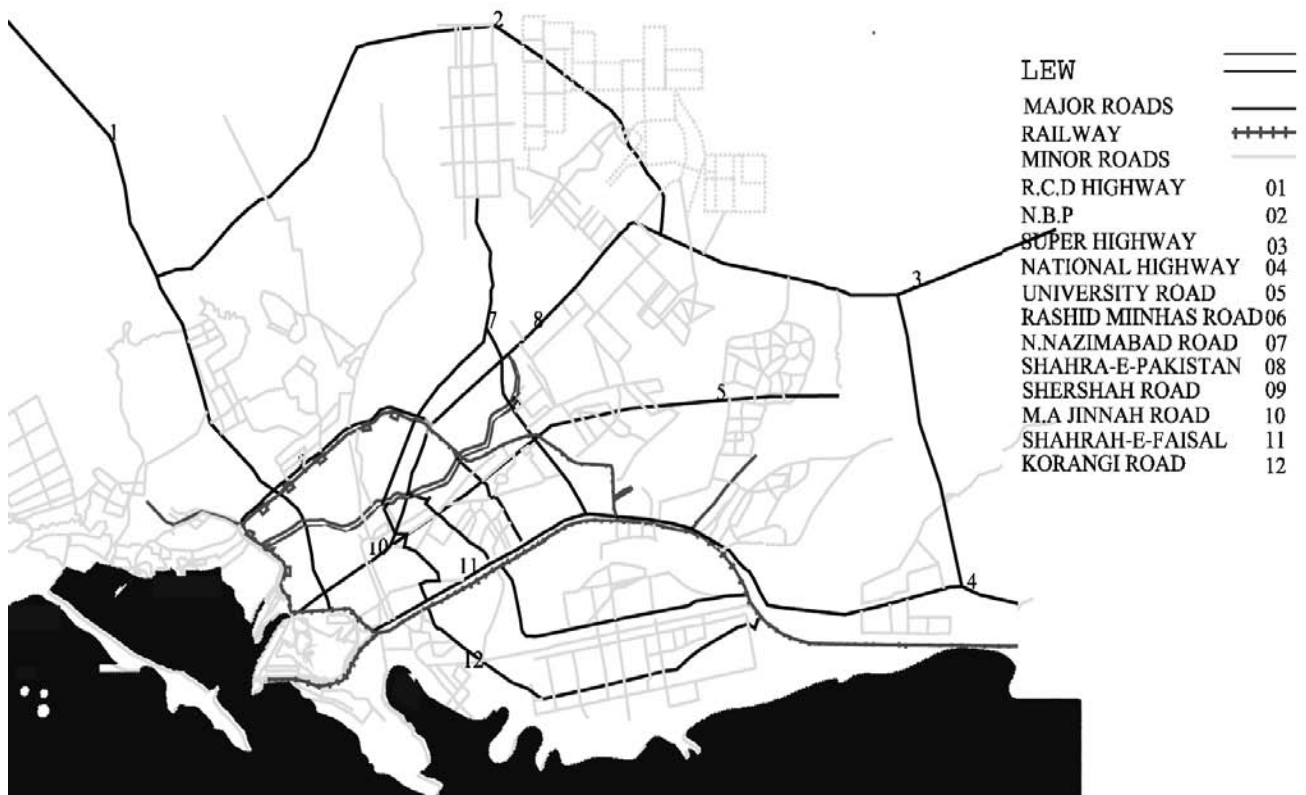
Conceptually all three spatial configurations represented a linear belt of functions and actions, real estate, circulation, zones of natural and man made opportunities and threats which are sewn tightly with its adjoining areas, becoming a

---

[1] The contextual data and information has been taken from the research undertaken for the Asia Link Project being run at DAP-NEDUET from 2004-2007

THE KARACHI MAPS SERIES

01. KIAMARI TOWN
02. .SITE TOWN
03. BALDIA TOWN
04. ORANGI TOWN
05. LYARI TOWN
06. SADDAR TOWN
07. JAMSHED TOWN
08. GULSHAN-E-IQBAL TOWN
09. SHAH FAISAL TOWN
10. LANDHI TOWN
11. KORANGI TOWN
12. N.NAZIMABAD TOWN
13. NEW KARACHI TOWN
14. GULBERG TOWN
15. LIAQUAT ABAD TOWN
16. MALIR TOWN
17. BIN QASIM TOWN
18. GADAP TOWN
19. CANTONMENT AREA

Map 1 : The Towns of Karachi

LEW
MAJOR ROADS
RAILWAY
MINOR ROADS
R.C.D HIGHWAY   01
N.B.P   02
SUPER HIGHWAY   03
NATIONAL HIGHWAY   04
UNIVERSITY ROAD   05
RASHID MIINHAS ROAD   06
N.NAZIMABAD ROAD   07
SHAHRA-E-PAKISTAN   08
SHERSHAH ROAD   09
M.A JINNAH ROAD   10
SHAHRAH-E-FAISAL   11
KORANGI ROAD   12

Map 2 : Transportation Grid

horizontal section going across the river bed and interfacing with the city.

All three spatial configurations offer a variety of urban design issues that have been explored as part of the urban design research exercise. The LEW can be spatially seen as an infrastructure development having far reaching effects on the morphology of the city. The LEW without any larger planning framework, is leading to the emergence of yet another East-West linear growth corridor in the city, not addressing the lack of enough North-South connections which could give a consolidated city form (refer map 01 & 02). The LEW would lead to the generation of an unplanned urban sprawl, massive land use changes, degradation of the historic core and its built and living heritage and the disappearance of one of the few ecological assets and public open space in the city. The execution of LEW has also set precedence of a non-participatory and top-down approach to urban planning and design in the city where the concerned stakeholders have not been consulted and approached by the executing authorities.

The LRC was seen as a central circulation and land use growth corridor housing a variety of different ethnic, religious and economic groups that is under threat from unplanned real estate changes and speculation which do not take the potentials of the corridor as an socio-economic, heritage, open space and a collective asset of the city into account.

Last but not the least the LRB was seen as a rare green lung that seams the city and has ecological, bio diverse and recreational potential and is being reclaimed and over ridden by the LEW. The ecological assets of the LRC have been adversely affected with the growth of the city as it has become a sewerage dump over time with complete loss of its ecological and heritage potential. This process of destruction of the natural assets of the River is ongoing with infrastructure developments like the LEW. The River provides the city with one of the few open spaces (refer figures 1-4) that is utilized for various informal activities that require cheap, vast and open land. It has a great potential as an ecological asset for the city and as a productive landscape, but because it is only thought of as a sewerage dump no effort has ever been made towards its preservation and up-gradation.

On the other hand the Malir River has prospered over time and has been a main source of fresh water for vast agricultural lands.

LRC - DIFFERENT FACES

Lyari naddi is the natural drainage channel for almost a quarter of the existing built up area of the city. It is dry throughout the year except for a few days after the rainfall. During dry periods the wastewater flows in a narrow and shallow channel meandering between the banks of the dry riverbed. The people living in the riverbeds do not appear to be very much concerned with the flood problems, although they are affected by the floods. The river is also used as a dumping ground and for sewerage disposal on the city scale. It is not the informal settlements on the banks of the River that form the main source of the pollution but the waste water, untreated sewerage and industrial waste being dumped into the River by the nearby industries and influential localities.

LRC has a mixed land use (refer figure 05) and many activities have sprung up informally on the LRB, over the years like urban farming, recycling industry, squatter settlements and the marble market. The squatter settlements that have sprung up along the Lyari naddi is because Karachi faces shortage of land and an influx of population therefore poor people have no other option then to take possession of land illegally along the riverbed. The city of Karachi has expanded along the LRC (refer map 02) because that was the cheapest land available at all times for the poor migrants to occupy. Therefore the riverbed has been experiencing squatter settlements developments since an early date.

The dry riverbed is at present being used for many activities. These land usages have sprung up over time without any formal planning.

1. Dhobi Ghats

The riverbed is used by Dhobis for washing and drying clothes. Most of the dhobighats are situated near Tin Hatti Bridge and Niazi Colony opposite the Mewa Shah Graveyard (refer figures 06-08). Mostly the dhobis are migrants from India, from Uttar Pardesh, Delhi and Madras in India, and are

Figure 1 : Lyari Naddi - backwaters of the city.

Figure 2 : Lyari Naddi - as a sewerage dump.

Figure 3 : Informal settlements along Lyari Naddi.
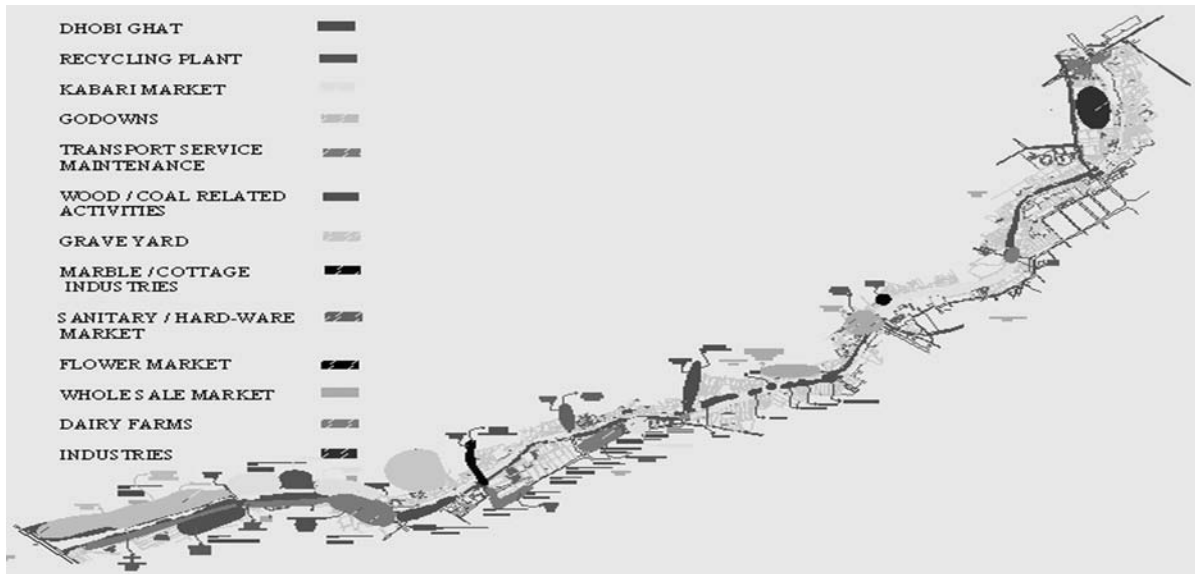

Figure 4 : Rare open space in the city.

Figure 5 : Economic activities along hte Lyari River Corridor.

Figure 6 to 8: Dhobighat situated along the Lyari River.

living on the adjoining area of the ghats, that is in Usmanabad, Haji Lakhani Village, Badshahi Road. It is a paternal profession that has existed in this locality since 1947. The Dhobis gather clothes from all over the city on their own transport; bikes or donkey carts. The ghats are functioning informally with the dhobis paying 'bhatta' (rent) for the usage of the space to government representatives[2]. The Lyari naddi bed fulfills the spatial requirement of the dhobis by providing cheap open space as drying space for the clothes.

In most of the dhobi ghats washing tanks have been constructed. The main threats are experienced by dhobis during rainy season and when the river is flooded due to heavy rains. The flood brings the sand and dirty wastes of river to the ghats. The sweet water wells provides free water for washing purposes. The close proximity between work place and residences is considered an asset by these people as it saves transportation cost and makes it convenient for the women and children of the household to work along side with men.

2. Graveyards

There are three graveyards at present along the Lyari naddi. These are Mewa Shah Graveyard, Ghulshan-e-Iqbal graveyard and the Liaquatabad Graveyard, with the Mewa Shah Graveyard being the oldest. These graveyards have no compound walls. Some of the graves are encroaching on the riverbed and are affected when the Lyari naddi floods.

3. Drainage of Storm and Sewerage Waste

Lyari naddi acts as the sewerage dump for the city. Drainage of storm water from the developed areas along the Lyari naddi discharges into nallas and these nallas end up in the Lyari naddi. Industrial and sewage wastes of part of SITE, Shershah, Nazimabad, part of KDA Scheme – 16, Golimar, Liaquatabad, PIB, and part of the city areas adjoining the river bank also discharge in the Lyari naddi and the nallahs.

Figure 9 : Lyari River as a sewerage dump.

Figure 10 : Dumping ground on the banks of the Lyari River.

4. Dumping Ground

Garbage collected from most of the areas of the city is dumped on the banks of the Lyari naddi (refer figures 09-10). The main dumping sites are in Lyari Town and North Karachi. The garbage which is dumped usually comprises of all types of waste including commercial and domestic refuse, industrial waste, night soil, abattoir waste and dairy and cattle waste and dead animals.

At dumping grounds all waste and night soil are allowed to dry up before setting fire. The burnt residue is used to fill large depressions in the land. Garbage dumps are also used as brick kilns. Solid waste dumping inside the riverbed is a major factor of land reclamation. It narrows the width of the LRB and increases the danger of flood and overflow during the rainy season.

5. Agriculture Lands[3]

Some sections of the LRB have been leased for agricultural purposes. Agricultural land can be divided into Upper and Middle Lyari Zone (refer figure 11). Upper Lyari zone is along the upper reaches of the Lyari naddi. This is a distinct zone of torrent – watered cultivation. The fields are close to each other and are placed across the path of sheet floods that advances from the hills in short rainy period. The soils are deep generally coarse textured. Though there are some wells in

Figure 11 : Animal grazing on the banks of Lyari River.

the area but these are meant to provide only potable water. Not even an acre is irrigated.

Middle Lyari zone is near Sir Shah Suleman Road Bridge and down the Tin Hatti Bridge. The entire belt is dependent on irrigation from the well on Lyari naddi. Irrigation from the well limits the choice of crops because of brackish water in the well– palak (spinach) and cholai are the only crops that are cultivated here.

6. Dairy Farms

Dairy farming is also done along the LRB. The open space facilities the grazing of the animal stock and provides for easy disposal of the dung.

---

[3]   Information taken from : B.Arch Thesis by Humair Ahmed (Dec 1995) "Redevelopment proposal for Lyari River corridor: A study focusing on retaining and upgrading the existing settlements as a means of socio-economic uplift in the city," DAP-NED-UET, Karachi.

Figure 12: Katchiabadis along the LRC.

The River bed facilitates the dissemination of the foul smell.

7. Miscellaneous Uses

Some areas are being utilized for drying cow dung cakes that are used as fuel. Some open wells have been dug in the riverbed for ground water. In some areas good clay brought from Manghopir area is utilized for making toys and bricks. The riverbed is also used as grazing ground for sheep. The Cattle dens offer the potential of usage of cow dung as manure for farming.

8. Squatters

The lands adjoining the Lyari naddi remain the largest slum area continuing to expand and absorb the low-income migrants coming from different part of the country (refer figures 12-13). These settlements are of diverse character in many respects i.e. in terms of age, location, types of construction, ethnic composition, economic characteristics, social backgrounds, legal status and possibilities of improvement.

In the absence of any effective control of the construction activity in the bed and banks of Lyari naddi, all available spaces are being occupied for residential as well as non-residential uses. There is no significant difference in the process of encroachment of the naddi banks from those in any other part of the city. The Lyari naddi has, however, special attraction of being closer to many

Figure 13: Informal settlements along the LRC.

places of employment.

9. Transport Stands

One of the most commonly seen activities in the LRC is the usage of roads along the River as transport stands. This causes congestion on the roads and creates environmental pollution because the riverbed is also used to dump automobile spare parts and other materials. The reason for this misuse is the lack of adequately allocated and properly designed spaces for transport related activities (refer figures 14-15).

10. Cottage Industries

Many informal cottage industries have sprung up along the LRB that make use of the cheap land available. The open sewers are used to drain off the chemicals used in these industries and the River bed facilitates the disposal of the waste, dispersal of the fumes and sinking of the heat generated by the industries.

Figure 14: Informal Truck stand along the LRC.

Figure 15: Informal Bus stand along the LRC.

11. Mini Cinema

Temporary structures are erected by people belonging to low income groups along the LRB for viewing of cinema. The free availability of open land gives them the opportunity to make use of it for recreational purposes.

12. Drug Trafficking

The LRB is the back waters of the city with little or no surveillance and crime control by the government therefore some socially unacceptable activities have sprung up in the bed. These include drug trafficking and usage of the bed as a hide out space by criminals.

13. Animal market (Bakra mandi)

The animal market exists on Mirza Adam Khan Road along the LRB. The market is set up informally in the open space of the River bed. It does not require any formal structures as the river bed provides grazing ground for the animals. The market does not present any threat to the ecology of the area except that the waste is disposed off in the River.

Most of the animals are bought from Punjab and Sindh with some animals being imported from India and Australia. Cows, goats, bulls, sheep and camels are bought to be sold for sacrifice here. Around 2 to 2½ lack cows and almost 1½ lack goats are sold annually. Most of the people selling these animals come from Sindh, Baluchistan and Punjab who are daily wage earners who throng to the city at the time of the Eid festival. The people aim at selling their animals before the festival of Eid and then travel back to their home towns for celebrations. Previously the market was set inside the bed but now the market is set up on the banks of the River. It had to be relocated after the commencement of the construction of LEW.

14. Recycling Industry[4]

The recycling industry in Shershah has developed along the LRC most of which is in the informal sector. For their convenience, the waste pickers scatter the waste on to the public spaces around the kutchra kundis, creating large-scale environmental pollution. The pickers collect paper, plastic, rags, bone and metal which are put in big plastic bags and carried to sorting yards. If the sorting point is near the kutchra kundi, the pickers carry it there physically or on bicycles. From the sorting point the packed waste is taken to Sher Shah factories for primary recycling or to dealers who are also located in Sher Shah, for refined sorting. Alternatively, in a few cases, it is taken directly to factories in Korangi, New Karachi, Orangi and in Sher Shah itself for recycling or to be sent to recycling factories in Punjab.

---

[4]   Information collected through research conducted by DAP NED-UET as part of the Asia Link Project 2004-2007

KHADDA (LYARI)   01
M.A. JINNAH ROAD   02
SADDAR   03
KHARADAR   04
DHOBI GHAT   05
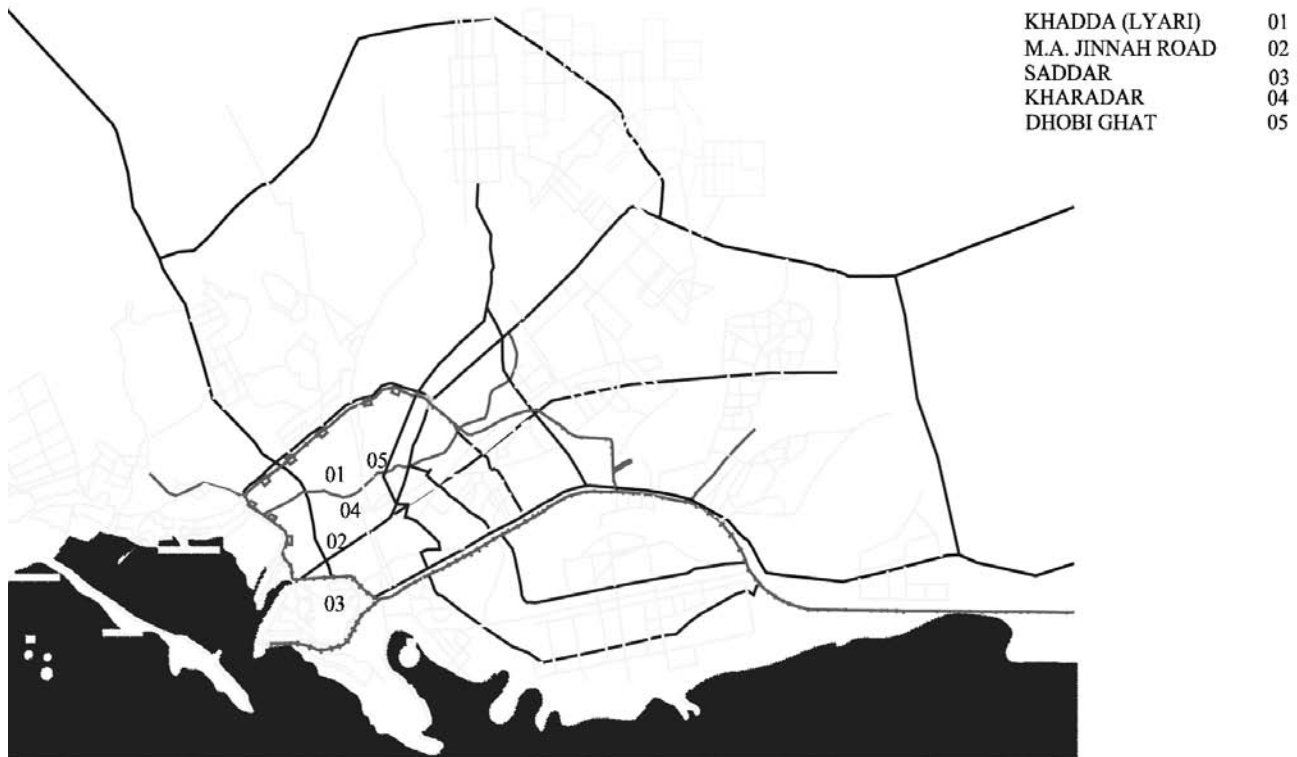
Map 3: Location of Old Town.

SOCIO – ECONOMIC MILIEU

As mentioned previously the construction of LEW overlooks the historical, heritage and socio-economic development of the LRC. Our research at DAP-NED UET documented the historical development of the LRC and identified possible urban design insertions that work with the development of the LEW. An understanding of the different faces of the LRC and its historical development overlapped with development of the LEW project helped understand the reasons for the resistance to LEW from the local communities and led to the identification of possible urban design insertions, mentioned in the next section.

Over the years the migrants to the city have settled along the LRB because of the cheap and easy availability of land. The LRB has always been the backwaters of the city and has provided cheap land that has been encroached upon by the immigrants to the city because of its close proximity to the Port and the commercial hub of the city (refer map 03).

These immigrants came to the city either from Afghanistan, Bangladesh, India or upcountry and belonged to the working class and were employed at the Port and in the different industries of the city. Historical localities like Lyari, Kemari, Kharadar, Methadar, Lea market and Hasan Aulia Village are some of the settlements along the LRC that narrate the history of the development of the city. With the expansion of the city and with the development of these localities along the LRC many bridges were also constructed over time, to ease communication systems on north and south-east of Karachi. At one point Lyari naddi formed the edge of the city but today lateral connections over the river exist and were built to facilitate transport and provide connections with the industrial development on the northern side of the Lyari naddi. Nine bridges have been constructed across the River that facilitated the growth of the city on the northern end of the Lyari naddi, with the LEW still being under construction. The bed itself

however remained the backwaters to the city where poor immigrants and refugees accommodated themselves as it has always remained the rare open land cheaply available in the city.

The variety of ethnic communities residing on the either side of the Corridor and within the LRB make the Corridor into a rich cultural and social center of the city, have developed social and political holds in the area and are not willing to shift to the relocation sites being offered by the government as a result of the eviction due to the construction of the LEW. They would rather continue living in close proximity to their work and social amenities rather than shift to new localities. The vital socialties are also an important determinant in their decision to stay in the vicinity. Some of the ethnic communities working within the bed and or residing along it use the pockets of space available within and alongside the bed for activities like garbage recycling, animal farming, laundries, workshops and animal wholesaling. These activities serve the whole city and give the area an identity and means of productivity. If removed these activities do not have alternative planned spaces in the city and would most probably end up happening on the roads or disappear with time.

The historical area of Lyari, adjacent to Keamari Town, on the bank of the Lyari naddi, houses the old mandis and wholesale markets of the city that include the Metal market, Dhan mandi, Eidgah market and Khori Garden market. These markets have expanded over time to meet the growing demands of the city. This has resulted in immense congestion and pollution in the area. Some small industries are also present in Lyari; these include manufacturing units for plastic products, rubber slippers, balloons and gloves. There are also a number of tanneries, packing units for pulses and chillies, oil extraction units and pottery manufacturing units all of which require go-downs for storage purposes. This requirement has impacted on the land values of the Corridor and have deteriorated the heritage assets. Many old residential buildings are being used as go-downs. Heritage and old buildings are being pulled down to accommodate the ever increasing number of go-downs. These go-downs are served by trucks that clog the narrow lanes of the old settlements.

Figure 16: Wholesale Gods for markets in the Old City.

Figure 17: Traffic congestion in the Old City.

(refer figures 16 & 17)

Narrow crossroads and open spaces have been turned into informal transport terminals. The roads and footpaths are being used for transport related activities. Pavements and footpaths are also used for sleeping by the labor coming from up country who work in the markets and industries during the day and sleep on the footpaths as they cannot afford proper accommodation.

The LRC comprises people from all strata of income groups (refer figures 18-20). There is a huge majority of low-income earners (mainly residing in older towns of Keamari, Lyari and SITE) along with a minority of people belonging to upper and middle income groups (mainly residing in

Figure 18 to 20: Economic activities along LRC.

Figure 21 to 23: Physical fabric along LRC.

Liaqatabad, Jamshed Town and Gulshan, Gulberg). People residing in Gadap town are mostly new immigrants to the city who belong to the low income group and are in search of better accommodation within close proximity to their work places either near the Port or in the centre of the city[5].

The settlements where influential people reside along the LRC have working infrastructure. They have good civic facilities and well maintained road networks (refer figures 21–27). Where as other parts of the LRC, where the population belongs to lower income groups are under serviced or not serviced at all[6] These areas face frequent prolonged power break downs, unmaintained infrastructure and immense traffic congestion causing pollution and health hazards. But the reason that these communities continue to reside in these old localities is not that they cannot afford land any where else but the strong social ties they have developed

within the community residing there which gives them an immense sense of security and belonging. These communities have formed their ghettos and there isn't much interaction between different communities.

IMPACTS OF LEW ON THE LRC

With the development of the LEW, the nature and morphology of the LRC and the activities happening along it would be greatly impacted. Although LEW is a technology based intervention, it lacks any consideration for urban design. It has given rise to a number of issues that vary from spatial concerns, to urban degradation to human rights violation. The impact of the construction of LEW will also be felt on the rest of the city as this backwater sewerage dump will be converted into a Corridor with high real estate value, attracting developers and investors. Thus the focus of the city will shift towards the Corridor and a number

---

5   As determined through Surveys conducted by DAP NED-UET as part of the research for Asia Link Project 2004-2007
6   Ibid.

Figure 24 to 26 : Town bordering the Lyari River Corridor.

of new developments will occur along it making the existing Corridor parallel to it like M.A Jinnah and the areas of the old historic core sandwiched in between as backwater. This mega transport project will also lead to urban sprawl, massive land use changes, degradation of historic core, disappearance of the open land of the LRB and duplication of an existing EW transport Corridor. While the construction of the LEW will adversely affect a number of formal and informal activities of the Corridor because of its brutal/ unplanned execution, it will also create some urban design potentials as identified through our research at DAP NED-UET.

LEW is a project being executed by the Federal Government through a top down approach to reduce the bulk of heavy traffic passing through the residential and commercial areas of the city, creating pollution of various sorts and congestion. The Master Plan 1974-85 proposed a traffic and transport plan for the city of Karachi incorporating the Northern and Southern Bypasses. These projects were meant to divert the heavy vehicle traffic from the port and wholesale markets of inner city of Karachi to the National and Super Highways which takes them to the north of the country.

Figure 27 : Infrastructure conditions along the LRC.

To deal with the problem of flooding and traffic congestion faced by the people of Lyari, in 1989, the government proposed the building of an elevated LEW along the Lyari naddi from the port to the Super Highway. This was done on the advice and presentation by a group of citizens and some professionals. The Canadian donor agency, CIDA, was involved by Karachi Development Authority to look into the details.

The LEW project is a typical case of an inappropriate choice of development projects. Such expensive design options are based on acquiring large foreign loans and are usually not looking at other appropriate alternate design options. Loan-based projects are attractive to government officials because they come with kickbacks. In turn, such development projects force the adoption of a certain design and technology which benefits the construction industry suppliers and contractors. It is purely a market driven development where the state itself happens to be the market and real estate speculator. (refer figures 28-30)

Public consultations and transparency in maintaining accounts which is a need for such large scale public sector projects as the LEW, were not considered necessary by the official planners despite the fact that planning professionals in the city pointed to earlier examples where such development models have failed. The target groups were missed out in the compensation package, an inappropriate and expensive design has been adopted which would be difficult to maintain and operate, forced evictions would be a violation of human rights, dislocation of old and settled communities would mean the loss of livelihoods, education opportunities, and social problems would multiply.

The history of the construction of LEW negates the natural development process and any urban design potential that the LRC and LRB offers. There are social, political, real estate, ecological, physical and historical concerns of this ad hoc infrastructure development on the LRC and the fabric of the city that need to be addressed and the emerging urban design potentials need to be identified. This article analysis these concerns and identifies possible urban design potentials created with the construction of the LEW.

Figure 28: The LEW under condsctruction.

Figure 29: The walls of LEW, as a city divider.

Figure 30: The LEW under construction at Sohrab Goth.

1. HERITAGE AND ECOLOGICAL CONCERNS

The conventional urban design approach prevalent in Karachi and Pakistan ignores the heritage and ecological concerns of an urban landscape as well as its potentials as; productive, recreational, bio-diverse and infrastructure landscape. Urban design in Karachi tends to be more concerned with issues on the micro scale, like the designing of a street, park or at best neighborhood. The macro scale landscape potentials are termed as a part of urban or regional planning. The focus needs to be on built and living ecological and cultural zones and their values in a design process. In the case of the Lyari naddi, the beds and the adjoining areas need to be focused and their potential in terms of forestation, bio diverse sanctuaries, urban farming and clay related production activities needs to be explored. (refer figures 31-35)

The construction of the LEW is resulting in the loss of heritage and ecological assets of the city. The construction of LEW is leading to the disappearance of one of the few ecological assets that is the Lyari naddi, and public open space in the city. It is also resulting in the degradation of the historic core and its built and living heritage. Demolition of the old settlements along the LRC is resulting in parts of the city's history being erased. The construction of LEW has erased two hundred years of history of settlements such as Hasan Aulia Village, various churches, old graveyards, mosques and other buildings of heritage value. Awareness needs to be created about the importance of the heritage

Figure 32 to 34: Ecological potentials and hazards along the LRC.

of the city and attempts need to made to produce sensitive urban design that is inclusive of the heritage and ecological assets of the city in order to protect these assets.

Properly planned urban design insertion exercises could lead to the development of the LRC as a potential productive landscape' with eco zone for forestation, bio diverse sanctuaries; urban farming, fish farming, cattle farming, nurseries and clay related production activities as precedence for all these activities exist along the Corridor and was further reinforced through the research at DAP NED-UET. Eco zones were identified along the Lyari naddi that have the potential of being developed but at present lie under the threat of extinction. The estuary of the LRC has endangered and rare species of mangroves where as Gadap Town has several eco zones that can be developed into

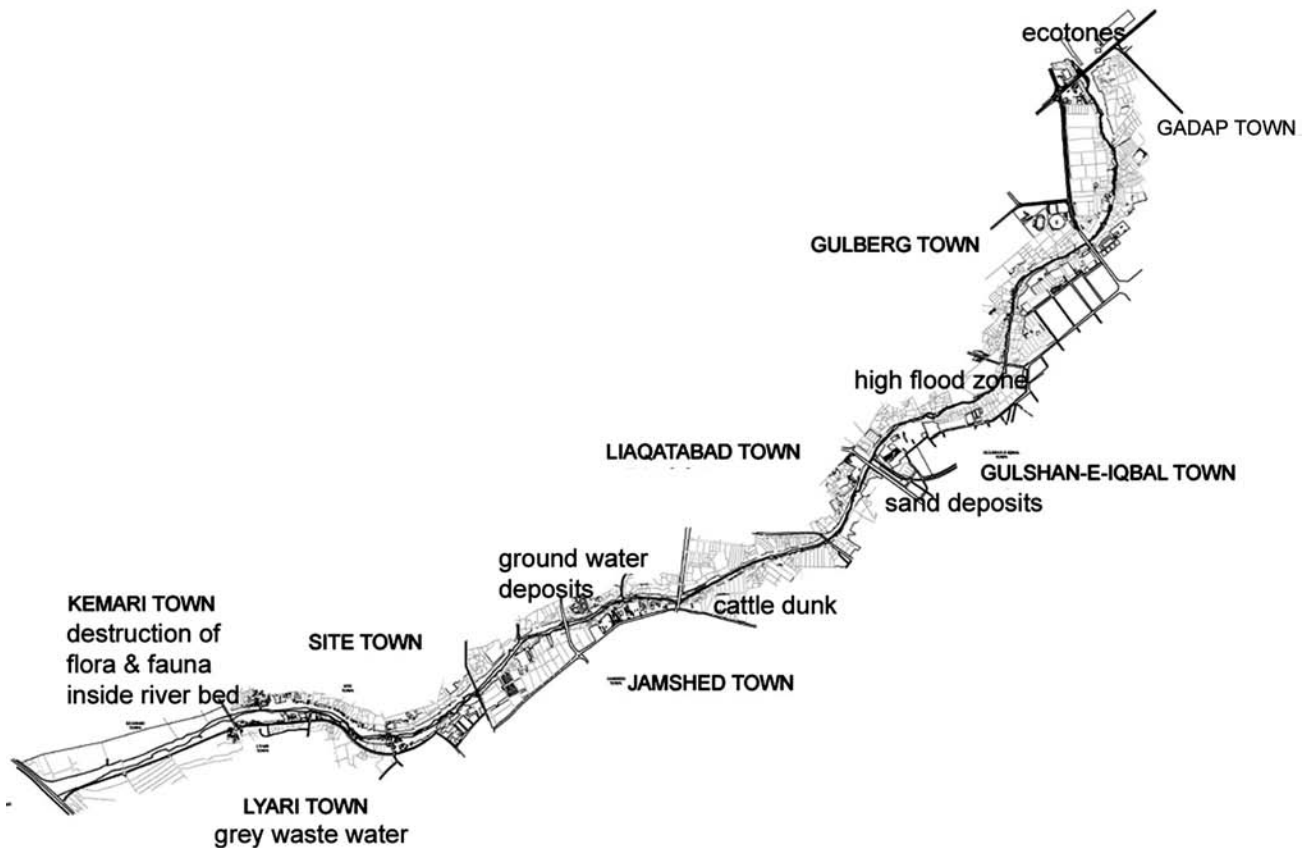Figure 31: The LEW under construction at Sohrab Goth.

Figure 35 : The ecological potentials along the Lyari River Corridor.

forestation or can be used for urban farming. There is a need to develop awareness about the existence of these natural assets amongst the residents and stakeholders of the LRC and the development of 'productive landscape urban insertions' that are owned and executed by the government.

An attempt needs to be made towards the creation of an eco friendly environment with the preservation of the Lyari naddi as an ecological asset aimed towards reducing the adverse impacts of pollution caused by the LEW. The LRB can be used as a forest plantation ground with the sewerage water being recycled and used for vegetation. Markets with temporary structures can be developed in the open amenity plots available along LEW with proper land use zoning for transport related activities. This scheme can be developed as an eco-friendly pilot project that addresses the ecological up-gradation of a locality taking the givens as a starting point.

The non space in between the walls of the LEW provide another urban design potential that can be developed to cater at the neighborhood level for the residents of the area. The space can act as a recreational, leisure and workspace for the communities residing on either side of the naddi. Considering the present nature of the space bounded by the two walls it is essential to reduce the negative use of the space as hide outs. Community interaction in these spaces should be encouraged to minimize activities like drug smuggling. These non-spaces can be linked with urban squares that act as communal spaces and house shops, sitting spaces, dhobighats, nursery, orchids and monumental towers. A combination of recreational, productive and neighborhood landscape can be used to develop paved river bed as a linear public space which could stitch the scattered open spaces on either side of the LRB together and the existing economic activities like the dhobighat, animal market, mini cinema and

cottage industries can be accommodated in this space.

2. GOVERNANCE AND IMPLEMENTATION / OPERATION AND MAINTENANCE

For any urban design exercise to have positive results it is important to understand the ownership patterns, infrastructure conditions, the role of NGO's and CBO's in the area, the relationship of the residents with the representatives of the government and the different interest groups operational in the area. In the case of the LRC it was found that due to its long history and well organized community and trade organizations, there was a marked difference between the leased and non leased areas. The infrastructure conditions in the Corridor and the living standards are poor. It has to date, remained the back waters of the city and it is only recently with the development of the LEW that the realestate value of the Corridor has gone up which has attracted international investors, local developers and the state as a market force.

The execution of the project is being done in a non transparent manner. To date, no presentation of the project concept or details has been made or discussed publicly despite the repeated insistence of direct stakeholders and non-government development professionals. This reflects the dishonesty of purpose of the implementing authorities. There are also issues of governance with the execution of the LEW as it passes through eight towns and is currently being executed by the Federal government. So the question of ownership, operation and maintenance of the Expressway, once it is completed, arises. There is a possibility that the Lyari Development Authority claims ownership and development of the Corridor as it is already working with evictions and resettlements.

It is also unclear as to who will use the Expressway as the engineering design does not allow the usage of the Expressway by heavy traffic and the toll

being fixed will discourage the private car owners to use the Expressway for daily commuting as alternative free roads exist in the city. The total lack of transparency in the execution of the LEW is resulting in bad designs with the reclaimed land around the Expressway being left for the market to develop. No land use plans, what so ever, have been prepared for the reclaimed land around the Expressway or the LRB. It is therefore speculated that all this land would be taken up by realestate developers for development of upscale commercial complexes and office buildings. It is essential to tie in urban design insertions with the local stakeholders, as although currently the project is a state driven project but will eventually be taken up by the people for the development of the land uses around it.

The LEW is also violating the existing environmental, conservation and town planning laws as the Sindh Government Gazette Ext. states that "no building plans shall be approved on open nallas, public sewers and the like"[7]. Although the legislative framework exists but there is a need to implement and strengthen these frameworks. There is also a need to develop zoning and bylaws for the development of the LRC. This becomes a possible urban design exercise in itself where policies need to be formulated and laws need to be devised to ensure proper land use zoning and fair division and allocation of the land along LRC. The construction of LEW as such is in violation a number of 'The Karachi Building & Town Planning Regulations (2002), this include laws that apply to the alteration of a shore, bank or flood plain of a sea coast, river, stream, lake, pond or artificial lake, laws that stress on the preparation of concept, contingency, urban renewal or detailed plan for areas and the process of public consultation[8]. Another law that the construction of LEW openly violates is the Section 11-5, according to which "no building plan shall be approved on open nallahs, public sewers and the like,"[9] whereas in the case of LEW it is speculated that the reclaimed land of the LRB will be used as prime property for construction purposes.

---

[7] (April 4, 2002) The Sindh Government Gazette Ext, Part 1, Building structures design and construction requirement,' Chapter 11, p. 476

[8] Ibid, p.117

[9] Ibid, p. 89

3. TRAFFIC, TRANSPORT AND LANDUSE

The development of the new LEW transport corridor is termed as an important transport project by the state. In their terms it provides critical new connections in the city. Changes in land use, urban density, circulation and travel patterns are not dealt with (refer figure 36). In a transport related urban design exercise, these issues need to be addressed and the design needs to facilitate these changes. The Karachi's road network needs to be reviewed at the regional scale and LEW needs to be studied with respect to other proposed alternative transportation schemes for Karachi. The inter and intra city connections; local connections at neighborhood, city and regional levels; patterns of urban sprawl; environmental pollution; traffic volumes; travel patterns; traffic congestion; transport and land use changes on an intermediate scale, need to be reviewed for a successful infrastructure development to take place.

As a result of the research conducted at DAP NED-UET a parallel relationship between land use changes and the design of the LEW was established. It was speculated that the six interchanges of LEW will experience major land use changes, urban sprawl of commercial activity and the old city would become a background of this new commercial development. The possible urban design interventions were looked at that could minimize negative trends being set by the construction of the LEW. Congestion points at the interchanges, due to already existing congested transversal east-west links in the city, were identified. The LEW was seen as a duplication of an already existing traffic corridor in the city and possible urban design interventions through the creation of the much needed north south transport links in the city was explored.

The urban design potentials that the construction of LEW offered as a transportation corridor was addressed. The LEW was taken as a reality and a design was suggested for different movements happening within the Corridor with the coexistence of the LEW. The idea was to develop an alternative pedestrian commuting plan that linked up the open spaces in the area while preserving and upgrading them at the same time. The open space of the

Lyari naddi was developed as an urban park that connected the two sides of the neighborhood. Thus in essence an alternative pedestrian transport plan was developed co-existing with the vehicular transport plan but at a different level and at an intermediate scale. Proposing activities within close proximity and giving public interactive spaces within short distances encouraged short walking distances.

The concept was derived from multiculturalism within a city. It dealt with the play of speed, time and movement in every day city life, in a city where people, roads, animals, vehicles and structures coexist in a historic diversity. The levels of interaction of different stakeholders on the road were studied. How does a pedestrian meet a bus? How does a fast moving lane merge into a slow lane? How does a child cross the road to get to his primary school? Where do the donkey carts go?

The design process comprised of two basic steps; designing of activity spaces, and developing linkages throughout the area. The process for designing activity spaces was carried out through identification of open spaces and by designing of suitable (area, community and land use specific) functions (prototypes) in the spaces. These activity spaces included women community centre and parks, children's play area, navigation tower, animal water trough, sitting spaces at street intersections, neighborhood parks, urban park along Lyari naddi, and rapid transit routes on Super Highway. These spaces were linked to one another, to the community and to the main transport route by suitable pedestrian and vehicular links.

Across the Lyari naddi access was re-established by providing a pedestrian bridge from informal settlements to the industrial area, across LEW, at the point of its minimum height. Pedestrian movements were facilitated through the development of various kinds of links like pedestrian crossings on Super Highway, development of footpaths along all primary, secondary and tertiary roads and the creation of roadside islands with foliage and benches. Pedestrian links were also developed to the different amenities like schools and mosques.
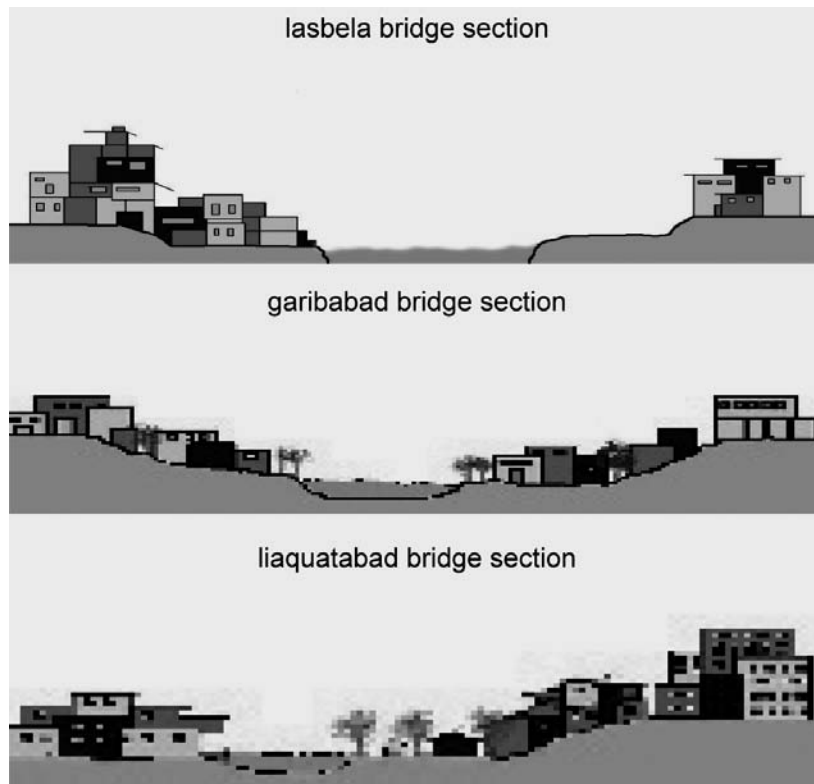
Figure 36: Cross sections across the Lyari River bed.

4. SOCIO-ECONOMY, CULTURE AND HISTORY

Cashing on the strong community and social setups along the LRC, interactive spaces for communities living on either sides of the LRC were proposed (refer figures 37 & 38) which in a way was a new concept for the city at large, where little or no effort is made towards the integration of communities. Questions like 'Who are the stakeholders in Urban Design exercise?' and identification and development of an understanding of the people of the LRC; their way of life, daily requirements, social structure, religious and ethnic activities, was stressed. By understanding the origin, social and financial status of LRC resident's emphasis was laid on accommodating diversity.

In the evictions and resettlement process it becomes important to differentiate between stable and unstable communities. With the resettlement of the stable communities the residents would lose at least two generations of investment in houses, infrastructure, schools, clinics and utility connections. Since commercial enterprises are not

recognized as legal land use, no one would be compensated with the loss of livelihood. Besides the issue of human rights violations, the foremost concern of area residents is the colossal loss of community investment. Economically weaker sections of society can afford to invest in housing only once in a lifetime and any damage to it is irrecoverable.

Through identification of various networks of ethnicity related trade and social assets, activity profiles, relationship between economic activities and spatial needs various possible urban design interventions were developed (refer images 39 to 41) The formation of ethnic links along the LRC result in a proliferation of economic activities that generate agglomerations and encourage ghettoisation. Ghettos are being formed due to a mix of politics, ethnicity, interest group and religion. These ghettos are present at entry and exit points to certain localities and are defined by some unseen neighborhood boundaries. Thus spaces were designed that encouraged community interaction and dealt with undoing the invisible social and

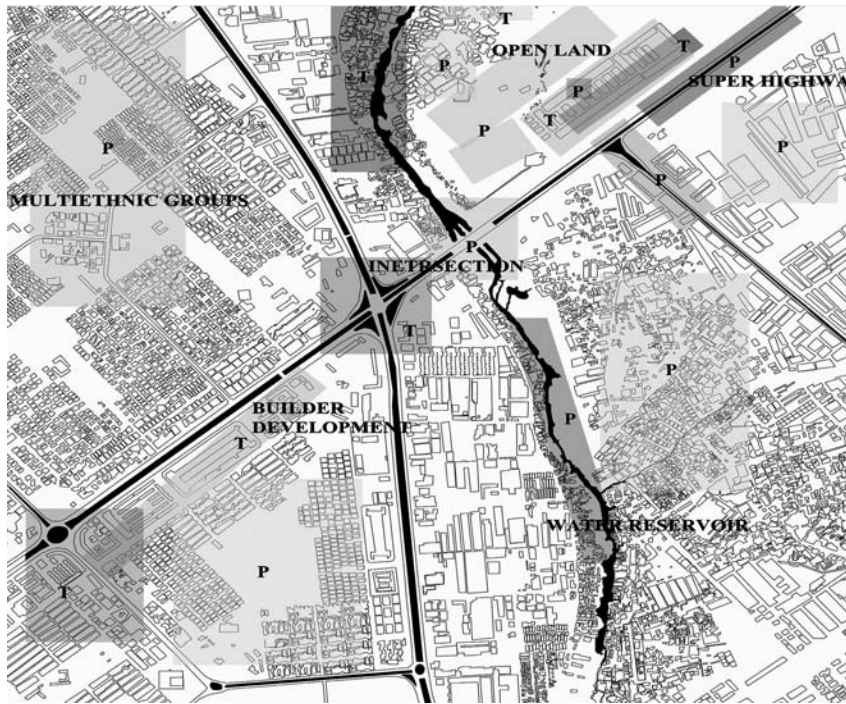Figure 37: Pedestrian connections proposed across the Lyari River bed.

Figure 38: Identification of potentials and hazards across the Lyari River bed at Sohrab Goth Interchange.
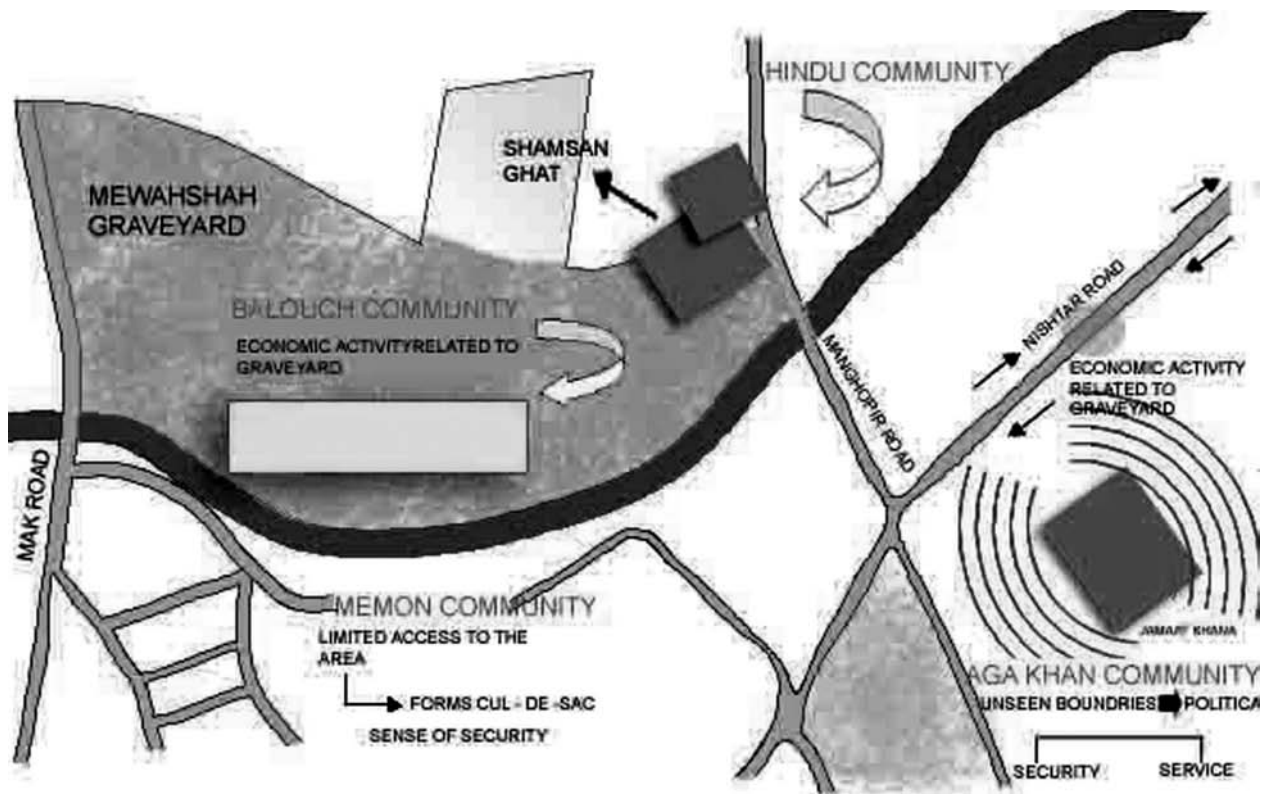
Figure 38a: Identification of potentials and hazards across the Lyari River bed at Sohrab Goth Interchange.

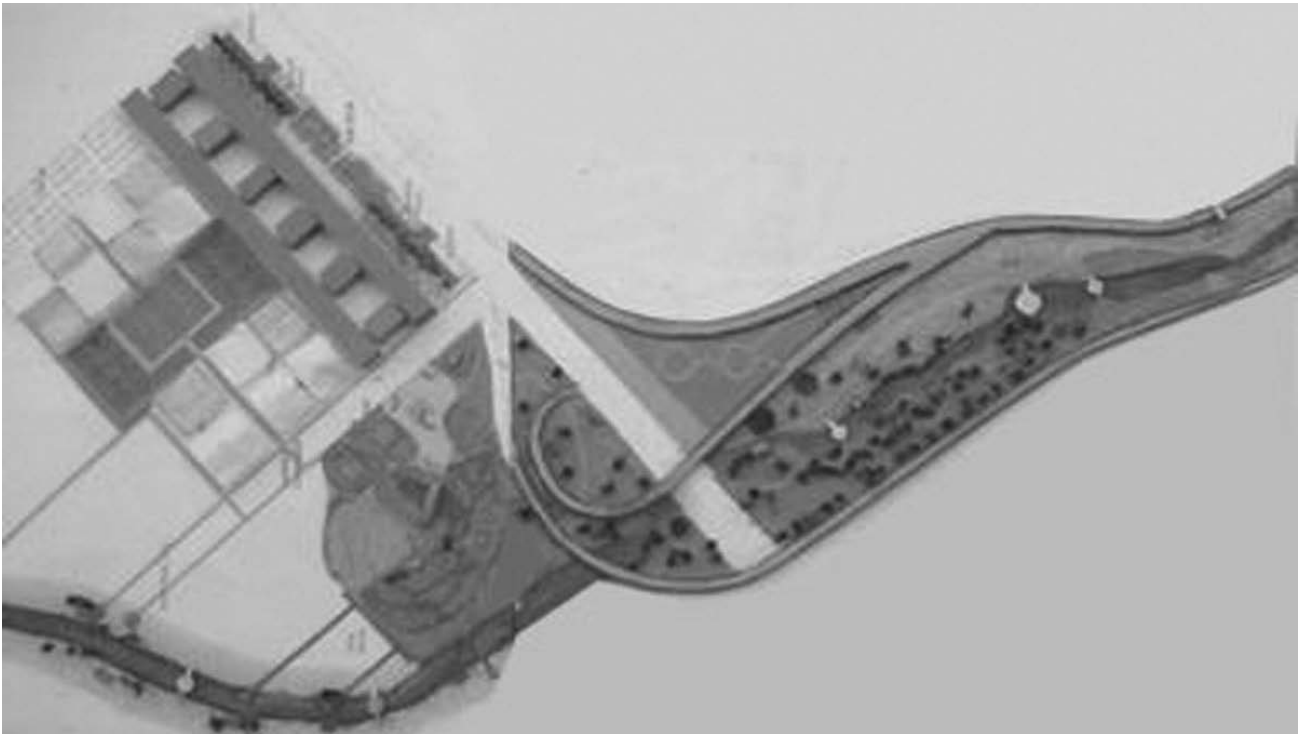Figure 39 : Proposal of interactive spaces for communities.

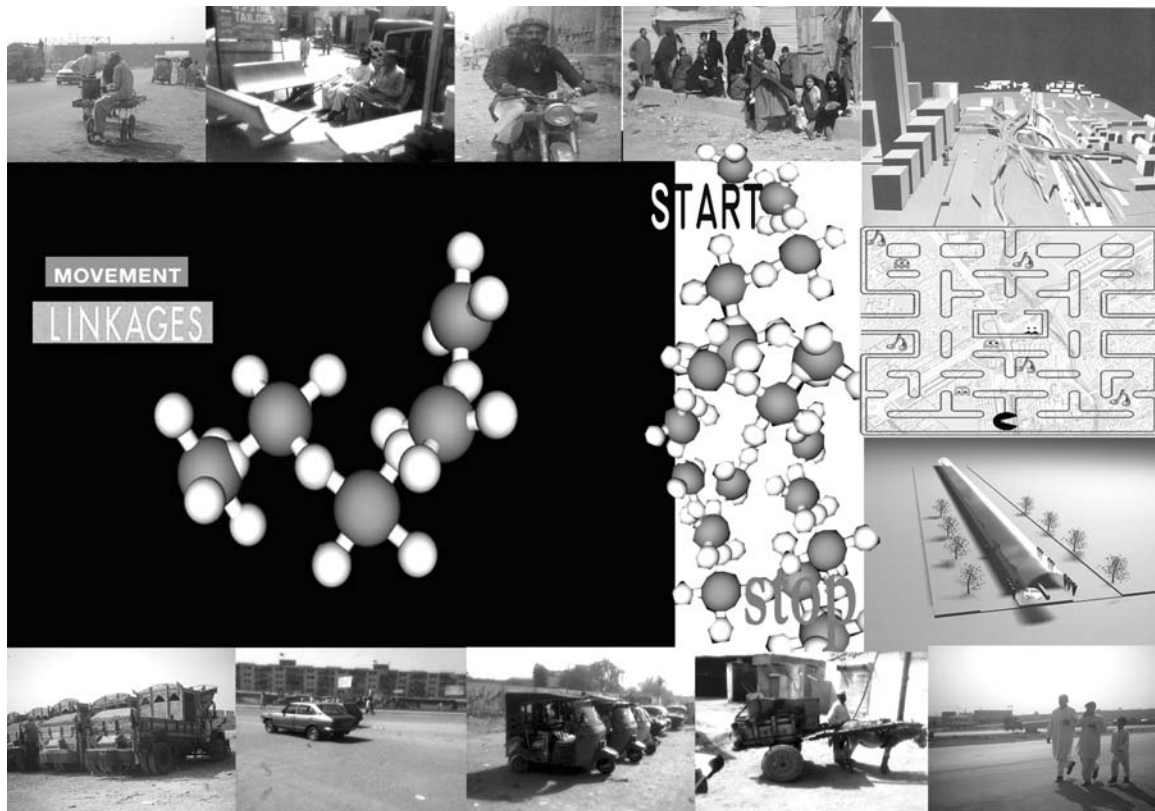Figure 40 : Proposal of recreational spaces along the Lyari River Bed.

Figure 41: Proposal of recreational spaces along the Lyari River Bed.

political boundaries.

The urban design proposal cashed on the socio-economic potential of the LRC, rejuvenated the historical character of the LRC and addressed the potential of the LRB as a breathing spine for the city at large where people from adjoining communities could come together for economic, social and recreational purposes. Emphasis was given on developing links across the Lyari naddi. The aim was to conserve and upgrade the physical existence of the communities by socially, physically and economically upgrading the local communities. To achieve the objective, a spatial analysis of the existing communities was carried out which helped to highlight the exclusive spatial characteristics of the local communities. A circular deck was created which served as a connection across the river and as a thorough fare and public space, providing an informal sitting space over the river. The circular deck interlocked with loop of walkways flanked on both sides of the river. All the proposed activities were diverted towards the river bed. Community

spaces were given to leased settlements and commercial areas were upgraded. Many green interventions like graveyard parks and green belt developments along the riverbed were proposed. To revitalize the Lyari naddi, access was provided to the river and circulation paths were designed. The sewerage water was put in a box culvert and it was assumed that the river would have rainwater.

In the existing design the LEW there is no provision of any communal public space that can bring the communities living along the Lyari together. The only connection between these communities at present is a single 10 feet wide pedestrian path used for getting across the river that will be converted into a non-space if it's potential is not addressed. Such circulation paths were converted into multi class communal spaces where people could interact. The pedestrian paths were strengthened by enhancing the existing links of the spaces on both sides of the Lyari naddi and an activity loop was created that connected communities through; leisure, local trends, religious

needs and pedestrian circulation. Neighborhood parks were developed to ensure environmental upgradation. Pedestrian walkways and bicycle trails linked neighborhoods. Spill out and recreational space for high-rise apartments was incorporated in the design. This design solution attempted to support the indigenous pattern of living in LRC by upgrading and making the area attractive at the city level and using a mix of productive and recreational landscape elements.

CONCLUSION

The construction of mega structures like the LEW ignore the process of natural development and community participation in the city. What results through such a process is an adhoc infrastructure development that negates urban realities on ground. An alternate way of approaching the urban design process would be to take urban realities on ground as a given and cash on the potentials and assets that the urban morphology offers. This article addresses this approach taking LEW as a case in point and presenting the results of the research and analysis undertaken at the DAP NED-UET.

The many faces of the LRC and the construction of the LEW along it, offer a number of ways of approaching and identifying possible urban design insertions. The rich history of the LRC, its heritage, ecological and architectural potentials along with the transportation, governance, land use and socio-economic realities can be intertwined and used as a complex mesh on which to base any urban design possibilities. A large mix of different ethnicities dwell around the LRC who have developed their own culture, traditions and have become an integral part of the Corridor being affiliated with its development. Their history narrates the history of the Corridor and in turn the history of the city. These assets exist in the form of networks of ethnicity related trade, eco tones, rare green open spaces and heritage buildings and communities that shape the morphology of the LRC and have developed over a very long period but are being uprooted with the construction of the LEW. It is not possible for the residents to benefit from anything similar in the relocation sites. The residents of the area also enjoy close proximity to their work places, being located near the business hub of the

city. There are also many well-formed community and trade organizations (as established through surveys at DAP NED-UET) that work for the interest of the residents of the Corridor. Even if given the opportunity to relocate to a better urban site, these communities are not willing to shift because of the social, ethnic and emotional ties they have developed over the years with this area. Some of the communities are financially well off and can relocate voluntarily to more influential areas of the city but the close family and social ties restrain them from doing so. As established through the surveys at DAP NED-UET, these communities prefer to accommodate their new generations and extended families within the Corridor, irrespective of the fact whether the land is leased or un-leased. This is true for the old and middle aged communities but not for the new communities residing in Gadap Town who are more then willing to relocate. These communities have recently moved into the area and are generally lacking good infrastructure and civic facilities with no social ties in the locality. They are thus willing to shift to the relocation site in hope of a better standard of living.

Many urban design potentials were identified at DAP NED-UET and appropriate urban design insertions were developed that utilize the existing open and non spaces, enforce the attributes of Lyari naddi as a fresh water stream and tries to develop an association of the city with the naddi.

BIBLIOGRAPHY

Ahmed H. (Dec 1995) "Redevelopment proposal for Lyari River corridor: A study focusing on retaining and upgrading the existing settlements as a means of socio-economic uplift in the city" B. Arch Thesis, DAP-NED-UET

(April 4, 2002) The Sindh Government Gazette Ext, Part 1, Building structures design and construction requirement' Karachi

Hasan A. (2002) "Livelihoods Substitution DIFID Karachi Research, Lyari Expressway" Karachi Urban Resource Centre Karachi (2003) "Lyari Expressway, Citizen's concerns and Community Opposition" Karachi.

Hasan A. (2000) "Housing for the Poor, Failure of Formal Sector Strategies" City Press, Karachi

Ali Z. (2002) "The Karachi Building and Town Planning Regulations" Ideal Publishers, Karachi

Archives at Department of Architecture and Planning at NED University of Engineering and Technology

Websites

Urban Resource Centre Karachi; www.urc.edu.org

Karachi City District Government;

National Housing Policy;

Orangi Pilot Project, Karachi;

KHUDA KI BASTI (KKB) –
URBAN HOUSING AND FUTURE IMPLICATIONS TO URBAN DESIGN

Research Team :
Associate Professor Asiya Sadiq, Architect Masooma Mohib Shakir and Surveyor Yunus Khan
Supervised by:
Professor Noman Ahmed and Associate Professor Asiya Sadiq
Compiled by:
Architect Masooma Mohib Shakir

ABSTRACT

Khuda ki Basti (KKB) is a recently developed formal urban incremental housing scheme. The evolution of the Khuda ki Basti schemes mark a new paradigm in urban design and development. The crux of the project has essentially been the process of habitation of the settlement. Spearheaded by the formal sector, the urban design schemes are based on a careful study of the informal housing strategies which although informal have been the main source of housing for the poor in Karachi over the past five decades. The first scheme was built as an experimental model by the Hyderabad Development Authority in 1985 for the success of which it received the Aga Khan Award for Architecture 1993-95.

The article analyses the third KKB scheme built in Karachi and the role that the scheme has played in the evolution and qualification of its urban spaces, urban living and environment in a low income settlement is evaluated to be able to understand the future of urban design for low income settlements in this context and questions the sustainability of the model for further replication.

The following paper analyses the KKB scheme in terms of its housing strategies, design concepts of the third scheme in particular, the plan, targeting and implementation, and the operation and maintenance of the urban built environment and resultant urban spaces and values.

1. INTRODUCTION – WHAT IS KHUDA KI BASTI?

Khuda ki Basti started out as a strategy for provision of formal legal housing for the low income. Three schemes based on this concept of Khuda ki Basti are built in Hyderabad, Gharo and Karachi[1]. Khuda ki Basti III, based in Karachi will be the focus of the study in the paper.

As a formal[2] urban housing strategy, KKB aimed to 'formalize' the informal[3] approach for provision of housing for the low income which till the past decade had been the most popular and the only way of housing the poor. Growing at an estimated annual rate of 10 percent, these katchi abadis or informal settlements constitute a bulk of Karachi's housing stock[4].

The KKB process of habitation has successfully enabled legal occupation of plots by the low income group and the formation of a formal planned urban settlement consisting of qualitative facilities and amenities. This process of habitation is a very conscious reaction to the non-occupation by the low income group of previous formal planning attempts.

---

[1]   Eight such settlements are currently being replicated in the suburbs of Lahore city in the Punjab province.
[2]   One that is planned by the government or the private sector through a legal process.
[3]   The informal sector has been defined by International Labour Organization, 1972 as "the non-structured sector that has emerged in the urban centres as a result of the incapacity of the modern sector to absorb new entrants". (Source: http://www.unevoc.unesco.org /southernafrica / workshop2003/ papers / MAR-Munbodh-Informal.doc)
[4]   About 65 percent of Karachi's population lives in informal settlements.

Set up with the objective of providing legal shelter to low income groups, Saiban – a non-government organization after considerable lobbying was able to enter into a joint venture with the Malir Development Authority (MDA) where the land was provided by the government agency. The non-profit organization was started by Tasneem Ahmad Siddiqui, then also Director General of HDA. The success of the project in Hyderabad acted as an incentive for the new relationship with MDA in Karachi.

EARLIER FORMAL PLANNING: A SHORT BACKGROUND

Prior to Khuda ki Basti, formal urban planning schemes remained uninhabited by the low income slum or katchi abadi dwellers although their prominent unignorible presence in the city was the main reason for the initiation of such schemes. The site and services schemes tried and tested lay vacant, having been mostly bought by investors and speculators, belonging to middle and high income groups. The habitation rates of the metroville programmes of the Karachi Master Plan 1974-85 demonstrate this (refer to table 1).

Marketing for these settlements was carried out through newspapers and media advertising which

at that point were not so easily accessible to the poor and resulted in their marginalization. Balloting was carried out after primary infrastructure works were done making the plots expensive. Such practices increase the demand and competition and a shifting of the target group resulting in a rise in the cost of land and housing by several folds. It hence became inaccessible to the largest socio-economic group of the city requiring housing in bulk i.e. the low income group.

The increasingly wide gap between the housing demand and supply resulted in popularity and growth of the informal sector housing. Informal sector housing developed as an entrepreneurial reaction to the pressing demand. Over decades such housing has been developed by land brokers. They have informal connections with government officials who allow illegal occupation of mostly state land through bribery or under-the-table payments made to them. The land broker arranges for immediately required services for the settlement like transport and water. The entire process is such that housing remains affordable to the poor. However, this is illegal or informal. The Katchi Abadi Improvement and Regularization Programme was initiated in 1981 by the government to legalise and upgrade such katchi abadis dating initially to 1978 and later to March 1985[5].

KDA Schemes for Low Income Groups since 1947			
Scheme	Total No. of residential Plots	Actually Occupied till October 1984	Remarks
Metrovill 1 (1974)	4,133	Approx. 700	Plots sold in 1974 to lower middle income groups
Metrovill 2 (1980)	4,379	Approx. 2,200	Plots used for settlements of bihari refugees
Metrovill 3 (1979)	3,200	–	Two plots were sold in 1979
Metrovill 4 (1979)	3,867	0	Area in encroached upon in early 1980s
Deh Surjani (Surjani Town) (1980)	51,000	0	Initially resettlement scheme, now middle income scheme

Source: HASAN, Arif, Understanding Karachi, City Press, Karachi, 2001.

[5] The KAIRP objectives were to be achieved through providing a proposed plan of settlements that proposed widening of existing streets and generally keeping overall changes to a minimum and providing individual lease to residents. Furthermore vacant plots were to be developed for amenities for the settlement.

The failure of the formal sector housing and the growth of a large scale informal housing sector formed the background for the idea of KKB.

2. THE BASIC APPLICATION STRATEGY AND CONCEPTS – THE INCREMENTAL HOUSING DEVELOPMENT

The process of incremental development established in informal housing system was identified to be the basis of its success due to its affordability for the target group. Khuda ki Basti adapted the concept under a legal cover. Three basic incrementally developing steps were outlined in the scheme whereby incremental development took place at different scales, levels and different supporting individuals and organizations. This includes:

i. The basic planning process: the sequence and method of acquisition of land, housing and then infrastructure. This basic process was adapted from the informal process of housing as it responds effectively to the socio-economics of the target group and remains affordable.

ii. The second incrementally developing faculty is that of the gradual development of amenities and infrastructure. This aspect is neglected in informal housing where amenities as well as commercial areas are not planned but crop up informally. At KKB, this was an innovative strategy of the formal sector whereby the executing agency, HDA in Hyderabad and Saiban in Karachi, contacted private organizations and individuals, mostly non-profit oriented with experience and expertise to set up well operated and maintained amenities.

iii. The third aspect is that of the incremental building of individual housing units. For this, thallas that is building component manufacturing yards are set up by private local entrepreneurs to support construction. The OPP-RTI has upgraded thallas in Orangi through providing technical guidance and hence upgrading the quality of overall housing and development.

THE BASIC PLANNING PROCESS: COMPARISON BETWEEN FORMAL, INFORMAL PLANNING PROCESS AND RESULTANT KKB PLANNING PROCEDURE

A comparison drawn between the formal and informal ways of providing housing clarifies the issues of accessibility to housing by the particular target group due to fluctuating prices of land influenced by the degree of work carried out at the site and the targeting and occupation of plots. This comparison also forms the outline of the process of KKB formations and forms the foundation of the recently planned / designed low income settlements.

The design of the execution process of an informal land subdivision (ISD) is such that the economics of housing and settlement process are controlled and minimum and hence affordable compared to formal housing development.

The sequence of ISD development process may be simply put as follows:
1. People
2. Land
3. Housing
4. Infrastructure

In the above process, the illegal sub-divider identifies a piece of land for development. He then spreads the word that a new development is to be formed. Households in need for housing inform him that they require house. After a certain minimum number of households are listed, he then informs them and collects them to occupy the land. There they make small makeshift shelters and wait for any claimants of the land. The subdivider then informally negotiates with the claimants and government officials and settles the matter informally. Thereafter, people construct houses on an incremental basis. The formation of a registered welfare organization by the residents and sub-divider gives the legal cover for the provision of essential infrastructure elements like sewerage lines and water supply etc. although this may take a long time. The incremental nature of the process minimizes the costs of settlement.

The formal sector housing development process in comparison is:

1. Land
2. Infrastructure
3. Housing
4. People

From the comparison between the formal and informal planning it can be inferred that in formal sector planning the time lapse between the idea of the settlement and the acquisition of the land by the people is proportional to the rising cost of the settlement. Especially with infrastructural provision the cost of the land rises subsequently and makes it unaffordable as well as inaccessible for the poor. A major factor in the ISD process is the personal relation that is built up by the broker or the dallalo in local terminology for the person who illegally directs the capture of land with the people. The sub-divider may be a politically active figure of the area and since he usually belongs to the settlement, he is accessible to the people. Furthermore, the provision of transport and the guarantee of protection from eviction are also imperative factors giving security and ease of accessibility to the residents.

The execution of the low income incremental housing scheme development such as that of Khuda ki Basti (KKB) took place with an insightful understanding of the informal processes of housing and an analysis of its ingenuity in success. It has adopted some of the successful aspects of the informal planning, adapting them to the formal sector procedures as well as getting rid of the more corrupt and commercial side of the informal sector.

GRADUAL DEVELOPMENT OF AMENITIES AND INFRASTRUCTURE

At the KKB schemes, private non-government organizations and individuals with experience and expertise were contacted to set up amenity buildings and provide good quality facilities at affordable prices (see figure 1 & 2). A few plots were also given out for government facilities but a comparison between the two shows that government facilities are neglected and unkempt (see figure 3) while private ones are better operated and maintained.

Figure 1,2 & 3: While the upper two images show private institutes, the last image shows the city district government dispensary in KKB III. It lies deserted and vacant.

This difference is also noted in other planned settlements of the city. KKB III has good schools, a good hospital, polytechnic institute and college. Qualitative amenities have raised the standard of living of the low income area significantly as well as the real estate values of the settlement.

INCREMENTAL HOUSE BUILDING

The very initial houses at KKB as well as other low income settlements are usually built of whatever material is easily accessible to simply have a shelter. This may be with bamboo sticks and dry palm leaves or even card board sheets. Gradually, the house is constructed with foundation and block masonry room by room. The roof of the house is usually changed after a period of time depending on the finances available and the priorities of the household.[6]

The thalla is put up as a building component manufacturing yard, by an entrepreneur or even by the sub-divider himself in developing settlements (see figure 4). Besides providing building materials, the thalla acts as a technical and construction advisor as well as readily gives credit for construction. Hence the thalla becomes an important service giving facility, that plays a vital role in determining the physical outlook of a settlement.

The above three incrementally developing facilities at different scales are responsible for the evolution and growth of the settlement. Support from private and / or public individuals and organizations in this evolution can make a marked difference in the quality of facilities and housing and simultaneously unconsciously affect the quality of urban living, urban environment and urban spaces of a settlement.

3. THE PLAN

The plan for Phase II, KKB III, Karachi was developed by architects Arif Hasan, Asiya Sadiq and Christophe Polack, who very consciously incorporated ecological efficiency, effective land

Figure 4 : Thalla at KKB-III, Karachi

Figure 5 : Thalla at KKB-III, Karachi

Figure 6 : Phase II, KKB II, Karachi.
The incremental process of development is evident in the comparison of the two phases of varying age.

---

[6]   It may be corrugated sheets of galvanized iron or tile and girders or reinforced concrete slab.

distribution, pedestrianization, hierarchy of public spaces and appropriate community scale. It is a gridiron plan where T-junctions are used to avoid major cross roads (See Figure 7). The planning follows government zoning regulations. Around 15 percent of the site is allocated for commercial services (shops) and amenities (schools, medical clinics, parks, etc.) and the remaining 85 percent for 80 square-yard residential plots. The dimensions of the plots were kept at 24' X 30' in order that the front at 24' could have two rooms.

The public amenities and public spaces of the settlement are located on a central public strip of the settlement that allows easy accessibilities of the amenities from any part of the neighbourhood. This central strip was situated on an existing natural storm water drain that was running through the settlement. The natural slopes of the settlement were oriented towards this drain. Hence it was decided to use it as a part of the 'public realm' to ensure safe construction over it or an ecologically friendly use of its open space in parks.[7]

Neighbourhoods consisting of about 100 houses were planned as blocks surrounding a park or public open space. On the basis of a mohalla system, representatives of these 100 houses were to form a mohalla committee for the maintenance and upgradation of the area, its municipal services and its public grounds according to the needs of the area. The municipal offices for the managing committees were placed between two neighbourhoods to accommodate two committees. A federal managing committee office too was located within the central strip of public amenities with the community center. The public and semi public zones are clearly defined in the plan. Such planning was envisioned to have a positive social and cultural impact on the area people.

4. THE APPLICATION OF THE CONCEPT, LESSONS LEARNT AND AMENDMENTS MADE TO ORIGINAL KKB SCHEME (FIRST BUILT IN HYDERABAD)

The basic objective of the KKB model was to make land for housing available at an affordable price to low-income groups and to help them acquire services incrementally over time, at a pace determined by their paying capacity.

Land grabbers and middle men previously involved in informal housing activities were inducted in the settlement process as social organizers, ensuring a low income target group. They were able to bring a large number of applicants to the basti. In order to eradicate any possibility of speculation and mis-happening some rules and regulations like the reception area testing grounds, non-transference of title of land and inability to sell without the permission of Saiban were instituted.

Initially, only raw land was made available to the people with some provision for tanker supplied portable water. The rest of the services followed over time, for which the residents paid a small sum of money on installments.

The reception area as testing grounds concept was a formal sector innovation and evolved after initial feedback in order to ensure maximum negation of speculation of the plots to be allotted. This innovation was a consequence of constant attempts at fake applicants made by entrepreneurs and office-bearers of social welfare organizations to acquire land for speculation. Shacks were built and left empty. Thus, according to the reception area concept, families were made to stay in a designated reception area of the settlement for about fifteen days with their belongings. They were then considered genuine claimants and could move into a plot where they had to immediately construct their dwelling.

A constant monitoring and feedback process with simultaneous dialogue and resulting changes were the major factors behind the accomplishment of the objective. Furthermore, procedures for application, payment for the plot, and other dealings with the HDA/Saiban were simplified to a one-window affair and were taken care of by the site office. Figure 9 summarises the roles played by the different actors involved in the housing process.

The occupation of the plots by the 'real' target

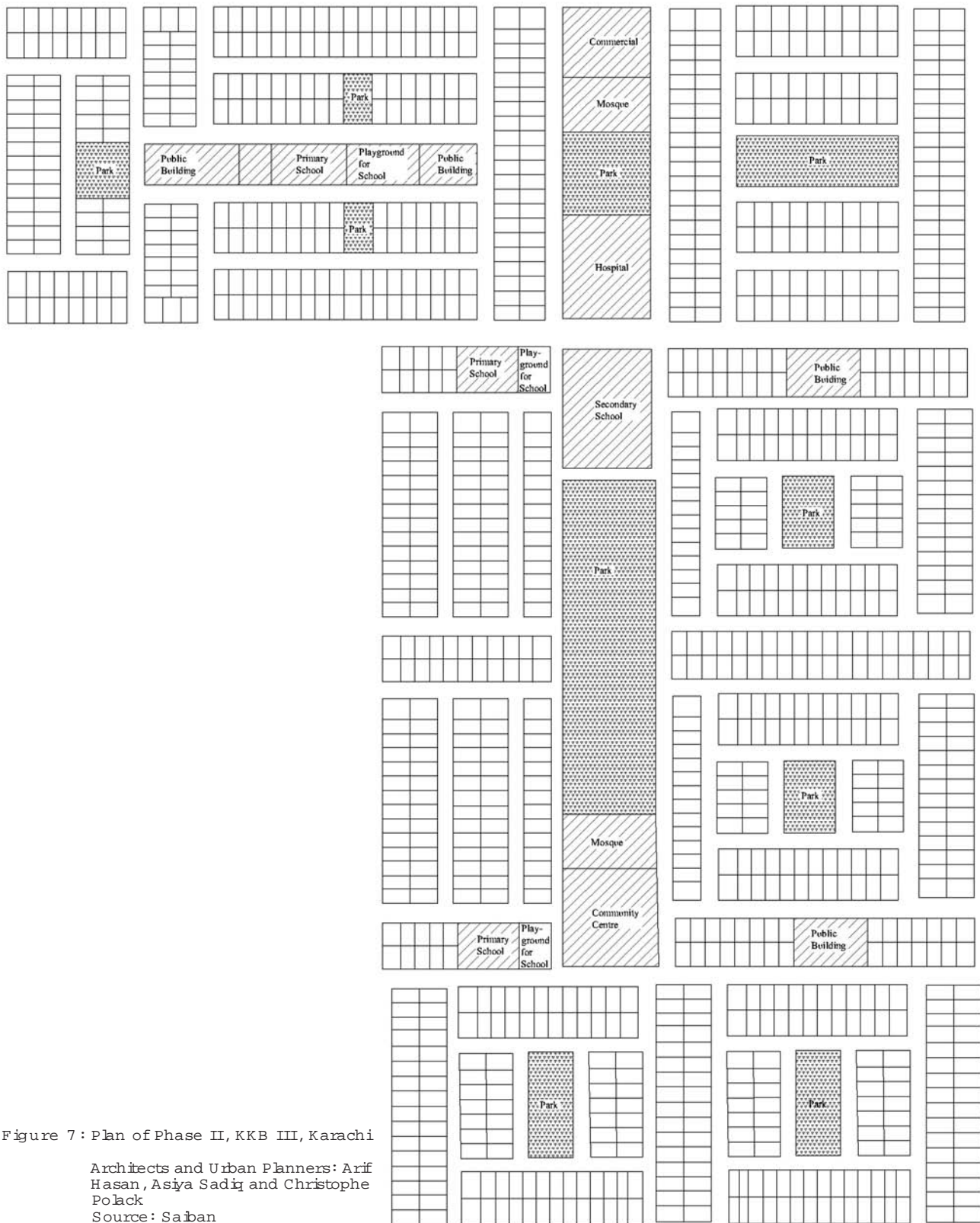7   Discussion with Architect Christophe Polack, December 2006.

Figure 7: Plan of Phase II, KKB III, Karachi

Architects and Urban Planners: Arif Hasan, Asiya Sadiq and Christophe Polack
Source: Saiban

group was the success determinant of the project. A survey conducted a couple of years ago of KKB III sponsored by the Habitat for Humanity International, revealed that majority of the surveyed households belong to low to lower middle income group. The survey showed that 37.6 percent households exist below the poverty line, i.e. earning USD 2.00 per day. Hence the project execution strategies were able to achieve the target of housing the very poor.[8]

Saiban with its motive of executing shelter provision operations has played the chief role in the settlement and development process of KKB at Karachi. A site office was opened by Saiban in conjunction with MDA at the very start of the project. This office dealt with most matters relating to the development work in the settlement. The constant presence of the Saiban staff at KKB has been a major cause of non-digression from rules and a reason of success.

The biggest positive difference identified in the settlement is the improved quality of life in Khuda ki Basti in comparison to informal settlements as well as formally planned low income settlements.[9] Quality educational and medical facilities have made a major contribution for this. In informal settlements, amenities are never taken into consideration in the planning process while in formally planned settlements, government planned amenities are simply fulfilling statistical regulations with little understanding of the contextual requirements.

The question that now arises is if the housing process of KKB is a sustainable one for further replication.

5. OPERATION AND MAINTENANCE: PHYSICAL URBAN SPACES AND SUPPORTING SOCIAL STRUCTURES

KKB (Phase I and Phase II) is generally a low density settlement with lots of open spaces. Streets are wide and there is little distinction between
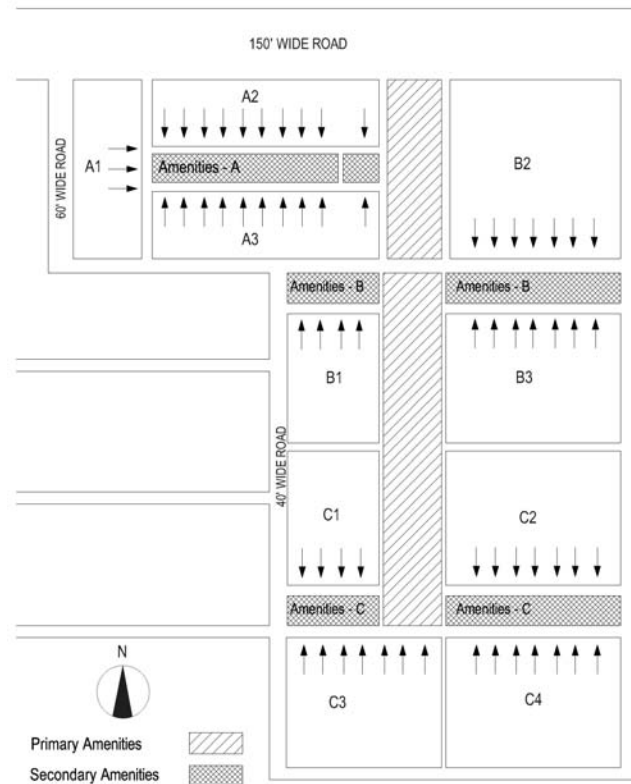

Figure 8 : Distribution of the Mohallas and their respective amenities. Design by Architects Arif Hasan, Asiya Sadiq & Christophe Polack.
Source : Saiban.

widths of commercial and residential streets. Even though there are specific marked commercial areas according to the required percentage from the town planning regulations, but these are not developed yet. Instead, Saiban has allowed residents to open small shops within the residential plots to support income generation, with the result that commercial outlets are found sporadically dispersed in different parts of the settlement.

In Phase II, KKB III, mohalla committees were envisioned in the plan to be responsible for the maintenance and upgradation of an area / mohalla constituting 100 households (about 6-7 committees in the scheme), its municipal services and its public grounds according to the needs of the area. However, these did not materialize and if they did,

---

8   2124 plots were found to be occupied out of a total of 2870. Source: Survey conducted for Study of Khuda ki Basti by Prof. Noman Ahmad and Arch. Fazal Noor.
9   Survey of planned Orangi Township: Case study Aligarh Colony, and informally developed Orangi: Case study Pakistan Bazaar, July 2006.
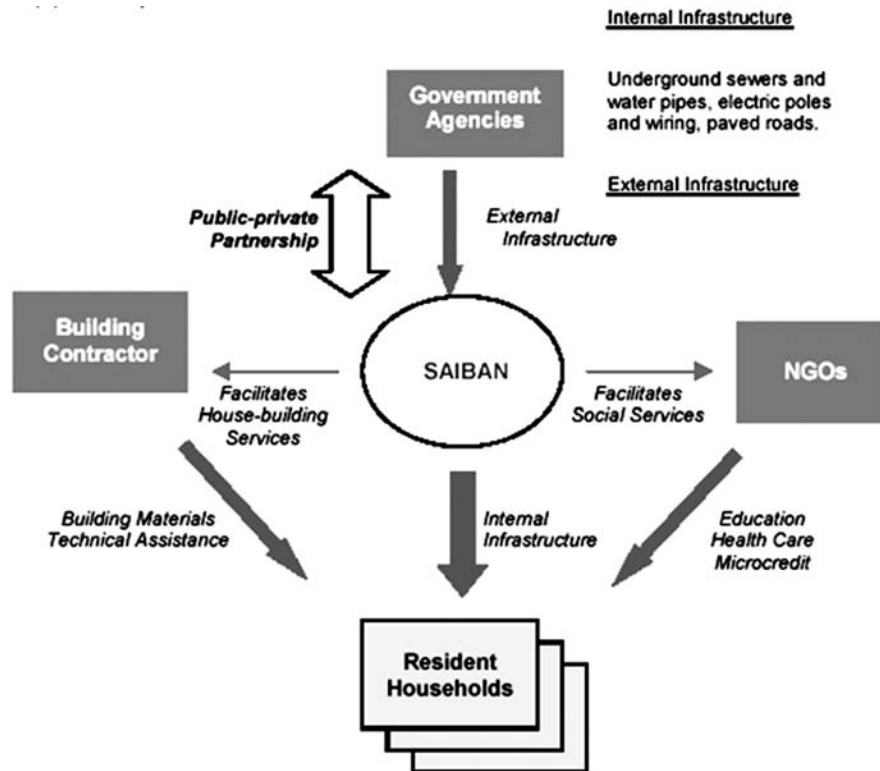
Figure 9 : Development actors at KKB
        Source : Asad Azfar and Aun Rahman, "Housing the Urban Poor," study sponsored by Acumen Fund, April 2004.

it was only for a short period of time.

Community based organizations (CBOs) play an imperative role in the development of a settlement serving as important representative and social organizing platforms linking the people with formal institutions. This was established by the work of OPP with community based organizations within the city as well as the country. It was Dr. Akhter Hameed Khan[10], founder of the Orangi Pilot Project (OPP)[11] who introduced the idea of social infrastructure building. Social infrastructure building was broadly defined to include basic education, identification and training of local leaders, complex community consultation approaches, setting up and maintaining actual social organizations[12]. Dr.

Khan believed that such social preparation and infrastructure building was a prerequisite for sustainable development work. The principles and lessons learnt by OPP were taken up as sustainability principles in the development of Khuda ki Basti.

OPP supports community initiatives and primarily works to strengthen them through social and technical guidance. Community organizations are advised and guided towards self help to evolve partnership with the local government for development work based on local resources. The concept of the internal external component sharing model was developed by the OPP-RTI where the internal component of the development work was

---

[10]   Dr. Akhter Hameed Khan is globally recognized as an outstanding social scientist of our age. He is the author of two remarkable community development projects. In the 1960s, he was the director of the Comilla project in East Pakistan, now Bangladesh. From 1980 till his death in 1999, he remained the director of the Orangi Pilot Project (OPP) in Karachi.

[11]   OPP is a non-government organization founded in 1980 for research and development works in Orangi, the biggest katchi abadi of the country at that time. The NGO was sponsored by BCCI foundation.

[12]   Zaidi A. (2001), "From the lane to the city: The impact of the Orangi Pilot Project's low cost sanitation model," A Water Aid report.

financed and carried out by the local people while the external component was the responsibility of the government. The OPP upgradation programs have demonstrated that at the neighborhood level people can finance and manage facilities like sewerage, water supply, schools, clinics, solid waste disposal and security. The government's role in these programs was outlined such that it complimented peoples' work with secondary facilities like trunk sewers and treatment plants, water mains and water, colleges/universities, hospitals, main solid waste disposals and land fill sites. It was gathered that a sustainable model of development can result with the use of local resources and an effective partnership between the people and the government. "... community self financing for internal development is the only way to create a far greater sense of ownership, a factor that is important in the construction phase and critically important during trouble shooting and maintenance."[13] At Ghaziabad in Orangi, the social structure established worked not just for the implementation of the sanitation and water supply system but also for solid waste management, to enforce security in the area, for planting trees as well as for acquiring electrical outlets for individual residences.

At KKB, it was initially theorized to use similar principles; however this remained limited to laying sewerage and water supply lines. The installment money paid by the residents to Saiban was to include the infrastructure work to be carried out at lane and mohalla[14] levels. The teritary and secondary infrastructure works were hence coordinated by Saiban with the government departments. Lane and mohalla committees were initially organized on the pattern of OPP's work in Orangi but these remained limited to the collection of money for the work, and now these no longer exist. According to a survey conducted for Habitat for Humanity International by Prof. Noman Ahmed and Arch. Fazal Noor, "... adequate community concern was not created in the households initially to adopt the low cost sanitation system ." About 40 percent of 100 households surveyed had resorted

to local soak pit option.

Dominant political parties influences with their own political agenda and tactics for power have suppressed the working energies of the local people's organizations[15]. Only one CBO could be identified in the area which too has long become inactive as the people representatives are now involved in political parties.

It has been about five years since the current plan went into action. The use of the various public open spaces within each mohalla reflect an unorganized supporting social structure. They are mostly utilized for multipurpose outdoor activities like playground, political gathering, area utilities etc (see the figures 10 to 19). However, space is not organized for these activities. Random installation of physical features like area water tanks, platforms for political representation and flag, spill over commercial activities divide the open space, limiting its use and a lack of supporting elements like trees for shade etc. are not planned. In essence, it is not envisioned as a complete owned and protected space. In future this may also encourage encroachments and lead to the space boring its integrity.

Solid waste disposal is the most prominent issue in the settlement. This is more apparent in phase I (refer to the figures) due to longer period of habitation. Although this is a major pressing issue, however the people have failed to take ownership and are not organized to address the issue collectively.

The above pictures show the current disposition of the public spaces in phase I of KKB III, Karachi. A natural process of garbage accumulation has determined for the area people as well as Saiban operators the direction for the incremental development of the public space. The ex-CBO activists, as well as people from Saiban have agreed to fill up a storm water drain running through a big public space in Phase I, KKB III with garbage to eventually level the ground after its

13   Rehman P., Rashid A. (1990) "OPP's Concepts, Methodology and Programmes," OPP-RTI, Karachi.
14   Mohalla is local terminology for neighbourhood. It does not only represent a physical entity but also the social networks and supporting structures required by low income dwellers to sustain.
15   Interviews of two ex-CBO leaders and active members of political party at KKB III, Karachi.

Figure 10 : Open Public Spaces, Phase II, KKB III

Figure 11 : Open Public Spaces, Phase II, KKB III

Figure 12 : Political platform & playground , Phase II, KKB III

Figure 13 : Park with slides and swings made when CBO was active at KKB.

Figure 14 : Area water tank in the middle of ground, Phase II, KKB III.

Figure 15:

Figure 16:

Figure 17: Solid waste in major public space used for land filling.

Figure 18: Windmill with sewage treatment plant installed by Saiban.

Figure 19: Sewage Treatment Plant installed by Saiban.

Figure 14 to 19: Public open spaces, Phase-I, KKB-III.

use as a land fill site and then use the space as park and playground. At one of the sites, the ground has already been leveled to form a cricket pitch in the center. Generally the major public space of phase-I is unhealthy and polluted. This may be a similar outcome of the central strip of public spaces in phase II which are also planned over a storm water drain. The filling of such natural drains may be a cause for trouble during the rainy seasons as they offer a natural slope.

The chaotic and uncontrolled use of urban spaces as well as the sticking issue of solid waste disposal turns the settlement's urban spaces into indifferent and unowned spaces. Although a sticking issue, it does not attain priority or urgency for the people. A lack of organization among the people for the improvement of urban space quality makes the envisioned development unsustainable.

6. INTERRELATIONSHIP OF INTENDED DESIGN, PARTICIPATION, EXECUTING AGENCY'S ROLE AND OUTCOMES

Saiban is reaching the end of its term of working of about seven years and it has conducted most of the infrastructural work in the neighbourhood through its own networks and connections. In the past couple of years, Saiban has intentionally recessed its role to not be too actively involved in the community's problems in the attempt to give them independence and ownership. However, this has not materialized. Infrastructure works are being conducted independently through Saiban's alliances while political party movements have discouraged any community organizations from being active and operative. Saiban will hand over the works to the union council[16] of the area which will then be responsible for the municipal services upgradation. It is not to say that the union council (UC) cannot deliver, however, while Saiban functioned from a neutral platform and had access to a research based network; the UC has limited funds, is not technically grounded and is pushed around by political party agendas within its own network.

The two phases of KKB III are developed on application frameworks in which the role of the government has been observed to be minimal and only when necessarily required. At KKB III, the role of MDA has been primarily limited to supply of land. The amenities and supporting facilities are mostly run by NGOs and private organizations or individuals. In Phase II, community organizations were envisioned to form the basis for a sustainable future for any forthcoming issues and maintenance. Furthermore, despite the fact that KKB schemes have been successful in reaching the target group and providing quality amenities, the government has neither acknowledged and appreciated the new approach nor given provision or support for more such settlements despite the dearth for it in the city.

The significance of social structure training and organization at OPP unlike Saiban is that of a building block. The lack of 'social infrastructure building' at KKB has been so primarily because KKB has essentially been a settlement initiation model as compared to OPP's upgradation model. The difference is that while initiation ends, upgradation remains a continuous process. While sustainability is not an essential ingredient of an initiating process, upgradation inherently looks at long term procedural affects. Social infrastructure building is a very tedious task that requires constant follow up and manouvering. As a politically neutral problem –solving organization with simple aims, Saiban has been successful in managing the development works. Saiban faced challenges working against informal sector operators of housing and hence maintained its focus in overcoming hurdles related to that. However, it has neither trained nor transferred its working ways and method of problem solving through a neutral platform to the community people.

The area council as well as political leaders are unaware of the dynamics that entail the formation and execution of sustainable, ecologically balanced, multipurpose, and socio-cultural urban space. The

---

[16] The union councils are a result of decentralization of Karachi city into 18 towns which are further divided into union councils. The transfer of power and autonomy to these councils remains ambiguous and understated.
[17] Field work and Interviews, KKB III, Karachi, by Department of Architecture and Planning, NED University, December 2006.

ex-CBO activists (now supporters of a political organization) agreed despite many complaints (based on a political agenda) that the pace of infrastructure upgradation would be much slower without the presence of Saiban[17].

CONCLUSION

Khuda ki Basti started out as a strategy – a set of strategic processes for housing the poor. These strategies were a result of a thorough understanding of informal housing processes. Gradually, this housing strategy has also become simultaneously an urban design implementation process. However, the executing agency has viewed it primarily as a housing strategy and urban design has been used as a support for the housing strategy. This is because in our context, urban design or good urban planning is not given enough significance.

Good urban planning entails the creation of ecologically and socially conscious urban space design that not only adds to the aesthetic quality of a space but also adds to its economic and real estate value. Furthermore, good urban planning can accommodate a high density living through the provision of strategically located open spaces and much required amenities / facilities at walking proximities from all places in the neighbourhood. Hence a combination of the two processes, the execution process with good urban planning playing a vital role in the process can establish a sustainable, healthy end product of the settlement that is able to sustain and control its own evolution.

It can further be concluded from the above that public private partnerships with the private sector playing an active role are the only way for sustainable, effective execution of urban design strategies.

Furthermore, for effective operation, upgradation and maintenance of urban spaces, constant feedback and dialogue between the community representatives (in any form of organization) and the government municipal agency is required that effectively reacts to this feedback process. Private sector organizations may function as essential mediators if partnerships are established .n

BIBLIOGRAPHY

Ismail A. (ed.) (2002) "The Story of Khuda ki Basti", City Press, Karachi.

Hasan A. (1987) "A study on Metropolitan Fringe Development in Karachi, focusing on Informal Land Subdivision," prepared for UNESCAP, Bangkok.

Hasan A. (1992) "Seven Reports on Housing," OPP-RTI.

Hasan A. (1999) "Understanding Karachi – Planning and Reforms for the Future," City Press, Karachi.

Hasan A. (2000) "Housing for the poor – Failure of formal sector strategies," City Press, Karachi.

Hasan A. (2004), (1999)1, (2001)2., "Akhter Hameed Khan and OPP," OPP-RTI, Karachi.

Sadiq A. (1994) "Concepts, Criteria and Principles for Responsive Community Spaces in Lower Income Settlements," Bachelors Thesis Report, Department of Architecture, Dawood College of Engineering and Technology, Karachi.

Zaidi A. (2000), "Transforming Urban Settlements – Orangi Pilot Project's low cost sanitation programme," City Press, Karachi.

Zaidi A. (2001), "From the lane to the city: The impact of the Orangi Pilot Project's low cost sanitation model," A Water Aid report.

Rehman P., Rashid A. (1990) "OPP's Concepts, Methodology and Programmes," OPP-RTI, Karachi.

THE REDUNDANT SPACES ALONG THE ORANGI NALLA

Research Team :
Architect Mariam Karrar, Architect Christophe Polack, Architect Saifullah Sami
and students of Karachi University
Supervised by:
Professor Noman Ahmed, Architect Christophe Polack
and Associate Professor Asiya Sadiq Polack
Compiled by:
Architect Mariam Karrar

ABSTRACT

The Nallas of Karachi provide the natural drainage network for the sewage and storm water for the city. (Refer to figure 1)

Being hidden from general notice, these backwaters of the city have become prone to neglect and ignorance. Thus, the areas along the Nalla have become the abode of sewer, garbage dumps. Being the ignored part of the city, the flood plains of the Nallas have also become the home to the marginalized section of our society.

Keeping in mind the present scenario in the context of Orangi Nalla and the existing mindset as a back waters of the city, this paper explores how these 'left over' spaces naturally occur or are currently in use and being maximized by the different communities, along the Orangi Nalla. The following paper is based on the findings of a land use survey that was conducted of the Orangi Nalla and its environs by the NED University during the month of July 2006.
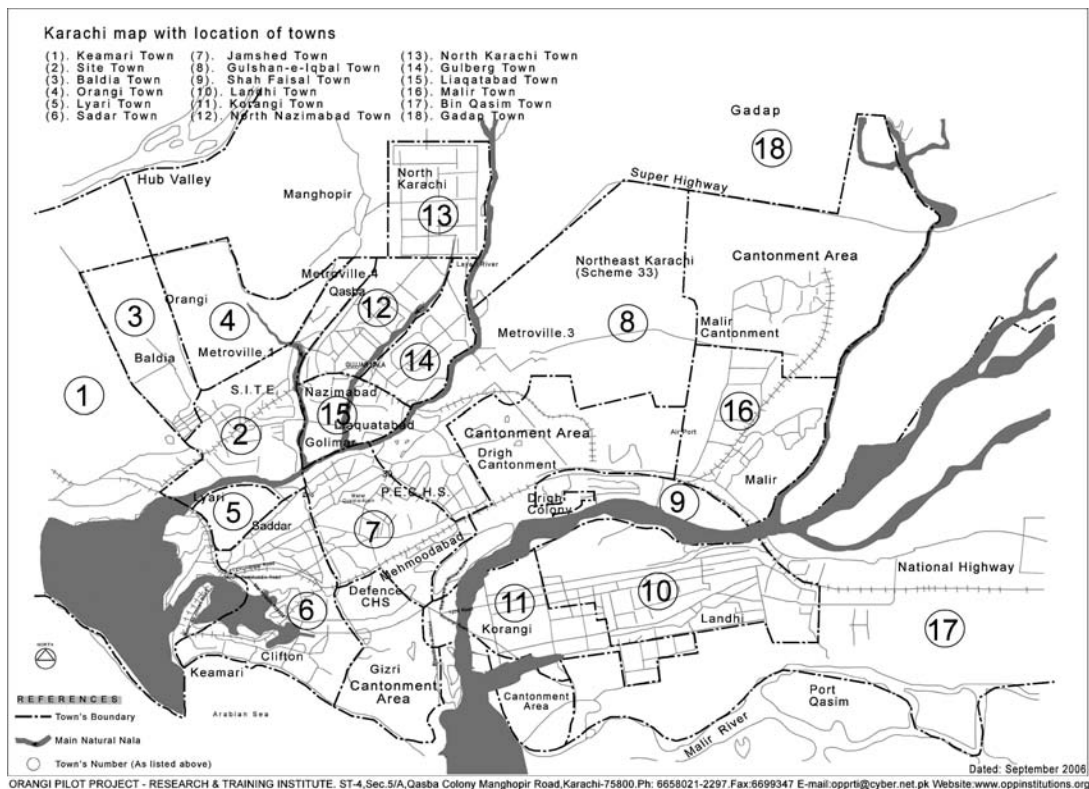
Figure 1 : Drainage Network of Karachi
Source : www.oppinstitution.org

Finally, the paper aims to bring forward and explore the possibility of an alternative approach that the Orangi Nalla or the Nallas of Karachi can provide for the local residents of the areas as well as the city of Karachi at large in the backdrop of real estate speculation in the city of Karachi.

INTRODUCTION

The Orangi Nalla is one of the 5 main Nallas that forms the natural drainage network of the city of Karachi. The 7 km long Nalla originates from the two small tributaries of Aligarh Colony and Banaras Colony in Orangi Town. The Nalla than flows down into the Lyari River and forms a natural boundary between the Orangi Town, SITE Town, Nazimabad and Liaqatabad. (Refer to figure 2)

Before Partition (1947), the Orangi Nalla like the other natural drains of the city was part of the seasonal river system. The catchment areas of the Orangi Nalla included the Hub Chowki and the Gadap Town. The banks of the Nalla were home to seasonal agricultural activity, which was leased to the local tribal communities on yearly basis or yak salla patta. This land was primarily used as pastureland for cattle rearing. Today, the Nalla forms a drainage network for the industrial and household sewer of its adjacent towns.

Figure 2 : Satellite Picture of Orangi Nalla and Neighbouring Towns.
        Source : www.googlearth.com

According to statistics collected by Urban Resource Centre, an estimate of one third of Karachi's waste, about 2,200 tons, finds its ways in the 'leftover' areas along the Nalla[1]. Due to exploitation and neglect, like the other Nallas of Karachi, this backwater has also become synonymous with sewer and garbage dumps. Piles of solid waste primarily in the form of plastic bags are the formidable feature especially at the main bridges and crossings were garbage accumulation is seen to be the most abundant. Mounds of smoldering garbage dumps are vividly seen along the lower end of the Nalla, since burning of garbage is the customary practice of getting rid of the waste. (Refer to figure 3)

Nonetheless, this open stretch of land over the extent of 60 years has became the abode for the economic and the ethnically marginalized classes of the society. Proximity to the work places of the SITE Town and its factories further resulted in dense residential settlements patterns starting from old Golimar and all the way to Banaras Chowk.

As a consequence of political and economic changes that took shape within the country and the region, the respective populations started to settle layer by layer along the flood plains of the Nalla. The settlement growth started in the lower stretches of the Nalla (around Old Golimar and Rizvia Colony) and with time expanded upwards (Banaras Chowk).

Figure 3: Burning Garbage along the Banks of Orangi Nalla at Rizvia Society

Banaras Chowk

Nazimabad No. 2

Bara Board

Ethnic Diversity

- Urdu Speaking
- Pathans
- Baloch
- Punjabi / Christians
- Hazara
- Punjabi
- Bengals
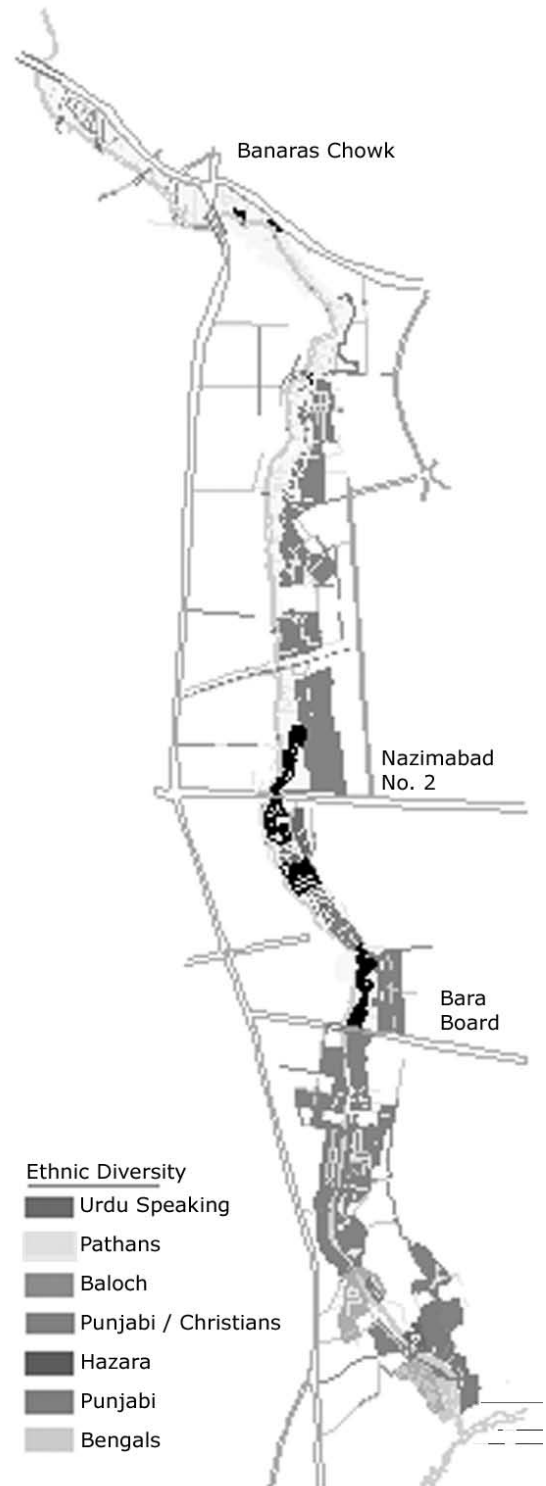
Figure 4: Map of Ethnicities along Orangi Nalla

---

[1]   Solid Waste Management. URC Karachi Series. Edited by Aquila Ismail. City Press. Karachi. 2001 pg 14

Apart from the original Baloch settlements of 200 years, (situated in the lower stretches of the Nalla of Old Golimar), settlements that are found today took shape after 1947 (partition of India) by the Urdu Speaking migrants from India. Later communities that followed were the Pathans, Behari, Bengalis, and finally the Afghanis[2]. (Refer to figure 4)

Nonetheless, these communities always existed within introverted and distinct pockets of social cohesion as informal settlements. The different communities have adjusted themselves in-between the planned residential localities of Liaqatabad, Nazimabad, SITE limited and the edge of Nalla. The informal layout of the settlements hence brings together a variety of 'leftover' spaces in the form of maidans (open grounds), graveyards, Nalla banks, spaces underneath and around bridges, and culde sacs.

The type, quality, scale and use of these open spaces vary considerably, depending on the scale of intersection that cuts through the Nalla. Moreover, it is distinguished by the respective communities that are occupying these places.

It is observed that areas adjacent to the major intersection of Bara Board, Nazimabad No. 2 and the Banaras Chowk cater to a wider range of commercial and social activity as compared to the areas away from the major intersections connected through pedestrian bridges.

These available spaces along with the dense residential fabric cater and facilitate a parallel informal economy and social spaces. The settlement around the Nalla is also home to garbage dumps, garbage sorting spots, graveyards, cinema houses, shrines, mosques, churches, cottage industries, cattle farming, intercity bus stops, factories, hotels, tandoors, hawkers, communal water taps, parks, playgrounds, retails shops, rental activity, schools, clinics, public toilets and hospitals.

The contrast in the scale and use of these spaces are dictated by the natural grid of the flood lines,

topography of the area, the structure lines of the main intersections and bridges, Karachi Circular Railway, the main road of Mangopir Road running parallel to the Nalla and the planned localities of Liaqatabad Town and Nazimabad Town. (Refer to figure 5)

The quality of these open spaces varies from garbage dumps at intersections to large graveyards, open grounds or secluded cul de sacs tugged between the dense residential areas. The small open spaces create an ambiance of intimacy at the neighbourhood scale, which is then frequented by the residents of the neighbourhood. These small open spaces either along the banks of the Nalla or within the intimate environs of the neighbourhood. (Refer to figure 7)

Figure 5: Large scale Industries of SITE Town

Figure 6 : Sitting platform next to Small cabin

---

[2]   The first migrants to reach this area were by the Urdu Speaking migrants in 1947 after the partition of India. This was followed by the influx of the Pathans from the North Western Frontier Province (NW FP) after the industrial revolution of the 1960. In 1971 breakup if East and West Pakistan saw the migration of Bengalis and Beharis. Finally the 1980 the Afghan War brought the influx of Afghan migrants.

In a lot of cases the banks of the Nalla acts as the only open space for the residents living there. This need and potential can be assessed by the number of residences that are facing towards the Nalla. A wide range of social spaces takes place including consumer and entertainments spaces consisting from small cabins selling every day consumer items[3] to large-scale cinema houses at the major intersections. Thereby indicating that the communities are not only acknowledging the Nalla as an open space but using it also as a spill over active space or in other cases as a thoroughfare. (figure 6)

Being divided into homogenous social pockets, these open spaces differ in use and utility that can also be identified to a great extent by their consumer and social behaviour. For example, the Urdu Speaking majority settlements are marked by the presence of schools, tuition centers, dispensaries and clinics, beauty parlours, retail outlets and small-scale cottage industry like embroidery workshops, hardware industry, and rag sorting industry. These small industries and retail outlets are to an extent also integrated in the residential area of this community. The social areas hence openly spill over in the residential areas, where thresholds of small commercial outlets and the houses becoming active social areas. (Refer to Figure 7)

The Pathan Community differs from other communities since one rarely sees the presence of women and young children idling on the street. The lanes are mostly paved, with white washed house facades, while the residences of single men in a lot of cases emulate the indigenous structures in the form of pavilions over looking the Nalla as seen in the features built structures over looking valleys in the Northern Areas of Pakistan. (See Figure 7)

Hence in each case the user and utility of the open spaces dictates the use of space, where domination of a particular community creates a social boundary that ends up refraining people from other communities trespassing into each other's zones. The introverted nature of the community has been further facilitated by the ethnic strife and

gentrification of the city. In case of the Orangi Nalla, it was observed that trespassers could be from different communities, ethnicities as well as belong to different genders and age groups.

Figure 7 :

Figure 8 :

---

[3]   Most of these shops operate on a credit system

Another the interesting aspect about the open spaces or the banks of the Nalla is that it cannot be connected through a thoroughfare. This has been further added by encroachments by the residents.

The meandering form of the Nalla further helps in creating the small and secluded pockets where the vegetation is an ecological delight and revelation. The vegetation that is visible is both planted as well found in the form of wild vegetation. Trees like Date, Palm Peepal, Bargath, and Neem is grown by the residents while wild vegetation is abundantly seen as wild grass, Kikar Trees and at times flowering creepers. This density of the vegetation is clearly seen in the areas and banks higher up the Nalla, towards Banaras where the Industrial waste of the Nalla decreases in contamination compared to the areas lower down the Nalla.

The presence of the greenery further facilitates the liveliness of the place and reduces the hostile polluting environment by camouflaging the abundant garbage and flowing toxic waste.

Following are three cases of different kinds of open spaces that are found along the 7 km length of the Orangi Nalla. The different case studies provide an opportunity to look into the differences of scale, type and use that the Orangi Nalla can provide for the residents of the Nalla and the city of Karachi. The range of these open spaces range from homogenous politically oriented spaces to multi cultural commercial outlets as well as secluded green spaces.

KHAJJEE GROUND AT RIZVIA COLONY

The Khajje Ground is one of the largest open spaces found along the entire length of the Orangi Nalla. It is situated in the lower banks of the Nalla and is part of the planned locality of Rizvia society, situated in Liaqatabad Town. This playground is popularly used for cricket and ootball frequented by a large number of boys of the neighbourhood. It is a popular destination especially during weekends and public holidays.

Over the last decades the Khajjee ground has also become synonymous for the politically active

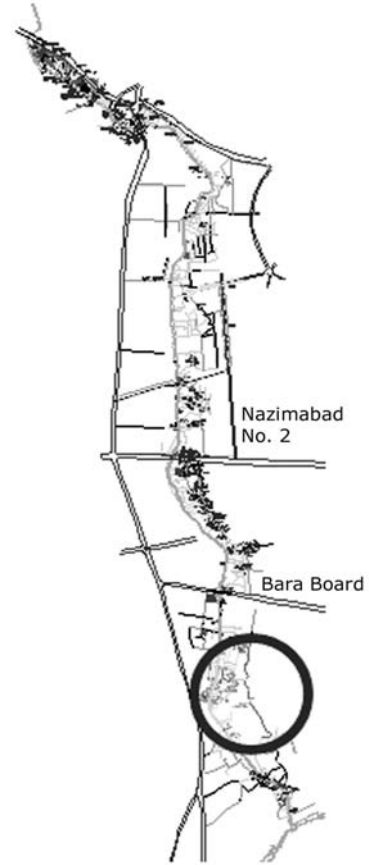stronghold of the Urdu Speaking residents of Karachi. This place took a special undertone during

Figure 9 : Location Map of Khajjee Ground

Figure 10 : Khajjee Ground

the 1990's ethnic tensions. Even today the Khajjee Ground is a popular place where all kinds of political rallies and gatherings are held. This ground is also used at times by traveling circus and other festivities.

The irregular shaped ground sits within the dense residential fabric, with the Nalla flowing parallel to the west side. It has a 20' wide service road on two sides, and a narrow 5' pedestrian access towards the Nalla side. From all three sides are entrances opening on to the ground. One corner of this ground opens onto the Nalla bank. This opening that is wide enough for a person to pass, is wedged between a rag sorting warehouse and a double height Madarsa (religious school) for the women. This opening then extends into a pedestrian bridged across the opposite bank of the Nalla and connects to the Mangopir Road via a commercial street.

A graveyard and local police station form one edge of the ground, with the main entrance of the Police station opening onto the ground. No entrance or passage from the ground connects into the graveyard.

A distinct boundary wall demarcates the different kinds of activities happening at one side of the boundary, from the activities happening within the playground. Clinics, girls school, garbage dump, local police station, and the Union Council office of Rizvia Society mark the immediate edge of the ground. Whereas, the commercial strip along the 12' wide road caters to commercial activity ranging from retail outlets, car mechanics, catering businesses and general stores. Small entertainment sheds of dubbo and snooker, supported by hawkers selling eatables enhance the social scene of the area. Which takes place during the night time[4].

THE BANKS OF THE ORANGI NALLA AT THE NAZIMABAD NO.2

Nazimabad No. 2 intersection is situated at the State Avenue and the Orangi Nalla crossing. This intersection is one of the three major intersections that are crossing over the Orangi Nalla. This intersection is also popularly identified as Saifullah Hotel or Musarat Cinema. The respective hotel and cinema form the social and commercial focal point for the Pathan single men living in the vicinity of the Orangi Nalla. This area is also famous for drug, arms trade, and prostitution and gained immense popularity during the ethnic strife of 80s[5].

The 200 feet wide road acts as a major artery in the city and stretches through SITE Town and Nazimabad, connecting the Harbour with Sohrab Goth. Consequently, it acts as a main East-West thoroughfare for both intra city and up country
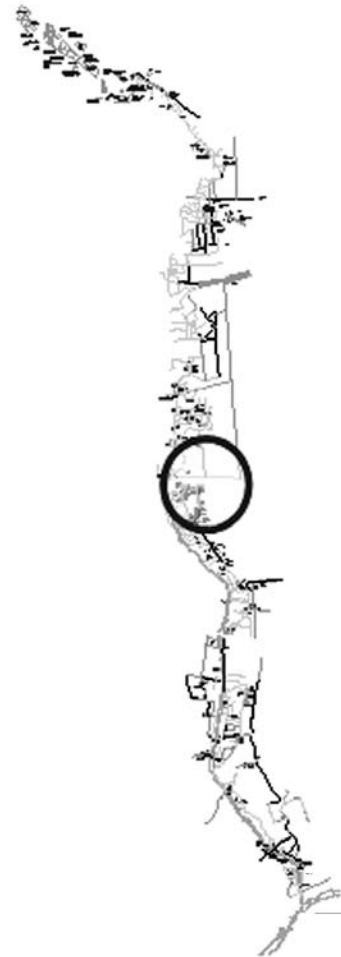

Figure 11: Location Map of Nazimabad No. 2

---

[4]   Indicated by the covered push carts lined on the outer edge of the boundary wall.
[5]   Hasan. A (2000) "Housing for the Poor - Failure of Formal Sector Strategies", City Press, Karachi, pg 57.

traffic of goods and passengers.

The intersection has evolved as an informal bus stop for the intra city as well as inter city bus stop. A total number of 10 intra city routes pass through this road making it one of the popular transverse routes across the city[6]. Moreover, being situated in a Pathan majority area, it has also become a popular informal bus stop for up country traffic heading towards Hazara and Abottabad.

This area is surrounded by dense informal residences of Nazimabad on one side and the heavy industries of SITE Limited on the other. The history of the settlement goes back to the 1962 and 1966, when the nearby Baldia, Orangi and Qasba townships were developed. Pathans from the north of the country were encouraged to work as labour in the factories and as a result the informal settlements along the Nalla rapidly grew.[7]

The road heading from Sohrab Goth towards the port is lined by Saifullah Hotel, a mosque, Government Boys School, Makka Hotel and small tea stalls. The open spaces infront of the hotel form the arrival bus depot for up country traffic.

The buffer area in front is encroached by takhts (wooden platforms) where men are seen sitting and idling. Musarat cinema forms the focal point of all commercial and social activity. In between this social and entertainment space is Ibrahim Ali Bhai School, a government school for boys and a shrine. The back walls of the school, shrine and the cinema create an enclosure where commercial and related social activity takes place on a relatively smaller scale. The commercial area around the hotel and cinema cater to the needs of the single men. These include facilities like public baths, eating places, laundry facilities, tailors, shoe makers, barbers and platforms where these men hang out.

Similarly the road opposite Saifullah Hotel caters to buses departing for upcountry. The 10 to 12 feet wide shops form part of the main fabric and cater to the needs of the passengers as well as to those of the residents living behind the main

Figure 12: Saifullah Hotel and its environs

Figure 13: Men idling in front of Musarat Cinema

intersection. The open spaces or buffer area consist of general stores, tea stalls, small hotels (dhabbas), barbers, shops selling fabric and laundries. Small outlets of dubbo or football and music shops provide entertainment. Ticketing booths are stalled under trees on the buffer between the main road and the side lane. Up to 5 bus companies are situated in the same row.

The open spaces are utilized at two levels; one is along the main intersection that has evolved as an informal bus stop, cinema house, hotels and ticketing booths. And secondly the spaces that are available along the banks of the Nalla.

---

6   Map of the traffic routes.
7   Hasan. A (2000) "Housing for the Poor - Failure of Formal Sector Strategies", City Press, Karachi, pg 57.

This 'leftover' spaces are utilized as cattle pen, garbage-sorting site and public toilet. The public toilet caters to the single men's community residing along the Nalla as well as to the passengers at the bus stop. Over all, on both sides of the bridge, they are 2 cattle pens, 2 garbage-sorting sites and one informal public toilet charging 3 rupees for the facility.

The area underneath the bridge along the length of the Nalla is accessible from all the four sides of the Nazimabad No. 2 bridge. Accumulation of garbage under the bridges is one of the most visible features of the area surrounding the nalla. Next to the garbage dumps (mostly comprising of plastic bags) are cattle pens.

Similarly the banks of the Nalla especially around the intersection provide an opportunity of open spaces within the dense residential fabric. The residents of the locality use both the banks of the Nalla for circulation. This area is utilized by a garbage-sorting site next to the bridge and a water outlet on the opposite bank where the residents collect drinking water. The comparatively high plinth level and the setback along the Nalla create a bermed up bank on the otherside marked by sporadic vegetation and wild kikar.

The banks of the Nalla towards the SITE Town are connected to two pedestrian bridges the residential settlement of the Nazimabad. The factories are situated with an offset that in turn.

Contrast in environment between the hustle bustle of the main intersection and in the The instant change in the insulated and introverted environment starts 5'deep in the urban fabric. The density of the urban fabric is scattered by small clusters of greens. The green open space becomes the points of orientation within the dense settlement layout. During the day, the lanes of the neighbourhood are quiet except for small clusters of children playing in the streets. The only women seen are completely shrouded.

THE CONCAVE SITE NEAR THE PAPOSH GRAVEYARD

This site lies next to the planned settlement of Paposh Nagars on the Nazimabad bank of Orangi Nalla. It is situated midway between the Paposh Bazaar and the Paposh graveyard. This spot faces the industrial area of SITE Town.

At this point the Nalla flows at a height of about 30-40 feet below the ground level. The settlements facing the Nalla comprise of Pathan dominated areas and are informal in their layout. Behind these are the planned settlements of Nazimabad comprising of Urdu Speaking majority. This area is marked by the regular grid of the planned locality of Paposh Nagar, presence of a mosque/madarsa, a Government Boys School, and a playground. In between the informal and planned settlements, residences of a mix of Urdu speaking and the Pathan communities are found.

The sharp turn of the Nalla creates an alcove, creating scenic vistas looking into both sides of the Nalla. Though this alcove is green with wild Kikar, grass and Morning Glory, it also creates a garbage trap as exposed on the elevation of the hill.

The banks of the Nalla are accessible by pedestrian movement and are green with wild grass. Within the alcove, at the level of the Nalla, is a cattle pen. Houses situated along the edge of the hill, face towards the Nalla, maximizing on the view.

Figure 14:

The houses are built on terraces with pedestrian ways cut and paved within the hill.

An interesting aspect at this spot of the Nalla is the presence of a surf factory towards the SITE Town side of the Nalla. The factory leads to a detergent smell in the vicinity and the waste from the factory is utilized for washing clothes with the waste of the surf factory. The residents of the area frequent this spot.

CONCLUSION

The above mentioned case studies give a cross section of the scale, type and use of open spaces that are utilized along the Nalla. From politically active spaces of Khajjee ground to the intimate and secluded settings of Papaosh Nagar the diversity of the activities that take place are varied.

At a pragmatic level the waste of the Nalla, ensures the openness of the surroundings by limiting further encroachments on the Nalla bed. The extent of the open spaces along the Nalla depends upon the fluctuation of sewage discharge during the day. As observed after the Monsoon 2006 floods that this limit does not include the flood levels. Hence, any proposal attached to the Orangi Nalla primarily needs to deal with the issue of toxic industrial and household sewage, as well as storm water drainage.

The contrasting of scales and variety of experiences that one comes across the Nalla, suggests of an alternative proposal for the city as well as the residents of the Nalla. It requires a possibility that needs to explore the intimate scale and ecological aspects of the surrounding that is supported by the self-sustaining informal nature of the collective setup.

Nonetheless, any proposal that surrounds the up keep of the Nalla, will be in the backdrop of real estate speculation. Proposals range from covering of the Nalla, and resultant land availability will face query of evictions, encroachments along the Nalla bed, calculating the probable drainage and flood at the level of the city. Moreover, any structural system that is proposed needs to look after the industrial as well as household sewer. This system ideally needs to be linear, repetitive and flexible enough as the Orangi Nalla, and its the resultant

Figure 15: Location Map of Paposh Graveyard

Figure 16: View from Paposh Looking over the Nalla towards Banaras Hills

spaces along it.

The open spaces along the Nalla also calls for organization based on the scale and accessibility of traffic nodes and routes. One possible potential can be linking the three main intersections through a pedestrian circulation. For example, the larger structural units have the potential of attaching with small-scale bridges and create more localized pedestrian movement, as well as cycles, donkey carts movement, in sync with the residential and commercial settlements on either side.

However the intimacy of scale and the variety of social and economic activity that has evolved as needs to be maintained where the banks of the Nalla are the private domain of the residents living next to it.

The Orangi Nalla hence proposes various possibilities to the city as well as the locals living next to it.

The variety ranges from public spaces, circulation nodes, and green belt for the city, agricultural production, cattle farming, garbage sorting sites, compost farming or small scale industries. These proposals can be tied in with the Town Municipality or the Union Council's 'beautification' projects backed up as good promotions in political campaigns. In support of these ideas the organization of the open spaces can be based on the distinct communities that own the place and help in ay proposal needing upkeep and maintenance of the Nalla.

Lastly, the Orangi Nalla gives an opportunity to be developed as a retreat for the residents of Karachi. Apart from the traffic, rush and hostile nature of the main intersections, the open spaces and especially the banks of the Nalla provide an opportunity for a visual, ecological, haven for the residents of the area and the people of Karachi.

BIBLIOGRAPHY

Hasan. A (2000) "Housing for the Poor – Failure of Formal Sector Strategies", City Press, Karachi, pg 57.

Fernandes. K, Fernandes. N (eds) (1997) "How communities organize themselves – stories from the field", City Press and Urban Resource Center, Karachi.

Ismail. A (ed.) (2001) "Solid Waste Management", URC Karachi Series, City Press, Karachi.

Websites:

www.oppinstitutions.org

www.googlearth.com

CONCLUSION

The three cases are reflective of different patterns of urban development, with a dominant impact on the urban environment. Lyari Expressway is a large scale urban transportation project that is now acting as a threshold for a multitude of social, physical, economic and cultural changes through the corridor of its passage. It is likely to generate a micro-gentrification along the edges from where it is passing. A natural, though degraded, water front is now lost to a super imposed development that is entirely alien to the habitat of the Lyari river environs. At the same time, many stakeholders such as real estate developers and builders consider the making of LEW as a unique opportunity for launching new projects. The land, that is cleared out due to exaggerated clearance and eviction operations, would generate the possibility of real estate development at a large scale. It may be remembered that this potential development essentially need urban design input to stream line the emerging built environment in a positive manner. This input is also vital to mitigate the various damages in the social and cultural respect all along the corridor.

'Khuda ki Basti' or Incremental Housing Scheme is an innovative concept that was applied to address the housing needs of low income groups. The approach had been generally implemented with an over arching focus on the accommodation of low income communities in a quasi-planned manner. When the scheme was adopted in Karachi, a design input was provided at the layout level to guide the occupancy, demarcate public spaces and pattern of movement. With some form of development control in place, the layout has provided a space organization input to assist in the rationalization of incrementally evolving built environment. If periodical guidance in terms of design is facilitated to those who are either building their houses or other amenities, a positive impact can be generated at the scale of neighbourhood.

Orangi Nallah and its environs represent the typical development that is observed along residual spaces in Karachi. After remaining neglected and accredited, nallahs and adjoining lands are acquiring significance in Karachi. No development guidelines or design parameters exist at present. However

informal developments of various kinds have already created an impact on the nallah and its environment. Being an extra-ordinary context with a complex mosaic of social, economic and cultural activities. Studies and studio inputs have revealed that a useful environmental outcome. The context demanded a pro-active approach where design solutions to be communicated with the local interest groups and municipalities. Despite being an unusual context, Orangi nallah makes a favorable premise to test urban design approaches for guiding and supporting the community upgradation through advocacy and networking. It is expected that these case studies shall help evolve the indigenous references to urban design for Karachi.◙

AN EXPERIENTIAL APPROACH TO
URBAN DESIGN AND CONSERVATION:
A Case Study of Kandy, Sri Lanka

Kapila D. Silva
Visiting Assistant Professor
School of Architecture & Urban Planning
University of Wisconsin-Milwaukee
USA

ABTRACT

This paper examines the pragmatic use of a conceptual approach which is based on the experiential nature of a city in guiding an integrated urban development and conservation policy in that city. In this theoretical approach, illustrated through the case study of the World Heritage City of Kandy in Sri Lanka, city experience is defined in terms of (a) its quintessential dimensions, (b) significant tangible and intangible attributes that evoke those experiential dimensions, and (c) episodic spatial progression through the city. The City Experience thus defined is then applied to review the success and failure of urban conservation and urban design activities in Kandy, and to suggest possible urban design interventions that would enhance both the heritage values and the contemporary needs of the city. The design interventions depicted here are hypothetical in nature, developed as urban design studio exercises at the University of Wisconsin-Milwaukee, yet demonstrate the value of the conceptual approach as an integrated urban design/conservation policy.

1. INTRODUCTION

Approaches to urban design have primarily been focused on formal attributes of cities and to a lesser degree on historic evolution, symbolic dimensions, and socio-economic sustainability. All these approaches are equally valid; yet in order to achieve a better understanding of city form and better results in city design, they should be collectively considered. This paper argues that a way to recombinant urbanism would be to reflect on the experiential nature of a city, in which the formal, symbolic, historic, and sustainable city attributes are analyzed together.

An experiential paradigm may not only be applicable to urban design, but to urban conservation as well, and most importantly, to achieve a balance between the constancy and change in a historic urban environment. Many historic 'living' towns, especially in the context of developing economies, face the continuous need to bring new development for the growth and future of the town and to improve the quality of city life, while preserving the historic attributes that define the identity of their communities[1]. Rather than approaching city development and city conservation in a disparate manner, which is in fact detrimental to both intentions, the experiential paradigm to urbanism can provide a larger vision for the integrated approach to urban development and urban conservation.

This paper is an attempt to define this paradigm of experiential urbanism and then to demonstrate the value of this conceptual approach as an integrated urban design/conservation policy.

2. EXPERIENTIAL URBANISM

A city certainly evokes an image in our minds – figural as well as metaphorical – of either the

---

[1] Logan, W.S. (ed.) (2002). "The disappearing 'Asian' city: Protecting Asia's urban heritage in a globalizing world", The Oxford University Press, New York.

entirety or parts of it[2]. We also develop personal preferences and attachment to cities or their specific parts[3]. We ascribe meanings to urban spaces by the way we design and use them, and we either understand or misinterpret their symbolic dimensions[4]. In our narratives of cities we tend to capture the essence of the entire place or parts of it, either by a word ("serene"), or by couple phrases ("very congested, but there is a certain aura of mystique power in the air"), or tell many anecdotes of our interaction with it. Perhaps the most effective way to understand the urban form is to closely review our own experiences of the city.

Attempts to understand, explain, and apply in design this experiential nature of cities gave rise to the place theory in urban design and its many postulations,[5] yet no single approach has been able to satisfactorily capture the essence of a city. Some examples are in order. With the aim of making environmental experience meaningful, Norberg-Schulz (1980) advocated for discovering and enhancing the intrinsic quality or spirit of the place in designing environments. The notion of imageability of a place, introduced by Lynch (1960) has been a promising concept, albeit not fully blossomed primarily due to the fact that the subsequent research and design practice based on this approach largely ignored its capacity to capture the essence of a city by simply focusing on the spatial relationship of the five urban elements introduced by Lynch. Even one of the key dimensions of the urban experience pointed out in Lynch's approach, the symbolic dimensions of a place, has been absolutely overlooked. Since Cullen's (1961) concept of serial vision, the manipulation of vistas of different parts of a city to evoke a dramatic visual experience when one moves through the city, focused only on visual perception, it failed to notice its potential to explain other dimensions of the spatial progression of a city, such as how one feels the entry, center, and

destination of a city. The highly structured classical formalism displayed in the urban design work of Leon Krier brings a cohesive and unified sense of the urban place,[6] but its formalistic attributes derived from western context may not be applicable in the non-western situations, wherein the informal, organic, and disorderly seems to be essential attributes of the urban form. All these approaches are valid, yet capture different aspects of the urban experience, and thus should be considered together in order to understand the experiential essence of a city.

What we actually feel and attempt to narrate is the unique experiential quality of the city, or City Sense, which is reflected through the physical (of buildings, landscape, people, their activities) and symbolic (historic meanings, personal attachments,

Figure 1 : Map of Sri Lanka.

2   Lynch, K. (1960). "The image of the city", The MIT Press, Cambridge, MA.
3   Nasar, J. L. (1998). "The evaluative image of the city", The MIT Press, Cambridge, MA:
4   Rapoport, A. (1990). "The meaning of the built-environment: A non-verbal communication approach", The University of Arizona Press, Tucson, AZ.
5   Trancik, Roger (1986). "Finding lost space: Theories of urban design", Van Nostrand Reinhold Company, New York.
6   Ibid

emotions, preferences, etc) attributes of that place. Sense of a city could also be defined in terms of its "core-dimensions" and "risk-dimensions", wherein the former are some experiential qualities that collectively define or evoke the City Sense and the latter are qualities that are detrimental to the former. In other words, the core-dimensions are the city's capacity to generate positive experiences and the risk-dimensions would be those aspects that generate negative experiences[7]. City experience is also analogous to building experience; we could narrate our encounters in the city as if we move through a building, about the sense of entry, lobbies, passages, various rooms, and the main space, etc. Experiences of this episodic spatial progression of the city – from the sense of entry, sense of intermediate pauses, sense of main/central pause (sense of arrival), and to climactic place (sense of destination) – also contributes to the evocation of the overall sense of the city.
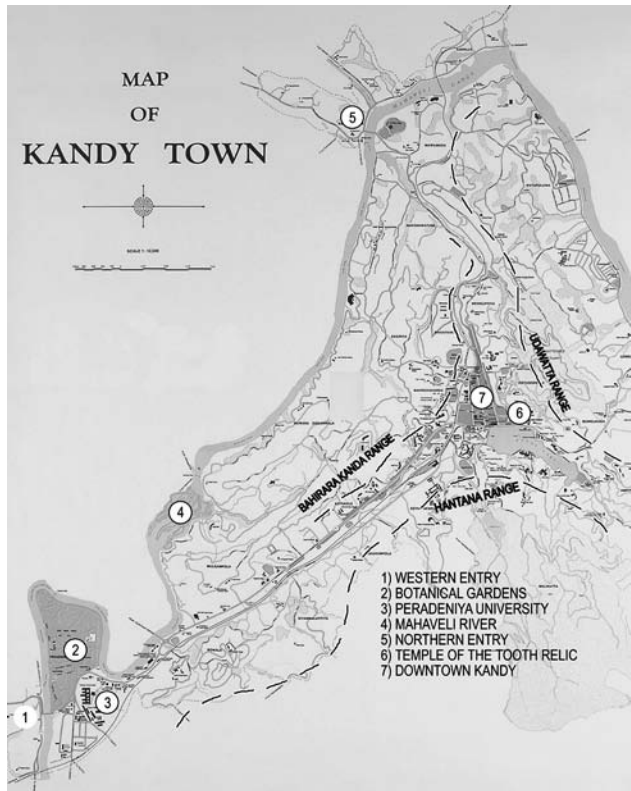
Urban design could then mean creating or enhancing the sense of a city. Design by the city sense is then to foster the core-dimensions of the sense of a city while eliminating its risk-dimensions. Similarly, in urban conservation, it can be argued that what we actually attempt to preserve is the unique experiential quality of the place or City Sense, which is reflected through the physical as well as symbolic characteristics of that place. People experience and perceive this uniqueness of the place, and retain that experience in their minds. When we preserve the sense of the city, it in turn refreshes, sustains, and strengthens our memory of the experience of it. What we need to preserve is, therefore, not mere buildings or architectural styles, but the core-dimensions of city sense. City sense is not about the past; it is about the present in which the past is embedded along with all the possibilities for the future; thus, it is about 'living history' or about 'future preservation'. What is important is to sustain and manage this experiential quality of the city in our design decisions on preservation and new development.

This thesis was put into practice within the context of the World Heritage City of Kandy in Sri Lanka, discussed below, in terms of a research that defined the city sense and some hypothetical design projects that demonstrated how to design/preserve by city sense. The design projects were developed

Figure 2 : Map of Kandy.

Figure 3 : Monumental Ensemble in Kandy.

7   Silva, K.D. (2004). "Mapping meaning in the city image: Towards preserving the imageability of urban cultural landscapes". Unpublished doctoral dissertation, University of Wisconsin-Milwaukee, Milwaukee, USA.

by a group of architecture students at the University of Wisconsin-Milwaukee, USA.

3. CULTURAL LANDSCAPE OF KANDY, SRI LANKA

The City of Kandy was declared a World Heritage City by UNESCO in 1988. Located 500m above sea level in the central hilly areas of Sri Lanka (Figure 1 & 2), it was the last stronghold of the Sinhalese monarchs from 1592 to 1815, when it was ceded to the British by the Kandyan aristocracy under a treaty. The city underwent a larger reconstruction program in order to incorporate cosmological and religious ideals within its built fabric during the reign of the last Sinhalese monarch in 1803-1812. It was extended during the British occupation yet without much modification to the historic city[8]. The historic core of the city holds the old royal palace, the Temple of the Tooth Relic of the Buddha, headquarters of the two main Buddhist monasteries, the four shrine complexes for the guardian deities of the country, and a man-made lake (Figure 3). This monumental ensemble is the focus of the present conservation scheme. In addition, there are many Buddhist temples and monuments in and around the city. Its main event is the annual pageant known as the Äsala Perahära, which is a celebrational procession that circumambulates the city in honor of the Relic and the city's guardian deities in July/August[9].

The Mahaväli River flows around the city and forms its municipal boundaries. The downtown Kandy is nestled within three mountain ranges – Udawatta Range from the east, Hantâna from the south, and Bhairava Kanda Range from the west. The monumental ensemble is located at the foot of Udawatta Range, which has been a forest reserve since the origin of the city. Historically this natural landscape formed the crucial city defenses. Most of the civic and commercial functions of Kandy are currently located within the downtown core west

of the sacred area (Figure 4). Today Kandy is the home for 110,000 people and the administrative capital of the Central Province of the country as well as the main cultural and religious center of Sri Lanka.

4. THE CITY SENSE OF KANDY

In a recent study, residents of Kandy participated in identifying the city features and the attributes that define the quintessential Kandy[10]. The findings revealed that Kandy has a very strong sense of place, evoked by some city features and symbolic meanings associated with the city. The City Sense of Kandy seems to be a juxtaposition of several experiential dimensions that include senses of sacrality, historic solemnity, scenic serenity, and well-being, all complimentary to each other.

The 'sense of sacrality' of the city is derived primarily due to the presence of the Sacred Tooth Relic of the Buddha (enshrined in the Temple of the Tooth Relic), the shrines dedicated to the four guardian deities of Kandy, and the two great monasteries of the Sri Lankan Buddhist Order. Not only has the existence of these institutions but also various religious and cultural meanings associated with them collectively generated this sense of sacrality of the city. The 'sense of historic solemnity' of the city is derived mainly as a result of Kandy being the last capital of the Sinhalese monarchy. Most of the historic institutions, their physical structures as well as associated traditions, and many memories of the bygone era are still alive today. This sense of historicity is closely related to the sense of sacrality as the key monuments that represent the historic Kandy are religious and regal institutions. The 'sense of scenic serenity' of the city is derived principally from the dominant natural landscape comprised of the surrounding hills, the Lake, Mahaväli River, Botanical Gardens, the panoramic views, and the like. It is not only the scenic beauty of the natural landscape that matters but also the serene

8   Duncan, J.S. (1990). "The City as text: The politics of landscape interpretation in the Kandyan Kingdom". Cambridge, The University of Cambridge Press, UK.

9   Seneviratna, A. (1999). Socio-cultural heritage of Kandy. In A. Seneviratna & N. de Silva (Eds.), "World heritage city of Kandy, Sri Lanka: Conservation and development plan" (pp. 37-63), Central Cultural Fund, Colombo, Sri Lanka.

10   Silva, K.D. (2004). "Mapping meaning in the city image: Towards preserving the imageability of urban cultural landscapes". Unpublished doctoral dissertation, University of Wisconsin-Milwaukee, Milwaukee, USA.

am bience it creates. This tranquility is in turn associated with the sense of sacrality of the city; it is thought to be the ideal environmental quality to exist in a sacred place. This dimension of scenic serenity is also related to the sense of historicity of the city, as all key landscape features are connected to many historic events or persons. The 'sense of well-being' is closely connected to the above three core-dimensions. Participants seem to perceive the city as an ideal place to live: They seem to have a deep sense of attachment to Kandy as they have lived there for generations. The quiet slow pace of the city life, comfortable micro-climate, a great sense of community, a compact place with all the necessary amenities available within walking distance, a charming landscape, the sense of historic timelessness, and, as residents' believe, a certain sense of bliss that emanates from the presence of the Sacred Relic and the guardian deities are all come together to render this sense of well-being of the city. It became clear in the study that the quality of social life in Kandy is closely connected to these core-dimensions of the City Sense.

Residents of Kandy also described a set of attributes that are perceived to be 'threats' to the quintessential character of Kandy (thus, the City Sense of Kandy). These attributes (or risk-dimensions) include the physical congestion in the city, the ailing and ineffective bureaucratic system, the inappropriate social behavior of some people, and the growing ethnic/religious tensions in the city. Furthermore, an analysis of the literature on tourism and real estate promotion in Kandy, the main components of the city economy, revealed that these literatures use images of the sacred and historic monumental ensemble of the city, views of the natural landscape, and images of the annual pageant (which is sacred and historic) to define what Kandy is. In other words, the promotional literature portraits Kandy as an ideal place to live as it is scared, historic, serene, and comfortable, thus referring to the four core-dimensions of the City Sense of Kandy. What this indicates is that the economic life of Kandy is based on the City Sense, and that its sustainability depends on fostering the core-dimensions and eliminating the risk-dimensions.

One contributing factor to this strong sense of

1) TEMPLE OF THE TOOTH RELIC
2) DALANDA STREET
3) COLOMBO STREET
4) KING'S STREET
5) SENANAYAKE STREET
6) BANDARANAIKE STREET
7) CLOCK TOWER
8) PUBLIC MARKET
9) TEXTILE MARKET
10) PUBLIC LIBRARY
11) PRISON COMPLEX
12) BOGAMBARA STADIUM
13) POLICE STATION
14) POST OFFICE
15) RAILWAY STATION
16) BUS TERMINAL
17) HOSPITAL
18) MALVATTA MANASTERY
19) ASGIRIYA MANASTERY
20) QUEEN'S HOTEL

Figure 4: Map of Downtown Kandy.

Figure 5: Main Railway and Bus Terminals.

Figure 6 : City Center; view towards Public Market.

Figure 7 : Dalanda Street; view towards city center.

place in Kandy is the episodic spatial progression through the city. Although not defined precisely, one can experience the sense of entry, sense of arrival, sense of center, and sense of destination while moving through the city. This experience of spatial progression is quite stronger from the western entry to the city than from its northern and eastern entries, perhaps due to the fact that the western entry seems to be the prominent one as it connects Kandy to Colombo, the capital city of Sri Lanka, and that this symbolic connection has led the city development in a certain manner, which eventually defined a clearer spatial progression through the city from its western entry.

Nevertheless, the entry transition to Kandy from all sides is felt when one crosses the Mahaväli River since it meanders around Kandy forming the city boundaries. Again, the sense of entry from the west is much celebrated: the Botanical Gardens and the University of Peradeniya are located along the river with their entrances just after the bridge (Figure 2). Along with the national-level importance of these two institutions that contributes to the status of Kandy, the lush green cover of both premises provides a fitting ambience to this entry representing the sense of scenic serenity of the city. In fact this area seems to be a highly imageable and preferred domain in residents' mental maps of Kandy[11]. In contrast, the northern and eastern entries lack this kind of formal spatial definition and celebratory ambience. The eastern entry has a rural character and thus the potential to be developed into a place similar to the western entry at Peradeniya. The northern entry displays a haphazard and undistinguished urban character on either side of the river, evoking an undifferentiated transitional experience. It requires noticeable design intervention right after one crosses the bridge. As it was the main city entry during the pre-colonial era, the design intervention could benefit from this historical significance.

The central bus terminal and the railway station of Kandy are clustered together between the two

---

[11] Ibid.

Figure 8 : Destination of city experience : The Temple of the Sacred Tooth Relic.

Figure 9 : Topographical Profile of Kandy.

main roads leading to the city center from the western entry. The main post office and the Kandy General Hospital are also located within the same area (Figure 4 & 5). This confluence of transportation and institutional activities makes this area an important pause in the spatial progression through Kandy. It is a place that can evoke a strong sense of arrival, yet one does not feel so due to the high traffic congestion and lack of formal definition in the urban space and the buildings. Along the Bandaranaike Street, a noticeable pedestrian traffic flows from this transportation hub to the center of the city's commercial district. One would again feel a certain level of sense of arrival at this city center as well (Figure 6). A historic clock tower punctuates this urban space; it is one of the major landmarks in the city and appears to be a reference point for wayfinding in the city and a social meeting point for the city residents[12]. The Public Market of Kandy, a textile market (located beneath a raised concrete plaza), and two minor bus terminals are located around this center. Dalandâ Street connects this space to the sacred area of Kandy and acts as a spine that binds other streets in the city together. Because of this clustering of some major urban elements of Kandy, this area around the clock tower evokes the feel of the center of city and sense of arrival in Kandy. This city center area, along with the main transportation hub, is another imageable domain in the city image of Kandy, although residents seem to dislike the area due to its congestion, disorder, and urban squalor[13].

The next episode of the spatial progression through the city occurs along Dalandâ Street. All the major bank buildings and prominent commercial establishments (shops, restaurants, and the historic Queen's Hotel) are located on this street with their arcades and balconies lining the street (Figure 7). The term Dalandâ refers to the Sacred Tooth Relic of the Buddha, a fitting metaphor, as the street is the main connection between the city center and the historic monumental ensemble, the main building of which is the Temple complex that houses the Relic. Moreover, the annual cultural pageant in Kandy unmistakably parades on Dalandâ Street before it enters other streets in the city. There seems to be a certain level of constant festive ambience on the street due to the architectural features of the street edge and the activities on the street.[14] This atmosphere is an important aspect of the overall spatial progression of the city, as Dalandâ Street acts as a promenade that brings people towards the climactic destination of Kandy.

A distinguished sense of destination or climax in the city's spatial progression exists in the scared area where the historic monumental ensemble is located. While the mountain ranges of Udawatta Käḷe and Hantâna provide a backdrop to the ensemble (with an ample degree of spatial enclosure to the area), the Kandy Lake and the Great Esplanade lay a spacious foreground creating a striking panoramic view of the monumental ensemble. The urban experience of the progression through the city ends at the entry to the Temple Complex, which is punctuated by the majestic Pattirippuwa building and other ornate architectural

---

12 Ibid.
13 Ibid.
14 Silva, K. D. (1993). "An analytical study of the correlation between the character of streetscapes and their determinant factors". Unpublished master's dissertation, University of Moratuwa, Sri Lanka.

features of the Complex (Figure 8). This sacred area formed the nucleus of the city image of Kandy: with its distinctive physical and symbolic attributes, it is the most imageable and most preferred area of the city.[15]

This episodic spatial progression through the city is also heightened by the topographical profile of the city: the transportation hub is located at the lowest point of the Kandyan valley, and Bandaranaike Street climbs up to the city center where the clock tower is located. From there onwards, Dalandâ Street climbs up to the sacred area which is located on the highest plane of the valley (Figure 9). This gradual upward movement through the city, from its entry to the culmination via the center, seems to be of ritualistic in nature as if one moving from profane to the scared realm. In fact, according to Duncan (1990), this was the case in historic Kandy: Senanayake Street was the ceremonial north-south axis of the city that demarcated the profane and sacred division of the historic Kandy, in which the area east of this axis was considered sacred (where the royal palace complex, shrines complexes, and the Temple of the Sacred Relic are located) and the area west of the axis was considered profane (where the rest of the population lived). This allegorical attribute still appears to be a prevailing component of the Kandyan city form. It seems a range of historical, symbolic, topographical, and functional factors collectively orchestrate a meaningful spatial experience in the urban form of Kandy.

5. URBAN PROBLEMS IN KANDY

Irrespective of its strong sense of place, Kandy faces some critical urban issues. The risk-dimensions discussed-above sum up these issues, i.e., the physical congestion in the city, the ailing and ineffective bureaucratic system, the inappropriate social behavior of some people, and the growing ethnic/religious tensions in the city. While the last three risks are social in nature, the first risk is a physical environmental issue, and thus is the concern of this paper. Apparently there is a lack of integrated approach to the preservation and development of Kandy: The focus of the preservation is given primarily to the historic

Figure 10: New Building with incompatible architectural languages.

Figure 11: New Building with incompatible architectural languages.

---

[15] Silva, K.D. (2004). "Mapping meaning in the city image: Towards preserving the imageability of urban cultural landscapes". Unpublished doctoral dissertation, University of Wisconsin-Milwaukee, Milwaukee, USA.

monumental ensemble and other religious institutions in the city. This monument-oriented conservation approach, as opposed to an integrated city-wide development approach, has in fact undermined the very objectives it has set out to achieve. The urban development in Kandy seems not been directed by a larger vision, let alone by a conservation-oriented approach, which has led to a haphazard growth resulting in a rapid fragmentation of the historic urban fabric. Even though some secular historic buildings are earmarked as part of the urban heritage, no action has been taken so far to appropriately restore and reuse these buildings. Similarly there is a fragmentation of the green cover and natural terrain on the surrounding mountains due to unrestrained urban growth. Although there are

guidelines for development control, their enforcement has been quite ineffective and dysfunctional. This is particularly true in terms of new construction and signage use in the city: While architectural language of new buildings does not match the historic character of the city, the use of signage has become abhorrent resulting in a visual disorder that is detrimental to the scenic, sacred, serene, and historic sense of the city (Figure 10 & 11).

Moreover, the significant contemporary city amenities, such as the Public Market, Central Bus Terminal, Railway Station, Bôgambara Stadium, Hospital, etc, have been long neglected. For example, the Public Market lacks enough space inside, and the trading has now spilled over to the
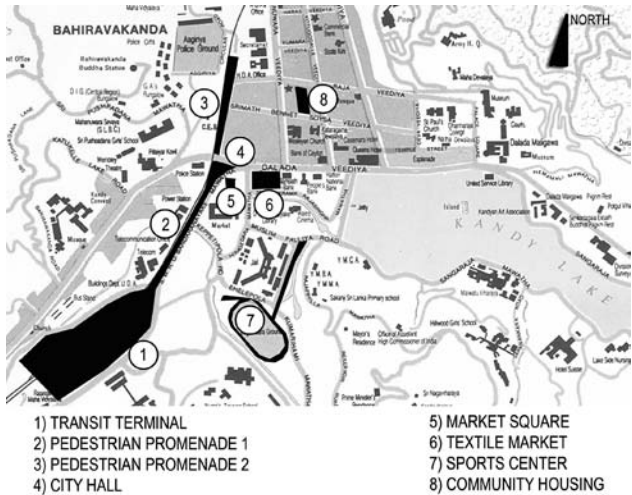
Figure 12: Map Showing Locations of Design Projects.

1) TRANSIT TERMINAL
2) PEDESTRIAN PROMENADE 1
3) PEDESTRIAN PROMENADE 2
4) CITY HALL
5) MARKET SQUARE
6) TEXTILE MARKET
7) SPORTS CENTER
8) COMMUNITY HOUSING
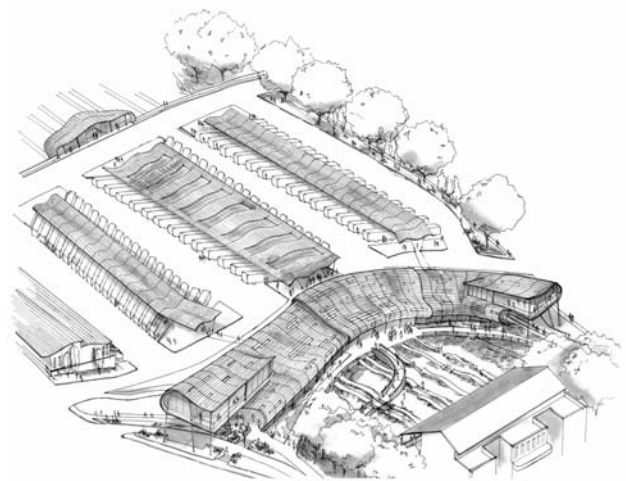
Figure 13: Aerial View of Proposed Transit Hub.
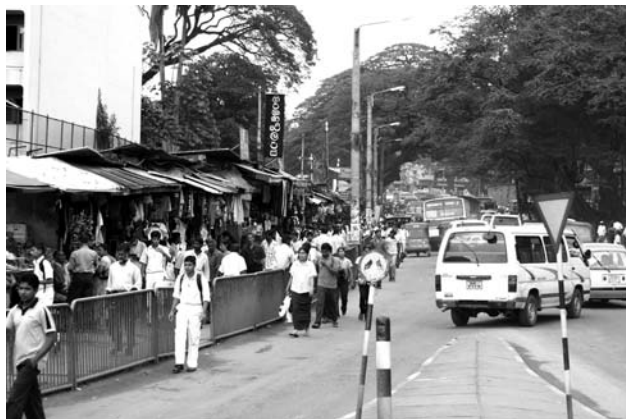
Figure 14: View of Bandaranaike Street.

Figure 15: Using Railway Tracks as a Pedestrian Walkway.
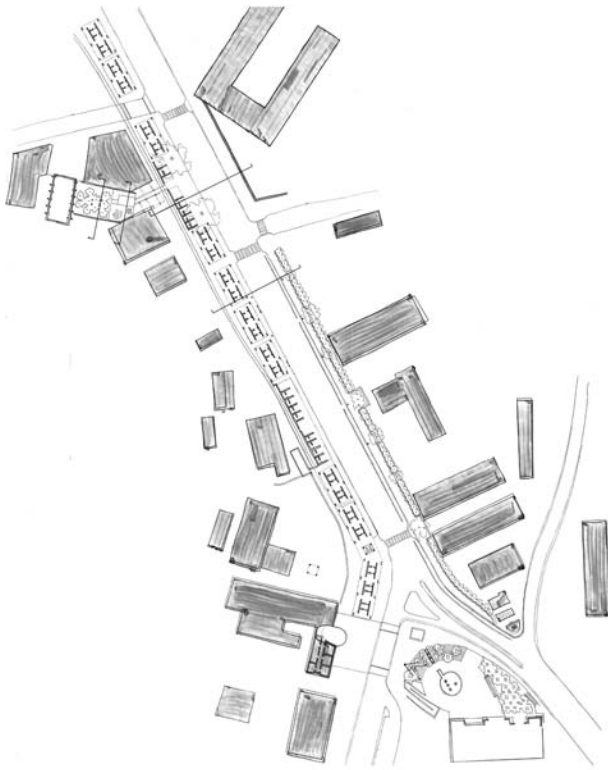
Figure 16: Plan of the Pedestrian Promenade.
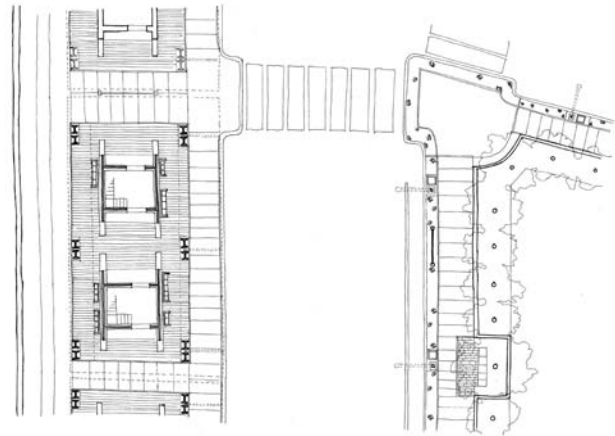

Figure 17: Plan of a Shop-House.
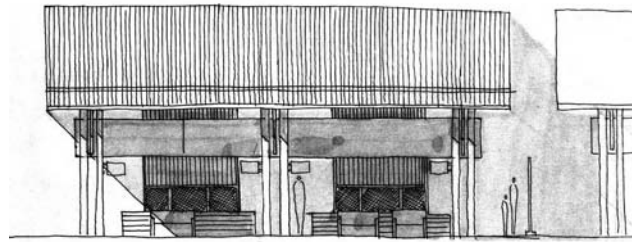
Figure 18: Elevation of a Shop-House.
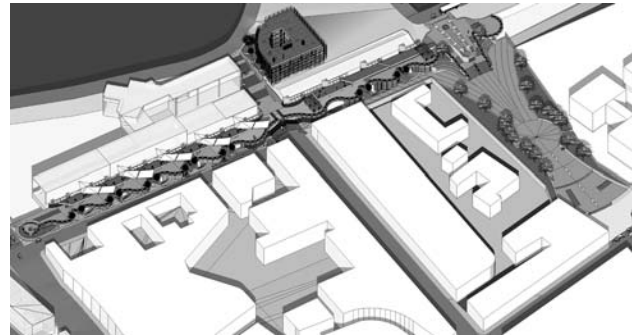
Figure 19: View of the Northern Promenade.

streets around. Research shows that these amenities immensely contribute to the sense of well-being in the city and the city image of Kandy.[16] Another key urban issue is the traffic congestion in the city, which is a result of improper traffic management and insufficient parking. In addition to the main bus terminal, there are at least four minor bus terminals scattered through the city. This has led to chaotic vehicular movement and the noise and air pollution. This problem is heightened by the narrow historic streets, which are not designed for automobiles and, in some instances, devoid of sidewalks. Historic back alley system in the city is left to disrepair. There also is a shortage of housing for the economically disadvantaged, who engage in day-to-day commercial activities in the city and live in the downtown core itself.

6. DESIGN INTERVENTIONS IN KANDY

Elimination of this risk-dimension of Kandy – the chaotic and crowded urban situation – has been the focus of the hypothetical design schemes. The design ideas set out to promote and foster the core-dimensions of the City Sense of Kandy and enhance the existing feel of the spatial

---

[16] Hettiarachchi, S.D.C.P., & Deraniyagala, S. (1999). 'Public Forum .' In A. Seneviratna & N. de Silva (Eds.), "World heritage city of Kandy, Sri Lanka: Conservation and development plan" (pp. 155-167), Central Cultural Fund, Colombo, Sri Lanka. Silva, K.D. (2004). "Mapping meaning in the city image: Towards preserving the imageability of urban cultural landscapes". Unpublished doctoral dissertation, University of Wisconsin-Milwaukee, Milwaukee, USA.
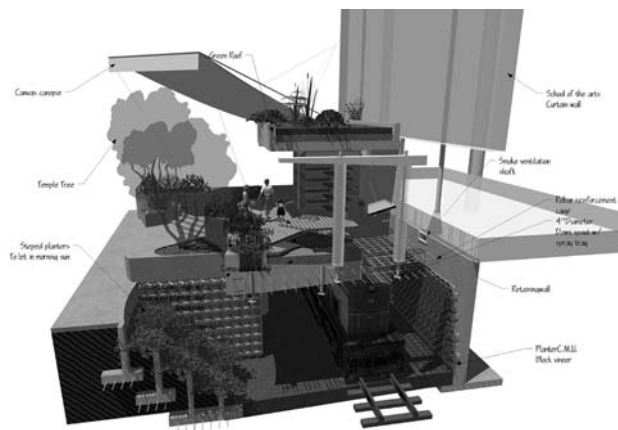
Figure 20: Partial Cross-Section of the Promenade.

Figure 21: Cloud-Drift Wall Over Wave-Swell Wall in Kandy.
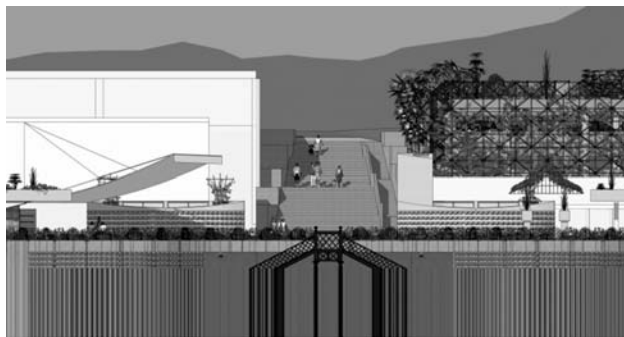
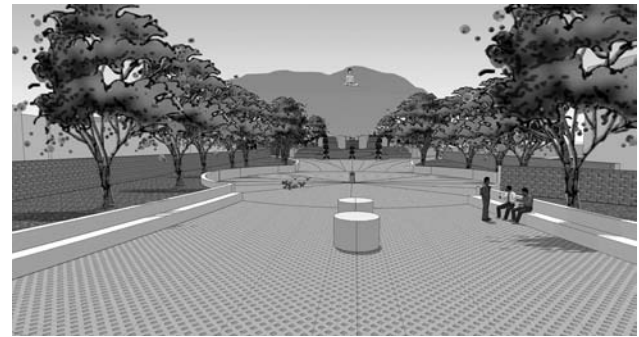
Figure 22: Grand Stairway Terminating Colombo Street.

Figure 23: Plaza Terminating King's Street.

progression through the city. Moreover, the design interventions are particularly concentrated within the city center area, as it suffers most from the urban problems. As this city center is a colonial-era extension, the students called its urban problem the 'colonial sprawl'. Filling-in the urban void, tightening the street enclosure and city fabric, providing pedestrian-friendly streetscapes, lessening the visual order, and most importantly, reclaiming the public space are key objectives of the design projects. The spatial progression starting from the western entry is considered the primary direction of movement, thus maintaining the status quo, taking the topographical, functional and symbolic attributes associated with this procession into account. The projects start from the exiting transit hub, moves up along the pedestrian commercial corridor on Bandaranaike Street toward the city center, and into the back alleys in the historic city blocks (Figure 12).

6.1   A Gateway to Kandy

Taking a more bold approach to urban design in a historic environment, this project sets out to create an integrated transportation hub that would act as a gateway to Kandy, thus evoking a stronger sense of arrival in the city (Fig. 13). Benefiting from the natural terrain, it suggests to create two-level transit terminal, the lower-level being the railway terminal and the upper-level accommodating a public bus terminal. With the capacity of handling 100 buses at a time by an effectively managed traffic control system and using the current main bus terminal for laying over of buses, it streamlines various transit points scatted through the city, thus eliminating most of the traffic congestion and freeing the urban space currently occupied by these terminals and parking spaces. The new terminal building is set back to open up a spacious area in the front which is designed as a public plaza. The plaza not only provides a foreground to view the terminal from a distance, but also affords a much needed social
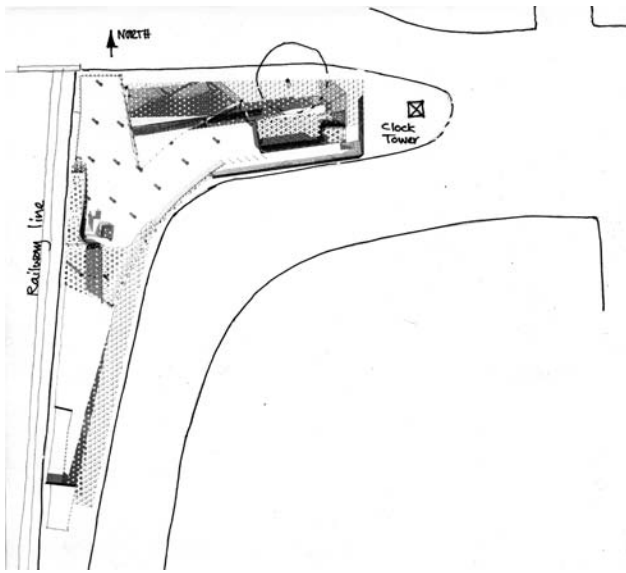
Figure 24 : Plan of City Hall.

Figure 25 : Cross-Section of City Hall.

Figure 26 : Public Market of Kandy.
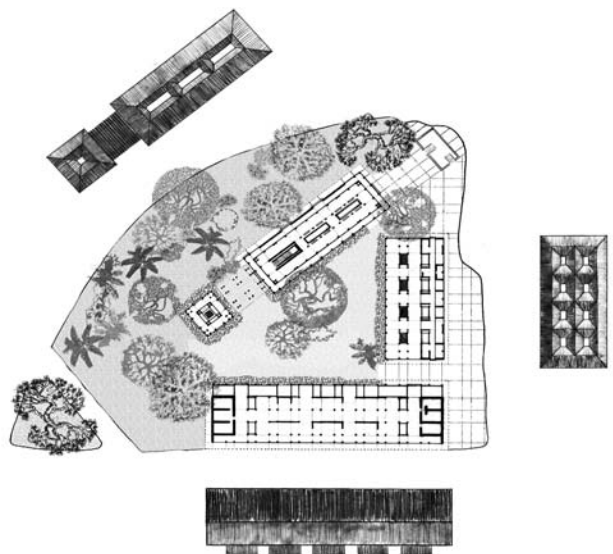
Figure 27 : Plan of the Proposed Market.

place for the citizens of Kandy for casual gathering and recreation. Its design imagery could be controversial: its sleek metallic curvilinear form is not a part of Kandyan architectural legacy. It intends to represent the future of the city, capture the industrial essence of modern transportation, and acts as a striking landmark that signifies the arrival in the city. As it is located considerably far away from the true historic core of Kandy, it is unlikely that this design imagery would create any visual imbalance.

6.2 A Pedestrian Promenade

Bandaranaike Street connects this transit hub to the city center (the Clock Tower area) and thus handles a heavy pedestrian traffic. Consequently it is a vital segment of the spatial progression through the city. Nevertheless it is not a pleasant, pedestrian-friendly promenade due to the narrow sidewalks crammed by disorderly growth of small ramshackle shops along the street (Figure 14). This has forced people to use the railway tracks running behind these shops, albeit very unsafe, as a pedestrian path (Figure 15). This design intervention develops a people-friendly pedestrian promenade with shop-houses and other suitable street furniture, designed in a robust manner which can withstand all the abuse by the people and the elements (Figure 16). The design follows a historic imagery of shop-houses, but with a contemporary flavor, thus retaining the local feel and sense of historicity. Two storey shop-houses (upper storey used for storage or lodging) sit in the middle of
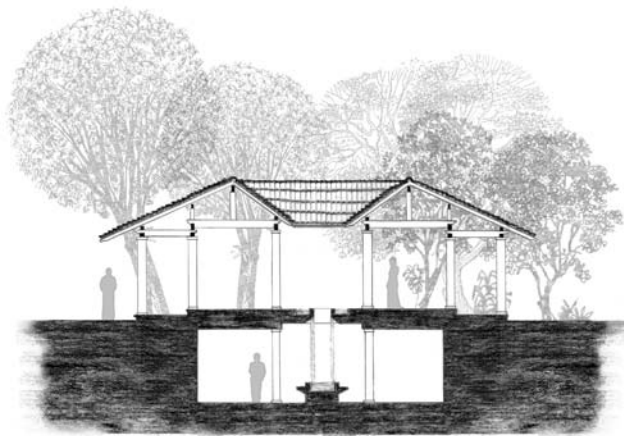
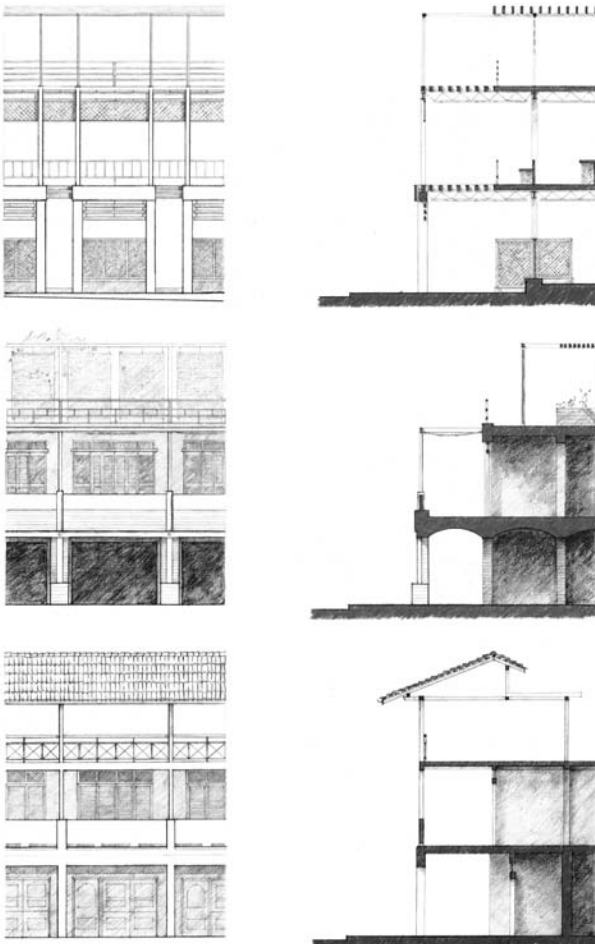Figure 28 : Section Through Underground Access to Proposed Market.
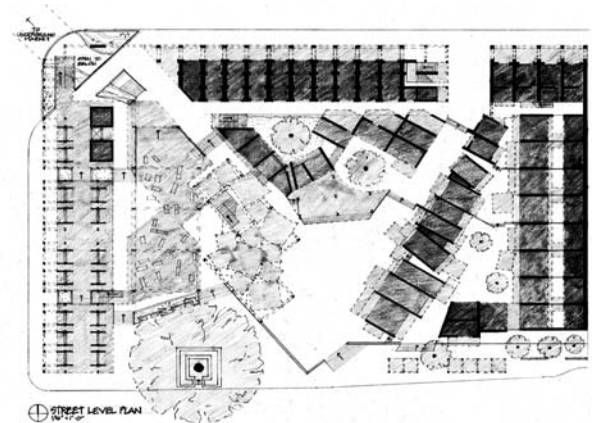

Figure 29 : Existing Textile Market.

Figure 30 : Plan of Proposed Textile Market.

a widened sidewalk, with long roof overhangs supported by columns and props. This arrangement creates different spatial zones on the sidewalk demarcating pedestrian traffic flow and various points of pauses in the movement. The scale of the buildings does not appear overpowering, but humane, and match the pedestrian movement (Figure 17 & 18). Locations for signage, street lights, benches, notice boards, waste-bins, handrails, and the like are also carefully designed.

6.3   The Pedestrian Promenade Continued

Due to the natural terrain the railway line runs at a below-grade level when it crosses the city center and beyond, allowing this promenade to be now continued over the railway tracks, facilitating an uninterrupted pedestrian path towards the northern quarter of the city. As the railway tracks currently create an edge that separates the commercial area of the city on the east from the residential/ institutional area on the west, this new promenade would create a link between the two areas (Figure19). The character of this segment of the promenade is different: It is raised above the street level and the shops are of a different

Figure 31 : Facade and Sectional Study of Market.

architectural style with curved canvas roofs (Figure 20). The street edge of the elevated promenade is lined by a winding wrought-iron plant trough, which is conceived as a 'living wall' to increase the greenery in the city center. Inspired from the Wave-swell Wall and Cloud-drift Walls around the Lake and the Temple Complex (Figure 21), it continues one of the great urban traditions of historic Kandy – the ornamental urban edges – with a contemporary interpretation. The promenade also helps to properly punctuate the axes of the historical street grid at their western extremes. For example, the Colombo Street is terminated with an ascending stairway (Figure 22), and the King's Street is terminated with an elevated pedestrian plaza (Figure 23). As the King's Street starts from the historic Royal Palace at its eastern end, the plaza is designed with ten statuettes of lion figures representing the Kandyan monarchy. It also provides another place for social gathering, which is currently absent in the city. A new building is proposed along the western boundary of the promenade to house language academies and cultural centers run by foreign diplomatic missions in Sri Lanka.

6.4   The Town Center/Market Zone

Three projects have been proposed to improve the character of the city center and the major commercial amenities in the city. As mentioned-above this area around the Clock Tower is considered to be the center of the commercial district of Kandy. While the Clock Tower acts as a landmark signifying the place, several other civic functions, such as the Public Market, Textile Market, Public Library, Police Station, and a minor transit terminal are also located around the core. Yet residents disliked the neighborhood due to its traffic congestion and visual disorder. In addition, even though it is perceived as the center, there is no proper place for people to gather, and hence it does not evoke the sense arrival one should feel at the true center of a town. Capitalizing on the civic function of the place, one of the projects proposes to have the city hall right at the center of Kandy. Located just behind the Clock Tower, this multi-storied building would have a transit stop for the proposed city bus loop and a small plaza at the ground level, day-to-day public relation activities of the local governance on the first floor

level, and other functions of the city hall on rest of the upper floors. The building is conceived as a backdrop to the Clock Tower. The part of the building that faces the Clock Tower and Dalandâ Street is given to public activities; it rises up housing a gallery and a viewing deck. The design fills in the fragmented urban edge of the locale and strengthens the sense of verticality induced by the Clock Tower. It thus brings in much needed urbane quality to the very center of the city (Figure 24 & 25).

The Public Market and the Textile Market are located just south to the Clock Tower. Both amenities are considered vital to the city life and appropriately located. Nevertheless both places are faced with lack of space and upkeep, and the urban space around them is short of character. Two design interventions are proposed to turn these places into distinctive urban spaces (Figure 26). One of the projects creates a group of open colonnaded structures, inspired from traditional Kandyan architecture, in a small green space located front of the Public Market. This green space is unused as it is fenced around and it conceals the Market entrance from the Clock Tower area.
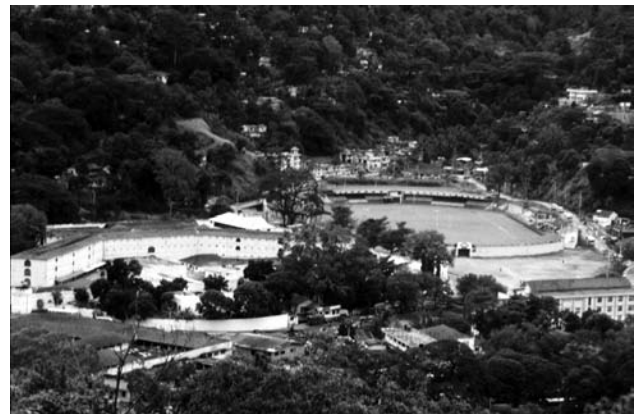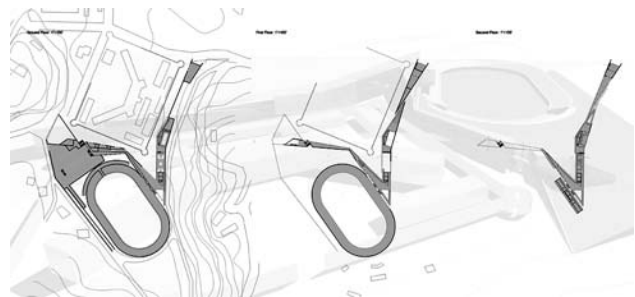

Figure 32: Bongambara Prison Complex and Stadium.
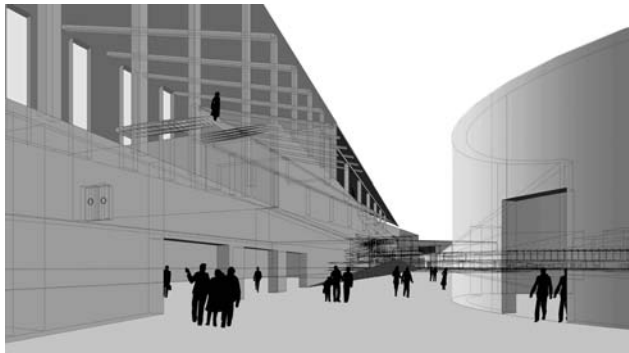

Figure 33: Plans of Sports Center.

Figure 34 : Street Promenade between the Prison Walls and Sports Center.

Figure 35 : Site Plan of Community Housing.

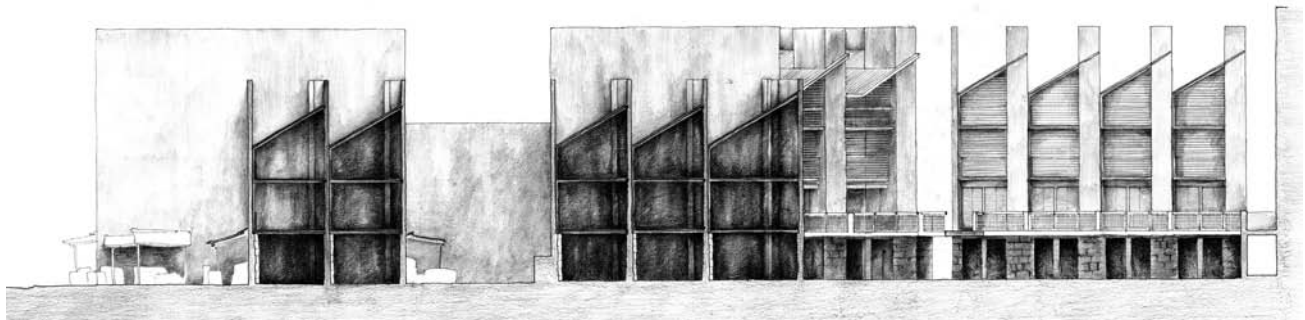Figure 36 : Ground Floor and First Floor Plans of Community Housing.

The design proposes to open the green space to the public and extends a link from the underground pedestrian pass at the Clock Tower junction to this new group of buildings. The buildings provide much needed extra space for the Market activities and define the entry to the market zone jointly created with the proposed textile market. This design supposes to form a quiet respite to the busy intersection of the city center (Figure 27 & 28).

The other design intervention advocates a complete redevelopment of the current Textile Market. At present, it is located beneath a raised plaza, which is an underutilized unkempt eyesore. It has also resulted in a fragmentation of the urban fabric and historic urban edge (Figure 29). The new design conceives the market as a city block and, emulating the city's historic block pattern with alleys and narrow lot subdivisions, it proposes a grouping of three buildings, each three-storied with unique stylistic qualities. The internal alley network simultaneously separates and connects the three buildings (Figure 30 & 31). Their stylistic disparity helps to maintain the visual diversity and vertical rhythms of the streetscape. Street frontages of these buildings are more solid in character and thus maintain the urban edge; yet they gradually dissolve into more open colonnaded structures as they moves ground up and away from the street edge, forming an open-air market around the Bô-tree located at the back. This formal aspect evokes a sense of relief inside for the customers and vendors, and affords a range of spatial conditions for different shopping arrangements, i.e., permanent shops, temporary stands, kiosks, storage, open-air markets, etc. Some housing facilities for vendors are also provided in the buildings.

Figure 37 : Longitudinal Section Through the Housing Scheme.

6.5   Kandy Sports Center

The area south of the city center of Kandy had historically been a reservoir called Bôgambara Wäva. During the British colonial rule it was reclaimed to build a prison complex and for the expansion of the city. Part of the reclaimed area now houses a sports stadium (Figure 32). Although it is in a poor state, the Bôgambara Stadium is an important city amenity as it holds major sport events of schools in Kandy and other festivals. The facility neither has a dignified entry nor sufficient parking. Furthermore, Kandy does not have any major center for other indoor sports and related activities. This design project proposes to create a prime sports center for the city, while improving the standards of the existing stadium. In terms of city form, it sets out to fill in the urban void left by the colonial sprawl and to create a vibrant area for recreation, which is sorely missing in the city. The adjacent Prison Complex occupies prime land right in the middle of the city. It has already been proposed to relocate the prison functions out of the city and to convert the Bôgambara Prison premises into a cultural center with facilities for entertainment and recreation. Thus having a sports center next to this future recreation center is an appropriate idea.

The design acts as an interface between the Prison walls and the wall of the Hantâna mountains behind the stadium. The building snakes along two sides of Prison walls (Figure 33). It maximizes the space available between these two urban edges in order to house many indoor sport activities and to mark a formal entry to the stadium. The linear form of the building, with its angular accents on both horizontal and vertical planes, and its contemporary look in terms of materiality and style collectively create a dynamic character suitable for the function of the building. Because of its linear form, it appears as another wall, which is in some sort of architectural dialogue with the walls of the Prison. Even though the facility is fairly large, this linear wall-like form does not come out as a structure alien to its surroundings. The streets caught between the Prison and the new Sports Center would be pedestrianized for public gathering (Figure 34). A pedestrian ramp runs down through the building from the mountain to the level of the stadium. An elevated plaza is created on the western end of the stadium in order to mark the entry to the stadium and provide parking beneath the plaza.

6.6 'Muddukku' Housing for the Poor

This ingenious design gives a solution to the housing issue in the downtown Kandy; it debunks the usual complain that the city center is short of land for residential development. The project proposes community housing within the back alleys of the city (usually called Mudukku') for the poor local business community (Figure 35). In Kandy, many people live and work in substandard houses in a congested and unclean environment located behind the street-shops. Most of the merchandize is prepared in these back alleys before brought forth to the streets for sale. This design project attempts to provide proper conditions for work and living, socializing and privacy, and public alleyway and community spaces. Work spaces are arranged around community squares on the ground level while private spaces are located on upper levels. A continuous terraced promenade located on the first floor level connects all the house units together and looks down into the community squares (Figure 36 & 37). This arrangement is expected to generate a greater sense of community within the housing scheme.

7.   CONCLUSION

The thesis postulated by these hypothetical design projects should be summarized here. They demonstrate that the experiential dimensions of a city, or city sense, can be defined and then be applied to guide successful urban design interventions. In the case of historic cities, the notion of city sense provides a broader framework to delineate planning and design policy for integrated urban conservation and city development. It is the city sense dimensions that should be fostered through city development and conservation programs, rather than making incongruent attempts to restore or design individual buildings. Envisioning urban design through city sense dimensions facilitates fresh design interpretations of history and meanings behind a place. The projects also demonstrate how to introduce new social and economic functions to a

historic city along with new architectural imagery that are contextually and temporally appropriate in order to move the city form and city life forward.

City sense dimensions of Kandy, discussed above, are not purely based on idiosyncratic experiences of the designers involved. They are based on rigorous research that discovered how residents of Kandy experience the city and how a variety of historic, symbolic, and environmental factors collectively evoke such experiences. Designers' personal experiences of the city are then infused with these findings to stir up the design imaginations. This evidence-based approach to design and the infusion of lived-experiences of both professionals and the community are vital to the success of urban design.

Adaptation of this experiential approach to urban design to different contexts may have limitations. Perhaps Kandy is a unique case: It is compact in scale and historically, environmentally, symbolically,

and formally very rich and complex. The tangible and intangible attributes of the city are closely interrelated. All the necessary ingredients for a successful urban design seem to lie beneath the place to be brought forth. This might not be the situation with many urban spaces: some may truly suffer from incurable 'placelessness'; some may be too big even to attempt to define its city sense dimensions; and, some may be too fragmented making it difficult to define the spatial progression through the city. Placeless urban spaces can certainly be revitalized with new identities. The enormous and fragmented cities should perhaps be considered as collage cities, as Rowe and Koetter (1978) suggested, and thus, rather than desperately striving to define the sense of the overall city, the place sense of each district could be individually identified and adopted for design interventions.n

BIBLIOGRAPHY

Cullen, G. (1961). "Townscape". Reinhold Public Corporation, New York.

Duncan, J.S. (1990). "The City as text: The politics of landscape interpretation in the Kandyan Kingdom". Cambridge, The University of Cambridge Press, UK.

Hettiarachchi, J. (1999). "The proposed plan" in A. Seneviratna & N. de Silva (Eds.), "World heritage city of Kandy, Sri Lanka: Conservation and development plan" (pp. 259-354). Central Cultural Fund, Colombo, Sri Lanka.

Hettiarachchi, S.D.C.P., & Deraniyagala, S. (1999). 'Public Forum.' In A. Seneviratna & N. de Silva (Eds.), "World heritage city of Kandy, Sri Lanka: Conservation and development plan" (pp. 155-167), Central Cultural Fund, Colombo, Sri Lanka.

Logan, W.S. (ed.) (2002). "The disappearing 'Asian' city: Protecting Asia's urban heritage in a globalizing world", The Oxford University Press, New York.

Lynch, K. (1960). "The image of the city", The MIT Press, Cambridge, MA

Nasar, J. L. (1998). "The evaluative image of the city", The MIT Press, Cambridge, MA

Norberg-Schulz, C. (1980) "Genius Loci: Towards a phenomenology of architecture", Rizzoli Co., New York.

Rapoport, A. (1990). "The meaning of the built-environment: A non-verbal communication approach", The University of Arizona Press, Tucson, AZ:

Rowe, C. and Koetter, F. (1978). "Collage City", MA: The MIT Press, Cambridge.

Seneviratna, A. (1999). Socio-cultural heritage of Kandy. In A. Seneviratna & N. de Silva (Eds.), "World heritage city of Kandy, Sri Lanka: Conservation and development plan" (pp. 37-63), Central Cultural Fund, Colombo, Sri Lanka.

Silva, K.D. (2004). "Mapping meaning in the city image: Towards preserving the imageability of urban cultural landscapes". Unpublished doctoral dissertation, University of Wisconsin-Milwaukee, Milwaukee, USA.

Silva, K.D. (1993). "An analytical study of the correlation between the character of streetscapes and their determinant factors". Unpublished master's dissertation, University of Moratuwa, Sri Lanka.

Trancik, R. (1986). "Finding lost space: Theories of urban design", Van Nostrand Reinhold Company, New York.

A CRITICAL EVALUATION OF URBAN BEACH DEVELOPMENT PLANS
AND PROJECTS BY FORMAL SECTOR INSTITUTIONS
AT CLIFTON BEACH KARACHI

Ravindar Kumar
Assistant Professor
Department of Architecture and Planning
NED University of Engineering and Technology
Karachi, Pakistan

ABSTRACT

There is a universal understanding that, urban beaches are the places for all citizens to enjoy for recreation, and that the state should be the owner and regulator of all waterfronts. This historic understanding is reflected in the Public Trust Doctrine based on which most national laws as well as regulations are created. Thus, whenever a commercial development of a beachfront is proposed it is regulated according to such relevant laws and codes, and its impact on various natural and social factors is heavily scrutinized and evaluated by governmental authorities and affected communities.

On the Karachi coastal belt, various commercial development projects have been proposed by the formal sector in recent years, but there have been no regulations appropriately and effectively imposed on them by the relevant government authorities. In fact there seems to be new state initiated master plans, schemes and regulations that seem to facilitate such privatization and commercialization trends and projects. Also little or no public consultation or consent has been sought.

This study conducted in July to December 2006 has attempted to study these plans and projects in their context in Karachi, and present a critical analysis according to accepted principles of urban planning and design which consider various legal, physical, environmental, socio-cultural and economic aspects. The objective has been to evaluate the overall impact of this major shift in beachfront ownership, control, access, use and character as it affects both the people and the place of Karachi.

The methodology of study included the following:

1. Literature review
a. Review of earlier done work on urban beach development in Karachi by different author's articles from local newspapers (Daily Dawn and Daily News Pakistan)
b. Internet web search to gain a global perspective on urban beach development.

2. Field work:
a. Visit to Defence Housing Authority (DHA) for collection of DHA Master Plan for Waterfront Developments at Clifton beach
b. Visit to Urban Resource Center for collection of information on beach development
c. Personal observations and photographic survey of Clifton beach to learn about local culture, social impact and land utilization pattern of Clifton beach
d. Identification and categorization of stakeholders and interest groups for which informal interviews with a checklist were taken from local visitors to Clifton beach as well as DHA and Oceanography department's officials in anonymity.

3. Analysis:
a. Analysis of collected literature through newspapers and web search.
b. Analysis of a video documentary "Clifton Beach Shrinking for the Poor" prepared by Urban Resource Center (an NGO) in Karachi
c. Critical analysis and evaluation of the document of DHA Master Plan for Waterfront Developments as well as other development projects such as City District Government Karachi (CDGK) Beach Park and Karachi Port Trust (KPT) Port Tower Complex at Clifton Beach according to Urban Planning and Design criteria.

BACKGROUND OF THE LOCAL CONTEXT

Karachi is the largest city of Pakistan with a natural resource, 'the Arabian sea'. The total urban coastline of Karachi is around 60km long. The Clifton beach (See Figure 1) of Karachi has been a very popular destination for decades and centuries, primarily because of a 3000 years old Shiva temple and 9th – 10th Century mausoleum of Saint Abdullah Shah Ghazi that still exists there.

Traditionally, beaches in Pakistan were considered prime public assets with full rights of entry and usage to all citizens. Nature of activities planned in such areas had an un-stinted public orientation. Clifton beach was developed and extended as a prime location to attract urban dwellers of all ranks and profiles. Karachi also benefited from the planning wisdom during the post-independence period.

Provision of public infrastructure and fun spaces namely 'play land and fun land'[1] were developed with recreational activities for people. Both these places were laid down to create a convalescing environment for the otherwise stressed up citizens. All these activities were located at least half a kilometer away from the virgin beach. As a universal practice, the access and rights of utilization ensured complete access to all classes in the city to benefit from these recreational facilities. The other major change that Clifton beach has witnessed in its physical form and morphology is due to its control by different public sector organizations. The most important change in this regard is the housing, commercial and recreational development along the beach with permanent materials. This has reduced the distance of sea shore line and built up spaces to merely a few yards.

CURRENT ACTIVITIES AT CLIFTON BEACH

Presently, Clifton Cantonment Board (CCB), the City District Government Karachi (CDGK) and Karachi Port Trust (KPT) have control and jurisdictions over Clifton beach [refer to Fig-2].

The current activities at the beach include land reclamation, construction of buildings, parks and parking development. The types of development that exists and is being proposed are mainly based upon the activities planned and executed by three different institutions that have jurisdictions over the beach. These institutions are:

- The 14km beach is planned by Defense Housing Authority (DHA) under the Clifton Cantonment Board (CCB). They had a master plan where they planned to reclaim the land from sea and execute various high profile projects in 7 different zones.

- City District Government Karachi (CDGK) has jurisdiction of 6km beach where they are executing the projects of beach parks, which are currently in progress.

- Finally, Karachi Port Trust (KPT) has the authority over an unknown length of beach making it a restricted area for general public. Here KPT is expanding their port activities and has proposed a Port Tower Complex.

Commercial water front development is taking a new toll which will have an almost disastrous impact on the city's physical, morphological, environmental, social and cultural aspects. Along the 60 km long urban beach of Karachi such an impact will not remain restricted to the beach only but will invariably reinforce divisions within the city. The following section describes the local and international regulations for use of urban beaches as important public spaces of cities.

THE LOCAL AND INTERNATIONAL REGULATIONS

The Public Trust Doctrine principle of Pakistan guarantees public access to beaches even if they are privately owned[2]. It also holds that "water and the sea shore belong to the people who have the undeniable right to access and use for traditional purposes including fishing, swimming and

---

[1] Both these recreational places are now no more because of newly established beach park named as Bagh-e-Ibn-e-Qasim.
[2] "The public trust doctrine refers to the duty of sovereign states to hold and preserve certain resources, including wildlife, for the benefit of its citizens. Described simply, the doctrine provides that natural resources belong to the whole public; private owners may not deprive the public of access." (Source: The public trust doctrine)
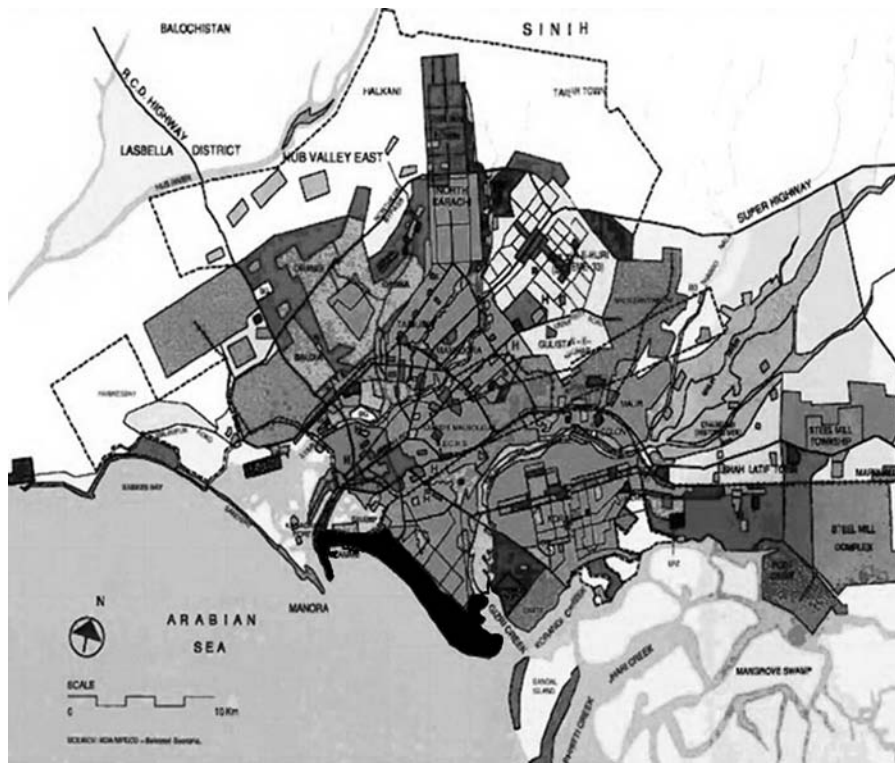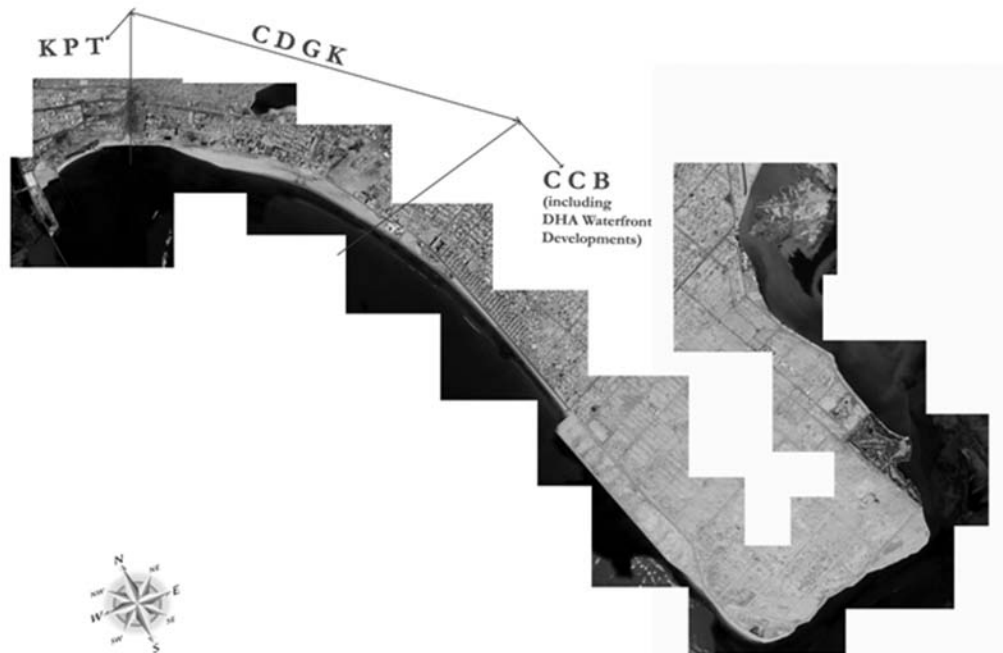
Figure 1: Map of Karachi showing the Clifton beach i.e. the study area. (Taken from KDA Master Plan (1987-2000)

Clifton Cantonment Board has jurisdiction over the coastline from Gizri Creek to Sindbad/Dolmen Commercial Centre, the City District Government Karachi has authority from this point to the Shireen Jinnah Colony turning, and from then on Karachi Port Trust has control till Shahrah-e-Ghalib ('Hindu Para') [refer to above satelite image from google earth dated: Aug. 12, 2006].

Figure 2: Satellite image taken from Google Earth Free Version dated: Aug. 12, 2006 showing the jurisdictions in the study area.

recreation". Pakistani courts have clearly established the doctrine of public trust where it is well settled that natural resource like air, water, forests and sea are like public trust.

Furthermore, the Section 12 of the Environmental Protection Act 1997[3] and Section 4 of the Pakistan Environmental Protection Agency Regulations 2000[4] declare urban beaches as sensitive areas that must have an environmental assessment prior to any urban beach development plan or project. In its judgements the Supreme Court of Pakistan has interpreted Article 9 of the Constitution, that is "the right to life in a positive manner"[5] as responsibility on the state to take positive steps to promote the better quality of life for all its citizens.

Internationally, urban beaches are delineated as coastal zones which are defined with two requisites i.e. Shore and the Shore Line. The International Shore Law[6] provides definitions of the shore and the shoreline as well as a policy of set back line.

- The shoreline is defined as "the line along which water touches the land at the shores of the seas, natural or artificial lakes and rivers, excluding the inundation periods".

- The shore edge line is defined as "the natural limit of sand and gravel beaches, rock, boulder, marsh, wetland and similar areas which are created by water motions in the direction of land starting from the shoreline".

- The shore is defined as the area between the shoreline and shore edge line.

- The Set Back Line Policy of International Shore Law establishes that, "The shore strip must have a minimum width of 100 meters, starting from the 'shore edge line'.

- In the first 50 meters of the shore strip, no building is allowed, apart from those which

are exempt due to a coastal location being required and having planning permission. This area must be planned and used for public access and recreational purposes.

- In the remaining 50 meters (or more), roads, recreational and tourism facilities (other than hotels) open for public access and public waste treatment plants are allowed subject to planning permits.

- The Shore Law also outlines the rules for areas gained through land reclamation and drainage.

Internationally, each country has its own legal definition of coastal zone which is developed in order to stipulate their Landuse Planning Regulations and Developmental Controls through Set back Lines over their urban beaches, so as to manage their urban beaches within the concept of sustainability. For instance:

- In Denmark, terrestrial planning responsibility is generally landward from start of continuous land vegetation. In practice, this means it is generally above the limit of highest astronomical tides.

- In England, terrestrial planning responsibility is generally landward from Mean Low Water (MLW) mark; no statutory planning below MLW.

- In Poland, Maritime Offices have planning responsibility in both sea area and terrestrial parts of coastal zone; the latter being defined as a shoreline-linked technical belt of up to 200 m landward of the mean position of waves and a protective belt up to 3 km landward, there are individual arrangements for urban areas.

- In Finland as well as Sweden, development restriction is generally observed at minimum. 100m and maximum 300 m coastline strip.[7]

---

3   http://www.environment.gov.pk/act-rules/IEE-EIA-REG.pdf
4   http://www.cpp.org.pk/It+egal/Law-PEPA-1997.pdg
5   Shehla Zia vs. Wapda - PLD 1994 SC 693
6   Bridge L., Salman A., (EUCC Services) (January 2000), "Policy Instruments for ICZM in Nine Selected European Countries Final Study Report Prepared for the Dutch National Institute for Coastal & Marine Management RIKZ"
7

By keeping in mind, the aforementioned background of urban beach development policies and paradigms in international context, it is clear that an understanding and sensitivity for the local beaches and their environs need to be established, especially with the current speculative background of the Clifton beach and its development projects.

Hence, a grave need is felt to critically review, analyse and evaluate these plans and projects to comprehend the positive and negative implications, develop and highlight through technical criticism so that the Karachi urban beach development process may be appropriated by apposite interventions. Based on jurisdiction, the following evaluation is divided into three parts; that of the DHA master plan, the CDGK projects and proposed KPT project.

CRITICAL EVALUATION OF PLANNED AND ONGOING DEVELOPMENT ACTIVITIES

I. CRITICISM AND CONCERNS ON DHA MASTER PLAN OF WATERFRONT DEVELOPMENTS

The most significant planned and ongoing development activity on Clifton beach is the 14 km long "Waterfront Developments: A Defense Housing Authority (DHA) Master Plan 2003"[8]. As announced:

- A $600 million waterfront development project is initiated by DHA and it is expected to be completed in next eight to ten years in a three-phase project. There are two components of the project. One part would be undertaken by DHA and the second part is proposed to be executed with the participation of locals well as foreign investors.

   The executive board of the Defense Housing Authority has approved the proposals of five foreign investors for qualifying the work on the Waterfront Development Project. More than five foreign investors — Malaysian, UAE, Saudi Arabia-based etc — had submitted their proposal for qualifying. The project will take

off this year (2006) at a cost of $1.5 billion. The project was estimated to make a profit of nearly half-a-billion US dollars every year. Around 120,000 job opportunities were expected from the undertaking, consisting of around 80,000 direct employment opportunities with the DHA and the rest being indirect jobs related to the project.

- A total of 74 acres of land is expected to be reclaimed for construction of high-rise buildings. An agreement with M/s ePlanet, a financial venture capital group based in America, has also been finalised for developing an exclusive high-rise residential complex over 10.3 acres with towers up to 50 story. Moreover an agreement has been formalised with M/s Emaar, a major Dubai-based land development consortium, to build eight residential towers of up to 50 stories. Another agreement with M/s International Spectrum Development Corporation, an American-based consortium specialising in entertainment industry, has been finalised for the development of state-of-art entertainment center. With the revenue generated from water front development project, a rapid development of the DHA Phase-VIII would be undertaken where construction and redevelopment of infrastructures would be undertaken in the rest of the phases within a timeframe of three to five years.

1. The DHA Master Plan with regard to its established Key Considerations'

A list of "Key Considerations"[9] are given in the DHA Master Plan. These considerations of the master plan seem to be in accordance with the international law frames. However, the actual master plan and its on-going implementation is in contradiction with these key considerations and instead support monetary interests and the interests of the 'privileged' few of the city. The following contradictions between the key considerations of the master plan and the actual planning give evidence of this.

The first consideration is that development will

---

8   The master plan was obtained by author from DHA for the paper.
9   The 'key considerations' as part of the DHA master plan are the basic objectives and keys of the plan.

establish an interface of 'having the required infrastructure and development without disturbing the nature'. On the contrary, the proposed development in the master plan will surely disturb the natural environment of the beach as it encroaches on the Ocean Shelf. [See Box # 1]

The Ocean Shelf at the Karachi coastline on the whole is fairly wide, i.e. the water is shallow for a large stretch along the beach, and the waterfront becomes rocky only beyond the Karachi Port Trust jurisdiction. This allows relatively easy land reclamation for beachfront developments and landuse as proposed by DHA; however, this has negative affects on coastline.

The second consideration states that, 'the integrity of the beach is to be retained and ensured'. The proposed development is a direct intrusion into the sea reclaiming the beach, extending the edge with a retaining wall structure. Hence, the integrity of the beach shall not be retained but will be highly perturbed. [See Box # 1]

The third consideration is the aim to 'develop an environment which should fulfill the socio-cultural needs of the people'. The projects proposed for this area are high investment projects. These will be in accordance with an international standard and style as suggested by the drawings that accompany the DHA master plan. These projects have the intention to nurture the high income elite culture with little and no regard to local socio-cultural needs of the majority[10] of Karachi. [See Box # 2]

The fourth consideration of the DHA master plan is the 'examination of the erosion and silting process by developing a hydrographic model and development of the master plan in harmony with the marine ecology of the beach'. Field work revealed that no such study has been done prior to the development of the beach front Master Plan. Only spot assessments of these projects have taken place, and these studies are not published or accessible for the public.

2. Broadening Social Inequality and the Establishment of an Elite Culture

In this project, it is strongly felt that a social segregation of classes is being enforced reserving its use for an upper class. The design and construction is given to foreign firms, where no
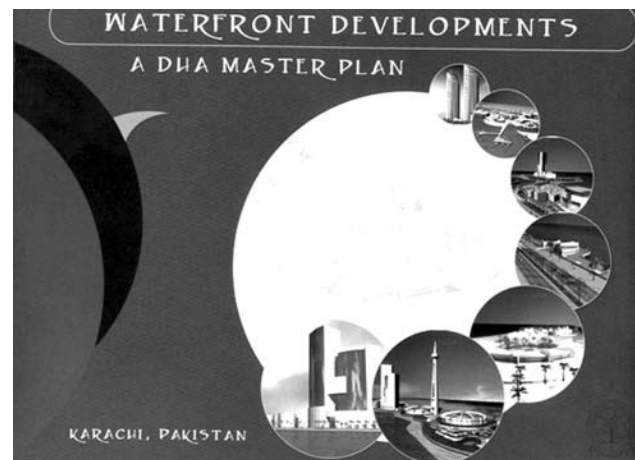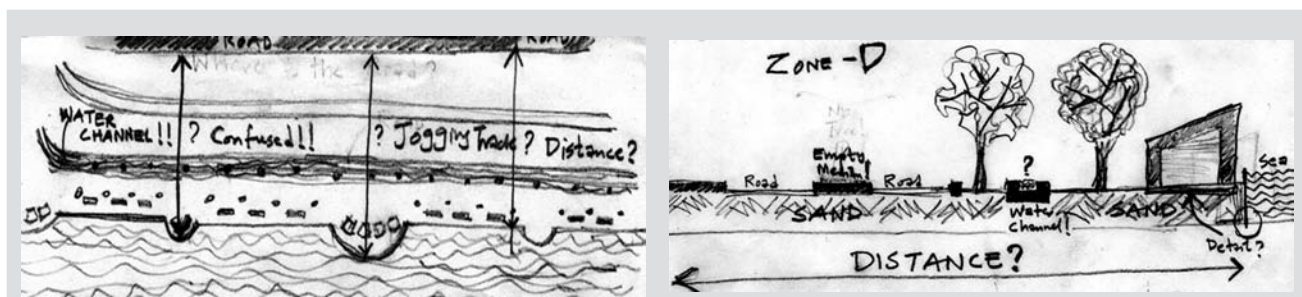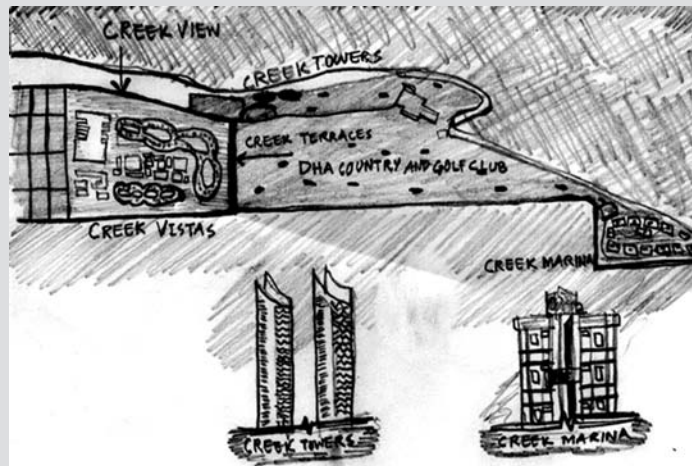

Figure 3: Front title of DHA Master Plan

At this zone, Zone D land reclamation has been done by DHA and is the proposed extension of Phase VIII. Sketches developed from DHA Master Plan

Box # 1: ZONE D (for supplementing the promenade)

[10]   About 67 percent of the population of Karachi lives in low income areas. (estimated survey statistics from 1998)

This is an exclusive zone for high income housing and earmarked for Creek City. It will be an independent township for residential purposes with all its support services. Its different phases may include various residential blocks i.e. Creek Vistas, Creek Terraces, Creek View, Creek Marina, Creek Towers, Creek Leisure and City services. Sketches developed from DHA Master Plan

Box # 2 : ZONE G (for a self sufficient township)

local developer is involved, and no provision or consent is sought to incorporate local population in the development plans, leading to the clandestine conversion of Clifton beach into a private domain in essence broadening the social inequality in the city. (See Figure 3)

Zone E as established in master plan, is proposed as an exclusive zone for only high income group and foreigners. The direct consequence of such planning is the nurturing of an elite culture and widening the gap between rich and poor – an inappropriate approach in the multi class context of Karachi.

3. A 'Privileged' Recreational Facility for Fun and Leisure

The proposed water sports activities of the DHA Master Plan in zone F, F1 and F2 and its support services are also intended to nurture an exclusive recreational facility for the privileged. The projected water sports activities are not part of local recreational traditions. Moreover, the activities are not affordable by the lower and middle income strata of society. Such proposed activities result in aggravating the rich and the poor divide.

4. Effects of Land Reclamation on Sea Morphology and Marine Ecology

The evolving characteristic of the beach including trends in the changes of sea front and the historical variation of sea level need to be documented, analysed and considered in the proposed development. Furthermore, important issues from the perspective of oceanography including suitability of structures, their feasibility studies and impact on sea and marine life are not analyzed or explored. For example one major repercussion of land reclamation on Ocean Shelf is that it recedes the sea and destroys marine life that once lived there. Hence, land reclamation requires justification and assessment from the environmental and ecological perspective. This reckless reclamation of land may have grave environmental repercussions and must be vindicated. (See Figures 4 & 5)

5. Indefinite Engineering Standards in Construction of Beach Wall

The embankments along the beach do not follow any construction specifications or requirements for such kinds of embankments have not been followed in construction of the wall. 'Arm or Stone Walling' technique that follow specially designed

com pacted m odular concrete units w ith hydraulic capability and a life of approxim ately 100 years, has not been used. (See Figures 6 & 7)

This below –standard w alling w illerode easily w ithin few years and is vulnerable to strong currents and tides. Another resulting im pact of infilling and beach-w alling is that since naturalw ater currents are obstructed from their naturalflow , there is a pressure build-up w hich w ould be released elsew here along the adjoining coastalareas, a dynam ic that lends unpredictability to future w ave behaviour.

6. Concerns of Local and International Environm entalLaw s

According to the law under the Pakistan Environm entalProtection Act, 1997, a project of such m agnitude requires an Environm entalIm pact Assessm ent (EIA) before execution. Sim ilarly a Social Im pact Assessm ent (SIA) and a Visual Im pact Assessm ent (VIA) should also be carried outas required in such types ofprojects as practiced in aforem entioned countries of the w orld. None of these assessm ents have been carried out, w hile the M inistry of Environm ent and its Environm ental Protection Agency also rem ain silenton this m atter.

7. Basic Infrastructure Provision

The proposed activities in zone A & B of DHA M asterPlan include a 50-story high-rise com m ercial office building com plex w ith a m onum entaltower

Figure 4 : Land Reclam ation

Figure 5 : Ongoing Land Reclam ation for the Lagoon and Five Star Hotel.

Figure 7 : W alling'at the beach are m ade w ith indefinite Engineering Standards of Construction.
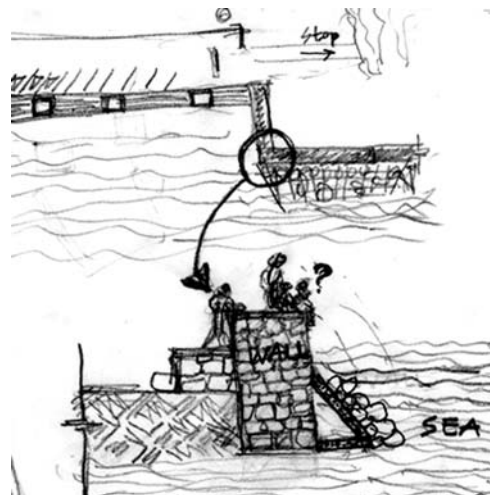

Figure 6 : Em bankm ent

about 500-600 feet high, with revolving restaurant and observatory deck on top. Similarly, in zone C an offshore amphitheatre with a capacity to accommodate 6000 people shall be made and in zone D kiosks and restaurants shall be developed. (Refer to Figure 3)

However, the master plan does not mention, how the solid waste shall be managed and sewerage disposal shall be handled for the entire developments?

8. Exercise of Power and Authority on Beach and its Development

From a 'Legal View point', one can always argue that no one person or group of people have the right to privatise a natural resource which is a public property, natural heritage and belongs to the general masses. The work on the land infilling of DHA Phase 7 and 8 began in 1979, primarily due to ease of reclaiming the shallow water bed 4-5 feet below sea-level with soft soil. The Ocean Shelf at the Karachi coastline on the whole is fairly wide, i.e. the water is shallow for a large stretch along the beach. What needs to be determined is whether any development authority has the legal right over the Clifton beach to reclaim its Ocean Shelf for development that is meant for the public at large. The question remains whether one can undertake such a large scale project which excludes a majority of the city's population?

9. Vulnerability of Urban Beach Development Against Commercial Pressures

At present there is no master plan enforced for the Coastal Water front Development. The Karachi Coastal Recreational Development Plan (KCRDP) was prepared for 1990-2000 to be a part of the Karachi Master Plan 2000. KCRDP had identified the long established usage of the beach as well as considerations regarding socioeconomic and sociocultural realities. The KCRDP was neither approved nor enforced or implemented by the Master Plan and Environment Control Development of the Karachi Development Authority - KDA-MPECD, even though this was the first serious study of Karachi urban beach from planning and urban design perspective. After decentralization and restructuring of government authorities, KDA-MPECD became one of the departments of City District Government Karachi (CDGK)]. With the result that the authorities under whose jurisdiction the water fronts lie have developed their own places. These do not relate to or are approved by any overall master plans for the city. Hence the urban beach development is vulnerable due to commercial.

10. Absence of Set Back Line Policy for Karachi Urban Beach Development

There is no policy like the Shore Edge Line that exists for Karachi Urban Beach Development, whereas there are a number of international conventions, coastal development guidelines and planning principles that underpin this approach. However no regard is given in the master plan regarding this international practice, especially regarding 'encroachment' by the high-rises.

Worldwide, beaches and coastal zones are locations where the attraction for privatized development is kept optimum. The reason for this is that private sector intends to maximize its profits by exploiting the natural potential of beach for their enterprises. Casinos, hotels, clubs, marinas, beach resorts and shopping malls are such places that generate lucrative revenues for investors. As a consequence, the city planning authorities delineate very stringent guidelines to protect the urban beaches from any negative outfall of commercialization.

Finally, from urban design view point, it is also evident that this master plan of DHA will create adverse physical and socioeconomic impacts on the surrounding residential neighborhoods, especially the circulation, landuse pattern and increasing density of human and vehicular activities. Preparation and promulgation of specific byelaws and regulations pertinent to sensitive locations such as coastal and urban beach zones; enforcement of effective bench marking requirements for physical development on seafront areas and initiation of public consultation are some necessary steps that ought to be taken in this respect.[11]

---

[11] Ahmed N., "Privatization of Clifton Beach" April 11, 2005 Daily Dawn, Karachi.

II. CRITICISM AND CONCERNS ON CDGK WATERFRONT DEVELOPMENTS

The second most significant planned and ongoing development activity by City District Government Karachi (CDGK) is on the 6km long beach where 'Beach Parks and supporting developments' are underway. The criticisms and concerns on CDGK waterfront developments are as follows:

1. Absence of any Coastal Recreation Development Plan for Karachi as Proposed Earlier by Karachi Development Authority Master Plan and Environment Control Department (KDA-MPECD)

The first and foremost criticism on CDGK Waterfront Development is the absence of any Coastal Recreational Development Plan as proposed earlier by Karachi Development Authority Master Plan and Environment Control Department (KDA_MPECD) by the name of Karachi Coastal Recreation Development Plan (KCRDP 1990-2000). It is important to mention here that all the 6km land at beach which now belongs to CDGK earlier came under the jurisdiction of Karachi Development Authority-Master Plan and Environmental Control Department.

2. Socially Irresponsive Architectural Design of the Beach Park

The 3km long beach park developed by CDGK completely blocks the view of the sea from the access road next to it. There are two gates at either ends of the park for entry and exit with the result that people are compelled to walk for at least 3km to reach the beach which is actually only a few yards away. This beach park blocks the accessibility and view of the sea for the average Karachiites. (See Figure 8)

3. Rising Inaccessibility and Un-Affordability of People to use a Public Realm

A financial breakup of a trip to the beach by a family of ten would include transport cost, for people using public transport to arrive at the sea may cost Rs. 200 to 400. In order to access the beach they have to pay a further Rs. 100. The newly developed food stalls or kiosks in and around the beach park have higher rates for simple snack items like tea and fries. Hence, an average income family of 10 people would be spending around Rs. 750 to just enjoy the sea. That is unaffordable for a majority of our city's population.

4. Inhibition of Local Cultural Practices and Long Established Traditional Space Use

Traditionally, people came and relaxed at the beach free of any hurdle where they had the facility of head and body massage, camel rides, local snack and food items and being photographed with their friends and family at the beach. All these local cultural activities of the beach are now being

Figure 8: View of the Beach Park developed by CDGK along the beach that shows social irresponsiveness for pedestrians. (Picture taken from the URC)

replaced by a beach park which is a redundant area that not just blocks the view of the beach but also requires payment for accessing the beach. (See Figures 9 to 11)

5. Beach for the Rich and Fountain for the Poor

The Port fountain was installed last year as "the world's latest fountain"[12] that rises to a height of 620 feet when operating at full force. The fountain is located next to the Oyster Rocks, off the Karachi harbour (See Figure 12). The fountain uses 835-horsepower turbine pumps delivering nearly 2000 liters of sea water per second at a velocity of 70 meter per second. Located 1.4 km away from the beach to avoid spraying neighborhood homes, the vapours travel up to a radius of 500 feet around the fountain. Eighteen flood lights of 400 watts illuminate the fountain at night."[13] The construction of fountain cost Rs: 320 million.[14] It is ironic that the fountain in all its grandeur sends water shooting up into the sky while the recreation-starved people (particularly the low income) gaze at it in awe. The controlled access to the beach in contrast to this viewing edifice establishes the notion of 'beach for the rich and fountain for the poor'.

6. Replacement and Discouragement of Local Entrepreneurship with Foreign Companies

There are numerous examples where the poor population and local entrepreneurship is totally discouraged to use this area for economic benefit. The local food stalls and entertainment options available for the lower income group are now replaced with high priced food outlets, putting the earlier entreprenuers out of business. Thus for the native population it increases unemployment and denies access to affordable outing for the population. (See Figures 13 to 16)

Locally made food items like icecream, burgers, and other eatables / snakes involving a wide range of businesses previously available catered to a wide range of population. In comparison, currently only five international icecream and five burger companies have the reserved right to sell their foodstuff on the beach. Foreign brands of food

Figure 9: Camel Rides
Source: URC, Karachi

Figure 10: 'Shooting the Stars' - A traditional recreational activity.
Source: URC, Karachi

Figure 11: Informal small-scale mobile shops
Source: URC, Karachi

12 http://www.kpt.gov.pk/Fountain.html
13 http://www.kpt.gov.pk/Fountain.html
14 http://www.hic-net.org/document.asp?PID=625

Figure 12: View of the Jet Water Fountain at Clifton beach.

and beverages are encouraged and preferred at the beach set up. (See Figures 17 to 22)

III. CRITICISMS AND CONCERNS ON PORT TOWER COMPLEX OF KARACHI PORT TRUST (KPT)

The third part of the urban beach development plans is the Port Tower Complex of Karachi Port Trust. (See Figure 23) The Port Tower complex includes mega shopping galleries and a high standard hotel. The information on Port Tower Complex project is kept secretive and classified and the only information source available on the project is the press release of KPT. The existing open areas under KPT jurisdiction are guarded and restricted for movement by common citizens of Karachi. It is unpredictable that how this project

Figure 13 & 14: Left(Before) Right(After) Replacement of Local Food Stalls and Chairs with Modern Kiosks and Benches at the Sea View of Karachi
Source: URC, Karachi

Figure 15 & 16: Left(Before) Right(After) Replacement of Local Ice cream sellers with international chain of ice cream brands.
Source: URC, Karachi

Figure 17 & 18: Left(Before) Right(After) Substitution of Local Food Stalls of with International Food Chains.
Source: URC, Karachi

shall be executed and what environmental, architectural and urban design standards shall be followed. Moreover, due to the conservative nature of KPT the Environmental Control Department may also remain aloof and silent on the project of such magnitude. The criticisms and concerns on KPT's proposed Port Tower Complex are as follows:

1. Destruction of Bio-diversity and the Natural Environment

The first and foremost issue regarding Port Tower Complex is the magnitude of this project which suggests a huge undertaking at sea shore (See Figure 24). The information available suggests that damage to the bio-diversity and natural environment of the Beach is expected. From a meteorological perspective it is a reality that Karachi has had a number of cyclones in the past centuries, especially between 1920 and 1932. In 1985, a cyclone bypassed Karachi causing large scale destruction and inundation of areas in the west adjacent to Karachi. A description of the 1902 cyclone in the Sindh Gazetteer 1906 illustrates how the entire coastal regions and cities itself were flooded due to enormous waves from the sea. Thus making a tower of such magnitude inside sea requires carefully carried out feasibility studies.

2. Incapability of KPT to Manage Sewage and Waste Water Disposal

There is evidence that shows the KPT is currently

Figure 19 & 20: Left(Before) Right(After) Price List of Alternate Food Items and Billboard of Substitute Ice Cream Company which is authorized to replace the local ice cream sellers.
Source: URC, Karachi

Figure 21 & 22: Eviction and Relocation of Local Food Stalls that Impinge upon the road space. Source: URC, Karachi

Figure 23 & 24: Proposed Port Tower Complex of Karachi Port Trust (KPT) Sketch developed through press release by KPT.

discharging untreated waste water into the sea due to port activities. A lack of solid waste management as well as sewage management may be expected. This will adversely affect marine life which already happens to be the case under KPT jurisdiction. (See Figure 25)

3. Dispute of Jurisdiction

There is a major dispute of jurisdiction between KPT and CDGK. The proposed Port Tower Complex shall be executed on both at the shore and beyond shore edge line. The CDGK claims that the land beyond shore edge line belongs to CDGK. It is therefore unclear how the proposed project shall be operated and maintained.

CONCLUSION

This study has shown that the recent developments being proposed at Karachi beach will in fact have major adverse effects both environmentally and socially. While authorities, including the DHA, CDGK and KPT, and developers claim that the projects and plans will not cause adverse effects, they in fact have not conducted any Environmental Impact Assessment (EIA) studies that are required by the Pakistan Environmental Protection Agency for all projects of a large-scale and affecting all natural assets, let alone internationally prescribed Social Impact Assessments and Visual Impact Assessments. The adverse effects of land reclamation on sea morphology and marine ecology

Figure 25: Untreated Sewerage Disposal in the beach within KPT Jurisdiction

city of Pakistan. Physical and visual access, as well as affordability for all is at stake, and the unprivileged public will not be able to afford food and recreation as traditional informal vendors as well as formal small enterprises are being discouraged from operating. The replacement of local companies with foreign multinational companies is another issue of concern.

The changes made by the developments are going to be irreversible. At the environmental level due to physical morphology-ecology changes, and socially because of laws and ownership being changed formally. An already existing common public space in Karachi, which is its prime environmental attraction, is being damaged at many levels.n

have not been studied, evaluated and protected against, as they should have been through appropriate EIAs. No appropriate laws, e.g. the International Shore Law, or building and land utilization regulations are being applied, and no international engineering standards for coastal developments are followed in these projects. Only commercial pressure and land value is being allowed to determine planning. Earlier planning attempts at Clifton beach should also be studied and their wisdom considered, e.g. the Coastal Recreation Development Plan for Karachi, as proposed earlier by the Karachi Development Authority Master Plan and Environment Control Department (KDA-MPECD) in 1999-2000, needs to be revived for today's context. Current disputes over the official jurisdiction at Clifton beach need to be resolved through consensus. Every institution or authority involved in beach development should establish a liaison and a joint forum to take appropriate decisions; appropriate 'participatory' public input should be a must, and socially responsive architectural design should be employed to consider the needs of both rich and poor citizens.

The proposed developments will further broaden social inequality in the city, as an elite culture is being formally promoted by creating exclusive decision-making, ownership, commercial activity rights, and rights of use. A variety of local cultural practices and popular traditional uses of the beach space are also being ignored as part of Karachi's history as the major multi-class and multi-ethnic

BIBLIOGRAPHY

1. Ahmed N., "Privatization of Clifton Beach" April 11, 2005 Daily Dawn, Karachi. http://www.dawn.com/2005/04/11/ebr3.htm

2. Hasan A., "KARACHI: The partitioning of Clifton Beach" June 27, 2005 Daily Dawn, Karachi. http://www.dawn/com/2005/06/27/local5.htm

3. Cowasjee A., "The battering of our beaches" February 19, 2006 Cowasjee Corner, Daily Dawn, Karachi. http://www.dawn.com/weekly/cowas/20060219.htm

4. Hasan A., "City's uplift and principles of urban planning" October 4, 2006 Daily Dawn, Karachi http://www.dawn.com/2006/10/04/fea.htm#1

5. Hasnain G., "Dirty Deals" November 2006, NEWSLINE magazine, Karachi http://www.newsline.com.pk/NewsNov2006/expose.htm

6. DHA (2003) "Waterfront Developments: A DHA Master Plan, Karachi Pakistan", DHA Karachi, 1st Edition.

7. DHA Press Release, Feb 2005, "DHA'S PROPOSED WATERFRONT COMMERCIAL PROJECTS", Karachi.

8. Bridge L., Salman A., (EUCC Services) (January 2000), "Policy Instruments for ICZM in Nine Selected European Countries Final Study Report Prepared for the Dutch National Institute for Coastal & Marine Management RIKZ"

9. Urban beach – Wikipedia.com the free encyclopedia.htm

10. http://www.worldaffairsboard.com/showthread.php?t=3344

11. http://www.dailytimes.com.pk/default.asp?date=7%2F13%2F2005

12. http://www.businessrecorder.com/index.php?id=47821@currPageNo=1&query=&seach=term=&subDate=

13. www.coastalguide.org

14. http://www.urckarachi.org/home.htm

15. http://www.urckarachi.org/Clifton%20Beach.htm

16. http://www.cpp.org.pk/lt http://www.cpp.org.pk/lt+egal/Law-PEPA-1997.pdf

17. http://www.environment.gov.pk/act-rules/IEE-EIA-REG.pdf

18. Hasan A., HIC-GS Case study, 2006 DHA's Waterfront Development Project. Privatisation of Clifton Beach in Karachi. http://www.hic-net.org/document.asp?PID=625

INTEGRATING COMMUNITY-BASED
DISASTER RISK MANAGEMENT IN PLANNING:
Case of Banda Aceh, Indonesia and Reina, Philippines

Gertrudes C. Samson
Architect and Program Coordinator
Human Settlements and Environment Program
Technical Assistance Organization (TAO-Pilipinas), Inc.

ABSTRACT

Philippines and Indonesia are both located in Southeast Asia. They lie in the seismic zone and are prone to natural disasters, including earthquakes, landslides, typhoons, flooding etc. where Philippines is more vulnerable as it is situated on the typhoon belt. Figure 1 and 2 together show which countries are situated in disaster prone areas.

In the last quarter of 2004, the Quezon province, Philippines suffered severely from rain-induced flashfloods and rain-induced landslide due to major typhoon activity while Banda Aceh, Indonesia suffered from tsunami triggered by a big earthquake in the Indian Ocean near its west coast. Many people died in these events and communities were destroyed.

The recent increasing frequency of catastrophes in these countries has made living dangerous and challenging. Recently initiatives have been taken in Banda Aceh, Indonesia and Quezon Province, Philippines to try and mitigate the impact of disaster through integration of disaster management in design and planning. The following paper is based on the belief that disaster preparedness is more effective than disaster responses like emergency relief because it raises the capacity of the people to be prepared in advance for hazard, in order that they are able to protect themselves and do not suffer the same fate repeatedly. The concept of the eco-village was introduced which is drafted through the process of people's participation. This has turned out to be more sustainable and an appropriate solution in particular for the coastal fishing communities.
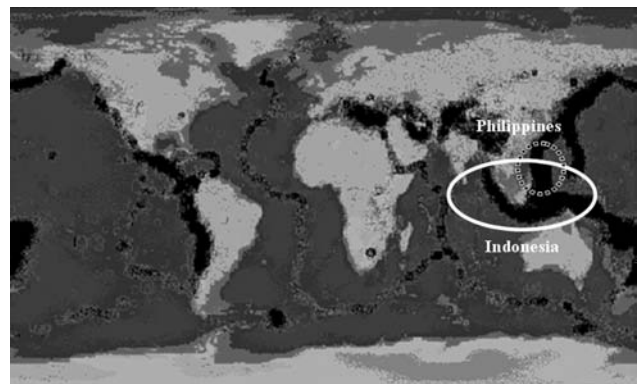
Figure 1 : Map of Earthquakes as shown in the darkest shade of grey / black. Concentrated along tectonic plates boundaries of the world.
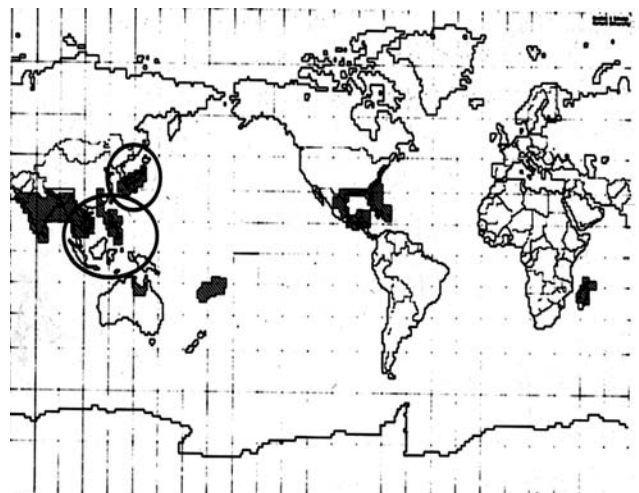

Figure 2 : Map of Cyclone Zones of the World – as shown by hatched areas.
Source: Gauchant U.P., Shodek D.L., Housing in Disaster Prone Countries: A codification and Vulnerability Analysis of Housing Types, Massachusetts, Department of Architecture Graduate School of Design, 1977.

THE CATASTROPHIC EVENTS OF LATE 2004

The province of Quezon in eastern Luzon, part of the Philippines (figure 3) was hit by several typhoons and storms all in a span of three weeks in 2004. These events brought heavy rains that caused massive flashfloods and landslides that affected the towns of Real, Infanta, and General Nakar (Reina area). A large tract of agricultural and residential land was covered by floods and landslide debris.[1] As a result of the destruction, more than 1500 people perished.

Three weeks later, a tsunami hit Asia triggered by a 9.5 richter scale earthquake causing large scale devastation in Sri Lanka, India, Thailand, Myanmar, with Banda Aceh in Indonesia being the worse hit. This was because the epicenter of the earthquake was in the Indian Ocean near its west coast. Around 400,000 people[2] were killed and 1,000 villages and towns were destroyed[3]. Only 10% of the total population survived and one-third of the province was totally destroyed.

Figure 3: Map of Philippines showing the location of Quezon Province
Source: http://en.wikipedia.org/wiki/quezon

Figure 4: Map of Quezon Province showing the location of REINA

---

[1] PHIVOLCS (Philippine Institute of Volcanology and Seismology) (2006) "Final Narrative Report of the REINA Project: Strengthening the Disaster Preparedness Capacities of municipalities of Real, Infanta and Nakar, Quezon Province, Philippines to Geologic and Meteorological Hazards", PHIVOLCS, Philippines, September 2006, p.1.
[2] Uplink counting or UPC, Indonesia.
[3] (2005) "Housing by People in Asia", Newsletter of the Asian Coalition for Housing Rights, No.16, August 2005 issue, p.3.

THE CONVENTIONAL RESPONSE TO DISASTER

In response to these disasters, Indonesian government initially tried to enforce the 2 km set back zone and planned to resettle the people in a new town 20-30 kilometers away from the shore and develop the area for eco-tourism. Meanwhile in Philippines, communities were resettled near the Mount Siera Madre away from the shore.

In both cases, despite resettlement site options, most communities decided to return and rebuild their old communities. Only 200 families agreed to be relocated and resettled in Philippines (see figure 5). Most of the others in Philippines and Indonesia strongly felt that their residential location was linked with their livelihood, traditions and culture. They felt relocating would be a greater disaster for them than the Tsunami itself.

For the communities who decided to continue living near the coast the compulsory set back zone did not work as a disaster management strategy. The awareness of natural hazards and integration of possible mitigation was nevertheless a requirement,

Figure 5: An Example of Conventional Response to Disaster – Agos-Agos Resettlement Site of Quezon Province, Philippines.
Source: TAO-PILIPINAS, Inc., Philippines, October 2006

that included the preparation of what needs to be done both physically and socially at the community level to manage and lessen the risk of disaster. This was referred to as "community-based disaster risk management".

At present, communities of Philippines and Indonesia, that decided to resettle near the coast, are in the process of reconstruction and rehabilitation using community-based disaster risk management as an alternative to the conventional response to disaster, which is relocation.

THE ECO-VILLAGE CONCEPT – A PEOPLE DRIVEN POST DISASTER RECONSTRUCTION AND REHABILITATION[4] USED AS AN ALTERNATIVE SOLUTION IN BANDA ACEH, INDONESIA

Post tsunami Banda Aceh is now integrating community based disaster risk management in their coastal community planning which is referred to as the "eco-village" concept. The eco-village concept is essentially the idea of using ecologically friendly means to make coastal villages safer. This is not just utopian thinking of idealistic architects and environmentalists. Studies have shown that areas of Indonesia, Thailand, Sri Lanka and India that were protected by mangroves, coastal forests, coral reefs and other natural barriers, damage from tsunami (2004) was much less.[5] Hence, according to the concept, the coast was to be re-planned such that people can stay near the coast while an early warning system acts as a backup allowing them to evacuate quickly if a force of nature is about to strike.

The eco-village movement dates back to the early 1990s. Examples of eco-villages already existed in various countries then on the basis of which a Global Eco-village Network (GEN) was established. The earliest members of this network included Findhorn Community, Scotland; The Farm, Tennessee, USA; Lebensgarten, Steyerberg,

---

[4]   Information discussed in this portion of the article came from reference materials distributed by JUB and Uplink during the "Tsunami One Year After Commemoration Meeting" in Banda Ache, Indonesia, January 3-7, 2006. JUB (Jaringan Udeep Beusaree or "Live Together") is large scale survivors' network in the worst hit part of Indonesia (worst hit country) after Tsunami composed of 25 villages that joined together in moving back to their old land. Uplink (Urban Poor Linkage) is a network of poor community groups, professionals, and NGOs in 14 Indonesian cities working to establish strong, independent city-level and national networks of urban poor communities which can develop and promote just and pro-poor alternative social, economic, and cultural systems in Indonesian cities.

[5]   (2005) "Housing by People in Asia", Newsletter of the Asian Coalition for Housing Rights, No.16, August 2005 issue, p.15.

Germany; Crystal Waters, Australia; Ecoville, St. Petersburg, Russia; Gyûrûfû, Hungary; The Ladakh Project, India; The Manitou Institute, Colorado, USA; and the Danish Association of Sustainable Communities.[6]

"The eco-village concept is not a fixed rule-book but a set of many elements which people can put together in a variety of ways as they draft redevelopment plans to suit the particular geographic and social realities in their villages."[7] This concept was drafted through the process of people's participation and turned out to be a sustainable and appropriate solution for the condition of coastal fishing in various parts of the world undergoing similar catastrophes. In Banda Aceh, Indonesia the people got their government's support as the new eco-village concept ensures security and safety of the residents.

The eco-village concept is based on physical, man-made elements as well as social integration and participation. Four major features of the eco-village concept include:

1. NATURAL AND BUILT BUFFERS

Natural buffers such as mangrove forests, coconut palms, pine plantations and rice fields are planted to absorb the force of waves, winds, and storms. Built barriers such as dikes, ditches, roads (lined with still more trees), canals and fisheries ponds are incorporated to add more protective layers.

2. ESCAPE ROUTES AND ESCAPE HILLS

Each village has planned special escape pathways and evacuation centers in the nearest hills or high ground, so everyone knows which way to run in the event of another tsunami. Lam Tengoh village's new escape route for example has already been tested when 8.7 magnitude earthquake rocked Aceh in early April 06. Villagers proudly report it took only few minutes to evacuate the entire village.
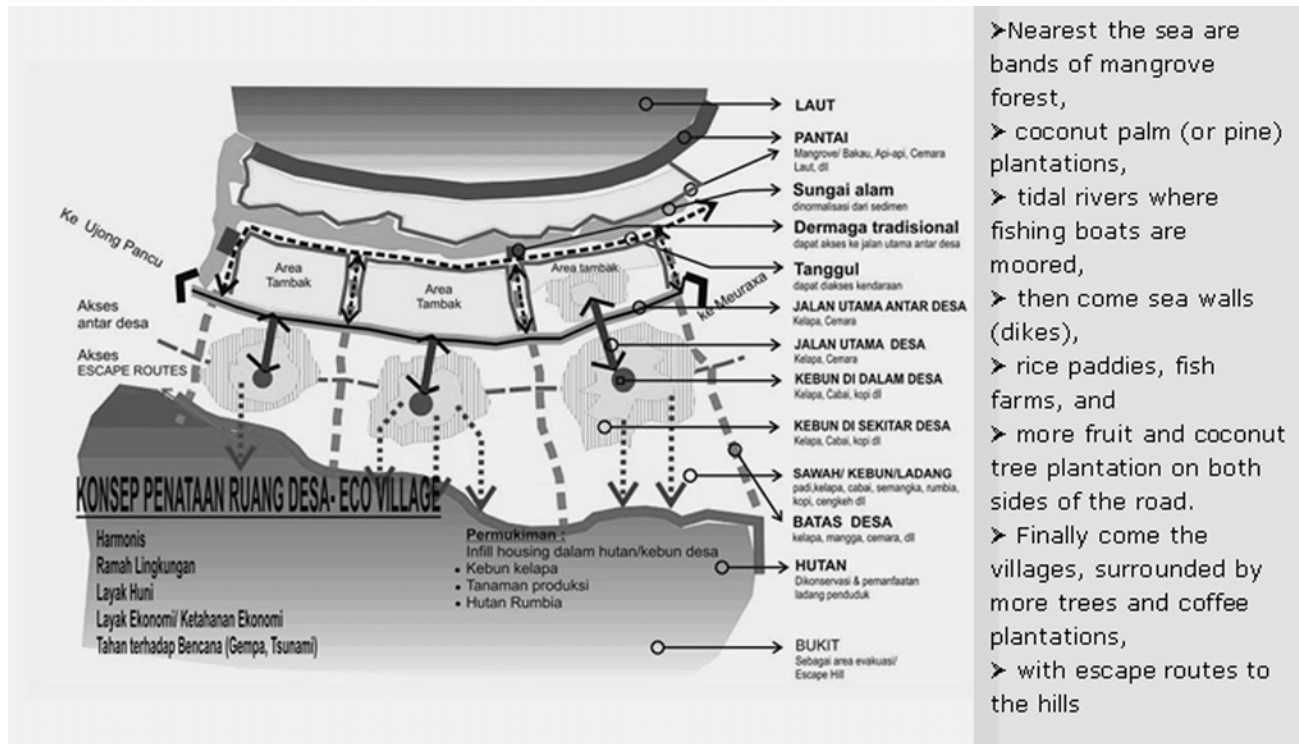

Figure 6 : Eco-village concept.

6   http://gen.ecovillage.org/about/indext.html, Date accessed March 10, 2007.
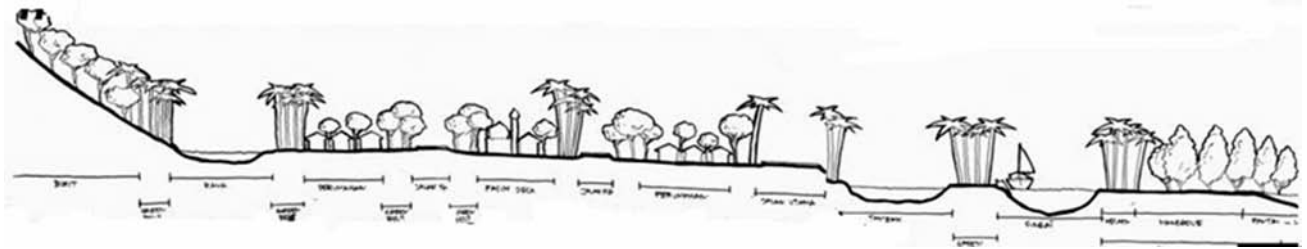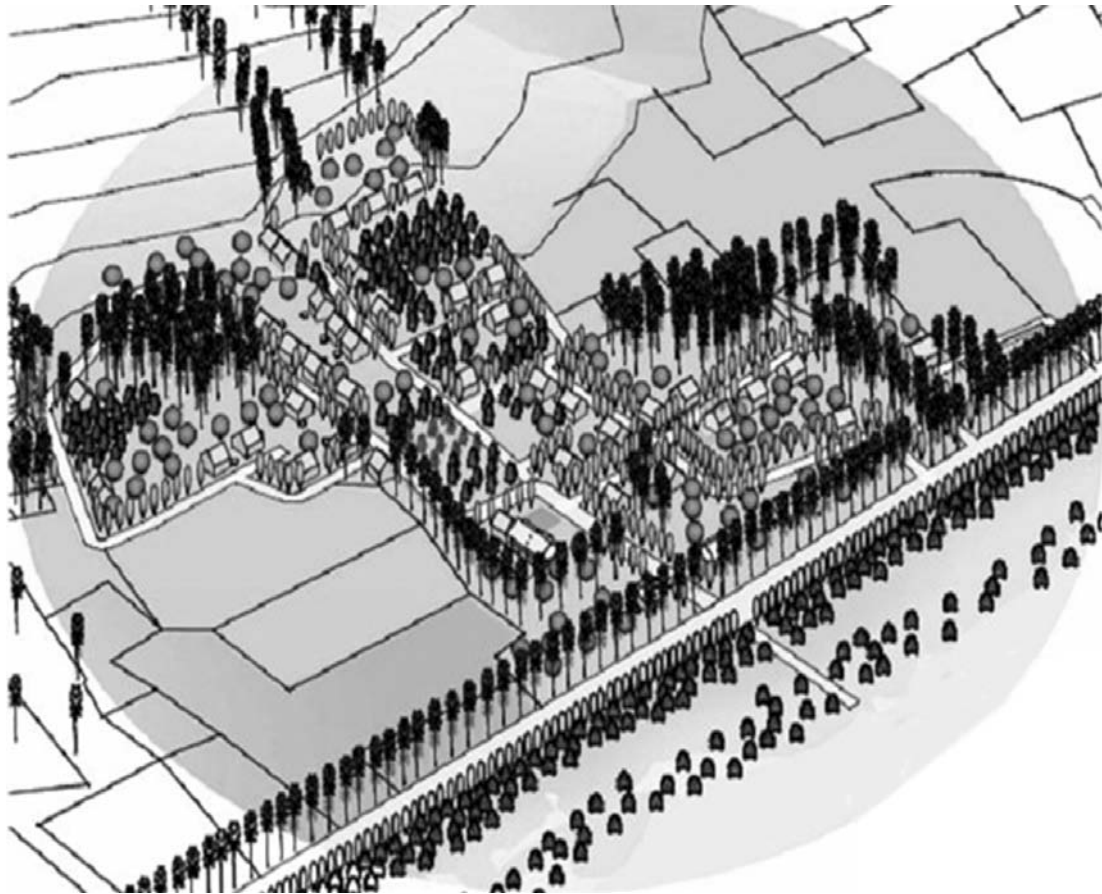7   Ibid.

Figure 7 : Section showing buffers - Natural and built

Optimizing the use of existing topogrphy as an escape way during flood or Tsunami. Vegetation set up as connecting lines between two public spaces located in teh entrance gate of the village and on the other side of the hill as an easy-to-follow access for escape.

Figure 8 : Escape hill

Gambar 1d: Ketinggian *escape hill*, semakin jauh dari pantai semakin rendah

Gambar 1e: Model *escape hill* alami

Gambar 1f: Formasi *escape hill* bisa bermacam-macam dan bisa dimanfaatkan untuk fasum dan fasos

GAMBAR 2: MODEL SABUK POHON KOTA YANG BERLAPIS

Morfologi kota Aceh dengan *escape hill* dan sabuk pohon yang berlapis-lapis.
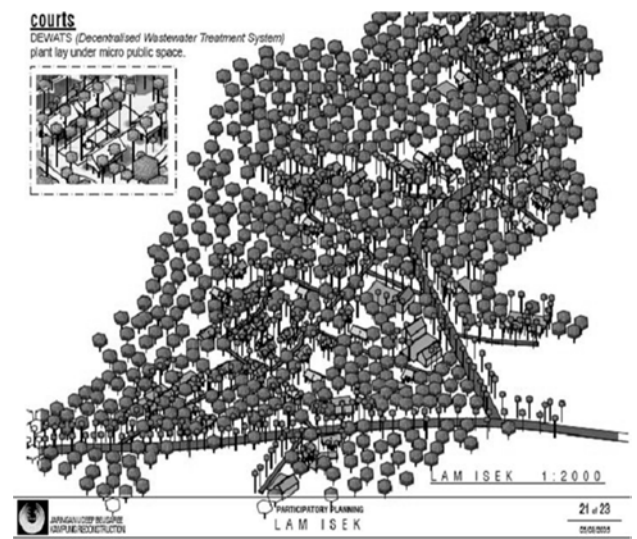
Figure 9 : Escape hill

Figure 10 : Open spaces planned within the settlement by the people

3. SUSTAINABLE VILLAGE DEVELOPMENT

Villagers are also exploring new ways of making their communities ecologically healthy, self-sufficient and in harmony with the environment by using local building materials, recycling, organic waste-water treatment, kitchen gardening, biogas digesting and non-polluting alternative energy.

4. HOLISTIC COMMUNITY REVIVAL

The people's plan also include fostering intangible aspects of community revival such as participation, trust, mutual help, sharing of resources, caring for those less well off, creating jobs within the area, and respect for nature.

The physical plan man and the social preparation

of the community are both equally vital in the success of the concept. The post disaster reconstruction and rehabilitation development is essentially people driven – the community based disaster risk management forming the very core of the project.

Designers and planners in the Philippines and other countries have much to learn from this experience of Indonesia on how to implement people driven post disaster reconstruction and rehabilitation development, with community-based disaster risk management that is both expressed in the physical plan of the area, and the social preparation aspect of the community.

COMPREHENSIVE HAZARDS MAPPING FOR PLANNING AND DESIGN CONSIDERATION AND INTEGRATION OF COMMUNITY-BASED DISASTER RISK MANAGEMENT USED AS AN ALTERNATIVE SOLUTION IN REINA, PHILIPPINES

Months after the 2004 tragedy in Quezon, people started building their homes again in hazard prone areas, seemingly unmindful or unaware that disaster might strike again at the same spot. Hence, an urgent need was felt to develop a community-based early warning system to forewarn
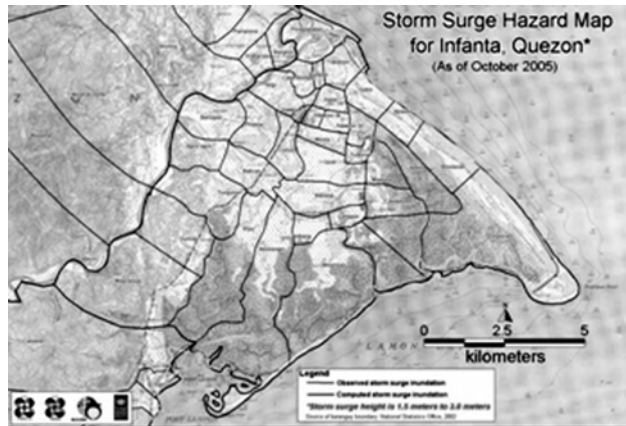

Figure 11: Another Example of Hazard Map Showing the vulnerability also of Infanta Quezon on other hazards like tsunami

the people of any sudden-onset activities of hazards in the province.

Hazard maps were the primary inputs to planning in this case. These became the basis for the navigation of the rehabilitation efforts in these vulnerable municipalities.[8]

PHIVOLCS, the Philippine Institute of Volcanology and Seismology, was assigned to be the implementing agency for comprehensive hazard analysis and early warning system component project for Quezon province by the Philippine government. It was the aim of the organization to oversee and strengthen the capacities of the municipalities in Quezon province such as Real, Infanta, and Nakar (Reina) for disaster preparedness (refer to figure 4). The other collaborating government agencies on the project were Department of Science and Technology – Philippine Atmospheric, Geophysical and Astronomical and Services Administration (PAG-ASA-DOST); Department of Environment and Natural Resources – Mines and Geosciences Bureau (MGB-DENR) and Office of Civil Defense – National Disaster Coordinating Council (OCD-NDCC).

The Reina project of Quezon Province is the first of its kind in the Philippines. According to PHIVOLCS, "this project will serve as a template for replicating the same initiative in other hazard-prone regions in the Philippines, and by involving the local communities in all aspects of the process, the long-term sustainability of the community-based disaster risk reduction efforts is ensured."[9] A comprehensive study on the nature of the province of Quezon was made that generated with it various important hazard maps of Reina area of the Province.

Reina area lies close to the ocean with little flat land and is mountainous towards inland. Its location and geological characteristics are such that it falls within various hazards zones. A large portion of its area is prone to liquefaction[10], which is the

---

[8] PHIVOLCS (Philippine Institute of Volcanology and Seismology) (2006), "Final Narrative Report of the REINA Project: Strengthening the Disaster Preparedness Capacities of municipalities of Real, Infanta and Nakar, Quezon Province, Philippines to Geologic and Meteorological Hazards", PHIVOLCS, Philippines, September 2006, p. 2.

[9] Ibid.

[10] Liquefaction occurs when water saturated soil or ground, when subjected to intense shaking of an earthquake, behaves like liquid. Structures a buildings on top of this type of soil either tilt or sink when shaken. Sites where liquefaction could occur include swamps. deltas, rivers, old river channels, reclaimed areas and shore areas.

condition of the soil such that buildings can tilt or sink in case of strong earthquake tremors.

It has a history of earthquakes with a fault line passing through it, the maximum earthquake having been of magnitude 7.6 on the Richter scale in 1880. This results in most of its mountain areas being either highly prone or moderately prone to earthquake induced landslides. Landslides may also be induced by rain due to instable ground conditions.

As the Reina area faces the Pacific Ocean, tsunamis may originate from any of the tectonic structures of the Pacific Ocean, ranging from regional to the so-called far field tsunamis depending on the location of the source in the ocean. The minimum time taken for a far field tsunami to arrive at Reina is 40 minutes from Japan while the maximum is approximately 10 hrs from Alaska. Far field tsunamis thus give plenty of time for warning signals to reach possible affecting areas and evacuation. It is the near field tsunamis that constitute greater danger yielding very small lead time upon earthquakes. The shortest time for a tsunami to arrive was calculated to be at Real in 3 minutes, originating from 1880 earthquake epicenter, generating tsunami heights of 1 to 3 meters.

Furthermore, the Reina area is located in a delta where flooding is a natural problem. The coasts of Reina are also prone to storm surges and typhoons.

The hazard maps generated provide vital information on the various hazards present in the area and their actual location, in order to integrate necessary mitigation measures on the design and plans[11]. These maps are a useful guide for designers and planners in making plans for the physical development of communities, municipalities and cities. Areas that are safe to build on are identified outlining which areas should be left vacant and which areas could be built on, prescribing restrictions on the height of the buildings. Safe escape routes and evacuation areas are planned. Furthermore, the type of construction materials

are also identified along with the compulsory distances that need to be maintained between structures.

The different hazard maps produced by PHIVOLCS are:

- Active fault and ground rupture hazard maps
- Ground shaking hazard maps
- Liquefaction hazard maps
- Earthquake included landslide hazard maps
- Tsunami hazard maps
- Flood and flash flood hazard maps
- Rain-induced landslide hazard maps
- Storm surge hazard maps

The hazard maps delineate the exact location of areas that are affected, making recommendations for following building byelaws and regulations of the area and consulting experts when constructing a building. This is done through topographic maps, aerial photographs and remote sensing.

Active fault or ground rupture hazard maps delineate the exact location of active faults and show projected highest shaking levels due to earthquake. This is very important for land use planning and for disaster preparedness activities.

The study recommends adherence to building codes and regulations, conducting of awareness campaigns and training for developers, local engineers, masons and carpenters, conducting and practicing earthquake drills regularly, incorporation of hazard maps in the land use planning and disaster action plans and development of emergency plans for the communities and municipalities.

Study of Reina area shows that most of its mountain areas are either highly-prone or moderately-prone to earth-quake induced landslides. There is no early warning for earthquake-induced landslides unlike the rain-induced landslides. Hence the maps are of great significance in this case. For earthquake-induced landslide, the only warning is the earthquake itself and by then, there might not be enough time to leave hazardous areas. At the

---

[11] Information was translated to English and taken from TAO Shelter, (2007) 'Hazard Maps', in: "The Magazine for Sustainable Human Settlements of TAO-Pilipinas, Inc.", Issue No.2 November-April 2007, page 6, Quezon City, Philippines.

same time, this type of landslide may further be triggered by aftershocks and rains may also aggravate the landslide condition.

Tsunami hazard mapping involved numerical tsunami modeling. This involved the identification of the earthquake source regions where the tsunamis may originate. The modeling procedure will also determine the time of tsunami arrivals as well as run up values of the height of tsunami.

As the Reina area faces the Pacific Ocean, tsunamis may originate from any of the tectonic structures in the ocean. This may range from the regional to the so-called far-field tsunami depending on the location of the source in the ocean. Nearer local tectonic structures may also generate near-field tsunamis.

It was hence identified that Regional and far-field tsunamis that may affect Reina area could originate from earthquakes in Japan, Marianas, Aleutian Islands, Alaska and Chile. In these cases there will be ample time for warning. Table-1 shows the lead time for far-field tsunamis arrival to Reina area.

The locally generated tsunamis such as that in 1880 which affected Port Lampor in Real and tsunami from East Luzon Trench which only yielded very small lead time upon earthquake for the f Reina area or the near field tsunamis vary in the arrival time range from 3 mins to 30 mins (See Table-2).

In view of the above parameters, the study

Earthquake origin of far-field tsunamis that might affect REINA	Corresponding lead time of tsunami arrival
From Chile	24 hours or more
From Alaska	10 ½ hours
From Aleutian Islands	9 hours
Marianas Island	2 ½ hours
Japan	40 minutes

Table 1: Origin of far-field tsunamis and corresponding lead time of arrival in REINA area, Philippines
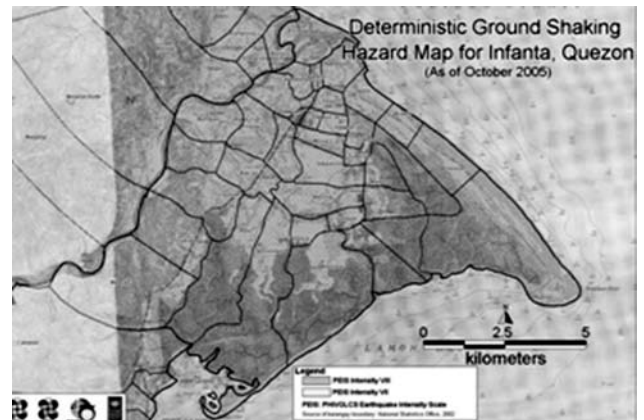Source: PHIVOLCS

Figure 12: Deterministic Ground Shaking Hazard Map for Infanta, Quezon.
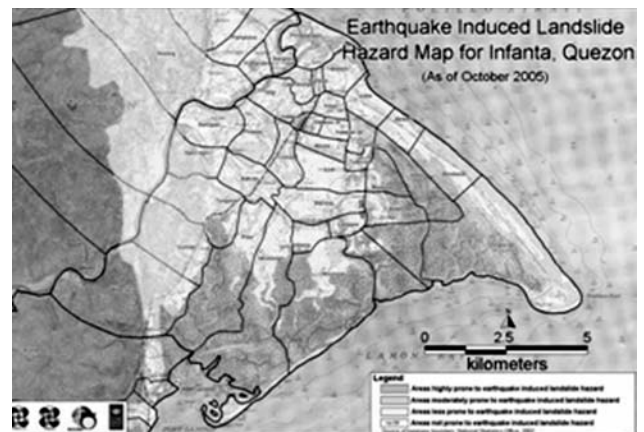Source: PHIVOLCS

Figure 13: Earthquake Induced Landslide Hazard Map for Infanta, Quezon.
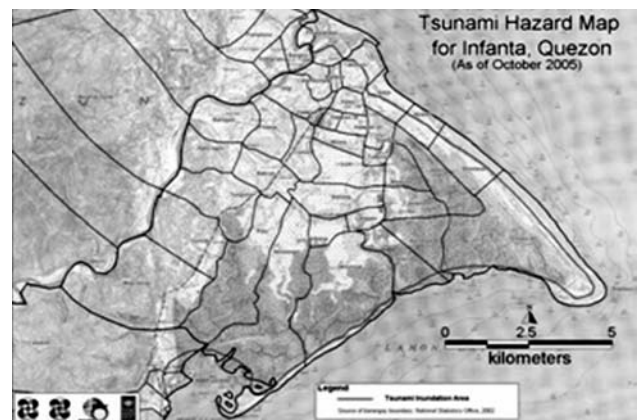Source: PHIVOLCS

Figure 14: Tsunami hazard Map of Infanta Quezon showing the Tsunami Inundation Areas as indicated by the double line at the edge of coastal areas.
Source: PHIVOLCS

Earthquake origin of near-field tsunamis that might affect particular part of REINA area	Lead time of tsunami arrival	Tsunami height
originating from 1880 earthquake scenario – might affect Real	3 minutes	1-3 meters.
originating from 1880 earthquake scenario - might affect Infanta	3 minutes	1-3 meters
originating from East-Luzon Trench – might affect Infanta	30 minutes	3-5 meters
originating from East-Luzon Trench – might affect Nakar	15 minutes	3-5 meters

Table 2: Origin of near-field tsunamis, approximate height, and lead time of arrival in particular REINA area.

recommended the establishment of a tsunami early warning system and the development of evacuation plans as the lead time from near-field tsunami is very short. Tsunami drills were to be conducted and educational campaigns to be carried out. These campaigns also included the immediate installation of tsunami signages.

Reina area is located in a delta which has natural deposit of sediments and water. Flooding is a natural problem in the area. Flood hazard maps delineate the watershed boundaries. Areas of different watersheds in the area were measured including lengths of rivers.

The hazard mapping revealed that flash floods area, a characteristic of the area that it is prone to mass movements along the valley walls. Furthermore, the floods have a short lead time travel. Hence, warning backup was required. The flood hazard maps for each municipality showed areas with varying vulnerabilities to flood hazards, that is whether they are highly, moderately or less prone to flood hazards. A second map called the "worst-case scenario" map indicated the maximum coverage of flood-affected areas in the event of the maximum flood. The results of these analyses then acted as a guide for people, designers,
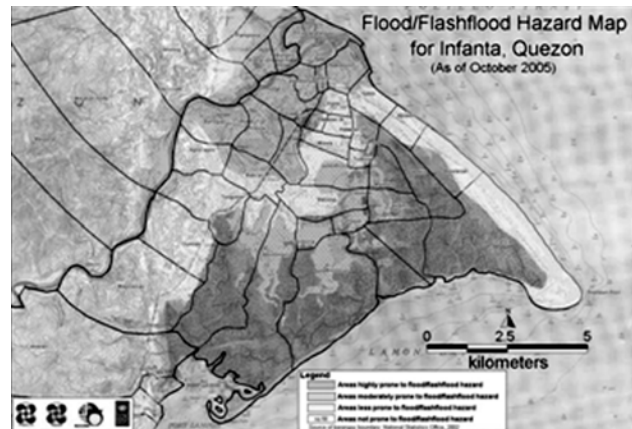

Figure 15: Flood/Flashflood Hazard Map of Infanta as one of the outcome of the studies after the 2004 flashflood. Source: Website of National Disaster Coordinating Council Philippines

planners, and local authorities on the limitations of the area for construction and the type of development and plans that are appropriate and resilient for this condition.

Rain-induced landslide mapping involved mapping of landslide distribution and density within a given slope or area and combining it with the slope classes, rock types, soil thickness, thickness of vegetation, density of drainage line and presence of elements at risks.

Highly susceptible to landslide are the areas with active and old landslide, areas above and below the steep or vertical cut slopes, areas in which there is presence of highly altered rocks, thick soil cover, steep slopes or areas with more than 30% slopes and flat areas directly beneath a steep
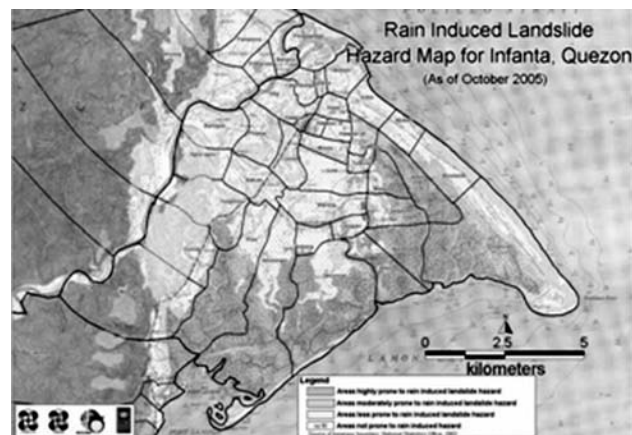

Figure 16: Rain Induced Landslide Hazard Map for Infanta, Quezon. Source: PHIVOLCS

slope. Areas moderately susceptible to landslide are those with moderate slopes (15-10%), with soil cover of not more than 2m thickness and areas with isolated landslide occurrences. Areas with low susceptibility to landslide include areas with gentle to sloping terrain (5-15%), flat and broad ridges, wide valleys and low hills. A non-landslide area includes wide alluvial plains and areas with flat to gentle slopes (0-5%).

The recommendations based on the study included the avoidance of building structures along areas with steep slopes, down slopes that form an old landslide escarpment, and those areas above old landslide deposits. Proper engineering techniques and interventions are required if slopes need to be cut.

A storm surge hazard refers to the increase in water levels of the sea associated or caused by tropical cyclone hitting the shore. Several factors may combine to raise water levels during the storm passage such as near-shore bathymetry, the presence of breakwaters, and coastline formations.

Depending upon a site's location relative to the storm track, maximum winds storm surge can proceed, coincide with or follow the arrival of the maximum winds generated by the tropical storm. Typhoon model assumes a tangential wind computed from the maximum sustained wind, usually 30 km or 60 km which incidentally is the driving force to generate the surge. Typical increase of sea levels associated with landfall is in several meters, but extreme surges of 10 m can occur.

Storm surges caused most of the damage associated with tropical cyclones in coastal areas. Based on the survey results, coastal barangays of Reina had experienced the surge height ranging from 1.5 m to 6 m induced by typhoons Rosing, Yoling, and Yoyong with inundation of approximately 50 to 100 m from the shoreline, while storm surge model results showed the coastal areas of Reina would experience high level of storm surges ranging from 1.5 to 3.0 m or more associated with land falling typhoon and super typhoon.

The storm surge hazard study of Reina recommended planting and preserving of mangroves and Nipa palms along the shoreline. These help dissipate big waves and storm surges and act as a protecting buffer. The preservation of corals also serve as a barrier or as break water from storm surges and also support the shoreline from coastal erosion. Furthermore, it was recommended that people living along the slopes of the shorelines and in low lying areas vacate their living places and move to the higher ground during the passage of typhoon. (Figure 11)

EDUCATION AND AWARENESS CAMPAIGNS

Public education campaigns were conducted at different levels up to the level of village leaders or 'barangay' as they are called in the local language. These campaigns were conducted by PHIVOLCS in close coordination with the respective local government unit of Reina area. Educational flyers in Filipino language were also distributed, and community based early warning system and signs were installed at strategic points of some communities. The local government decided on the warning set up most appropriate for their community. Examples of these community based early warning systems are 'chapel bells' or bells, 'two-way radio', and 'sirens', and installations of 'rain gauges' at the water shed areas to augment the rainfall information.

To further capacitate the local government units on the use of hazard maps, for disaster preparedness and for land use planning, a non-commercial hazard risk assessment software called Redas, previously developed by PHIVOLCS, was provided to the towns of Infanta and Real. The people at the local government units were given hands in training on its usage.

Technical Assistance Organization (TAO-Pilipinas, Inc.)[12] conducted awareness programs at the community members level for three days in October 2006 on the importance of integrating community-based disaster risk management in social housing. Training workshops were conducted at the

---

[12]   TAO-Pilipinas, Inc. is a women led, non-stock, non-profit, non-government organizations of technical professionals in the field of architecture, planning and engineering, marine and environmental science, research and social development targeting urban and rural poor. It is presently based in the Philippines.

community level in which four communities participated.

Integration of disaster management in the designs and plans of city, municipality and the community is an important strategy for the Philippines to achieve sustainability in such habitation conditions. Hazard maps like those generated in the Reina project, community-based alternative solutions such as the Eco Village concept of Banda Aceh, as well as building and housing with disaster resistant technologies can be combined to achieve sustainability. PHIVOLCS plans to replicate Reina project in other disaster prone areas of the Philippines, and make information readily available for designers, planners, and local authorities that will equip them in making plans and decisions that manage the risk of disasters in their respective areas.

CONCLUSION

At present, many communities, municipalities, cities and even regions in the Philippines are vulnerable to disaster because they are not yet prepared to counter the forces of nature. The above described measures are two ways of strengthening the capacity of the communities in the different parts of the country, thereby integrating community-based disaster risk management in planning and design sustainable solutions. One of the ways to achieve this is by focusing on the education of the people in the area especially the planners, designers, local authorities, and the affected communities through dissemination of information and knowledge that they could integrate into their vision of physical plan and social setup to prevent or at most minimize loss of lives.

Peoples' participation in the various stages of planning gives the affected communities the opportunity to play a role in making their own living environs and be a part of the process of implementation. Planners and designers should be aware of and possibly incorporate such solutions in the implementation of their plans like the eco-village concept.

Hazard and disaster risk maps prepared by mandated agencies or credible institutions can be

Figure 17: TAO-Pilipinas workshop session on community based disaster risk management in social housing held in Quezon Province last October 2006.
Source: Tao-Pilipinas, Inc.

Figure 18: The hand over ceremony, REINA, Philippines, Feb 24-25, 2007
Source: JUB-Uplink March 7, 2007.

Figure 19: Quezon Rainfall Gauging Station - an example of community-based early warning system installed for threat prediction in flood prone areas in municipalities of REINA.
Source: http://www.wmo.ch/web/homes/WWF4/Flash%20Floods/Countermeasures Debris FLow & Flashflood.pdf

an exciting and well informed tool for planners and designers as well. The use of these tools in the planning process would create more appropriate, socially and culturally acceptable, sustainable, and safe solutions that reflect the vision of the affected communities.

At the end, the above tools for safety measures in hazardous areas are tools for protection and prevention from the worst of catastrophes.

> "Building a culture of prevention is not easy. While the costs of prevention have to be paid in the present, its benefits lie in the distant future. Moreover, the benefits are not tangible; they are the disasters that did not happen".[13]

> Koffi Annan,
> The 1999 Secretary General of United Nations

In short, "prevention is better than cure."n

BIBLIOGRAPHY

PHIVOLCS (2006) "Final Narrative Report of the REINA Project: Strengthening the Disaster Preparedness Capacities of municipalities of Real, Infanta and Nakar, Quezon Province, Philippines to Geologic and Meteorological Hazards", PHIVOLCS, Philippines, September 2006.

Uplink counting or UPC, Indonesia

August 2005 issue, "Housing by People in Asia," Newsletter of the Asian Coalition for Housing Rights, No.16.

TAO Shelter, (November-April 2007) Hazard Maps' in: "The Magazine for Sustainable Human Settlements of TAO-Pilipinas, Inc.", Issue No.2, Quezon City, Philippines.

Website of Global Eco-village Network:http://gen.ecovillage.org/

Website of National Disaster Coordinating Council Philippines

---

[13]   Taken from the Power Point Presentation of Maria Leonila P. Bautista, REINA Project Coordinator,
        REINA Project during TAO-Pilipinas Orientation on REINA Project September 15, 2006, held at PHIVOLCS Office Quezon City, Philippines.

THE URBAN PUBLIC SPACES IN THE CITY CENTER:
Contemporary Approaches in the Design of Turkish City Squares

Dr. Aydin Ozdemir
Ankara University,
Department of Landscape Architecture, Diskapi
Ankara, Turkey

ABSTRACT

Urban public spaces such as city squares create an image for a city; these spaces become meeting places and centers for various activities that improve the physical and social environment of a city. Urban activities that turn a city square into a public place have generally been considered political in Turkish society. Both contemporary and traditional public spaces have existed as stages of opposition groups and arenas for playing out the tension between classes. Hence, the city square, which had been a democratic public space, is now being reduced to limited functions such as traffic circulation; these spaces have generally been designed with the goal of solving traffic problems in metropolitan areas as opposed to providing space for pedestrian activities. This transformation calls for a re-evaluation of the role of the public square and how it is functioning in developing countries, and the exploration of new spatial types of public spaces which can be introduced in the public realm.

This paper examines the dynamics of public space transformation following a socio-spatial-symbolic framework of analysis in which the urban environment is examined through its social and physical processes of development. To this aim, transformation of public culture and public life in Ankara city is the subject of this paper.

The objectives of this paper are:

· To trace the evolution and history of public life in Ankara with regard to public spaces in the city,

· To trace how public spaces have been used in the city center in the past and how they are being used today, with a focus on the role of city square as a primary public space,

· To describe how changing uses of public spaces in Ankara have resulted in change in their physical forms over time,

· To explore the implications of current trends in the use of public space in Ankara and the emergence of new public spaces,

· To explore public space theory with respect to the use of public space and what makes a good public space.

The material, which constitutes the basis of this paper, was retrieved while researching in Ankara by literature research, participatory observation, photographs, and interviews and discussions with stakeholders of public spaces of the city. The paper is illustrated with images and descriptions of selected city squares and their changing patterns in planning and design. The explorations and representations aim to provide an understanding the relationships between cultural dimensions of urban design and user behaviors in a specific culture.

1. INTRODUCTION

The design of an urban space should not only insist on symbolic meanings or solutions in order to create imageable places, but also should be spatially suitable for the users[1]. The goal should be to promote social interactions and active use in the city centers by developing attractive and well-

---

[1] Mitchell, D. (1995). The end of public space? People's park, definition of the public and democracy. Annals of The Association of American Geographers, 85, 108-133.

designed public spaces for necessities of citizens[2]. The aim of the designing these public spaces is to succeed in having more people engage in various activities.

The design, form and quality of public spaces are related with several issues such as the support of public life, culture and outdoor life; effects on people's experience and satisfaction of human needs and expectations. These issues, or in some way concerns, reflect the need for the study of public space design and management to point out critical ingredients of designing successful public spaces[3].

The cultural and historical landscape of Turkish public spaces offers opportunities to explore the relationships of cultural meaning to designed space [4,5]. This paper illustrates the design characteristics and changing patterns of Ankara city squares. The assessments of their history and physical characteristics in accordance with user activities and behaviors demonstrates how these spaces reflect the design trends of urban public spaces in Turkish culture. The investigation also includes how these public spaces improve the social and physical qualities of cities and can help create attractive urban imagery.

The paper explains some principles to make these public places more attractive, safe and usable in terms of design and social characteristics. Although these principles are valid for the selected cases only, they can be useful for designing similar public spaces in cities in general. The lessons learned may be applicable to problems and opportunities for other cities elsewhere.

2. A SHORT LOOK AT THE TRADITIONAL TURKISH PUBLIC SPACES

Traditional Islamic city lacked city squares as defined by Western societies. Islamic rituals and rules permitted the social contacts of citizens with strangers and other genders. Public spaces were mostly the open green spaces called "mesire" located on the outskirts of towns where sport activities (Jereed and wrestling) took place (Figure 1). Mesire is the only open public space in the Ottoman towns where women were allowed to be in the public[6].

Inside the Ottoman towns, public spaces around the chambers and coffeehouses, where the "men" were the dominant users, emerged by coincidence. These traditional coffeehouses still exist in modern Turkish cities[7] (Figure 2).

Figure 1: The public resorts and picnic grounds (mesire) constitute an important site of Ottoman urban social life during the summer months.

---

[2]   Habermas, J. (1991) "The Structural Transformation of the Public Sphere". Cambridge, MA: MIT Press.
[3]   Francis, M. (1989). "Control as a dimension of public space quality". In I. Altman and E. Zube (Eds.) "Public Places and Spaces: Human Behavior and Environment, "Volume 10. New York: Plenum.
[4]   Aydýn, M. (2003). "Kamusalalan ya da siyasetin ön bahçesi". Sivil Toplum, 1(4), 7-18.
[5]   Uzun, I. (2006). "Kamusalaçýk mekan: kavram ve tarihe genelbakýþ [Public open space: a general look at the concept and history]." Ege Mimarlýk, 59(4), 14-17.
[6]   Yildirim, E. (2006). "Osmanlý toplumunda kadýnlarýn kamusalalan etkinliði ve avrat pazarý". Kadýn Çalýþmalarý Dergisi, 1 (1), 24-29.
[7]   Komecoglu, U. (2001). "Historical and sociological approach to public space: the case of muslim /islamic coffeehou"es in Turkey". Unpublished doctoral dissertation, Bosphorus University, Istanbul.

Figure 2 : Turkish coffeehouse, which is occupied by men only, has important contributions to the formation of public life; these settings still exist in modern Turkish cities.

Figure 3 : For enhanced security and privacy, high perimeter walls surround Ottoman public spaces. Public spaces, such as atriums of palaces, are secured and private common places for the elite of the palace.

Ottoman Palace and its private life inside large atriums enclosed by high walls were the early examples of Turkish public spaces in the urban context[8]. We see a clear example of private common spaces of Ottoman in Topkapý Palace. The Palace has various atriums surrounded by high walls to enhance maximum security and privacy, which is basically influenced by the Islamic rules and traditions (Figure 3).

The form and function of Ottoman public spaces were not reflected on the forthcoming contemporary spaces in developing Anatolian cities such as Ankara. Rather, new forms of public spaces mostly mirroring the design trends of Western societies emerged in the contemporary Turkish cities such as the capital city, Ankara. The historical evolution of modern Ankara, which is generally analyzed in three subsequent periods[9], is introduced in the next section.

3. BUILDING MODERN ANKARA: A BRIEF HISTORY

As a small Anatolian city with 20.000 inhabitants, Ankara was chosen as a stage to represent the new modernist ideals of the nation-state after the establishment of the Republic in 1923. In achieving this goal, a number of urban development plans and projects were proposed for various functions in the city. The first official plan of Ankara by Herman Jansen, which was produced in 1929 and approved in 1932, was prepared for a 300,000 population within a time period of 50 years. Jansen's plan adopted principles of an ideal town: pedestrian city, garden city, and human scale[10]. Public buildings, culture centers, parks, monuments and city squares were built for the new society of the modern age. In the plan, functions such as housing, industry and recreation were separated from each other with links of green corridors between them[11]. The creation of Yenibehir (New Town) in the south section of the city, Güven (Trust) Park, Kizilay Garden, cinema and cafes generated the new center of public life. The plan strengthened the development of public spaces; main decisions were made to locate major city squares along the major strip, Atatürk Boulevard that extends from the old city to the new section of the city, Yenisiher and Kizilay districts. Several public spaces were built such as Kizilay (once called Hurriyet [Independence]), Ulus, Tandogan and Sehiyye [Sanitation] (See Figure 4).

Jansen plan maintained its validity until the end of 1930s and after this date important alterations were undertaken in the plan, which have caused

---

8 Öztürk, S. (2005). "Osmanlý Ýmparatorluðu'nda kamusalalanýn dinamikleri". Ýletiþim, 21, 95-124.
9 For detailed information about the planning periods of Ankara refer to Akçura (1984), Altaban (1998), Cirik (2005), Tankut (1990), Uzun (2005) and Yýldýrým (2004).
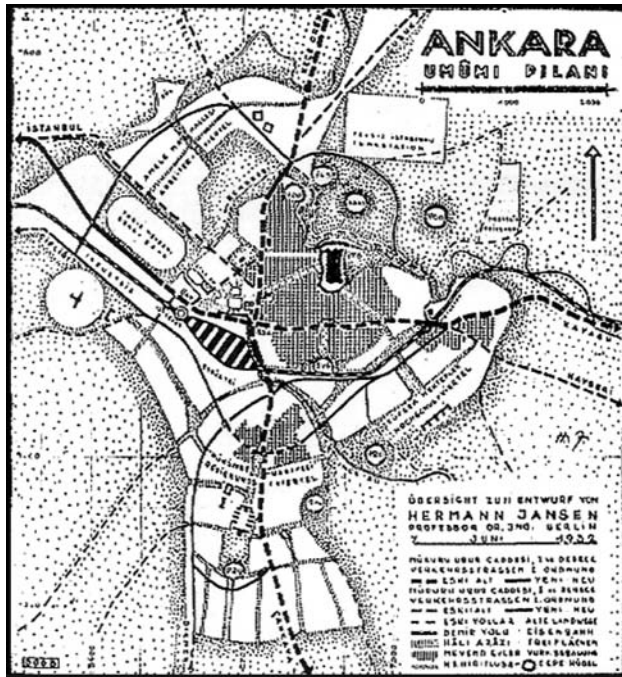10 Ibid.
11 Ibid.

Figure 4 : First official plan of Ankara was prepared by Herman Jansen, a German planner, who gave much importance to open green areas and parks in the city and a green belt around the city (Oztan, 2004).

Figure 5 : Yucel-Uybadin plan (1955).

the plan to lose its function. This ideal program of constructing an ideal city was abandoned after the economic crisis in 1950s and the rapid growth of city as a result of migration from rural to the city. As a result, urban area of the city had passed over the plan boundaries of Jansen, which made it necessary to prepare a new plan for the city. Nihat Yücel and Raoit Uybadin developed a new Ankara plan in 1955, which was prepared for a 750.000 population in 20 years time. In addition to existing open green spaces, new parks, public spaces and sport areas were proposed[12]. The plan anticipated the development of the major strip, Atatürk Boulevard, as an urban portion in which the cultural and social usages required by the capital would be allocated (See Figure 5).

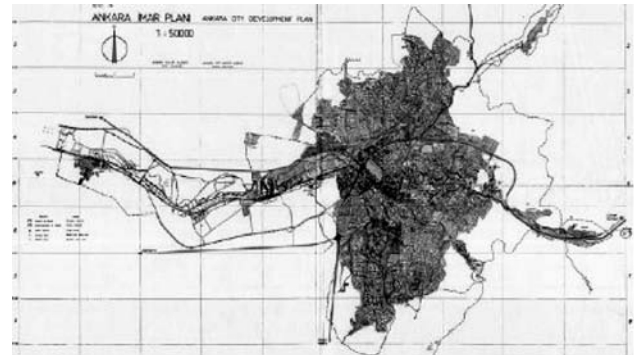Yücel-Uybadin master plan has been valid until

the approval of the master plan that was prepared by Ankara Metropolitan Area Master Plan Bureau (AMANPB) in 1982. This Bureau started a comprehensive research and analyzed the development of Ankara and then prepared the 1990 plan schema. In 1990 plan, green areas of Ankara gained importance. According to Master Plan Report, urban development pattern was proposed to be linear expansion corridors through west and southwest with large open green areas among these corridors[13]. This is the planning period when the city center, Kizilay district, started to lose its focality with the emergence of alternative town centers along the West corridor (Figure 6).

4. IMPORTANCE OF PUBLIC SPACES DURING THE DEVELOPMENT OF MODERN ANKARA

In all planning periods, the development of the extensive public land strip, Atatürk Boulevard, which started to shape up with the Jansen plan and divides the city into two parts as north and south, was maintained until present time. Public spaces and city squares, which are mainly located along this strip, were defined as being the center stage for the modern social life of the capital city. After 1950s, public spaces gained important meaning for opposition groups for political demonstrations and advocating meetings[14]. Kizilay district was formed as the city center and then

---

12 Ibid.
13 Ibid.
14 Batuman, B., Cengizkan, A., Akýs, T., Kýlýnç, K. & Yalým, I. (2002). "Ankara'nýn Kamusal Yüzleri [Public Faces of Ankara]". Istanbul: Iletisim Publications.
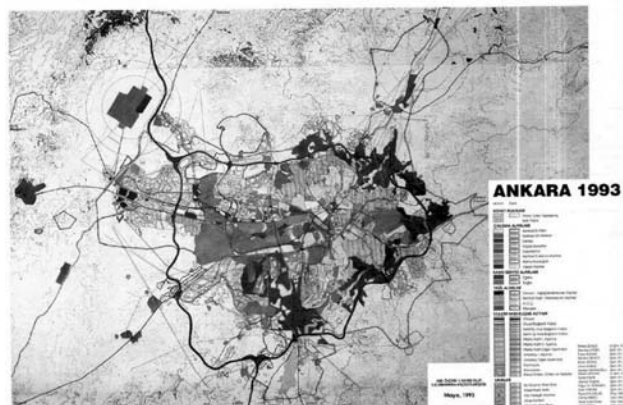
Figure 6: Ankara Nazım Plan (1993) encouraged the trend of city development to the west corridor.

the Central Business District in all development plans[15]. However, the military interventions aimed to control the free speech by forbidding being in groups in this city center. The result was the destruction of Kızılay building and the adjacent Millet (Nation) Park and leaving the central part of Güven Park to bus and dolmush stops in 1979[16].

The economic transformation of Turkey to a liberal system in the beginnings of 1980s was a driving force affecting the use of public space in Turkey. High demand of consumers made necessary for the opening of large shopping centers and malls. Spending leisure time in the mall rather than being in the square became the most popular activity[17]. Women have easy access to shopping malls where they enjoy freedom and can wander for longer without being disturbed by masculine gazes, as they probably would be in the city square and the street. This new form of commercial public space may not fit Turkish public culture and does not allow for political, religious and social functions that were once characterized in historical squares[18],[19].

Since the 1980s, Ankara has been experiencing various processes simultaneously. On the one hand, suburbanization is taking place and the city is expanding towards the west. On the other, transformation of the inner-city residential areas is taking place, putting important urban redevelopment projects on the agenda[20]. This paper describes this transformation in selected cases– city squares, in order to underline the contemporary approaches in the design of Turkish city squares.

5. SETTINGS

Ankara city squares are the cases of this paper. Two types of city squares, which are located along the major strip, Atatürk Boulveard, were defined:

a. Historical– These are the spaces built before or just after the establishment of the republic mostly located around the old town such as Ulus, Government, Hacıbayram and Horse Square. Among them, Ulus Square was selected for this study.

b. Contemporary – These spaces reflect the image and meaning of nation's independence and developing social life containing monuments and green open spaces. Kızılay, Abdi İpekgi and Atatürk squares were selected for this study.

6. DATA COLLECTION

The assessments of these four cases were classified according to three major components: background, function, and user analysis. Literature review was the basic method to gather information about the background to define the history of the space with planning processes and major events that affected the formation of space structure. Architectural survey was another method employed to list the physical attributes and functions of the squares including the general characteristics such as type, location, site plan, environmental relations,

---

[15] Bademli, R. (1985). "Ankara merkezi iş alanının gelişimi [The development of Central Business District of Ankara]". In Ankara 1985`ten 2015`e, Ankara: EGO Publishing.

[16] Ibid.

[17] Erkip, F. (2003). "The shopping mall as an emergent public space in Turkey", in: "Environment and Planning A", 35(6), 1073–1093.

[18] Ibid.

[19] Button, M. (2003). "Private security and the policing of quasi-public space. International Journal of the Sociology of Law," 31, 227–237.
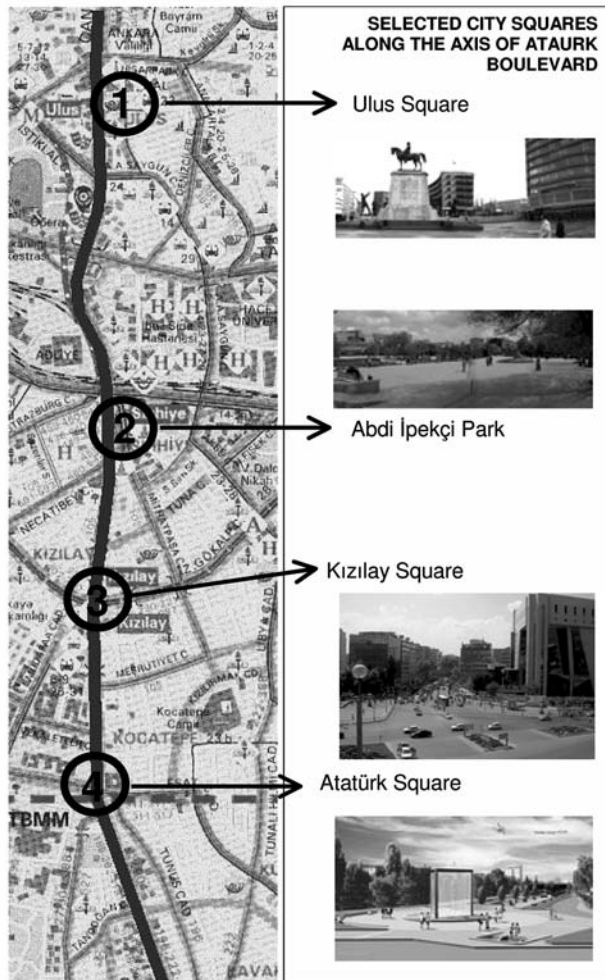
[20] Ibid.

Figure 7 : Selected cases are all located on the major traffic arterial, Atatürk Boulevard

buildings, entrances, and landscape characteristics. Both unobtrusive and participatory observations was conducted in all these city squares for the analysis of user behavior, frequency of use, time of day when the space is most crowded and pedestrian flow to and from the squares. In user analysis, results of observations are described focusing on the type of users, frequency and time of use. At the end, based on my personal experiences and theoretical background of public space use, major problems in existing design characteristics of selected city squares in accordance with the physical characteristics of these spaces

are defined.

i. ULUS SQUARE

Ulus Square, which is located next to the old town in the castle, is one of the most identifiable and frequently used squares in the city. Space still preserves its historical image and value that creates a distinctive character for the city. Once called the Taohan Square[21] until the beginning of 1930s, the space has been recognized as the entrance to the old town with the established link to the train station, which used to be defined as the gateway to the capital city[22] (See Figure 8). The square centered with the Independence Monument enriched its identity after the construction of the first public park, Millet Bahçesi (Nation's Garden), Ankara Palace, Anatolian Club, and restaurants for social and cultural life of the city.

General assessment of the structure of the Ulus Square indicates that the open space around the monument inside the sunken plaza is mostly used as a passageway. Two high-rise buildings on two sides, which house public and private offices, and the Atatürk Boulevard on the front create an enclosed volumetric space with Atatürk's monument in the center. Space surface as compared to the height of the surrounding buildings is narrow resulting in an inadequate perception of enclosure. Access to the space is problematic by the displacements and poor design of the steps. Aesthetic values of the surrounding buildings are not compatible with the historical background and identity of the space. These buildings also block the view through the Ankara castle and other important landmarks of the city.

The general improvements for better perception, accessibility and attraction of the space would be to redefine the harmony between soft and hard landscape, which would increase both aesthetic and functional quality of the Ulus Square by providing shade and microclimatic changes for human comfort. Functionally, this approach would improve people's desire to stay in the space longer, which will result in increase in sales. However,

---

[21] Formerly known as the Tashan (stone inn) square, the space became a meeting center during the War of Independence. The building, also named Tashan, was used as the first Grand Assembly.
[22] Ibid.

Figure 8: This old photograph shows Ulus Square during 1930s with Atatürk's statue centered in the space and Tashan Building at the back. Later, the statue was moved for the ease of traffic flow.

Figure 9: Now, vehicle traffic is dominant in Ulus Square (Source: Original, 2005).

these features have been neglected in the space design (See Figure 9).

ii. KIZILAY SQUARE

As an outcome of Jansen's plan, Yenisehir (New Town), located around the Kizilay district, reflected the culture of the time, a democratic life with symbolic meaning. A new modern lifestyle emerged in Kizilay and Yenisehir at the center of Ankara, which was to be the secular capital (as compared to Istanbul). The construction of the Güven (Trust) Monument in 1935 promoted the emergence of a new public space around the Güven Park. In this social and spatial context, Kizilay Square was defined as the recreational open space where the inhabitants of Yenisehir gathered to stroll around and attend public concerts[23]. City morphology with single centered structure improved the importance of this space by its location on the intersections of two major boulevards crossing East-West and North-South directions (Figure 10). Not only the square with its park, but also the Atatürk Boulevard, tying Yenisehir to the old city, had become a lively open environment with cafes, cinemas and bookstores[24].

the city[25]. Later, Kizilay was made the focal node of a new transportation network and formed as

the Central Business District of the city. Since its establishment until today, in addition to its primary function of retail, Kizilay region is used for many other activities such as recreation, culture and entertainment. Vehicle traffic started to dominate the space in 1960s (Figure 11).

The square is the major transportation hub providing services of public transport to all city districts. The Gima Tower, the first high rise building of the city, across the memorable Güven Monument distinguishes the space from others. Space is the central place for gatherings, meetings, concerts and ceremonies. However, the square is under surveillance and public demonstrations are usually prohibited. Kizilay building and the adjacent Millet (Nation) Park, which were once the symbols of the square, were demolished and the central part of Güven Park was left to bus and dolmush stops in 1979[26].

Parking and driving problems in the city center, narrow streets, crowded and disturbing traffic along with the emergence of new retail spaces around the city diminished the importance of the Kizilay district. Güven Park, once defined as the major urban greenery in the center, lost its function and identity in terms of original design and landscape characteristics. (Figure 12).

---

[23] Caðlar, N., Uludað, Z. & Aksu, A. (2006). "Hürriyet Meydaný: bir kentselmekanýn yenilik ve dönüþüm öyküsü [Hürriyet Square: the story of novelty and transformatýon of an urban space]". Journal of the Faculty of Engineering and Architecture, Gazi University, 21 (1), 177-182.
[24] Ibid.
[25] Batuman, B. (2003). "Student riots and the reclaiming of public space. Space and Culture," 6(3), 261-275.
[26] Ibid.

Figure 10 : Güven Park and Güven Monument was built to represent the modern ideals of a capital city in the beginning of 1930s. Picture also shows the Ataturk Boulevard that extends to the south section of the city (Source: Bir zamanlar Ankara, 1999)

In terms of design, planning, management and use, the square faces many challenges; vehicle traffic is dominant in the space and the boulevards block the continuity of surrounding pedestrian streets (Figure 13). The promotions for faster flow of vehicle traffic such as blocking the pedestrian crossings, left turns, locations of pools and plantings decline the idea of publicness in the city center. Patched space allocations allow less gatherings and social interactions. In political terms, this might be a goal to prevent illegal behaviors.

iii. A B D I   I P E K Ç I   P A R K   A N D   S Q U A R E

Abdi Ipekgi Park, which was opened in 1981 in commemoration of Abdi Ipekgi, the late chief columnist of the daily Milliyet Newspaper, is a part of the green corridor lining from Atatürk Forest Farm land to the urban greenery in the south section of the city. The dominant characteristics of the space, park and its greenery, defines the setting as being the green-common space for political activities and demonstrations (Figure 14).

Services such as entrance to the subway station and bus stops, retail activities such as merchants, stores and open-air fresh market, public and government buildings such as the Courthouse, campus of a university, and university hospitals located around the space promotes heavy pedestrian traffic through the setting. Space has not been developed based on a specific building or use. Rather it is an open space inside an urban park in the city center (Figure 15).

Figure 11 : These postcards show Kizilay Square in 1960s with patches of greenery and public buildings that served as the meeting point for the citizens.

Political parties and private organizations organize demonstrations and meetings in the space where members of the organizations have held protests regularly. During the meetings, police forces surround the crowd forbidding access to other regions of the park. This is the only place in Ankara where permitted demonstrations take place. However, space is continuously controlled and monitored by both police and private security (Figure 16).

Landscape features and park design does not promote improved or desired social interactions. Pathways and sidewalks act as channels of pedestrian traffic; rather than standing in groups, walking through the space is desired based on the design and space allocation. Park used to have larger area as compared to the current use. Construction of the transit bridge required the

Figure 12: Now, Kizilay Square is nothing more than a traffic node and center of public transportation network
Source: Original, 2006

Figure 13: Since private car is dominant in Kizilay Square, safety of pedestrians is a major concern
Source: Original, 2006.

destruction of some parts of the space (Figure 17).

iv. ATATÜRK SQUARE

After rerouting the vehicle traffic underground, a large pedestrian space emerged between the Constitution of the Republic of Turkey and Public Security Directorate. As a result of a design competition, the space was designed as a prestigious square devoted to the history of independence. The design approach was to develop a symbolic space strengthening the identity of the place in a highly prestigious district. The plan proposed a dominant vertical water feature at the edge of the space along with seating areas and

water fountains representing the history of Turkish Republic from the Independence War to the democracy (Bazan, 2001)[27] (Figure 18).

Figure 15: Abdi_pekçi Park has functions and character of a city square. It is the place for regular political demonstrations and protests
Source: Original, 2004

Figure 14: These postcards show the Abdi_pekçi Park in the beginning of 1980s when the natural forms and pedestrian circulation were dominant in and around the space.

[27] Bazan, G. M. (2001). "Allegoria metropolitana / Atatürk Square, Ankara Selami Demiralp". L'ARCA, 165, 80-81.

Figure 16: Recently taken photo shows a demonstration in Abdi_pekçi Park, in front of the Ministry of Health office. Space is the center stage for many meetings and demonstrations throughout the year.

Figure 17: As in other city squares and traffic nodes, aim is to ease the traffic flow in Sýhhiye region. Now, Abdi_pekçi Park is barricaded and surrounded by guardrails; pedestrian access to the square is blocked
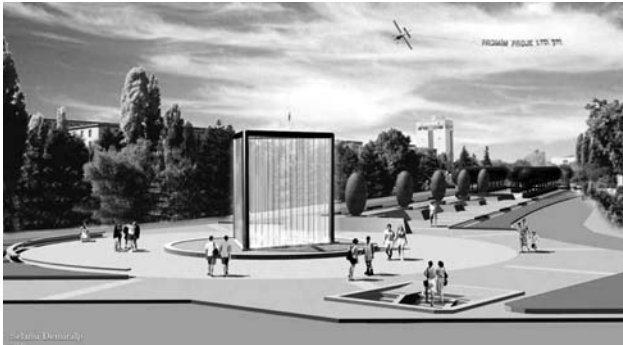Source: By Author, 2004

Figure 18: Atatürk Square was a competition project designed by Landscape Architect Selami Demiralp. It is located on one of the city's prestigious public promenades
Source: http://www.promim.com/projeler/05_cadde_sokak.htm

Figure 19: Atatürk Square is a contemporary modern public space. Due to the security reasons, pedestrians are under surveillance; waiting in groups is prohibited in the space
Source: By Author, 2006

Although the aim was to create a focal destination in the city center, the concerns of security do not allow maximum attraction and frequency of use. Public meetings and demonstrations are prohibited in the space. All types of gatherings are perceived illegal and when you are seen within a group, you are warned by secret police to leave the premises immediately (Figure 19).

7. RESULTS: DEFINITION OF GENERAL PROBLEMS

In this section, major problems of the city squares in terms of use and design are discussed.

a. Fragmentation of the City
In the last 20 years, the city has tended to become more heterogeneous and fragmented. Work, accommodation, recreation, and shopping are separated, and with the increased mobility people now travel more to reach their destinations. This also affects the design of urban space; architecturally and socially distinct and segregated spaces are formed. In Ankara, for example, the city is divided into a number of localities in which different classes and cultures are located.

b. Privatization of public space
There is tendency of the rich to escape from the urban tension to isolated and gated communities, which is lethal to public life of the city centers. Here, the major public activity is "shopping" in regional shopping malls with privatized public spaces. What is left is the deserted centers and

Figure 20: Major problem in the city center is traffic congestion and lack of pedestrian dominance
Source: Original, 2005

Figure 21: Pedestrians are forced to use the bridges and stairs to cross the boulevards in the city center. However, what pedestrians desire are safe and accessible crossings
Source: Original, 2005

city squares.

c.   Problems in the city center

Decline in the frequency of public space use may be related to the complaints about living in an extremely dense and crowded urban environment. These include excessive noise, traffic congestion, and the inadequacy of the infrastructure and pollution. Shops, business and street crowd engulf public spaces. Disorder, jams, cars parking on the sidewalks and many other disturbances discourages the use of public space by the pedestrians.

d. Role of traffic and private car ownership

Especially after 1950s, city squares in Ankara lost their identities and environmental characteristics, as well as human scale and attraction due to heavy traffic and migration from the rural. Traditional narrow streets were demolished and wider boulevards were constructed to meet the demands of the public. New districts emerged and planned for better traffic and private car. Existing pedestrian-only spaces such as squares, streets and parks replaced with traffic passageways and crossroads. Traffic is now the dominant feature in these spaces (Figure 20).

e. Planning approaches

Rather than regional evaluation and problem solving approaches of traffic, local and point problem

solving techniques diminish the quality of public space[28].

f.   Surveillance

It is observed that these spaces are under control of security to monitor access and ensure safety. The municipality employs uniformed private security personnel to patrol these premises. Cuthbert[29] argues that surveillance of public space becomes a disturbing trend that affects full access to the space.

g. Access

Passageways, ramps and stairs provide inadequate support for easy access to the square. In order to analyze the public features of the space, surrounding facilities and buildings should be assessed (Figure 21).

8. CONCLUSIONS

Following its elevation to the status of capital in 1923, Ankara became a magnet to migrants, attracting population from Turkey's rural areas, and migration from Anatolia to Ankara began in earnest. In the 1930s, Ankara was a compact city, arranged around a single dominant core— Kizilay district. The rapid urban growth of the 1950s, parallel to the industrialization, was unexpected. Unprecedented urbanization and rapid urban

[28] Kurt, H. (2006). "Türkiye'de kent planlarýnýn siyasalamaçlarla yozlaþtýrýlmasý: Ankara örneði [Political degeneration of urban plans in Turkey: Ankara case]". Sosyal Bilimler Dergisi, 15, 110-122.

[29] Cuthbert, A.R. (1995). "The right to the city: surveillance, private interest and the public domain in Hong Kong." Cities, 12(5), 293-310.

development are posing enormous challenges and opportunities for Ankara, the vibrant capital of Turkey. The use of automobile which results in highways, thoroughfares and parking lots in the city center, the modern movement in design, creating separate buildings floating among parking lots and roads, zoning and urban renewal, segregating functions and destroying connections between the districts, privatization of public space that causes loss of unity of total environment, and changing land use that creates wasted or underused spaces are the reasons for the emergence of under-utilized public spaces in Ankara.

The modern Ankara is usually defined by its public spaces and parks located elsewhere in the city. Unfortunately, these public spaces, which were built to reflect the modern ideals, are now transformed into major nodes of vehicle traffic. Hence, the city square, which had been a democratic public space, is now being reduced to limited functions such as traffic circulation; these spaces have generally been designed with the goal of solving traffic problems in metropolitan areas as opposed to providing space for pedestrian activities. The current trend in Turkish cities reflects the declining character of traditional public space and the rise of new emerging public spaces such as shopping malls.

The public quality of city squares provides a forum for activities that can be observed and analyzed. These changing activities in urban public space, their frequency and their duration reflect the image of the social life of a city and enable to predict social behavior. These public places are also settings for social interactions. Design of these spaces should be related to the definition of social identity and status.

The public spaces should have two main criteria to be defined as a square:

1. Unity – space should have a unique identity
2. Diverse functionality – space should be an accessible setting for many users
Based on these criteria, we may assess the cases of this paper as follows:

1. Lack of unity – Scale and form of the space are not compatible with surrounding buildings and functions. These spaces are usually formed spontaneously after the reallocation of the open space in city centers. Volumes and surface design are unidentified by spontaneous landscaping and constructions that destruct the form of unity.
2. Lack of pedestrian priority – Space is devoted to private cars and traffic that are dominant in the square, which is primarily defined as a crossroad or a traffic intersection.
3. No holistic and collaborative design approach – Design of city squares is the product of one discipline.
4. Lack of rituals of democratic life – Social and political activities are forbidden in the space. People are under surveillance and walking in large groups is prohibited.
5. Lack of connectivity to adjacent functions and facilities – Pedestrian crossings through heavy traffic are dangerous. Connectivity to adjacent transportation nodes such as bus stops and subway stations, and pedestrian streets are limited or purposely diminished.
6. Meaning and identity – Space does not unify with social rituals and needs of the users. The attained meanings and identities, which are lost by time, are temporary, symbolic and spontaneous.
7. Increased sense of individuality – Increased mobility, technological advancements and cell phone usage produced a kind of individual society with an absence of desire for social interactions.
8. Imageability – Contributions to enhance the imageability and identity of urban space by placing symbols is limited. The role of city squares in the formation of urban identity is diminished.
9. Formations of new leisure spaces – Shopping malls with their climate controlled enclosed public spaces now attract more visitors. More people enjoy strolling in shopping malls and if not necessary, they do not visit the city center. These malls aim to be alternative downtowns relative to city centers that we usually spend our time for daily activities.
10. Design approaches - Inappropriate types of design, form, structure and images emerge that are not compatible to the historical background of the setting, and the needs and interests of users. Some of the public spaces are bland and would seem to repel rather than attract users.
11. Universal design trends rather than culturally appropriate designs– Local design trends will embody the natural contact between its users and

the built environment enhancing better local and community relations. The process creates a sense of belonging to a context and the space with attributes of the local identity.

Today, these cases do not appear to represent the city square that reflects the daily culture and politics of cities in Europe and Latin America. It does not represent the ultimate architectural expression of social freedom and it is not allowed to political debates about governance, cultural identity and citizenship. The place has been transformed from a modern ceremonial place to traffic intersection. However, a city square should be for all types of activities and free speech.

FUTURE DIRECTIONS

We live in an urban environment with declining public life and public space. Our city squares and contemporary public spaces suffer from the trend of privatization. Interdisciplinary planning and design processes should be accomplished for better-planned and attractive city squares. Holistic approaches and exploratory strategies should be employed including the search of historical background, physical characteristics, assessments of environmental features, identification of user groups and their behavior and people's preferences for these spaces. Public participation in the design and planning processes is also a major contribution in the formation of successful city squaresn

aozdemir@agri.ankara.edu.tr

BIBLIOGRAPHY

Akçura, T. (1984). "Ankara, Türkiye Cumhuriyeti'nin Başkenti Hakkýnda Monografik Bir Araþtýrma". Ankara: METU Faculty of Architecture Press.

Altaban, Ö. (1998). "Cumhuriyet'in kent planlama politikalarý ve Ankara deneyimi [Urban planning policy of the Republic and the experience in Ankara]". in: Y. Sey & D.Özkan (eds.) "75 Yýlda Degisen Kent ve Mimarlýk", Publication of Türk Tarih Vakfý, Istanbul

Aydýn, M. (2003). "Kamusal alan ya da siyasetin ön bahçesi". Sivil Toplum , 1(4), 7-18.

Bademli, R. (1985). "Ankara merkezi iþ alanýnýn geliþimi [The development of Central Business District of Ankara]. In Ankara 1985`ten 2015`e", EGO Publishing, Ankara

Batuman, B. (2003). "Student riots and the reclaiming of public space. Space and Culture", 6(3), 261-275.

Batuman, B., Cengizkan, A., Akýs, T., Kýlýnç, K. & Yalým , I. (2002). "Ankara'nýn Kamusal Yüzleri [Public Faces of Ankara]," Iletisim Publications, Istanbul

Bazan, G.M. (2001). "Allegoria metropolitana / Atatürk Square, Ankara Selami Demiralp". L'ARCA, 165, 80-81.
Button, M. (2003). "Private security and the policing of quasi-public space". in: International Journal of the Sociology of Law ," 31, 227-237.

Caðlar, N., Uludað, Z. & Aksu, A. (2006). "Hürriyet Meydaný: bir kentsel mekanýn yenilik ve dönüþüm

öyküsü [Hürriyet Square: the story of novelty and transformatýon of an urban space]". in: "Journal of the Faculty of Engineering and Architecture, Gazi University", 21 (1), 177-182.

Cirik, U. (2005). "A design problem of under-utilized spaces: the case of Ankara-old industrial district". Unpublished masters thesis, Middle East Technical University, Ankara.

Cuthbert, A. R. (1995). "The right to the city: surveillance, private interest and the public domain in Hong Kong", in: "Cities", 12(5), 293-310.

Erkip, F. (2003). "The shopping mall as an emergent public space in Turkey". in: "Environment and Planning A", 35(6), 1073-1093.

Francis, M. (1989). "Control as a dimension of public space quality", in: I. Altman & E. Zube (Eds.) "Public Places and Spaces: Human Behavior and Environment", Volume 10. New York: Plenum .

Habermas, J. (1991) "The Structural Transformation of the Public Sphere". Cambridge, MA: MIT Press

Komecoglu, U. (2001) "Historical and sociological approach to public space: the case of muslim/islamic coffeehouses in Turkey". Unpublished doctoral dissertation, Bosphorus University, Istanbul.

Kurt, H. (2006). "Türkiye'de kent planlarýnýn siyasalamaçlarla yozlaþtýrýlmasý: Ankara örneði [Political degeneration of urban plans in Turkey: Ankara case]". Sosyal Bilimler Dergisi, 15, 110-122.

Tankut, G. (1990). "Bir baskentin imari (1923-1939) [The construction of a capital (1923-1939)]". METU Faculty of Architecture Press, Ankara, Turkey

Mitchell, D. (1995). "The end of public space? People's park, definition of the public and democracy." in: "Annals of The Association of American Geographers", 85, 108-133.

Öztürk, S. (2005). "Osmanlý Ýmparatorluðu'nda kamusalalanýn dinamikleri [Public space dynamics in the Ottoman Empire]". in: "Ýletiþim", 21, 95-124.

Uzun, N. (2005). "Residential transformation of squatter settlements: urban redevelopment projects in Ankara". in: "Journal of Housing and the Built Environment", 20, 183-199.

Uzun, I. (2006). "Kamusalaçýk mekan: kavram ve tarihe genelbakýþ [Public open space: a general look at the concept and history]". in: "Ege Mimarlýk", 59(4), 14-17.

Yýldýrým, D. (2004). "Design problems of AOÇ as a public property". Unpublished masters thesis, Ankara: Middle East Technical University.

Yýldýrým, E. (2006). "Osmanlý toplumunda kadýnlarýn kamusalalan etkinliði ve avrat pazarý [Public space activities of women in the Ottoman society and Avrat Pazari]". in: Kadýn Çalýþmalarý Dergisi, 1 (1), 24-29.

WHERE DESIGNERS DWELL!
A Review of "100+1 Pakistani Architects and their Own Houses"
by Mukhtar Husain

Professor Dr Noman Ahmed
Department of Architecture and Planning
NED University of Engineering and Technology

The book is an output of a sizable effort and labour undertaken by Mukhtar Husain, a very well known architect famous for his scholarly pursuits and inclinations. The topic was pertinent to be explored in respect to the chronological transformations that have taken place in the post independence architectural scene in the country. While it may appear that access to the information and resources related to architects' own houses may have been a smooth sailing, it seems to have been simply otherwise. The author had to undertake continuous liaison with the architects included in the volume (or their near and dear ones), coordination to update the information and finally transform the documentation work into a book format. At each stage, the effort had to be guided by the daunting precaution not to miss out any image, reference or detail that may have been necessary to provide the desirable picture to the readers. Undoubtedly the outcome is a useful product reflecting the skills, efforts and precaution contributed in the inputs.

The author has adopted a very simple narrative style in the opening essays. This makes the book worthy of capturing a wide readership including art critics, journalists, engineers, planners, sociologists or even common house wives! The documentation is presented in a neutral manner giving due coverage to the ideas and aspirations of the designers themselves. The book shows that the choices were made without any selective restraint applied to the examples. Thus a non controversial sample has evolved due to this open-ended approach. Peer review by two eminent architects namely (late) Prof. Kausar Bashir Ahmad and Prof. Arif Hasan has added further value to the noteworthy effort.

Since the author belongs to the same profession, his statements and depiction remains politically correct without being judgmental or critical at any instance. The interpretations in this respect are left open for the readers, reviewers and critics to dwell around the examples contained in the volume. Design of the book is undertaken in a populist manner which, at times, is not necessarily architectural in its bearing. Colour compositions, paper sizing, icons and quality of graphics are all done across the same theme. More serious architectural researchers may find the lack of detailed technical information as a handicap.

The book has unveiled a broad agenda of exploration, inviting the architectural researchers to further extrapolate this spine of knowledge. The author has presented a set of tables about the educational background and short biographical references. Interesting correlations can be drawn from this information and the design of their houses. Stylistic criticism, derivation of local variables in architectural interpretations, attempts to derive certain local principles of design and construction are other related areas that invite the attention of serious architectural researchers. Scaling the commercial success of architects viz a viz the strength of design ideas may form a subsidiary trajectory of exploration. One must also not forget to investigate the cases of such architects "who could not make their own houses!"

A missing dimension in the book is the information about the contextual setting of each unit presented. Probably the insertion of a key location map or street photograph may have greatly enriched the visual evidences in the contents of the book.

INVITATION FOR CONTRIBUTIONS

Journal of Research in Architecture and Planning is an initiative taken by the Department of Architecture and Planning, NED University of Engineering and Technology, to provide a medium for communicating the research and the critique in the broader domain of architecture and planning in Pakistan and beyond. This annual publication shall focus on a specific theme in each of its issues.

For our forthcoming issues of the Journal, the editorial board invites contributions from researchers, scholars, architects and planners. The papers can be based on ongoing researches or analytical / hypothetical concepts related to relevant fields.

Format of contribution

· The length of the article should not exceed 5000 words.

· Text should be typed and printed on A-4 sized sheets. It should be in the format of Microsoft Word document. The paper can either be sent on a floppy disk or CD or it can be e-mailed to the address given below.

· Photographs should be original and preferably black and white. Scanned images will only be accepted in *jpg* or *tiff* formats.

· Drawings and maps should also be on A-4 format. If drawings are on AutoCAD they can be sent on a floppy disk or CD or e-mailed to the address given below.

E-mail: coccd@neduet.edu.pk
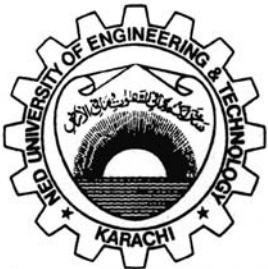
Themes for Forthcoming issues:

Urban Design: Case Based Theory & Practice Part - II
2007 issue

Abstract:
August 2007
Complete paper
November 2007

Architectural Education
2008 issue.

Contributions for our latest 'Book Review' section are welcome in the form of a brief summary and a sample of the publication related to the field of architecture, planning and development.

Editorial Board