

Urban Regeneration: Significance of the Land – Water Interface and Its Manifestation in the Historic and Cultural Quarter along Lake Pichola in Udaipur

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ABSTRACT

 The success of a waterfront city depends largely on the quality and balance of the land-water interface, so instrumental in the growth and development of a place and its identity. The aim of this study is to critically examine the historic cultural quarter of Udaipur on the eastern edge of Lake Pichola, understand the forces that underpin current development and highlight key concerns by examining the existing state of the urban waterside. The main issues observed include economic growth through tourism, enhanced by the conservation of historic structures and the preservation of heritage. The past plays a fundamental role in urban regeneration.

Keywords: *water, architecture, conservation, planning, awareness programs*

OBJECTIVES & METHODOLOGY

The historic core of Udaipur, India, the focus of this study, is located on the eastern edge of Lake Pichola, a unique urban waterfront set within a distinct natural environment. This paper aims to highlight changes to the context and draw attention to past urbanization patterns in the hope that the findings can be utilized to improve future developments. The existing state of the waterfront and urban fabric will be examined through comparative field observation over a fourteen year interval, as understanding the forces that have influenced and underpin this development is vital in highlighting key concerns for the city.

The study is limited to the historic core of Udaipur and its related waterfront structures and was initially undertaken as part of the author's Diploma research dissertation in 1992. However, the site was revisited

in 2006 and further investigations were carried out subsequently. These two field surveys by the author comprised of detailed observations, examination and documentation of its physical aspects, activity patterns and environmental conditions. Text, data, maps and drawings from secondary sources were systematically collected and analyzed in 1992 with additional information and its analysis undertaken in 2006. The physical form and arrangement of the historic eastern edge of Lake Pichola was analyzed and interpreted through in-depth architectural and urban design notions, to understand the overall architectural arrangement and its constituent parts, their uses and connections with the natural landscape. The built form, approach routes, street layouts, land use, massing and overall organization were all examined to formulate a greater appreciation of the historic core as a cultural artifact with a deep connection to the water. A comprehensive study of

information gathered, was undertaken to formulate a critical appraisal of the environment.

BACKGROUND

Urban Waterfronts

The past two decades have seen attempts to revitalize waterfront cities worldwide; many transforming industrial based watersides into recreational, multi-use destinations. Western models have been developed to reinvigorate deprived, post-industrial, shrinking cities with the aim to create vibrant, diverse spaces along the water. Waterfronts are fundamental spaces when considering the development of a city. A diverse range of water uses has determined the fabric and arrangement of waterfront cities. Dependent on a city's requirements, a body of water can be used for fishing, defense, trade, transportation, industry, and recreation (Butuner 2006). Bunce and Desfor (2007) describe how the historical development of urban waterfronts can highlight the inter-relationship between society and nature, a delicate relationship when developing an identity or sense of 'place'. When regenerating an interface between a city and a body of water it is imperative to consider past development and unique characteristics of a place. "Places are more than simply geographic sites with definitive physical and textual characteristics; places are also fluid, changeable, dynamic contexts of social interaction and memory" (Stokowski, 2002). Heritage and historical structures along waterfronts offer richness to a city, valuable tools when promoting itself on a global scale. It is therefore essential that these assets are protected and enhanced wherever possible.

Udaipur Context

Udaipur is located on the eastern flank of the hilly Aravalli ranges in Southern Rajasthan (Western India). The medieval settlement, alternatively known as the city of the lakes, is situated in a bowl-shaped basin at 1893 feet above the mean sea level. Maharana Udaisingh moved from the old capital of Chittorgarh and founded Udaipur in 1559 A.D. due to the distinctive features of the lakes, its geographically secluded position due to the natural enclosure formed by the surrounding hills and the altitude, and its rugged terrain. These assets created favorable site conditions for the municipality in terms of natural defense, microclimate and opportunities

to develop. The lakes in particular are a valuable resource in Udaipur; influencing the infrastructure, providing visual structure and orientation cues, and lending visual and psychological relief in its hot dry environment (Naik, 1997).

Cues from the topography led to the positioning of the main city-palace of Udaipur, the seat of political power, at the highest level on a rock mass that overlooked Lake Pichola on its eastern edge (Figure 1), in the Southwest area of the city. Religion was the other powerful force of the city that was physically manifested in Jagdish Temple built further down from the palace on a large mound (Naik, 1997). By the end of the 16th century a cluster of houses grew around the newly positioned palace, the controlling element of the city. The settlement's growth was in accordance with the need of the ruling family and people in general, while also conforming to the religious and aesthetic needs of the time. The courtiers and warriors were the first to move to the new settlement and they occupied the area close to the north of the palace. Over a period of time, different communities built houses on the sloping terrain forming their own community groups based on their caste, religion, social status or occupation. Over time, the residential fabric expanded to either sides of the lake with several new additions and insertions, a process that still continues. This growth gradually led to the development of a township which was structured in such a way that all major streets led to the palace complex and the palace could be located from any point in the city due to its prominent location on higher ground. Jagdish Temple, the main temple, was also located prominently further down from the Palace complex in a square. Over time, Udaipur has survived diverse and complex pressures of socio-economic, commercial and industrial growth, and today is a very important tourist city with a peculiar charm, significant history, rich ecology and outstanding architectural and cultural heritage.

The heritage fabric of the city presents an excellent example of harmony between natural and man-made elements. This bond between the natural environment and the historic monuments such as the forts, the gates ('pols'), palace complex, stately homes (havelis), pavilions, historic temples and religious structures appears inherent and effortless (Figure 2). Even the finer details, such as streetscapes, residences, and community structures seem to possess a familiar connection with the abundant natural landscape surrounding the city. Water is important to the life and culture of Rajasthan and has led to rich practices of water harvesting and water storage/conservation reflected

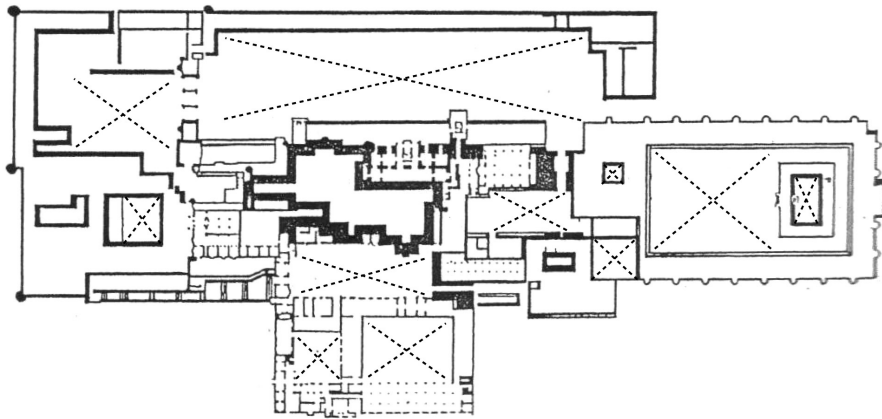


Figure 1:
Palace, Temple and Residential Terraces Overlooking Lake Pichola

in the development of considerable variations in the forms of water structures - Ghats, deep stepped basins, step wells and baories. Among living cultural heritage, the performing and visual arts including painting and sculpture, folk, tribal art and handicrafts are all significant. This unique environment along with the Rajasthan pageantry of color, festivities and traditional ways of life accumulate to become the incredibly rich heritage that is "Udaipur". Despite its growth from a small princely town to an important tourist destination, it has retained the hierarchical relationship between the monarchy and the people. Similar to other royals in India, it is understood that the royal family continues to lead a privileged and influential position in the society, however may or may not play a role in the governance of the city. This heritage is very much a part of its daily life and

constitutes the Rajasthan pageantry of bright and colorful costumes, festivals and historic fine arts.

FINDINGS

Land Use

"The entire visual order of a city is like an organism in that it is not made up of self contained parts. Interaction between the parts is continuous and essential to form a coherent and legible urban environment" (Naik, 1997). Mixed land-use along the waterfront can be classified as one which includes the palace complex, residential, retail, religious, and many of the historic havelis that have been

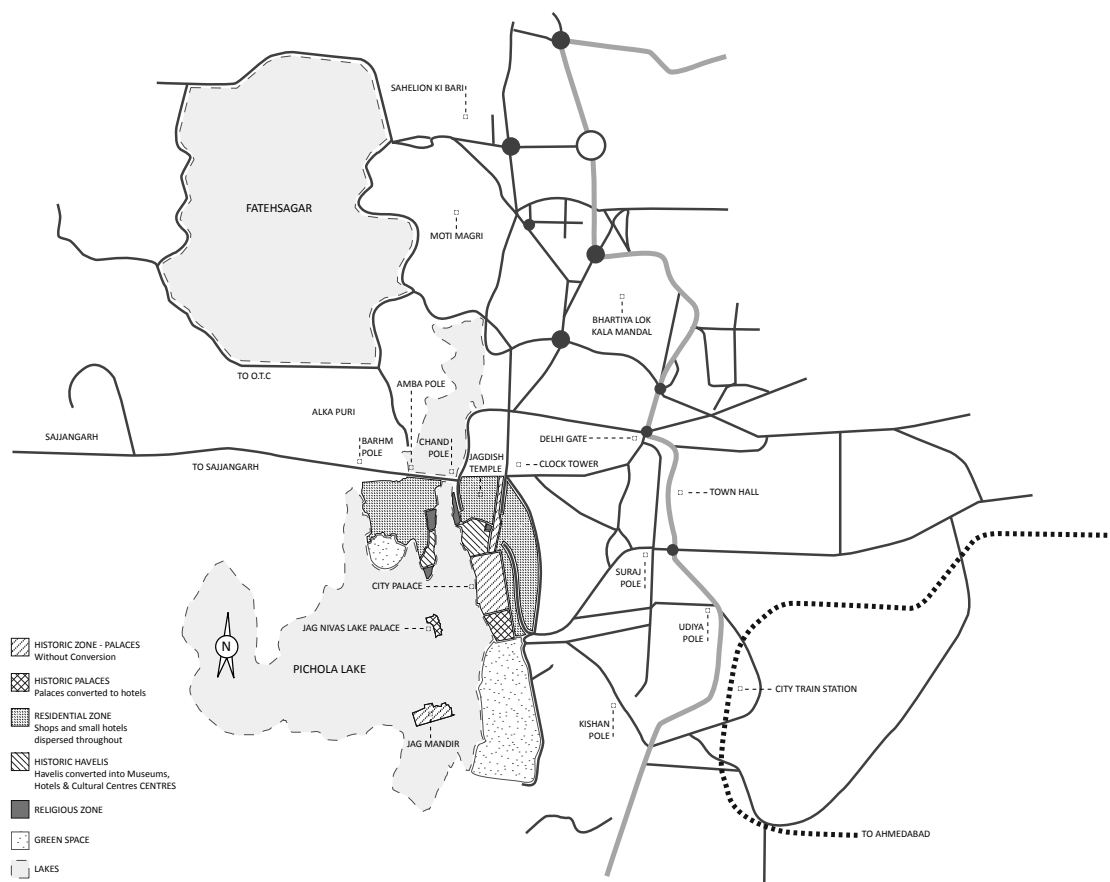


Figure 2:
Udaipur's Waterfront, Land Use and City Landmarks

converted into hotels, museums and cultural centers (Figure 2). Although, the social and political climate of the formative years led to definitive patterns of land use and hierarchies in the built form, they have diluted due to changes over time. However, certain influences still remain. These remnants are vital in maintaining the direct and tangible connections with the past. By acknowledging historic significance of particular built forms, an identity of monument is attained transforming perceptions and therefore preservation (O'Brien, 1997).

imposing and exhilarating sight cannot be imagined than the entire population of the city thus assembled for the purpose of rejoicing the countenance of every individual from the Prince to the peasant, dressed in smiles. Carry the eye to heaven and it rests on a sky without a cloud; below is a magnificent lake, the even surface of blue waters broken by palaces of marbles, whose arched piazzas are seen through the foliage of orange grove plantain and tamarind; while the vision is bounded by noble mountains, their peaks towering over each other and composing an immense amphitheatre" (Sen, 2000).

Architecture in Udaipur and the Significance of Water

Giving an account of the festive procession in Udaipur, Col. James Tod remarked: "A more

"Architecture, through its forms and materials, is the medium that connects or separates people and water" (Gurjar, 2004). Lake Pichola in Udaipur has been most instrumental in the development of its historic core and indeed the entire city. Historically, the lake

and its geographically secluded position provided the most ideal setting for the medieval settlement in terms of natural defense and opportunities for development. The lake makes a profound influence on the environment by bringing about favorable changes to the microclimate in a region where people are faced with low humidity, scorching heat and glare. Magnificent developments along the edge and within the water mass of Lake Pichola comprise of an array of diverse structures, a rich collection of monuments and spaces that create a distinctive architectural composition and environment along the lake (Figure 1). These iconic buildings could be extremely advantageous to the city's engagement to waterfront, but they currently act as barriers between the city and the lake. The human scale of the structures and associated heritage encourages vitality and tourism on the streets of the city; yet offer little connection to the waterfront. This is mainly as a result of the benefits offered to the royals at the detriment of the wider settlement. However, with the increased focus on tourism, access to water is now afforded through activities such as boat rides to enjoy the breathtaking views; to visit Jag Mandir – the floating pavilion (see Figure 2); and to provide access to the Jag Nivas Lake Palace Hotel (see Figure 2). Additionally, further south of the Palace complex a public park is also cited alongside the lake ensuring provision of an amenity that can benefit both, the tourists as well as the local community.

The built environment demonstrates effective use of the cooling quality of water. Gurjar (2004) describes how the still lake waters generate a sense of tranquility, repose and contemplation. In contrast, the fountains within the water mass create

a sense of liveliness through their movement and in this context particularly symbolize celebration. The very sight and sound of water has the potential to provide great psychological comfort in terms of coolness. The mirrored surface of the lake reflects its surroundings in the water, increasing its visual scale and prominence. Harmony and coherence in the visual composition of the different elements that together form the lakefront is enhanced due to the reflective properties of the lake. Here, the immediacy with water is instrumental in achieving this effect.

Physical Characteristics of the Built Form

The historic area along Lake Pichola achieves its sense of place through its distinctive organic order, density, vernacular architecture and a built form that is recognizable as a singular entity. Built form in Udaipur is a result of evolution that has been guided by dominant determinants such as its socio-economic hierarchy and structure, political and religious factors, climate, availability of materials and technology (Jain, 1998).

The overall form, settlement pattern and the massing of buildings in Udaipur are dominated by its physical attributes, in consonance with the topography and landscape, and ordered by the generative force of its landform and the lake. The built form is also evidence of additive layering of forms through building work that has taken place over a long period of time bringing together diverse functions and exhibiting distinctive traits and styles (Figure 3). The strategically located palace sits at the crown of a



Figure 3:
Additive Layering of the Built Form

hill, whilst the somewhat rectilinear city is set on the eastern slope. Due to existing lakes and hills, growth to the south and west of the city is limited. Now with no fear of invasions, the growth to the north and east is beyond the fort wall that previously controlled growth in these directions.

Large-scale primary religious and administrative institutions operate at the level of the entire settlement. They stand out as main elements against the pattern of the fabric and add structure to the area. The city palace and the lake palace, icons of the city, are representations of the power and grandeur of the bygone era. They command the city skyline by occupying the most secure and highest location in the city, their appearance symbolizing the dominant position of the royal seat, and reflecting the feudal

social structure of the medieval state. Its scale at the southern edge of the ghats (i.e. linear, planer elements or series of steps that are built parallel to the water and provide access to it) accentuates the dominance of the palace complex. The scale is however, broken down with the appearance of temple shikharas (i.e. tower and the highest point of a temple) and compact clustering and terraces of dwellings within the residential area towards the north (Figure 7 & 8).

The palace complex and its massive walls, havelis, temples, ghats and gates, pavilions and dwellings descend down to the water and lend a powerful linear prospect to the lake on its eastern edge (Figure 3). With the exception of temples, most structures along the lake are not accessed from the lakeside.



Figure 4:
Lake Façade and Its Elements

The waterfront is also lined with a number of other structures in the form of an isolated cenotaph and domed pavilions known as chattries that functioned as memorials in immediate proximity with the water. Also, there are pavilions and palaces such as 'Jagmandir' and 'Jagnivas' that are sited within the lake. Behind this edge lies a linear yet fluid clustered organization of dwellings along narrow streets within the dense residential fabric.

Waterfront Façade

A continuous façade is formed along the lake due to the positioning of various institutions, the relationship between them and the retaining wall. The elevation is dominated by the towering palace and fort walls (Figure 5) but is also characterized by temple shikharas and domes over chattries and pavilions which are intricately carved with geometrical and floral patterns. The most prevalent feature in the elevations of all buildings is the cusped or peacock arch supported by balustraded and fluted columns, which is characteristic of Rajput decoration. Extensive use of arched elements in the doorways and windows, use of sandstone and whitewashed walls in all the havelis, residential properties and temples help to achieve a visual coherence along the water's edge. Other repetitive elements such as recessed and projecting windows, colonnades and arcades, overhangs, brackets and balconies have been extensively deployed to provide visual link to the lake and benefit from the microclimate it creates (Figure 3). Windows are used as decorative features particularly when used with screens to offer privacy and reduce solar gain and glare. Local, distinctive, architectural elements such as these act as more than functional components by connecting history with the present. "The past, held in the urban fabric, is transmitted through time and made accessible to the individual through the experience of the sense of place" (O'Brien)

Street Pattern and the Public Realm

The street pattern was laid out to provide accessibility and create natural drainage on the hilly terrain. It is observed that the program and usage are influential factors contributing to the hierarchy of the street pattern. The principle streets identified were bazaar streets; offering a higher concentration of activities that were large in scale, connecting important nodes, punctuated by small and large squares and landmarks, and lead from city gates and culminate at the palace. (Figure 5) The secondary streets are those that contain commercial as well as residential

uses and the tertiary streets are those that lead to houses. The compact terraced form of houses generates the linear form of the street. Routes between nodes that are marked with prominent structures are currently lined with shops that might be of interest to the tourists. These streets adopt a particular identity, similar to that of a tourist quarter. The eastern edge of Lake Pichola is approached via some main arteries, a series of secondary and tertiary streets and from the palace complex. Despite the immediate proximity of structures with the water and the strong visual connections, there is a lack of physical access to the water; Gangaur Ghat is the only exception. This issue of division between city and waterfront has a powerful negative effect on the city and its residents. Even the large public green spaces on the southeastern edge of the lake (Figure 2) are fully segregated from the waterfront. The dominating barrier is a shame as the rest of the urban fabric is interlaced with connecting bazaars and streets.

The dense built mass is made porous by narrow winding streets and squares (chowks) playing a powerful role in the visual structure of the area and providing relief to the compact urban form (Naik, 1997). Important structures, their scale, and the activities they support identify the squares. A hierarchy in the scale of the squares is evident where larger squares attract people from all over the city while the smaller or more private squares cater for a limited number of people and retain intimate scale

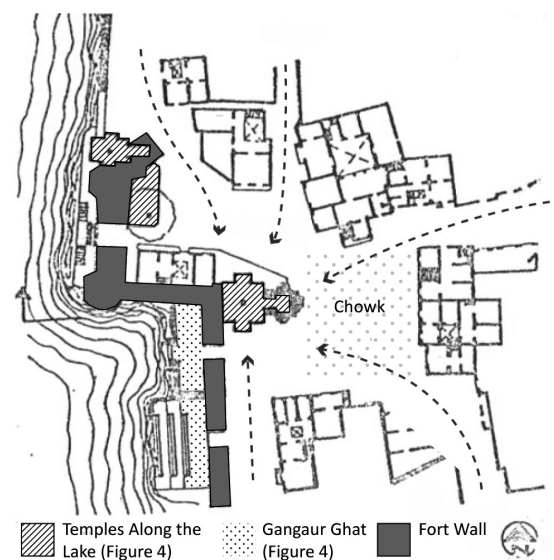


Figure 5:
Streets Leading to Temples, Forming Chowks

(Jain, 1998). Jagdish Chowk (i.e. square) is the most prominent public space, which is dominated by Jagdish Temple and is characterized by other temples, several shops and residences.

Engendering a strong sense of community and identity, individual houses of a particular neighborhood come together to form narrow streets and at regular intervals these streets meet to form a chowk within the residential quarter. (Figure 5) These chowks and cul-de-sacs are extremely private spaces shared only by houses within the immediate vicinity. This community spirit is further reinforced by the presence of private temples, sacred trees, wells and other local institutions that belong to the community and allow access solely to the local residents (Sen, 2000).

Cultural Quarter and Associated Activities

The palace dictated activities in the past that were of political and administrative nature. Although the lake served the purpose of natural defense initially, pavilions adhering and within the water mass were later built for recreational purposes by the royals and hosted cultural performances, religious festivals and celebrations. Over time activities in the area have changed considerably as now the palace complex and the lake with its floating structures serve to be the main tourist attractions for the city. With the advent of tourism, many of the palaces, havelis and residential properties in the area have been converted into hotels (Figure 4). Ground floors in residential properties have been converted into shops that sell tourist related items (Figure 5). The local community continues to use water for daily

utilitarian purposes at the ghats (Figure 6). Besides, bazaars and festivals are also celebrated on the ghats. The diversity in program is essential to the success of a waterfront. Flexibility and continuously changing activities create a vibrant waterside, emphasizing existing assets and promoting the 'image' of the city. Improving ones urban image is fundamental when a city becomes economically reliant on tourism. "What sells the city is the image of the city" (Short 1996).

Udaipur's Urban Microclimate - Existing State

Udaipur is a classic example of an Indian city where long decline of the waterfront environment, historic fabric and surviving artifacts is evident. This is due to several centuries of continued abuse and decay, lack of awareness and respect amongst the local community and tourists, developmental pressures, and inappropriate management of intense tourism, religious and domestic activities. Currently, this historic precinct is under alarming pressure and if this trend were to continue, the problems will intensify manifold causing serious threat to this valuable environment, its urban spaces and exquisite edifices.

This land-water interface at Lake Pichola is one of the most important architectural assets of the city; it contributes to the image of the city, it forms a backbone to the community and is the primary economy and activity generator for the city. Many of the havelis, palaces and residential buildings that have been converted into tourist accommodation and the areas in immediate proximity to them are in good order and well maintained (Figure 6). Parts of the palace have also been converted into a

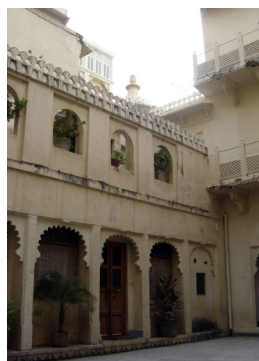


Figure 6:
Havelis Converted Into
Hotels



Figure 7:
Residences with Shops on
the Ground Floor



Figure 8:
Gangaur Ghat Activities

museum, an art gallery and shops. With the advent of tourism, commercial activities that have penetrated into the residential area and ground floor in most dwellings have been converted into shops or tourist accommodation (Figure 7). It is evident that adaptive reuse of buildings with merit and consequent investment in them has generated revenue and resulted in upkeep of properties. However, within the residential district, this change in use is fast altering the character of the streets and its traditional pattern of lifestyle.

INTACH (The Indian National Trust for Art and Cultural Heritage) have undertaken listing and documentation of important heritage sites and monuments in and around Udaipur on the same guidelines as those of UNESCO, some of which fall in this area. Important historic structures such as the temples, havelis and the Palace are already being conserved. However, these do not include other buildings or precincts of special cultural, traditional or socio-economic significance that are also worthy of preservation. Buildings, which are not of particular religious or historic relevance, have been ignored by the local community as well as authorities and stand in poor condition as a consequence of continued neglect. Building surfaces have not been maintained and are vulnerable to vandalism. Decorative elements of the facade have been damaged and covered with posters and graffiti causing further clutter (Figure 9). Large-scale hoardings and paintings are displayed on or across monuments, rocks, trees, and parks. Due to lack of resources,

living conditions of many residential properties owned and inhabited by poor families have not been maintained and are in various states of deterioration causing dilapidation (Figure 9).

Growth in tourism has led to tremendous increase in vehicular traffic causing air and noise pollution, and severe vehicle, physical and visual congestion along the access routes that were primarily designed for pedestrian use. Streets are also congested with stray animals and encroaching shopkeepers and hawkers. The area suffers from poor infrastructure and marginal inward investment resulting in lack of amenities, inadequate and highly unhygienic utility services and absence of an appropriate disposal system causing significant amount of litter and presenting a visually decaying picture (Figure 9). The general quality of the environment is very poor due to obnoxious smells from open drains and wastes of all sorts. Campaigns about environmental issues, sanitation and health have been conducted for the local community in the recent past; however they have failed to bring about change in peoples' attitudes.

It is evident that several new insertions, unlawful and unsafe additions, and alterations have been built over the years that are not sympathetic to the scale and traditional vocabulary of the area. Ruins have been built over or used as a source of building materials reflecting lack of respect for the past and vision for the future. New structures, electric poles and wires



Figure 9:
Visually Decaying - Hoardings, Graffiti, Electric Poles and Open Drains



Figure 10:
Unsympathetic New Insertions

have obscured views to historic monuments. High-rise concrete structures are jostling incongruously against old lime-mortar havelis and buildings (Figure 10). Ruins and buildings of architectural merit are vital in maintaining a direct and tangible connection with the past. By acknowledging historic significance of particular built forms, an identity of monument is attained, transforming perceptions and therefore instilling ideas of preservation into the community as well as tourists (O'Brien, 1997).

Some examples successfully incorporate the traditional vocabulary of architecture in the new buildings, evident particularly in large hotels (Figure 11). There is evidence of use of cusped arches, balconies and whitewashed walls in new buildings in an attempt to amalgamate with the existing built

context. However, the approaches adopted in the residential buildings are mere attempts at mimicking building elevations without a deeper understanding of the building type, form, orientation, the internal organization of spaces, and its implications on neighboring properties or indeed the already stretched infrastructure. The local authority has failed to monitor such ad-hoc and haphazard developments. Byelaws and guidelines with respect to heights, setback etc are not being followed.

Udaipur, a historic city, appears to have survived pressures of socio-economic, commercial and industrial growth and today is a very important tourist city with a peculiar charm, extensive history, and outstanding architectural and cultural heritage. The magnificent developments along the edge and within



Figure 11:
Use of Traditional Vocabulary in a Large Scale Hotel Conclusions

the water mass of Lake Pichola in Udaipur comprise of an array of diverse structures and spaces that create a distinctive architectural composition and environment along the lake. This unique environment along with the Rajasthan pageantry of color, festivities and traditional way of life accumulate to become the incredibly rich heritage that is “Udaipur”.

The built form of Udaipur has been sculpted by an evolutionary process resulting in a settlement dominated by its physical attributes and intrinsically linked to the topography of the surrounding landscape. Through time the settlement pattern and overall form have been governed by the socio-economic, climatic, political, religious, cultural and technological determinants. “A strong relationship with nature persists in the manner in which it structures the settlement, the linkage pattern, the positioning of institutions, religion and rituals. The unified image of the city is in effect a conglomerate of several smaller entities that are constantly changing and adapting to the needs of the time and place” (Sen, 2000). The study demonstrates that built form, organization, skyline, density, transport networks and visual networks - paths, nodes, landmarks, edges and districts lend identity and structure to a place. Besides, local activities, beliefs, aspects of daily life also lend distinctiveness to the historic city.

The success of the city is reliant on the rich architectural history and the intrinsic link between the urban fabric and the surrounding environment. The natural and man-made qualities of the city have been harnessed by transforming its assets into a desirable tourist location. When a city is developed to meet contemporary demands it is imperative that a waterfront is considered in the vision. Butuner (2006) describes the “interface between city and water” as ‘one of the most complex and challenging urban lands in cities.’ Udaipur’s waterfront possesses a unique relationship between water and the social life of the inhabitants predominantly supported by its rich cultural traditions and architectural heritage.

The residents rely upon the waterside in the ghat area for both menial and recreational activities, which should result in diverse programming and continuous vitality along the lakeside, regardless of time or season. However, the topography of the landscape and strong defense-driven design of the settlement has left the waterfront detached from the intricate network of streets and chowks. The notion of fluidity between destinations not only encourages onlookers to participate but also promotes Jane Jacobs’ (1961) concepts of safety and surveillance. The combination of activities strengthens the overall

vision of the city and improves the quality of each and every individual destination.

The street pattern of the city interconnects a series of public spaces; however the waterfront becomes physically detached due to the impenetrable continuous waterfront Palace façade and the fort wall. A gateway within the cultural quarter penetrates the barrier offering visual and physical relief on the eastern edge of Lake Pichola. At this point, pedestrians can successfully navigate between public spaces and the waterfront. Pedestrian links between activities are very important as recreational flow is becoming extremely popular to urban citizens (Liang and Cheng, 2009), emphasizing the need to lower the vehicular congestion generated by the increased levels of tourism. Waterfronts and cities designed for pedestrians reduce visual and physical barriers, develop a language human in scale, and enhance ones experience of the built environment. The absence of motor vehicles also improves identity within the city, encouraging community interaction, which will foster a sense of ownership. In a developing country, waterfronts offer tremendous hope and opportunity for tourism, growth, urban vitality, stronger economy and sustainable development. Achieving a balance between preservation and progress is fundamental in salvaging these waterfronts. An abundance of local workforces could be employed, utilizing their local knowledge and traditional skills to reclaim and restore surviving artifacts.

Palace architecture and its related structures through their built form, internal organization, elevations, and architectural elements demonstrate a very good understanding of their climatic and topographical context. They exhibit sophisticated understanding of the environmental and psychological benefits offered by water and natural landscape and employ them in various forms. Although the palace precinct has seen incremental process of building and growth by several rulers spanning almost five decades, they have managed to retain uniformity in design exhibiting excellent perception of aesthetics.

Jain (1998) shows that in terms of housing, there is a lot to learn from Udaipur and its organization where high residential densities have been achieved with low-rise buildings. It would be beneficial where a system for housing is to be developed with an aim to retain overall harmony and order yet allow possibilities for individual variations. The city’s housing stock, however, is subject to severe developmental and environmental pressures as a result of intense tourism related and commercial

activities, unwarranted and haphazard building activities, continuous neglect of residential properties, some of the historic fabric and surviving artifacts, and poor infrastructure. If future activity were to follow this trend, the magnitude of problems would intensify, causing serious threat to the surrounding landscape, the valuable edifices and the urban spaces that knit the fabric of the city together. The same care and appreciation that is seen by the temples and palaces, needs to be transmitted through the whole city and community. A cohesive, flexible vision that can adapt with economic and social changes and incorporate all aspects of development is fundamental when regenerating an urban waterfront.

Gospodini, (2000) says that “in the era of globalization, the relationship between urban economy and urban design, as established through out history of urban forms, is getting reversed: while for centuries the quality of urban environment has been an outcome of economic growth of cities, nowadays the quality of urban space has become prerequisite for economic development of cities; and urban design is consciously used as a means of enhancing the development prospects of cities”. Given this argument, preservation of this land water interface which plays a decisive role in solving critical urban, social and economic problems in this city, is vital. Menon, (1991) rightly points out that “it is evident that it is in such ‘impossible’ places, rather than in the relatively organized metropolitan cities of India, that the major problems of Indian architecture and planning manifest themselves and that these are not easily amenable to standard professionally defined interventions or the well-known solutions of urban renewal or restructuring”. Indian architects and planners look up to western ideologies and models but these must to be adapted and modified to suit the eastern, religion-oriented cities. Due to the priorities and pressures of a developing country emphasis is usually on modernization and often preservation of the vast and diverse architectural heritage and ensuring satisfactory quality of public space India is neglected. To save this historic lakeside, the strategy must embrace preservation of existing traditions, conservation of historic structures, sensitive and participatory planning and design, continued adaptive reuse of buildings, considerable improvement to infrastructure, appropriate re-organization of street activities, and management of building activity in the area. In this context, careful consideration of the implementation process, economic implications of a strategy and formulation of supporting administrative structures to deliver it is fundamental. Menon, (1991) points out that due to the inability of the municipal and government agencies to cope with layers and

depths of complexities, INTACH should be involved for the redevelopment of Ujjain as they are able to cut across departments and competing interest groups to forge new links and opportunities.

Marshall, (2001) states “The planning and design should not be a reflection of nostalgia of the old character or replication of the older forms but an attempt at recapturing the essence of it and finding new expression in the best of the modern design. Contextualism, in this sense, is not about the reproduction of the old but about the ability of the new to make relationships with the old”. The tradition of labor intensive building work, craft skills and decorative arts allows for the exploration and integration of ornamentation in Indian Architecture. A practice of imaginative reinvention and finding new ways of using the available timeless skills and technologies must be developed in new buildings.

Subsequent to Plague in 1994, the city authorities of the city of Surat forged partnerships with private sector and NGOs and with support of local population and introduction of stricter monitoring and enforcement undertook most comprehensive clean up operations which led to significant improvements in physical appearance of the city, public health and change in attitudes (Swami et al). This operation was successfully carried out without external funding or technical assistance and therefore demonstrated the capacity of local solutions and governments in developing countries in facing the challenges of rapid urbanization and improving the quality of life of all its residents. Sensitive organization and management of religious practices along with public awareness strategies about their detrimental effect on the environment will also be required.

To accelerate the process of environmental recovery and urban regeneration in Udaipur, cooperation between local authorities and the private sector must continue. Partnerships with multi-disciplinary design teams, the national government, and international conservation bodies will also be necessary however; continuous consultations with the local community will become central to success. Generating awareness amongst the local community is fundamental when attempting to implement a regeneration program. Regeneration strategies would have to be flexible and incremental, ones that suit the economic reality of the city. Considering the economic success enjoyed by the large hotel groups generated primarily due to their distinctive context, and given their contribution to the present environmental condition in Udaipur, funding for revitalization of the area should also

be sought from them. Private investment, when working alongside government authorities can be an effective regeneration tool. A balance between mixed-use profitable developments and important improvements to infrastructure and the public realm can be achieved.

Finally, given that historic cities in developing countries are now seeking to revive their waterfronts in response to the need for sustainable development, conservation and growth in tourism, it is fundamental that symbolic, religious and socio-cultural values remain central to future proposals and indeed reinforce the city's identity and be a catalyst for community pride.

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