

# Sindh's Historic Towns: Mapping and Analysis of Traditional Urban Centers in a Historic Timeframe

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## Abstract

*Sindh's built environment has been influenced by its physiographic features that historically posed severe challenges to human survival and sustenance; determining the pattern and growth of settlements. Of greatest impact has been the River Indus, whose treacherously unstable nature dominated settlement patterns, up till the 19<sup>th</sup> and 20<sup>th</sup> century. Widespread archaeological evidences reveal a well established network of planned cities and urban centers (dating 5000-7000BC); indicating several cycles of inhabitation and abandonment. Few cities have managed a continuous existence; surviving examples having suffered at the hands of insensitive developments, remain jeopardized by inappropriate planning practices resulting in a loss of their unique fabric. This paper presents a regional mapping of Sindh, identifying its historic urban centers through a systematic analytical process that also helps determine their value of significance. Four key parameters are identified as the main contributing factors shaping the built environment. The historic towns are reviewed in their historical perspective in conjunction with present growth and development patterns.*

## Introduction

South-eastern parts of Pakistan form the province of Sindh (also spelt as Scinde/ Sinde/ Sind) - having deep rooted history based on ethnic, cultural and linguistic lines - unique to the area. To define Sindh's urban historic built fabric, not only the tangible observables but also customs, religious beliefs/ practices and socio-cultural norms of the society, need to be reviewed and analyzed in a historic perspective.

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Many of Sindh's cities that once served as centers of learning, hubs of trade and commerce, and seats of power and administration, today suffer through a declined existence due to various political, administrative and social changes resulting from Sindh's annexation (1843) by the British and, later, due to the provincially polarized administrative approaches of post-Independence (1947) Pakistan.

The urban fabric of Sindh's historic cities has undergone many changes and continues to be under threat of major transformations due to a lack of their appreciation as valuable historic and cultural national assets, and the absence of political support to promote policies encouraging their conservation. Damages to historic environments go unchecked: there is little initiative for documentation and study of historic towns to define their value of significance and attempt their preservation. The lack of effective implementation tools leaves most historic towns vulnerable to pressures threatening their existence. The pressures of uncontrolled development result in demolition of old buildings in historic areas; replaced by new, multi-storied, constructions. In places with lesser growth pressures and depressed local economy unable to sustain its community, the historic fabric is jeopardized by a lack of interest and resources on part of the residents/ owners, resulting in inadequate maintenance. There is thus an urgent need to identify the important historic towns of the region, build awareness and appreciation for their unique values, and recognize their significance and potentials through viable policies for regeneration.

## **Research Methodology**

The research methodology involves a literature review of historical sources on Sindh, aiming to consolidate the existing fragmented and scarce information on historic environments; and build on it through updated field data. The research addresses issues of deficient scientific exploration on the case study region of Sindh – particularly what defines significance and identities for historic urban places, their regional level mapping and classification of historic towns. The method uses as a starting point, predefined and well established definitions of towns and urban centers (Carter, 1983; Garnier and Chabot, 1967); applied to review Sindh in its historic perspective, short listing its towns of historic significance. These were then studied in detail to identify the core factors shaping their traditional built form.

## **Sindh : Background to the region**

Sindh is Pakistan's second largest province (in terms of population), spread over an area of 1, 40,914 km<sup>2</sup> (54407 miles<sup>2</sup>). The last census (1998) shows its population as 30.44 million, forming 23% of Pakistan's total for that year (GoP, 2009; IUCN, 2007). Census records indicate the province as being the most urbanized region of the country; particularly the post-Independence figures reflect upon a rapid urbanization – its urban population increasing from 29.24% in 1951 to 48.9% in 1998.

### **Geographic location and topographic divisions**

Located at the far western corner of the Indian Sub-continent, Sindh geographically enjoys a strategic position at the crossroad of cultures (Figure1). Added to this is the advantage of its River (Indus) flowing across its center along N-S axis, linking to the sea in the south; connecting it both regionally and globally. This connectivity has been the reason for Sindh's economic prosperity and cultural enrichment; but creating vulnerability to territorial occupation from outside forces.

The boundaries of Sindh as understood in present times,<sup>1</sup> are largely defined by natural features of the landscape; on the west adjoins Baluchistan with Kirthar Mountain Ranges creating a natural demarcation; southwest limits are marked by the Arabian Sea; on the south is the Runn of Kutch, a vast salt waste flooded and converted into a salt lake during monsoons and changing into a flat, firm and bare desert during dry seasons; the eastern boundaries adjoin the Indian States of Rajasthan and Gujarat with Rajasthan Desert forming a natural barrier; and on the northeastern side lie the plains of Punjab (IUCN, 2007, Sorley, 1959, Thornton, 1844). Sindh is categorized as the 'Lower Indus Basin', but due to the varied physiographic features within, it is divided into four distinct sub-regions (Figure 2).

- Kirthar Mountain Range (*Kohistan*)
- Desert Belt (Tharparkar)
- Alluvial Plains
- Indus Delta

These areas also have their particular ethnography, dialect and folklore. Located in an arid zone, Sindh receives limited rainfall (100 to 200mm per year) (IUCN, 2007), depending entirely on the Indus as its only perennial source of water. Climatic conditions vary substantially in upper, middle and lower regions of the province (IUCN, 2004; Thornton, 1844).

Strategic geographic location and diverse topographic characteristics of Sindh have played a vital role in shaping the regions' built environment. Turbulent political history, polarized administrative structure and strained socio-economics, have all influenced the region's urbanization process. Religion and economic power have always been the main determinants of political dominance in the Sub-continent; Sindh being no different - these have remained central in determining its societal dynamics. Since the Arab conquest (8<sup>th</sup> century), the region has remained under Muslim political control, but other religious factions always had a prominent presence.

### **Indus: the lifeline of Sindh**

The lifeline of Sindh is its river, so much so that the region takes its name from the Indus.<sup>2</sup> Originating in Tibet some 1800 miles away from the sea, at the foothills of the sacred Kailas Mountains (22,000ft. above sea level) and flowing through Kashmir, North West Frontier Province, Punjab, the Indus finally enters Sindh near the town of Kashmor; crosses over its entire length and falls into the Arabian Sea. Within Sindh the length of Indus is about 580miles, and its width varies from 439–1463 meters depending upon the season and the levels of inundation. These annual inundations and swelling of the river channel was traditionally used to their advantage by the inhabitants; channeling the waters to the far reaches of the plains. Throughout its course in Sindh, the Indus has only two stable portions (at Sukkur and at Kotri near Hyderabad), the remainder being treacherously unstable and unpredictable, especially before extensive embankments were built under the British administration. Prior to this the extent and rapidity with which Indus changed its course contributed immensely in the region's history and shaping of its settlement pattern. Before colonial period the Indus also served as the major highway for the region, continuing to serve this purpose till the latter half of the 19<sup>th</sup> century when development in extensive roads and railway network took over. British interest in the region had originated with their desire to use the Indus as an artery of communication - both for commercial as well as military purposes.

### **Origins of urban settlements in Sindh**

Archaeological discoveries indicate inhabitation in Sindh going back to the Mesolithic, Paleolithic and Neolithic ages (Pithawalla, 1936). It is as early as the prehistoric periods that the roots of Sindh's urbanization are traced; a plethora of archaeological evidence places this region amongst the world's earliest of civilizations (traced back to the 7<sup>th</sup> millennium BC) with a well developed network of urban centers spreading over an area covering more than one million square kilometers; with cities having 'extensive and complex architectural structure and site plan'; (Possehl, 1999; Flam, 1999).

The predominant settlement pattern in pre-historic times was to locate larger towns of a more permanent nature with high population density, along the river; shifting with the changes in the river course. In addition, a considerable degree of habitation existed in areas distant from the river but having natural water reservoir or seasonal torrential streams; with settlements of a less permanent nature and nomadic population. Such communities still exist in Sindh; the oldest surviving ones being the '*kohlis*' (hunters and gatherers) and '*bhils*' (cattle herders) of the Thar Desert and the '*mohanas*' (fishermen) or boat people of Indus (Ondaatje, 1996; Wikipedia, 2009).

The start of 6<sup>th</sup> century BC marks the beginning of Sindh's recorded history; historic periods being classified under five distinct subgroups (Hughes, 1876; Pithawalla, 1937):

- Persians (515-330BC)
- Greeks (325-130BC)
- Indo Scythian/ Hindu Dynasty (2<sup>nd</sup> BC-7<sup>th</sup> AD)
- Arab Empire (8<sup>th</sup> -11<sup>th</sup> AD)
- Dynasties of Native Rulers (12<sup>th</sup>-19<sup>th</sup> AD)  
**Samras** (1053–1350), **Samas** (1351–1521), **Arghuns** (1521–1554), **Tarkhans** (1555–1608), **Kalhoras** (1701–1783) and **Talpurs** (1783–1843)

A review of Sindh's history indicates that cities and capitals were built, abandoned, sometimes destroyed and occasionally re-inhabited, mostly due to hydrographical and natural calamities, but sometimes at the whim of the ruling authority or the challenging power. The pattern of settlements and administrative structure, however, remained similar till the mid 19<sup>th</sup> century when major transformations occurred as a consequence of British annexation of Sindh in 1843.

## **19<sup>th</sup> AND 20<sup>th</sup> CENTURY POLITICAL MILESTONES OF SINDH'S TRANSFORMATION**

### **British colonization**

Sindh's annexation brought with it a period of major transformations: social structure, traditional institutions, landscape, built environment and urban systems, economies, legislative and administrative frameworks - everything ingrained for centuries was put on a new path of 'reformation'. Changes were rather abrupt and often incompatible, gradually changing the social and economic character of the society in Sindh (Khuhro, 1999). Progressive developments in physical infrastructure opened up a new era of advancement and growth. Improvements in communication links (road network and

railways), the harbor/ port facilities and irrigation, provided new opportunities in commerce and trade. For the British, Sindh remained as a military outpost, thus large cantonments were also established throughout the region changing the landscape and scale/ character of Sindh's cities.

The pre-colonial traditional society in Sindh had tribal affiliations and bonds: but its urban centers were multicultural, having an ethnic and a religious mix. Through traditional obligations and customs a balance for peaceful co-existence prevailed between different communities and tiers of society. The arrival of colonial systems disturbed this balance, creating serious differences and conflicts, resulting in a ruptured society. The major elements of transformation were:

- Extreme empowerment of Hindu traders and moneylenders, resulting in increased indebtedness of the local landowners and agriculturists, mostly Muslims, who started to lose control over their ancestral land (Cheesman, 1982; Khuhro, 1999).
- Redefinition of Sindh's role in the regional and international economic context; from active participation in a wide-ranging system of inter-regional and international trade and commerce, to that of an outlet for the agricultural production of the Punjab (Markovits 2000).
- Replacing the land tenure and revenue systems traditionally practiced in Sindh, based on resource perceptions and a judicious concern for ecologically-balanced use of land, with colonial systems based on a generalized understanding of agriculture in the Indian Empire, which differed substantially from the conditions in Sindh (Chablani, 1951; Postans, 1843; Rahman, 1993).
- Prior to British conquest towns served mainly as administrative headquarters, but additionally had a sector of crafts and industries; their products renowned internationally during the 17<sup>th</sup> and 18<sup>th</sup> century, and given patronage by the royal families, and associated elites. These underwent a gradual decline following the industrial revolution in Europe; and collapsed completely during colonial times due to disappearance of the aristocracy.
- In the education sector systems based on religious and social traditions were weakened by a lack of governmental support; and replaced by new systems based on Western ideology.
- British colonization had a major impact on the built fabric: traditional environments were seen with disdain, often described as squalid, dingy and wretched, thus

requiring to be sanitized through introduction of municipalities. Colonial developments however, remained divorced from native town areas, creating a dichotomy in the urban fabric, with distinct 'native' and 'European' sections, marked by completely different sets of planning principles. The smaller towns and villages however, retained their character, not much influenced by the colonial trends.

### **Post-Independence demographic changes**

India-Pakistan Partition in August 1947 was another major turning point in Sindh's history, when resulting mass migrations brought about a complete demographic change in the province. The provincial borders within the new state of Pakistan allowed retention of linguistic and ethnicity based entities, but in Sindh the mass exodus of its

Hindu and Sikh population caused a major shift of communities, taking away a population with cultural and emotional associations; replaced by an influx of non-Sindhi Muslims from various parts of the sub-continent having their own, very strong, cultural ideals - unable to develop the same degree of attachment or association with the Sindhi culture.

A clear conflict of interests developed between the Sindhi Muslims and the non-Sindhi Muslim migrants (Ansari, 2005); the former struggling to retain the regions' ethnic and linguistic identity, while the latter fighting to carve out a place for themselves as an emergent community and a political power in their newly acquired homeland. The post-Independence society of Sindh has complexities of ethnicity, power, religion and language. Sindh's urban centers, mainly Karachi, Hyderabad and Sukkur, have become strongholds of Urdu speaking immigrant *Mohajirs*. But the provincial powers, both politically and economically, remain in the hands of the agrarian elite or the Sindhi landlords (*waderos*), having large land holdings and unquestioned influence on the Sindhi middle class majority. Election results in the past few decades show a *Mohajir* political dominance in urban constituencies forming one-third of Provincial Assembly seats, however, the remaining two-thirds are controlled by Sindhi landlords; resulting in a very unstable provincial government.

### **Evolution of Sindh's Urbanization trends**

Urbanization in Sindh is generally associated with the unprecedented post-Partition expansion of its cities, but a review of its historical background indicates much deeper roots. Prehistoric settlements aside, the historic period itself shows a particularly high rate of urbanization, which according to Mariwalla (1981) was due to the region's

privileged position at cross roads of major maritime and land trade routes. Descriptions of Sindh's cities from the 9<sup>th</sup> – 10<sup>th</sup> centuries reflect a well developed network of large and small towns, having a nucleus centre - the seat of ruling authority. Smaller towns served as feeders to the larger system. More detailed accounts of later centuries reflect upon the existence of multi occupational and socially stratified complex urban centers. Up to early 17<sup>th</sup> century the urbanization process and the rise and decline of cities depended on hydrology and hydraulics. During the 17<sup>th</sup> century Sindh was annexed to the Mughal Empire, initiating the irrigation schemes, which were further enhanced by the Kalhora and Talpur rulers during the 18<sup>th</sup> and 19<sup>th</sup> centuries, stabilizing cities and settlements.

Mid 19<sup>th</sup> century colonization brought further advancement in irrigation, along with improvement in communication networks; further encouraging the rapid growth of towns. New towns emerged as new districts were created, and their administrative centers were formed. Urban centers however, maintained a close link and dependence on their adjoining rural hinterland, as well as the 'towns and cities of Balochistan, the Punjab and the North-West Frontier Province' (Markovits, 2008). The port of Karachi and the railways network also linked up with extensions beyond the limits of the province; northeast into Punjab, eastwards into Rajasthan and northwest into Balochistan. The economic prospects created generally in Sindh, and particularly in Karachi, encouraged migrations from parts of the subcontinent, now well connected through railways.

The pre-Partition urbanization process in Sindh was planned and well organized, but mass migrations during the first decade after Partition resulted in a rapid urbanization of unprecedented scale and magnitude. Sindh was profoundly affected because of its limited natural resources; with a drastic cut in its revenues due to Karachi being taken over by the central government as the capital. Conflicts in political structure due to demographic changes, and an increasing polarity with the center, took the focus away from immediate issues and problems of rapid urbanization, resulting in an urban crisis that remains unresolved.

### **Sindh's Historic Towns of Significance**

A brief literature review on definition of towns identify two main factors - size and function as the most important determinants for designating places the status of a town. The aspect of size is dealt through information from census records (examining all towns with a population >20,000). A literature review on urban centers, combined with that of Sindh's urban history, provide with the following list of important historic

functions (including detailed sub-divisions where a variety within the larger function exists) identified as significant in the urbanization process of towns:

1. Important Nodes of Trade and Transit

- ◆ Caravan Route
- ◆ River Port
- ◆ Sea Port
- Railway
- Highways/ Roads

2. Defense or Military Importance

- ◆ Walled City
- ◆ Fort
- British Cantonment

3. Administrative Center

- District Headquarter
- Provincial/ National Capital
- ◆ Native Rulers' Capital

4. Religious Center (Shrine/ Pilgrimage Place) ◆

5. Archaeological Importance ◆

6. Center of Traditional Crafts and Industry ◆

(◆) represents historic functions pre-dating colonial period

(●) denotes functions of significance during colonial period

A tabulation of Sindh's cities (Table 1) for the identified historic functions indicates that all urban centres of present times are tied with one common factor, their link with the modern communications network; the railways and highways. Cities with a population of >100,000 are mostly those which in addition to being well connected also served either as district headquarters or important British cantonments. Historic towns grew only if they were given administrative or military importance during the colonial period.

Seven historic urban centers were identified among cities with present population of more than 50,000; others come within the range of medium and smaller cities. Through

this process of sifting information on size of towns and their historically important functions, fifteen surviving urban centers emerge as towns of most significant historical value contributing to urban traditions in the region; indicating specific function/s or value of significance for each identified town. These are listed in order of highest number of historic pre-colonial functions as follows:

**Thatta** (having a combination of seven historic functions)

**Hyderabad and Sukkur** (combination of six historic functions)

**Karachi** (combination of five historic functions)

**Rohri, Mirpurkhas and Sehwan** (with four historic functions)

**Hala and Shikarpoor** (with three historic functions)

**Jacobabad, Kotdiji and Khairpur** (with two historic functions each)

**Umerkot, Jhampir, Jherruk** (with one historic function)

To develop a typo-morphological classification ten cases from the above shortlisted towns, for which sufficient information was available, were studied in detail. The process included developing a historic profile for each case, in conjunction with close examination of maps to analyse the morphological development and growth pattern of the built form. Findings from this analysis helped identify four basic parameters - function, topography, geographic location (impacting the development of communication links) and period contributions, as the primary factors shaping the built environment of these places (Table 2). The first parameter of function, having its base in overall historical research on development of towns and history of Sindh has already been discussed above. Following is a brief explanation of the remaining three:

**Topography:** In Sindh the choice for location of towns was from the viewpoint of defense as well as the possibilities for agriculture, trade and settlement. The four types of locations used are: firstly, the hilly terrain providing possibility of natural defenses, either set within the central alluvial region (Sukkur, Hyderabad, Thatta) or on the periphery of the arid zone (Kotdiji); secondly, the flat alluvial plains within the zone covered by natural inundation of the Indus (Khairpur, Shikarpoor, Jacobabad); thirdly, the plains of the arid zone located on the periphery and fed by the outreach canals (Mirpurkhas, Umerkot); and lastly, the deltaic plains along the mouths of Indus (Karachi).

**Geographical importance:** Existing communication links are taken as the main indicators for this aspect, including the railway, the highways and the regional road network. Link to the railway became an important factor in the growth and decline of the cities during the 20<sup>th</sup> century. Towns not being connected to it (Thatta, Umerkot, Kotdiji) show little or practically no economic growth. The development of an extensive network of highways, based on modern standards, is a more recent phenomenon in Sindh (1990s); prior to which the intercity road links merged into the local road

network. The present major highway along N-S axis bypasses most cities on their periphery, except for Karachi which serves as the terminus of all national highways. Other cities in which the highway cuts through (Jacobabad, Mirpurkhas, Umerkot) are those not directly on the main N-S grid, thus with lesser traffic pressure and still functioning with the older inter city roads. The last indicator of geographic importance is the pattern of regional roads. Cities lying on the regional and sub-regional cross roads (Shikarpur, Mirpurkhas) have a radial pattern, with intercity roads from different directions, resulting in a concentric growth pattern. Other cities have a more linear road network, dictated either by topographical constraints or by their geographic location on a linear communication grid.

**Period contributions:** Based on an understanding of the region's history three sub-groups are defined; including pre-colonial, colonial and post-independence periods. Although the pre-colonial period has subdivisions within, as different dynasties contributed in the development of society and cities, but research based information on these is lacking, hence all dynastic periods are grouped together, and their detailed parameters are developed on basis of a brief analysis of the fabric of case study towns. For the colonial and post-Independence periods the understanding of built form is better achieved because of the existing literature and documentation on these latter periods.

The exact extent, magnitude and impact of even these periods for any specific case can only be achieved through detailed documentation of their existing built fabric.

The four identified key parameters tabulated (Table 2) for the ten case studies indicate a diverse variety; each town having a different set of elements or factors contributing to the development of its urban form. It is suggested that instead of attempting to group towns under a standard pre-defined typology, a better suited approach is to have an inductive process that allows incorporation of the diversity and variety existing within the region. It is unlikely to develop a standardized typology of towns if all contributing identified factors are taken into consideration. However, these four key parameters serve as a binding factor in the typo-morphological analysis, on the basis of which case studies can be evaluated for commonalities in growth pattern or morphological form; or dissimilarities and uniqueness.

### **An overview of the typo-morphological analysis**

Morphological analysis of Sindh indicates a pattern of settlements historically prone to the vagaries of nature. Even places of more permanent nature could not survive the

destructive effects of hydrology or that of abandonment due to shift of population. The entire region is thus filled with archaeological sites left as evidences of the lost cities and urban centers. Few urban centers of early historic periods have managed to survive till present times. The oldest surviving cities as indicated from the historic timeline of Sindh (Table 3, Figure 3) are those placed at stable locations of the Indus; i.e. Sukkur-Bukkur-Rohri, Sehwan, Hala and Hyderabad (the first two being strategic island fortifications). From the 14<sup>th</sup> century local Dynasties were established in Sindh, bringing in more stability and prosperity to the region. But the singular element of primary significance up till the mid 19<sup>th</sup> century remained the River Indus, the highway of communications, thus the main contributor to economic prosperity and urban growth. During these earlier centuries (14<sup>th</sup> – 17<sup>th</sup> century) settlements concentrated along the main channel of the river; and the concept of a large capital town emerged<sup>3</sup>. In addition, the boundaries of the region were guarded by fortified points at strategic locations of entry into the regional boundaries from neighboring lands; examples being Ranikot, Umarkot, Manora (in addition to Bukkur and Sehwan which continued to serve as central military strongholds). Some of these border forts developed into small cities during 19<sup>th</sup> and 20<sup>th</sup> century (Kotdiji and Umerkot), whereas others lost their significance and remain abandoned as archaeological ruins (Ranikot and Islamgarh). By 18<sup>th</sup> century a certain degree of control was achieved over natural resources, through introduction of irrigation system, allowing flexibility in further developing and expanding the sphere of settled areas.

Hyderabad superseded Thatta as the 18<sup>th</sup> century capital of the region, which till these times remained as the focus or hub of all activities, fed in by a system of smaller supportive towns with their own specific crafts or agriculture based expertise. Towards the end of 18<sup>th</sup> century, establishment of the Talpur Dynasty brought with it a newer concept of a more decentralized and multi-centered form of administration with three capital towns (Hyderabad, Khairpur, Mirpurkhas) and two main centers of trade and commerce (Karachi and Shikarpur). The scale of cities, the pattern of their settlements and the administrative systems up till these times, however, remained very similar. Mid of 19<sup>th</sup> century colonization of Sindh brought a change in administration pattern and scale of developments in the built environment. The growth and economic prosperity of cities became tied to the communication links and mode of transportation; revolutionized during this period. The 20<sup>th</sup> century's legacy of industrialization and capitalization has also contributed to the shaping of built environment: but impacts of these in the case of Sindh have remained concentrated in and around Karachi resulting in an overexploitation of natural resources, adversely affecting the region's ecosystem.

## Conclusions

The strategic geographic location of Sindh – serving as an entry point into the Sub-continent has played an important role in the developments of cultural and political trends experienced in the region. It has served as a junction of cultural and political exchanges for sea faring as well as land interlocked nations that consecutively conquered this land. The borders of Sindh fluctuated, but the region has maintained its entity throughout its history. Change in political, socio-cultural and religious influences brought with them different representations; new expressions in built form were adopted, previous traditions sometimes completely ignored, but mostly finding a niche within. Although much of the built environment has undergone radical changes at different times, but there still remains substantial evidence that enables us to read the multilayered historic traditions of the region.

The regional level mapping of Sindh's urban centers (Figure 3) produced through this research provides a comprehensive picture of the urbanization pattern, key factors contributing to the process and the characteristics of significance for surviving historic places. The research consolidates existing information into a holistic regional perspective, accentuating the importance of different factors as determinants of the typo-morphological form of cities. The regional level map helps reinstate the historic significance of towns, especially those like Thatta and Umerkot that no longer hold importance in today's economy and development trends; re-affirming their place as important historic urban centers and national heritage assets.

The historico-geographical and typo-morphological analysis resulting from this research identifies a need for detailed documentation of all the identified historic towns. It indicates a variety and diversity existing within the region due to the range of physiographic and climatic conditions; further varied by a complexity of religious, ethnic and socio-cultural affiliations; thus a need for acknowledging each case as having a degree of uniqueness requiring adoption of an all embracing approach for their documentation and analysis. In addition to identifying the significant historic towns, the inclusion of archaeological sites in the regional mapping process emphasizes their importance in the development of urban traditions in Sindh, giving a comprehensive picture on the settlement pattern that evolved over centuries. Identification of archaeological sites as an important component of the region's urban history is an attempt at bridging the existing gap between archaeological and urban studies, presently undertaken in isolation without any exchanges either at academic or professional levels.

The historic towns of Sindh are invaluable resources that provide insights into regional capacities and potentials developed and sustained over centuries. In order to seek a place for this unique built heritage of the region within the present development plans it is of utmost importance to recognize their significance and understand their inherent values. This analytical research process contributes towards an understanding of the concept of urban/ historic town conservation as a significant area of professional development; and gives a frame of reference to acknowledge the need for linking these with planning policies and development processes visualized at a regional level.

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<sup>1</sup> Historic texts define Sindh's boundaries extending much beyond the present limits. Chachnama (mid 7<sup>th</sup> century) mentions its boundaries under Rai Dynasties extending up to Kashmir on the east and Makran on the west, the sea on the south and hills of Kardan and Kaikanan on the north; whereas Tohfatul Kiram (1774) mentions the boundaries extending east to Kanaj, west to sea of Oman, north to Kandahar, Sistan and Suleman mountains and south to the port of Surat (Chablani, 1951).

<sup>2</sup> Raverty claims the word 'Indus' derives from the Sanskrit word '*Sindhu*' [literally meaning the sea or collection of waters (Ross, 1844)] which was Europeanized by the Greeks into *Sinthus* and by the Latin's into *Sindus* - the name given to the river by the inhabitants, according to Pliny (Sorley, 1959; Thornton, 1844).

<sup>3</sup>The concept of a large capital town emerged, with Thatta being the earliest example of it. The earlier fortified locations were maintained as military posts. Thatta had prospered for centuries as a major river port, but even after its decline due to changes in river course, probably was the only historic port town that managed to retain its existence; however, in the later developments of 19<sup>th</sup> and 20<sup>th</sup> century it did not come within the newly established sphere of urban networks thus never regained its lost grandeur.

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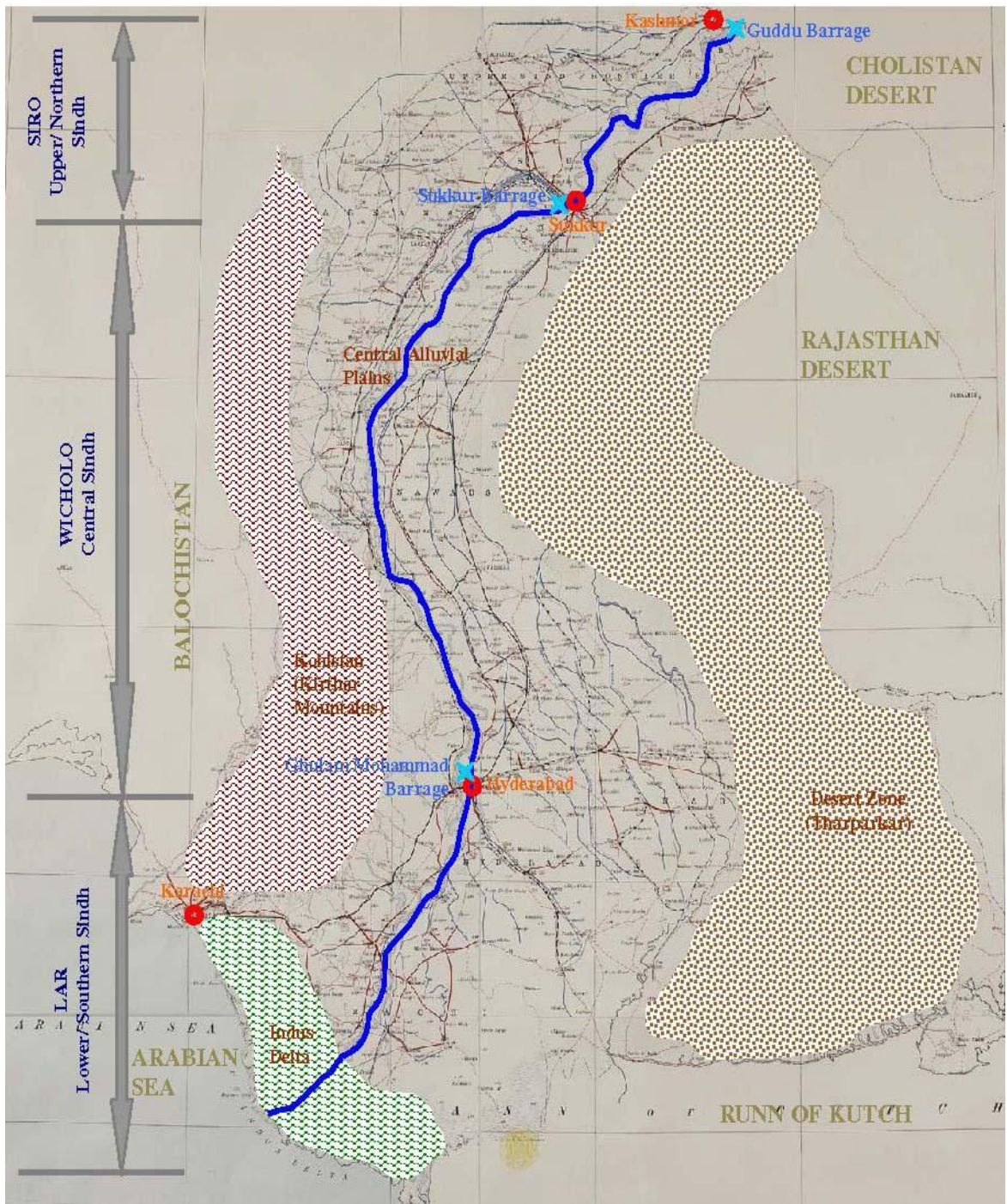
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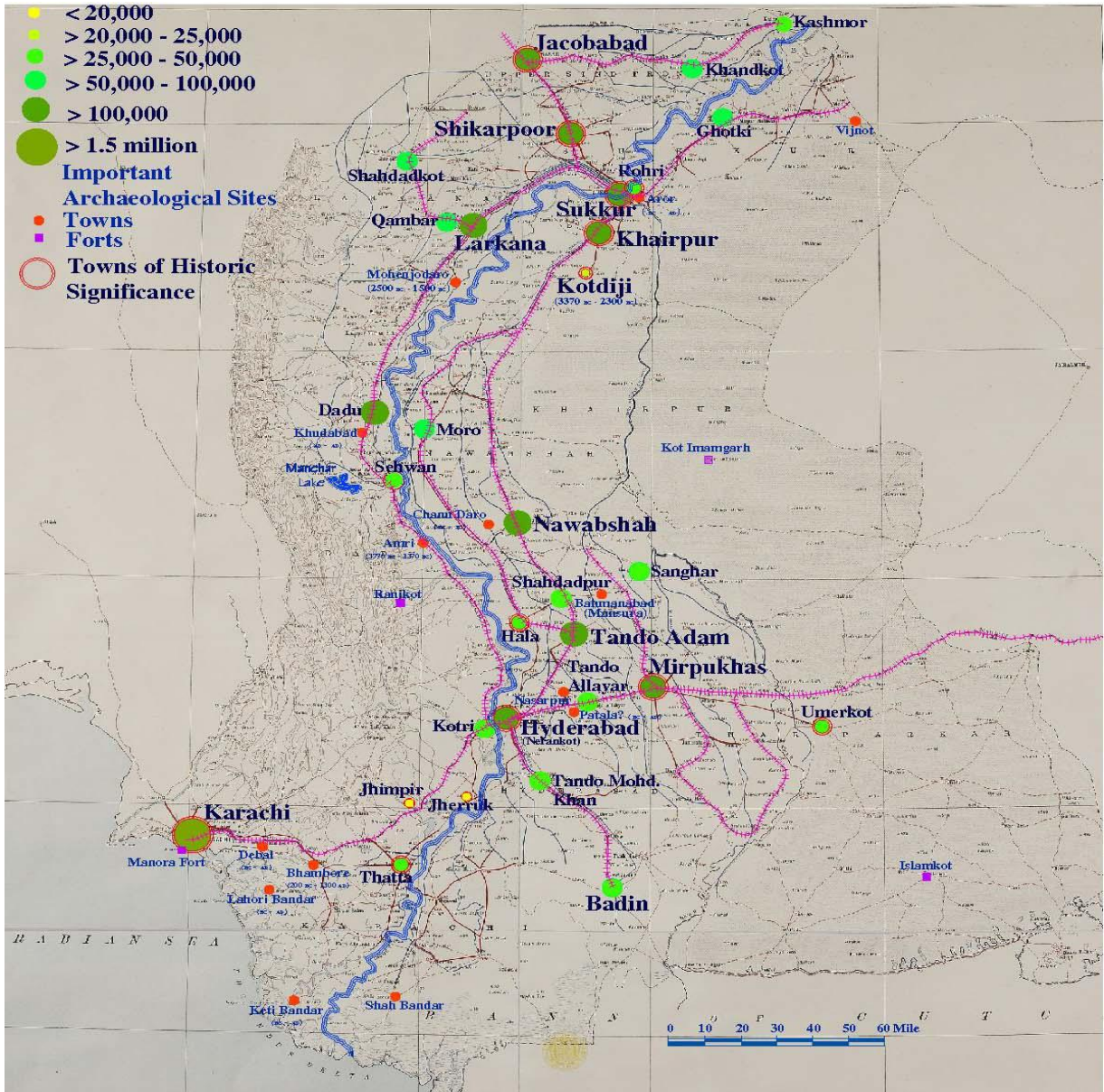


-  **Persians (6<sup>th</sup> BC) and (1739AD):**
-  **Greeks (4<sup>th</sup> BC):** Three routes of Alexander’s march into Sindh; via Khyber Pass, via Mula-Bolan Pass, and sea route via Mekran and Persian coast
-  **Buddhists (2<sup>nd</sup> BC):** From Ganges Valley worked their way into the Indus Valley
-  **Arab Invasions (8<sup>th</sup> AD):** Via Shiraz through Mekran and Lasbelah to Sindh; naval force sent by sea to meet at Debal
-  **Afghans (1794 AD and 1809 AD):** From Kandahar marched into Shikarpoor
-  **British Invasion (1843 AD):** From Bombay into Indus Delta

**Figure 1:** Regional Map of Asia showing location of Sindh and directions of incoming influences.



**Figure 2:** Topographic Sub-divisions of Sindh.



|                    |   |
|--------------------|---|
| >1.5 million       | Karachi   |
| > 100,000          | Tando Adam, Sukkur, Nawabshah, Shikarpour, Mirpurkhas, Larkana, Khairpur, Jacobabad, Hyderabad, Dadu              |
| > 50,000 – 100,000 | Badin, Ghotki, Qambar, Kotri, Khandkot, Moro, Sanghar, Tando Allahyar, Tando Mohammad Khan, Shahdadpur, Shadadkot |
| > 25,000 – 50,000  | Umarkot, Thatta, Hala, Sehwan, Rohri, Kashmor, Gambat   |
| > 20,000 – 25,000  | Kotdiji   |
| < 20,000           | Jhampir, Jherruk  |

**Figure 3:** Map of Sindh showing the present urban centers/ historic towns, along with important archaeological sites. The figure also indicates the relationship of settlements with the railways network and the present course of river.

| Centre of Traditional Crafts and Industry | Archaeological Importance | Religious Center (Shrine/ Pilgrimage Place) | Administrative Center |                        |                        | Defence/ Military Importance |      |                    | Important Nodes of Trade or Transit |            |          |         | Cities of Sindh | 1998v Census Figures |                 |
|---|---------------------------|---|-----------------------|------------------------|------------------------|------------------------------|------|--------------------|-------------------------------------|------------|----------|---------|-----------------|----------------------|-----------------|
|   |                           |   | District Headquarter  | Prov/ National Capital | Native Rulers' Capital | Walled City                  | Fort | British Cantonment | Caravan Route                       | River Port | Sea Port | Railway |                 |                      | Highways/ Roads |
|   | ♦                         |   |                       | ●                      |                        | ♦                            | ♦    | ●                  | ♦                                   |            | ♦        | ●       | ●               | Karachi              | 92,04,480       |
| ♦   | ♦                         |   | ●                     | ●                      | ♦                      | ♦                            | ♦    | ●                  |                                     | ♦          |          | ●       | ●               | Hyderabad            | 11,66,894       |
| ♦   | ♦                         | ♦   | ●                     |                        | ♦                      |                              | ♦    | ●                  |                                     | ♦          |          | ●       | ●               | Sukkur/ Bukkur       | 3,35,551        |
|   |                           |   | ●                     |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Larkana              | 2,70,283        |
| ♦   | ♦                         |   | ●                     |                        | ♦                      |                              | ♦    |                    |                                     |            |          | ●       | ●               | Mirpurkhas           | 1,89,671        |
|   |                           |   | ●                     |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Nawabshah            | 1,89,244        |
|   |                           |   | ●                     |                        |                        |                              | ♦    | ●                  | ♦                                   |            |          | ●       | ●               | Jacobabad            | 1,38,780        |
|   |                           |   | ●                     |                        |                        | ♦                            | ♦    | ●                  | ♦                                   |            |          | ●       | ●               | Shikarpoor           | 1,34,883        |
| ♦   |                           |   | ●                     |                        | ♦                      |                              |      |                    |                                     |            |          | ●       | ●               | Khairpur             | 1,05,637        |
|   |                           |   | ●                     |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Tando Adam           | 103,363         |
|   |                           |   | ●                     |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Dadu                 | 1,02,550        |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Tando Allahyar       | 86,056          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Khandhkot            | 66,727          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Tando M. Khan        | 62,087          |
|   |                           |   | ●                     |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Badin                | 61,302          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Kotri                | 61,130          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Shahdadt             | 59,836          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Moro                 | 59,321          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Shahdadpur           | 58,802          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Qambar               | 57,230          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Ghotki               | 51,401          |
|   |                           |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Sanghar              | 50,259          |
| ♦   | ♦                         | ♦   |                       |                        |                        |                              |      |                    |                                     | ♦          |          | ●       | ●               | Rohri                | 44,143          |
| ♦   | ♦                         | ♦   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Hala                 | 39,926          |
| ♦   | ♦                         |   | ●                     |                        | ♦                      |                              | ♦    |                    | ♦                                   | ♦          |          | ●       | ●               | Thatta               | 36,915          |
|   |                           |   | ●                     |                        |                        |                              | ♦    |                    |                                     |            |          | ●       | ●               | Umerkot              | 35,059          |
|   | ♦                         | ♦   |                       |                        | ♦                      |                              | ♦    |                    |                                     |            |          | ●       | ●               | Sehwan               | 34,289          |
|   | ♦                         |   |                       |                        |                        |                              | ♦    |                    |                                     |            |          | ●       | ●               | Kotdiji              | 21,345          |
|   | ♦                         |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Jherruk              |                 |
|   | ♦                         |   |                       |                        |                        |                              |      |                    |                                     |            |          | ●       | ●               | Jhampir              |                 |

**Table 1:** Evaluation for determining significance terms of contributing historic functions of cities in Sindh (all towns having population of >20,000 inhabitants are taken into consideration).

|                         |                             | HISTORIC CITIES OF SINDH              |           |               |         |          |            |            |           |          |         |   |
|-------------------------|-----------------------------|---------------------------------------|-----------|---------------|---------|----------|------------|------------|-----------|----------|---------|---|
|                         |                             | THATTA                                | HYDERABAD | SUKKUR/ ROHRI | KARACHI | KHAIRPUR | MIRPURKHAS | SHIKARPOOR | JACOBABAD | KOT DIJI | UMARKOT |   |
| FUNCTIONS               | Trade/ Transit Node         | ★                                     | ★         | ★             | ★       | ★        | ★          | ★          | ★         | ★        | ★       |   |
|                         | Defense/ Military           | ★                                     | ★         | ★             | ★       |          | ★          | ★          | ★         | ★        | ★       |   |
|                         | Administrative center       | ★                                     | ★         | ★             | ★       | ★        | ★          | ★          | ★         |          | ★       |   |
|                         | Religious Center            |                                       |           | ★             |         |          |            |            |           |          |         |   |
|                         | Center of crafts/ industry  | ★                                     | ★         | ★             |         | ★        | ★          |            |           |          |         |   |
|                         | Archaeological Significance | ★                                     | ★         | ★             | ★       |          | ★          |            |           | ★        |         |   |
| TOPOGRAPHY              | Hilly                       | ★                                     | ★         | ★             |         |          |            |            |           | ★        |         |   |
|                         | Alluvial Plains             | ★                                     | ★         |               |         | ★        |            | ★          | ★         |          |         |   |
|                         | Arid Plains fed by canals   |                                       |           |               |         |          | ★          |            |           |          | ★       |   |
|                         | Delta Plains                |                                       |           |               | ★       |          |            |            |           |          |         |   |
| GEOGRAPHICAL IMPORTANCE | Railway                     | Passes on Periphery                   |           |               |         |          | ★          |            | ★         | ★        |         |   |
|                         |                             | Cuts through                          |           | ★             | ★       | ★        |            | ★          |           |          |         |   |
|                         |                             | Does not link                         | ★         |               |         |          |            |            |           |          | ★       | ★ |
|                         | Highway                     | Passes on periphery                   | ★         | ★             | ★       |          | ★          |            | ★         |          | ★       |   |
|                         |                             | Cuts Through                          |           |               |         | ★        |            | ★          |           | ★        |         | ★ |
|                         | Regional Roads Pattern      | Linear                                | ★         | ★             | ★       | ★        | ★          |            |           | ★        | ★       |   |
| Radial/ Nodal           |                             |                                       |           |               |         |          | ★          | ★          |           |          | ★       |   |
| PERIOD CONTRIBUTIONS    | Pre-Colonial                | Fort/ Fortifications                  | ★         | ★             | ★       | ★        |            | ★          | ★         | ★        | ★       | ★ |
|                         |                             | Shahi Bazaar                          | ★         | ★             | ★       |          |            |            | ★         |          |         |   |
|                         |                             | Narrow/ winding street pattern        | ★         | ★             | ★       | ★        | ★          | ★          | ★         |          | ★       | ★ |
|                         |                             | Irrigation canals                     | ★         | ★             | ★       |          | ★          | ★          | ★         | ★        | ★       | ★ |
|                         |                             | Public Monuments                      | ★         | ★             | ★       |          | ★          |            | ★         | ★        |         |   |
|                         |                             | Private Monuments                     |           | ★             |         |          | ★          |            | ★         |          | ★       |   |
|                         | Colonial                    | Commemorative/ funerary Monuments     | ★         | ★             | ★       | ★        | ★          | ★          | ★         |          |         |   |
|                         |                             | Cantonment/ European Quarters         |           | ★             | ★       | ★        |            |            | ★         | ★        |         |   |
|                         |                             | Civil Quarters                        |           | ★             | ★       | ★        |            |            | ★         | ★        |         |   |
|                         |                             | Railways colony                       |           |               | ★       | ★        |            |            | ★         |          |         |   |
|                         |                             | Irrigation canals/ colony             | ★         | ★             | ★       |          | ★          |            |           |          |         |   |
|                         | Post-Independence           | Public buildings/ monuments           |           | ★             | ★       | ★        | ★          | ★          | ★         | ★        |         |   |
|                         |                             | Refugee Settlements                   |           | ★             | ★       | ★        | ★          |            |           |          |         |   |
|                         |                             | Satellite towns/ residential colonies | ★         | ★             | ★       | ★        | ★          |            |           |          |         |   |
|                         |                             | Industrial establishments             |           | ★             | ★       | ★        | ★          | ★          |           |          |         |   |
|                         |                             | Modern landmarks                      |           |               |         | ★        |            |            |           |          |         |   |

**Table 2:** Tabulation of the four key factors identified as important contributed aspects towards shaping of historic environments in Sindh.

|  |  |   |  |
|--|--|---|--|
| 630 AD<br>Chach the Brahmin ascends the throne           | RAI DYNASTIES<br>(2 <sup>nd</sup> BC – 7 <sup>th</sup> AD) | <ul style="list-style-type: none"> <li>Indo Scythian in full control of Sindh</li> <li>Hindu kingdom under Ashoka and Chandragupta flourished</li> <li>Brahmin ministers were employed; governors and citizens were largely Buddhist</li> </ul>   | <ul style="list-style-type: none"> <li>● BAHMANABAD</li> <li>● ALOR</li> <li>● NERUNKOT</li> <li>● SEHWAN</li> </ul>                             |
| 678 AD<br>Raja Dahir ascends the throne                  |  |   |  |
| 711 AD<br>Mohammad Bin Qasim conquers                    | ARAB DYNASTY<br>(711AD – 1053AD)                           | <ul style="list-style-type: none"> <li>Arabs did not materially alter the government but kept Brahman governors and tax collectors</li> <li>Sindh became a province federated to the Arab Empire</li> </ul>   | <ul style="list-style-type: none"> <li>● DEBAL</li> <li>● MANSURA</li> </ul>   |
| 817 AD<br>End of Khilafat                                |  |   |  |
|  | SAMRA DYNASTY<br>(1053AD – 1333AD)                         | <ul style="list-style-type: none"> <li>First converts to Islam</li> <li>Had control of entire Sindh</li> </ul>  | <ul style="list-style-type: none"> <li>● SAMAI/ JANAI</li> <li>● BUKKUR</li> <li>● SEHWAN</li> </ul>   |
|  | SAMMA DYNASTY<br>(1351AD – 1521AD)                         | <ul style="list-style-type: none"> <li>Upper Sindh was under control of Turkish rulers of Delhi</li> <li>Native Chiefs had control of Lower Sindh from Sehwan to Kutch</li> </ul>   | <ul style="list-style-type: none"> <li>● SAMAI</li> <li>● THATTA</li> </ul>  |
|  | ARGHUN DYNASTY<br>(1521AD – 1554AD)                        |   | <ul style="list-style-type: none"> <li>● THATTA</li> </ul>   |
| 1592 AD<br>Sindh annexed to Mughal Empire                | TARKHANS DYNASTY<br>(1521AD – 1554AD)                      |   | <ul style="list-style-type: none"> <li>● THATTA</li> </ul>   |
| 1739 AD<br>Nadir Shah annexed Sindh to Persia            | KALHORA DYNASTY<br>(1701AD – 1708AD)                       | <ul style="list-style-type: none"> <li>Development of irrigation system</li> <li>Invited and encouraged trade and establishment of British factory</li> <li>The government worked under the Mughals</li> <li>Trade and commerce with foreigners was promoted</li> <li>Customs and tolls system was developed for sea and river ports</li> </ul> | <ul style="list-style-type: none"> <li>● THATTA</li> <li>● KHUDABAD</li> <li>● HYDERABAD</li> </ul>  |
| 1756 AD<br>Sindh became part of Afghan Empire            |  |   |  |
| 1809 AD<br>Shah Shuja advanced to Sindh to claim arrears | TALPUR DYNASTY<br>(1783AD – 1843AD)                        | <ul style="list-style-type: none"> <li>Establishment of three States within Sindh, each with its own capital</li> <li>Expansion of irrigation network</li> <li>Fortified posts at the border regions of the territory</li> <li>Expansion of irrigation network</li> <li>Establishment of large hunting reserves</li> </ul>                      | <ul style="list-style-type: none"> <li>● HYDERABAD</li> <li>● KHAIRPUR</li> <li>● MIRPURKHAS</li> <li>● KARACHI</li> <li>● SHIKARPOOR</li> </ul> |
| 1843 AD<br>British Conquest of Sindh                     | BRITISH COLONIAL<br>(1843AD – 1947AD)                      | <ul style="list-style-type: none"> <li>New cantonments and cities</li> <li>Large cantonment areas adjoining the old towns</li> <li>Railway networks</li> <li>Expansion of irrigation network and embankment of the Indus</li> </ul>   | <ul style="list-style-type: none"> <li>● KARACHI</li> <li>● HYDERABAD</li> <li>● SUKKUR</li> <li>● SHIKARPOOR</li> <li>● JACOBABAD</li> </ul>    |
| 1947 AD<br>Partition of India - Pakistan                 | ISLAMIC REPUBLIC OF PAKISTAN<br>(1947AD – to date)         | <ul style="list-style-type: none"> <li>Development of Industrial areas</li> <li>Development of large residential schemes</li> <li>Development of Satellite towns on city periphery</li> </ul>   | <ul style="list-style-type: none"> <li>● KARACHI</li> <li>● HYDERABAD</li> <li>● SUKKUR</li> </ul>   |

**Table 3:** Historic timeline of Sindh indicating periods of contributions to the built fabric. Towns marked with a dot now exist only as archaeological sites.