

INVENTORY OF HISTORIC PLACES: A SYSTEMATIC METHOD FOR THEIR IDENTIFICATION, EVALUATION AND DETERMINING SIGNIFICANCE PART II: CASE STUDIES

Dr. Anila Naeem

Professor, Department of Architecture and Planning, NED-UET

ABSTRACT

Systematic inventory and recording of historic places is an effective tool for facilitating good management and understanding of historic towns, cities and areas. This paper presents a method developed for inventory recording in the context of countries that are under resourced, and thus do not have effective management procedures for definition, protection and preservation of their heritage properties. The paper focuses on an inventory format designed as an outcome of a research undertaken in Sindh, the southeastern region of Pakistan, taking its historic towns as case studies. The research outcomes are presented in two parts: in the first part the inventory form was discussed in detail. This second part presents a comparison of two case study towns, having very different situations in terms of scale and management structure, where the developed method of heritage inventory was applied for documentation.

Key words: Heritage inventory, significance of historic places, Karachi, Shikarpour, Sindh.

INTRODUCTION AND BACKGROUND

Systematic and methodical inventory documentation is a key to develop in-depth understanding for historic places - their significance, values and potentials. It is through comprehensive documentation that a holistic perspective on places can be achieved to guide a way for preservation, sustainable growth and economic viability (Lichfield, 1988; Burman, 1995; Pickard, 2002). Part I of this paper presented the method developed through a research undertaken in the context of Sindh, Pakistan, for systematic documentation of historic towns; a 'Core Data Index Form' (CDIF) discussed in detail in that part. This method for town scale inventory and documentation was pilot tested in a small area within the prime commercial zone of Karachi, and then applied through extensive field research to two historic towns of

Sindh, Karachi and Shikarpour, both having very different development patterns and characteristics of the built environment. This paper presents a comparison of the two case studies and discusses the potentials and constraints of the developed method in the light of experiences gained through inventory documentation undertaken in the two towns. The aim is to bring forth issues that require to be taken into account while dealing with disparate case studies, as the varying context may require flexible adaptation in spite of a standardized format.

METHODOLOGY

The developed method (as discussed in part I) includes several stages; a literature review of secondary sources to develop an understanding of the historical background of case study towns, focused primarily on identifying different periods of history, stages of development and period influences on built fabric; collection of available information including previous listings, maps, survey sheets; collection of updated field data through survey; analysis of data; and finally the identification of problems and causes of threat to historic places. For Karachi an existing listing of 581 protected heritage properties was taken as a starting point for preparation of the field survey, whereas for Shikarpour only an official notification declaring the entire city as protected existed without any supportive listings to identify historic properties.

Data Compilation¹

The field data collected through the standardized CDIF was compiled as an Excel database maintained as a master file including all available information on listed properties compiled together. The layout of database fields is designed to keep all building information clustered together and socio-economic information placed together. Pictures of properties are compiled separately, with identification numbers assigned

1 The choice of specific softwares mentioned here is due to their availability in the existing working environment at the researchers' base. However, in expansion of the process to national level where similar facilities do not exist, other possibilities of free software and web options for dissemination of information should be explored to make the compiled database more accessible and easily usable.

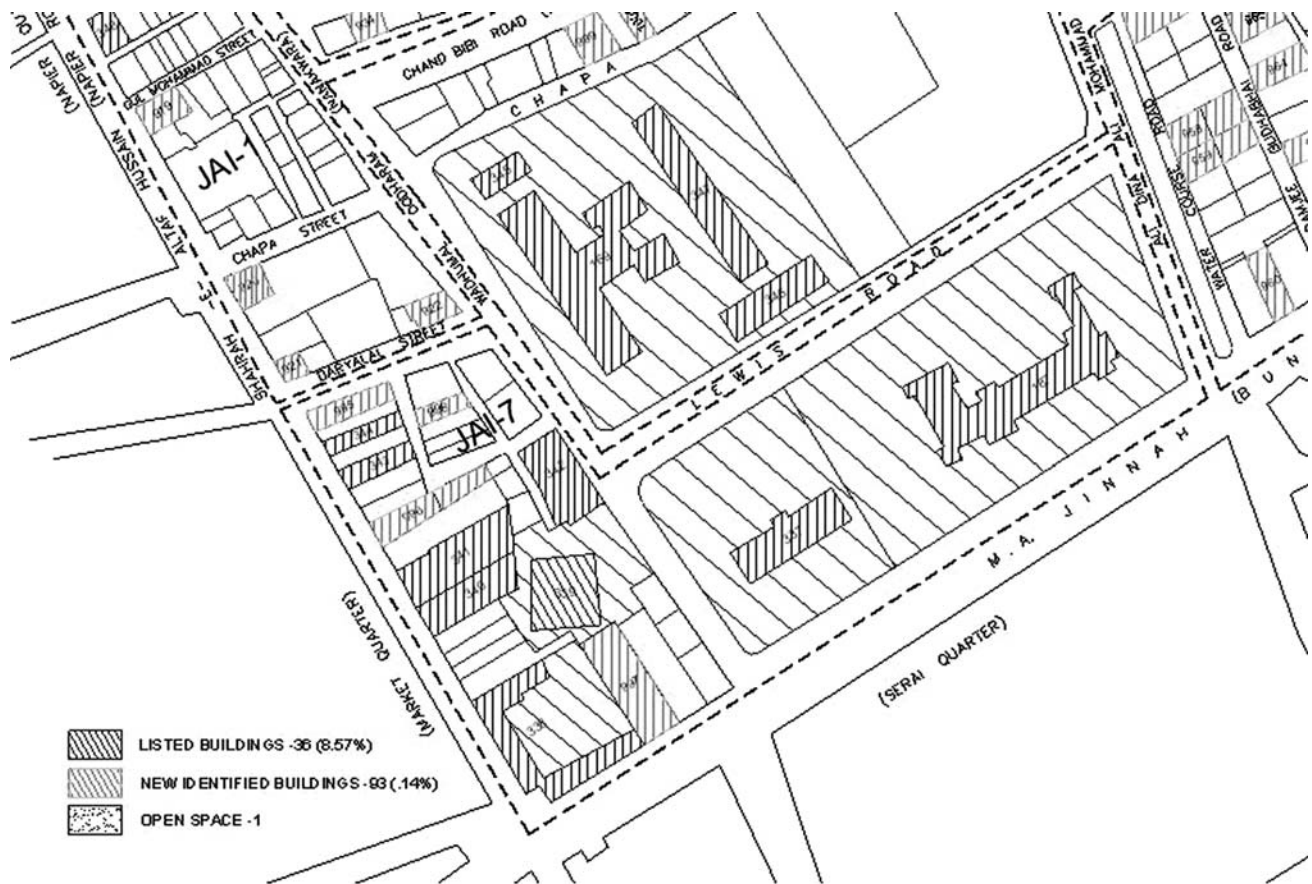


Figure-1: Sample for demarcating properties with more than one building on the same plot and open spaces around them.

according to the database entries. From Excel database the relevant fields required for final inventory layout are imported into Access, through which the inventory compilation is generated. The key maps are developed in AutoCAD, marking listed properties with their unique ID identified in the main database. For Karachi a distinction is made between previously listed and new identified properties through color coding. For properties having more than one building blocks and/or open spaces, the entire plot is marked and each listed building on the lot identified separately. Open spaces are hatched with thin and widely spaced lines, whereas the building blocks are hatched with thicker and dense lines (Figure 1).

THE CASE STUDY TOWNS: KARACHI AND SHIKARPOOR

Reference of Context and Comparison of Case Study Towns

Following is a comparison table for the two documented towns giving an idea of the differences existing between the

selected case studies.

In terms of scale, representation of historical periods and the level of expansion, Karachi and Shikarpour are not comparable. Differences between the two provided an opportunity to understand the variety of situations that can be experienced in the region. From the level of existing documentation and available information, to the system of administration and the character of the built fabric, variations may exist from case to case, requiring the method to have the capacity to adapt local situations. Following is a brief historical profile of the two cities to give an understanding on the difference in their background and historical contexts.

Karachi: Historical Background

Karachi's historic significance lies in being the oldest surviving sea port of Sindh that has remained functional due to a favorable geographic location. Karachi started to grow from a small fishing village called 'Kolaji-jo-Ghat' in the late 1720s and became an important trading port of Sindh

	KARACHI	SHIKARPOOR
History	Origins of urban history date back to 1720s but actual urbanization and expansion of the city started during colonial times dating 1840s. Today the expansion of city limits is almost 20 times beyond its colonial extents.	Founded in 1617 and by late 18 th century became one of the most important trade towns in Sindh; at a time in history even exceeding the capital (Hyderabad) in population. Expansion of city limits beyond walled city has not been too extensive, and its present municipality limits remain more or less the same as in colonial times.
Area/ Population	The area of Karachi has grown from (73.94 miles ²) 192km ² with a population of 56,753 in 1870's to (1390 miles ²) 3600km ² with a population of more than 15 million at present.	Shikarpoor has grown from a population of 38,107 in 1870s to a population of 1,34,883 in 1998. The area has increased from approximately 0.42km ² of walled limits to 10km ² at present.
Administration	Karachi being a metropolitan city, has a more complex organization than any other city or town in Sindh. Its Municipality comes under the City District Government (CDGK), whereas a separate development authority (KBCA/ KDA) controls building regulations and developments. In addition, there are independent organizations such as the various Cantonments and the Port Trust, having their own regulations applicable within their individual jurisdiction. For administrative purposes the city is presently divided into eighteen towns and six cantonments.	Shikarpoor is administered by the District Government and the Town Municipal Administration (TMA). For administrative purpose it is divided into eight union councils, which work under the district and town administration. The city is governed under the 'Sindh Local Government Ordinance of 2001'.
Documentation Available	<ul style="list-style-type: none"> ▪ A list of 581 buildings notified as heritage properties, in nineteen historic quarters along with their location maps (HF, 1994; HF, 1996a; HF, 1996b; HF, 1996c; HF, 1996d; HF, 1996e). ▪ Detailed Survey Sheets, with plot numbers and demarcation of each plot. ▪ Satellite image of the entire city from Google Earth. ▪ Historic map of Karachi showing cantonment, city and the environs, dated 1869-70 (scale 6"= 1 mile). ▪ Map of Karachi's historic quarters from Baillie (1890). ▪ Karachi's development has been through a planned process, with several consecutive master plans, thus the growth pattern is very well documented. 	<ul style="list-style-type: none"> ▪ No formal listing available. However, a list was developed from buildings mentioned in the Gazetteers, and a list of 40 buildings attached as supplement to Cousens (1930) 'Antiquities of Sindh'. ▪ Combined Map of Shikarpoor 1915 (scale 200 ft. to an inch) (only a poor quality image available) ▪ Detailed survey sheets of Shikarpoor, undated (scale 1"=80') (covering only walled city area and some area on the east side where the British Cantonment was established) ▪ Survey Plan of Shikarpoor, 1986 (scale 1:10,000) ▪ No master plans for the city exist. ▪ The 'Historic City of Shikarpoor' has been notified in 1998 as protected under the Sindh Cultural Heritage Preservation Act 1994.
Nature of Historic Fabric/ Character of the City	Most of the historic quarters of Karachi are from the colonial period and the architecture and fabric strongly represents characteristics of that period. The buildings are mostly built in stone, except for those belonging to the 1940s and later periods, being RCC structures.	The form of the historic walled city is very well preserved, having construction in traditional architectural style, using timber, mud and brick. However, many new buildings have been built in recent years within the walled city limits, after demolition of old structures. The developments on the peripheral areas of the city are mostly of an informal nature, with isolated examples of buildings having architectural merit.

Table-1: Comparison between the two case study towns.

towards the end of 18th century, when a family of Hindu merchants facilitated its peaceful cession from the Khan of Khelat to the Talpur rulers of Sindh (Duarte, 1976). Several historians however, date Karachi's origin to even earlier times, associating it with 'Crocola' of the Greeks (Postans, 1843). Towards the end of 18th century Talpurs ordered construction of fortifications at the island of Manora, whereas the walled city enclosing an area of 35 acres developed separately on the mainland. Prior to British conquest, Karachi served as an outpost of Talpur Mirs, mainly functioning as a customs check post and harbor. Manora Fort was conquered (unopposed) by the British forces on 31st January 1839, who established their cantonment some distance away from the walled city.

After Sindh's conquest in 1843, Karachi became an important British cantonment and additionally served as the focus of commerce, trade and development. Karachi was considered as the safest sea port on the Indus delta. Realizing this potential the British equipped the port with modern facilities during the late 1850s; concurrently they introduced railways connecting the port with rest of the region northwards and eastwards. These developments boosted economic prospects

of the city attracting trade associated communities to settle here, resulting in a rapid growth and expansion of the city (Khuhro, 1998; Hasan, 1999). Karachi has ever since remained a focus for migrants both from within the country and across its borders; the impetus continuing throughout decades following Partition in 1947 till present times (Ansari, 2005; Hasan, 2011).

During the colonial period, a large business district developed along the axis linking the port with cantonment and European quarters, embellished with prestigious offices and establishments of both foreign and local businesses (Baillie, 1890; Feldman, 1960). Extensive suburbs also developed, adorned with luxurious bungalows of rich merchants, businessmen and British officers. Grandiose public buildings were commissioned to express the symbolized power of the British Empire. Karachi of today is considered a legacy of the colonial period: most areas conventionally understood and acknowledged as its historic quarters date from 1843-1947 (except for the original walled city areas termed as 'native quarters' in Colonial period maps) making less than 10% of the city's present built-up areas (Figure 2). This historic built fabric is an interesting expression of not only



Figure-2: Satellite image of Karachi showing demarcation of the present administrative boundaries of eighteen towns. Hatched areas show the historic quarters, which make less than 10% of the city's present built-up areas.

the colonial power at its peak but also the growing economic strength of local communities, predominantly Hindus and Parsees, who commissioned local craftsmen to produce masterpieces of traditional building crafts. Added contributions of post-Independence developments that have made an impact on the city's built environment, include the extensive refugee re-settlement schemes, iconic architectural contributions of late 20th century (Hasan, 1999; Khuhro; 1998; Mumtaz; 1995; Mumtaz, 1999) and lately the industrial investments that have further magnified the economic prospects. The post-Independence contributions from 1960s – 80s include the first iconic State establishments in the first capital city (shifted to Islamabad in 1968), international architectural influences brought through local architects (trained abroad), and internationally renowned architects commissioned for prestigious government projects.

Literature review indicates Karachi's first division into administrative quarters, by Belasis (Collector of Karachi) in 1858, dividing the city and its suburbs into 14 quarters, excluding the cantonment; by 1880s it was divided into 26 quarters (Baillie, 1890). Towards end of the 19th century more than one cantonment were established, each having an independent jurisdiction and authority. By 1905, five more quarters were added to the municipality limits; and by 1941 the city grew into 44 quarters, grouped under eight administrative wards (Lari, 1996; Naeem, 2004). Presently Karachi has an administrative division of eighteen towns and six cantonments. It is the largest and most populated city (exceeding 15 million) of Pakistan, its growth rate beyond any anticipated figures, has resulted in unplanned and uncontrolled developments completely disregarding the environmental sustainability of natural resources in and around the city. Karachi is the only city in Pakistan for which extensive listings² of historic buildings, including those other than 'monuments' already exists; given protection under the 'Sindh Cultural Heritage Preservation Act (1994)'.

Shikarpoor: Historical Background

The town of Shikarpoor, established in 1617 by Daoodpotras, became the most important town in Sindh from the viewpoint of trade, commerce, banking, and to a great extent political interests in the region, during the 18th and 19th centuries. Towards mid 18th century, it came under complete control of Afghans (under Durani Empire) who encouraged Hindu merchants to settle here and carry on trade through Afghanistan to Central Asia and India. It soon became a city

having a Hindu majority in an otherwise Muslim dominated region. In 1824 the Talpur Mirs gained peaceful possession of Shikarpoor; however, they were required to pay an annual tribute to the Afghans. Irregularity in these payments caused frequent incursions by the Afghans, claiming their arrears. In 1839-40 during the Afghan campaign British troops used Shikarpoor as their military base, from where supplies and other provisions were ensured for the sustenance of their army. In 1843 with Sindh's annexation, Shikarpoor became part of the British Empire. During the first two decades the British saw it as an important city, making it the district headquarters and a military cantonment. But 1860s onwards, the focus gradually shifted; Sukkur (in the south) and Jacobabad (in the north) superseded Shikarpoor as administrative and military base respectively. Towards the end of 19th century Shikarpoor suffered a decline in its trade activities largely owing to the introduction of railways (1858-61) and development of Karachi port (1870s). But the final blow to the city's socio-economic structure and prosperity came with Partition in 1947, when its affluent Hindu population migrated to India and other parts of the world (Markovits, 2000).

Shikarpoor was originally a walled city having a circumference of 3800 yards and with eight gates guarded at all times; the activities of trade caravans remaining outside the walled limits (Postans, 1840-41). The historic core within walled limits has narrow winding streets and alleys, many of which terminate as dead-end lanes. The original layout is well preserved even today; till today accommodating only pedestrian traffic. The colonial period extensions of the city developed on the east (cantonment areas) and south (administrative offices) of the walled city area. The historic fabric of Shikarpoor is represented by traditional constructions in timber, mud and brick. However, this is rapidly changing and new constructions in cement concrete are increasingly replacing the traditional buildings. The famed covered bazaar of Shikarpoor cuts across the centre of the walled city area along N-S axis. A comparison of the survey map and historic map of 1915 with present satellite image shows minimal growth beyond the colonial period extensions. However, densification of these later period built-up areas can be observed.

Presently Shikarpoor is considered as a medium sized, tertiary level town of Sindh on the basis of its urban facilities, having a population of 0.13 million (census 1998). The town has easy access by road and railway, thus well connected

2 In 1994-97 nineteen historic quarters of Karachi were surveyed by the NGO 'Heritage Foundation' who compiled a list of 581 buildings and got them notified as protected heritage by the Department of Culture, GoS.

with major cities on the national grid.

Before embarking on the field survey, the process undertaken involved preparation of base maps including downloading satellite image (from Google Earth), collection of survey sheets having detailed information on plot lines and numbers of each parcel and other available information from different sources. All collected information was superimposed to produce a comprehensive base map used for field survey.

In the case of Karachi, availability of detailed maps for the entire city and a pre-existing list of protected buildings made survey process easier and better organized according to quarter boundaries. Buildings already listed in the nineteen historic quarters were marked on the satellite image using information available from official notification and published documents.

In Shikarpoor the survey team worked with limited supporting facilities. Satellite image and map of administrative union council boundaries used in the final document were available only at a later stage of field data compilation³. Detailed survey sheets of only the historic core (undated; scale 1 inch = 80 feet) or (1:960) were available only after arrival in Shikarpoor. Due to limitation of photocopying facilities in Shikarpoor these could be reproduced only in small segments corresponding to A3 size sheets. The survey was thus undertaken by dividing the city in small A3 fragments, later put together as a jigsaw puzzle. Special arrangements had to be made for taking the original survey sheets to Karachi, and scanning them for use as a base for digitized AutoCAD maps. Based on availability of maps having different level of details for different areas of the city, the methodology for field work had to be slightly revised; dividing the city's municipality limits into three different zones. Each zone was surveyed according to the level of available information and the overall character of the area. The first zone included the entire area within walled city limits and its immediate extension eastwards; covered in detailed survey sheets (1 inch = 80 feet) and surveyed on foot, street by street, identifying and marking all properties according to the pre-defined listing criteria. The second zone covered an area for which limited information on plot divisions and numbers was available from a 1915 map. Updated maps on this area are not available. The character of this zone was defined by vehicle oriented street layouts, allowing the survey to be undertaken by driving through major roads and identifying properties for inclusion in inventory document. The third

zone covered areas beyond the extent of the 1915 map; their only source of information was 1986 survey plan (1:10,000). Only landmark buildings mentioned in the map were spot-listed in this zone.

BENEFITS AND OUTCOMES OF THE SYSTEMATIC RECORDING PROCESS

A. Acquiring base maps and retrieving their information: Different types of maps (including historic maps, satellite images, city survey maps and plot or parcel division maps) were superimposed to filter in required and useful information on changes in plot demarcations, phases of the city's expansion, demarcation of administrative divisions and changes in usage of properties or areas. Information gained from different maps was put together to gain valuable interpretations. The experience of searching for relevant maps in the two case study towns required exploration of different sources and government departments and organizations highlighting the absence of efficiently managed public archives. For Karachi, Karachi Building Control Authority (KBCA) was the main source for acquiring detailed maps of the entire city, except cantonment and port trust areas. For Shikarpoor the core historic area's maps (walled city and colonial extensions) were available from the Revenue Office and the 1:10,000 scale survey maps were available through Survey of Pakistan.

B. Identification and demarcation of historic areas: Review of secondary sources and historic maps helped develop an understanding of historical developments and the growth of city, enabling identification of historically significant areas. In the case of Karachi many of these areas were previously not included in the listing process. Through the research process, limits of historic areas were redefined and areas other than the nineteen listed quarters have been identified for extending the inventory survey. In the case of Shikarpoor, secondary sources helped identify the growth pattern, limits of historic core and municipal limits. The method enabled use of historic maps and gazetteer descriptions to identify historic areas of city which are proposed to be considered as heritage conservation zones in planning policies to achieve their effective management. Historic maps also help identify isolated monuments, located on city periphery outside the limits of historic quarters, or as isolated units in newer parts. An approach restricting the listing process within predefined historic areas would overlook such cases. Thus it is recommended that the entire

3 Accurate information on this was not available in Karachi. During field work visits to the city this information was collected from relevant local department.

city limits must be considered for comprehensive listings; however, the method for surveying different areas may vary according to their significance and character.

C. Benefits of a methodical process: In Karachi's case a previous listing of heritage buildings already existed, but the scientific and systematic re-survey using the method developed for this research identified deficiencies of previous listing approach. Without a defined criterion or methodology the previous process resulted in missing out significant information. The apparent focus seems to have been limited to the colonial period (stone) buildings, disregarding other period contributions representing the rich variety of architectural styles/ trends in the historic fabric. In the case of Shikarpoor the entire city had been notified as a protected heritage in 1998, but no specific listings were prepared. The ambiguity and discrepancy in what should be considered as cultural property and given legal protection resulted in confusion among decision makers and administrators. A well defined criterion for listing, developed through present research undertaking gives an understanding of the region's and the case study town's historic context, ensuring that contributions from different periods are given due importance and representative cases are identified in the listing process. The process also gives clear definitions on values of significance considered worthy of preservation.

D. Record of the lost fabric: Incorporating historic research into the methodology enabled identification and documentation of lost historic fabric. In the case of Karachi, 51 buildings from the 581 enlisted and protected properties were found to have been demolished. The previously published documents (HF, 1996) served as a historic record, providing information on the original fabric. However, the lack of more detailed information and photographic record in the previous process leaves a gap in information available for these demolished structures. For Shikarpoor, while previous listing did not exist, historic documents and residents provided information on a number of such cases and their photographs were accessed from personal archives. It should be noted that a few buildings have also been demolished since the 2007 inventory survey undertaken for this research.

E. Richness of the historic fabric: In Karachi the systematic documentation process using pre-defined criteria resulted in the identification of more than 900 properties either having similar characteristics as the 581 previously

listed ones, or representing different periods' developments and architectural trends, reflecting a rich variety and diversity in the historic fabric. These were earlier overlooked, reflecting on the inconsistency in the previous listing process (Figure 3). For Karachi, mapping of previously listed and newly identified buildings together shows a much denser and richer historic fabric that still survives within the historic quarter, indicating a higher potential of the city centre for an integrated urban conservation exercise (Figure 4).

F. Usefulness of collected data: Compilation of the database and developing a correlation between various findings led to the identification of problems and their main causes. Inclusion of information on present physical status, occupancy status and level of alterations in identified buildings helped in determining the level of threat posed to these properties. Buildings which are completely or more than fifty percent vacant, or partially demolished properties, or those with only the façade remaining are all identified as cases under 'High Degree Threat' thus requiring urgent attention and the need for intervention by authorities to ensure their survival. In both case studies, the observations of socio-economic conditions of the area led to the identification of major factors having direct implications on the maintenance of buildings or the lack of it. Unresolved issues of evacuee⁴ properties, uncertainty of ownership, extremely low rental values derived through existing 'pagri'⁵ system' of tenancy, all show a direct correlation with the present dilapidated condition of many listed properties. Analytical evaluation of data also enabled value based grouping of buildings. This graded classification allows for formulation of different set of regulations for the different groups. Detailed data on architectural features also has utility for initiating development of a comprehensive thesaurus of local architecture and defining plan typologies and period style classification for the case study towns.

G. Additional information to be recorded during survey: An approach incorporating the urban context and topographical features to gain an overall understanding of the fabric around listed buildings is of significance; it enables an environmental assessment of the historic area, and allows evaluation on the level of damage/ change or potential risks/ threats or degree of preservation, in the vicinity. In Karachi's case the impact of new multi-storeyed constructions, was observed as the most overwhelming change having a negative visual impact on the area's historic character. Thus building

4 The term 'evacuee property' is used for buildings that were abandoned by the migrating Hindu community at the time of Indo-Pak Partition. All such properties were taken over by the Evacuee Trust, and their new ownership was settled under claims made by incoming Muslim refugees. However, the case of many evacuee properties still lies unsettled.

5 Term of tenancy through which an amount is paid at the time of agreement, and the monthly rent becomes a very nominal amount.

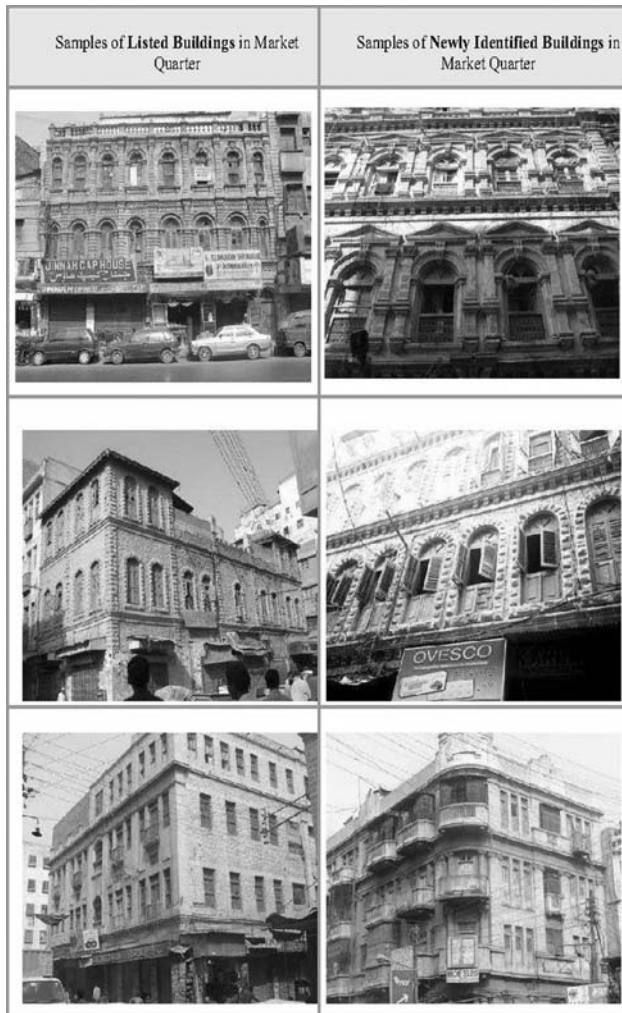


Figure-3: Comparison of listed with newly identified buildings in Karachi. Lack of defined criteria and systematic method in previous listings process, resulted in missing out many buildings having similar attributes as those identified for listing.

heights for each plot parcel were recorded as the most representative indicator of change. Whereas, in Shikarpour unused areas with rubble of demolished structures and new constructions were seen as having the most negative environmental impact. This additional information is not made part of the inventory document; it is useful only for an overall evaluation of the fabric and developing planning policies. Recording this additional information while undertaking the survey takes little extra effort, but if left for a later stage, can prove to be extremely time consuming and exhaustive. The indicator of change may vary for different places depending on the prevailing development patterns and geological/ topographical features of the terrain. Thus the decision for what to record can only be made while



Figure-4: Sample map of one historic quarter of Karachi; (above) showing only previously listed buildings and (below) the same area with listed and newly identified buildings and open spaces. The latter gives a comprehensive picture, indicating a denser historic fabric.

undertaking the field survey and surveyors should be trained to develop the ability for these decisions.

I. Inclusion of open spaces/ natural sites: A comparative study of maps from different periods provides an insight to the state of preservation or destruction of natural features and open spaces. Pressures of commercialization or densification often result in reduction of open spaces allocated as public parks and playgrounds. Identifying open spaces and natural resources, and incorporating them as part of the listing process, provides a holistic picture of built-up areas in relation to open spaces or natural resources, and allows issues of sustainability to be addressed through an approach of more efficient integrated planning.

J. Importance of photographs and photography skills:

Photographs proved to be useful field data, especially during analysis and evaluation stages; an effective media for conveying the significance and value of listed properties to the administrators, decision makers and managers. For best results surveyors must have a prior awareness of the format of inventory form, consciously covering all possible views and details of the property. The number of photographs can vary from case to case depending on the level of architectural detailing and craftsmanship employed. Choosing the five or six photographs for use in the inventory form requires careful consideration as these should convey the essence of the listed property and avoid repetition. The main picture must capture the entire building or as much of it as possible from its front, and pictures of details should cover as many of the significant architectural features as possible. Additional images, not used in inventory forms, are useful in analysis process for rechecking and verifying data at compilation stages.

K. Maintaining consistency in evaluation: An important aspect of the inventory process is the standardization of analytical evaluation, particularly when working with a large group of people and also when listings continue over long periods. Although the parameters are listed in the same form, but their interpretation by each individual might differ, bringing out inconsistent results. Thus a clear articulation for each of the values within the criteria should be done through an explanation supported by graphics or a range of samples/ examples at a stage when substantial numbers of properties (within a specific case study area) are evaluated, thus standardizing the qualitative analysis to some extent. Members of the field survey team should be given a detailed orientation and on the job training, before allowing them to work independently. However, it must be realized that with the spread of study to larger areas or to other cities this standardized articulation needs revisiting to verify if it addresses and justifies the variety of samples and variations being recorded. A useful exercise for consecutive batches of properties being evaluated is to study their images, tabulated according to value based groups, checking if the judgment across the various batches is consistent or not. This exercise would help check inconsistencies, achieving a certain level of consistency throughout the process.

CONCLUSIONS

The research findings indicate a lack of existing knowledge on traditional environments of Sindh's historic towns and at the same time suggesting an immense potential for conservation activities in the region. The method developed

for inventory documentation of historic places having been tested in two very different case study towns shows a robustness and adaptability for different circumstances and case specific issues. Training of surveyors and other team members is however, crucial for understanding the historical developments of study areas and their implications on built environments. The most challenging aspect of the proposed method is maintaining consistency in the qualitative evaluation stages, through checks and controls to ensure similar perceptions in interpreting the collected data and following the defined guideline. This may be difficult to manage, especially when working with larger groups or when projects continue over long periods with changing personnel. This issue is of greater concern in large cities like Karachi, but in smaller cities it can be controlled by undertaking the entire city's survey at one instance, as was done in the case of Shikarpour. Encouraging group discussions and close co-ordination among team members to exchange experiences and perceptions on the logic and understanding of the method is one effective way of overcoming the challenge of consistent interpretations. Close supervision and scrutiny of final document is also important, and must be done by the more experienced members of the team.

A comparison of the two case study towns indicates existing variations between places vis-à-vis availability of documents and other sources, depending on present status of the city/ town and its administrative setup. For certain places the possibility of not having any detailed maps also exists, requiring explorations into methods for developing base maps using satellite images. Cases having few information sources would require extra cross-referencing from official documents such as the revenue or taxation records maintained by local governments. While working in smaller cities it is also essential to establish links with city administration and the community to gain cooperation and support during field work. In the two case study experiences this was not necessary in Karachi but in Shikarpour undertaking surveys would have been impossible without seeking local support. The aspect of lacking information in the case of Shikarpour resulted in extrapolating required CDIF entries through primary field data, nevertheless compilation of required data was accomplished to a degree of satisfaction and required standardization in both cases. Experiences in usage and application are however, a bit different. In Karachi due to existing departments and possibility of closer co-ordination between the research institution and government departments responsible for heritage protection, better levels of implementation of inventory data and its associated recommendations is already happening. In the case of

Shikarpur progress is much slower due to non-existence of effective management institutions. Efforts are however, being made by the research organization to overcome these hurdles and develop better liaison possibilities to share their technical expertise with local administration.

In the context of Pakistan there is a need for empirical research with a flexibility that incorporates the inconsistencies of existing administrative structure and lack of well established archival system. Long term policies to sustain the process and maintain its continuity are also crucial, and can only be made possible through political support and close collaborations between different government departments, organizations and educational institutions. The lack of documentation based information and knowledge

on historic environments has been a major factor retarding professional growth in the field of heritage conservation and management in Pakistan, resulting in weak national policies that have failed to create any positive impact for protection and revival of historic towns and sites. Availability of heritage inventory database provides an opportunity for progressive and well directed actions. Standardized documentation methods could encourage collateral exchanges and community based co-operations, helping to generate opportunities for local capacity building and professional training, through on the job training programs, thus overcoming the present deficiencies of trained heritage conservation professionals in the country.

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