

**Report- Central Zone  
GIS Based Mapping of  
Living Heritage of Surat  
For  
Improved Heritage  
Management in Surat**

Submitted to

**Surat Municipal Corporation**

Submitted By

**Urban Management Centre**



*August 2009*

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## **ACKNOWLEDGEMENTS**

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- Hon. Mayor, SMC and all municipal councilors of SMC
- Ms. S. Aparna, IAS, Municipal Commissioner, SMC
- Mr. C.Y. Bhatt, Assistant Municipal Commissioner, SMC
- Ms. Bhamini Mahida, Chief Curator, SMC
- Mr. Khwaja, SMC
- Town Planning Department, SMC
- Mr. Nimish Patel, Abhikram
- Ms. Parul Zaveri, Abhikram
- Mr. P.K. Ghosh, IAS (retd.), chairman, State Built Heritage Committee
- Mr. Debashish Naik, Advisor, Heritage Cell, AMC
- Ms. Anjali Kadam, Heritage Conservation Architect
- Ms. Falguni Desai, Architect, Surat and her entire team
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- Mr. Maharishi Desai, Architect, Mumbai
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- All the Surat heritage survey teams

## Chapter 1 INTRODUCTION AND METHODOLOGY

### 1.1 Introduction

Surat is one the most dynamic and fastest growing cities of India in terms of its economy and culture. The city also has a magnificent heritage value as the one it is one of the oldest port city and with a history of having business linkages with more than 84 countries. Surat is the ninth largest city in the country and second in Gujarat state.

The Surat Municipal Corporation is one of the progressive cities in the country. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) initiated by the Central Government of India, aims at addressing the challenges faced by cities of India and provides a significant funding for cities to access. The JnNURM also lays emphasis on urban renewal and heritage conservation in cities. Surat Municipal Corporation (SMC) is also a recipient of funds under the, JNNURM. The city now, has taken the initiative to protect and conserve its valuable heritage.

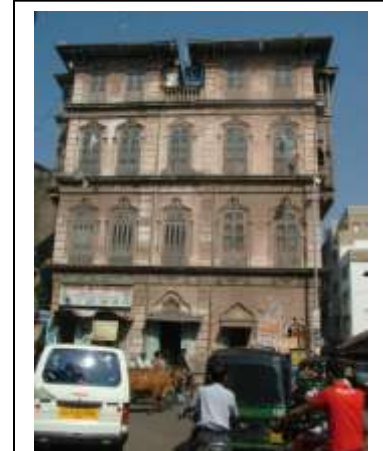
SMC brought out a TOR to undertake heritage management planning. The TOR involved preparation of heritage management policy, which was assigned to Urban Space Consultants. The other aspect of preparing a comprehensive listing and determining the heritage properties in Rander and the Central zone for assistance; this project has been assigned to Urban Management Centre (UMC).

UMC recognizes the role of city governments in conservation of heritage not only in terms of preserving the sense of identity of a city but also in its contribution to enhancing local economic development. UMC has initiated the study of GIS based mapping of living heritage of Surat, in Central Zone, for the Surat Municipal Corporation. The work began in October 2008.

### 1.2 Scope of Work for UMC

The scope of work for UMC for the documentation and listing of heritage properties in Central Zone of Surat includes:

- Preparation and finalization of the criteria of listing (as heritage fabric, zones and spots) in consultation with SMC.



- Design and Finalization of the survey format;
- Listing done as manual and photo documentation (façade treatment, elements details, ornamentations, street furniture, signage); collection of any documentation/data undertaken earlier by SMC;
- Conduct secondary literature survey;
- Preparation of a data entry tool so as to prepare a GIS ready MIS;
- Conduct the ground survey and submit draft and final reports.

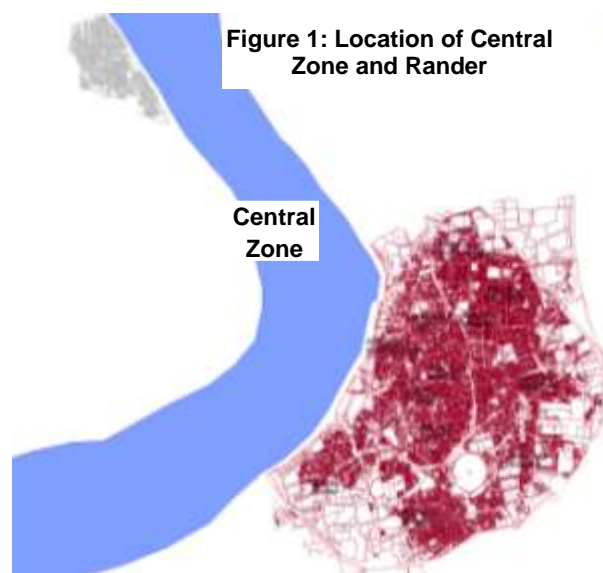
### 1.3 Approach of the Documentation

The listing and documentation exercise identified living heritage assets and undertook a detailed documentation of the same. The issues related to the conservation of such heritage assets in urban areas was identified.

With the changing pattern of cities and increasing demand of land, conservation of ancient heritage has been a challenge to all levels of governments and especially for local governments.

UMC believes that heritage structures and older areas of the city should be looked upon as assets rather than as liabilities because they represent the history of communities, embodying their tradition, heritage and culture through architecture and the urban form. City governments should act as facilitators in inner city revival. Most of the heritage places lie in the city centers and under the jurisdiction of city governments. The city governments have easy accessibility to these people, giving them the advantage to initiate heritage conservation.

This report highlights the documentation and findings from Central Zone Ward of Surat.



## Chapter 2 SURAT THROUGH THE AGES

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### History of Surat

The city of Surat has a glorious history that dates back to 300 BC. The origin of the city can be traced to the old Hindu town of Suryapur during 1500-1520 AD which was later colonized by the Brigus or the King from Sauvira on the Banks of River Tapi. Surat lies at the bend of the river Tapti 14 miles from the Arabian sea, on an alluvial mound which is a part of the Gujarat plain. Earliest records suggest that Surat might have been conquered by Chandra Gupta Maurya(319 B.C).The period after



the weakening of the gupta ruler saw many rulers and is often confused as the region changed hands at short notice. The succeeding rulers were from the Traikutakas (from south Gujarat and Konkan), Katachhuri from the Chaulakyan, and the Rashtrakutas(740-808A.D) dynasty, until 1299 AD, when the muslims finally conquered Gujarat. By the 11th century Surat was a settlement of sailors and kohlis, since it began to develop as a port.

Some of the Muslim local historians state that in 1194, Kutb-ud-Din, the general of Muhamad Shahab-ud-din Ghorī (1193-1205 ) penetrated as far as Surat. In 1373 the emperor Firoz Shah Tuglaq (1351-1388) is said to have built a fort at Surat to protect the town against the Bhils.



Rander port flourished earlier than Surat. Around 1512 AD Surat and neighboring port Rander is said to have been raided and burnt by the Portuguese many times. In fact because of this devastation of the Rander port due to frequent raids, much traffic came and got transferred to Surat port.

From the year 1573-1733 Surat was administered by officers appointed by the court of Delhi. Ever since 1573 A.D in which year the Portuguese concluded a treaty with Emperor Akbar, they regarded themselves undisputed masters of Surat coast and Gulf of Cambay. The Portuguese

also tried to use their influence with the Governor to prevent the English from being allowed to settle in the city, but finally around 1619 AD a regular English factory was set up at Surat, during the reign of Jahangir. The fifty years between the settlement of the English and Dutch in Surat, and the close of the reign of the emperor Shah Jahan was a time of increasing prosperity in Surat.

Between 1664-1707 the Maratha King Shivaji repeatedly plundered the town and a number of houses were set on fire.

Surat came to be ruled by independent governors till 1800 when the whole administration was taken over by the British, but it had already started to lose its position of being a prominent port because of transfer of trade to Bombay. After independence finally in 1960 after being bifurcated from the Bombay state, Surat district became a part of Gujarat state.



#### **PEOPLE:**

The city was always very populous and full of merchants. The population of Surat comprised of Hindus, Muslims and Parsis. Hindu Wanis were considered the richest. The Muslims were not usually involved in trade but carried arms and were employed in the army. In the busy months of June-October the city was so crowded that lodging was scarcely to be found. In the 17th century, the Parsis were also a large and prosperous class, good carpenters, and ship builders, and exquisite weavers and embroiderers. Later the Parsis rose greatly in wealth and power. Besides being merchants, they also rose to high posts under the East India company. In fact several *paras* were named after them e.g., Rustumpura.

The influx of Bohras in Surat happened around 1785, when the *Dawat* shifted from Jamnagar. They were prominent merchants. Among European settlers; the four most important were the English, Dutch, French and the Portuguese.

#### **TRADE:**

Surat was one of the eminent cities for trade in all of India. Good- laden ships came from Konkan and Malabar coast, and from the west, from Europe, from ports of Eastern Africa, Arabia, and the Persian Gulf, from ports of Ceylon in south, they came from Ceylon, east from Madras and Bengal coasts, from Peru and Malacca, and also from Ache in Sumatra. Trade also happened through the land route-merchandize went by caravans of wagons drawn by camels and bullocks.

There were a large number of gold and silver smiths scattered in different parts of the city.

After independence Surat became an industrial commercial as well as an educational center. Today there is a large population of unskilled and skilled labour in the city who are employed in various small scale industries. More than 60% live in rented accommodation.



Today Surat has both large scale and small scale industries. Gold and silver thread and art silk industries are the oldest. The existence of these two have given rise to other ancillary, subsidiary industries, prominent among them being the engineering units, manufacture of copper wire, brass cock, bobbins and soap, textile and wearing apparel, chemicals and processing industry. It has been seen that many of these small scale industries are also housed in the wards of central zone.

### Ship building

By the middle of the seventeenth century the English company at Surat had successfully adopted the practice of getting the small vessels required for its need constructed in India itself. This earlier benefited the old ship building industry which had received a setback.

By 1800s, ship building became an important industry in the region. Many of the ship builders



were Parsis and most of the ship owners were residents of Surat, while the officers were European and the ships bore English flags. The ships built at Surat were valued for their endurance, being able to navigate for a hundred years. Surat ship-building, both in the form of the ships and its style of rigging closely followed European models.

### Jari

The *Jari* industry received great patronage and encouragement under the Mughal Emperors who were fond of pomp and pageantry. The industry is a small scale industry. The industry has



been firmly established here by families of skilled artisans among whom the craftsmanship and dexterity of art has been passed on from generation to generation. A large number of gifted artisans are responsible for the expansion of the *Jari* industry. The persons involved in *Jari* work come mainly from the *Gola(rana)*, *Khatri* and *Paatidar* community. The manufacturers of gold and silver thread are Hindus, chiefly from the *Khatri* caste, while the weavers of brocade belong to *Kanbi(Patidar)* caste. By the end of 1957 there were nearly 16000 powerlooms working on art silk in the city.

Different fabrics also are manufactured in Surat, some of them being- bosky, satin, linen, shize, chiffon, georgette, crepe, panama, bush and *chokda*.

Surat still retains its reputation for embroidered work. The workmen of *Jardosi* who embroider with gold and silver threads were initially all Muslims. But Hindu women, chiefly *wania*, Brahmin and other castes also began to work with silk thread.

Manufacture of *Jari* thread involves preparation of bar, drawing of wire, gilding, flattening the wire, winding of larnetta on silk, dyeing of raw silk, winding of *Jari* thread on bobbins, reeling and packing. All these processes are carried out in different units specializing in different processes.

It was only in the second half of the 19th century that machine made *Jari* goods began to flow in the Indian markets. The foreign *Jari* goods especially from made in France were cheaper in price and resulted in a setback to the *Jari* industry in Surat. The Indian artisans engaged in this industry now adopted mechanical methods in the process of production. The manufacture of imitation *Jari* which started in 1918 slowly began to replace the real *Jari*. Today Surat city is the largest *Jari* producing center in the whole of India.



### **SURAT CITY:**

In 1373, the Emperor Feroz Shah Tuglaq is said to have built a fort at Surat to protect the town against the *Bhils*.

Around (1496-1521) a rich Hindu trader named Gopi settled in Surat. He induced other merchants to settle at Surat, and founded one of the quarters of the town called, in his honor, Gopipura and enlarged a pond lining it with stone. The pond called Gopi *talao* still exists in the city and work on revitalizing the same is going on.

The *talao* was planned to supply Surat with fresh water, and it served its purpose till 1638. Later it began silting rapidly. On the banks of the river were the chief buildings, the castle, the custom house and the gardens. With the increase of wealth the appearance of the city improved. Another addition of some importance was the travelers rest house for Muslim travelers (1644) built by Hakikat Khan, now used as a municipal house and offices. The town is also described as enclosed by a mud wall.





With the castle as its center, the city forms an arc of a circle.

This wall constructed in 1664 was begun to protect the city from Shivaji's attacks. It varied from 20-28 feet in height to 8.5-12 feet in breadth. The inner wall contained fourteen divisions. Outside the walls on the north and the east the land is rich but the soil to the south is poor and was bare.

Though the inner wall has for many years been almost removed, the natural moat around it served to

maintain the line of demarcation, between the city and its so called suburbs.

During the period of 1717-1719 the outer city wall was constructed under the governorship of Haider Kuli Khan. There were fifteen divisions within the two walls. Most of the industrial expansion took place outside the first wall. The configuration of the walls was determined by the naturally existing *khadis* which served as moats along the walls. The position of the gates in the wall was determined by the trade routes. The entrance to the walled city was through twelve gates-to the South were the Navsari and Majura gates and on the west, the Mecca and the Badshahi gates and along the riverfront, the Dacca Dwara or Custom House Water gate , Mirbehar and Lati gate

In 1960 and 70, the Municipal Corporation saw the growth ring roads have replaced the walls sometimes being built on where the wall would have been. These continue to bind the original form of the city.

In 1877 the Hope bridge was constructed across the Tapi. To the east a railway station was established which changed the movement pattern and to cope with ever growing traffic some streets had been widened.

Hope bridge in 1957: Picture Courtesy: Photographers V.N. Mehta



### GROWTH OF THE CITY:

The areas along chowk bazaar are the earliest urban settlements in Surat. Slow growth resulted in loose accretive fabric with a meandering street network. There is a hierarchy of streets, which are alive with different activities. There is variation of each unit in terms of its façade, volume and plan form.



**Map of the city:**  
Ref: Indian Maps and Plans-Susan Gole



Organic Streets- Nanawat Ward

The areas seemed to follow definite planning principles and built in a short span of time. In fact such small representative planning neighborhoods are seen in the formative maps of Surat. As these came up around the end of the 16<sup>th</sup> century when there was a strong European presence in Surat, they might have influenced planning in these neighborhoods. The streets are laid out at grid iron, the street edge and unit size is uniform. There was also a definite relation of the unit to the street, which was constant for a neighborhood. In some, streets ran on two side of a unit while in others it ran only along the main façade. The streets are regular and repetitive and there is only residential activity. There is continuity in facades, though variation in articulation and plan form exists.

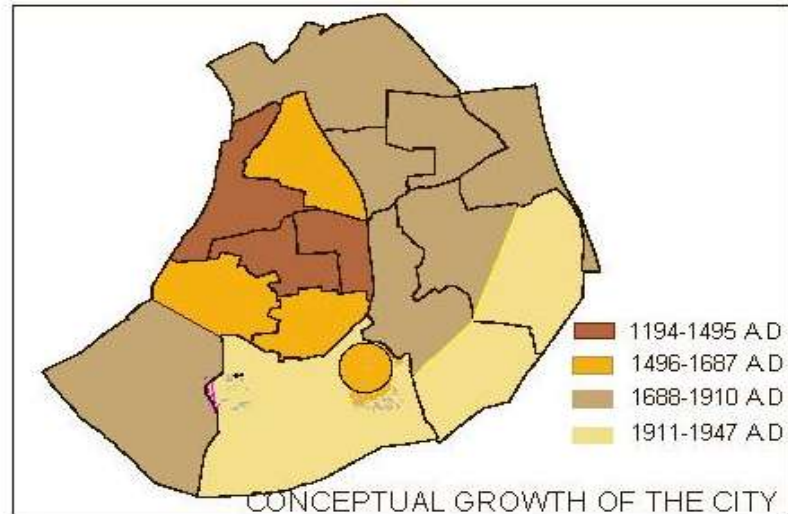


Grid –Iron Streets-Mahidarpura Ward

Initially houses which were built by a particular community responded to its culture, family and religion and exhibited specificity in terms of organization of spaces, volumes and facades, as are seen in the Hindu houses within the first wall, the *Parsi* and the *Bohra* houses.

With change in occupation and the small scale industry which had to be incorporated into the house form had a huge impact on it. The cultural responses in the later houses have been largely diluted by this predominant factor. Position of machines, multiplicity of units

relating to economics changed the approach and nature of spaces. This is starkly evident in houses outside the first wall. The houses built from 1860 onwards are bigger, more open, the wooden pillars instead of being square are rounded and taller. The plinth is raised several feet above the ground.



Earlier different quarters were planned such that people of a specific community lived there. For example

- Machhlipith: Parsi quarter,
- Gopipura: Hindu communities like Brahmins, *kayasths* and *wanias*
- Wadifalia: mostly Hindus
- Dhatipura Rampura: *Kunbis* (traders)
- Sayedpura- founded by an ancestor of Sayed Idrus family.
- Haripura- Hindus of all castes
- Bohrawad – *Bohra* community. Here is the palace of Mulla sahib, the religious head of the boharas.
- Begumpara was founded in the beginning of eighteenth century by a sister of Aurangzeb, after whom it is called.
- Sangrampura- Brahmins, *Bhavsars*, *wanias*-mostly *Jains*.

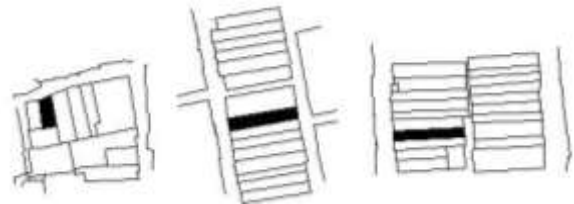
With increase in population and shift in trade, occupation, migration, this is no longer completely true.

## Chapter 3

# SURAT BUILDING TYPOLOGY

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Slow growth resulted in loose accretive fabric with a meandering street network. There is a hierarchy of streets, which are alive with different activities. There is variation of each unit in terms of its façade, volume and plan form.



In Surat there exists different Institutional structures such as Docks, fort, walls, bridge(Hope Bridge), cemeteries, schools, Andrews library, *Mugli Sarai*, Temples, Mosques and Agiyaris. Each period has left tangible evidences in the form of temples, fortresses, masjids, cemeteries, and many monumental buildings.

Because of the high volume of trade and existence of migrant and skilled workers there exist, community housing in different formats, catering to different sections of the society. These are often concentrated along the trade centers.

One unusual building type is the lodging or boarding house, which also finds mention in old literature. These boarding houses were situated at important commercial centers. People from the surrounding areas who had to regularly visit Surat on business preferred to stay at lodging and boarding houses. These were usually single rooms, placed along a corridor with shared toilets. These could be single storey or could rise to a maximum of three storeys.

A similar building type might have also been used for skilled and unskilled workers.

Another type is achieved through the multiple repetition of a building unit. This residential unit could be repeated to as many as six times, and worked almost like a modern flat system. Some of these could be quite well made and elaborate, indicating to the lucrative business the owners must have been engaged in. These could rise up to three floors.

### TYPICAL CONDITION:

#### Plan

There are different communities living here for generations and different plan forms responding to the cultural and social conditions had defined different plan forms and spatial arrangements.

In the Hindu houses, within the first city wall, the plans are linear spaces with the living spaces sandwiched between the "otla"<sup>1</sup> and the "vado"<sup>2</sup>. Houses were generally built on a raised plinth, which is reached by two or three stone steps set parallel to the street. Along the outer side of the plinth is a row of

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<sup>1</sup> Entrance Platform

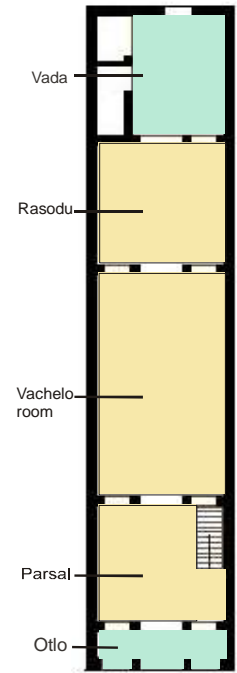
<sup>2</sup> Open space at the back of the house

wooden pillars set on stone pedestals with their capitals let into a heavy cross beam that supports the upper storey.

Behind the row of wooden columns and under the projecting part of the upper storey is the *otla*, which can be two to four feet wide. At the back of the *otla* runs the front wall which has the entrance. Entering from the street the first room is called *parsal* (entrance room) which is generally without much furniture except the *hitchko* (swing). In most cases it is used as a lumber room, or occasionally as a *kaceri* (public room) if the owner of the house is an artisan.

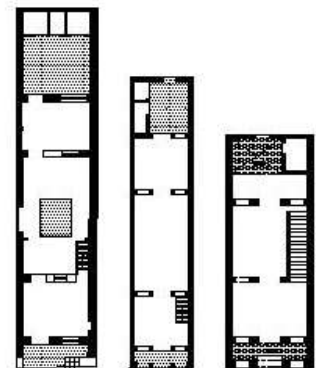
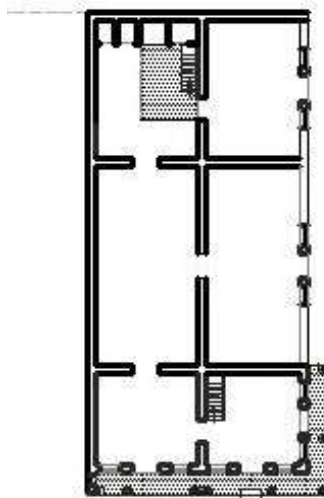
The *parsal* leads to the *chowk* (court). After the court there are generally one or two *ordo*(chambers), which are usually dark and used as a store for grain and even as a bedroom.

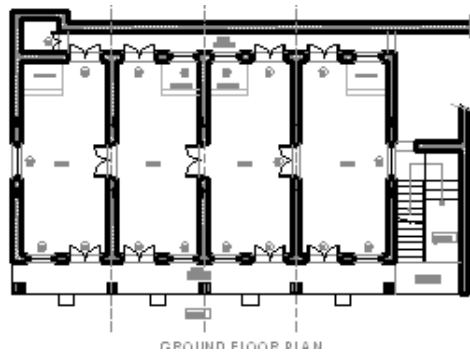
To get to the upper floor *medi* there is generally a wooden staircase in the corner of the entrance room. The room on the upper storey, above the *parsal* is called the *nkhanu*(reception room).Initially none of the houses had a proper drainage system, each of the house had its own covered pit either in the house or in front of the house. Hence most toilets are located on the *otla*.



In some cases the chowk does not exist. Instead an open space at the end of the house called the *vado* provides ventilation. In this case after the *parsal* would be a room or *ordo*, then *rasodu*, from where one would enter the *vado*. The toilets are always entered through the *vado*. Sometimes there is an external entry from the street to the “vado”, which was used by the women.

The ready availability of timber from the nearby Dangs affected the construction of the houses. In a number of them the weight is transferred not on the brick walls but on large wooden posts placed at the corners and at intervals along the inner wall.





Community Housing

### Elevation

The facade has a puncture on the ground floor owing to the recessed *otla* wall. On the first floor the tall window openings divide the facade into two, three or four bays. All the vernacular buildings have either two or three while the buildings with colonial influences have four bays. The horizontal band or architrave is observed in all traditional buildings articulated differently in vernacular and colonial. The elevations for different architectural languages differ in the way the elements are articulated but not in the nature, position or proportion of these elements. Likewise these styles are reflected only in the façade and not in the plan form.

The section through the front facade would define the degree of enclosure on the street. The porous ground floor edge enables interaction with the street.



'community hsg)

(Corner Hsg)



## Chapter 4

# BUILT HERITAGE DOCUMENTATION

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Central zone constitutes of 12 administrative wards of the 34 wards of Surat. According to Census 2001, Central zone has a population of 4.14 lakhs and is spread over an area of 818.00 hectares.



### Methodology for Documentation

UMC initiated the GIS based mapping of living heritage of Surat in Central Zone and Rander *Gamtal*. UMC and SMC discussed the timeline for the project and the data required for the same. A team from UMC also visited the study area and met eminent citizens from Surat for a better understanding of the history and heritage fabrics of the city.

#### Documentation team

*Manvita Baradi, Team leader and Director UMC*

Architect - Urban Planner who believes that historic places form the nucleus of any growing city and that heritage conservation and protection should be every city government's priority. In her 17years as urban planner and development communications specialist, Manvita has done a lot of laudable work in the area of heritage conservation. She has used her



capacities as UMC director and theatre personality to the maximum to promote the cause. Besides producing street plays on the importance of heritage and revitalizing Ahmedabad's Walled City, she has written a detailed on heritage conservation manual for city governments. She has also trained tourist guides. She is also actively involved in transferring of Heritage/conservation initiatives among municipal corporations. Her experience includes developing and administering programs for local governance, citizen participation, capacity building of local government associations and NGOs. She has also been a visiting faculty at the CEPT University for the past 15 years.

*Meghna Malhotra, Program Manager and Deputy Director UMC.*

Architect Environmental planner with special interest in heritage conservation. While at the UMC, she has been actively involved in documenting AMC heritage conservation initiative and has with Manvita Baradi, co-authored heritage management guide which has come in very handy for cities with a rich historic background. In her individual capacity, Meghna Malhotra has worked with INTACH, Madhya Pradesh chapter on documentation and preparation of conservation plan for Udaigiri Caves. She carried out measured drawings of heritage structures of Maheshwar, documented Muslim architectural heritage of Bhopal and prepared an action plan for the same. She has worked in the capacity of program manager for projects pertaining to IEC packages on SWM issues of Municipal Corporation of Greater Mumbai and Conservation of East Kolkata Wetlands. Her experience also includes working with city governments on environmental management issues, training and research on international development, urban planning and capacity building of local government associations and NGOs. Her role also includes providing technical support for Urban Initiatives Program, association and CityLinks activities in India, Sri Lanka, Afghanistan and other select Asian countries.

*Nimish Patel, Advisor UMC and Architect Conservationist*

Nimish Patel is a noted name in the field of Conservation, Historic renovations, Studies of Historic settlements, use of traditional material and technologies in contemporary context, Planning, Urban Design, Architecture, Analyses, evaluation and design for housing in developing countries, and research in related areas since more than three decades . In 1979, he founded Abhikram, a Planning, Architecture, Conservation and Interiors consultancy firm in, with a view to explore a design direction and design process which make Built Environment, functionally, psychologically, environmentally and spiritually, more balanced, contextual and comfortable. He is also a visiting faculty at the Centre for Environment Planning and Technology (CEPT) University. Besides, Abhikram, he has established Panika, a consultancy firm, which concentrates on dissemination of Abhikram's experience and knowledge base of more than two decades of work, Panika Crafts & Technologies, which undertakes conservation management assignments, and supports the survival of the Genetically Inherited/Developed Skills, through promotion of craft-based skills and products.

*Parul Zaveri, Advisor UMC and Architect Conservationist*

Ms Zaveri specializes in Conservation and Adaptive Re-use of historic buildings, Settlement Design, Sustainable Architecture, Institutional Complexes, and innovative interiors & furniture

products. Her areas of specific interest include use of traditional decision-making processes and traditional materials and technologies with focus on the revival of the dying arts and crafts. She is a visiting faculty at School of Interior Design, Centre for Environment Planning and Technology and has written and co-authored several publications which include prominent ones on heritage and architecture.

*Anjali Kadam, Conservation Architect*

Ms Kadam has with more than fifteen years of work experience on working in the area of conservation and heritage management. She has been associated with C.R.U.T.A- A foundation for Conservation and Research of Urban Traditional Architecture for preparation of Plan for Revitalization of 'The Walled City of Ahmedabad'. She was also the project coordinator for Asia Urbs, funded by the European Commission. It was an Urban Conservation project- Urban renewal of Walled city Jaipur. She is presently employed at CEPT, as Assistant Professor for the Architecture and Settlement Conservation Program.

*Ms. Falguni Desai, Architect, Surat.*

Ms. Desai is a noted name in the field of architecture in the city and heads an architectural firm. She is also currently pursuing her doctoral program from the CEPT University. Ms. Desai being based in Surat has a strong bonding with the city and has contributed to the harmonious development of the city. She was an important part of the survey program and provided technical guidance and logistical assistance to the survey teams.

### **Surat Documentation Process**

- To initiate the study in Surat, a kick-off workshop was organized at SMC office in Muglisara. The participants included SMC officials, eminent citizens from various walks of life-such as conservation, heritage, history etc., who shared some case studies and experiences in heritage management. This workshop also provided a platform to discuss the issues related to the heritage management and their probable solutions. Manvita Baradi and Meghna Malhotra explained the methodology which will be adapted in documentation of Surat structures, based on the experience shared by Shri Nimish Patel and Parul Zaveri of Jaipur city. The cross learning of various initiatives undertaken in the country was kept in view which formulating the approach for Surat. Mr Maharshi Desai , Architect highlighted use of GIS in mapping the heritage buildings. Shri Debashish Naik –Advisor, heritage department, Ahmedabad Municipal Corporation presented heritage management initiative undertaken by AMC. He highlighted the need for formation of a heritage cell within the Urban Local Body and various initiatives like documentation and financial incentives for citizens. Eminent Architect Sarosh Wadia mentioned their previous documentation initiatives in Surat.
- UMC, along with a team of experts from heritage management developed a methodology for the survey in Central Zone. It was finalized through discussions with SMC officials that all old buildings with architectural significance would be documented in detail. The documentation would include household survey and photo documentation.

- For identification of such buildings a reconnaissance survey was done for each *Ward*, prior to the household survey with the help of the maps provided by SMC. The purpose of the reconnaissance survey was to identify properties for detailed documentation. This also helped in the estimation of the number of buildings to be surveyed and the distribution of heritage assets in Central Zone.
- Simultaneously, a typology study was also initiated to provide a better understanding of the architecture, building types and inherent typologies specific to Central Zone. This involved identifying the buildings and conditions which are fundamental in creating the character and image of Central Zone. These conditions are being replicated to similar effect in different architectural idioms. Consequently this exercise enabled to establish an indicator for identifying historic fabric which needs to be listed and conserved. This would also assist in development of guidelines for new infill development which could be contemporary yet contextual. Measured drawing of a few typical houses was carried out and major typologies existing in Central Zone were identified
- In respect to plan the specific conditions which required to be understood were the nature and position of the open space in respect to the built form, location of the toilets to give an understanding of the infrastructure and the position of the staircase. It was also important to understand the relationship of the semi private space or “*otla*” with the public realm, which defined the street edge. Similarly the vertical section through the facade defined the degree of enclosure on the street as well as the relationship of facade and street. The porosity of the facade gave an indication to the response to climate as well as an indicator to the social interactions between the private and public realms.
- SMC publishes a public notice in local newspapers to inform the citizens of the survey and appealed for cooperation.
- On 3rd January 2009, a ward meeting was organized with SMC councilors from Gopipura ward at the Gopipura Library. The meeting with councilors and senior citizens of the ward was aimed to brief them about the documentation process and also to gain insights into the heritage of the area.
- Following this, another meeting was organized with Municipal Councilors of election ward 16 (Admin ward 11)-Nanawat.
- Along with these meetings, the UMC team also met with other eminent citizens from the city from diverse walks of life to track the cultural, historic activities in the city. The team met with Shri Ramesh Bhai Nagarsheth, Shri Bakul Taylor, Shri Ratilal Anil Bhai and Shri Chandrakant bhai Purohit. They have details of the eminent writers, poets, theatre personalities who lived in Surat. An attempt was also made to identify any surviving built structures associated with these personalities.
- UMC also contacted well known photography studio owners M/S V N Mehta and co. – a studio which is more than 104 years old to see if old photographs would give clue to the



heritage structures they graciously provided some pictures which could be used for comparison of before after images.

- Old manuscripts of building transactions – property deed were also documented.
- Some sketches of buildings were also compiled. More could be done, if more time is spent.
- Simultaneously, UMC team also read through various books and publications associated with the city. “Surat –Sona Ni Murat” and “Surat-itihass darshan” were among the main books referred. Any information on built heritage was extracted for on-site checking

### **The Survey process**

To fine-tune the documentation process the survey process was two-fold. In the first phase, a detailed reconnaissance survey was carried across the entire central zone. This survey was only for the purposes of identifying properties to be taken up for detailed survey. This included external photography, marking the survey numbers, and identifying the same on the map.

The recce process identified 4450 properties. A detailed screening process based on the photographs taken was undertaken and a detailed survey of 2417 properties in central zone and 574 properties in Rander(separate report submitted to SMC) was undertaken as per the form designed.

To carry out the survey in the Central Zone, a team of architects and final year architecture students was identified. They were trained for the documentation process of heritage buildings.

UMC also prepared a training manual, explaining the questionnaire in full detail and tips on filling the forms. The training manual was provided to each of the surveyors for their reference. The survey form has been presented in **Annexure 1**.

SMC had initially brought out a public notice to inform the citizens about the importance of the survey and requested them to extend co-operation to the survey team.

A list of survey team is presented in **Annexure 2**.



### **Limitations of the Documentation Process**

In Central Zone, numerous properties were highly dilapidated or have been demolished. These properties have not been considered for household survey. Numerous houses were locked, and could not be surveyed, although their facades have been photographed.

Due to several reasons, few household residents also did not allow internal photographs to be taken. Additionally, it was observed that a few houses which were identified for detailed documentation were already demolished when the survey team went for conducting h/h surveys. These houses have been lost in the survey process. But since it's a living heritage, documentation has to adopt to the needs and aspirations of the community. UMC recommends period survey to keep the list updated by SMC.

For purposes of keeping a quality check, UMC core team conducted random on-field checks for the filled questionnaires. For the selected forms, the houses were visited again by the UMC team, and each of the questions was verified.

An excel based data entry of the forms has also been done and the ward wise data has been submitted as a separate report.

The data entered from the forms, have also been checked by the UMC team to maintain the quality and authenticity of the documentation.

The results of the survey process have been mapped using the GIS platform. However, the map is not Geo referenced. The Base Map used has been provided by the SMC. UMC has cleaned up the map for the purposes of adapting to GIS platform, but Geo referencing was not possible with the time and resources available.

#### List of submitted documents:

- Hard Copy of all surveyed forms in files (separate files for Rander and central Zone)
- Hard Copy and Soft Copy of the Excel based data base of the heritage survey (for central zone and Rander)
- Hard Copy and soft copy of the categories of heritage assistance for all the surveyed properties (for central zone and Rander)
- Hard copy and Soft Copy of the GIS based maps for each of the 12 wards in Central Zone and for Rander
- Soft copy of all the photographs (ward wise) for each of the 12 wards and for all tikas in Rander

Some samples of the maps (submitted) in hard copy and soft copy to SMC are here:

