Repurposing the Traditional water elements of Vijayapur as Social node.

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Abstract

Vijayapur is a treasure house of cultures and customs, religions and traditions, art and architecture. Endowed with rich cultural heritage and bestowed with majestic monuments, handicrafts etc. Vijayapur The Great Historical city of Karnataka, It is the treasure of Islamic architecture.

Vijayapur (Karnataka) is noted for its historical monuments of architectural and social importance, which also include the water systems (Bawdis, talabs, ganjs, tanks and khane) taken up during the Adil Shahi times. Apart from providing source of water for the city the water monuments also worked as a center for cultural, social and religious practices.

This paper is an attempt to understand Traditional Vijayapur water systems in contrast to present time piped network. The traditional water system had large footprint within the city. Due to the loss of its function, it now remains as mere artifacts and many of the water monuments are abandoned and are being used as dumping grounds and many of the monuments properties have been encroached. Few of the monuments are being protected by ASI (Archaeological Survey of India) and Wakf Board.

This paper is an initiative to keep alive these water elements and to promote them by giving them a new purpose and by merging these in the existing tourist network. This will help in connecting dispersed Traditional water elements and tourist destinations by connecting them with surrounding open space network with the blend of traditional art, craft and communities. This will help in showcasing traditional water elements in the background of historical monuments and enhance connections of neglected Monuments and thus help in revitalizing

The Identity Of Water Elements of Vijayapur.

Vijayapur is one of the most heritage rich cities in the world, but because of rapid urbanization, changing governments and modernization of the city infrastructure, the water ecology of the valley is negatively affected, water bodies have been polluted and groundwater has dried up from overuse. A dramatic difference between wet and dry seasons in the city further exacerbates this problem as inadequate storage solutions for water in the winter means inadequate supply in the summer.

The water spaces of Vijayapur used to function, and still do to a certain extent, as the arteries of water supply in the city. Unfortunately, due to rapid urbanization and the adoption of Western ideas about how a city should function, these traditional Bavadis (well spaces) are rapidly being forgotten and destroyed by the expanding city. The community structures that once maintained them have disintegrated due to changing ideas of community and public space.
Vijayapur has always seen a hot, semi-arid climate with capricious rainfall, causing water scarcity. The indigenous Indians back then, always collected rain water in structures that would stay accessible all the yearlong, while people could draw the water to tend to their daily needs. For centuries, these Water monuments remained an integral part of the communities as sites for drinking, washing, and bathing. And were used for colorful festivals and sacred rituals. These water monuments, also served as cool refuges for caravans, pilgrims, and common travelers who tried to escape the scorching heat of the day or the cold wind at night.

Historically, Vijayapur has suffered frequent droughts and famines due to very low and erratically distributed rainfall. In the past with limited population requirements and demands, the city under Adil Shahi rule, managed its limited water sources very intelligently using time-tested knowledge and skills. Demand was met effectively with well-developed designs old water conservation, storage and distribution. Some of the engineering designs are so marvelous that stand testimony to the social concern of the engineers in the past. Vijayapur city was nearly 10 lakh population was provided enough water to fulfill its needs. But, today huge population, industrialization, urbanization and management water demand of even about 3 lakhs population is not being met. This is a great challenge that haunts the policy makers and water resource experts. Therefore, there is a need for looking back at the traditional water management systems of Vijayapur.

The paper highlights the local knowledge of a specific ecology, embedded in a culture, can be reformulated to help that culture adapt to modern urban issues and create strong patterns for sustainable development in a society. This project seeks to reinvent the typology of the bawdis, gunjs and talabs as a civic and community space for the Historical city of Vijayapur in order to address issues of water shortage and contamination in the city. Understanding Traditional practices and the indigenous people group has embedded in their culture, language and practices. This knowledge is built up over generations of living in a particular environment and as such the practices of a people reflect close relations with their ecology. The development of these traditions are evident in the products of the culture, and the spaces that a culture builds and inhabits.

Research Question
• How Can Revitalization/Repurposing of traditional water networks help be a solution for in regaining the lost identity of Vijayapur?
- What are the Ways to make traditional water system as a part of the cultural and social life of people?
- What How was the relationship between water elements, open spaces and communities in Vijayapur, and what is lost?
- How to sustain open spaces, public places, water bodies, the monuments and the(ir) relationship with the communities?
- Exploring the potential of the water elements and what are the various methods to reformulate the traditional system?
- Monuments(water) as artifacts? How can the artifacts be part of the urban fabric?

INTRODUCTION
Objectives
The paper identifies current issues with the Traditional water elements, which needs to be rejuvenated and regenerated in order to avoid these water elements being treated as urban backyards and dumping grounds. Because of rapid urbanization and pipeline
system the traditional water monuments lost its importance and are also losing its character. And many of the water monuments are overshadowed with new development.

The main objective is to understand the past relationship between the water elements, green network and the monuments.

-To understand the evolution of Vijayapur with respect to water.
-To understand the significance of the water elements in historical precinct.
-To understand the past relationship between the water elements and the settlement.

Limitations of the study
The study deals with the traditional water elements and monuments which are located only within the core of Vijayapur i.e. within the fort wall.

-Other water elements and monuments which are located outside the core of Vijayapur are not included in the study.

Issue and Problem identification
-Traditional water elements bring urban backyards and abandoned.

-No integration of heritage with other development activities.
-Encroachment of heritage precincts and monuments properties.
-Inadequate institutional coordination.
-Multiple agencies, multiple guidelines, confusion among ULBs.

The city totally reflects multilevel differences in its form and use. Today the general city structure is reflected by the indigenous city core, civic lines, special areas( obsolete areas with temporary settlements), village enclaves and suburban growth.

Functionally, the traditional water elements were working and would serve the settlements and noblemen till the pipeline network was introduced. These traditional water elements were symbol of royalty, would act as social gathering space, served as infrastructure of drinking water and the water monuments also served as landmarks and city assets.

The city authorities identified preservation some of the water monuments and they have been locked up and are not accessible for public use. Some monuments are encroached by the slum dwellers and they misusing the heritage in all possible ways. Some monuments have become dumping grounds and some have been demolished because of urbanization.

Intent-
REJUVENATING the LOST IDENTITY OF HISTORICAL WATER SYSTEMS OF VIJAYAPUR…
LIVING THE PAST IN MODERN WAYS.
- To re-establish the relationship of all the water elements with communities and the city.
- Making water monuments to be a part of cultural and social life of the residents.

Linking the artifacts and creating ways to make the monuments part of social and cultural life of local residents and tourists.

Open space Network highlighted with the Water Bodies and Monuments.

The traditional water elements had purpose of supplying water to the settlements, recreational spaces, spaces for social interaction and also acted as city markers. But, this purpose is lost with development and these spaces have become urban backyards of the city with no purpose.

METHODOLOGY
In order to understand the complex morphology of Vijayapur the project adopts “whole to part” study where on macro level, discussing the generic issues of Vijayapur creating inner city urban contrast within the larger city region.
DELINEATED AREA
The planning area for the thesis includes the area inside the fort wall and immediately around it. The area incorporates major components as part of a general plan.

- Heritage (The walled city has a rich urban heritage representing amalgamation of different architectural styles).
- Communities.
- Green spaces.
- Open spaces
- Water supply.
- Infrastructure.
- Public transport.
- Municipal services.

Land development, development controls and use of municipal properties.

Changing Perceptions of the city.
About Vijayapur.
Vijayapur present a unique case where traditional city core has been structured into three distinct portions:
1. The citadel.
2. Fort wall and inner city.
3. New development outside the fort wall.

The urban sprawl beyond fort displays a distinct character compared to that which is within. The fort, with its gates, initially conceived as a protective boundary has now due to the shifting and concentration of the forces resulted in set of fragmented land use along its peripheries.

Today, the traditional core of the city which was once recognized as "Queen of Deccan" is caught in chaos. The city that was plundered, redefined and controlled a number of times still retains an overwhelming and enigmatic historical character, which flourishes even today with the long lasting socio-cultural patterns imbued in peoples lifestyle. The walled city has lost its significance as a core associated landscapes have become the unanticipated version of architectural negotiations. Today the old city reflects a patchy collage of incongruous landscapes and the superimposed geometry of architecture.

NEED IDENTIFICATION
City is a product of continuous layering and restructuring of its precedents. In case of Vijayapur, the central civic structure laid its basic foundation which turned into a holistic, organic development confined within the walls. The process of development although, non-controllable, however established sense of continuity in its built form. The non-operational areas of the city need to be regularly evaluated and recycled to transform into a fresh component, necessary for the overall city sustainability.

LOCATION
AT CITY SCALE

The Walled city of Vijayapur.
Vijayapur-Changing perception of landscape.
The walled city of Vijayapur
Many indigenous cities in India, nonetheless Vijayapur, evolved out of societal cultural patterns "as a whole" incorporating piecemeal proliferation of architectural styles as obtained in the later Islamic imperialism. The idea of growing as a whole not only strengthened the cities autonomous controls but also governed its internal laws and future continuity, the period 17th century B.C and 18th Century B.C depicted the 'process' which finally shaped the formal characteristics of indo-Islamic city. The city space characterized by the social activities contained in them.

-NH52 which connects Solapur gets diverted through bypass.
-Torvi road which connects to Belgaum and Gulbarga cuts across the site.
-The Railway line connects to Vijayapur.

KARNATAKA
Schematic map showing Vijayapur with other location points.
Vijayapur was established in the 10th-11th centuries by the Chalukyas of Kalyani. The city came under Khilji Sultanate in Delhi by late 13th century. In 1347, Vijayapur became part of Bahamani Sultanate of Gulbarga. In 1428 Gulbarga city became the Provincial Bahamani Capital. In the 16th century, Gulbarga became part of the Vijayapur Sultanate. Vijayapur known for its past glories. Adil Shahi's capital included Arkilla as focal point, Jamia Masjid as praying centre, and the fascinating market as its commercial zone. The new monuments became central focus of the planned forum which imitated Persian landscape styles and architectural motifs(domes, jalis) from many Indian architectural styles. Water elements like talabs, bawadis and khanes became the main attraction of public spaces.

In an introduction to an album of Vijayapur published in 1866, Philip Meadows Taylor wrote: “Palaces, arches, tombs, cisterns, gateways, minarets, all carved from the rich basalt rock of the locality, garlanded by creepers, broken and disjointed by peepul trees, each in its turn is a gem of art and the whole a treasury.”

In the second half of 16th century, and 17th century under the aegis of Adil Shahis, the capital city of Vijayapur was called as the **The Great Metropolis Of The Medieval Deccan**
Bijapur is a historic city planned as per Islamic Principles, with culturally and religiously diverse communities. The city has traditional agricultural and horticultural economy. Unlike other historical cities in India, Bijapur lacked natural defences and had to be strengthened by huge fortified walls. It has an Outer Ring Fort and an inner fort enclosing the arikala (citadel).

Bijapur's Base Map - Fortification, Gateways, Central Historic core and street pattern
Shahapur had ramlinga tank and Navraspur had Torvi tank. And Vijayapur which was the administrative capital had no source of water. For any Civilization to
happen as for any settlement survive water is the main source.

Ali Adil Shahi then plan to get water from Begam tank and ramlina tank Vijayapur City he initiated underground ducts and water system. Mohammad Adil Shahi when built Begum Talab and he Drew water from Begum Talab the Citadel. Kalyani, Chalukyas, Yadavas, Brahmins concentrated more on expanding the territories. Vijayapur seen its prosperity and reached its Glory during Adil Shahi Times. He had close relationship with Persian and initiated all the water works in Vijayapur. Aqueduct underground water networks Talabs/Bawadi were all initiated during this time. Many people started coming and settling in Vijayapur because of the water facilities. artist started settling. There was growth in agriculture and economy flourished. even Mohammed Adil Shahi contributed to the water system. the channelized water from Begum Talab to the inner Fort wall till the sat Manzil through water Tower. During this period population reached up to 10 lacs.

Decline
During 16th century Aurangzeb invaded Vijayapur he destroyed ramlina tank that affected Vijayapur economy and Vijayapur saw many droughts. People started moving out of the city. During this time Vijayapur+Navaraspur+Shahpur was said to have 10 lakh population all together. Its said that during 18th Century Vijayapur had 700 Bawdis and 300 wells.

CHRONOLOGY OF WATER BODIES
Earlier Kalyanis, Chalukyas, Yadavas, Bahamanis Vijayapur started next to Torvi sarovar during 11th Century. Adil Shahis started their Kingdom on the highest point by building Citadel, and water was pulled out from Toravi tank and Ramalinga tank. Then during 1620 Begam talab was built and the water for inner fort was drawn. During 1850 Hanchanal Tank was built and water needs of the city was fulfilled. During 1920 Bhutnal Tank was built and fulfilled the needs of the city and serves even now. Ramalinga tank and Begam Talab have dried up now.
Since the historical times water was very much needed for the existence and survival of Vijayapur. Adil Shahis have invented very interesting ways of harvesting water and storing it. It works well even now. Now, we have to find modern ways and we have to rethink on how we are going to use them.

Ganjs were used as water reservoirs. This was nothing but water towers. Such structures were found all along the fort. But have been demolished except a few.

This huge stone structure can be easily identified over the rest of the buildings. As this was the water source, residences have sprung up around this from the olden days. These were also served as the landmarks. The city under Adil Shahi rule, managed its limited water sources very intelligently using time tested knowledge and skills. Demand was met effectively with well-developed designs old water conservation, storage and distribution. Some of the engineering designs are so marvelous that
The city under Adil Shahi rule, managed its limited water sources very intelligently using time tested knowledge and skills. Demand was met effectively with well developed designs old water conservation, storage and distribution. Some of the engineering designs are so marvelous that stand testimony to the social concern of the engineers in the past.
Supply of water from Torvi sarowar and Ramalinga Tank to the Outer moat, Chand Bawadi and to Taj Bawadi (Ali Adil Shah I - 1560)

Adil Shah’s had developed a sophisticated water system which supplied water to all palaces, Mosques, Bawadis and tombs in abundance. Even common people had access to fresh and clean water. The finest water works can be seen in Vijayapur.

Ganj would also act as water supply system and also would act as gathering point.

Supply of water from Begam Talab to the Inner moat, through Ganjs (Mohammed Adil Shah - 1630)

Water was stored in the ganjs and it was supplied to all the fountains, palaces, fields and moat.
Adil Shahi’s knew the methods to conserve, harvest, and store water. They built chains of subterranean tunnels, which were the primary source to water supply from talabs and wells to the city core through underground tunnels.
Bijapur Water system

Water system of Bijapur worked in such a way that if one well/tank fills then water goes to next tank and it gets filled. Talabs would cater water to all the bawadis and reservoirs.

WATER CATCHMENT AREA - NATURAL AND MANMADE (MOATS)

HISTORICAL IMPORTANCE OF WATER ELEMENTS IN VIJAYAPUR

DEFENCE  ROYAL

INFRASTRUCTURE  SOCIAL

Defence -

INNER FORTWALL MOAT

OUTER FORTWALL MOAT
Vijayapur is located in such a way that the contours forms a basin, where the water gets collected. Vijayapur becomes the catchment area.
CATEGORIZING WATER ELEMENTS

1. Water element as monument ex-Taj bawadi, chand bawadi, Shahi bawadi etc.
2. Monument along with water element. ex-Jamia masjid, jod Gumbaz, Ibrahim rauza etc
3. Monument next to water element. ex-Gol gumbaz, sangeet mahal, asar mahal etc
IMPORTANCE OF WATER BODIES DEPENDS ON THE
-Aesthetics
-Monuments
-Function of the water body
-Number of visitors
-Tourist attraction

THEORIES
LEON KRIER’S “CITY AS BACKGROUND AND MONUMENTS AS FOREGROUND” THEORY
Leon Krier, in his book The Architecture of Community defined the following basic elements of community. First, the city’s Public Realm is made up of Foreground / civic buildings and civic spaces(streets / churches / parks / libraries), and that the Private Realm consist of Background / privately owned
buildings and spaces (houses, offices, shops). These realms are interdependent and shape our neighborhoods and towns.
The challenge is getting the balance right. In every era, every city and every neighbourhood must distinguish between private profits and the public good. They must find the balance point between the few ‘public’ places sufficient to support social functioning amid the vastness of the ‘private’ quartier home to everyone’s everyday private affairs.
Aldo Rossi’s Theory of Urban Artifacts and the city

According to Rossi, construction is a process that is inseparable in value to time. Ever from its evolution, mankind has built favorable surroundings with its roots in its civilization. These built forms transform themselves over the years overlapping the theme of its own development and thus there is a contrast in the existence of the structure over time. The change of nature of the ‘urban artifact’ may diminish the value of the evolution, overriding the rational design of ‘locus’. Singularity of one region of the city is what characterizes them as locus. Urban singularity has to take care of these artifacts. The development of the city about these artifacts or a group of them in a certain locality constitutes the nature and morphology of the city and this frame of reference helps Rossi to define ‘Urbanism’.

Individuality of urban artifact

The form of the city can be studied with respect to the works of engineering and massive structures, and structures characterized by their own history. Richness of the history is the characteristic of an urban artifact, its auspicious character and ominous moments of life makes it an indispensable part of the city. An urban artifact is a work of art. A city is always seen as a piece of human achievement over the years and this piece of art holds the major contribution for the collective individuality of the city.
A city can only be reconstructed in the form of urban quarters. A large or a small city can only be reorganized as a large or a small number of urban quarters; as a federation of autonomous quarters. Each quarter must have its own center, periphery and limit. Each quarter must be A CITY WITHIN A CITY. The quarter must integrate all daily functions of urban life (dwelling, working, leisure) within a territory dimensioned on the basis of the comfort of a walking person; not exceeding 35 hectares (80 acres) in surface and 15,000 inhabitants. Tiredness sets a natural limit to what a human being is prepared to walk daily and this limit has taught mankind all through history the size of rural or urban communities. There seems, on the contrary, to be no natural limit to the size of a functional zone; the boredom which befalls man while driving a car has made him forget any sense of physical limit.

The form of the city and of its public spaces cannot be a matter of personal experiment. The city and its public spaces can only be built in the form of streets, squares, and quarters of familiar dimensions and character, based on the local tradition. Whether of grand metropolitan or intimate local quality, the streets and squares must present a permanent and familiar character. Their dimensions and proportions must be those of the best and most beautiful preindustrial cities, obtained from and verified by a millennia old culture.
Reviving an ancient tank
Suresh Bhat

BJAPUR: There was a large influx of people into Bijapur after the fall of the Vijayanagar empire, and new settlements came up within the walled city raising the need for better infrastructure and providing water supply.

Ali Adil Shah (1557-1580), who was at the helm of affairs then, got a tank constructed near the eastern boundary and named it after his wife Chand Bibi. A grandeur complex came up around the Chand Bawdi (tank). The complex was mainly used to house the maintenance staff though members of the royal family occasionally used it for recreation.

The tank became so popular that it became a model for many others constructed in the city and elsewhere in the following years. There is information to suggest that the tank, the storage capacity of which is 20 million litres, was live till the Bhutkal tank, a new source of water, was constructed in the early 20th century.

Considering the architectural value and historical significance, the tank was declared as being of national importance and was listed among the protected heritage sites under Archaeological Survey of India. But it remained a garbage dumping pit for decades.

However, thanks to the new initiatives of the ASI the monument is regaining its aesthetic look. Nearly 10,000 tonnes of waste was removed from the tank, and it is now filled with water. Repairs to the dilapidated parts of tank complex are in the final stages, and a huge gate is being fixed to regulate visitors. The ASI has so far spent Rs. 8 lakhs on the work.

As the water was not being used for months it has become contaminated. The ASI plans to supply water to the surrounding localities free after chlorinating it. It believes that regular withdrawal of water helps make the water potable as the tank gets recharged with fresh water.

Although there is no proper approach road, the monument has already started attracting tourists, including foreigners. The ASI has requested the state authorities for a road, though there is no concrete assurance from the latter.

According to G.S. Vennateshaiah, Superintending Archaeologist, Dharwad Circle, the department is also giving a facelift to other protected monuments such as Asaf Mahal and Venner Burj, popularly known as Gyan Tor. He told The Hindu over phone from Dharwad that a similar approach would be adopted on other monuments. He added that all these plans would be implemented in consultation with the Archaeological Survey of India.

Gol Gumbaz, Ibrahim Rozza, Gagan Mahal, Jamia Masjid and Bake Burj, giving a new lease of life to the monuments, will go a long way in boosting the tourism potential of Bijapur, he added.

Move to get Taj Bawadi under ASI
STAFF CORRESPONDENT

Several non-governmental organisations (NGO) associated with the Archaeological Survey of India (ASI) and Civic Municipal Corporation here on Thursday undertook cleaning of the Taj Bawadi, a water body built during the Adil Shahi era.

The NGO, accompanied by around 200 NGO volunteers, spent nearly two hours removing filth and garbage that had been thrown into the tank. Asamchi social activist Rajashri Pande flagged off the programme. Assistant Superintendent of Archaeology of ASI Sujit Jeyasree, also volunteered to clean Taj Bawadi.

Maintenance problem

Speaking to The Hindu, Peter Alexander, president of NGO Federation of Bijapur, said the failure to maintain the water body had turned it into a garbage-dumping tank.

Regarding that even the residents here had failed to realise the importance of the heritage monument, Mr. Alexander said public awareness was required to protect and preserve Taj Bawadi for posterity.

Mr. Alexander said that since the tank was not used for toilet purposes, people used the tank as an open toilet. He also regretted that no effort had been made to stop the immersion of Ganesh idols in the tank.

Amit Mehra, one of the volunteers, said the district administration should appoint a security guard outside the tank and put up a fence to prevent people from dumping waste and immersing Ganesh idols.

Meanwhile, Mr. Jeyasree and Taj Bawadi had been removed from the ASI list of protected monuments. A proposal will be sent to the government to bring the structure under the protected monuments list and hand it over to the ASI, he said.

"The Taj Bawadi used to be under the ASI, but later it was handed over to the WM Board, which was not maintaining the Bawadi," he said.
The Hindu

> TODAY'S PAPER > KARNATAKA
Bijapur, June 4, 2013

Bhuntal tank goes dry

- Staff Correspondent

Water has not been supplied from the Bhuntal tank since 2012 because of the scarcity of rain. — Photo: Rajendra Singh Majeri

The century-old Bhuntal tank, one of the city's primary sources of drinking water, has dried up owing to scanty rainfall.

The tank was designed and built by Sir M. Viswanaraya in 1915 after he was approached by members of the then Bijapur municipality to provide a solution to the city's drinking water problem.

As per his suggestion, the municipality built a tank on December 23, 1907 near Bhuntal, a small village near the city. The tank took its name from the village.

Cost:
The tank was built at a cost of Rs. 6.5 lakhs, of which Rs. 2 lakhs was government grant and the rest was given as loan to the municipality.

Construction was completed in 1915, jackwell installed in 1913, and the project was officially inaugurated on February 7, 1914.

According to officials, the tank, when full, meets the needs of 25 per cent of the city's population for 18 months; however, since 2012 water is not being supplied from the tank as there is not enough water in it owing to poor rainfall.
MAPPING MONUMENTS
Vijayapur fort wall city is dotted with many monuments, which are rich in architecture, and many of the monuments are in a ruined state now. National level monuments attracts tourists from all over India and outside. And there are few monuments which are at city level importance and which the local residents relate to. The Monuments can be categorized into National/Regional level Importance and City/Neighbourhood level Importance.
City under Adil Shahi rule, managed its limited water sources very intelligently using time tested knowledge and skills. Demand was met effectively with well developed designs old water conservation, storage and distribution. Some of the engineering designs are so marvelous that stand testimony to the social concern of the engineers in the past. Vijayapur city was nearly 10 lakh population was provided enough water to fulfill its needs. But, today huge population, industrialization, urbanization and management water demand of even about 3 lakhs population is not being met.
The Bawdi (Tank) was built by Ali Adil Shah in the 16th century on the eastern boundary of Bijapur. The fall of the Vijayanagar Empire saw a huge influx of people into Bijapur which witnessed new settlements coming up within the walled city raising the need for better infrastructure and water supply. The tank claims to have a storage capacity of 20 million litres of water which later on became a model for many other tanks constructed in the city. A grandeur complex came up around it, which was mainly used to house the maintenance staff though members of the royal family occasionally using it for recreation. Adil Shah named it after his wife "Chand Bibi".

The Bawdi (Wells) were the main source of water during the rule of the Adil Shahi kings in Bijapur. With their unique architecture, attractive carvings and grandeur, these enchanting bawdis were Water System of Bijapur brimming with water till about three centuries ago. But these heritage structures have been vandalised and fallen into disuse.
Ibrahim Adil Shah of the Adil Shahi dynasty built Taj Bawdi (well) in 1620 in honour of his queen Taj Sultana. The square well is said to be 223 sq feet and 52 feet deep. It is flanked by two octagonal towers. The eastern and western wings of the tower formed rest houses for the tired travellers. A small platform from the archway leads you to the well. Flights of stairs on either sides of the platform lead you to the water. There is a narrow gallery on the inner side of the four walls covered by arch surfaces. The gallery passes through large rooms meant for the use of travellers.
Section through Taj Bawadi
BUILDING USE WITH ASI
BOUNDARIES
STAKEHOLDERS

Here are many stakeholders involved when it comes to monuments and water elements. In Vijayapur out of 132 monuments, 98 monuments are encroached by slum dwellers and new development. All the stakeholders play equally important roles. Their needs have to be considered and aspirations of all the stakeholders should be taken in consideration.

STAKEHOLDERS

Stakeholders specifically related to the water monuments and intervention area are mentioned below:
SURVEY ON TAJ BAWADI

Survey was conducted around the Taj Bawadi and Jod gumbad precinct. Total 183 people participated in the survey of all age group and class. Among which 53 were Men and 50 Women.

Peter Alexander, president of NGO Federation of Bijnor

The failure to maintain the ancient water well turned it into a garbage dumping site. Apart from that, the residents have not failed to realize the importance of the heritage monument. Mr. Alexander said that public awareness was required to protect and preserve Taj Bawadi for posterity.

He said that since the survey around the tank had no toilets or drainage, people were using the tank area as an open toilet. He also reported that no efforts had been made to stop the immersing of Garhwali stock in the tank.

Amit Malik, one of the volunteers said that the district administration should appoint a security guard outside the tank and put up a fence to prevent people from dumping waste and immersing Garhwali stock.

Poonch Bijnor

"Taj Bawadi had been removed from the ASI list of protected monuments. A proposal will be sent to the government to bring the structure under the protected monuments list and send it to the ASI," he said. "The Taj Bawadi used to be under the ASI, but later it was handed over to the World Bank, which was not maintaining the Bawadi."

Tourist said: "The garbage deposit hampers the beauty of the tank. As the tank is clean, the tourists will visit the tank," he said. "The garbage deposit hampers the beauty of the tank. As the tank is clean, the tourists will visit the tank."

A local resident also said, "Taj Bawadi is a star, A heritage site but it is in a bad condition. When I get some time in the evening, I sit on the steps and stop people who only Taj Bawadi as I have a contract to this place.

Questionnaire Survey

1. Do you live in Bijnor?
   - Yes: 103
   - No: 97

2. How many years are you living in this location?
   - Less than one year: 6
   - 1 to 5 years: 9
   - 6 to 10 years: 17
   - 11 to 50 years: 52
   - 51 or more: 20

3. Do you think the Taj Bawadi is polluted?
   - Yes: 100
   - No: 3

4. Are you worried about pollution in the Taj Bawadi?
   - Yes: 102
   - No: 98

5. Do you drink water from Taj Bawadi?
   - Yes: 69
   - No: 44

6. Do you avoid doing religious practices because of pollution?
   - Yes: 46
   - No: 42
   - Never do religious practices anyway: 16

Is it accessible to you?
- Easily accessible: 69
- Not very accessible: 27
- Not accessible: 8

8. How comfortable are you going into the waters?
   - Very comfortable: 50
   - Not very comfortable: 35
   - Uncomfortable: 0

9. When was the last time you visited?
   - Within the last 3 years: 20
   - Within the last 5 years: 20
   - Within the last 7 years: 20
   - Within the last 9 years: 20
   - Within the last 10 years: 20

11. Is your opinion how frequently do you walk along the monuments?
   - Every day: 9
   - Every week: 4
   - Every month: 6
   - Every year: 2

12. Is your opinion how frequently do you walk along the monuments?
   - Very clean: 8
   - Fairly clean: 12
   - Poorly maintained: 20
   - Very poor maintenance: 6

13. Do you feel comfortable being close to the Taj Bawadi?
   - Yes: 50
   - No: 20
   - Uncomfortable: 30
The water spaces of Vijayapur used to function, and still do to a certain extent, as the arteries of water supply in the city. Unfortunately, due to rapid urbanization and the adoption of Western ideas about how a city should function, these traditional Bavadis (well spaces) are
rapidly being forgotten and destroyed by the expanding city. The community structures that once maintained them have disintegrated due to changing ideas of community and public space. Intent of the research is to understand the significance of Built and Cultural heritage of the place in creating the Identity of the place. Understanding historic and heritage character of the place and understanding the place at an urban level and connect the urban to the cultural heritage. Exploring the role of Cultural Heritage and Built Heritage in value addition to the place. Vijayapur has always seen a hot, semi-arid climate with capricious rainfall, causing water scarcity. The indigenous Indians back then, always collected rain water in structures that would stay accessible all the yearlong, while people could draw the water to tend to their daily needs. For centuries, these Water monuments remained an integral part of the communities as sites for drinking, washing, and bathing. And were used for colorful festivals and sacred rituals. These Water Monuments create an IDENTITY of the city, and the Communities and the local authorities should try and understand the significance of the bawadi(Stepped wells) and Transformation and Revitalisation of abandoned Stepped wells(bawdis) at Bijapur is needed.

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