



RESEARCH PAPER

Morphological Analysis of Historical City Centers: A Case Study of Uch City Including Gillani and Bukhari Towns

¹Ayaz Mahmood ²Iftikhar Ali * ³Zeshan Ahmad

1. Associate Professor, Department of Architecture, The Islamia University of Bahawalpur, Province Punjab, Pakistan.
2. Assistant Professor, Department of Architecture, Hazara University Mansehra, Province Khyber Pakhtunkhwa, Pakistan
3. Assistant Professor, Department of Architecture, The Islamia University of Bahawalpur, Province Punjab, Pakistan

***Corresponding Author:** arch.iftikharali@hu.edu.pk

ABSTRACT

The objective of this research is to characterize the morphology of historic city centers and to create a comprehensive plan for their long-term preservation. The historical cores of a city, which can be thought of as collections of structures and memorials that are significant both historically and architecturally, are a part of the city's identity. It is crucial to actively protect historic centers and the areas around them from harm of any kind, particularly from harm brought on by inappropriate use, unnecessary additions, or insensitive modifications. The case studies of Uch Gillani and Bukhari Town, which were selected for this purpose, served as illustrations of the detrimental effects of urbanization on Historical Centers. To gather the information needed to assess the conditions, visual and observational surveys in addition to interviews were conducted. The study also focused on earlier restoration efforts that were made inside historic districts. The study's conclusions led to a set of suggestions that ought to be included in any upcoming comprehensive conservation plans for environmentally friendly development in the area.

KEYWORDS Heritage Conservation, Historical City Centers, Sustainability, Uch

Introduction

Uch Sharif, one of the oldest towns in Pakistan, is 50 km west of Bahawalpur and is well-known for its stunning tombs and ruins that are decorated with blue mosaic and other adornments. It was regarded as the most significant cultural hub in the 13th century ("Uch Sharif," n.d.). The town flourished under Alexander the Great's rule, and since then, numerous dynasties, including the Delhi Sultanate, the Mughals, and the Ghaznavids, have left their mark on its landscape, witnessing the rise and fall of numerous civilizations and leaving behind an awe-inspiring legacy ("UCH," n.d.). The city comprises three parts; each centered on three historical mounds. The three parts are Uch Bukhari, Uch Gilani, and Uch Mughlan. Uch Bukhari is located on the higher of the three mounds. Syed Surkh Bukhari and Bibi Jiwandi's mausoleum complexes and the remains of a buttressed fortification located at the western end of Uch Bukhari are at the highest point of the city.

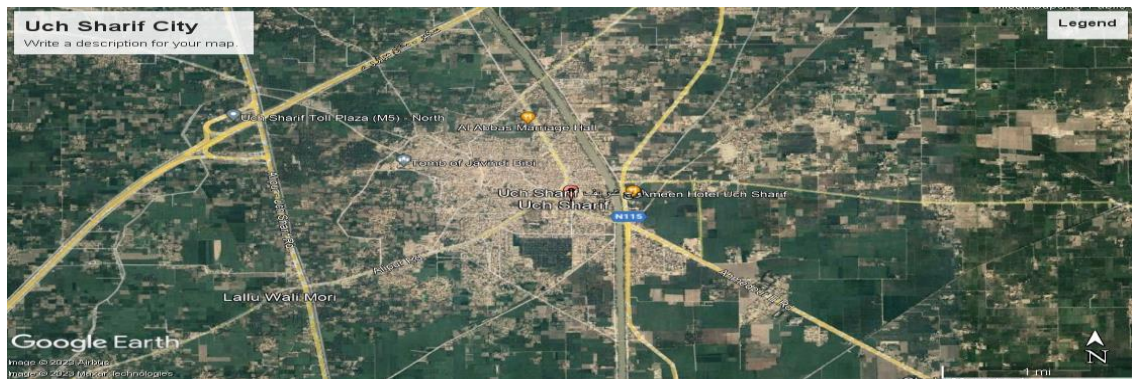


Figure 1 Google Earth Image of Uch Sharif City

They are at an approximate height of fifteen meters from the fields below. They make up the southwestern corner of a point that is the western edge of Uch Bukhari and where the current settlement of Bukhari is built. When viewed from the west, this eroded edge shows old brick foundations and buried walls that show how the city has been built up over time. The river Sutlej flowed past this side of the city till the 16th century after which it shifted several times. The last of these relocations of the riverbed took place in the 19th Century when it swept away part of the Western part of the Bukhari cemetery where Bibi Jawandi's tomb is located. The settlement of Uch Bukhari slopes gradually downwards towards the north and east from this point.

Current Status

The maximum height of Uch Gilani is at its center, which is considerably lower than the highest level of the Bukhari settlement. From here the mound slopes gradually in all directions. Till the late eighties, the two settlements Uch Bukhari and Uch Gilani were distinctively separated from each other by the Mela ground. Over the last two decades, the Mela ground has shrunk in size. During this period a linear bazaar of kucha shops developed cutting the mela ground into two. This string of shops now connects the Gilani and Bukhari bazaars.

Uch Mughlan is located two kilometers from the main city in southeast-south directions and sits on a much lower mound.

Street Patterns

The basic street design, even in the modern areas of the city, has a certain degree of irregularity to it. This is because of two factors: the curved form of its natural limits and, of course, the influence of the city's old urban plan.

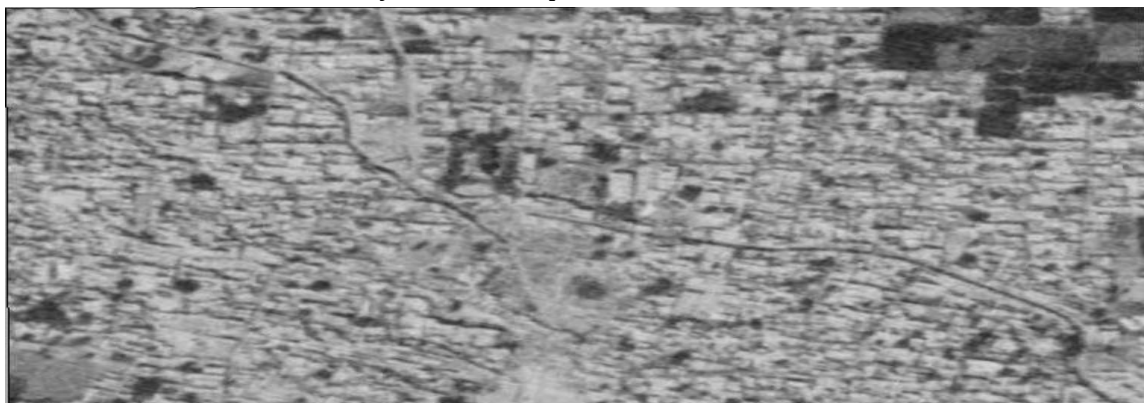


Figure 2 Partial Satellite Image of UCH city showing Gillani & Bukhari Mohalla

The Categorization of Street Patterns of Uch Gillani & Bukhari

The existing arrangements of the street pattern of Uch Sharif City can be illustrated as follows based on their functionality:

Primary

It's the key thoroughfare connecting the neighborhood to the rest of the city, where there are more opportunities for living, learning, playing, working, and shopping. The street's width is adequate for the passage of large vehicles.

Secondary

It is a secondary roadway that is narrower than the one that came before it. Its primary purpose is to provide access to houses and streets that are smaller. Because the people who live in each Mohalla spend a lot of time together and act like one big family, these streets are the first unit of community in the neighborhood.

Tertiary

The main street and the minor street are connected by this type of roadway, which acts as a connector. Because it was intended to serve people in addition to carrying light cars, it is significantly narrower than the secondary road.



Figure 3 Blow up plan of Main Roads, second, tertiary and closed ended streets patterns

Close Ended

These are two small streets that terminate in dead ends and serve as the final threshold of the sequence.

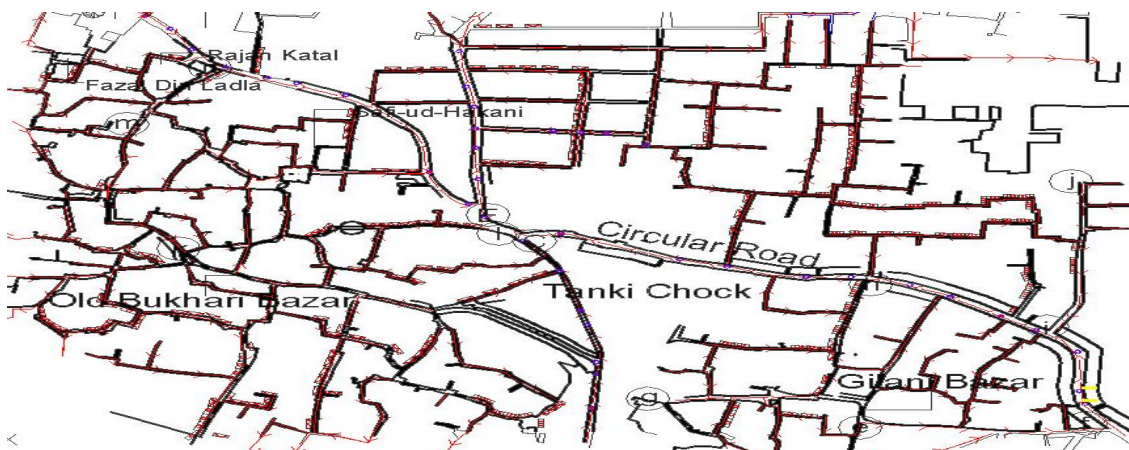


Figure 4 Main Roads, second, tertiary and closed ended streets patterns

According to Valleta principles of ICOMOS (2011) historic cities and towns are made up of both tangible and intangible components make up. In addition to the urban structure, the tangible elements also include architectural components, landscapes within and around the town, archaeological artefacts, panoramas, skylines, view-lines, and landmark locations. Examples of intangible components that form the foundation of an object's historical value include activities, symbolic and historic purposes, cultural practises, traditions, memories, and cultural connections.

This study evaluates the land use and activity pattern of the historical area with the following parameters and analyze that over 70% of the active force of Uch Sharif is an agricultural base involved in the surrounding and reaming business class (Khan, 2014).

- These things can be put into the following categories: residential and business events (trade creating the support of the economic structure they signify) Furniture and metal shops make up 29% of workshops, and 11% of wholesale (Shafqat, 2014).
- Historical buildings in this are mainly, the Tomb of Abu Hanifa, Tomb of Bibi Jawandi, Tomb of Ustad Nuria, Tomb of Baha-ul-Halim, Tomb of Musa-Pak Shaheed, Shrine of Hazrat Jalal-ud-Din Bokhari and attached mosque, Shrine of Makhdum Jahanian Jahangasht and attached mosque, Shrine of Hazrat Fazal Din Ladla, Shrine of Hazrat Mahboob Subhani and attached mosque, Shrine of Sibi Tagni, Shrine of Rajan Qatal., Tomb of Safi-ud-din Gazruni, and Shrine of Hazrat Hasan Darya Kabir (Cheema, 2013).

Material and Methods

Problem identification and objectives were specified by detecting the relevant field of study of the area. The data was collected from a literature review and Conservation and Rehabilitation Centre (CRC) about the city. The growth of the city was observed from its expansion plan prepared by the authorities over time (Mohsin, 2015).

The identified settlements were visited to observe the current conditions based on the method of morphological analysis. After analyzing the built-up features and the environmental conditions recommendations were made. Town Committee Uch, Bahawalpur, Punjab, and experts from the dissolved Urban Unit of Lahore were consulted about the previous city conditions and current workings.

The research is a qualitative type, based on available data from the site and literature, reconnaissance survey, and drawings representing the current factors to address the statement of the problem i.e., Unintentional, and ill-planned urbanization in the historic city of Uch Sharif is increasing over time due to which living conditions of the inhabitants as well as heritage are deteriorating and to achieve the objective i.e. To observe the regeneration of the zone for improvement of recreational as well as commercial activities.

Contextual Analysis of Uch and its Surrounding Towns

After a flood destroyed the whole city in 1970 and forced people to live on a very small area of land, Uch City began to grow in a way that was important historically. After 1971, the children of Jalal ud Din and Jilani rebuilt the whole city in the main sector of "Uch Bukhari" to keep its religious and historical standing. Even in 1973, there wasn't much change in how Uch Sharif used its land, which was only 157 acres. The city was split into two main places to live: the Uch Bukhari settlement in the north and the Uch Gillani settlement in the south. Many honorable families like "Jalal ud Din (R.A.)" lived in Uch Bukhari, which was home to most of the town's people. People only lived in two minor Mohalla's namely, Khawajgan and Sodhgaon, below Uch Bukhari. Uch Gillani was in the town's southern part.

In 1973, 112 acres, or 71% of the whole area, were used for living. The town's commercial area was limited to one market that ran along the Uch Bukhari and Uch Gillani rivers. This market was called the "traditional Chunnri Bazar" of Uch. This shopping center took up 12 acres of land. According to the town's municipal committee, there were no more than 882 homes in the town in 1973. The number of public facilities was also small, with only three educational institutes, one rural health center hospital, a post office in Mohalla Gillani, and a town committee on 10 acres. 8 acres were taken up by schools and colleges. The religious area was 13 acres and had tombs and old graveyards. There was a total of 157 acres. At that time, there was no manufacturing growth, and the business area was only half an acre, which was shared by a few small businesses (Khan, 2014; Mohsin, 2015).

The land is the most important resource for humans to have to carry out a wide variety of functions and activities; however, how land is used can vary greatly depending on what these functions and activities are, such as the production of food, the processing of materials, and so on. Human activities such as urbanization, deforestation, and intensive agriculture have significantly affected the Earth's surface during the past 50 years, resulting in an imbalance in ecosystem services and also shaping the organization of cities (Shafqat, 2014). Changes in urbanization and land use are two examples of how human activity has altered the planet, with major consequences for ecosystems and biodiversity. The growth of cities is having a major impact on how land is being put to use. Whether it's from births, deaths, migration, or reclassification, the United Nations defines urban growth as the rise in urban population of any town or city represents the highest possible percentage (Haub, 2014).

It is the social revolution that has had the most significant impact on the history of human civilization. This can take the shape of suburban expansion as well as significant changes in the city center. According to the findings of another study conducted by Rui, fast urbanization and population growth have both contributed to a rise in the need for land to accommodate urban populations. According to Government of Punjab, the growth of cities, however, is not just restricted to increases in people; it also involves changes in the geographical dimensions of the city .

S.W.O.T Analysis



Figure 4 Traditional Bazaar



Figure 5 Chunri bazaar in Uch

Strengths

- The position of Uch Sharif town is close to Bahawalpur City and Derawar Fort.
- The occurrence of historical buildings dating back to the reign of the Sultanate Period, which focus on commercial and recreational events.
- The historical buildings of Uch Sharif town made use of eco-friendly materials to familiarize themselves with the environmental conditions of Muslim cities. These materials included sandstone, glaze tiles, and timber (Khan, 1987).
- The walkways were organized hierarchically, beginning with pedestrian streets and progressing to vehicle streets.

Weakness

- Owing to the presence of historical monuments dating back to the UCH settlement, which is under severe threat, the theme of the built-up fabric is currently shown as a haphazard trickle of various architectural styles (Bell, 2010).
- There were no patterns in the allocation of land use in the Historic town, as evidenced by the wide range of purposes that were located there, such as (manufacturing, marketable, housing, massive, and some administrative structures).
- The lack of streetscape elements such as lighting fittings, furniture, signage, and waste removal along the Uch Sharif town limits the town's character.
- The presence of a housing core in the heart of the city is degrading as a result of impractical urban planning.
- The lack of critical public amenities and facilities to accommodate the site's urban expansion.

Opportunities

- Monumental buildings are always a center of attraction, whether for tourists or residents, and they appear in commercial and industrial activities that are related to the identity of the place. And these buildings can be found in commercial and industrial activities that are related to the identity of the place. This creates job opportunities and helps raise the socioeconomic level of the people who live there, which is beneficial for everyone.
- Based on what has been observed, the rate of tourist driving is straight relative to the actions that are situated in historical sites. This is one of the supportive things for tourism because it allows people to explore such places carefully and gain an understanding of diverse civilizations, which inspires the preservation of the streets in their current state according to their proportions.
- The restoration of historic structures, to repurpose them in ways that contribute to an improved quality of life for locals and make it simpler for visitors to become acquainted with the customs of the area.

Threats

- A rapid decline in a building's condition might be caused by a high population density.
- Vibrations from traffic and an extensive transportation network can damage the structural integrity of older structures.
- The presence of slum communities that lack access to necessary services contributes to sanitary issues caused by poor infrastructure.
- Due to a lack of infrastructure investment, the demolition of residential buildings is hastened by the presence of underground water (Shah, 2022).

Conclusions

In the most recent decades, it has become increasingly recognized that the restoration and renewal of historic centers is an effective instrument for city growth, producing social standards with financial chances and assistance. This has occurred in several cities across the United States. The worth of each historic building is not only grounded on the presence of its separate components; rather, it is based on the integrity of all its components as a one-of-a-kind product of the particular building technology that was prevalent at the time and location in which the building was constructed. Hence, the elimination of the interior components and the maintenance of merely the facade does not meet the standards for conservation.

While thinking about development from a conservation standpoint, one should not only keep in mind the preservation of the natural and constructed environments, but one should also give equal weight to the preservation of the essential components of the community situation. It is not typical to observe the devastation of historical or cultural amenities, even though each succeeding generation has a responsibility to protect and pass on the cultural and historical bequest it has inborn.

Recommendations

Governmental Protocols

- **Architectural elegance:** The main quadrangles that encompass the historical sites of the UCH town must demonstrate a hierarchical progression in architectural elegance to re-create the essence of an Islamic city for tourists.
- **Materials:** Rules must be enacted mandating the use of traditional materials and their development to attain an ecological historical environment.
- **Social conditions:** Due to the deterioration of buildings, government rules must set the rental law so that it is suitable for the space, such as a family of five people with an extreme of three people per room.

Urban Development

- **Land use:** The key goal is to keep the town of Uch looking the same, so points of interest must be spread out along the streets of the neighboring town so that tourists can walk through the city without getting bored.
- **Transportation:** There needs to be enough parking to make it easy for tourists to get around.
- Making pick-up and drop-off spots for public transportation so that people could get to their homes easily without hurting the historic buildings.
- There needs to be a barrier between sidewalks and public roads so that tourists can move around the town of Uch more easily.

Public awareness

- The growing rate of illiteracy in Uch City is having a devastating impact on the city's monuments since its residents do not understand the significance of these landmarks to the economy.
- Improving people's literacy so they can participate actively and cooperatively in conservation efforts.

Upgrading of cultural and communal setting

- Generating jobs over development projects like tourist attractions since the area is a hub for emigrants and tourists.
- Raising the public's awareness of the significance of historical sites and teaching the locals about them.

Public Realm and Open Spaces

- The street and the consecutive system of pedestrian spaces need to be given more attention if the city center is to become more appealing to upcoming operators and stockholders.
- Providing a better coordinated and easily readable townscape for everyone who uses it, including drivers, cyclists, and passengers on public transportation.
- A better streetscape treatment will connect newly constructed public areas to those that already exist. The renovated and improved venues will include community art, landscaping, lighting, and aquatic features.
- Relaxed street-level movement is crucial for public and occasional reasons as well as to increase general foot traffic and foster a sense of community vibrancy.
- To improve the feeling of pedestrian comfort, the awareness and graphic supremacy of the motor car must be reduced.

References

- Arshad, S., Malik, M. N., & Malik, M. (2017). Spatial dimensions of urban growth and land use changes in a small city of Bahawalpur District, Pakistan. *Universal Journal of Engineering Science, 5*(2), 17-28
- Bell, J. S., & Böke, H. (2010). Comparing the old and new: traditional building materials and the Uch Monument Complex, Pakistan. *Conservation and management of archaeological sites, 12*(2), 107-123
- Cheema, Y., & Bell, J. S. (2013). Integrated investigation, assessment, intervention design, and implementation as a model for conservation practice. *Conservation and management of archaeological sites, 15*(3-4), 348-368.
- GOPB (2011). *Punjab Cities Improvement Investment Program (PCIIP)*. Government of Punjab.
- GOPB (2014). *Urban Development Sector Plan 2014-2018*. Housing Urban Development & Public Health Engine
- Haub, C., & Kaneda, T. (2014). *World Population Data Sheet*. Population Reference Bureau. Washington DC, USA.
- ICOMOS, U. (2011). The Valletta principles for the safeguarding and management of historic cities, towns and urban areas. *Principles, as adopted by the 17th ICOMOS General Assembly*.
- Khan, A. A., Arshad, S., & Mohsin, M. (2014). Population growth and its impact on urban expansion: A case study of Bahawalpur, Pakistan. *Universal Journal of Geoscience, 2*(8), 229-241.
- Khan, A. N. (1987). Naked Brick Architecture of Early Islamic period of Pakistan. An Analytical study. *Pakistan Archaeology, 23*, 1987-1988.
- Mohsin, M., & Minallah, M. (2015). Rapid urban growth and change in urban and municipal limits of Bahawalpur City, Pakistan: a spatio-periodical discourse. *J. Basic Appl. Sci, 11*, 528-538
- Shafqat, A., Noor, S., & Fatima, M. (2014). Practices and challenges of municipal solid waste management in Bahawalpur city, Pakistan. *Journal of Sustainability Science and Management, 9* (1), 90-98
- Shah, A. M. W., Ali, A. I., & Shah, A. Q. A. (2022). Disaster Risk Reduction (Drr) Measures For Heritage Site At Risk, A Case Of Bahu Dere In Swabi-Khyber Pakhtunkhwa, Pakistan. *PalArch's Journal of Archaeology of Egypt/Egyptology, 19*(2), 1303-1319
- Tourism, Archaeology and Tourism Department, Government of the Punjab, Uch Sharif*. (n.d.). Retrieved July 5, (2023), from <https://www.tourism.punjab.gov.pk/uch-sharif>
- Tourist Information center Uch Sharif, ABOUT UCH SHARIF*. (n.d.). <https://uchsharif.com/new/about/>