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Conservation of the Tomb of Safi-ud-Din Garzoni at Uch Sharif, district Bahawalpur, Punjab, Pakistan

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Abstract:
Urban spirit assessment and its value are crucial globally in developed countries when it comes to protecting heritage, and the same should be taken into consideration in developing countries as well. Due to their dynamic nature and ongoing evolution, historic cities present a more challenging assessment. In Pakistan, several historical buildings have been the custodian of regional cultural and architectural heritage for many decades. They are currently in bad condones and require immediate conservation/restoration to keep them alive for the next generations. Uch Sharif has a long history of religious and architectural significance. Monumental tombs are the container for a city's most significant social, cultural, and architectural characteristics. However, they must contend with several degrading processes, including weathering, vandalism, a lack of organized mechanisms for maintenance and repair, and improper use by various stakeholders. This paper attempts to conservation of a 13th Century monument in Uch Sharif, namely the tomb of Safi-ud-Din Garzoni. It is a marvellous combination of many civilizations in the form of its architectural styles and significant element and construction techniques. The study's findings, in the form of proposed interventions, will apply to other overlooked monuments in Uch Sharif and other cities throughout Pakistan.

Keywords: Conservation, Heritage, Monument, Uch Sharif, Tomb, Elements, Interventions.

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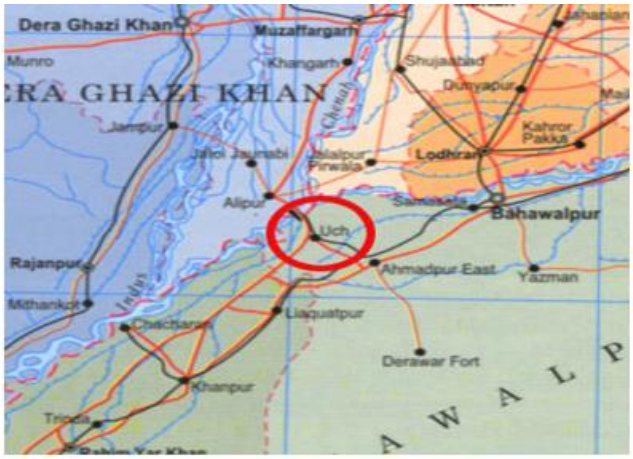
1. Introduction

The city of Uch Sharif is a pre-Mughal ancient city located in the province of Punjab, Pakistan. The city is divided into three sections, each centred on a different ancient mound. Uch Bukhari, Uch Gilani and Uch Mughlan are the three sections (Arshad *et al.*, 2017). The highest of the three mounds is where Uch Bukhari is situated. The mausoleum complexes of Syed Surkh Bukhari and Bibi Jiwandi, as well as the remains of a buttressed fortification, are situated at the western end of Uch Bukhari, the city's highest point. They are at an approximate height of fifteen meters from the fields below. They make up the southwest corner of a promontory that forms Uch Bukhari's western border and is where the current Bukhari settlement is located (Cheema & Bell, 2013). This eroded edge, which is visible from the western side, reveals ancient brick foundations and hidden walls that attest to the city's historical layering. Until the 16th Century, the Sutlej River passed by this side of the city before changing its course 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 (Ashraf *et al.*, 2022). The settlement of Uch Bukhari slopes gradually downwards towards the north and east from this point.

The maximum height of Uch Gilani is at its centre, 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 Bukahri 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 kilometres from the main city in southeast-south directions and sits on a much lower mound.

Figure 1: Map showing the context of Uch Sharif



1.1. Built heritage of Uch Sharif

Uch is an ancient city in the state of Bahawalpur (Bell & Böke, 2010). It has been historically important to the subcontinent as it has seen the rise and fall of the Slave Dynasty, Khilji's, Tughlaq's, Syed's and also the local rulers like the Qureshi's and Langah's. During the Sultanic period, Uch was politically important. It was the capital of Nasiruddin Qabacha when he was

the ruler of Sindh and Multan. The city culturally reached its climax during this time (Allchin & Allchin, 1982). However, it came under the Delhi Sultanate's rule at the time of Shamsuddin Altutmish when he defeated Nasiruddin Qabacha (Ahmed, 2012).

Historically, Uch has played an important role as a metropolitan and religious centre, attracting foreign invaders and visitors alike, particularly since the 12th Century beginning of Turkish rule in India. Before that time, there is only scant mention of Uch in local histories, though it has been suggested that the city may date as far back as the Harappan civilization (3000-1500 BCE), which was spread throughout much of the region., as Mohammad Rafique Mughal notes, it is unquestionable that Uch is a place of "considerable antiquity, dating originally to pre-Islamic times at least." The building materials used are mostly bricks (Khan, 1987).

1.2. Tomb of Safi-ud-Din Garzoni

The Sufism influence, and the most relevant to the monuments and the present-day identity of the city, is the great religious significance attached to Uch because of the settlement of numerous Sufi saints (Khalid & Gilani, 2010). These religious philosophers and thinkers, in efforts to disseminate their teachings and establish orders of their own throughout the subcontinent, often founded sanctuaries and educational institutions in the region. Safi-ud-din Haqqani Gazroni, whose tomb is in Uch, is believed to have founded the first of these in the late 10th Century, concurrent with the first Ghaznavid incursions from Persia. This "Gazroni" madrasa, along with the Madrasa-t-ul Ferozia in Uch from the 12th Century, are both mentioned as still being in existence in a fourteenth-century manuscript. The establishment of the Suhrawardy (also Suhrawardia) Silsila in Multan in the 13th Century had a significant impact on Uch (Mohyuddin, 2019). Organized and mobilized by Shaikh Baha-ud-din Zakariya, whose tomb in Multan is a worthy example of domed tomb architecture, the Suhrawardy order spread to Uch in the person of his disciple Syed Jalal-ud-din Surkh Bukhari (595-690 AH / 1197-1291 CE), originally from Bukhara (Rakumān & Tirmizi, 1991). In his account, the renowned traveller Ibn Battuta mentions Abu Hanifa as a prominent Qazi of Uch who lived in the latter half of the 13th Century A.D. as mentioned by Mohyuddin (2019).

2. Conservation of Tombs

Disasters pose a variety of threats to cultural heritage around the world and in Pakistan (Parisi & Augenti, 2013, Erkal *et al.*, 2013). When heritage can reproduce the information to preserve the culture, its significance is multiplied (Al-hagla, 2010). Cemeteries and tombs are regarded as one of the components of every society that serve as important historical markers. They stand in for the social fabric of that society (Riegert & Turkington, 2003). People show the deceased great respect when they are either their family members, friends, or anyone else to whom they have strong emotional or religious ties. People frequently visit cemeteries to find peace and conduct historical research, as is generally observed. Cemeteries are seen as a source of information about a place's social history in this sense.

The form and degree of detail in any tomb's inscription, when examined, reveal historical truths, reveal a sense of its spiritual, commemorative and evolutionary nature. One of the most significant aspects has always been the responsibility for maintaining its architectural design. Most of its designs are influenced by natural features. One of the components that convey the significance of the person is the scale and level of detail.

We must ensure that these tombs are carefully maintained, preserved and conserved for future generations considering the aforementioned factors. The conservation process is a planned strategy to minimize damage and decay, stabilize the structure and stop or delay the further deterioration of the building, object, or artefact (Erkal & Ozhan, 2014).

2.1. Present condition

With the time glaze kasha tiles are decaying. The main roof/ceiling of the monument is demolished due to natural factors i.e., Rains, etc. Thorough conservation is required as per the original pattern.

2.2. Decorative features

The tomb's exterior is decorated with beautiful, glazed Kashi tiles. The tomb is constructed in a rectangular plan, which is built at an elevated level from the ground. As with time dilapidated structure has lost flat roof. The walls are decorated and ornamented with glazed tiles and Kashi Gola, Marlon. There are several graves inside the monument. Conservation/restoration work is necessary to preserve this monument.

3. Research methodology

Safi-ud-din Garzoni's tomb is a significant piece of cultural heritage. It is significant in terms of historical evidence, culture and aesthetics. However, because of its long age and the weather, it has deteriorated. The research's methodology included mapping out the building's damages and documenting, surveying and capturing them on camera or with old documents. Throughout the entire exercise, a list of the overall damage assessment was developed.

4. Documentation

It is crucial to accurately identify a historical building's characteristics before beginning the conservation process. As suggested by Hamamcioglu-Turan and Akbaylar (2011), intervention in conservation requires documentation.

Figure 2: Site Plan of group Monuments in Uch Bukhari, Uch Sharif

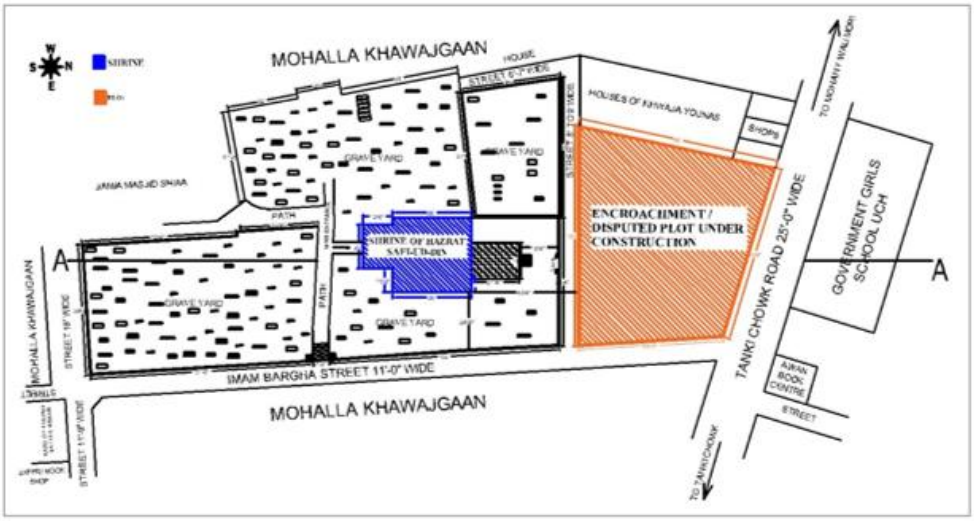
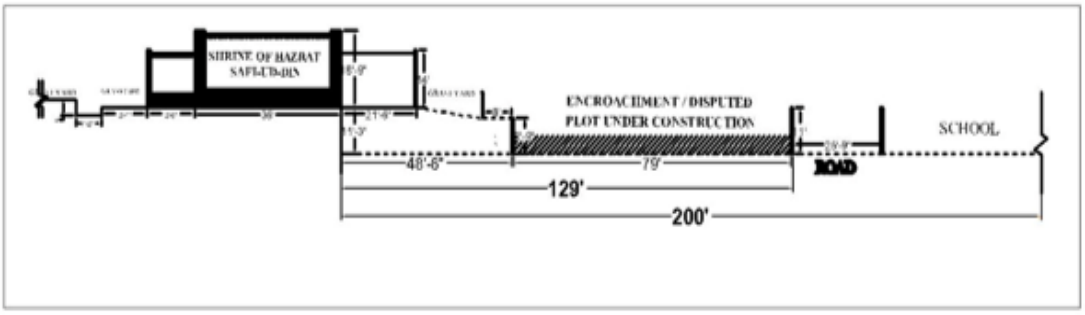


Figure 3: Sectional view of site plan of group Monuments in Uch Bukhari, Uch Sharif



4.1. Survey

Figure 4: North side elevation of Monument in Uch Bukhari, Uch Sharif

Manual survey, intensive-triangulation method, which includes instrumental survey: Plane table survey, total station, etc., and in some situations, it is a combination of manual and instrumental methods.

The end product is in the form of drawings, manual drawings, auto-cad drawings and rectifying photography.

4.2. Record of historic remains on the Monuments—to under changes in the life of the Monument

The single-chamber, three-tiered tomb of Safi-ud-Din Garzoni has a dome, stepped-back octagonal transition zone and battered walls and tapering corner buttresses at the base. Like the

other tombs, this one has openings on the south and east facades. The sirhana niche and mihrab would have most likely been located on the west and north facades, respectively.

Figure 5: Front view of Tomb, Safi-ud-Din Garzoni at Uch Sharif

5. Mapping weathering forms or damage categories---visual observation of causes of decay and damage

The following weathering forms are correlated with the severity of building damage:

5.1. Very severely damaged

5.1.1. Exterior

23 different types of weathering are responsible for the deterioration processes that the Safi-ud-Din Garzoni tomb is going through, 17 of which oversee the level of deterioration that falls under this category of damage. The tomb structure's interior and exterior both clearly show signs of damage in this category.

5.1.2. In exterior and interior

Most of the lower base (between 1m and 2m in height) and upper portions (between 4m and the building's height) are suffering from extremely severe damage. Humidity is primarily to blame for the damage, which results in the loss of the tomb's protective sheath. This process is still going on both inside and out.

The exposed surfaces have their flaws. First, there are spaces between the surfaces and their decorative layers and second the mud mortar is dissolving. When mortar becomes wet, it begins to lose its compressive strength and causes moisture to seep into the pores of nearby materials,

eventually causing the loss of it. Due to the biological activity associated with glaze loss and the presence of soluble salts, this problem could cause serious harm if it is not resolved. Due to the loss of the wooden structural components, the building is now extremely fragile in some areas and prone to falling even with a light touch.

It is a serious loss to lose the glazed components. Here, the D.O.A.M. interventions behave similarly to how they do at other city monuments. The extensive brick infill in the hollowed-out area of the masonry at the base of the monument in the south, south-western and north-eastern walls is likely to create shear discrepancies that will undoubtedly negatively impact the old brickwork because it was laid in an excessively strong cement mortar. On the horizontal surface atop the eastern and north-eastern exterior walls of the same monuments, the layer of thick cement concrete is excessive.

5.2. Severely damaged

5.2.1. Exterior

It includes glazed elements and the plaster of the dome because, with the right maintenance, further decay might be prevented or at least slowed. Numerous processes contribute to their decomposition.

5.2.2. Interior

It includes the timber loss and glazed revetment disengagement. It is possible to swap out original timber members for new ones without adding any incompatible materials to the structure. It is possible to reattach and/or consolidate glazed revetment that is separating from its support.

5.3. Moderately damaged

5.3.1. Exterior

The original masonry that is still visible on the exterior and interior sides may have a minor damage because it is in deteriorating condition. In the absence of adequate prevention measures, which were necessary at the time of the department's intervention, it will eventually result in their loss.

5.3.2. Interior

The reasons for the development of small cracks in the masonry and the issues they present are like those previously mentioned.

5.4. Slightly damaged

5.4.1. Exterior

Through proper maintenance and security, the anthropogenic loss of glazed revetment can be stopped.

5.4.2. Interior

Like the loss of timber members brought on by natural forces, this category also includes the loss of timber members brought on by anthropogenic forces that can be prevented through better site monitoring.

5.5. Very slightly damaged

Depending on the level of the decay and the type of deterioration, this weathering form is causing in the fabric of the nearby materials, the dissolution of the mud mortar from the joints may fall under either this category of damage or the “slightly damaged” category. The monument's interior and exterior both exhibit this damage. On the other hand, depending on the substance into which the water has seeped, the humidity stains can be categorized as one through three.

6. Mapping of different types of material used—to understand the compatibility

The inner structural core of this monument is like that of other tombs in the city, while the revetment layers are mostly like those of Ustad Nuria. The physical properties of both have been discussed in the respective sections. Gypsum is used as the setting mortar for the flat tiles of the interior, while a layer of plaster with a ring of glazed tiles is used to cover the dome. Due to its inaccessibility, this plaster has not been examined. The authors suggest keeping in view its historical nature and distinct kind of construction, to keep the traditional building techniques to restore it (Ali *et al.*, 2020).

Figure 6: Side view of the Tomb, Safi-ud-Din Garzoni at Uch Sharif

7. Building damage assessment overview

Table-1: Assessment overview of building

Nature of Damage/ Building Elements	Severe	Moderate	Minor	Destruction
I. Structural elements				
Foundations			☒	
Walls		☒		
Roof				☒
Columns & Load bearing components	☒			
Beams		☒		
Framing and connecting elements			☒	
Visible façade bracings	☒			
Vault/truss/roof bracing				☒
Floors/ slabs			☒	
Domes				☒
Buttresses			☒	
Other Elements			☒	
II. Non-structural elements				
Overhanging elements			☒	
Spires / Pinnacles			☒	
Parapets/ Lintels		☒		
Cladding/ Glazing	☒			
Fresco / Wall Painting			☒	
Doors		☒		
Windows		☒		
Stairs			☒	
Floor tiles (Historical)				☒
Decorative elements such as lighting fixtures, false ceilings, etc.				☒
Shelves and showcases				☒
Plumbing / Electrical fixtures				☒
Other non-structural fixtures			☒	

8. Conclusion and recommendations

The monument's constructional fabric is a rough-fired brick and mud mortar core, reinforced with timber in a similar manner as others. It is clad mostly with fine-fired brick on both the exterior and the interior. In addition, decorative glazed bricks, end plugs and tiles are knitted

into the functional core on the exterior, while flat tiles are set in gypsum mortar in the rectangular frame on the interior. The use of such tiles indicates a later construction date than those of the other two monuments under examination.

The monument has undergone a significant amount of deterioration through natural weathering. These processes of decay are further aggravated by the recent interventions carried out by D.O.A.M. of the tomb's initial octagonal form, only three complete and one partial side remain at ground level. The drum has two complete and two partial façades, while the dome is almost completely lost, with only a portion of its base on the southeast side remaining. The upper portions of both tiers are missing, along with the upper portions of the buttresses. The weight towers of the drum are no longer present.

Based on the above study and conclusions it is recommended to enhance the life of monuments by following the protocol of conservation, initially restoration of monuments and later applying the latest conservation techniques. Furthermore, the local community may be involved in public awareness regarding the importance of heritage and its care to avoid damages due to human actions as well as taking on board the Department of Archaeology, Punjab for its repair and maintenance.

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