

# Architectural Documentation of Jam Nizam-Al-Din Samoo Tomb, Makli, Thatta

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**Abstract** - The first class monuments of Sindh are in threat before any havoc occurs we must document the important on time. In case of any incident, we would be able to restore it accordingly. This paper initiates the documentation culture and hopefully, other architects and conservators will follow it. The tomb of Jam Nizam-al-Din Samoo (Jam Nindo), Makli, Thatta is a monumental structure of 15th century constructed with stone. This documentation will thoroughly cover all the parts of monuments its degradation process and suggestions on conservation by recording the deformation in its surrounding land and human vandalism, alarming growth in the building developed diagonal cracks and many other negative effects. In order to save the monument from collapse, urgent actions will be solicited to stop the decay process. In this connection, extensive documentation has been made. For the observations and monitoring purpose, two tell-tale devices were fitted based on this empirical study and literature reviews quite a few suggestions and recommendations are made for the preservation and conservation of the monument. The extensive surveys and measurements taken so far are put in format and made ready for publication, modern cad software are used in this process.

**Keywords:** first class monument, deformation in structures, restoration of monuments, extensive documentation, tell-tale devices.

## I. INTRODUCTION

Makli more generally recognized as Makli hill, is located 3.2 kilometers from Thatta on the way links Thatta with Karachi. The site Makli is one of the biggest burial in the globe consuming funereal tombs of ruler's, soldiers, saints and their clans. It is recognized as a funeral place in the 14th century after that site used as funeral land for 4 centuries by the governing reigns. At present-day it is recognized by UNESCO as a safe world heritage site. There are many stories and myths about Makli that how it was named Makli. Some affiliate it that a tourist travelling to Mecca for a holy

pilgrimage stopped at Makli. After watching the Jamia Masjid and surrounds called "Haddah Makkah li" (it is Mecca for me) and kept on saying in the state of happiness. Yet another story relates after the "Mai Makli" who is buried next to Jamia Masjid close to the Samma cluster at Makli hill.

The tomb of Jam Nizam-al-Din also known as "Jam Nindo" was the ruler of Sindh from (1461 to 1508 CE). The tomb of Jam Nizam-al-Din Samoo or (Jam Nindo) is a monumental building of 15th century completed with stone. Its stone is fabulous and distinctive the monument of Jam Nizam-al-Din is being among the first structures built at Makli which is carrying unique architectural characteristics is endowed with special significance located as it is among a large number of significant monuments that date from 14th to the 18th century.

## II. RESEARCH METHODOLOGY

This research is primarily based on qualitative and quantitative techniques of statistics collection. The quantitative method including open cease questioners, specific interviews, and literature review this may be written as

- With the help of a literature review.
- Interviews, surveys.
- Use of tools to gather data regarding environmental factors.

The first phase includes field survey. The cause of the survey has a look at via the usage of 'observation', 'interview'. While inside the second phase of the survey, the records associated with the exterior environmental elements might be performed that allows you to discover the causes affecting stone monuments.

## III. ARCHITECTURAL FEATURES

As described by Junejo [1] and Lari [2] the arrangement of the momentous is square with passageways at three laterals, north, south, and west while the east lateral has covered with a mashrabiya/jali (stone cut screen). All the dividers have diverse thickness but produce an almost rectangular interior

closet. The southern and western walls have a width of 6 ft., in which the south divider contain the slim ladders which lead to a higher gallery/balcony and then at the top of the testament. The western wall, however, comprises the interior of triple mihrab niche and the flight of steps after the primary landing. The northern and eastern walls are about 3 ft. 6 inches thick. The western wall outwardly helps the balcony. The rectangular plan is transformed into an octagon through the use of squinches at the elevation of about 12 ft. and then an hexadecogone, which has the height of about 23 ft. The monument is 30 ft. tall having the length and width of 38'x38'. [1]

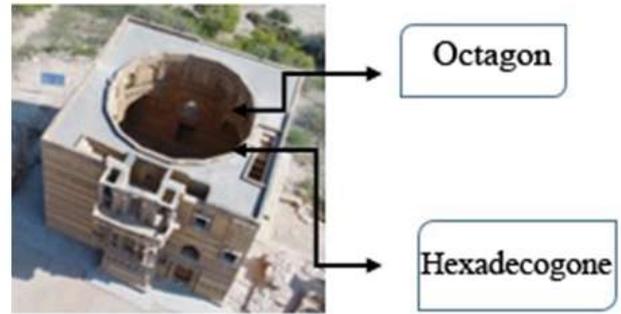


Figure-4: Transition of octagon to hexadecogone

#### IV. EXTERNAL CHARACTERISTICS

The frontage of the monument is of furnished sandstone consuming carved keynotes covering all over the place of the rectangular monument. There are in general 14 ensembles of chiseled reliefs which include a single band of inscription in classical thulth calligraphy. The chamber has entrances at north, south, and west. While the north entry has been sealed and no more in usage. The monument has highly carved architraves at entrances like the rest of the monument. From the Hindu, Buddhist temple, one extraordinary feature placed at the entrance is a “moonstone” which has insignificant importance. The eastern elevation has enclosed opening with a stone carved screen. The southern frontage has unfinished bands of carving shimmering at the element that it was built in the end. The passageways at southern and western sides are off the corner; while south entry is narrow than the whole obliging from inside the tomb, stair going to the gallery at the western wall. The western wall has the most outstanding feature of the elevation the decorative projected gallery. [1]

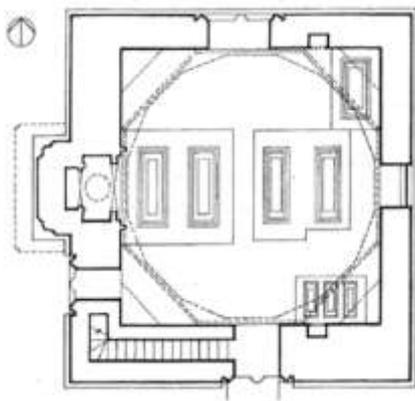


Figure-1: Foundation Plan of the Tomb



Figure-2: Aerial View of the Tomb

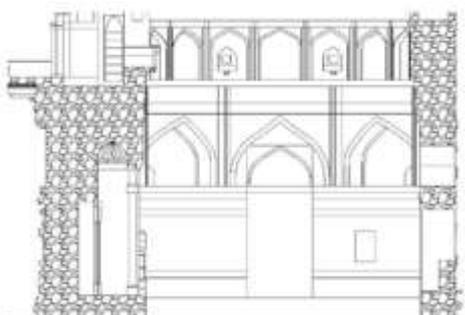


Figure-3: Section of the tomb

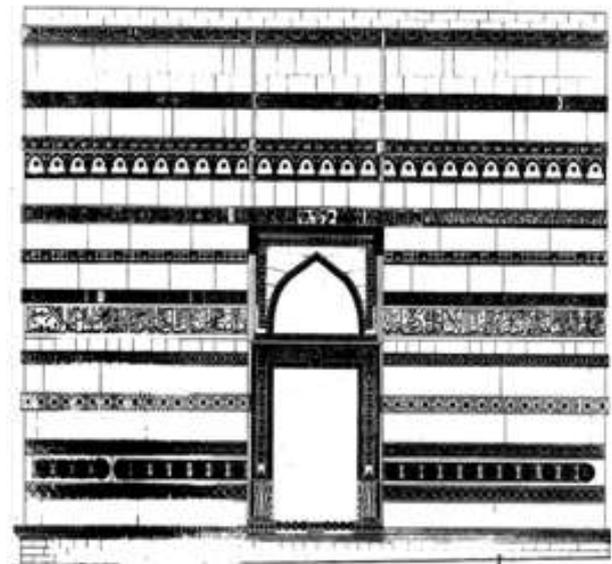


Figure-5: North Elevation [2]

### V. ORNAMENTAL MOTIFS

The elevations are not covered completely with engraved stone as an alternative fourteen rectilinear ensembles of ornate styles chiseled at the stone through sequences of plain outfitted masonry, as shown in figures.

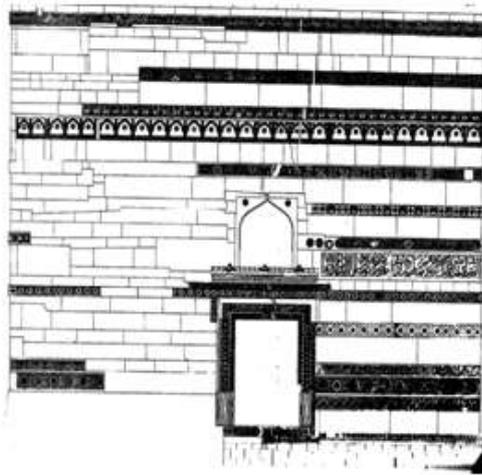


Figure-6: South Elevation [2]

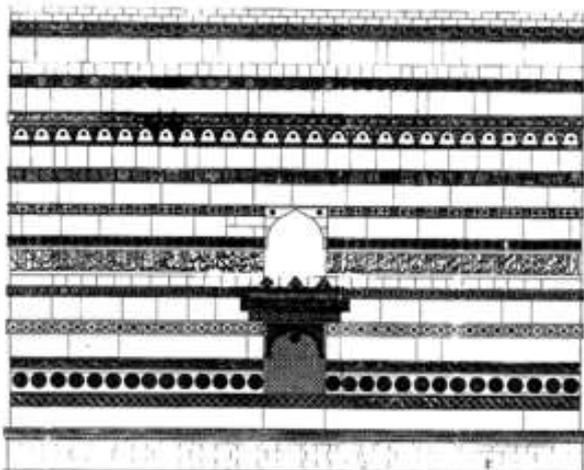


Figure-7: East Elevation [2]

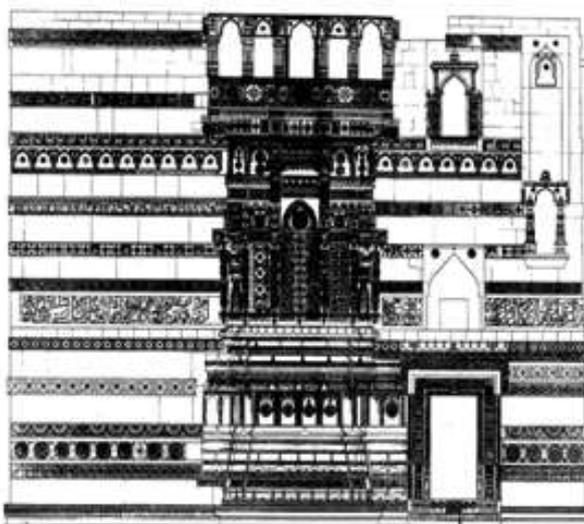


Figure-8: West Elevation [2]



Figure-9: 14 Ornamental Motifs

### VI. THE BALCONY

In the west faced of the Jam Nizam-al-Din tomb, the purity and skill of the stone carvers replicated in the balcony of the tomb. To reach the balcony there is an entrance from inside the monument by a staircase that reaches to topmost of the monument's balcony has the width of 10ft 6 inches. The balcony can be divided into approximately four levels. The first is the lower part of the plinth having a strong presence with very a smaller amount of shape as compared to the whole balcony. The 2<sup>nd</sup> level contains blind arch detail similar to the (figure 25<sup>th</sup>) pattern, except any ornamental feature. The third level comprises of the finely chiseled niches which are the most attractive part of the whole balcony. The 4<sup>th</sup> level comprises the balcony and zigzag supports. The fourth level of

balcony projects just about 3 feet outmost from the niches below in level three, 6 supports are carrying the balcony proper. It can be seen in balcony some plain pieces of stone, signifying that a part of the gallery was probably left incomplete.

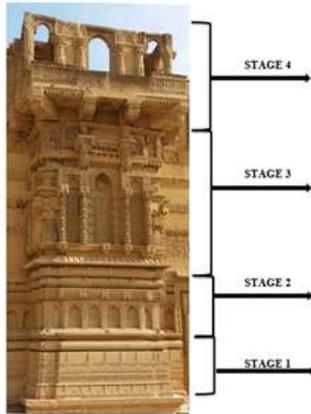


Figure-10: West side of the Monument

Specialist like Yasmeen Lari and Sohail Lari says skillful decoration, particularly in the balcony, as “religious carving” giving the ensemble an almost intellectual position exactly so. The easiness with which all the dissimilar portions of the bands, consuming a various group of decorations from local and Islamic bases comes collected.[1]

**VII. INTERIOR OF THE MONUMENT**

The inside of the monument has an asture so far magnificent sensation with light passing through the opening on top. The interior of the monument has same decorative bands as seen in the façade of the monument it the tomb is thirty feet high, by the support of squinches the cube changes to an octagon then hexadecagon. The corner squinches (fig 03, 04, 30) through the droopy bell-shaped support feature adds deepness to the central area which offer an interchange among space and volume.[1]



Figure 11: Ariel view of tomb jam Nizam-al-Din tomb and its surroundings



Figure 12: Transition of the tomb



Figure 13: Bracket Detail

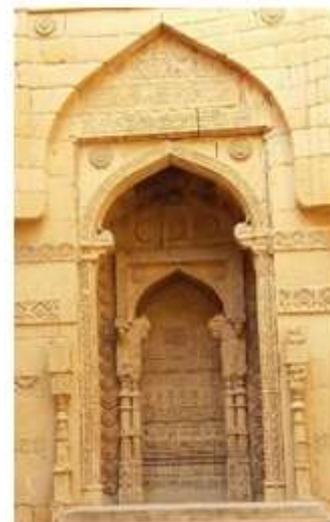


Figure 14: Triple Mehrab Niche

At the center of the west wall, the triple mihrab niche has been given which provides the central focal point to the whole internal chamber of the monument, the niche is exceptionally decorative and is admired but the duller interior carvings.[1]

## VIII. REPRESENTATIVE ELEMENTS OF JAM NIZAM-AL-DIN'S TOMB

### a) The representation of the Domed Square Form

The site Makli is considered as secure as many other necropolises in the world. The Samma were the first rulers at Makli so the monuments of Samma period were the first to be constructed at Makli. The Hammad Jamali's Khanqah (recognized saint) provides a central point to the site while burial chamber, mausoleums, and canopies were also built. There is no dome to the monument of Jam Nizam-al-Din so it can be said, that the dome was not built, yet, the tomb was considered as consuming a dome, so the representation applies. Though describing the representation in the Chahar-Taq from (*Chahar-Taq* which means the 4 arches Persian), which means a four-sided base consuming arches on all its four sides crowned with a roof.[1]

### b) Representation of the Decorative Motifs

In the interior of the chamber and west façade of the tomb of Jam Nindo, there are extra representative elements used as attractive and decorative patterns. In this case, the patterns were not essentially Islamic in nature. Hindu, Buddhist traditional decoration has also been used. The monument hence itself is a creation of the combination of concepts from the Islamic and predominant local custom. The tomb of Jam Nindo a extensive palette of chiseled patterns used for the beautification or adornment of the monument. Most of the patterns have a fundamental inspirational meaning related to them. The use of these patterns in the façades and interior of the monument could have representative significance. The lotus blossom is used in the third and fourth ornamental patterns which are called ( Padma in Hindi). An unusual Duck relief (fig 09) in the tenth pattern of the monument is used. It is the 1<sup>st</sup> example of an animal image used in the samma tomb. The duck pattern is first carved on the western and northern wall of the monument. While a tree pattern is carved as an alternative of duck pattern on the south and east walls.

## IX. DOORWAYS AND OPENINGS

The monument of Jam Nizam-al-Din has been originally designed to provide access from all its four sides. The tomb has centrally placed three entrances while the fourth west wall center has been occupied by the mihrab. The fourth entrance is located at the right side of the west wall. In all entrances, a beam spans through the entranceway, with a deeply incised opening above it. While the north entrance has engravings chiseled in Arabic on its beam, "the great ruler and Khaqan of honesty and forgiveness, helper of justness, the world faith

and religion, Abul Fateh ruler Firuz Shah is that the constructor of this glorious dome over the monument of sultan Jam Nizam-al-Din shah bin sultan Sadar-al-Din shah bin sultan Salah-al-Din shah bin sultan Rukh-al-Din shah bin Firuz shah. "the date here is again noted as 915 (1509)". [1]

While the south entrance was closed later with matching stone probably to control the cracks appearing above the entrance.



Figure -15: Mashrabiya (Jali)

This exclusive *Mashrabiya* design, the only instance of a Jali entrance in this tomb, has large gaps to enter the soft morning light in the funeral monument. At the east entrance a small projection and a simple eged vaulted space are placed over the ornamental beams.

## X. GRAVES INSIDE

The monument of Jam Nizam-al-Din consist of 8 graves inside it. The gaves has no any marks so the grave of King cannot be recognized. Like the enclosure of Mubark Khan where one grave has turban which shows the prominence of it over the other graves while at Jam Nizam-al-din tomb there is no mark on any graves. The graves are mortared with cement plaster (most possibly done in 1956 for the conservation of the monument).

## XI. CONCLUSION

After studying various data and site surveys the following results are being presented for formulating future action: There are visible cracks in the south façade that starts from the ground and reaches to the top of the monument. These cracks can also be seen in the interior of the monument as well. Although the Northside also has visible cracks. From the physical survey, it's been dogged that the whole building is concluded to a tilt of 8'' (200 mm) towards the East side. If the south and north facades are inspected the tilt is clearly

visible. Consequently, it is vibrant that 8” of differential settlement has taken place in the monument. At the East side, there is also a prominent crack which runs parallel to the East wall. It is uncertain if the crack in the floor is due to erosion of soil or is a joint among the suspected retaining wall that stated to be built in 1994. At the upper parts of the monument, there are many parts having black crust deposits, soiling, and watermarks. They can do damage to the stone until these are cleaned or removed. Salt effects are visible in many portions of the monument in the shape of a white powder deposited.

## XII. RECOMMENDATIONS

On reviewing the data and site surveys the following recommended. The emphases should be more on improving the conditions around the site, with minimal interventions within the structure itself.

- As a first step, there is a need to correct a contour analysis of the slope is essential. The past reports show contours as recorded in the 1980s. There has been serious erosion since that time and therefore it is important that contour survey interpreting the last condition survey.
- Mitigating measures are required to stabilize the slope on the East side.
- High accuracy crack monitors should be installed in the existing cracks instead of these crack monitors which can read only 1mm data not less than 1mm. monitoring and cracks recordings should be carried out on a monthly basis for at least 2 years so that data could be analyzed.
- Surface water drainage should be provided internally and externally to avoid collecting water inside or in the surrounding area.

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