A historical account of Mughal bridges in Bangldesh

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ABSTRACT: Dhaka was the capital of Bangla during the Mughal period from 1608 AD to 1717 AD. They had built lime mortar based brick masonry arch bridges in the road network of Dhaka city. One of them is still working after restoration and others have been ruined. Description of the bridges of Mughal period is presented in this paper.

1 INTRODUCTION

Bangladesh was a part of Great India since 1000 years BC. However, the available records support the history of Bangla from 269 BC. The earlier period is 269 BC to 1204 AD termed as Buddhist and Hindu period. The middle period is 1204 AD to 1585 AD termed as Sultani Period. The Mughal/ Nwababi period is 1585 AD to 1757 AD. And the latest period is 1757 AD to 1947 AD. There was a well organized road network along with small span bridges in Bangla since earlier period. The bridges of Bangla were made of brick masonry in plain land and stone masonry near the hilly region. There was a road exists long before the rein of Sher shah Suri. It starts from Langal Band of Narayangonj runs along the west bank of Bhramaputra and connects the Pataliputra of Bihar. It touches Wari Bateswar of Narshingdee, unknown City of Modhupur and Pundranagar of Bogura. All the ancient Chinese travelers travelled Bangla through this route. At that time Jamuna river was not in existence in its present location. Modhupur tract and Barind Tract was connected together.

2 DEVELOPMENT OF BRIDGE FORM AND MATERIAL

Brick masonry was used in Bangla since 269 AD. Pundranagar is the vivid example of using brick masonry. All the bridges of Mughal Period are made of brick masonry. Burned clay bricks and lime mortar was used in brick masonry. Stilted four centered curved depressed and pointed arch was used in construction of these bridges. Sketch of four centered curved depressed and pointed arch is shown in Figure 1.

3 ARCH BRIDGES OF BANGLADESH

During the Mughal Period from 1608 AD to 1717 AD Dhaka was the Capital of Suba Bangla. They fortified Dhaka and it's the surrounding by constructing Idrakpur fort, Khizirpur fort, Sonakanda fort and a small road network along with some bridges. Road Network and Location of Bridges around Dhaka is shown in Figure 2. They built a quite good number of bridges but a few of them are traced and still exist today. Existing and traced bridges are Mir Kadim Bridge, Tongi Bridge, Pugla Bridge, Sarail Bridge, Tati Bazar Bridge, Khaza Ambar Bridge and the Taltala Bridge.



Figure 1. Type of common Arch used in Bridge construction



Figure 2. Road Network and Location of Bridges around Dhaka during Mughal period (reproduced from Dhani, 1962 in 'The environs of the city of Dacca')



Figure 3. The Mir – Kadim Bridge



Figure 4. Sarail Bridge



Figure 5. Hand Sketch of Tongi Bridge by Sir Charles D'oylys

3.1 Mir-Kadim Bridge

The oldest and working bridge is the Mir Kadim bridge. It is on Mir Kadim Khal of Mir Kadim Municipal of Munshigonj. Photograph of this bridge is shown in Figure 3. It has been renovated and restored many times. The bridge was not affected by the Great Indian Earthquake in 1897. It is a three span four centered arch bridge. The central span is larger and 4.24 m wide and other two is smaller and symmetrical and 2.17 m wide.

3.2 Sarail Bridge

The bridge is on Comilla-Sylhet highway. It is not in usable condition. Recently some renovation work was done on it. Photograph of this bridge is shown in Figure 4. It is a single span four centered arch bridge.

3.3 Tongi Bridge

The Bridge is at the north end of Dhaka City over the canal Tongi. It consisted of three stilted, four centered arches in the centre and one arch at each end. The spandrels of the arches were finely ornamented with prominent rosettes and bases of the arch were provided with semi-circular cutwaters. Like other Mughal bridges of India it has two dome shaped watch tower at the two end. Artist and Civil Servent Sir Charles D'oylys had made a beautiful hand sketch of this bridge (Figure 5).

3.4 Pugla Bridge

It is located halfway between Dhaka and Narayangonj. Originally the bridge spanned the Qadamtali rivulet which has now shifted its course. It is almost a replica of Tongi Bridge. It consisted of three stilted, four centered arches in the centre and one arch at each end. Sir Charles D'oylys had made beautiful hand sketches of this bridge and it is shown in Figure 6. Like Tongi Bridge it has two dome shaped watch tower at its two ends.



Figure 6a. Hand Sketch of Pugla Bridge by Sir Charles D'oylys



Figure 6b. Hand Sketch of Pugla Bridge by Sir Charles D'oylys

3.5 Tati Bazar Bridge

This was a single span four centered arch bridge and was built over a creek. Artist and Civil Servent Sir Charles D'oylys had made a beautiful hand sketch of this bridge and it is shown in Figure 7.



Figure 7. Hand Sketch of Tati Bazar Bridge by Sir Charles D'oylys

3.6 Khaja Amber Bridge

It is a single span four centered arch bridge and was built in 1680 AD. Location of this bridge is shown in Figure 2. Only the description of this bridge is available.

3.7 Taltala Bridge

This bridge was built over the canal Taltala during Mughal period. From records it is known that the bridge had three circular arches. Centre one was larger and span of 14'and other two were smaller and symmetrical and span of 9'. Its construction pattern was same as Mir Kadim bridge. At present no trace of it this Bridge is exists.

4 CONCLUSIONS

People often get confused at Panam Dulalpur Bridge as a bridge of Mughal Period. Actually it was built during the period of East India Company i.e. from 1757 AD to 1858 AD. Its construction pattern is different from popular Mughal pattern i.e. four centered arch. All the old bridges of Bangladesh should be restored and preserved as a historical heritage.