

Shades of Water in the Landscape: Exploring the Schematics of Ancient Water Management System in Dandabhukti

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Water is everywhere a sacred element in human civilization. It is, therefore, not surprising that water was an essential element in the culture of the people of Dandabhukti, a feudatory kingdom on the south-western part of Bengal and the eastern part of Odisha from the 6th century to the 12th century AD. The culture—as is found from various archaeological, historical, epigraphical and literary sources—was more or less completely dependent on agrarian economic pattern and elements of urbanity entered because of its location on cross-roads and because of economic growth for some centuries starting from the Gupta Period. So the people of the area must have applied their contemporary technology for proper utilization of water. It is now almost impossible to say what technological skills they applied to garner the resources available to them immediately in nature. But a study of the landscape with reference to the available resources can still reveal schematics of effective water management in the areas surrounding Dantan, which seems to have been the capital or administrative centre of Dandabhukti.

The following sources of water were available to the people of the region—the Bay of Bengal in the south, the Subarnarekha river in the west, few channels of the river and the uplands on the northern side and many artificially created small and big tanks. Though no record is available, this is to be taken for granted that there must have been salt-trade with the people of far-off places up in the north, especially Magadha, following certain ancient trade route. At one point of such a route at Patina in Gopiballabhpur block of Paschim Medinipur a stone inscription, written in Kharoshti-Brahmi, dating from 2nd century AD was found.¹ This points to the presence of wandering ascetics from the north-western part of the Indian subcontinent and indirectly attests to the existence of a *Janapada* nearby. It is very difficult to imagine the contemporary picture of the areas which later on formed Dandabhukti in the fifth century AD during the Gupta period.² Following Prof. B. N. Mukherjee's hypothesis of the arrival of the horse-traders from the north-western part into Bengal on the basis of the occurrence of Kharoshti-Brahmi script

¹ which, according to Prof. B. N. Mukherjee, reads

“Jadhritanam Trutha Dasa”

[Trutha, the slave of the people, who are full of penance.”

The inscription, written in Kharoshti-Brahmi, dating from 2nd century AD

² Bhukti was a Gupta division.

in the south-western part of Bengal, it is very tempting to put forward an assumption on the occurrences of maritime trade and commerce through the river Subarnarekha and the port of Tamralipta involving Vanga, Kalinga and Magadha. This leads one to the question of the existence of a port in Dantan. James Rennell's map of 1776 marks Dantan as an important port centre. But we have a long gap of period and the map cannot be accepted as an evidence for the existence of a port in Dantan in the early medieval period.

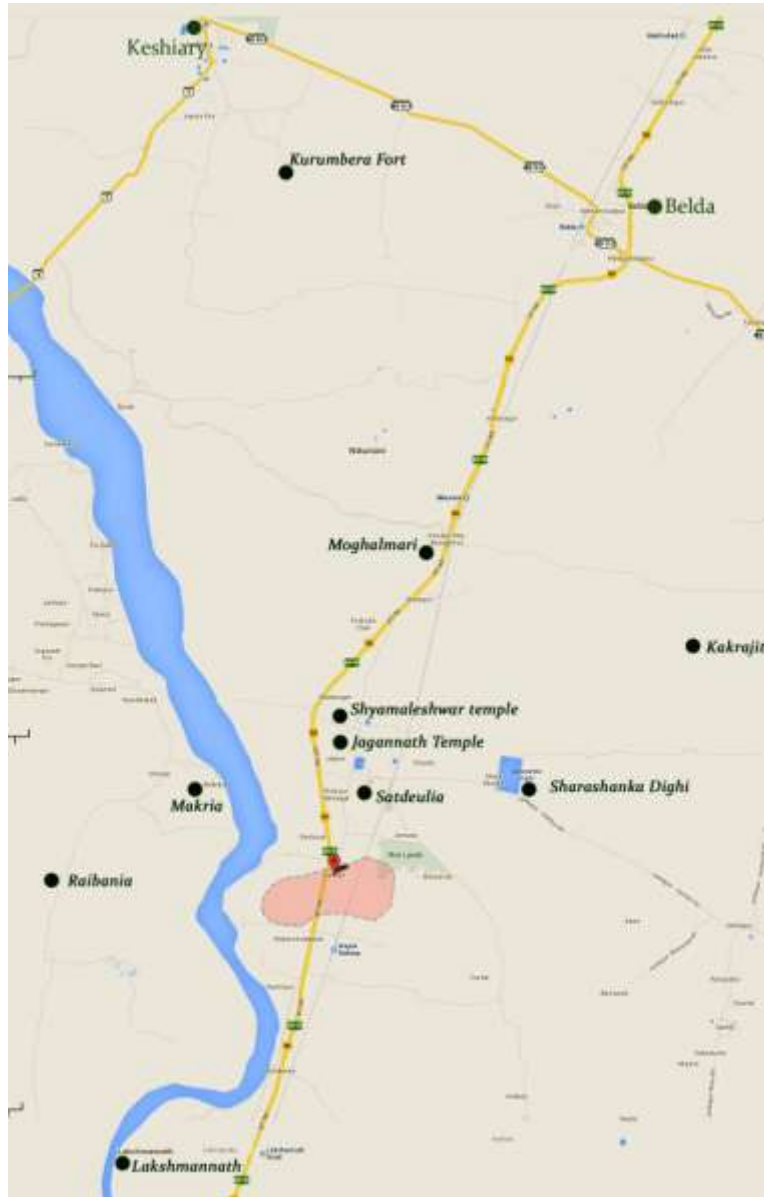


Figure 1: Map of Modern Dantan

The Subarnarekha changed its course down to the sea a number of times and satellite pictures and field survey reveal that the river has shifted to the west from Dantan and that the old course can be detected at few places where it left some water marks. One such place is of course Kalidaha, name for both the place and the canal/channel which runs to the east and joins the Palania Khal (channel) and enters a horse-shoe shaped lake,

locally called Mahabila. It is not known whether the short channel of Kalidaha was created naturally or artificially by human labour for connecting it to the Mahabila lake. However, from a study of the landscape it seems that the Palania Khal is itself a remnant of the old course of the river which once created the Mahabila lake. What geological incidents caused these changes is still unknown and expert investigation can unearth significant information. Several such canals indicate that these canals were once part of water management system of Dandabhukti, which rose up in prominence based mainly on its agrarian resources.

The lake Mahabila presents itself now with vast and almost circular depression having the maximum depth of 20 feet or so. Interestingly, there is a place or a low-lying mound on the southern part of the lake locally called Jaha(j)dubi or the place of shipwreck. Nobody knows what the small mound contains but certainly it refers to an accident that had taken place long ago. It is also worth mentioning here that a very important canal or channel named Palania Khal (canal) passes through the lake and goes down few kilo meters south and falls in the river.

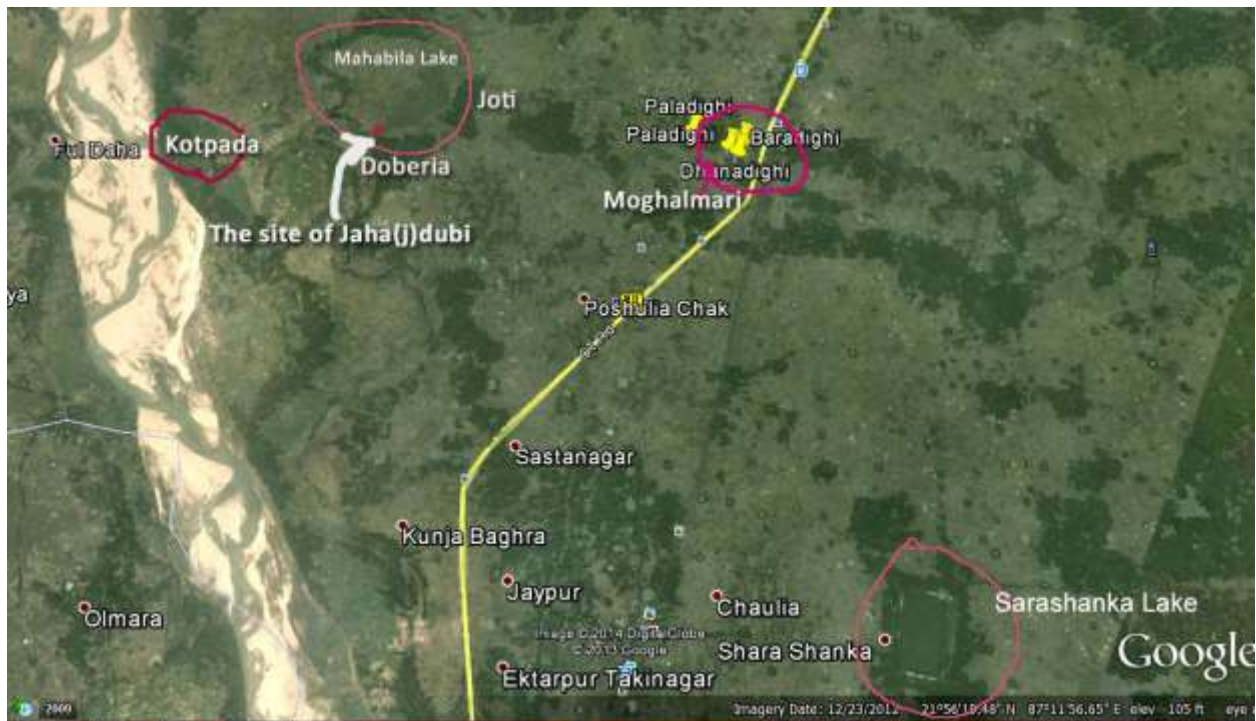


Figure 2: Location of Mahabila

The local people informed that writer that the area is so vast that the flood water of the Subarnarekha takes almost twenty four hours to fill it completely and thus allowing the villagers time to escape to safe places. Because of its low depth, the lake is used for cultivation throughout the year. The local people, however, pointed out one significant fact: at the time of digging it for deep tube-well they noticed black mud coming out from great depth. So it can be assumed that once it was very deep and the people in the early medieval and medieval periods must have utilized it for many purposes.



Figure 3: Moghalmari, Mahabila and the Subarnarekha Connections

In the zone surrounding the lake few important settlements dating from the 7th century can be traced. The first Medinipur CPI, issued in the eighth regnal year of Sasanka's reign, records³, that Subhakriti, the Mahapratihara of Dandabhukti donated forty dronas (of land) and one drona of homestead land at the village Kumbharapadraka in Ketakapadrika *uddesa*, to Brahman Damyasvamin belonging to Bharadvaja gotra and Madhyandina school, for the increase of the merit of his father. The second Medinipur CPI, issued in the nineteenth regnal year of Sasanka's rule, records⁴ the land grant of the village Maha-Kumbharapadraka by the Samanta-maharaja Somadatta to Bhattesvara, who belonged to Kasyapa gotra and who was an Adhvaryu priest." Both these CPIs were issued from Tabira-karana. "Perhaps Mahakumbharapadraka village was adjacent to Kumbharapadraka mentioned in the other CPI"⁵. Some think, on the basis of the pattern of pottery, that the modern-day Kotpada, situated on the bank of the river Subarnarekha, is the ancient village of Ketakapadrika. However, apart from some pieces of pottery not much archaeological evidences have been found so far. On the east of Kotapda, there is a village named Bakurpada, which may be corrupt remnant of the ancient Kumbharapadraka or Maha-kumbharapadraka:

Maha-kumbharapadraka>Ma-kumbharpadraka>Ma-kumhar-padraka>Ma-kuhar-pada>Makurpada>Bakurpada.

Such equations are risky indeed, but it is an attempt at finding out the missing links from evidences present in the landscape itself however thin or ethereal they may be. Following this line of thinking based on observation of the landscape, one can reach another place nearby named Doberia, situated on the bank of Mahabila and just after the village

³ *JRASBL*, 11, 1945, p.9; pp.24-25.

⁴ *JRASBL*, 11, pp.1-8; pp.26-27

⁵ D.C. Sircar, *Tamra-Sashonadi Prasango*, p. 71.

Bakurpada. We may presume that the name might have come from the name Trabira (a place surrounded by fence or protected by fortification) and Tabira was actually Prakrita derivation. This name, along with other names, got corrupted in the course of time and might have come to our days in very unfamiliar form. Now, going back to the original form a supposed corrupt derivation is a dangerous task and may result in complete misinterpretation. Still, since there is no other way at this moment let us think over a simple equation. The question is: can Doberia be a corrupt form of Tabira? It may be:

Trabira>Tabira>Dabira>Dobira>Doberia

There is also a chance of the name coming from Dobira, meaning a place surrounded on or protected from its two sides. However, one encounters a place exactly surrounded on its three sides by water at Borah, a name which seems to have gone through tribal influence and got its present name. But it can also be a case of dropped name and shortening as can be seen with other places too in this region: Tabira>Bira>Bara>Bora>Borah. Dr. R.C. Majumdar identified Tabira with modern-day Debra. It is not known by the present author whether he depended on solid historical evidences other than the linguistic one. But the proximity of the Moghalmari settlement to Doberia or Borah forces one to think over the matter seriously. No archaeological record has so far been recovered from Doberia or Borah.

Whether Tabira was situated on the bank of Mahabila or at the Moghalmari settlement area is a matter of debate. But given the proximity of the Moghalmari settlement it is almost sure that the people of Dandabhukti depended much on this water body.

The Watery Connection

An interesting natural phenomenon is to be witnessed at the time of flood: the excess water overflowing the Palania Khal goes westward and passes through a channel near the Moghalmari settlement on its south and flows round a number of villages including kakrajit and turns southward and enters the Sarasanka lake through its north-western part and goes out of it on its south-western opening.⁶ Prof. Silvia Hermann from the University of Hanover, who studied the lake considered it a conscious hydrological project created for irrigation and other purposes. There is no record about the creation of such a vast lake. A local legend associates it with the seventh century king of Bengal, Sasanka. Given the proximity of the areas where the copper-plates of his reign were found, it is not illogical to consider such a legend. Some archaeological artefacts dating from the early medieval period were also recovered from the place. But the question is: was it in any way associated with a Buddhist settlement? For, the answer we will have to wait for the future discovery.

⁶ This phenomenon was first pointed out by Atanu Nandan Maity. See the article "A report on the Sarasanka Lake" at http://www.chitrolekha.com/V4/n1/07_Sarasanka_Dantan_Medinipur.pdf, Chitrolekha International Magazine on Art and Design (Vol. 4, No. 1, 2014)

The water of the river flows through these places because there existed a channel or canal from the river along the path. This leads one to think of the existence of a branch of a stream out of the river. Or may be this was a man-made canal that connected the river, the Moghalmari settlement and the lake Sarasanka, which was also another Buddhist settlement. There is reason to think along this line because the early medieval settlements in Dandabhukti did not remain isolated; rather the places functioned through a network with one another through mud roads for economic and cultural reasons. There is a legend current in this place that the lake is connected to a big tank named Vidyadhar through a tunnel underground.⁷ However the validity of the story has not been established yet. But it offers a recollection of a faint cultural memory of a network of water which had been in existence long ago. Another point to be mentioned here is that Dantan abounds in small and big ponds and many of them were created for the purpose of irrigation for occasional watering. And since the surface of the earth here is increasingly low with reference to the sea-level, water flows from the north to downward and facilitates collection of even rain water in these ponds. In the connection of the ponds, one prophetic observation Sri Lalit Mohan Samanta⁸ comes to the mind. In his manuscript, dated 1952 he intuitively anticipated the archaeological nature of Dantan:

“From the famous village of Moghalmari of Dantan I collected a Buddha statue of about 7 inches and kept in the Dantan Public Library and publicized the finding through newspapers...*from the open fields and big ponds at different places of Dantan, it seems that a number of monasteries must have grown up...*At the village of Moghalmari many ancient coins, belonging perhaps to the Gupta Period, were found at the time of excavating a small Stupa...”⁹ (emphasis mine)

The existence of effective water management system is evident in the use of water for the purpose of defence. Traces of deep trenches surrounding important centres and locations are still to be found at Moghalmari, kaktajit, Uttarraibarh, Satdeulia, Angua etc. The trenches have still remained partly functional because they were used as drainage system for tackling the excess flood water of the river. A particular type of bamboo with thorns and thick foliage which still grows there would be used as wall of defence. O'Malley once wrote how indigenous defence system was very much effective in the plain land of Medinipur until the arrival of the cannons. It will be relevant here to quote what O' Malley wrote about the Mayna fort for understanding the nature of fort in the plain lands of Medinipur:

The fort was evidently constructed by excavating two great moats, almost lakes, so that it practically stands on an island within an island. The earth of the first was thrown inwards, so as to form a raised embankment of considerable breadth, which, having become overgrown with dense bamboo clumps, was impervious to any projectile that could have been brought against it 100 years ago. Inside the

⁷ Recorded in O'Malley's record.

⁸ Lalita Mohan Samanta was journalist, local historian, collector of artifact and writer of a book on the history of Dantan.

⁹ Unpublished manuscript, p. 16.

larger island, the outer edge of which is this embankment, another lake has been excavated with the earth thrown inwards, forming a large and well-raised island about 200 yards square. On this stands the residence of Mayna Raj.¹⁰

The trenches might have served another purpose: tackling floods of the river Subarnarekha and the Keleghai. Soil dug out of the places would give considerable elevation from the normal ground level and the flood would be channelized back into the river again quickly through the interconnected network of channels. Still there are to be found many channels—all ultimately leading to the river or to the sea. These functioned more or less as a drainage system than as irrigation system for the people. The ponds surrounding the Moghalmari site and the low-lying portions of land are actually remnants of the olden times. Three ponds at Moghalmari yielded ancient structures inside them.

Whether Buddhist settlement or not, that the big ponds were actually dug up and used by the people in the distant past is proved by the findings of many artefacts inside the deep layers. In other words, this points to extensive human settlement and fairly developed culture in the region. Ponds like Dhanadighi at Moghalmari, Kundapukur at kakrajit, Kundapukur at Bhabanipur (Dantan), Hathpukur and Dharmasagar of Satdeulia, Shyamalima near Angua were created for special purpose, as sacred ponds for the use of the temples. On the other hand, Ponds like Sarasanka, Vidyadhar were dedicated for public use.

The case of Sarasanka is still a mystery. A local legend associates it with the king of Gour, Sasanka and a tribal legend associates it with their settlement. Interestingly, the Egra CPI mentions the existence of a Chandal Pushkarini. However, this, in no way, proves the legends even if it is located not far from the place where the CPI was recovered. But everybody can understand that the huge tank was excavated by an enormous effort only possible for a ruler with considerable might and significant motive. Recently Prof. Sylvia Hermann has claimed that it to be a conscious hydrological project for irrigational purpose. If this theory is stretched a little further and the existence of a channel of the river Subarnarekha is added to it, it is to be considered whether it was created out of a tremendous flood passing through it. One more reason for this assumption is sacred value of the tank to the Hindus and the tribal people who perform many ancient rituals on the bank of the pond on important days of the calendar. Folk memory has retained the fantasitic and the divine and nothing of its natural history.

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¹⁰ L. S. S. O'Malley, *Bengal District Gazetteers: Midnapore*, (Calcutta: The Bengal Secretariat Book Depot) 1911.