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The Battle of Jurra and Its Subsequent Implications on the Kutch Water Scene

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Abstract:

Kutch situated in an arid zone in western India has forever struggled to obtain fresh water and manage this extremely scarce resource. In the history of this region, politics too played a crucial role in determining water availability. One of the significant political events of Kutch that influenced considerably its water history was the Battle of Jurra or Jarra in mid-18th century. This paper traces the battle by collating material from rare, out of print, old, documents and delineates the manner it played havoc with an already water starved zone by altering the course of the eastern branch of Indus. The paper thus not only attempts to bring clarity to an event in Indian history that has been relegated to the background but also facilitates further research.

Keywords: Kutch, Lakhpat, Ghulam Shah Kalthora, Sind, Phurran, Indus, Rao Godji, Punja, Bhayyad, Embankment, Koree, Sayra, Jurra, water

1. Background

At the outset a brief understanding of the location of Kutch and its climate will clarify the historical importance that the mighty river Indus had for the region. Kutch remotely located in the westernmost extremes of India, in the state of Gujarat presently happens to be the second largest district with 45,612 sq.kms of area¹ but possesses extremely scarce water resources. Around 4500 years back the Indus had thrown up a grand civilization at Dholavira in Kutch. At present, scanty rainfall, arid climate and perennial droughts have led to paucity of water in Kutch. Rivers run dry for a good part of the year. An irony then, to behold a barren land with salt swamps and arid lands besides a great river!

2. Significance of Indus Branch

Lieutenant S N Raikes, Assistant political agent in British India, links the geographical position of the then princely state of Kutch to the Indus right at the very beginning of his memoirs when he says, “The province of Kutch is situated between the 22° and 24° of North latitude and 68° and 70° of East latitude. It is bounded on the north, east and south east by the Rann²; on the south and south west by the Gulf of Kutch and the Indian Ocean and on the north-west by the eastern branch of Indus...”³

The eastern branch of the Indus refers to the Phurran that emerged as channel carrying fresh water from the Indus and flowed eastwards, finally merging as Koree/Kori with the Arabian Sea near the town of Lakhpat in Kutch.

On the water scenario of Kutch, Raikes writes, “There are no constant streams, the river courses being mere channels for conveying the periodical floods to the sea and Rann...”⁴

In this context, since Phurran carried fresh water, it assumed importance in the irrigation of fields on the Kutch side, before it merged with the Kori creek after flowing by Lakhpat.

Malcolm Haig, in *The Indus Delta Country*, also mentions this channel when he says, “The (Indus) Delta tract... is bounded on the east by the sandhills of the desert, by the farthest eastern channel of the Indus, known as the Puran⁵, which has long ceased to carry water

¹<http://www.portal.gsi.gov.in>

² The Rann – salt laden waste land

³ S.N.Raikes, *Memoir and Brief Notes relative to the Kutch State in Selections from the Records of the Bombay Government*, XV, New Series (Bombay: Bombay Education Society's Press, 1855), 3.

⁴ S.N.Raikes, *Memoir*, 4.

⁵ Phurran

except in times of unusually high floods and by the Kori Mouth or Creek, which separates the Delta from Kachchha...".⁶ Kutchis who were traditionally, forever grappling with fresh water crisis lost the Puran or Phurran to political interference from the nearby Sind. It is an incongruity today that besides the mighty Indus, on the east, there is an expanse of arid land. Historical surveys speak of the small Phurran branch that detached itself from the Indus and flowed through the western reaches of Kutch, carrying implicit significance for the locals. The 19th century British traveler and diplomat Alexander Burnes, serving as an officer in the northwestern Indian state of Kutch, travelled up the Indus river in 1831 while surveying it. In his Memoir on the eastern branch of the Indus he mentions, "In the north-western extremity of our Indian possessions, and under the tropic, is situated the small and sterile territory of Kutch, important to the British from its advanced position, but of more attraction to the student of history, from its western shore being washed by the waters of the classic Indus."⁷

In the subsequent Gazetteer of Bombay Presidency we find Thomas Campbell passing mention that, "as late as the middle of the eighteenth century, the eastern or Kori branch continued to bring water enough to irrigate a large area of rice-land to the north of Lakhpat."⁸

3. Politics Shaping Prosperity or Lack of It

Alexander Burnes goes to state that Kutch or Kutch then laboured certain disadvantages inflicted on it by the vindictive hatred of a jealous and cruel neighbouring Government. Prior to the events of the battle of Jarra, in the year 1762, before the Phurran emptied itself into the sea, "the country on its banks participated in the advantages which this river bestowed throughout its course. Its annual inundations watered the soil, and afforded a plentiful supply of rice. The country on its banks being then known by the name of 'Sayra'. These blessings, which nature had bestowed on this otherwise barren region, perished with the battle of Jarra; for the Sindian chief, irritated at the unsuccessful result of his expedition, returned to his country full of vengeance, and inflicted the deepest injury on the country which he had failed to humble."⁹

On a similar note, but attributing nature's hand too in the unfortunate series of events, the Gazetteer of the Province of Sind records "... a portion of the Rann was once a highly-cultivated tract, known by the name of 'Sayra', a branch of the river Indus then reaching it, but that it disappeared altogether when either the Sindians or a convulsion of nature diverted the waters from it."¹⁰

To understand the series of political events that finally led to the battle of Jarra and the alteration of the course of the Phurran, it is essential to dwell on the modern history of Kutch that dates from the ninth century, when some members of a tribe called Sammas, who ruled in lower Sind; migrated to Kutch, gradually gained control over the local races and assumed sovereignty over Kutch. In the twelfth century, Laka, the son of Jada became the ruler. His dynasty came to be known as the Jadejas. In 1548CE a ruler of this dynasty, called Khengarjee, assumed sovereignty over the whole of Kutch under the title of Rao. He was a tributary of the Kings of Ahmedabad, the rulers of Gujarat. During the reign of his son, Bharmuljee, the Government of Gujarat passed from the Ahmadabad Kings to the Moghul Emperors, who were ruling at Delhi.¹¹

Each ruler of Kutch used to assign certain lands to his younger sons who came to be called chiefs. On the death of a chief, the lands were divided amongst his sons, and the eldest son, who got a larger share, became the chief. Thus, in course of time, a number of chiefs and estate holders came into existence. Though they owed allegiance to the Rao, they exercised unlimited authority within their own lands. They were the Rao's hereditary advisers and were known as 'Bhayyad'. The Rao could call on them to serve him in the event of war. They were not, however, always loyal to the Rao, and some of them often rebelled against the Rao. Because of their number and authority, they were in a position to exercise a powerful influence in the affairs of Kutch.¹²

History reveals that the existence of this peculiar aristocracy or 'Bhayyad' played a major role, especially in the skirmishes with its western neighbour Sind (now in Pakistan). The country faced a constant threat from Sind. For the rulers of Sind, Kutch was a strategic route to the rest of Gujarat and, more particularly, Ahmedabad, the seat of regional power. The Bombay Gazetteer notes that increasing demands on the Phurran, by the people of Sind led to feuds between Kutch and Sind.¹³

The Raos of Kutch paid some form of tribute to the Sultans of Ahmedabad. The desire to remain secure from Sind and independent from Mughals appears to have been present in some of the Kutchi chiefs. So Rao Bharmal seems to have attempted to make himself

⁶Malcolm Robert Haig, *The Indus Delta Country, A Memoir Chiefly on its Ancient Geography and History*, (London:K. Paul, Trench, Trübner & Co., Ltd.1894),1-2.

⁷Alexander Burnes, *Travels into Bokhara-Also a Narrative of a Voyage on the Indus*, Volume III, London:John Murray, 1834), 309.

⁸James Campbell.(Ed.)*Gazetteer of Bombay Presidency: Kutch, Palanpur and Mahikantha*, Volume V, (Bombay:The Government Central Press,1880),10.

⁹Alexander Burnes, *Travels into Bokhara*, 310-311.

¹⁰ A.W.Hughes,(ed.), *A Gazetteer of the Province of Sindh*,(London:George Bell and Sons,1876),2.

¹¹Reports of International Arbitral Awards: *The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan*, Vol. XVII,United Nations,(1968), 31.

¹²Reports of International Arbitral Awards: *The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan*, Vol. XVII,United Nations,(1968),32-33.

¹³James Campbell. (Ed.)*Gazetteer of Bombay Presidency*, Volume V, 10.

independent, but after two defeats, in 1590 and 1591 CE, agreeing to submit to the supremacy of the Mughal Emperor, he was confirmed in his former position, and was only occasionally called on to pay tribute.¹⁴

In the year 1760, Godji ascended the throne, becoming the tenth Rao. It was a reign of enormous turbulence. During his reign, Kutch was invaded a number of times by the armed forces of Sind. Two of these invasions¹⁵ were commanded by a Sind ruler called Ghulam Shah, of the Kalhora dynasty. The years of these invasions were 1762 and 1764 CE.¹⁶

The intentions of Ghulam Shah Kalhora/Kallora who had long looked for an opportunity to meddle in Kutch affairs was not unknown to Punja, Godji's former advisor turned foe. With Gidomal, the Sind minister serving Ghulam Shah, Punja opened correspondence. Hearing of this, Ghulam Shah lost no time in asking Punja to Haidarabad and explaining his wish to conquer Kutch.¹⁷

The Gazetteer further mentions that the Rao, aware of the conspiracy being hatched against him, instructed his trusted minister Jivan to summon the Abdasa and Vagad¹⁸ Girasias¹⁹ to defend the country. The whole Bhayad, except the Mothala²⁰ chief who was friendly to Punja, readily answered the summons, and took the field under the minister. Godji remained in command at Bhuj, the capital where he garrisoned with a 1000-man troop from Navanagar²¹ and a troop from Radhanpur²². Ghulam Shah and Punja, at the head of the Sindian army, leading about 70,000 men, crossed the Rann²³. The Sindians, after a heavy march of twentyseven miles, found Nara²⁴ deserted, and the fresh water wells filled with stones. So great was their distress from thirst and fatigue, that had Jivan the loyal minister marched against them, they would have fallen an easy prey. But the minister was no general, and allowed the Sind troops to refresh themselves, quietly encamping in a strong position close by on the Jarrahills. After two days of rest Ghulam Shah marched to Jarra and attacked the hill.²⁵

Alexander Burnes states that the battle was fought near a small village of that name and adds, "The inhabitants of Kutch made a brave stand for their independence against the Sindian army led by Ghoolam Shah Kulora."²⁶

A. B. Wynne believes the great battle of Jarra of 1762 was fought upon the heights overlooking the Rann at that place, south-east of Lakhpat.²⁷

To fight the Sind invader, the Bhayyad assembled "...in a strong position near Jarra – Where Maharao Khengar I had met defeat at the hands of a former king of Sind- which was a convenient locality for striking against any route which Ghulam Shah Kalhora was likely to use in crossing the Rann."²⁸

The Kutchis were defeated though they put up a heroic fight. The Rao's Diwan Jivan Seth and many Bhayyad leaders and soldiers laid down their lives fighting. In the slaughter that took place, around 100,000 people were killed on the battle of Jarra making it one of the most frightful events in the history of Kutch.²⁹

Learning of this crushing defeat, the Rao, sending a private agent to Punja, entreated him to arrange that the Sindian army should be withdrawn, invited him as his minister to Bhuj, and promised to ratify any agreement he should make with Ghulam Shah. Punja proposed that if Ghulam withdrew, he would go to Bhuj and arrange the latter's marriage with the Rao's sister. To this Ghulam Shah agreed, and, taking with him Punja's son as a hostage, retired to Sind. Though Punja never ceased urging him, the Rao had failed to give his sister in marriage to Ghulam Shah and was ill disposed towards him. Finally the Rao imprisoned Punja and forced him to drink poison. On hearing of Punja's murder, Ghulam Shah gathered another army of 50,000 men, and re-entered Kutch by the Nara route. He again found it deserted, and except at the small fort of Muru³⁰, where a Rajput garrison of eighty men resisted and were all massacred, he advanced unopposed within sight of Bhuj. Encamping at Rodar Mata within five miles of the town, he dispatched his minister, Gidomal, to demand the Rao's sister in marriage. Godji, well supplied with troops and resources, received the envoys with

¹⁴Allami, AbulFazal. *Ain I Akbari*, Volume 1, Translated from the original Persian by H Blochman, (Calcutta: Baptist Mission Press, 1873), 326,419.

¹⁵ These two invasions are relevant to the topic.

¹⁶Reports of International Arbitral Awards: The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan, Vol. XVII, United Nations, (1968), 32-33.

¹⁷James, Campbell. (Ed.) *Gazetteer of Bombay Presidency*, Volume V, 143.

¹⁸ Two principalities in Kutch

¹⁹ proprietors of the land

²⁰ Village currently in Abdasa Taluka in Kutch

²¹ In the Kathiawar district of Gujarat

²² In the Patan district of Gujarat

²³ A swampy, salt marsh bounding Kutch in its north west, north and north east.

²⁴ A village in Lakhpat Taluka in Kutch

²⁵ Campbell, James. (Ed.) *Gazetteer of Bombay Presidency*, Volume V, 144.

²⁶ Alexander Burnes. *Travels into Bokhara*, 310.

²⁷ A. B. Wynne. *Memoir on the Geology of Kutch in Memoirs of the Geological Survey of India*, Volume IX, (London: Trubner and Co., 1872), 31-32.

²⁸ L. F. Rushbrook. Williams. *The Black Hills: Kutch in History and Legend: A Study in Indian local Loyalties*, (London: Weidenfeld and Nicolson, 1958), 151.

²⁹ L. F. Rushbrook Williams. *The Black Hills: Kutch in History and Legend: A Study in Indian Local Loyalties*, (London: Weidenfeld and Nicolson, 1958), 154.

³⁰ Near Lakhpat in Nakhatrana Taluka

little courtesy, and refused to give any satisfactory answer. During the night the envoys passed in Bhuj, the Rao ordered that, at the same moment, every gun in the city should be fired. After a few days skirmishing, Ghulam Shah was induced to listen to a compromise, by which, instead of the Rao's sister, he received in marriage the daughter of the chief of Khakhar, a near kinsman of the Rao. After remaining for some time inactive Ghulam Shah recrossed the Rann, leaving at Lakhpat a post of 5000 men. About this time in 1764, by building at Ali Bandar³¹ an embankment across the Kori mouth of the Indus, Ghulam Shah stopped the source from which the great rice-lands of Lakhpat drew their water supply; and the rice tract gradually became a grazing ground, leaving the Kutch state poorer by a yearly sum of about £20,000 (8 lakhs of koris). In 1802 a fresh dam was raised at Ali Bandar. This so entirely stopped the flow that even floods could not pass. The channel filled with mud dried above Sind and shoaled at Lakhpat, and the old rice-fields, unable to grow even grass, were included in the wastelands of the Rann. For the next sixteen years (1803-1818) except when flooded during the windy and rainy seasons, the bed of the river, and the part of the Rann through which it flowed, remained dry.³²

Recording this event in his expedition to survey the course of Indus, Alexander Burnes writes, "At the village of Mora he³³ threw up a mound of earth, or, as it is called, a 'bund' across that branch of the Indus which fertilized Kutch, and by thus turning the stream, which so much benefited its inhabitants, to flow into other branches of the river, and by leading it through canals to desert portions of his own dominions, he at once destroyed a large and rich tract of irrigated land, and converted a productive rice country, which had belonged to Kutch, into a sandy desert. The mound which had been raised did not entirely exclude the water of the Indus from Kutch; but so impeded the progress of the mainstream that all agriculture depending on irrigation ceased. In process of time this trivial remnant of prosperity disappeared, and the Talpoors, who succeeded the Kaloras in the government of Sind, threw up other mounds and about the year 1802, the erection of one at Ali Bunder excluded the waters of the Indus".³⁴

A.B. Wynne also writes that post the battle, the course of the fresh water of the Phurran was stopped and directed elsewhere. "Sayra³⁵ became a sandy desert and other bunds continued to be built, but the fresh water was not quite arrested until about the year 1802, when this was so effectually accomplished by one erected at Ali Bunder, that even the inundations of the river failed to find a passage along its natural channel, which filled with mud and dried up above Sindree and shoaled at Lukput; 'Sayra' becoming a part of the Rann, on which it formerly bordered".³⁶

Thus protracted feuds which long existed between the Governments of Sind and Kutch led to the battle of Jurra and shortly afterwards about the year 1764 to the construction of a bund across the Koree, in the Sind territory, by Ghulam Shah.

4. Lack of Retaliatory Measures

There were no retaliatory attempts to recover the lost source of water. This could have been due to the next two invasions from Sind by the son of Ghulam Shah and severe depletion of financial and human resources. Added to this were the famines of Kutch that forced the rulers and the Bhayyads to deviate their attention from political skirmishes. Burnes writes that the Raos "submissively bore these indignities...to their own detriment as that of their subjects. They used no exertion to recover that which nature had bestowed on their country, or to wipe off those injuries which had been offered".³⁷

But it must be noted that during the latter half of the eighteenth century there were seven famine years: 1746, 1757, 1766, 1774, 1782, 1784, and 1791. There was mass out-migration and many Kutchis left their homeland. Swarms of locusts and ants destroyed the crops. The Raos' efforts were directed to alleviate people's distress, dole out cooked food, open grain shops, create employment by roping people to widen the existing lakes and take measures to make water available.³⁸ In such an adverse situation, it could hardly be expected of the Kutch ruler to march against the Sind rulers and reclaim the lost resources.

In the International Tribunal prior to the demarcation of the boundaries between Kutch in India and Pakistan, the latter presents that "It was not correct that the victorious ruler of Sind threw up an embankment at Mora to punish the Rao of Kutch. The waters of the Puran River could be more profitably used further in the north and it was apparently for that reason that they were diverted and not out of malice."³⁹

However, since the embankment was thrown up just after the battle on Ghulam Shah's return journey to Sind, and not during any other period, and the Sindian ruler being fully cognizant of the fact of extreme aridity in the region he invaded, it is fair to understand his act as one of vengeance.

³¹The Phurran flowed down as the Koree and on its east bank lay Ali Bandar (presently in Pakistan), some miles upstream from Lakhpat.

³²James Campbell. (Ed.) Gazetteer of Bombay Presidency, Volume V, 10.

³³Ghulam Shah Kallora

³⁴Alexander Burnes. Travels into Bokhara, 311.

³⁵The countryside on the banks of Phurran were then known by the name of Sayra.

³⁶A.B. Wynne, Memoir on the Geology of Kutch, 31-32.

³⁷Alexander Burnes. Travels into Bokhara, 312.

³⁸Campbell, James. (Ed.) Gazetteer of Bombay Presidency, Volume V, 108.

³⁹Reports of International Arbitral Awards: The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan, Vol. XVII, United Nations, (1968), 35.

5. Aggravation Due to Seismic Disturbances

The earthquake of 1819 further altered the areas to the north-west and west of Kutch. Scientific accounts attribute destruction in this region greatly to this earthquake and the resultant effects on the course of the Indus. The earthquake that occurred raised a mound which passed entirely across the course of the Phurran, separating it from connection with its former outlet into the sea.⁴⁰ Hence Rushbrook Williams believes, "It is not easy to estimate exactly what damage he⁴¹ did, because his original undertaking has been entirely obliterated by seismic disturbances....These had very serious effects indeed upon the entire water resources of the district...and the course of the Indus and of all its waters was diverted right away from Kutch. Popularrepute still saddles Ghulam Shah with the blame for the whole catastrophe."⁴²There is unfortunately no authentic old map of the Eastern Delta, lamented Col. Tremenheere in 1866.⁴³ So in the absence of any genuine, reliable map the situation opens itself to multiple interpretations.

6. Restoration Attempts Fall Through

The Rao of Kutch was anxious to restore the flow of the Phurran River and regain the fertile land there. The Rao, in a Memorandum of 1844 to the Political Agent in Kutch, had stated of his intention of clearing the salt lake on the north western part of the Rann at Sindri, and wished that a fresh water course should be cut from the Indus to flow through the Kori creek to Lakhpat. All this would yield plenty of sweet water, grass on that ground and consequently a great many cattle; and the duties on the products would be very considerable. He confessed that as he was not been able to afford it, he was ready to raise the money for the cutting the water course. He sought permission from the British to carry out his idea. But the idea fell through. The British Government in India, after the conquest and occupation of Sind, passed a resolution desiring that the branch of the Indus should be restored to its old course and directed a survey of the region to be made. Sir Charles Napier was designated for the job to cut the Bunds and let the waters of the Indus flow through Lakhpat in Kutch as it had done before the Kutchi war with Sind. Sir Charles sent William Baker to do this. In his Report, Baker who was appointed to undertake the survey said:

"It will be recollected that the evil inflicted on Kutch was shared by thirty miles of Sind's territory."⁴⁴The reference to the evil inflicted on Kutch was the throwing up of the huge Bund by Ghulam Shah Kalhora which impeded the flow of the waters of the river.

Captain Baker, was of the opinion that the lake at Sindri⁴⁵ was an impediment to the restoration of the course of the river. The Rao stated that he had long intended to drain the lake but could not afford it but he would do so if the British Government allowed the river to flow. He too wanted a survey to be made regarding whether it was feasible to reopen the course of the Phurran River to enable the Kutch territory to receive water from the irrigation. Baker came to the conclusion that it was not possible to do anything about re-irrigating the District.⁴⁶

He found that owing to certain depressions and elevations caused by earthquakes, the cutting of the bunds would not restore the water to Kutch but on the contrary would let salt water flow back to Sind and there by create new problems. So the plan was abandoned much to the disappointment of the Kutchis.⁴⁷

Although the British found nearly every irrigation work in Sind remunerative, those in Kutch were considered financial failures. The main reason for this was the cost of storage works and the precarious and unreliable nature of water supply.⁴⁸Kutch was completely ignored by the British as far as construction of water conservation measures was concerned.

7. Conclusion

It can therefore be estimated that an unfortunate combination of political and natural events ultimately led to the desertification of Lakhpat. The native Kutchi oral cultures find seamless connections between the acts of vengeance by Ghulam Shah and the earthquake of 1819. Partition ensured that the borders between Sind and Pakistan are perennially sealed, but the horrors of history hardly have boundaries. This narrative revolves around the undeniable fact that human and natural interventions had very serious effects indeed upon the entire fresh water resources of the region. Though the British abandoned further research in this area, it would be worthwhile at present or in the near future to promote investigation and examination of the same with today's technological advances and perhaps seek ways to bring fresh water to the western and northwestern border areas of Kutch. This paper stimulates further detailed study on the impact of politics and nature on water terrains and subsequently on human societies residing in ecologically sensitive zones like Kutch.

MAPS

⁴⁰ C.W.Tremenheere, On the lower portion of the River Indus in Journal of the Royal Geographic Society of London,(1867),73.

⁴¹ Ghulam Shah

⁴² Rushbrook Williams, The Black Hills, Kutch in History and Legend, 159-160.

⁴³ Col.C.W.Tremenheere, On the lower portion of the River Indus in Journal of the Royal Geographic Society of London,(1867),72.

⁴⁴ India Document, A-26 in Reports of International Arbitral Awards: The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan, Vol. XVII, United Nations, (1968), 369.

⁴⁵ Presently in Pakistan near Ali Bandar

⁴⁶ Reports of International Arbitral Awards, 317-318.

⁴⁷ Robert, Buckley. The irrigation Works of India, (New York: Spon and Chamberlain, 1905), 61.

⁴⁸ W.W.Hunter. (Ed.) The Imperial Gazetteer of India, Volume 3, (Oxford: Clarendon Press, 1908), 337.

The following is an 1833 map showing the path of the Phurran flowing by Aly/Ali Bandar as Koree and becoming a narrow stream, reaching Lakhpat before merging into the Arabian sea. It was at Ali Bandar that Ghulam Shah raised an embankment after the battle of Jurra.

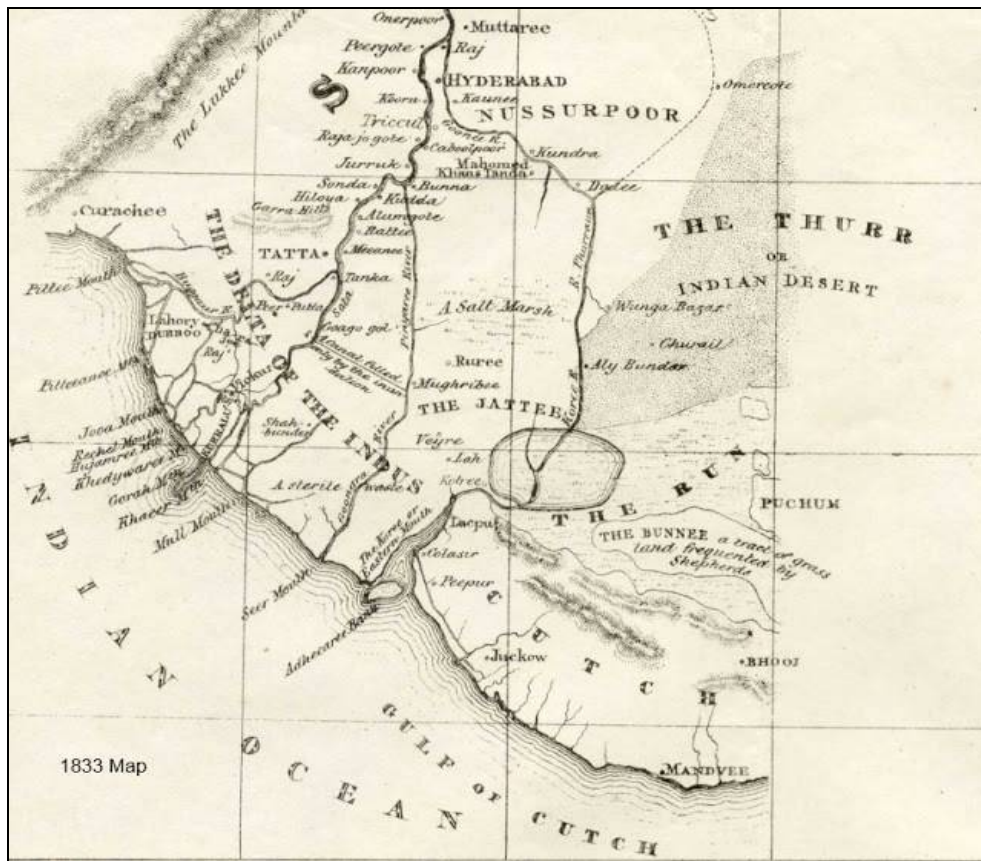


Figure 1

<http://www.akshardhool.com/2013/09/two-disasters-that-changed-indias-south.html>

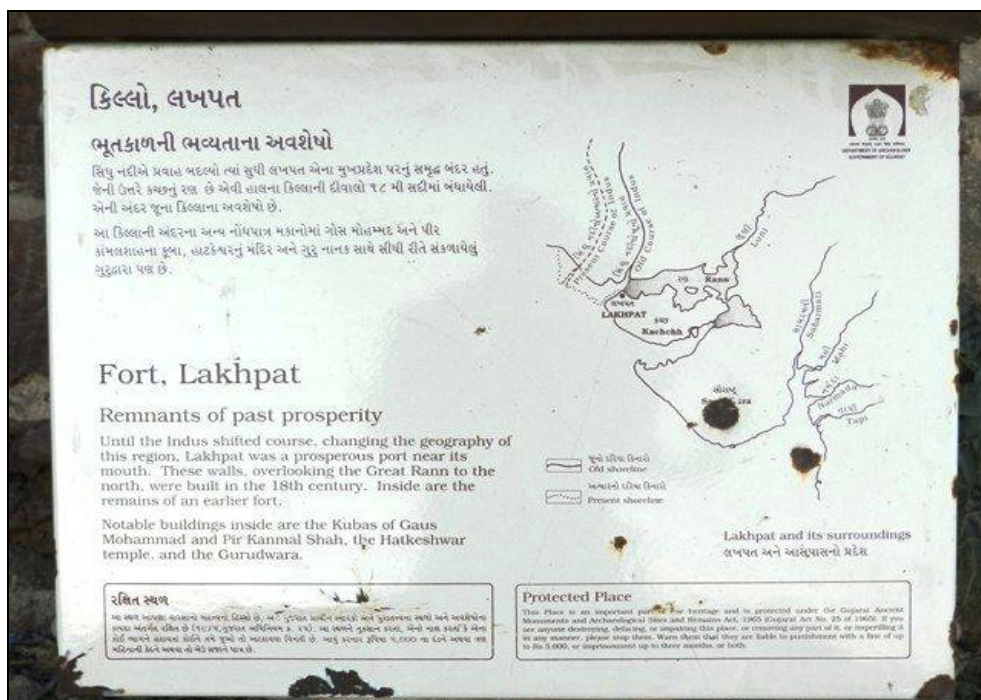


Figure 2

A board put up by the Department of Archaeology, Government of Gujarat at the entrance of the ruins of a Lakhpat fort on the westernmost reaches of Kutch.⁴⁹

7. References

- i. Raikes, S.N. Memoir and Brief Notes Relative to the Kutch State in Selections from the Records of the Bombay Government, XV, New Series, Bombay: Bombay Education Society's Press, 1855.
- ii. Haig, Malcolm Robert. The Indus Delta Country, A Memoir chiefly on its ancient geography and history, London: K. Paul, Trench, Trübner & Co., Ltd. 1894.
- iii. Burnes, Alexander. Travels into Bokhara - Also a Narrative of a Voyage on the Indus, Volume III, London: John Murray, 1834.
- iv. Campbell, James (Ed.) Gazetteer of Bombay Presidency: Kutch, Palanpur and Mahikantha, Volume V, Bombay: The Government Central Press, 1880.
- v. A.W. Hughes, (Ed.) A Gazetteer of the Province of Sindh, (London: George Bell and Sons, 1876.
- vi. Reports of International Arbitral Awards: The Indo-Pakistan Western Boundary (Rann of Kutch) between India and Pakistan, Vol. XVII, United Nations, 1968.
- vii. Allami, AbulFazal. Ain I Akbari, Volume 1, Translated from the original Persian by H Blochman, Calcutta: Baptist Mission Press, 1873.
- viii. Wynne, A.B. Memoir on the Geology of Kutch in Memoirs of the Geological Survey of India, Volume IX, London: Trubner and Co., 1872.
- ix. C.W. Tremenheere, On the lower portion of the river Indus in Journal of the Royal Geographic Society of London, 1867.
- x. Williams, L.F. Rushbrook. The Black Hills: Kutch in History and Legend: A study in Indian local loyalties, London: Weidenfeld and Nicolson, 1958.
- xi. Buckley, Robert. The Irrigation Works of India, New York: Spon and Chamberlain, 1905.
- xii. Hunter, W.W. (Ed.) The Imperial Gazetteer of India, Volume 3, Oxford: Clarendon Press, 1908.
- xiii. <http://www.portal.gsi.gov.in>
- xiv. <http://thinkingparticle.com/articles/lakhpat-fort-kutch-gujarat-port>
- xv. <http://www.akshardhool.com/2013/09/two-disasters-that-changed-indias-south.html>

⁴⁹<http://thinkingparticle.com/articles/lakhpat-fort-kutch-gujarat-port>