

Saraswati River of the Rig Veda

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Abstract

The descriptions of the Saraswati River in the Rig Veda match with the Luni that flows from Pushkar to the Rann of Kutch. However, descriptions of the Saraswati in the Mahabharata match with the Sarsuti-Ghaggar River that flows from the Shivalik Mountains to the Rann of Kutch. We suggest that the Saraswati of the Rig Veda was the Luni while the Saraswati of the Mahabharata was the Ghaggar.

Keywords: *Saraswati-Sindhu civilization, Rig Veda, Mahabharata, Ghaggar, Luni, Pushkar, Haryana.*

Background and Objectives

I challenge the existing consensus that the Saraswati River mentioned in the *Rig Veda* was the Ghaggar River that flowed from the Shivalik Himalaya to the Rann of Kutch in the fourth to second millennium BCE. This consensus is supported by geologists' assessment that the Ghaggar was a perennial river circa 3500 BCE. Giosan (2012:6) says that before 3400 BCE monsoon rains could sustain perennial rivers and the Harappan settlements along with the Ghaggar-Hakra system. Valdiya (2013:42) disagrees with Giosan's contention that the perennial river was monsoon-fed; and not a snowmelt-fed river. Both are nevertheless in agreement that the Ghaggar was a perennial river. Another point of contention is whether the Yamuna had abandoned its western channel and started to flow eastward before Harappan times in the 4th millennium BCE as contended by Giosan or in the 2nd millennium BCE as contended by Valdiya. If Yamuna flowed westward through the Ghaggar in the 4th-3rd millennium BCE then the Ghaggar would be snowmelt-fed at this time.

Giosan's contention is based on a study of the sediments of the rivers in the Cholistan area of Pakistan by Clift (2012). The two western samples taken by Clift were from Tilwalla and Marot located at two different confluences of the Beas-Sutlej and the Ghaggar-Yamuna while the eastern sample was taken from Fort Abbas located on the Ghaggar-Yamuna as shown in figure 1.

Clift found that the samples at westernmost Tilwalla resemble those of Beas and not those of Sutlej, Ghaggar or Yamuna. This is acceptable insofar as Beas is concerned because the river may have flowed along the western channel at some time. It is also acceptable for the Yamuna if she started to flow east before that time. However, the non-resemblance of the samples with Sutlej and Ghaggar is not explained since these rivers would necessarily have flowed through Tilwalla.

Second, he found that the samples at Marot resemble those of Sutlej (recent) and Yamuna (older). This is acceptable insofar as

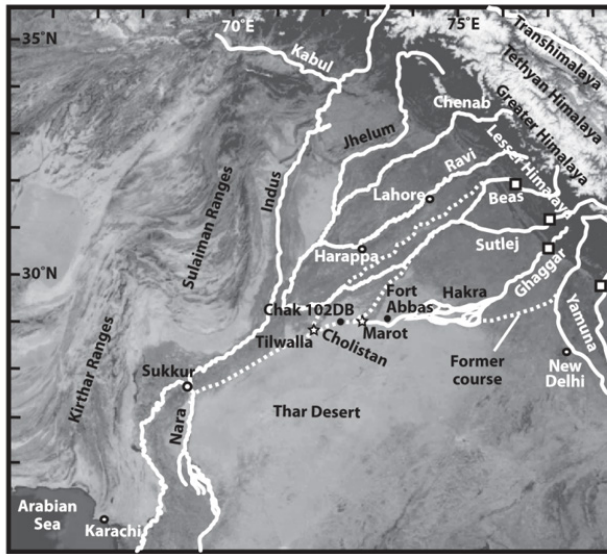


Figure 1: Sample sites. Photo: Clift (2012).

Sutlej is concerned if the river flowed along her eastern channel to Marot in recent times; and the Yamuna started to flow east in an older time. However, the non-resemblance of the samples with Ghaggar is not explained since she would necessarily have flowed through Marot at all times.

Third, he found that samples at Fort Abbas do not show a resemblance with the Sutlej, which is understandable since she joined the Ghaggar downstream of here. However, the non-resemblance of the samples with the Ghaggar is not explained since she would necessarily have flowed through here. No wonder, Clift says the samples at Fort Abbas are ‘particularly enigmatic’ and that “one sand sample is unlikely to fully describe the diversity in any of these reservoirs.”

The study by Clift is acceptable insofar as resemblances found are concerned. However, it is not justifiable to conclude from a resemblance-not-found that a river did not flow at that point of time in view

of each of the three samples suffering from certain infirmities. The conclusion arrived at by Clift and followed by Giosan that the Yamuna began to flow eastward before the Harappan times is, therefore, not credible. The evidences given by Valdiya in favour of a westward flow of the Yamuna till the second millennium BCE are from diverse disciplines and more credible and we proceed in this paper with this proposition.

The question remains whether the west-flowing Yamuna-Ghaggar at c. 3500 BCE was monsoon-fed or snowmelt-fed. The descriptions of the Saraswati River in the *Rig Veda*, however, do not mention whether the river was snowmelt-fed or monsoon-fed. The *Rig Veda* only suggests that it ran from the mountains to the sea and it was ‘best of rivers’ (7:95:2, 2:41:16). These descriptions match both with a snowmelt-fed and monsoon-fed river. Therefore, this question is not relevant for the identification of the Rig Vedic Saraswati River.

The objective of this study is to examine whether the descriptions of the Saraswati River in *Rig Veda* match with the Ghaggar or the Luni? We challenge the ‘consensus’ on evidences from geography, literature and living traditions and show that the descriptions match with the Luni and *not* with the Ghaggar.

The significance of this suggestion is that if the Ghaggar was not the Saraswati of the *Rig Veda*, then the identification of the Ghaggar among the other rivers mentioned in the text becomes wide open. We shall show in the last section that the two rivers not mentioned appropriately in the Nadi Stuti Hymn are the Ganga and the Sarayu. Therefore, the Ghaggar could be either of these rivers at the time of *Rig Veda*. If that be the case, the events that took place on the banks of these rivers at the time of the *Rig Veda*, and possibly at the time of Ramayana and Mahabharata, may have taken place in the Ghaggar basin and not the Ganga basin as often suggested.

We henceforth use the name ‘Nanda-Luni’ for the Luni after the name ‘Nanda Saraswati’ used for the stream at her head; and the name “Sarsuti-Ghaggar” for the Ghaggar after her tributary named Sarsuti to clearly distinguish the two rivers.

Source Limitations

A major difficulty in identifying the geographies in the ancient texts is that they were compiled much after the events described therein may have taken place. Linguist Koenaad Elst says Vedic culture was incipient from the early 4th millennium (2015). Sanskrit scholar O P Bharadwaj says *Rig Veda* is to be placed before 3000 BCE (1986:34). Greek scholar N Kazanas

places the events of the *Rig Veda* that took place in the 4th millennium BCE (2015:19). Michel Danino says hymns of the early book of the *Rig Veda* must have been composed before 2500 BCE (2010:256). On these considerations, we suggest that the events described in the *Rig Veda*, including the references relating to the Saraswati River, are to be placed in the 4th millennium BCE. As a working hypothesis, we accept the date of c. 3500 BCE. However, the *Rig Veda* as available to us was written between 1500 and 500 BCE (Mark 2020). Thus, a period of 2000-plus years elapsed between taking place of the events and writing of them.

A compilation of possible dates of the Mahabharata War on astronomical considerations gives a range from 3300 BCE to 1124 BCE (Mukhopadhyay 2018, Roy 1991). The number of generations from Brihadbala, a contemporary of Krishna, to Gautam Buddha are said to be 25 (Dave 2010). The mean length of generation for the Medieval Indian Kings has been estimated at 27 years (Trautmann 1969). Thus, the Mahabharata War took place 675 (25 generations x 27 years) before Buddha who lived in the fifth century BCE. That would place Mahabharata around 1175 BCE on genealogical considerations. The Mahabharata tells that the Saraswati dried out and became invisible at Vinasana (9:37:1). It also mentions three twelve-year droughts that took place on her banks (9:48:35, 51:4-22). The Ghaggar, the identification of which with the Saraswati of Mahabharata is not disputed, was a declining river at 1500 BCE. She rarely flowed beyond Anupgarh at this time (Danino 2015). We thus find a concordance between the descriptions of Saraswati in the Mahabharata and the archaeological evidence of the Ghaggar c. 1500 BCE. Thus, c. 1500



Figure 2: Ghaggar at Hanumangarh, September 2013, Photo: Author.



Figure 3: The Luni River near Sanchore, July 2015. Photo: Author.

BCE can be accepted as a working hypothesis for the time of the events mentioned in the Mahabharata on astronomical, genealogical and archaeological considerations. However, the text was composed between 500 BCE and 400 CE (The Pluralism Project 2017). Therefore, here too a period of 1000-plus years elapsed between taking place of the events and writing of them.

The long period of transmission of these texts by unknown modes lends to the possibility that certain redactions may have taken place. While being aware of this possibility, we have to nevertheless work with the texts as available to us because they have a deep influence on the present as seen in the debates on the identity of the Saraswati River.

Geographical Descriptions

Certain descriptions of the Saraswati are common to both *Rig Veda* and the Mahabharata and hence do not help distinguish the Saraswati River mentioned in the two texts. Both *Rig Veda* (7:95:2) and Mahabharata (9:35:41, 54:9) describe the course of the Saraswati as running from the mountains to the sea. These descriptions match both with the Nanda-Luni that flows

from the mountains of Pushkar to the Rann of Kutch and the Sarsuti-Ghaggar that flows from the Shivalik to the Rann of Kutch.

The *Rig Veda* says the Saraswati was the “best of rivers” (2:41:16). The Mahabharata likewise says that she was “foremost of rivers” (9:38:21). A picture of the Ghaggar bed at Hanumangarh is given in Figure 2 and that of the Luni bed at Sanchore is given in Figure 3. It is seen that the two riverbeds are comparable.

The *Rig Veda* tells of the Saraswati having seven sister rivers (7:36:6). The Mahabharata similarly states that the seven rivers named Saraswati joined and flowed together (9:38:3-30). In the case of Sarsuti-Ghaggar, Max Muller and Danino identify them as the five rivers of the Punjab, Indus and the Sarsuti-Ghaggar (Bajpai 2010:6, Danino 2015). In the case of Nanda-Luni, they can be seven of the many tributaries like the Sagarmati, Sukhadi and Lik that flow into her.

Archaeological Evidence

Evidences of human habitation are available from upper-, middle- and lower stretches of the Nanda-Luni from the 4th millennium BCE. Pottery related to the Chalcolithic Age has been found at Budha Pushkar located at

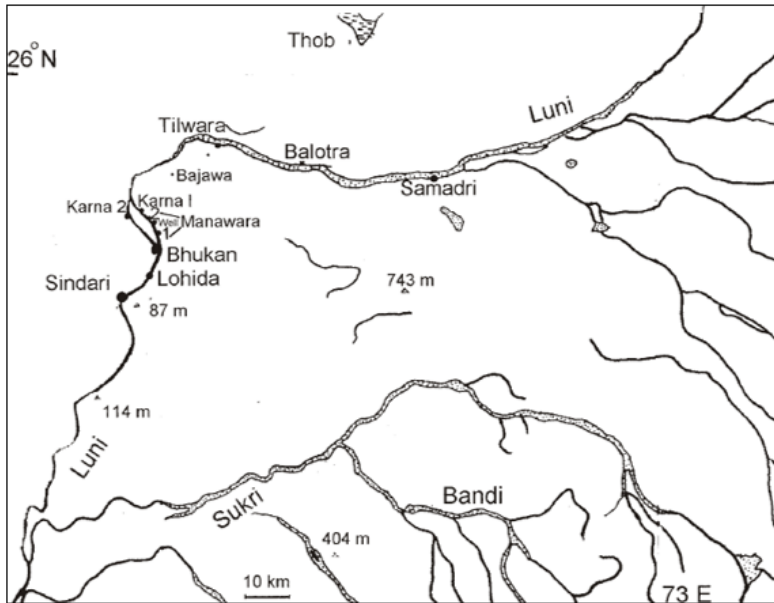


Figure 4: Prehistoric Sites in the Luni Basin. Photo: Mishra et. al. (1999).

the head of the Nanda-Luni River (Allchin 1983:65). Archaeological material related to Chalcolithic and early history phases has been found at Tilwara located on the Middle Nanda-Luni River as given in Figure 4 (Mishra 1999). Evidence of habitation at 3300–2900 BCE has been found in the area of Gujarat lying on the south banks of the lower Nanda-Luni (Harris 2011: 38). These studies indicate that the entire Nanda-Luni Basin was inhabited in the 4th millennium BCE. Archaeological evidence for habitation is also available from the Sarsuti-Ghaggar Basin such as from Rakhigarhi at the same time (Nath 2014:73).

The Name “Saraswati”

The name “Saraswati” is common to both the basins. The Saraswati referred to as “Sarsuti” in Haryana, is a tributary of the Ghaggar. The Nanda River, known as “Nanda Saraswati” flows at the head of the Nanda-Luni at

Pushkar. These common descriptions do not help identify the Saraswati at the time of the Rig Veda.

We now give the *different* descriptions of the Saraswati in the two texts and examine whether they match with the Nanda-Luni or the Sarsuti-Ghaggar.

Threefold Source

The Rig Veda says that the Saraswati had a “threefold” source (6:61:12). The Nanda-Luni emerges from three lakes—Budha Pushkar, Madhya Pushkar and Brahma Pushkar as shown in Figure 5 through the stream connecting Madhya Pushkar has been covered by sand dunes at present and shown as dotted lines in the Figure. These could be the “threefold source.”

The source of the Sarsuti River, on the other hand, is from a number of nondescript seasonal streams that emerge from the

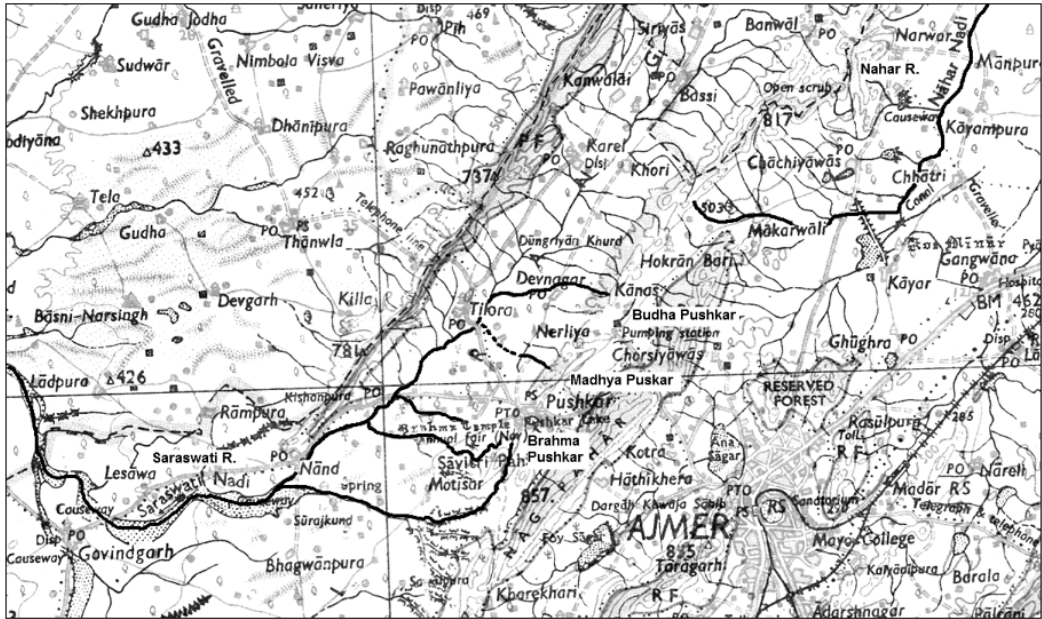


Figure 5: Three Lakes at the source of Nanda-Luni. Photo: Survey of India (1978), traced by the author.

foothills of the Shivalik Mountains between Sedhora and Chhachhrauli. The Ghaggar River likewise emerges from a number of seasonal hill streams above Chandigarh. There is no indication of three temples or three holy streams at the head of either river.

Three River Basins

The *Rig Veda* gives four sets of verses that are interrelated. The first set consists of three verses that tell of seven rivers (1:32:12, 4:28:1, 8:6:4). The second set consists of another three verses that say that the seven rivers joined together (6:7:6, 7:36:6, 8:58:12). The third set consists of yet another three verses that tell of three sets of seven rivers (1:34:8, 9:86:21, 10:75:1). Lastly, we have the fourth set of one verse that gives names of three rivers as Sindhu, Saraswati, and Sarayu (10:64:9).

These four sets of verses can be synchronized by positing that there were three main rivers—Sindhu, Saraswati and Sarayu—each of which had seven tributaries. The Sindhu River is easily identified as the living Sindhu. Her basin would include the five rivers of Punjab with the sixth remaining unidentified as shown in Figure 6. We are left to identify the remaining two rivers—Saraswati and Sarayu; and we have available two river basins of the Sarsuti-Ghaggar and Nanda-Luni. The Ganges Basin could not be one of these three basins because, as we shall show subsequently in our discussion of the Nadi Stuti hymn, the Ganga is said to flow into the Sindhu.

The *Rig Veda* also says that the three rivers flowed near each other as indicated in the term “come hither” in verse 10:64:9. Indeed, archaeologists have found three

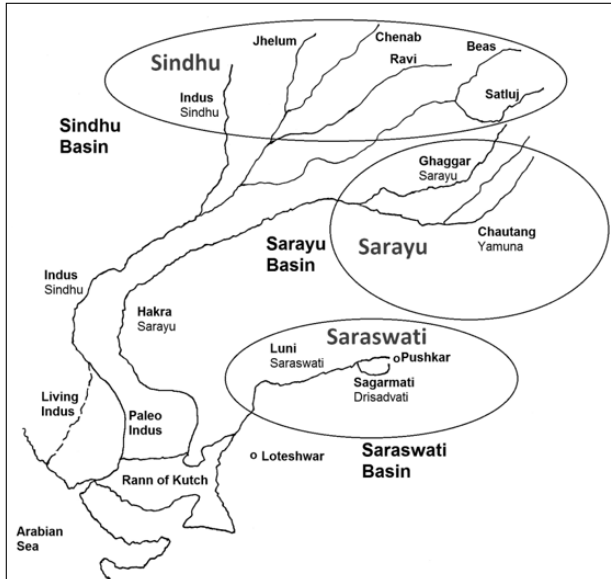


Figure 6: Sindhu, Sarayu, Saraswati. Photo: Author.

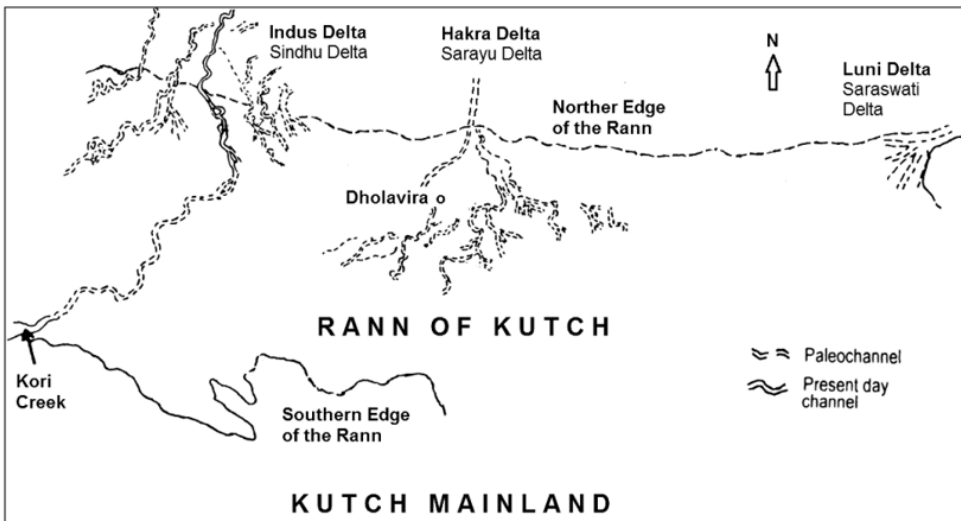


Figure 7: Sindhu, Ghaggar and Luni discharging into the Rann of Kutch. Photo: Adapted from Roy, A. B. (2001)

ancient deltas on the northern edge of the Rann belonging to the Sindhu, Sarsuti-Ghaggar (known as Hakra in her lower stretches), and the Nanda-Luni as shown in Figure 7. The westernmost delta is of the Sindhu. The two

eastern deltas would be of the Sarayu and the Saraswati. Either delta could be mentioned as the delta of Saraswati because both the Sarsuti-Ghaggar and Nanda-Luni, both carry the name “Saraswati.” However, a living



Figure 8: Early Harappan Cultural Regions. Photo: Possehl (1999)

tradition is that the Ghaggar is known as Sarayu in Punjab (Valdiya 2016:50). Thus, the name Sarayu is associated with the Sarsuti-Ghaggar while there is no known association of that name with the Nanda-Luni. It follows that the Sarsuti-Ghaggar would be the Sarayu and Nanda-Luni would be the Saraswati.

The early Harappan cultural regions are shown in Figure 8. It is seen that the Gedrosia, North-western and Northern regions formed the Sindhu basin; the Eastern and Hakra regions formed the Sarsuti-Ghaggar basin and the Southern region formed the Nanda-Luni basin. The overlap of these regions with the three river basins further supports our hypothesis that the three rivers mentioned in verse 10:64:9 relate to three river basins.

Flood and Drought

The *Rig Veda* tells that the Saraswati had a “limitless unbroken flood” (6:61:8). On the other hand, the Mahabharata tells that the Saraswati dried out and became invisible at Vinasana (9:37:1). It also mentions three twelve-year droughts that took place on her banks (9:48:35, 51:4-22). The two descriptions, however, are not comparable because the Rig Vedic description relates to c. 3500 BCE while the Mahabharata descriptions relate to c. 1500 BCE.

Limiting ourselves to the *Rig Veda*, the description of the flood matches both with the Sarsuti-Ghaggar and Nanda-Luni. The rivers near Harappa, which would include the Sarsuti-Ghaggar, flooded at c. 3500 BCE

(Wright 2008). The Luni likewise flooded 5000 years ago (Ngangom et. al. 2016). She has experienced at least 17 extreme floods in the last millennium (Alpa 2008:25). Thus, both rivers had floods at c. 3500 BCE.

The Ghaggar was a declining river at 1500 BCE. She rarely flowed beyond Anupgarh at this time (Danino 2015). In contrast, the climate around the Luni was humid until 800 BCE (Mishra 1999:41). While this situation matches with the Mahabharata telling that the Saraswati dried out it does not help identify the Saraswati at c. 3500 BCE. We, therefore, conclude that the descriptions of flood and drought do not help identify the Saraswati River at the time of the *Rig Veda*.

Literary Evidences

The *Rig Veda* is the earliest among the known Hindu texts. This suggests that the Saraswati River mentioned in the text was flowing at the earliest time. The Mahabharata says that the first of the seven Saraswati Rivers flowed at Pushkar where Lord Brahma had performed sacrifice at the time of creation (9:38:3-30). Thus, both texts are in agreement that the earliest Saraswati River flowed at Pushkar and matches with the Nanda-Luni. The importance is that the Mahabharata implicitly acknowledges the existence of an early Saraswati River flowing at Pushkar.

Possible contrary evidence is that the Mahabharata refers to Indra. However, these references are made in the past tense. It is said that Indra *had undertaken* sacrifice at a place between Prithudak and Ram Tirth (9:49:1); and Indra had found happiness in the *old times* at a place near the Yamuna (9:54:15). The *Rig Vedic* Indra may have visited the area around 3500 BCE or another person carrying the title of “Indra” may have visited the area

at an unspecified time in the past. There is no mention of the Saraswati River in these verses either. These descriptions, therefore, do not establish an association of the *Rig Vedic* Indra or the Saraswati River with the area at c. 3500 BCE.

Living Traditions

We find living traditions of a number of *Rig Vedic* seers around the Nanda-Luni River. The Brahma Temple at Pushkar has an idol of Indra as a gatekeeper as given in Figure 9. The local narrative indicates that Indra was present at the time Brahma undertook sacrifice for undertaking creation.

Now, Indra the doorkeeper at the time of creation could not be the same person named. Indra who is eulogized in the *Rig Veda* c. 3500 BCE. However, the name “Indra” may have been used in the *Rig Veda* in the sense of a title. An association of persons carrying the title Indra is indicated. The *Rig Veda* tells of Indra striking Vritra with the bones of Sage Dadhyanch (1:84:13.). The *Ashrama* (hermitage) of the sage is located at Dethali in North Gujarat near the Nanda-Luni. The idol of the sage here is shown in Figure 10. Living tradition holds that Dadhyanch donated his bones to Indra at Siddhpur near here.

The now-filled up lake at Unwas is said to be the place where Indra washed his sin of Brahmahatya he incurred on his killing of Vritra. The existing temple of Pippalad Mata here is named after sage Pippalad whose name is mentioned in the *Vedas* and provides a possible though the tenuous link with the *Vedic* period. We must report that the earliest archaeological evidence available from here is of a temple dated to 10th century CE (Government of Rajasthan, 2016). For this reason, we are giving this evidence



Figure 9: Idol of Indra, the gatekeeper, at Brahma Temple, Pushkar, September 2016. Photo: Author.



Figure 10: Dadhyanch idol, Dethali, October 2015, Photo: Author.



Figure 11: Pippalad Mata Temple Unwas, July 2015. Photo: Author.

under “living traditions,” and not under “archaeological evidence.”

We have living traditions of certain *Rig Vedic* sages in the Sarsuti-Ghaggar Basin as well. The *ashrams* of sages Pulaha and Pulatsya are located at Siwan and Theh Pullar in Haryana. However, to our knowledge, there is no living tradition of specific events mentioned in the *Rig Veda* having taken place here. The *ashrams* of sages Vishwamitra and Vasishtha are located at Pehowa. Living tradition holds that conflict between the two sages took place here on the banks of the Sarsuti River. However, this conflict is not told of in the *Rig Veda*. A temple of Lord Brahma is located at Pehowa. However, there is no idol of Indra here. Thus, these traditions are weaker than the Nanda-Luni Basin. A living tradition is that the Ghaggar is known as Sarayu in Punjab as mentioned previously.

In conclusion, the living traditions at Pushkar, Dethali and Unwas indicate an association of the *Rig Vedic* Saraswati with Nanda-Luni, while the living tradition in Punjab indicates an association of the Sarayu with the Ghaggar. We suggest that the *Rig Vedic* Saraswati River was the Nanda-Luni on the abovementioned geographical and literary evidences and living traditions. Now we discuss the main arguments against our hypothesis.

The Nadi Stuti Hymn

Scholars have often relied on the Nadi Stuti Hymn (10:75) to identify the Sarsuti-Ghaggar with the *Rig Vedic* Saraswati (Danino 2015). This hymn is given below, separated by topic.

21 Rivers: The Rivers have come forward triply, seven and seven (1).

Veneration of Sindhu: Sindhu might surpasses all the streams that flow (1). Sindhu rushes on bellowing like a bull (3).

Flowing into Sindhu: Like mothers to their calves... so, Sindhu, unto thee the roaring rivers run (4).

List of 19 Rivers: O Ganga, Yamuna, Sutudri, Parusni, Sarasvati, Asikni, Vitasta, Marudvrdha, Arjikiya, Susoma, Trstama, Rasa, Susartu, Svetya, Kubha, with these, Sindhu and Mehatnu, thou seekest in thy course Krumu and Gomati (5-6).

Veneration of Sindhu: Sindhu unrestrained..., beautiful, fair to see (7). Rich in good steeds is Sindhu (8). So, have I praised its power, mighty and unrestrained, of independent glory, roaring as it runs (9).

We may notice the following points in these verses:

Two Rivers are missing. The opening verse tells of 3x7 or 21 rivers but only 19 are named suggesting that the names of two rivers have been redacted. *Ganga is a tributary of the Sindhu.* The hymn says that these 19 rivers were tributaries of the Sindhu as indicated in the term “Like mothers to their calves... so, Sindhu, unto thee the roaring rivers run,” and again in “thou [Sindhu] seekest [these] in thy course.” No evidence is available for an ancient westward flow of Ganga. Yet she is mentioned as a tributary of the Sindhu. This suggests that the name Ganga was used for another unidentified west-flowing river at that time. *Sarayu is missing.* The hymn does not mention the Sarayu which is mentioned as one of the three major rivers elsewhere (4:30:18, 5:53:9).

Saraswati is not identifiable. The Saraswati mentioned in this hymn could be either the Sarsuti-Ghaggar or the Nanda-Luni because both emptied into the Rann of Kutch along with the Sindhu and match the statement that the Saraswati joined the Sindhu.

The order is challenged. B B Lal (2002:3) gives the order of the rivers in verses 5-6 as “Ganga, Yamuna, Saraswati, Sutlej, Ravi, Marudvrda, Chenab...” He places Saraswati between Yamuna and Sutlej (Sutudri) which matches with the Sarsuti. However, Griffith gives the order as “Ganga, Yamuna, Sutlej (Sutudri), Ravi (Parusni), Saraswati...” as quoted above. Therefore, the order of the rivers is challenged and it is not appropriate to rely on the particular placing of Saraswati in the verse to identify her with the Sarsuti-Ghaggar. For these reasons, reliance on this hymn for the identification of the *Rig Vedic* Saraswati with Sarsuti-Ghaggar is not justified.

S Kalyanraman and B B Lal have suggested that the Yamuna flowed north-westward from Paonta and descended into the plains near Aad Badri (Kalyanraman 2019:1, 16, Lal 2019). Kalyanraman has further suggested that the Ghaggar circuted around the Rann of Kutch and flowed through Nal Sarovar to Somnath (Kalyanraman 1999:10, 18). These suggestions relate to some remote geological time and may not be relevant for the identification of the Saraswati at c. 3500 BCE.

R S Sharma and Rajesh Kochhar have suggested that the *Rig Vedic* Saraswati could be the Helmand (Sharma undated, Kochhar 2019). This identification relies mainly on the phonetic similarity of the names Saraswati and Helmand. That granted, this identification

does not match with the geographical descriptions of Saraswati in the *Rig Veda* or the Mahabharata where she is told to flow to the sea. The Helmand dries out in the deserts.

Conclusion

We suggest that the *Rig Vedic* Saraswati River was the Nanda-Luni on the following considerations. One, geographical evidences of threefold source and three river basins. Second, the literary evidence of the Mahabharata suggests a connection of the earliest Saraswati River with Pushkar at the head of the Nanda-Luni. Three, living traditions of Indra at Pushkar and Unwas, and Sage Dadhich at Dethali suggest a connection of *Rig Veda* with the Nanda-Luni Basin.

Further, we suggest the Ghaggar was the Sarayu at the time of the *Rig Veda* because the Sarsuti-Ghaggar Basin alone could be identified as the Sarayu Basin at that time; and the living tradition of Ghaggar being known as Sarayu in Punjab.

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