

THE VEDIC RIVER SARASWATĪ A MYTH OR FACT—
A GEOLOGICAL APPROACH

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The river Saraswatī has received much praise from the poets of the *Rg Veda*. However, the river has been considered as mythical by some recent observers. The problem is examined here from a geological point of view and it is concluded that the river Saraswatī, now extinct, was a live river in the geological past, and hence not mythical. Examination of its palaeochannels and offshore silts is suggested for the probable diamond content based on the description of diamonds of the region in Sanskrit texts.

INTRODUCTION

The *Rg Veda* has been considered as the oldest text in the library of mankind. The date of the *Rg Vedic* compositions is an unsolved problem and different students of the vedas have observed that the *Rg Veda* is older than 1200 B. C. and may go up to 5000 B. C. or even earlier.¹ That they may be earlier to 5000 B. C. now being considered on the evidences of the Harappa and Mohanjo Daro civilization is not only important from the point of view of pre-history but it is more important from the angle of geology. Since the *Rg Veda* concerns with descriptions of the various natural aspects and geological agents as well as the celestial objects and the Universe, they present a system of natural philosophy. The *Rg Veda* actually presents a grand geo-cosmological theory of the Universe, hence, they are the primary texts which should receive the attention of all the students of the earth, specially the geologists.

The *Rg Vedic* texts that are available to us at present appear to be not the oldest of their kind but the remnants of the final compositions of a civilisation which had close acquaintance with the nature from long, long time. How long—is debatable. for, we do not possess any evidence to show

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the commencement of such a civilisation. Harappan civilisation is dated about 3000 B. C. and some additional 3000 years is estimated for the evolution of such a civilisation. The considerable influence that the Harappan civilisation had on the evolution of the vedic culture suggests that the latter would have been older than the former which again establishes the undoubted antiquity of the Vedic civilisation which may be older than 6000 B. C.

DESCRIPTION OF THE RIVER SARASWATĪ IN THE RĠ VEDA

The river Saraswatī has been described by the *Rġ Vedic* authorities in many hymns. Some of the hymns which have been devoted to the description of the river Saraswatī in the *Rġ Veda* are given below^a

1. *Maṇḍala* I, Hymn 13, *Rġ*. 9 (page 8, *ibid*)
2. *Maṇḍala* V, Hymn 5, *Rġ*. 8 (page 377, *ibid*)
3. *Maṇḍala* I, Hymn 142, *Rġ*. 9 (page 154, *ibid*)
4. *Maṇḍala* I, Hymn 188, *Rġ*. 8 (page 179, *ibid*)
5. *Maṇḍala* II, Hymn 1, *Rġ*. 11 (page 187, *ibid*)
6. *Maṇḍala* II, Hymn 3, *Rġ*. 8 (page 199, *ibid*)
7. *Maṇḍala*, III, Hymn 4, *Rġ*. 8 (page 237, *ibid*)
8. *Maṇḍala* VII, Hymn 2, *Rġ*. 8 (page 239, *ibid*)
9. *Maṇḍala* III, Hymn 23, *Rġ*. 4 (page 287, *ibid*).

From the above descriptions it is clear that the river Saraswatī was praised by the Vedic authors and elevated even to the level of a goddess. It is no wonder that the Saraswatī which sustained the Vedic civilisation was so much praised by the Vedic authors. The river, it appears, was much responsible for the food and prosperity of that civilisation, hence befittingly praised. According to Krishnan (*ibid*) "When the Saraswatī was a live river, it must have irrigated an area of perhaps 7000 sq. miles of what is now practically a desert."

Since the river is now extinct, people hesitate to believe in the worldly existence of a river by the name Saraswatī. Many were content to observe that the Saraswatī is a sleeping river (*suptanadī*). There is the belief that this sleeping river (flowing sub-surface) joins the confluence of Yamunā and Gaṅgā at Prayāg (Allahabad) appropriating to the concept of the *Trivenī Saṅgam* (confluence of the three rivers). More than all, some authors believe that it is a 'myth'—an imaginary river^a. There can hardly

be a damage equal to such interpretations due to sheer ignorance of scientific data specially which discredit the authenticity of the Vedas.

GEOLOGICAL OBSERVATIONS ON THE RIVER SARASWATI

Krishnan (ref. 1) has observed that "The Saraswati has been described in Vedic literature (probably 5000 B. C. or earlier) as a great river—greater even than the Indus and the Ganges. Between that and the time of Manu and the Mahābhārata its upper course had dried up, probably because of the easterly diversion of the waters of the Yamunā. The lower course in Bikaner, Bahawalpur and Sind continued to be well watered, for during the invasion of Alexander of Macedon in the fourth century B.C. and of the Arabs in the ninth century A.D. the Rann of Kutch was a fairly deep gulf and ships moved up the river into Sind. In Todd's *Annals of Rajasthan* it is stated that the Hakra (identified with the extinct Saraswati) in Bikaner became dry for the first time about the year 1044 A.D."

"The river Saraswati appears to have been originated in the Siwalik hills of Sirmur on the borders of the Ambala district between the talus fans of the rivers of Yamunā in the east and of Sutlej in the west and was flowing in a general southwesterly direction finally debouching into the Rann of Kutch. The dry bed of Hakra, which is as wide as 3 to 5 miles in the territory of Bikaner has been recognised as the course of the now extinct river Saraswati. On both the banks of Hakra it is stated that several mounds containing remnants of prehistoric and historic settlements have been identified which revealed ruins of temples, dwellings, pot sherds etc. of the Mohanjo-Daro type."

"The withdrawal of the waters from the Sutlej and possibly from the Jamuna, dried up the Saraswati" observed Krishnan (ref. 1). This is a very interesting observation from the point of view of the headward erosion of the Sutlej and the Yamunā and associated geological changes. The silting up of the Rann of Kutch and the prevalent desert conditions seem to have been the causes for drying up of the river Saraswati in its lower reaches. The 1819 earthquake is noted to have caused considerable upliftment of the Rann which was once deep enough to support navigation, as late as the time of Alexander's invasion, i.e. fourth century B. C.

GEOLOGICAL IMPLICATIONS OF THE EXTINCT RIVER SARASWATI

The identification of the palaeo-channels of the river Saraswati may be rewarding, as also the silts of the Rann of Kutch. According to Varāhamihira (*Bṛhatsamhitā*)⁴, the diamonds from Saurashtra deśa have been described as little reddish and of Suraparaka deśa as black (Murthy)⁵. The region of Saurashtra may not only include the present territory of Gujarat (since the area of Gujarat was also called Gurjara) but also parts of the present Rajasthan. So far, no diamonds have been found in this region based on

modern observations. Of course rocks, ultramafic in nature occur in this region but not the ones which are noted to contain diamonds, e.g. the kimberlites. An examination of the sands of the palaeo-channel of the river Saraswati may indicate the presence of alluvial diamonds, which may help locating the primary rocks. The other place from where black diamond is reported by Varāhamihira, i.e. Suraparaka deśa has not been identified. If the present Sopara near Bombay is the one referred to as Suraparaka deśa⁶, it is difficult to account for the occurrence of black diamond in that region on the basis of our modern understanding. Perhaps, it might have been a mart. Since the Saraswati is stated to have debouched into the Rann of Kutch, the silts of the Rann may indicate presence of diamonds on offshore dredging and examination, which may confirm the above suggestion, based on Varāhamihira's description of diamonds.

CONCLUSION

The Vedic river Saraswati is not a myth. It was a live river in the Vedic time, and irrigated large areas supporting the Vedic Culture to a considerable extent. Therefore, *Rg Veda* described the river in superlative terms. Its extinction is due to geological changes in the subcontinent. The silting up of the Rann of Kutch and the onset of desert conditions of the Thar quickened drying up of the river Saraswati, as also the headward erosion of the rivers Yamunā and Sutlej which got its water diverted into their channels. It may also be the reason for people to believe that the part of Saraswati embracing Yamunā perhaps disappeared on the surface and is flowing sub-surface, hence *Supta Nadi*-merging with the Ganges at Prayāg as Yamunā does. The sands of Saraswati and silt of Rann of Kutch may be examined for presence of diamonds.

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