

Location of the Vedic *Iriṇa* and its Archaeo-geography

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Abstract

R̥gveda refers to a place or region by name *Iriṇa*. This appears as a locale frequented by an animal called *Gaura* for drinking water. With the passage of time, in the Yajurveda texts, *Iriṇa* acquires a negative meaning as a barren land or a place devoid of water. In the ritualistic context *Iriṇa* is associated with disaster and misfortune. The geographical features associated with *Iriṇa*, as described in the Vedic texts, are analysed in this paper to identify its location as being slightly north of the present day Raṇ-of-Kachh, which is a land formed by the drying or receding of the sea. Vedic Brāhmaṇa texts interpret the animal *Gaura* as a demented horse which is most likely the wild ass locally called *Gaud-kur* still surviving in the Raṇ region. The Great Epic Mahābhārata knows *Iriṇa* as the place where the River Sarasvati dried up near the sea. This identification has to be factored in debates concerning the homeland of the Vedic people.

Introduction

Periplus of the Erythrean Sea is a Greek navigator's guide belonging to 1st century BCE. This has been studied and translated by McRindle (1879). He observes "...the first place mentioned after the River Indus is the Gulf of *Eirinon*, a name traces of which remain in the modern appellation the Raṇ-of-Kacch. This is no longer covered with water except during the monsoon, when it is flooded by sea water or by rains and inundated rivers. At other seasons it is hard, dry and sandy; a mere saline waste, largely devoid of herbage, but frequented by the wild ass..." Agarwala (1953), Bisht (1989) mention that the Raṇ-of-Kacch (RoK) was known as *Iriṇa*, in ancient times, but do not provide evidences from ancient texts. Starting from the R̥gveda (RV), Vedic literature refers to a special type of landform or place called *Iriṇa*. In the scheme of Vedic rituals *Iriṇa* occupies a significant place associated with *Nirṛti* the deity of disaster, and the southwest direction, known as *Naiṛtya* in later Sanskrit. In the present paper several available ancient evidences are brought together and analysed to show that *Iriṇa* of the R̥gveda should have been contiguous with the present day RoK. This region appears to have suffered a natural disaster which made the orthodox Vedic people emigrate out of *Iriṇa* as ordained in the *Taittirīya Samhitā* (TS) and other Yajurveda texts.

Iriṇa in the R̥gveda (RV)

The word *Iriṇa* occurs in the RV six times in all. Here we consider these with the original text line, followed by relevant comments. The first occurrence is in the first *maṇḍala*, verse 9 of the hymn (1.186).

उत न ई मरुतो वृद्धसेनाः स्मद्रोदसी समनसः सदन्तु
 पृष्ठदश्वसोऽवनयो न रथा रिशादसो मित्रयुजो न देवाः ॥ 8 ॥
 प्र नु यदेषां महिना चिकित्रे प्र युञ्जते प्रयुजस्ते सुवृक्ति
 अध् यदेषां सुदिने न शरुविश्वमेरिणं प्रुषायन्त सेनाः ॥ 9 ॥

Following Sāyaṇa the word *eriṇam* (*ā+iriṇam*) is interpreted by Griffith as barren soil. Here the context is of Maruts, armed with their mighty weapons discharging sparkling arrows over a region or place called *eriṇa*. In the eighth book in hymn (8.4) addressed to Indra the word occurs once.

यथा गौरो अपा कृतं तृष्णमेत्यवेरिणम्। आपित्वे नः प्रपित्वे तूयमा गहि कण्वैषु सु सचा पिब ॥ 3 ॥
*Even as the Gaura, when he thirsts, goes to the desert's watery pool
Come hither quickly both at morning and at eve, and with the Kaṇvas drink thy fill.*

Again in the eighth *maṇḍala* hymn (8.76) addressed to Aśvins, the word appears twice in its basic form as *Iriṇa*.

द्युम्नी वां स्तोमो अश्विना क्रिविर्न सेकु आ गतम्
 मध्वः सुतस्य स दिवि प्रियो नरा प्रातं गौराविवेरिणे ॥ 1 ॥
 पिबतं सोमं मधुमन्तमश्विना बुहिः सीदतं सुमत्
 ता वावृधाना उप सुष्टुतिं दिवो गुन्तं गौराविवेरिणम् ॥ 4 ॥

*Splendid, O Asvins, is your praise. Come fountain-like, to pour the stream.
Of the sweet juice effused-dear is it, Chiefs, in heaven-drink like two Gaura at a pool.
Drink ye the Soma rich in meath, ye Asvins Twain: sit gladly on the sacred grass.
So, waxen mighty, to our eulogy from heaven come ye as Gaura to the pool.*

The above is the translation of Griffith, except that we are not taking *Gaura* as wild-bull. *Iriṇa* may not be just a water hole, but a place with potable water pools. The interesting point here is that in all the three cases *Iriṇa* is associated with the animal *Gaura*. The next appearance of *Iriṇa* is in the tenth book, (10.34) where tradition interprets the word as dice board.

प्रावेपा मा बृहतो मादयन्ति प्रवातेजा इरिणे वर्वृतानाः
 सोमस्येव मौजवृतस्य भुक्षो विभीदको जागृविर्मह्यमच्छान् ॥ 1 ॥
 नीचा वर्तन्त उपरि स्फुरन्त्यहुस्तासो हस्तवन्तं सहन्ते
 दिव्या अङ्गारा इरिणे न्युताः शीताः सन्तो हदयं निर्दैहन्ति ॥ 9 ॥

The first verse refers to an object that supposedly sprung from tall trees at a height. This could refer to the nuts of the *Vibhītaka* tree out of which dice were made. The hymn in which the above two verses arise, is traditionally associated with dice play. The game was played by throwing the dice on flat ground. Hence, here dice board could be a secondary meaning of the word *Iriṇa*. The literal meaning of the second line (10.34.9b) above is “*Heavenly charcoals having ploughed into Iriṇa, though cold, burn the heart.*” Double meaning may be intended, but the primary meaning appears to be that of fiery objects falling from the sky in a place named *Iriṇa*. RV (1.186.8-9) already quoted, where bright objects are mentioned as flying over *Iriṇa* supports this inference.

The *Nirukta* of Yāskācārya (Sarup 1967) accepts two meanings for the word *Iriṇa* in RV (10.34)

iriṇam nirṇam ḥnāterapārṇambhavati| aparatā asmādoṣadhaya iti vā ||

Board (iriṇam) is free from debt (nir-ṛṇam). It is derived from (the root) ḥn (to go) i.e. it is distant. Or else, herbs have been removed from it.

Based on the above etymology of Yāska one can interpret the word *iriṇam* as; that which was previously ḥṇam, i.e. moving/flowing (thus fertile), became *nir-ṛṇam* i.e. non-flowing, non-fertile, without herbs, (after being hit by fiery objects).

Iriṇa in the Yajurveda

Taittirīya Samhitā (TS) refers to *Iriṇa* in the legend of Viśvarūpa. As per this legend, Viśvarūpa son of Tvaṣṭṛ had three heads. Indra killed him by cutting off the heads, but was accused of being guilty. Earth agreed to take one-third of the guilt of Indra, in return for a boon. This (guilt) became *Iriṇa* on the earth

tṛṭīyam brahmahatyāyai prati agrhṇāt| tat svakṛtam iriṇam abhavat| tasmād āhitāgnih śraddhādevah svakṛta iriṇe naava syed || (TS 2.5.1.3)

A third of the guilt of killing a Brāhmaṇa was taken (by earth). That (part of earth) became the self-created Iriṇa. Therefore, the faithful āhitāgni should not stay in the self made Iriṇa.

This legend of Viśvarūpa carries the footprints of orthodox Vedic people emigrating out of *Iriṇa*, which for some special reason became uninhabitable. The translation of *Iriṇa* as just a natural fissure in earth by Keith (1914) does not convey the complete meaning of the above text. This can be inferred from other hymns, where *pradara* (fissure, opening) is prescribed only as an alternate place for certain rituals.

svakṛta iriṇe juhoti pradare vaitad vaai asyai nirṛtigrītam nirṛtigrītā evainam nirṛtyā grāhayati || (TS 3.4.8.5)

He offers in the self made (natural) Iriṇa or in a fissure that is seized by Nirṛti. Certainly, in a place seized by Nirṛti, he makes him (the enemy) seized by Nirṛti.

It is to be noted that *pradara* meaning a fissure is an alternate to *Iriṇa*, for offering a sacrifice. The word *svakṛta* qualifies both *Iriṇa* and *pradara*, hence the fissure was also a natural one in contrast to a man made opening. The two land-types are equivalent as far as the ritual is concerned but they are not physically identical. The place is said to have been seized by

Nirṛti, the deity of disaster and misfortune. In essence here TS equates *Iriṇa* itself with disaster or misfortune. Since *Iriṇa* meant a region, the additional reference to *pradara* here probably hints at the existence of a natural crater in that region. Through *Nirṛti* a direction is also indicated for *Iriṇa* as in the following text.

*imām diśām yāntyeṣā vai nirṛtyai| diksvāyāmeva diśi nirṛtim niravadayate | svakṛta **iriṇa** upa dadhāti pradare vā | etad vai nirṛtyā āyatanaṁ | sva evāyatane nirṛtim niravadayate||*

*They go in this direction (to this quarter). This is the direction of Nirṛti; verily in her own direction he propitiates Nirṛti. He places (it) in self-made **Iriṇa** or in a fissure; that is the abode of Nirṛti; verily he propitiates Nirṛti in her own abode.* (TS 5.2.4.3)

The Taittīra Brāhmaṇa (TB) text corroborates the above statements. .

*svakṛta **iriṇe** juhoti pradare vā| etadvai rakṣasām āyatanaṁ | sav eva āyatane rakṣāmsi hanti||* (TB I.7.9)

The reference to *Iriṇa* in TB (2.2.7) and TS (3.4.8.5) are similar. The Śatapatha Brāhmaṇa of the Śukla-Yajurveda also provides similar directions for locating *Iriṇa*.

*tena dakṣinā yanti sa yatra svakṛtam **veriṇam** vindati śvabhrapradaram vā ||* (ŚB 5.2.3.2)

*They go south, where the self-created (natural) **veriṇa** is reached or a fissure due to a whirlpool.*

*tābhiretām diśam yanti | eṣā vai nairṛtī diśi nairṛtyāmeva taddiśi nirṛtim dadhāti sa yatra svakṛtam **veriṇam** śvabhrapradaro vā syāttadenā upadadhyād yatra vaa asya avadīryate yatra vā asyā oṣadhayo na jāyante nirṛtiirhāsyai tad grhṇāti||* (ŚB 7.2.1.8)

*With them they go towards the southwest direction (quarter). That is the direction of Nirṛti. Verily he places Nirṛti in the abode of Nirṛti. He places those (bricks) in the self-created **Veriṇa** or in the fissure of a whirlpool. Verily Nirṛti grasps that part where there is a ground fissure or a place where no herbs grow. Thus, he places Nirṛti in that part of earth set-aside for Nirṛti.*

Here *Veriṇa* is a variant of *Iriṇa*. The commentary of Sāyaṇa explains *Iriṇa* and *śvabhrapradara* as two alternate places, both in the southwest direction. The first is a natural region devoid of grass and the second is a circular ground opening. *Svabhra* is usually taken to mean a deep pit or a hole. The above Vedic texts taken together indicate a direction associated with *Nirṛti* and hence with *Iriṇa*. This is clearly the southwest, which in later Sanskrit and other Indian languages came to be known by the word *nairṛtya*. The above Vedic texts imply *Iriṇa* as a region that suffered a natural disaster. It became uncultivable on its own without human intervention. This also implies that during the time of the 8th *māṇḍala* of RV, *Iriṇa* was at least in parts inhabited. This was in all likelihood located southwest of a central region culturally important to the composers and followers of the Yajurveda. If we identify such a region to have been centered around Kurukṣetra, the location of the Vedic *Iriṇa* synchronizes with the present day Raṇ-of-kacch.

Atharva-veda Samhita refers to *Iriṇa* along with spotted frogs and river streams as in

vadantu prśnibāhavo mandūkā irinānu|| (AV 4.15.12)

This is in tune with the use of the word in the 8th book of RV, where *Iriṇa* is a place with potable water. It is interesting to observe that between RV and the Yajurveda, the latter is more concerned with *Iriṇa*, but always in a ritualistic sense. All Yajurveda texts highlight this place through the epithet *Iriṇya* (TS 4.5.9) referring to Śiva, in the famous Rudrasūkta. This seems natural in that Rudra, one among the Godhead divided in three, responsible for destruction should have been associated in the most ancient times with *Iriṇa* the region affected by a natural disaster.

Iriṇa and Gaura

It has been pointed out that in RV *Iriṇa* is linked with the animal *Gaura*. Hence for the archaeo-geographical spatial relation of *Iriṇa* with RoK to be acceptable, the animal *Gaura* should also be associated with RoK. Sāyaṇa (14th Cent CE) explains this animal as *Gauramṛga*, which may mean just a wild animal of that name or a type of white deer. The simile in the RV hymns refers to the thirst and swiftness of *Gaura* to go to the pool. Mention of this special animal *Gaura* is met with four times in RV (1.16.5; 7.69.6; 8.4.10, 8.45.24). The nature of this animal is mentioned in RV (7.69.6) as being thirsty and going to the glittering place (mirage or reflection). Thus, it can be inferred that in the eighth book the composers of the Kaṇva family have associated *Iriṇa* with a locality prone for water holes and which was the habitat of animals called *Gaura*. It would be interesting to see how the animal *Gaura* would fit into the identified location of *Iriṇa*. This sensitively depends on identifying the animal denoted as *Gaura* in RV. Griffith, whose translation is widely cited, is unsure of the identity of *Gaura*. He, following Sāyaṇa, takes this animal to be *wild-bull* in the first place but as *antelope* in RV (8.4.10). However as per Aitareya Brāhmaṇa, the prime claimant for continuing the Ṛgvedic tradition, *Gaura* was a degenerate horse. In the 8th Book 6th Chapter of this text, a legend is told about why the flesh of some animals is not permissible in sacrifices. It postulates that *when Intelligence left the Horse it (Horse) became the Gaura*.

athainam utkrānta-medham atyārjanta|| sa gauramṛgo abhavat||

In the gloss on the above text, by Śadguruśiṣya (13th Cent.), *Gaura* is explained unambiguously as *vikṛta aśvākṛtirhi saḥ*; that is, *one with the distorted horse-form*. This identification is confirmed in the Śatapatha Brāhmaṇa (VII.2.33), where the correspondence between wild and tamed animals, is described. *Gaura* is clearly said to be the wild version of the horse. Satyartha Prakash (2003) has discussed this issue in detail in his critical study of the above Brāhmaṇa. The Bhāgavata Purāṇa (3.10.22) while listing single hoofed animals, groups *Gaura* with the donkey, the horse and the mule and not with the cow and the buffalo. However, modern dictionaries wrongly interpret the animal *Gaura* as *a kind of buffalo (Bos Gaurus, often classed with the Gavaya)*, or *as a species of Ox* (Macdonell and Keith). From a close consideration of the RV text in association with the Brāhmaṇa texts and the Purāṇas it is observed that there is no basis for taking the Vedic *Gaura* as buffalo or bull or antelope. *Gaura* was unambiguously the wild ass, locally called *Gaud-khur*, for which the Raṇ-of-Kachh is even now famous. These animals move in groups, in search of water and have a whitish under belly, which explains the reference to their colour in the word *Gaura*.

Ancient Physical Features

Periplus provides an eyewitness account of the northwest coast of India some two thousand years ago. There were seven islands and the present day Raṇ region was a shallow sea. There are strong pointers to indicate that Nagar, Bela, Khadir, Wagir and Pacham were islands

along with Kutch. Sivewright (1907) the first person to carry out engineering survey of Kutch region has constructed a map showing the probable ancient shoreline two thousand years before present. He has collated accounts of Alexander's campaign (325 BCE), the Periplus (*c*100 BC) and the notes of Arab writers (712 CE) with his own leveling operations to mark the approximate ancient coastline. From this, we can surmise that in the first millennium BCE and earlier, for people living in Rajasthan, Raṇ (*Eirinon* of Periplus) was a sea, to the south of their country. A physical feature more ancient than the above, linked with the River Sarasvatī, is available in the Mahābhārata. In the *Anuśāsana-parvan*, (Ch.139 v.24-26) while recounting the episode of River Sarasvatī drying up, we read Utathya demanding Earth

*darśayasva sthalam bhadre ṣaṭ-sahasra-śata-hradam|
tatastad iriṇam jātam samudraśca apasarpitaḥ ||
tasmāt deśānnadīm caiva provāca asau dvijottamah|
adrśyāgaccha bhīru tvam sarasvati marum prati||
apuṇyah eṣa bhavatu deśastyaktastvayā śubhe|*

Show me Dear, the place with six thousand one hundred water holes. And then that place became Iriṇa and the sea was pushed aside. Then he said to the River 'disappear from this place; O timid Sarasvati come towards the desert. Let this place, discarded by you, be devoid of merit'.

This is a credible literary reference to the sea receding to bring out a landform called *Iriṇa* associated with the drying up of the original channel of River Sarasvatī. The above also implies that *Iriṇa* and *Maru* were distinctly different regions. As per the Epic, sea recession was coterminous with the migration of River Sarasvati relatively westwards towards the desert. In recent years scientists have investigated the history of the dried up River Sarasvati extensively using sophisticated modern methods. This has produced considerable scientific literature that can be used to compare and verify ancient textual evidences. The broad picture one gets is of Sarasvati being the major river in northwest India during 7000-5000 BCE. In the following period of 5000-3000 BCE the region was affected by severe neo-tectonic activity and by the onset of a regime of aridity. This was also the period of River proto-Yamuna, initially flowing southwesterly, taking an eastern course. This is attributed to the subsidence or down sagging of the northern limbs of the Aravalli Mountains and consequent flattening of the region. The subsequent period up to 1000 BCE saw the slow disappearance of rivers Sarasvatī and Dṛṣadvatī. Ghose *et al* (1979) have analyzed satellite imagery of paleo-channels indicating westward shift in the drainage of Sarasvatī, which was once flowing along the foot hills of Aravallis ending in the present Little Raṇ-of-Kutch. The sediments brought down by the rivers should have contributed in large measure to fill up the estuaries to elevate the land relative to the sea. Nevertheless we have to account for *Eirinon* being navigable 2000 years ago. This would have been so due to the ancient sea level being some four to six meters higher than the present level (Gaur and Vora 1999; Mathur 2002). Hence the Vedic *Iriṇa* has to be placed just above the northern shoreline of *Eirinon* of Periplus. To make things clear a map of the region under consideration is shown in Figure 1.

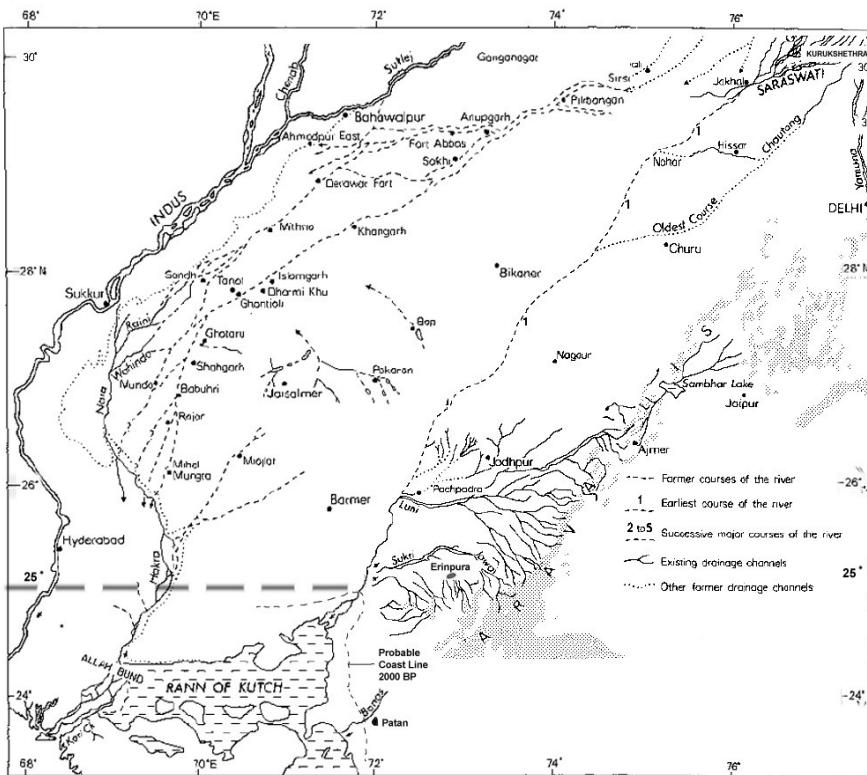


Figure 1 Map of South Rajasthan and Rāṇ-of-kachh. (Combined from Ghose et al and Sivewright). The shore line during Alexander's time (325 BCE) was approximately along 25° N. In the R̥gvedic period the sea shore and consequently *Iriṇa* should have been slightly north of this line.

In this scenario, the conspicuous physical features associated with the ancient *Iriṇa* would be the nearby sea and the Aravalli Mountains. The current name of this mountain range is derived from the local name *Arbali* meaning haphazard. In turn, this word is traceable to the Sanskrit name *Arbuda*. Presently this word can be recognized in the name of its prominent peak Mt. Abu. Naturally, one can question whether as per RV any correlation can be discerned between *Iriṇa* and *Arbuda*.

Iriṇa and Arbuda

In RV the word *Arbuda* appears seven times. In the order of the books the first reference is in RV (1.51.6), where Indra is said to have *trod mighty Arbuda under his foot*. This hymn is in a sequence of lauds to Indra praising him for his heroic acts. In the past, scholars have interpreted Indra and his acts in a variety of ways ranging from the mystical to the trivial. But the conspicuous act of Indra hitting a mountain most probably called *Arbuda* cannot be overlooked. RV (1.55.3) is quite specific about one of his acts, when it says: '*you bend, as it were, even that famed mountain down*'. The second book of RV refers to *Arbuda* twice in hymns (11.20) and (14.4) again in connection with the mighty acts of Indra. In RV (2.11.20) Indra is said to have '*cast down Arbuda*'. Curiously enough, the hymn RV (2.11.19) preceding the above, it is said '*Tavaśtar's son Viśvarūpa was given to Trta*'. The hymn further says that '*Indra sent forth his whirling wheel like Sūrya and aided by the Angirases rent Vala*'. The other hymn RV (2.14.4) is similar in mentioning that Indra '*cast down*

headlong Arbuda and slew him'. Further three references to *Arbuda* are in the eighth book, which is the only family book in RV referring to *Iriṇa*. Hymn RV (8.3.19) is about Indra driving out cattle of *Mrgaya* and *Arbuda* from the mountain. Here *Arbuda* appears to be a personal name, but is connected with *The Mountain*. This hymn equates Indra with the highest God and also mentions his above deeds as most ancient. Another hymn RV (8.32.3) by the same seer, lauds Indra as having brought down the height of lofty *Arbuda*. In the same hymn RV (8.32.6) it is mentioned that *Arbuda* was pierced with snow (or frost), supporting the surmise that *Arbuda* might have been a tall peak. The last reference is in RV (10.67.12), where the text reads '*arṇavasya arbudasya*'. Notwithstanding the popular explanation of *Arbuda* as a monster (Griffith), *Arbuda* is here associated with *arṇava* a sea which probably was denoted after the name of a nearby mountain. All the above seven references indicate that *Arbuda* refers to or at the least, connected with a mountainous terrain. The act of Indra was to bring down the height of a peak or renting a hilly region from above. Shorn of the metaphors, the above could be interpreted as descriptions of a spectacular natural event, which over time lead to a chain of disastrous consequences. The geographical constraints as dictated by modern scientific investigations about the River Sarasvatī, match with the Rgvedic description of the decrease in height of *Arbuda* as a real topographical change (Valdiya 2002). This should have happened at an unknown period in 4th- 5th millennium BCE. The current scientific reason attributed for this event is neo-tectonic activity that is, fault movements, slow creep and sudden release of stored energy causing earthquakes. However RV cites extra terrestrial forces as the primary cause for cutting down the mountain *Arbuda*. This however, does not preclude later fault movements to have gradually altered the topography. This picture closely synchronizes with the natural disaster described in the Prabhāsakhaṇḍa of the Skānda Purāṇa, which has been investigated previously by the present author (Iyengar 2003). Identification of *Arbuda* with Aravallis is straightforward. It is in the 8th Book of RV that we find a link between *Arbuda* and *Iriṇa*. The consecutive hymns (8.3) and (8.4) citing respectively *Arbuda* and *Iriṇa* and *Gaura* are by the same seer Medhātithi Kāṇva. While the hitting of *Arbuda* was already an ancient episode, *Iriṇa* was still frequented for water by the wild animal, *Gaura* (RV 8.4.10). Thus, it is logical to infer that the original Vedic *Iriṇa* should have been close to Aravallis on the northeastern coast of RoK, when it was still a navigable sea.

Discussion

Indra and his acts have been perceived and described differently in successive generations, in the family books of RV. Nevertheless, it is easy to see that Viśvarūpa Tvāṣṭra and his link to the act of Indra slaying *Arbuda* in the second book, is the earliest version of the same episode recounted in the 8th Book. *Viśvarūpa being given to Trta* (RV 2.11.19), is most likely an archaic but picturesque way of saying that a personified celestial object named Viśvarūpa got divided into three parts. This surmise is reasonable since the Yajurvedic legend describes the same Viśvarūpa Tvāṣṭra as having had three heads. One of the heads cut by Indra eventually turned a part of earth as *Iriṇa*. However, as per RV, this was coeval with the renting of *Vala*, which in modern terminology could indicate the creation of a crater. This appears to be the reason for Yajurvedic ritual texts to prescribe *pradara* as an alternate to *Iriṇa*. Sighting of Viśvarūpa near *Arbuda* in RV and the Vedic people leaving *Iriṇa* were most probably not coterminous events. *Aitareya Brāhmaṇa*, the ritualistic text of the RV school does not recognize *Iriṇa* as special, but postulates *Gaura* to be a degenerate horse. Hence the associations found in the YV texts should be treated as later proposals indicating geographical closeness of *Iriṇa* with *Arbuda*. Besides *Arbuda* the other physical correlate of *Iriṇa* is *Arṇava* the sea. As the visible mountain ranges showed dramatic reduction in their heights, there were possibly disturbances in the adjacent sea. Along with changes in the

shoreline, the land became saline and uncultivable. *Iriṇa*, where once *Gauras* would come for water, became a bye word for disaster and *āhitāgnīs* were prohibited from staying there. It may be inferred that at some ancient period an influential group of the Vedic community emigrated out of a fertile region between the Aravallis and the nearby sea. The memory of their original habitat was carried further as the group moved in a northeastern direction, towards Kurukṣetra, along the borders of the disturbed River Sarasvatī. Yajurveda books consistently preserve these facts codified in ritualistic fashion. In the sacrifices, oblations are provided for *Arbuda* (TS 7.2.20.1) and *Gaura* is recognized canonically in (TS 4.2.10.2, 5.5.11.1, 5.6.16.1, 7.3.18.1). A prayer to the sea to be seated in its place occurs in (T.S. 5.5.10.16).

Vedic Sūtra literature describing the procedure of *Agnicayana* knows *Iriṇa* quite well. Baudhāyana-Śrauta-Sūtra (10.22) prescribes,

*dakṣinayā dvāropaniṣkramaya tam diśām yanti yatrāsyā svakṛtam **iriṇam** spaṣṭam bhavati pradaro vā||*

They take these steps out through the southern door; go in the direction where the natural Iriṇa is clear or a fissure (is seen).

The other Sūtra texts (Kātyā. 9.16) have similar prescriptions associating *Iriṇa* with *Nirṛti*, southwest and sometimes with south direction. The Āśvalāyana-grhya-sūtra (5.5) of the RV branch, prescribes a test for the bride to be married based on the type of soil she selects. Among the eight identical mud spheres if the one from *Iriṇa* were to be randomly selected the bride was considered to be unlucky. But the Śrauta-sūtra of Āśvalāyana makes no reference to *Iriṇa*.

RV does not associate even *Nirṛti* with the southwest direction. This happens first in the Yajurveda practices that originated in the broad Kuru-Pāñcāla land. Thus, we may safely conclude that the Vedic *Iriṇa* should have been in the *Arbuda* region southwest of Kurukṣetra. Since the Raṇ-of-kachh in those days was still a sea, *Iriṇa* has to be located north of the present day Raṇ near the Luni river delta. Information available in the epics, purāṇas and historical literature supports this conclusion. Mahābhārata, describes Arbuda Mountain as having an ancient crater. Skāndapurāṇa describes this crater as being near the hermitage of Vasiṣṭha. It also describes allegorically, a sea wave killing several thousands in the hermitages of Vasiṣṭha, Viśvāmitra and other sages (Iyengar 2004). Ptolemy, (2nd Cent. CE) knew about the association of *Arbuda* with a natural disaster (McCindle 1855). In his book *Indika* Ptolemy describes the mountain Orbadarou, the Greek word for *Arbuda*, as *punishment of gods*, which characterization synchronizes with the Vedic legend.

Pāṇini does not refer to *Iriṇa*, but mentions two generic suffixes *-kaccha* and *-agni*. The first refers to marshy land, the standard example being Bharu-kaccha (Bhṛgu-kaccha, Broach). Examples with suffix *-agni* are *Vibhujāgni* and *Khaṇḍāgni* (Agrawala 1953). These notations are still recognizable in the names Bhuj and Kāṇḍāla in the Kutch district of modern Gujarat. The association of the suffix *agni* with Bhuj, which is the doorway to the Raṇ, is possibly the reminiscence of a natural fire that had devastated this region. The earliest use of the word *Iriṇa* in classical literature occurs in the classification of forts in the Arthaśāstra (2.3.1) of Kauṭilya (4th cent. BCE). Manusmṛti (4.120) knows *Iriṇa*, since it prohibits reciting Vedas in that place. The *Bṛhatsamhitā*, a standard reference on ancient geography does not cite *Iriṇa*. The *Amarakośa* and its successor *Trikāṇḍaśeṣa* do not list this word. The

Anekārthasamuccaya (5-6th cent.?) popularly known as the *Śāśvatakośa*, equates the words *iriṇa* and *irana* as homonyms meaning desert. In later literature *Iriṇa* if used, has been invariably used in the sense of *desert*, whereas ancient texts differentiated between *Iriṇa* and *Maru* including the *Mahābhārata*.

Conclusion

A place known as *Iriṇa* is mentioned in the Vedic literature starting from the *Rgveda*. A detailed review of ancient literature leads one to infer that *Iriṇa* was located slightly north of the Raṇ-of-kacch in south Rajasthan. This region has been the focus of modern investigations to trace out the ancient course of the River Sarasvatī. The geographical constraints dictated by these modern studies appear allegorically as legends in the Vedic literature. The proximity of Vedic *Iriṇa* to *Arbuda* and the sea indicates that it was west of the Aravalli mountain ranges near the delta of River Luni. The animal *Gaura* of the *Rgvedic* times was the horse-like wild ass that continues to inhabit the Raṇ-of-Kacch. The importance and use of the word *Iriṇa* has progressively diminished in later Sanskrit literature although the concept of pollution associated with the general southwest direction remains in the Vedic Hindu rituals to this day.

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Whitish wild ass of Kutch; locally called *GAUD-KHUR*. This must be the *Gaura* of the Rgveda; translated wrongly as the *Wild Indian Buffalo*.