

# Vedic *Irina* and the Rann-of-Kutch

R.N. IYENGAR\*, B.P.RADHAKRISHNA\*\* AND S.S. MISHRA\*\*\*

McCrindle (1879), Bisht (1989) Agarwala (1953), among others, mention that the Rann-of-Kutch (ROK) was known as *Irina*, in ancient times. Starting from the *Rigveda* (*RV*), *Vedic* literature refers to a special type of landform or place called *Irina*, several times. In the scheme of *Vedic* rituals, *Irina* occupies a significant place associated with *Nirrti*, the deity of disaster, and the southwest direction, known as *Nairtya* in later Sanskrit usage. The *Mahabharata* in one place mentions that *Irina* was formed by the recession of sea. In a preliminary study by Iyengar and Radhakrishna (2007) it was demonstrated that *Irina*, in the *Rigvedic* times should have been slightly north of the present day ROK. The present paper extends the above study to include inputs from the *Nirukta* and the *Sutra* literature. Further, the relation between *Gaura* and *Irina* is traced with the help of the *Aitareya Brahmana*, to point out that the *Gaura* of *RV* should have been a horse-like animal matching with the wild ass of ROK. The plan of the paper is to first present the *Vedic* texts containing references to *Irina*. This is followed by later textual

references and consideration of associated geographical features as mentioned in the *Vedic* texts.

## *Irina* in the *Rigveda* (*RV*)

The word *Irina* occurs in the 1<sup>st</sup>, 8<sup>th</sup>, and 10<sup>th</sup> *mandalas* of the *RV*, six times in all. These are listed with the original text and translation as given by Griffith, followed by relevant comments.

*adha yad esam sudine na sarur visvam erinam  
prusayanta senah || (1.186.9)*

*So may the Maruts, armed with mighty weapons,  
rest here on heaven and earth with hearts in concord.  
As gods whose cars have dappled steeds like torrents,  
destroyers of the foe allies of Mitra. They hasten on to  
happy termination their orders when they are made  
known by glory. As on a fair bright day the arrow flieh  
over all the barren soil their missiles sparkle (RV 1.186.  
8-9).*

\* Indian Institute of Science, Bangalore. rniyengar@ymail.com

\*\* Geological Society of India, Bangalore

\*\*\* Randhoeve 197, 3992 XG Houten, The Netherlands. adhin88@yahoo.com

Griffith translates the word *erinam* (a + *irinam*) as barren soil, following *Sayana*. The context is that of Maruts, who armed with their mighty weapons can discharge sparkling arrows over a region or place called *erina*. In hymn 8.4 addressed to Indra the word occurs once. In hymn 8.76 addressed to *Asvins*, it appears twice in its basic form as *Irina*.

*yatha gauro apa krtam trsyann ety averinam | (8.4.3)*  
*madhvah sutasya sa divi priyo nara patam gaurav*  
*iverine || (8.87.1)*

*ta vavrdhana upa sustutim divo gantam gaurav*  
*iverinam || (8.87.4)*

*Even as the wild-bull, when he thirsts, goes to the desert's watery pool Come hither quickly both at morning and at eve, and with the Kanvas drink thy fill.*

*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 wild bulls 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 wild-bulls to the pool.* (RV 8.4.3; 8.87.1, 4)

The interesting point here is that in all the three cases *Irina* is associated with a special animal called *Gaura*. This relation is analyzed later in the present study. The next usage of *Irina* is in the tenth book, where tradition interprets it as dice board.

*pravepa ma bahato madayanti pravateja irine*  
*varvratanah | (10.34.1)*

*divya angara irine nyuptah sitah santo hrdayam*  
*nirdahanti | (10.34.9)*

*Sprung from tall trees on windy heights, these rollers transport me as they turn upon the table. Dearer to me the die that never slumbers than the deep draught of Mujavan's own Soma. Downward they roll, and then*

*spring quickly upward, and, handless, force the man with hands to serve them. Cast on the board, like lumps of magic charcoal, though cold themselves they burn the heart to ashes (RV 10.34.1, 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 *Vibhitaka* 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 *Irina*. The word *divya* does not mean magic. It refers to something bright and perhaps celestial. The literal meaning of the second verse (10.34.9) above would be "*Heavenly charcoals having ploughed into Irina, 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 *Irina*. RV(1.186.8-9) already quoted, where bright objects are mentioned as flying over *Irina* supports this inference.

### *Irina in the Nirukta*

*Nirukta* of Yaska (Sarup 1967) an ancient reference on the etymology of *Vedic* words, accepts two meanings for the word *Irina* in *RV* (10.34)

*Irinam nirnam rnateraparnambhavati| aparata*  
*asmadosadhaya iti va ||*

*Board (irinam) is free from debt (nir-rinam). It is derived from (the root) *rn* (to go) i.e. it is distant. Or else, herbs have been removed from it.*

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

### Irina in the Yajurveda

*Taittiriya Samhita (TS)* of the *Krishna-Yajurveda* refers to *Irina* in the legend of *Visvarupa*. The legend says, *Visvarupa* son of *Tvastr* 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 *Irina* on the earth.

*trtiyam brahmahatyayai prati agrhnat tat svakrtam  
irinam abhavat tasmad ahitagnih sraddhadevah svakrta  
irine naava syed (TS 2.5.1.3)*

*A third of the guilt of killing a Brahmana was taken (by earth). That (part of earth) became the self-created Irina. Therefore, the faithful fire worshipper should not stay in the self made Irina.*

This legend of *Visvarupa* carries the footprints of orthodox *Vedic* people emigrating out of *Irina*, which for some special reason became uninhabitable. The translation of *Irina* as 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.

*svakrta irine juhoti pradare vaitad vaai asyai  
nirrtigrhitam nirrtigrhita evainam nirrtya grahayati  
(TS 3.4.8.5)*

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

It is to be noted that *pradara* meaning a fissure is an alternate to *Irina*, for offering a sacrifice. The word *svakrta* qualifies both *Irina* 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 *Nirrti*, the deity of disaster and misfortune. In essence here *TS* equates *Irina* itself with disaster or misfortune. If *Irina* meant a region, the additional reference to *pradara* here may hint at the existence of a natural crater in that region. Through *Nirrti* a direction is also indicated for *Irina* as in the following text.

*imam disam yantyesa vai nirrtyai| diksvayameva disi  
nirrtim niravadayate | svakrta irina upa dadhati pradare  
va | etad vai nirrtya ayatanam | sva evaiyatane nirrtim  
niravadayate| (TS 5.2.4.3)*

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

The independent *Taittiriya Brahmana (TB)* text corroborates the above statements. .

*svakrta irine juhoti pradare va| etadvai raksasam  
ayatanam | sav eva ayatane raksamsi hanti| (TB 1.7.9)*

He offers in the self made *Iriṇa* or in a fissure. This is verily the abode of demons. They destroy demons in their own abode.

*TB* (2.2.7) and *TS* (3.4.8.5) are similar. The *Satapatha Brahmana* of the *Shukla-Yajurveda* also provides similar directions for locating *Irina*.

*tena daksina yanti sa yatra svakrtam verinam vindati  
svabhrapradaram va || (5.2.3.2) They go south, where  
the self-created (natural) verina is reached or a fissure  
due to a whirlpool.*

*tabhiresam disam yanti | esa vai nairrtidin nairrtyameva*

*taddisi nirrtim dadhati sa yatra svakrtam verinam svabhrapradaro va syattadena upadadhyad yatra vaa asya avadiryate yatra va asya oṣadhyo na jaiyante nirrtiḥasyai tad grhnati nairṛta eva tadbhumeḥ nirrtim dadhati* (7.2.1.8)

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

Here *Verina* is a variant of *Irina*. *Sayana* explains the above *Irina* and *svabhra-pradara* as two alternate places, both in the southwest direction. The first is a natural region devoid of grass and the second 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 *Nirrti* and hence with *Irina*. This is clearly the southwest, which in later Sanskrit and other Indian languages became known by the word *Nairṛta*. The texts indirectly hint at *Irina* 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 8<sup>th</sup> *mandala* of *RV*, *Irina* 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 *Vedas*.

The *Maitrayani-Samhita* (3.2.4) has the following statement:

*atha ita nairṛtiḥ tisrastusapakva bhavanti etadvai nairṛtamannasya yattusah...esahi nairṛtya dik, tah svakṛta irine paracinidādhati...||*

This connects *Nirrti*, *Irina* and the southwest direction without mentioning the *pradara*. This *Samhita*

also knows Kurushetra as the place where gods executed a sacrifice. It is known that the *Vedic madhyadesa* or central land was the area between the rivers Sarasvati and Drishadvati including Kurushetra (Bharadwaj 1986). Hence the broad outlines of *Irina* and Rann-of-Kutch seemingly agree. However, there are other constraints yet to be considered. It is observed that between *RV* and the *Yajurveda*, the latter is more concerned with *Irina*, but always in a negative sense. All *Yajurveda* texts highlight this place through the epithet *Irinya* (*TS* 4.5.9) referring to Siva, in the famous *Rudrasukta*. This seems natural in that Rudra, one among the Godhead divided in three, responsible for destruction as per Hinduism should have been associated in early times with a region affected by a natural disaster.

*Atharvana-veda Samhita* [*vadantu prsnibahavo manduka irinanu*|| 4.15.12] refers to *Irina* along with spotted frogs and river streams. This would be more in tune with the use of the word in *RV* 8<sup>th</sup> book, where *Irina* is a place with potable water.

### Sutra Literature

*Vedic Sutra* literature describing the procedure of *Agnicayana* knows *Irina* quite well. *Baudhayana-Srauta-Sutra* (10.22) prescribes,

*daksinaya dvaropaniskramaya tam disam yanti yatrasya svakritam irinam spastam bhavati pradaro va*

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

The other *Sutra* texts (*Katyayana-Sutra* 9.16) have similar prescriptions associating *Irina* with *Nirrti*, southwest and sometimes with south direction. The *Asvalayana-grhya-sutra* (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 *Irina* were to be randomly selected, the bride was considered to be unlucky (*irinat adhanya*). But the *Srauta-sutra* of Asvalayana does not refer to *Irina*. There are several other *Vedic* ritualistic texts that progressively omit this word although the concept of pollution associated with *Nirrti* and the southwest direction are retained in *Vedic* Hindu rituals to this day.

### *Irina in the Epics*

Outside the *Vedic* texts, the earliest mention of *Irina* appears in the epics. *Ramayana* describes the hermitage of Vasistha after an attack by Visvamitra as having become silent like a desert. [*muhurtam iva nihsabdam asit irina-sannibham*] *Balakanda*; 54.24 b].

In the *Mahabharata* the word occurs in two places. In the *adi-parvan* it is used in the sense of a barren or vacant land at the end of a forest. [*sa vanasya antam asadya mahad irinam asadat| taccapi atitya nrpatih uttamarsama samyutam*] *Adi-parvan*, 64.2-3]

In the *Anusasana-parvan*, (Ch.139 v.24-26) while recounting the episode of the River Sarasvati drying up, we read *Utathya* demanding earth.

*dārsayasya sthalam bhadre sat-sahasra-sata-hradam|  
tatastad irinam jatam samudrasca apasarpitah ||  
tasmat desannadim caiva provaca asau dvijottamah|  
adrsyagaccha bhiru tvam sarasvati marum prati||  
apunyah esa bhavatu desastyaktastvaya subhe|*

Show me Dear, the place with six thousand one hundred water holes. And then that place became *Irina* 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'.

These verses imply that *Irina* and *Maru* were distinctly different regions. The above is an ancient literary reference to the sea receding to bring out a landform called *Irina*. *Mahabharata* clearly associates this place with the drying up of the River Sarasvati.

### *Irina in Classical Sanskrit*

Panini (c. 7<sup>th</sup> Cent. BC) the well known grammarian does not refer to *Irina*, but mentions two generic suffixes or word endings -*kaccha* and -*agni*. The first refers to marshy land, the standard example being *Bharu-kaccha* (*Bhrigu-kaccha*, Broach). Examples with suffix -*agni* are *Vibhujagni* and *Khandagni* (Agrawala 1953). These notations are still recognizable in the names *Bhuj* and *Kandala* in the Kutch district of modern Gujarat. The association of the suffix *agni* with *Bhuj*, which is the doorway to the ROK, is possibly reminiscent of a natural fire that should have devastated this region. The earliest use of the word *Irina* in the classical literature is traceable to *Kautilya* (4<sup>th</sup>-3<sup>rd</sup> Cent. BC). In the classification of forts, *Irinam* type of fort is described as being without water [*nirudaka-stambam irinam va dhanvanam*] *Artha-sastra* 2.3.1]

*Mamusmṛti*, which describes Aryans as those living east of the River Sarasvati and north of the Vindhya Mountains, prohibits reciting *Vedas* while being in *Irina*. [*nadhiyita asvamarudho na vrksam naca hastinam| na navam na kharam nostram nerinastho na yanagah||* MS 4.120]

Several popular books on architecture refer to *Irina*-type fort. *Maya-mata* classifies forts as (Dagens 1995);

*giri-vana-jala-pankerina-daivata-misrani sapta durgani|*

*nadyabdhi-parivrttam yajjaladurgam nirvanodam irinam syat||* (Ch.10, 36b, 38b)

Here, forts are said to be of seven types, depending on their location. These are mountain, forest, water, marsh, *Irina*, natural, and mixed types. Usually *Irina* is explained as desert, since that type of fort is said to be in a place without water and trees. There are a few texts that replace *Irina-durga* with *maru-durga*. *Brihat-samhita* of Varaha-mihira, which is a standard reference on ancient geography, does not cite *Irina*. Popular lexicons *Amara-kosa* and its successor *Trikanda-sesa* do not list this word. The *Anekarthasamuccaya* of Sasvata (5<sup>th</sup>-10<sup>th</sup> Cent) popularly known as *Sasvatakosa*, equates the words *irina* and *irana* as homonyms meaning desert. Yuan Chwang the famous Chinese traveler, who visited India in the 7<sup>th</sup> Century AD, mentions the name of a mountain that sounds like *irana*, located in modern Bihar. Obviously this had no connection with a saline land or desert. He did travel to North Gujarat but makes no mention of any special landscape like the Rann.

### *Irina* of Periplus

*Irina* as being connected with the Rann-of-Kutch gets independent validation from a Greek source. *Periplus of the Erythrean Sea* is a navigator's guide belonging to 1<sup>st</sup> century BC. It is informative to quote extracts from this text as translated by McCrindle (1879). "After the river Sinthos is passed we reach another gulf, which cannot be easily seen. It has two divisions,-the Great and the Little by name,-both shoal with violent and continuous eddies extending far out from the shore, so that before land is in sight ships are often grounded on the shoals, or being caught within the eddies, are lost. Over this gulf hangs a promontory which, curving from Eirinon first to the east, then to the south, and finally to the west, encompass the gulf called Barake, in the bosom of which lie seven islands." On this, McCrindle comments: "The first place mentioned after the Indus is the Gulf of Eirinon, a name of which traces remain in the modern appellation the Rann- of -Kachh. This is no longer covered with water except during the monsoon, when it is flooded by seawater or by rains and inundated

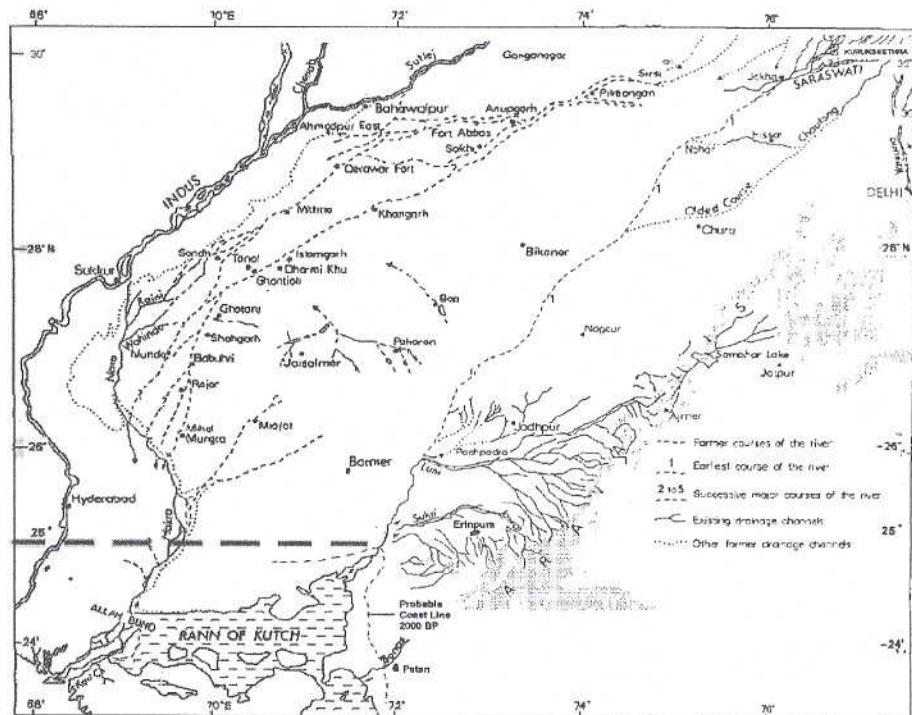
rivers. At other seasons it is not even a marsh, for its bed is hard, dry and sandy; a mere saline waste almost entirely devoid of herbage, and frequented but by one quadruped – the wild ass."

### Ancient Physical Features

*Eirinon* of Periplus is easily recognized as present day Rann-of-Kutch, as McCrindle has pointed out. But the nearness of *Eirinon* to the *Vedic* word *Irina* can not be missed. Periplus provides an eyewitness account of the northwest coast of India some two thousand years ago. There were seven islands and the present day Rann region was a shallow sea. This immediately brings up the question of where the coastline could have been, in those days. This has not been answered satisfactorily yet factoring in all past geological, marine and climate data. However 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 B.C), the Periplus and the notes of Arab writers (712 AD) with his own leveling operations to mark the approximate ancient coastline. As per this study, during Alexander's time Rann was navigable with its northern limit almost coinciding with the 25<sup>th</sup> parallel. However, thousand years later in the 8<sup>th</sup> century AD this coast had shifted considerably southwards as a line joining Nagar with Debal. As a working approximation it is proposed by Sivewright that the 100 feet (33 m) contour of his time (1900 A.D) on land could be treated as the ancient shoreline *in circa* 100 BC. Hence, two thousand years before present, for people living in Rajasthan, *Eirinon* of *Periplus* would have been the southern sea. This leads one to believe that the recession of the sea could have created the *Vedic* *Irina* as mentioned in the *Mahabharata*, quoted previously. But as per this epic, sea recession was co-terminus with the migration of

the 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 (Radhakrishna and Merh 1999). This has produced considerable scientific literature that can be used to compare and verify ancient textual evidences. The broad picture one gets is of the Sarasvati being the major river in northwest India during 7000-5000 B.C. In the following period of 5000-3000 BC 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 Aravali mountains and consequent flattening of the region. The subsequent period up to 1000 BC saw the slow disappearance of the rivers Sarasvati and Drishadvati. Ghose *et al.* (1979) have

analyzed satellite imagery of paleo-channels indicating westward shift in the drainage of Sarasvati, which was once flowing along the foot hills of Aravalis ending in the Little Rann-of-Kutch. The sediments brought down by the mighty Himalayan Rivers would 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 Vedic *Irina* has to be placed north of the northern shoreline of *Eirinon* of Periplus. A map of the region under consideration is shown in Fig. 1, combining the maps of Sivewright and Ghose *et al.* In this scenario the most conspicuous physical features to be associated with *Irina* would be near by sea and the Aravali Mountains. The current name of this mountain range is derived from the local name



**Fig. 1:** Map of South Rajasthan and Rann-of-Kutch. This has been prepared combining the maps of Ghose *et al* and Sivewright. The shore line during Alexander's time (325 BC) was approximately along 25° N, according to Sivewright. In the *Rigvedic* period the sea shore and consequently *Irina* should have been slightly north of this line.

*Arbali* meaning haphazard (Sinha Roy *et al* 1998). 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. This takes us back to the *Vedic* texts to look for further associations between *Irina* and *Arbuda*.

### *Irina and Arbuda*

In the *RV* text 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* may not 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 preceding hymn *RV* (2.11.19) informs '*Tavaṣṭar's son Visvarupa was given to Trta*'. The above *RV* hymn further says that '*Indra sent forth his whirling wheel like Surya 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 *Irina*. 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). The last reference is in *RV* (10.67.12), translated by Griffith as: '*Indra with mighty strength cleft asunder the head of Arbuda the watery monster*'. In the original, the Sanskrit text reads '*arnavasya arbudasya*'. There is nothing to indicate that *Arbuda* was a monster. Moreover *arnava* is sea and not just any water. The inference can only be that *Arbuda* who was hit by Indra, was connected with a sea. All the above seven references indicate that *Arbuda* should have been a mountain. The act of Indra highlighted is about bringing down the height of a peak or renting a hilly region from above. Shorn of the metaphors, the above may be the description of a spectacular natural event, which could have led to a chain of disastrous consequences over a period of time. The geographical constraints as dictated by modern scientific investigations about the River Sarasvati, match with the *Rigvedic* description of the decrease in height of *Arbuda* as a real topographical change. This could have happened at an unknown period in 4<sup>th</sup>- 5<sup>th</sup> millennium BC. The current scientific reason attributed for this event is neo-tectonic activity that is, 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 altered the topography slowly. This picture closely synchronizes with the natural disaster described in the *Skanda Purana*, which has been investigated previously by Iyengar (2003). Identification of *Arbuda* with the Aravallis is straightforward. It is in the 8<sup>th</sup> Book of *RV* that we find a link between *Arbuda* and *Irina*. The consecutive hymns (8.3) and (8.4) citing respectively *Arbuda* and *Irina* are by the same seer Medatithi Kanva. While the hitting of *Arbuda* was already an ancient episode, *Iriṇa* was still frequented for water by the wild animal, *Gaura*. The logical inference is that the original Vedic *Irina* should have been close to Aravallis on the northeastern coast of ROK, when it was still a navigable sea.

## Irina and Gaura

In the *RV* *Irina* is closely linked with the animal *Gaura*. *Sayaṇa* (14<sup>th</sup> Cent AD) explains this as *Gaura-mrga*, 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. Comparison with this special animal *Gaura* is met with in *RV* (1.16.5; 7.69.6; 8.4.10, 8.45.24). Griffith, whose translation is given above, is unsure of the identity of *Gaura* since he takes this animal to be wild-bull in the first place but as antelope in *RV* (8.4.10). 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 may be inferred that in the eighth book the composers of the Kanya family have associated *Irina* with a broad place, 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 *Irina*. This sensitively depends on identifying the animal denoted as *Gaura* in *RV*. It has already been pointed out that Griffith, perhaps following *Sayaṇa*, is not sure of the animal described in *RV*. Some later Sanskrit dictionaries are also confusing, interpreting the word as a kind of buffalo (*Bos Gaurus*, often classed with the *Gavaya*). However as per *Aitareya Brahmana*, the prime claimant for continuing the *Rigvedic Samhita* tradition, *Gaura* was a degenerate horse. In the 8<sup>th</sup> Book 6<sup>th</sup> 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 utkranta-medham atyarjanta|| sa Gaura-mrigo abhavat||*]. In the notes by *Sadgurusisya* (13<sup>th</sup> Cent.) *Gaura* is explained unambiguously as *vikṛta asvakṛtirhi sah*, that is, one with the distorted horse-form. This identification finds support in the *Satapatha Brahmana* (VII.2.33), where the correspondence between wild and tame animals, in cosmic creation, 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 *Brahmana*. There is no basis for assuming that the *Vedic Gaura* was a buffalo or a bull or an antelope. In all likelihood, it was the wild ass called *Khur*, for which ROK is still famous. These animals are whitish, which explains the reference to their colour in the word *Gaura*.

## Discussion

From the seven family books of *RV*, it appears reasonable to infer that Indra and his acts were perceived and described differently in successive generations. Notwithstanding this difficulty, it is easy to note that *Visvarupa Tvastra* 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 8<sup>th</sup> Book. *Visvarupa* being given to *Trita* (*RV* 2.11.19), is most likely an archaic but picturesque way of saying that the personified celestial object got divided into three parts. This surmise is reasonable since the *Yajurvedic* legend describes the same *Visvarupa Tvastra* as having had three heads. One of the heads cut by Indra eventually formed the *Irina*, as per *TS*. 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 for *Irina*. Sighting of *Visvarupa* near *Arbuda* in *RV* and the *Vedic* people leaving *Irina* cannot be concluded to be co-terminus events. *Aitareya Brahmana*, the ritualistic text of the *RV* school does not recognize *Irina* as special, but describes the animal *Gaura* as a degenerate horse. Hence the associations found in the *YV* texts should be treated as later proposals indicating geographical closeness of *Irina* with *Arbuda*. Besides *Arbuda* the other physical correlate of *Irina* is *Arnava* the sea. As the visible mountain ranges showed dramatic reduction in their heights, there were possible disturbances in the near by sea. Along with changes in the shoreline, the land became saline and uncultivable. *Irina*, where once *Gauras* would come for water, became a bye word for disaster and *ahitagnis* were prohibited

from staying there. It is inferred that at some ancient period an influential group of the *Vedic* community emigrated out of a fertile region between the Aravallis and the sea. The memories were carried further as the population moved in a northeastern direction, most probably towards Kurushetra, along the disturbed River Sarasvati. *Yajurveda* books consistently preserve these facts codified in a ritualistic fashion. In the sacrifices oblations are provided for *Arbuda* (T.S 7.2.20.1) and *Gaura* is recognized canonically (TS 4.2.10.2, 5.5.11.1, 5.6.16.1, 7.3.18.1). The hymn is most likely a prayer

*utsam jusasva madhumantamurva samudriyam  
sadanama visasva* (T.S. 5.5.10.16)

*Rejoice in the spring of sweetness, O Ocean; enter your seat of the sea.*

for the sea to recede, when it had over-flowed. As is well known *RV* upholds *Rtam*, which may be explained rather simplistically as *universal order*: *Nirṛti* the deity already recognized in *RV* represents an exception to this order. However, *RV* does not associate *Nirṛti* with the southwest direction. This happens first in the *Yajurveda* practices that originated in the broad Kuru-Pancala land. Thus, we may safely conclude that the *Vedic Irina* should have been in the *Arbuda* region southwest of Kurushetra. Since the Rann-of-Kutch in those days was still a sea, *Irina* has to be located north of the Rann near the Luni river delta. Information available in the epics, *Puranas* and historical literatures supports this conclusion. *Mahabharata*, describes *Arbuda* Mountain as having an ancient crater. *Skanda-Purana* describes this crater as being near the hermitage of Vasistha. It also describes allegorically, a sea wave killing several thousands in the hermitages of Vasistha, Visvamitra and others. Ptolemy, (2<sup>nd</sup> Cent. AD) knew about the association of *Arbuda* with a natural disaster (McCindle 1855). In *Indika* he names *Orbadarou* or *Arbuda* as *punishment of gods*, which synchronizes with the *Vedic* legend.

## Summary and Conclusion

An attempt is made in this paper to identify the location of a place or region called *Irina* mentioned in the *Vedic* literature starting from the *Rigveda*. After reviewing ancient Sanskrit literature in detail the place is broadly localized to have been slightly north of Rann-of-Kutch in south Rajasthan. This region has been the focus of many modern geological investigations to trace the ancient course of the River Sarasvati. The geographical constraints dictated by these studies are reflected allegorically as geo-myths in the ancient literature. The proximity of *Irina* to *Arbuda* and the sea hints that it was west of the Aravalli mountain ranges near the delta of the River Luni. The animal *Gaura* of the *Rigvedic* times was, in all probability, horse-like wild ass that continues to inhabit the Rann-of-Kutch.

## Acknowledgement

The first author acknowledges the award of the Raja Ramanna Fellowship from the Department of Atomic Energy that helped him to carry out the work reported here. Dr. Aravind Vyas and Dr. Rajita Rajvasistha offered many useful suggestions.

## References

Agrawala, V.S. 1953. *India as known to Panini*. Lucknow : University of Lucknow.

*Anekarthasamuccaya* of Sasvata, (ed.) K.G. Oka OBSA, Poona, 1918.

Bharadwaj, O.P. 1986. *Studies in the Historical Geography of Ancient India*. Delhi: Sundeep Prakashan.

Bisht, R.S. 1989. A New Model of the Harappan Town Planning as revealed at Dholavira in Kutch. In *History and Archaeology: Prof. H.D. Sankalia Felicitation Volume*. pp.397-408.

Dagens B. translated 1995. *Maya Matam*. New Delhi: S.B. Institute of Science & Research.

Gaur A. S. and K. H. Vora. 1999. *Ancient shorelines of Gujarat, India, during the Indus civilization (Late Mid-Holocene): A study based on archaeological evidences*, Current Science 77(1): 180-185.

Ghose, B., A. Kar and Z. Husain. 1979. The Lost Courses of the Saraswati River in the Great Indian Desert; New Evidences from Landsat Imagery. *The Geographical Journal* 145 (3): 446-451.

Griffith R.T.H. 1999. Reprint of *The Rigveda* Translation. Delhi: Motilal Banarsidas.

Iyengar, R.N. 2004. Profile of a Natural Disaster in Ancient Sanskrit Literature. *Indian Journal of History of Science* 39(1): 11-49.

Iyengar, R.N. and B.P. Radhakrishna. 2007. Geographical location of Vedic Irina in Southern Rajasthan. *Journal of Geological Society of India*. 70: 699-705.

Keith, A.B. translated. 1914. *Taittiriya Samhita*, Cambridge. (<http://www.sacred-texts.com/hin/yv/yv02.htm>)

Mathur, U.B. 2002. Chronology of Harappan Port Towns of Gujarat in the Light of Sea Level Changes during the Holocene. *Man and Environment* XXVII (2): 61-67.

McCindle, J.W. 1879. *Periplus of the Erythrean Sea*. *Indian Antiquary* 8:107.

McCindle, J.W. 1855. (Reprint 2000) *Ancient India as Described by Ptolemy*. New Delhi: Munshiram Manoharlal.

Radhakrishna B.P. and S.S. Merh (eds.) 1999, 2002. *Vedic Saraswati. Mem.42, Geological Society of India*, Bangalore.

Roy A.B., and S.R. Jakhar. 2001. Late Quaternary Drainage Disorganization, and Migration and Extinction of the Vedic Saraswati. *Current Science* 81(9): 1188-1195.

Saraswati, Satya Prakash. 2003. *Critical and Cultural Study of the Satapatha Brahmana*. New Delhi: VGH Publication.

Sarup, L. edited & translated. 1967. *The Nighantu and the Nirukta of Yaska*. Delhi: Motilal Banarsidas.

*Satapatha Brahmana* with the commentary of Sayana. (Reprint) 2002. New Delhi : Nag Publication.

Shastri R. Anantakrishna (ed.). 1942. *Aitareya Brahmana*, text with the *Vṛtti* of Sadgurusisya. Trivandrum: University of Travancore.

Sinha-Roy, S., G. Malhotra and M. Mohanty. 1998. *Geology of Rajasthan*. Bangalore: Geological Society of India.

Sivewright, R. 1907. Cutch and the Rann. *The Geographical Journal* 29(5): 518-535.

Valdiya, K.S. 2002. *Saraswati-The River that Disappeared*. Hyderabad: University Press.

Watters, T. 1996. *On Yuan Chwang's Travels in India*. New Delhi: Munshiram Manoharlal.