

VEDIC CULTURE AND ITS CONTINUITY: NEW PARADIGM AND DIMENSIONS

- Prof. Shivaji Singh

Why new debate on Vedic Culture and its continuity when a lot has already been written and said from various angles on the subject? The answer to this question may be found in the Preface of Prof. G. C. Pande's book 'Vaidika Sanskrit', which is to my knowledge one of the latest standard publications on the topic. Answering an inquisitive friend who wanted to know what propelled him to write a new book. Pendeji gives the following four reasons.

Firstly, new archaeological discoveries have altered the historical perspective of the Vedic age.

Secondly, writings of most the Vedicists of the colonial era are confined generally to discussions of legends pertaining to Vedic deities. The angle followed in them is comparative mythological that does not provide any metaphysical insight. This needs to be supplemented and coordinated, on the one hand, with the broader framework of history of religions as conceived by Max Muller and other scholars mainly the anthropologists. On the other hand, it ought to be synthesized with the tradition of the eternal interpretation that has come down the ages and finds expression in the writings of scholars like Coomarswamy and Arbindo.

Thirdly, most of the standard works on the subject are either restricted to particular issues or are one-sided in their scope. Thus, the well-known books of Oldenberg and Keith on Vedic religion do not deal with Vedic history, society and culture at all. Similarly, the Vedic Age (brought out by the Bharatiya Vidya Bhawan) gives a very scanty treatment to philosophy and science of the age.

Lastly, the Vedic Culture needs to be studied with an all-enveloping, multiple but synthetic approach since it is the implicit network interlinking all the various aspects of life and ideas, constituting the Zusammenhang that provides a glimpse into what is called culture.

I am afraid, what in the time constraints of an address; I can do no better than concentrate on only one of these reasons, the first one, relating to the changed perspective created mainly by new archaeological discoveries. This is to my mind the most important one at present, and its significance seems to be underlined by Pande ji too by listing it, whether intentionally or inadvertently, as the first reason (or we may say, Reason No. 1) for a fresh study of Vedic history and culture.

During the last few years efforts for understanding the genesis and historical process of Vedic Culture has begun a new because of a major shift in paradigm¹, that has occurred due to the availability of a harvest of new archaeological as well as literary data and other scientific information relating to this most important culture of South Asia. In earlier models, the Vedic and Harappan cultures were taken to be two totally different cultures. Most of the scholars believed that while the former was Aryan, the latter was non-Aryan (Dravidian). The Vedic Culture was supposed to be chronologically later than, and qualitatively inferior to, the Harappan Civilization. The Vedic Culture was not accorded even the status of a 'civilization' since by definition², the culture of an urbanized and literate society alone could be designated as 'civilization', and the Vedic people were presumed to be illiterate, village, folk, ignorant of city life. So powerful was the hold of the earlier paradigm that a prestigious UNESCO publication, History of Mankind, labeled the Aryans as a 'non-urbanized people and semi-barbarous' who destroyed the non-Aryans Harappan Civilization (Hawkes and Wooley 1963, 406).

But, now the perceptive is totally changed. The Vedic-Harappan dichotomy is being rejected with accumulating evidence that point to the contrary and establish their identity. While Bhagwan Singh has come out with two well-documented works (1987/97, 1995) in support of this identity, several other scholars like B. B. Lal (1997:281-87; 2001-02, 2002) and S. P. Gupta (1996; 137-74) strongly uphold this equation though they prefer to wait for the decipherment of the Harappan script to put a final seal on this identity. This changed perspective is, indeed, of a very great consequence for it has opened up several new dimensions for further researches in the field of Vedic historical studies. If the Vedic and Harappan cultures are actually one and the same, we have enormous archaeological data at hand to supplement the knowledge that we presently have about the Vedic Culture based as yet almost solely

on literature. Today, not only the existing fund of knowledge about Vedic Culture is on the threshold of a qualitative and quantitative leap but also, and more importantly, the genesis of Indian Culture itself is on the point of being redefined.

So far, the foundation of Indian Culture was interpreted in terms of a synthesis of mainly two great cultural traditions, Vedic Aryan and non-Vedic Harappan. But now it is becoming clear that there is in fact only one great cultural tradition forming the base of all subsequent development of Indian Culture, call it Vedic or Vedic-Harappan. This cultural tradition, has transcended all linguistic boundaries and, acting and reacting and ultimately synthesizing with other traditions in different parts of the country, exists even today. The Vedic Culture is, thus, multilinear in its sources but unilinear in its formation. Its course is exactly analogous to that of a mighty river which is joined by several other rivers, big and small, and which flows on swelling with the rich waters of all its tributaries finally contributing to, and enriching, the ocean of human or global culture as a whole.

It is rightly said when the paradigm changes the whole discourse begins a fresh. So much has changed in Vedic historical studies- data, methodology, logic and perspective-that it is difficult in a single article like the present one to cover even briefly all the various new dimensions that have been opened up by the newly emerged paradigm. However, I shall try to give some idea about a few more important of them. We shall start with an overview of the considerations that brought about the paradigm change. This will be followed by an update on the Vedic-Harappan identity debate. Then we shall refer to Aryan, the ideal of Vedic Culture and its continuity, and finally mention the challenges ahead in the field of Vedic historical studies.

I

The paradigm change: the authors of the Vedic Culture, the Aryans, sons of the soil, not aliens

For the last over a century and a half, scholars concerned with Vedic historical studies have remained under the spell of what is called the Aryan Invasion Theory (AIT). Though the spell has broken recently its hangover still continues and it might take some more time to be completely cleared off. It was indeed a period of spell, a bewitched state, for otherwise it is difficult to understand why during such a long span of time scholars, who normally maintain a distinction between a theory and a fact, not only overlooked this important epistemological difference but even accepted this theory as a Gospel Truth that cannot be doubted or challenged. This theory perpetuated the notion that the authors of the Vedic Culture were not indigenous to South Asia but had arrived here from somewhere outside as invaders in about 1500 B.C. While the place of their original habitat continued to be debated, the image of the early Vedic Aryans as a culturally backward but physically vigorous and bellicose people soon found general acceptance. By the time the Indus Valley Civilization, now known as the Harappan or Indus-Saraswati Civilization, was discovered, the image of the 'barbarous invading Aryans' had turned into an article of faith and, therefore, it was readily accepted that these very invading people destroyed this earliest civilization of South Asia. It was said that they were nomadic pastoralists not doing even agriculture but, being extremely war like and possessing horses and horse-drawn chariots, that provided them superior maneuverability in battles, they succeeded in destroying the Harappan cities and forcing their inhabitants, the Dravidians to move to the south. This notion of a culturally backward, nomadic and tribal Aryans has persisted till now and contradicted only recently.³

Scholars like L. Poliakov (1974) and Jim G. Shaffer (1984) have discussed the genesis of the Aryan Invasion Theory that fostered these notions. Its roots go back to the acute anti-Semitic racial feelings that dominated the socio-political psychology of the Christians of Europe in the 18th century. The ideas leading to the theory had several ramifications and the theory itself passed through many vicissitudes. It was soon picked up and made the very foundation of German nationalism in one context and later utilized by the British for their colonial interests in a different context. It is worth nothing, however, that in the initial stages of the development of the theory the Vedic Culture was highly praised by the Europeans who admitted that India was the original home of the entire human race and the cradle of civilization. Many scholars like Kant and Herder delighted in showing analogies between the myths and philosophies of ancient India and the West. Voltaire was 'convinced that everything has come down to us from the banks of the Ganges, astronomy, astrology, metempsychosis, etc.' (Voltaire quoted in Poliakov 1974;185). Giving these and other examples, Poliakov (1974;188)

concludes; 'Thus we see that a wide variety of authors and schools located the birthplace of the entire human race between the Indus and the Ganges'. This high esteem for India and its culture in the minds of the European scholars may have developed partly because of their anti-Semitic feelings⁴, but the fact remains that the image of Vedic Aryans was tarnished only in a subsequent version.

The new incarnation of the theory was quite different from the Original one. It was not concerned with the origin and expansion of the whole human race but one particular white race, whose descendants are the modern Christians of Europe. It owes its origin to Sir William Jones' famous lecture delivered at the Asiatic Society of Bengal in 1786. How this lecture led to the foundation of comparative philology that aimed at dethroning Vedic Sanskrit from the high pedestal, that it previously occupied, is too well known to be repeated here. The old linguistic perspective is being still kept alive by some scholars but to this I shall come back a little later.

No takers now of the Aryan Invasion Theory

The Aryan Invasion Theory stands rejected today. Even its erstwhile upholders accept this fact now. The theory claimed that a group of people speaking Indo-Aryan, a sub-branch of the Indo-Iranian branch of the Indo-European family of language, had invaded India in 1500 BC and destroyed the Harappan Civilization was in all probability Dravidian-speaking.

A theory based on wrong assumptions is bound to collapse and this is what happened to AIT. It was based on two basic assumptions, the one, that the Harappan Civilization came to an abrupt end in about 1500 BC, and the other, that the dating of the Rigveda to circa 1200 BC, as casually estimated by Max Muller, was correct. Both these assumptions have been proved to be wrong. Surprising is not that the theory has collapsed, surprising is the fact that it lasted for such a long time in face of vehement criticisms of Max Muller's late dating by eminent scholars (Winternitz 1933/91; 292-94) and Max Muller's contradiction of his dating himself. Surprising is also the fact that the historians accepted this linguistic theory without verifying it independently. All subsequent efforts to find any historical evidence of the theory failed. Neither literature nor archeology obliged the linguists. There was no proof of any invasion either in the Vedic texts (literature of the presumed invaders) or in old Tamil texts (literature of the presumed invaded people).

However, at the fag end of his career in India, Sir Martimer Wheeler claimed to have at last found a clinching archaeological evidence of Aryan destruction of Harappan cities. On the basis of a few skeletons reported earlier to have been found scattered in disorderly manner at Mohen-jo-daro, he concluded. 'It may be no mere chance that at a late period at Mohen-jo-daro men, women and children appear to have been massacred there. On circumstantial evidence, Indra stands accused' (Wheeler 1947: 82). Later, on examination G. F. Dales found that Wheeler had misread the archaeological evidence for neither those skeletons belonged to one and the same stratigraphical context nor were they proof of any massacre. Most of the skeletons positively showed that the persons were actually drowned in severe and sudden flood in the river Indus. Only two or three of out of a total of 37 skeletons bore cut marks and those too were found to have healed up. So he wrote a naner entitled 'The Mythical Massacre at Mohenjodary' (d-and explained the myth the Aryan destruction of Harappan cities K. M. Srivastava (1964; 441) apny remark's Indra, therefore, stands comperely exonerated'

There are several other arguments proving that the AIT is wrong, but I do not think it necessary to mention them since the theory is already rejected. Those interested may refer to a recent publication enumerating as many as 'seventeen arguments why the Aryan Invasion never happened' (Feuerstein et. al. 1995) and a 1999 update on the Aryan invasion debate (Elst 1999).

The Aryan Migration Theory too contradicted by archaeological and genetic findings

At present the Aryan Invasion Theory has been replaced by what is known as the Aryan Migration Theory (AMT). According to it, though the Aryans did not invade India, they did come here from outside. They arrived here as migrants in small batches at different points of time spread over a long duration. It must be noted that the AMT is not just AIT minus invasion. It is different from the AIT in two important respects. First, while the AIT was based on surely linguistic data without any archaeological support, the AMT has been carefully linked up with archaeological evidence at each and every phase of the migration beginning from Ukraine and successively advancing through

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Pontic steppes, Turkmenistan, northern Afghanistan to India. Second, while in the AIT the Dasas, Dasyus and Panis were taken to be non-Indo-European-speaking aboriginals of India, in the AMT they too are taken to be outsiders and Indo-Aryan-speakers, albeit speaking a dialect somewhat different from the one used by the Aryans.

It is not necessary to go into the details of the different archaeological cultures like the Srednij Stog. Various Grave cultures (distinguished as Pit, Hut and Early Timber) and Andronovo, etc., that have been indentified with the migrating Indo-European-speakers on their way to South Asia. Justification of their correlation with migrating Aryans or Indo-Europeans needs to be investigated by Indian archaeologists. However, just to give an idea of how speculative these linguistic-archaeological correlations are the case of the BMAC (Bacteria Margiana Archaeological Complex) may be briefly described.

Bactria is the basin of the Amu Darya or Oxus River in northern Afghanistan and adjacent southeastern Uzbekistan and Margiana is the deltaic region of the river Murghab in South Turkmenistan. Both are referred to in ancient Indian literature⁵. BMAC is the name of the Bronze Age culture that was discovered during archaeological excavations done for about three decades at several sites of the Bactria-Margiana area by Viktor Sarianidi and his Russian team (Sarianidi 1979; 1993). The culture is placed in the 1900-1700 BC and is found to have its own distinctive traits such as steatite falcons, steatite stamp seals, characteristic bowls (called serie recente), Cenotaph burials and ceremonial architecture. The proponents of the AMT believe that it represent the final 'staging ground' of the migrants South Asia. The cenotaphs found in Mehrgarh-VIII and at Sibri, taken to be typical of BMAC, the Central Asian influence on some seals discovered in the Jhukar Culture of Sindh, and the 'strong resemblance the antennae-hilted swords from BMAC sites in Bactria and the Gangetic Copper Hoards' (Parapola 1995; 370) are considered to be the archaeological proof of the diffusion of these people from Central Asia to Baluchistan, Indus plains and eastern India successively.

However, when one goes through this discourse and examines the evidence and arguments in some depth, it becomes apparent that it is a clear case of special pleading and tunnel thinking in which 'telling' rather than 'thinking' dominates the entire exercise. Consider, for example, some of the arguments of Asko Parpola, the most outstanding propagator of the AMT. Parpola (1988, 1995) believes that the authors of the BMAC are the Dasas, and the destruction of their strongholds (Purus) described in the Rigveda relates to Arya-Dasa battles in Central Asia. On this point one needs only to be reminded that the notion that some of the hymns of the Rigveda were composed by the Aryans outside India before their presumed entry into the subcontinent, once held by Hillebrandt, had been rejected long ago by competent vedicists (Macdonell and Keith 1912/95; 357-58). Moreover, recent archaeological investigations have proved beyond doubt that the Rigvedic River Sarasvati is the Ghaggar-Hakra of the Survey of India maps and not Avestan Harakhvaiti, identified with Arghandab flowing in Arachosia, on which Hillebrandt's theory mainly relied Parpola simply cannot succeed in reviving Hillebrandt's theory today.

Parpola connects the ceremonial structure with three concentric circular walls found at the BMAC site of Dashly-3 in southern Bactria with Indian Tripur, associated with the Asuras in post-Vedic literature. He claims that a reference to the same is found in the Satapatha Brahmana 6.3.3.24-25. This is in fact a wrong statement of facts. The passages of the text under question prescribe the drawing the three circular lines around the ritual fire to protect it from odds and this prescription has absolutely nothing to do with the Asuras. If these three lines represent a Tripur, it is an evidence of a Tripur being made by the followers of the Aryan ideology. On the basis of the depiction of a goddess connected with lions found on a few BMAC seals, Parpola has concluded that the worship of Durga was prevalent among the Dasas of Bactria and Margiana. Thus, according to him, the Sakta cult too is a Central Asian contribution to India. He interprets the name Durga as 'the protectors of the stronghold (dugra)1'. This is wrong. Durga is so named because she is Durgama or Durgamya. That is, difficult to be approached. Even today the famous seats of her worship are found located in places that are inaccessible or difficult to be reached despite modern improvements in transportation. The scholar states; 'Durga is worshipped in eastern India as Tripura, a name which connects her with the strongholds of the Dasas' (Parpola 1995; 370). Parpola forgets that Tripura is not located in eastern India only. It is found in other

parts of India (as, for example in Maharashtra) too and even outside India as Tripoli in Lebanon, as Tripoli and Tripolitania in Libya, and as Tripoli's in Greece.

Once we stop speculating and come to hard facts, the AMT starts evaporating. I would refer to only a few of them. Let us first take only one such fact from archaeology. As is well known the Harappans used Copper extensively, But they used Bronze also which they produced by alloying Copper with Tin to harden the metal. While Copper was readily available to them in abundance Tin was considered to be a precious commodity as it had to be procured from Khorasan and the areas between Bukhara and Samarkand (Chakrabarti 1979; 70; Asthana 1993; 276-78). After the decline of the Harappans, Tin-based Bronze objects are not found in India for more than a millennium. No Tin-based Bronzes are reported from Copper Hoards and Painted Gray Ware assemblages, and Ahar and Kayatha complexes also do not have them (Agrawal 1971'1974). It is evident that the earlier contacts with the areas of Baluchistan and Northern Afghanistan from where Tin was obtained were severed. Referring to AMT, J. M. Kenoyer (1995; 230) puts the point-blank questions. 'Why were the migrants not supplying one of the most important raw materials for Bronze production, i.e., Tin?'

Now a fact from biological anthropology, after a detailed examination of biological adaptations and affinities in the Indus-Sarasvati area, a team of scholars in the field, namely, Hemphill, Lukacs and Kennedy has found only two biological discontinuities, the one between 6000 BC and 4500 BC and the other between 4500 BC and 800 BC, the Ideological make-up of the people living the area remained fairly constant. 'In such a situation', B. B. Lal (1997; 287) rightly wonders, 'how can one envisage the entry of hoards and hoards of Vedic Aryans who are supposed to belong to an alien, non-Harappan biological group around the middle of the second millennium BC?'

Next a fact from genetics, in a recent analysis of Indian and Western Eurasian gene pools, T. Kivisild and his team of scientists have found that while the North and South Indian gene pools are almost similar, they differ markedly from the gene pool of Western Eurasia. Their analysis is based on Mitochondrial D.N.A. test, a well-known procedure in genetics that can measure genetic inheritance for thousands of generation. The analysis shows that the Western Eurasian strain, which is present over 70 percent in the populations of European countries like Germany, is found to be merely 5.2 percent in Indian gene pool. They remark: 'The supposed Aryan invasion of India 3000-4000 years before present, therefore, did not make a major splash in the Indian gene pool. This is specially counter-indicated by the presence of equal, though very low, frequencies of the Western Eurasian Mt-DNA types in both southern and northern India' (Kivisild et al 1999; 1134). 'Though they refer to Aryan invasion, the inference is equally applicable to Aryan migration and it is quite clear; the much-propagated theory of Aryan invasion/migration is contradicted by genetics. More importantly, the notion of ethnic divide between northern and southern Indians is also brushed aside by genetics.

Lastly a fact about the Rigvedic horse, referring to authoritative technical studies on animal anatomy and taxonomy, Manansala (2000) has shown that the Indian indigenous horse and European horse that have 18 pairs of ribs. That, this difference between Indian and northwestern horses existed in the Rigvedic times too, is demonstrated by him on the testimony of the Rigveda (1,162, '18) which informs; 'The axe penetrates the thirty-four ribs of the swift horse; the beloved of the gods, (the immolators), cut up (the horse) with skill, so that the limbs may be imperforated, and recapitulating joint by joint' (Wilson's translation). I have scrutinized the translation of the original verse occurring in context of a horse sacrifice. There is absolutely no ambiguity about the number of the ribs (vankrih), which is clearly stated to be 14 (chatuhirinsal) obviously, had the Aryans arrived in India on horse-back or horse-drawn chariots, as the AMT presumes, they would have never used inferior indigenous horses in their most important sacrifice.

These are a few hard facts, and there are many more equally solid, that have led the informed historian now to reject not only AIT but AMT too. The Vedic Aryans are not outsiders, they are sons of the soil.

II

The Vedic and Harappan cultures represent a single cultural tradition.

The acceptance of the Vedic-Harappan identity is another characteristic feature of the new paradigm. This is not to say that the relationship of Vedic and Harappan cultures is expressed by the equation 'A is the same as B'. The two cultures are not identical in that sense. In fact, the Harappan or the Indus-Sarasvati and more durable

Vedic Civilization, there is another distinction between the two that must not be glossed over while talking about their identity. As I have discussed elsewhere (Singh 2001; 2002), this is basically the rise, intensification and collapse of an urban process that defines the Harappan Culture. As against this, it is the emergence, spread and dominance of an ideology based on a kind of sacrificial ritual and concomitant social psychology that constitutes the hallmark of the Vedic Culture. Significant is also the fact that the ideological process survived the collapse of the urban process. Thus, notionally they represent two distinct processes, urban and ideological but, as we shall see, despite this perceived functional difference, they are part and parcel of one and the same cultural tradition.

Space-time considerations and literary-archaeological convergence lead us to infer that Early Vedic, that is, Rigvedic Culture corresponds to the archaeological culture called the Pre-Harappan (Hakra, Kunal I), Early Harappan and Mature or Urban Harappan. The identification of the Later Vedic Culture with the PGW Culture suggested by R. S. Sharma(1975-76; 53-67) is untenable in view of recent revision of later Vedic Chronology Neolithic-Chalcolithic cultures must also be included in the Late Vedic horizon of which the PGW Culture appears to represent the last phase.

The debate on Vedic-Harappan identity relates mostly to the correspondence between Rigvedic and Early-to-Mature Harappan cultures. This identity is based on three basic parities between the two geographical, chronological and cultural. Let us discuss them briefly.

Rigvedic and Early-to-Mature Harappan geographical horizons coincide

The Core Area as well as the contact area of the Rigvedic and early-to-mature Harappan cultures are found to be one and the same. The region extending from the Sarasvati Valley in the east to the left bank of the Indus in the west was the cradle of both the cultures. It is known as Sapta Sindhavh in the Rigveda (8-24, 27) and it is the region in which the maximum number of Harappan sites is located. Still more important is the fact that within this core area too it is the Sarasvati region that constitutes the pith. The Vedic Culture originated on the banks of the Sarasvati and, as I had shown earlier (Singh 1997-98b) and has now been confirmed also by Shrikant G. Talageri (2000, 103-5), during the time of composition of the earliest hymns. The Vedic people were not acquainted with the river Indus. Of course, later in the Rigvedic Period itself they reached the Indus, settled in its valley and glorified it, but Sarasvati continued to be the most important river for them (Rigveda 2.42.16). Recent archaeological discoveries prove that the Harappan Culture too is basically a Sarasvati Culture. The Harappan sites in the Sarasvati Valley far out number those located in the India Valley. The latest counting as given by B. B. Lal (2000; 47-48) is; a total of 50 sites (both Early and Mature) in the Indus Valley as against 177 early and 283 Mature Harappan sites in the Sarasvati Valley. But it is not only the number of sites that matters. The archaeologists now agree that the culture integration of several social groups that gave rise to the Harappan Culture had occurred in the Sarasvati Valley (Shaffer 1989; 123).

A comparison of the contact areas also suggests the equation. In the northwest, both extend up to Afghanistan and the references in the Rigveda to Rasa (Syr Darya, but Panjsher, an affluent of the Kabul, according to some), Anitabha (Amu Darya), Kubha (Kabul), etc., show this. In the southwest, the contact areas extend up to Gujarat as proved by the location of Harappan sites like Lothal, Surkotada and Dholavira in the case of one, and the description in the Rigveda (1.116, 3-5) of the shipwreck met by Bhujyu, son the Tugra, in the case of the other. As shown by R. N. Nandi (1994-95; 31-33), Bhujyu's shipwreck had occurred in the Kutch area. In my view, Bhujyu as his name suggests, most probably belonged to the Bhuj locality of Gujarat.

The contact areas of the Rigveda Aryans and the Harappans in the east also have the same extent. However, the present understanding about how far they extended in this direction is not correct. Since Ganga is the easternmost river mentioned in the Rigveda, historians generally believe that the expansion of the Vedic Culture in Rigvedic times was limited only up to Ganga-Yamuna region, and that it was only in the later Vedic period that the culture extended further east in Bihar. The episode of Videgha Mathava reaching Sadanira (modern Gandak in Bihar) described in the Satapatha Brahmana(1.4.1.14-17) is quoted in support of this view. But, just on the basis of its mention in a later Vedic text, it is wrong to think that this episode relates to later Vedic period. P. C. Pant (1996; 8-10) is right in stating that the internal evidence of the

Satapatha Brahmana itself makes it clear that it is referring to an event of by gone days. In my view, however, the entire debate on this issue is meaningless and a product of ignorance for the time when Videgha Mathava visited the Sadanira area is not a matter of controversy at all. He was accompanied by his priest Gotama Rahugana, a Rishi of the Angirasa family, who is credited with the authorship of as many as twenty hymns of the Rigveda (1;74093). Hence it is beyond doubt that the episode refers to an event of the early Vedic period proving that the contact area of the Rigvedic extended in the east up to Bihar⁶.

That, exactly the same was the extent of Harappan contact area in the east, is proved by two recent archaeological discoveries that indicate the eastward diffusion of Harappan elements up to Bihar through the Sarayupar region in eastern U.P. One is the introduction of the cultivation of barley and wheat along with certain other serials at the site of Senuwar, situated in Rohtas District of Bihar, excavated by B. P. Singh (1988-89; 6-18). K. S. Saraswat of the Birbal Sahani Institute of Palaeobotany, Lucknow, who has collected and examined the botanical from the site, informs (personal communication) that earlier the farmers at Sanuwar have been growing only paddy for nearly 200 years, but after about 2000 BC they started cultivating other cereals besides paddy such as barley, wheat pea, lentil and millets like jwar and ragi. His analysis shows that the species of barley, wheat and pulses are exactly the same that were cultivated by the Harappans. Evidently it indicates a movement of men and ideas from the Indus-Sarasvati region to Bihar in about 2000 BC. The other important information is the recovery of a large number of micro beads of steatite from Imlidih Khurd, a site located in Sarayupar plain, which has been excavated by Purushottam Singh and his team (Singh et al. 1991-92; 10-22). Such micro beads are known only from Harappan assemblages. Their existence in Sarayupar area in Pre-Narhan context (assigned to around 1800-1399 BC), is very significant in view of the fact that Sarayupar is the area through which any diffusion from the Sarasvat Valley must pass through in order to reach Bihar.

The above discussion is sufficient, I hope, to convince anyone that the geographical horizons of the Early-to Mature and the Rigvedic cultures are one and the same in every respect. Not only the core areas but also the contact areas of the two in various directions coincide perfectly.

The Latest Limits of Rigvedic and Early-to-Mature Harappan chronological horizons coincide, proving their partial overlap

The various phases of the Harappan Culture have been firmly dated by Carbon-14 method and there is little controversy about Harappan chronology today. For knowing the position as it stands today, one may refer to the latest assessments made by Gerogory L. Possehl (1996), S. P. Gupta (1996) and B. B. Lal (1997). Though the beginning of the Early Harappan proper is placed in about 3200 BC, it is accepted that its roots go back to circa 4000 BC. It is also agreed that the Mature or Urban Phase of the culture came to an end in around 2000-1900 BC. As we are not concerned with the Late (i.e. Post-Urban Harappan) at the moment, it is this span of roughly 2000 years from 4000 BC to 2000 or 1900 BC that is to be compared with the Rigvedic Period to find the relative chronological position of the two.

The Rigvedic chronology, on the other hand, has been still continues to be a matter of controversy. Linguistic, West Asian inscriptional, astronomical, archaeological, and other kinds of data and evidence have been used to fix the chronology (Singh 1997-98). Efforts to reach acceptable conclusions have so far failed partly because of inherent limitations of certain sorts of data and partly because of a lack of mental clarity in some scholars who do not maintain a clear distinction between the antiquity of the language of the Rigveda and the antiquity of the hymns contained in the text, and sometimes even confuse the time of composition of the hymns with the time of their compilation.

In any discussion on Rigvedic chronology, two issues are involved, one pertaining to its earliest limit and the other relating to its latest limit. Fixing the latest limit is not as difficult as ascertaining the earliest limit and so most of the scholars have concluded their discussions by stating that the Rigveda cannot be later than such and such date. To my knowledge nobody has ever claimed to have fixed the earliest limit of the Rigvedic Period. Excepting, of course, the supporters of the AIT and AMT who believe that it began in around 1500 B.C. directly making a fool of Max Muller on whom they depend but who had stated that 'no power on earth will ever determine' how old the Rigveda is.

Ancient inscriptional evidence such as the names of characteristically Vedic gods

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found recorded as witness deities on tablets of about 1400 B.C. discovered at Boghaz-keui, a site some 145 kms east of Ankara in Turkey, names of kings like Suttarna, Yasdata, Artamanya, etc., occurring on tablets of about the same time discovered at El. Amarna in Egypt. and the use of the word Suriyas for the sun god by the Kassites ruling over Babylon in 1760 BC prove the presence of Vedic Aryans in those areas at the mentioned times but they do not help us in fixing the limits of the Rigvedic time-span.

Linguistics too have miserably failed to provide any insight on this issue. I am not a linguist myself. But I am told that linguistics is now quite advanced and sophisticated. It is no longer in its primitive 19th century stage in which it was outright rejected by eminent thinkers like Shri Aurobindo as a discipline incapable of deciding what it aims at deciding. However, I fell surprised to find that using same methodology and similar data B. K. Ghosh (1952) thinks that the Rigveda cannot be earlier than 1500 BC and Satya Swarup Mishra (1992) holds that it cannot be later than 5000 BC. Does it indicate any inherent imperfection in the discipline? I simply do not know.

Astronomical calculations, unlike linguistic considerations, have yielded uniform results. It is worth noting that B. G. Tilak in Mumbai and H. Jacobi in Bonn working simultaneously but independently of each other arrive at almost the same conclusion that the antiquity of the Rigveda goes back to 4500 BC (Winternitz 1933/91; 295-96. But under the spell of AIT the fact was overlooked and astronomical evidence was not given the importance that it deserved. Of late, when the spell has broken, some scholars like Subhash Kak (1994) have started working on Vedic astronomy and it may be expected that it would throw some significant light on Rigvedic chronology.

Unlike the archaeologists who have made serious attempts to know the causes that led to the extinction of Harappan cities, the vedicists have seldom probed the reason why the composition of the Rigvedic hymns came to an end. The Rigvedic creativity is no more present in the Vedas that follow. What was the catastrophe that killed the dynamic spirit of the Rigvedic Aryans? The recent investigations in the Sarasvati (modern Ghaggar-Hakra) Valley seem to provide an answer to this question. The drying up of the Sarasvati has long since been taken as a line of demarcation between Early and Late Vedic periods. It is a matter of satisfaction, therefore, that the time when the river dried up is now known. The Mature Harappan settlement at Kalibangan, located on its bank, had to be abandoned because of scarcity of water in the river, and Radiocarbon dates indicate that this abandonment occurred in 1900 BC. It has, therefore, reasonably been concluded that the river dried up 'some time at the beginning of the second millennium BC' (Lal 2002; 22). Thus, the drying up of the Sarasvati was the main reason for the end of both, the urban phase of the Harappan Culture and the Rigvedic phase of the Vedic Culture.

Though the above conclusion can hardly be doubted, a different opinion in this connection must not be overlooked. Recently a few scholars like N. S. Rajaram, David Frawley and Subhash Kak have tried to prove that the Rigveda cannot be later than 3750 BC (Rajaram and Frawley 1995). Like K. D. Sethna (1981) they equate the Harappan and Sutra periods and push back the Rigvedic period to an age much earlier than the Harappan. Their arguments are: (a) the ancient Egyptian and Babylonian mathematics are derived from the Sulbasutras and (b) this mathematical evidence is supported by astronomical considerations relating to the pole star Alpha-Draconis, Krittika vernal equinox and the time taken in the shift of the cycle of seasons from the days of the Sutras to the present. Additional evidence for the proposed chronology is provided by the stand that the Rigvedic period ended with the Battle of Ten Kings that the Rigvedic period ended with the Battle of Ten Kings that is calculated to have occurred in 3730 BC. The arguments are quite emphatic, but the difficulty is that the cultural levels depicted in the Rigveda such as those indicated by organized battles and sea trade do not match with those brought to light so far by the archaeology since any new discovery any day may alter the entire perception, till such evidence is brought to light, an archaeologist would find it difficult to accept this early end of the Rigvedic period.

The mosaics of the Rigvedic and Early-to-Mature cultural contents have striking resemblance

Now, let us compare the cultural contents of the Rigvedic and Early-to-Mature cultures. The perception that the former is rural and illiterate and the latter urban and literate is wrong First, the rural-urban dichotomy itself is incorrect for in every culture and specially so of ancient times, the number of people engaged in agriculture far

exceeds the number of those who participate in non-agricultural production and trade. Then the evidence now at hand shows that the Rigvedic Culture too had reached the stage of urbanization. Bhagwan Singh (1987/97; 1995) and R. S. Bisht (1988; 2000) have brought out enormous data from the Rigveda to show that some Rigvedic people lived in urban centers and carried on long distance trade by land and sea. Undoubtedly the Rigvedic Aryans destroyed their enemy purs (strongholds or fortified towns), but they also built purs and lived in them. They describe their own purs as metal-strong (ayasi), multi-sided (satabhuji), spacious (Vipula), broad (urvi) good-looking (subhra) and auspicious (bhudra), etc. A large number of architectural terms and descriptions found in the text, specially references to covered (surmi) and un-choked (sushira) drains (Rigveda, 8,69,12) leading discharge water to pits (kakuda) immediately bring to our mind the Harappan drainage system.

Descriptions at various places in the text refer to business activities. The word vanik denoting a businessman or merchant is known. Words expressing the concepts like 'capital investment', 'profit', 'loan', 'tax', 'contract', etc., used in the business community are found (Bisht 1988; 12). Trading was done by roadways as well as by waterways. Various kinds of land routes or roads like strait roads, deviant roads, waterlogged roads, etc., are referred to Sea journey for trade is also referred to at several places. It was in such a sea journey for trade that Bhujyu, son of Tugra, had the misfortune of shipwreck. Bhagwan Singh has drawn our attention to a verse of the Rigveda (10.142.7) that reads; 'This is the reservoir of water, the house of all the waters. O Agni, now you can change your route and reach any destination you like'.

The literate-illiterate dichotomy is also untenable. Literacy was rare even in Harappan Culture limited only to a section of the society in the Mature Harappan phase only, the Early Harappan being totally illiterate. It was very limited in the Rigvedic Culture too, but not unknown Bhagwan Singh (1987/97; 266-72) quotes several Rigvedic verses indicating literacy and V. S. Pathak (1986) is of the opinion that the Panis are called 'granthinah because they possessed account books.

Earlier, it was believed that the Harappans were peace full people as against the Aryans who were warlike. Now, it is accepted even by scholars like Shereen Ratnagar that the Harappans too possessed weapons 'just like' Aryans (Elst 1999;253). Similarly, the perception that Harappans did not use horse, while the Aryans were fond of them, has been contradicted by the recovery of horse bones from Harappan settlements like Harappan, Ropar, Kalibanga, Lothal, Surkotada and Malvan. Though remains of horse bones have not been found at Mohenjo-daro and Nausaro, the presence of the animal at these sites is attested by its terracotta figurines (Gupta 1996; 159-61; Lal 1997; 285-86).

There are many more points of convergence between the Early-to-Mature and Rigvedic cultures. Several characteristic pottery types like knobbed and perforated varieties are mentioned in Vedic literature (Singh 1969). The population shift towards east concomitant with Mature Harappan decline, thoroughly documented by Shafer and Lichtenstein (1999), tallies perfectly with literary information according to which the center of Aryan activities had shifted from the Sapta, Sindhavah area to Brahmavarta in the post-Rigvedic period. Thus, we find that Rigvedic and Early-to-Mature cultures are quite alike and the earlier notion of Vedic-Harappan dichotomy is yielding and giving place to Vedic-Harappan identity.

Do the geographical chronological and cultural parities between and Mature Harappan cultures prove their identity?

While comparing Rigvedic Culture with Early-to-Mature Harappan, scholars generally conclude that in view of the above parities between them their identity is established. However, it may be noted that though these parities point to a strong probability of the two cultures being one and the same, they do not necessarily prove their identity. They only prove that two distinct processes, the one urban represented by the Harappan and the other ideological represented by the Rigvedic Culture were at work in the same space-time context. It may be that while some (or even most) of the social groups occupying the space-time under consideration might have participated in both the processes. This shows that the problem needs a deeper probe.

Correlating the ideological and urban processes

The ideological and urban processes were, in fact, inter-connected. Speaking in terms of Systems Theory, we may say that they were coupled in a stimulus-response relationship like sub-systems of a system. I have dealt with in detail elsewhere (Singh 1997-98 b; 2002) and shown that the Rigvedic and Early-to-Mature Harappan ethno-

geographic configurations too have a structural parity and that both the processes had originated in the Sarasvati valley from where they diffused first to the lower Indus valley and then to other places towards north, south and east.

The diffusion of the ideology from the banks of the Sarasvati to the lower Indus valley is attested to by the fact that while the Rigvedic hymn-composers are ignorant about the river Sindhu in the earliest portions of the Rigveda, in middle and late portions of the text many of them like Sindhukshit, Sindhudvipa and Kakshivan are found settled in the lower Indus area and composing hymns glorifying the river Sindhu and its bounties. A north east to south west of ideology is confirmed also by a somewhat late inclusion of the twin gods Asvins, originally gods of the coastal regions, in the Soma ritual that had originated in the Sarasvati valley (Singh 1970-98 b; 31 and In 19). The urban process follows the same pattern. It too originates in the Sarasvati valley and diffuses first to lower Indus and then to other areas. This is shown by successive stages of diffusion of Early Harappan traits followed by the Urban Harappan expansion.

The ideology played a significant role in the rise and intensification of the urban process. This becomes clear when we consider variables causing transformation of the early (pre-urban) stage of the Harappan Culture into the mature (urban) stage. Earlier it was thought that trade, mainly external trade, brought about the transformation. D. K. Chakrabarti has contradicted this general belief and asserted that long-distance external trade was a concomitant of the urbanization, it did not antedate it. According to him, an important role in this transformation (Chakrabarti 1990; 169) G. L. Possehl (1990; 276-79) too accepts the importance of ideology in this transition. The uniformity in Mature Harappan traits, specially the signs and symbols, over a large area demonstrate a kind of 'oneness', an evidence of the emergence of a sort of social identity fostered by an expanding ideology. The question is what else this ideology was if not the Vedic? In literature we find the optimistic and martial Rigvedic Aryans waging wars against their enemies and moving from the banks of the Sarasvati towards Indus and beyond. In archaeology we see the Mature Harappans overrunning different peoples and burning down stelements at Kot Diji in the Indus valley and at Nausharo, Gumla and Rana Ghundai west of the Indus (Lal. 1997; 91). In this correspondence in literary and archaeological pictures not significant? In my view, the Rigvedic and Early-to-Mature Harappan identity cannot be challenged on the basis of the notional distinction between ideological and urban processes.

III

Aryattva: the ideal of Vedic Culture and its continuity

The essence of Vedic Culture lies in its perception of Aryattva, a virtue, the achievement of which is considered to be necessary for a civilized living. The slogan 'Krinvanto visvam aryam' (Rigveda 9.63.5) is an appeal to the divine almighty power to help achieve this ideal. Unfortunately, however, many historians have misunderstood this Aryattva.

Vedic Aryans, a reality : Indo-Aryans, a myth

Scholars have often confused the Vedic Aryans with the Indo-Aryans forgetting the fact that the two are different concepts. 'Arya' being the self-designation of the Vedic people, 'Vedic Aryans' represents a historical reality. As against this, the term 'Indo-Aryan' is a linguistic construct denoting the speakers of a subgroup of languages within the Indo-Iranian branch of the Indo-European family, and being a construct, its validity is subject to verification. Although language and culture are intimately connected, Arya does not mean a speaker of a particular language. In Vedic view, even a person speaking a Dravidian language is an Arya if he possesses the virtue called Aryattva.

Semantics of Arya: modern linguistic versus traditional Bharatiya view

V. S. Pathak (1993) has discussed in depth the semantics of Arya. Starting with ar (which initially indicated a pointed digging stick and later acquired the sense of the 'the tilling equipment') he traces the semantic development the term through aram, ari, and arya to Arya. He concludes that Arya is an 'agro-technological term'.

The traditional Bharatiya interpretation of the word is different. Nighantu (2.22) takes aryah to be one of the four terms denoting God (Chatvari Isvaranamani). According to Yaska, ari also means Isvara, that is, God (Isvaropi arih, Nirukta 5.7) and Arya, therefore, means Isvaraputra, son of Isvara. Right from the Vedas down to glossaries like Sabdadalpadruma and Vachaspali vrihulabhidhand, the Bharatiya tradition defines. Arya as one who, is noble and refined in ideas and actions. It is believed that nobility and refinement depend on a world-view characterized by a belief

in certain concepts like Rita, Satya, Tapas, Yajnya, Brahma, etc. The fundamental concept from which other concepts are derived is Rita, which means proper, true, divine, pious, religious, perfect, brilliant and glorious all rolled into one. Rita and Satya are so near to each other that they have been taken to be synonymous. Sayana says: Ritamiti Satyanama (Rita is another name of Satya); Ritam manasam yatharthasamkalpanam Satayam vachikam yatharthabhashanam. (Rita is the mental perception of Reality and Satya is verbal expression of Reality). Rita is considered to be identical to Dharma and Brahma too ('Dharma sreyas-prapti ke lokottar sadhana ka vidhana hai, Brahma nihsreyasabhuta param sat hai.' Pande 200I: 69). It is this world-view based on Rita and related concepts that define Aryattva. One who has this vision is Arya. It is because of this that the word Arya is translated as noble or respected in English and as Sreshtha in Hindi.

Though the modern linguistic concept of Arya and the traditional Bharatiya concept of Arya are poles apart, I think they are not contradictory but supplementary. Aryattva is a fine blending of virtues that lead to the highest material as well as spiritual achievements.

Aryattva : a social identity

The Vedic ideology originated in the Sarasvati valley to fulfill a historical need. It emerged to break the isolation of the various ethnic units present in and outside the valley that were busy maintaining their individual cultural boundaries and living in a state of mistrust and fear for each other. The historical process at the time had reached a stage in which a transition from tribal society to state society had become the need of time. Performance of public sacrificial ritual generated a sense of cooperation and unity, and Vedic ideology formed the basis for the rise of a social identity that was needed to organize the society at a much larger scale needed for the birth of the earliest civilization of South Asia. Thus, the emergence of Vedic ideology and the social identity that it fostered were both a cause as well as an effect a historical process.

Continuity of Aryattva, the ideal of Vedic Culture

The Epics, the Puranas and all subsequent Sanskrit literature stand witness to the continuity of the Aryan way of life. Now that the Vedic-Harappan identity is beyond any doubt, we need to utilize archaeological data too to trace this cultural continuity. In this direction a beginning has already been made by B. B. Lal. In his latest book aptly entitled as The Sarasvati Flows On, he has shown how several practices that are still current like Yogasana (Yogic postures), the Hindu manner of Namaskara (salutation) with upraised folded hands, etc. have come down to us from Indus-Sarasvati (Harappan) times. Even the practice of putting vermilion in the hair parting (Mangabharana), practice by all married Hindu women goes back to Indus-Sarasvati times (Lal 2002). This line of research, which has many more surprises in store, must be taken up by the new generation of archaeologists in India.

IV

Vedic historical studies: the challenges ahead

In the end, I must to present challenges in the field of Vedic historical studies that need to be met immediately.

Arya indigenous, Sanskrit foreign?

During the last two decades the linguistic-archaeological divide has been much debated. Trying to summarize the debate and striking a happy balance (?) between the linguist and the archaeologist, George Erdosy states. "The inescapable conclusion is that while Indo-Aryan languages have an external origin, the Aryas of the Rigveda were not their carriers into South Asia (Erdosy 1995; 4)". I have already taken much of your time and so I would not go into the arguments at the moment. However, this is one important challenge before us, Neither AIT nor AMT, OBT.

Related to the above challenge is the question. Since Aryan Invasion Theory (AIT) stands demolished and Aryan Migration Theory (AMT) found baseless, how to explain the linguistic affinities in the vocabulary, grammar, etc. found in the so-called Indo-European languages and certain socio-religious and mythological parities observed in the tradition of the speakers of this family of language? While some scholars like Jim G. Shaffer (1984) do not think that migrations are necessary for language diffusion, many others emphatically say that population movements must accompany language dispersal since languages do not have legs and they move only with their speakers. Recently, Koenraad Elst (1999) and Shrikant G. Talageri (2000) have tried to show that the flow of so-called Indo-European languages was just in the opposite direction from India to Central Asia and Europe. Many more scholars have started considering this

possibility and the talk of a theory called Out of Bharat Theory is very much in the air. One may decide on the name of the theory whether it should be called OBT or AET (Aryan Emigration or Exodus Theory), but the need of the hour is to develop this theory on solid textual, linguistic, archaeological and other kinds of data and evidence. May be the needed data and evidence are already on our table, only we have not noticed them!

Notes :

1. I have dealt with the concept of 'paradigm' and the significance of paradigm changes in the growth of knowledge in my book Models, Paradigms and the New Archaeology (1985). For a more detailed discussion one may refer to Thomas S. Kuhn's The Structure of Scientific Revolutions (1962).

2. This definition of 'civilization', still prevalent in archaeology, actually depends on a materialist conception of history. It was initially suggested by Lewis H. Morgan in 1877 in his book Ancient Society, or Researches in the lines of Human Progress from Savagery through Barbarism to Civilization. Frederick Engels adopted this definition in his famous essay 'The Origin of the Family, Private Property and the State' written in German which appeared in Zurich in 1884 wherefrom it was applied in the field of archaeology by V. G. Childe.

3. An example of the persisting notion of culturally backward and warlike Early Aryans may be found in R. S. Sharma's book Material Culture and Social Formations in Ancient India published in 1983. Sharma has concluded that down to the time of composition of the Family Books of the Rigveda, the Vedic Aryans were largely nomadic pastoralists ignorant of settled agriculturists' life and were engaged mostly in booty capture. According to him, booty capture was their most important economic institution On page 38 of his book he declares. 'War in the predominantly tribal society of the Rigveda was a logical and natural economic function' and that it was 'the main source which supplied, to the tribal chief or prince, cattle, other animals and women in the shape of spoils'. On page 24 of the book, he opines that 'the Family Books show the Rig Vedic people to be predominantly pastoral'. But R. N. Nandi contradicts this statement and notes. 'Not much exercise is needed to show that permanent dwellings, which together with fertile fields constitute the nuclei of sedentary life, already dominate the family portions of the Rigveda, But the obsession with pastoral nomads has frequently led scholars to gloss over the data bearing on these essentials of sedentary life' (Nandi 1989-90:45). Bhagwan Singh (1993-192) goes still a step ahead and remarks; 'Contrary to the general belief that the Vedic society was pastoral and nomadic, we find it to be one of the most civilized societies of its time. Rigveda is agog with mercantile activities undertaken by its traders against all conceivable odd's (Singh 1993:192). The changing paradigm is clearly reflected by these opinions expressed by three scholars all of whom, it may incidentally be noted, are Marxists.

4. According to Poliakov (9174) and Shaffer (1984), the anti-Semitic feelings were quite dominant among the Christians of 18th century Europe. They wanted to get rid of the Judaic heritage to which they were bound by the Old Testament. This propelled the scholars to seek their origins in some other tradition. They paid special attention to the concept of 'the Flood' and the importance of the mountains found in Christian myths of creation. The discovery of seashells even in high latitudes was interpreted to confirm the existence of the Flood from which the humanity could have survived only in mountainous areas. Since the highest mountains were in India and China, they looked towards east for their origins. India was preferred 'perhaps influenced by the reluctance of the Whites to admit affiliation to the Yellow races' (Poliakov 1974: 184).

5. Oxus is Vankshu or Vakshu also mentioned as Chakshu. Bactria is Balhika later known as Balkha and Bakhtri. According to V. S. Agrawal (1956; 9-10), 'The name Afghanistan itself is derived from Asvakayan mentioned by Panini and corresponding to Gk. Assakenoi, with their capital at Massaga or ancient Masakavati. He further notes 'The river Murg-ab, which has its source on the western slopes of the Hindukush and flows through Russian Turkestan with Merv on its left bank, represent the Sanskrit Mrig, Avestan Mouru, old-Persian Margu, of which the country was called Margiana. According to him, 'the Mrigas are mentioned in the Mahabharata as one of the four Saka tribes whose original homeland was in Central Asia'.

6. This is further corroborated by the reference in the Rigveda (3.5314) to Kikatas and their leader Pramaganda who were a people of Magadha area. As noted by Griffith in his comment on the verse, the country of the Kikatas is usually identified with South Bihar. Talageri (2000, 119) believes that Kikata is another name of Magadha and informs that several scholars connect the name Pra-maganda with Magadha.

7. For discussions on related issues such as the identification of the Rigvedic Sarasvati with Ghaggar-Hakra, its description in the Rigveda as a mighty river, the capture of its tributaries Sutlej and Yamuna by the Indus and Gangetic systems, etc. see some of my recent papers (Singh 1997-98 a, 1997-98 b; 2001; 2002).

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शोध.
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