

The Demise of the Dravidian, Vedic and Paramunda Indus

Hypotheses: Why these Hypotheses are no longer tenable

This paper is a supplement to my papers on the Aryan problem published by the ICFAI university press. This paper contains a detailed discussion of the term 'Aryan' as well and introduces several new terminologies. Contact: sujayrao2012@gmail.com.

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Abstract

This paper argues against the Dravidian, Vedic and Paramunda Indus theories, and shows why Dravidian languages, Sanskrit or Paramunda languages could not have been candidates for the Indus Valley Civilization which flourished from 2600 BC to 1900 BC in the North-West of India and Pakistan. Supporters of these three hypotheses are welcome to provide a systematic refutation of all the points raised in this paper. This paper adopts a multi-disciplinary approach, drawing conclusions from many different fields of science. Quotes of several mainstream scholars of repute are presented in support of the conclusions arrived at in this paper. An alternative hypothesis of the identity of the Harappans is also presented towards the end of the paper.

Glossary

AIT Aryan Invasion Theory

IA Indo-Aryan

IE Indo-European

IVC Indus Valley Civilization

OIT Out of India Theory

PIE Proto-Indo-European language

RV Rig Veda

VIT Vedic Indus Theory

Introduction

This paper argues against the Dravidian, Vedic and Paramunda Indus theories, and shows why Dravidian languages, Sanskrit or Paramunda could not have been candidates for the Indus Valley Civilization which flourished from 2600 BC to 1900 BC in the North-West of India and Pakistan. This was the largest of the Old World Civilizations and was four times larger than Mesopotamia or Egypt. It was slightly younger than the other two Old World Civilizations and was, in some respects, more advanced than them. Supporters of these three hypotheses are welcome to provide a systematic refutation of all the points raised in this paper. This paper adopts a multi-disciplinary approach, drawing conclusions from many different fields of science. All the conclusions in this paper have been presented in a logical and self-explanatory style for the benefit of readers, and readers are welcome to evaluate whether the conclusions reached in this paper make sense from all angles or not. Quotes of several mainstream scholars of repute are presented in support of the conclusions arrived at in this paper. An alternative hypothesis of the identity of the Harappans is also presented towards the end of the paper. We also introduce a multi-PIE hypothesis in this paper, preferring to call this Base Indo-European, and propose methodologies to test this hypothesis. We also explore and propose newer terminologies that may serve the needs of the Twenty-First Century.

Why the Dravidian Indus Hypothesis is not tenable

In the first section of the paper, we show why the Dravidian Harappa hypothesis which had many adherents in previous decades is no longer tenable in the light of evidence that has accumulated in the past few decades. Scholars who still wish to argue that the Harappans spoke some form of a Dravidian language must refute all the points presented in this paper.

The terms 'Aryan' and 'Dravidian' are no longer interpreted in racial terms

The notion of an Aryan or a Dravidian race may have had some adherents in the Nineteenth century. However, most present-day scholars do not interpret the terms 'Aryan' and 'Dravidian' in racial terms. The term 'Aryan' is generally understood to be a cultural term in the Rig Veda and the term 'Dravidian' is nowadays used to refer to the Dravidian family of languages spoken in South India. As a matter of fact, Max Muller had himself stated in this regard:

"I have declared again and again that if I say Aryas, I mean neither blood nor bones, nor hair, nor skull; I mean simply those who speak an Aryan language...to me an ethnologist who speaks of Aryan race, Aryan blood, Aryan eyes and hair, is as great a sinner as a linguist who speaks of a dolichocephalic dictionary or a brachycephalic grammar." [Mueller, 1888:120-120]

The great Hungarian researcher Oswald Szemerényi studied all the arguments pertaining to the term 'Aryan' and came to the conclusion that the term was not Indo-European but a near Eastern or an Ugaritic term meaning kinsman or companion. He concluded that there was very little evidence to show that the term 'Aryan' was used throughout the Indo-European world in ancient times.

It would also be obvious to most people that the term 'Aryan' was used chiefly only in Ancient Iranian and Indian texts. In the context of the Indian Rig Veda, the term 'Aryan' means cultured or noble and does not connote ethnicity. However, in Iran, the term does appear to have an ethnic connotation at times, and the term 'Aryan' appears to have been far more central to the Iranian identity than to the Indian Identity. Therefore, it would be obvious to most that the probability that it was imported from Iran to India was much, much greater than the other way around. In India, the homeland of the Aryans is called the Aryavarta, and corresponds to the Gangetic plains. The co-ordinates of the Aryavarta are clearly laid out in Sanskrit literature. Very interestingly, the term 'Aryavarta' in India does not refer to the Vedic homeland in the Punjab or a Central Asian Urheimat. This would again imply that the term 'Aryan' was not brought to India from Central Asia from where the migrations of IE speakers was purported to have taken place.

In Iran, the homeland of the Aryans is referred to as the Airyanem Vaejah. The location of the Airyanem Vaejah is also extremely controversial (Some scholars like Elton L. Daniel, Bahram Farah Vashi and Nasser Takmil Homayoun place it in

Khwarazm in Central Asia while some other scholars place it in locations as far apart as a region to the East of the Mediterranean and Afghanistan). However, as the term ‘Aryan’ was used only in Ancient Iran and India, it is unlikely that the term Aryan was brought to Iran from an Urheimat. (If this had been the case, it would have spread throughout the IE world). Therefore, it was much more likely that the term ‘Aryan’ was coined in Iran where references to an ancient or a mythical homeland, the location of which was external to it, were added. The term ‘Aryan’ was therefore brought from Iran to India only during the compilation of the Rig Veda which took place between 1700 BC and 1500 BC due to cultural contacts with West Asia. This logic would hold good even if supposed Indo-European migrations into India took place much before the supposed Indo-European migrations into Iran.

The term Aryan, in reference to IE speakers in now dated, although a majority of Nineteenth century scholars like Arthur de Gobineau, George Vacher de Lapouge and Joseph Pomeroy Widney, among others, used it in this context. In the Twenty-First Century, the term ‘Aryan’ is still often used inaccurately and in obsolete contexts only by very senior scholars and by the uneducated layman, although it would be illuminating to see how changes manifest themselves in the coming decades.

There is no known usage of the term ‘Aryan’ in the West before the eighteenth century. There are a few isolated references to this term by Western scholars. However, these occur in specific contexts only. For example, the Greek scholar Megasthenes only refers to ‘Aranois’ as people inhabiting the countries adjacent to India. It was only much

more recently, in the Twentieth century, Hitler misused the ideas of Rosenberg, Houston Stewart Chamberlain and Gustav Kossinana to create the idea of a superior Aryan race, and this would be by far, the most extreme misuse of the term ‘Aryan’ that has occurred till date. Therefore, it would be evident, even upon a cursory and superficial observation, that the term ‘Aryan’, referring to a race or a group of people has its roots neither in history nor in science. [Trautmann, 1955, 20-30]

We can now safely rule out the following possibilities: (Note: In order to understand all these concepts better, refer to the maps at the end of the paper).

- (a) That the term Aryan refers to a race. The term does have an ethnic identity in Iran, but as the term ‘Aryan’ was coined in Iran, it could not have been synonymous with migrants who may have immigrated in earlier times. Admittedly, the term ‘Aryan’ sometimes does refer to more than one group of people in the RV, who were sometimes in opposition to each other, but the primary connotation of the term ‘Aryan’ in the RV is cultural.
- (b) That the term was used throughout the IE world in ancient times.
- (c) That the term always spread along with the movement of peoples.
- (d) That the term was brought to Iran from an Urheimat.
- (e) That the IE speakers to India (we proposed a date of 2750 BC) called themselves Aryans. (In other words, the idea or notion that the term ‘Aryan’ was brought to India from an Urheimat is untenable)

We can, however, clearly establish the following:

- (a) The term was coined in Iran and is fairly central to the Iranian identity, the country having been named after it.
- (b) The geographical definition of the term Airyanem Vaejah was made in Iran, although, this location is itself outside of it.
- (c) The term spread to India during the compilation of the RV phase in the Gangetic plains between 1700 and 1600 BC. This happened due to cultural contacts between West Asia and the Gangetic plains.
- (d) Therefore, the term 'Aryan' in Ancient India clearly did not correspond with the word 'Brahmin' or with the IE speakers, who had lost their identity much, much earlier despite the possibility of an overlap.
- (e) In ancient India, the term Aryan had the following five uses:
 - (i) It mostly referred to a culture in the RV.
 - (ii) It was sometimes used in opposition to the term Dasas or the Harappans in the RV, but this term was always cultural and not racial (despite a small genetic input).
 - (iii) It was used in the term Aryavarta. The term Aryavarta, however, refers to the Gangetic plains and not the Vedic homeland or an Urheimat (which may have even been long forgotten by 1700 BC or 1600 BC). This term appears in later Sanskrit literature only.

- (iv) It was only in later Sanskrit literature that the term ‘Aryan’ acquired a linguistic identity, and was used in opposition to the term ‘Mleccha’ (this term is a derivative of Meluhha i.e. the Harappans)
- (v) Even if the term ‘Aryan’ refers to more than one group of people in the RV, it was brought into use after several rounds of acculturation had occurred, and as the term was brought from Iran, did not equate to a small number of immigrants who may have migrated much earlier into India as well.

These concepts will become even clearer if the maps presented in this paper are read and understood. Thus, the various and the varying connotations of the much misused term ‘Aryan’ as are complex as the most up to date of complex acculturation models. To cite Romila Thapar, who said in her famous speech on the Aryan problem in 1999, “Let me begin by stating the very obvious. The Aryan question is the most complex, complicated question in Indian history. Please don’t take one version as the version, always question every version, including mine” [Thapar, 1999]

As Romila Thapar further points out, “The Aryas emerge not as a distinctive people, physically different from others and known as the Aryans but in persons of status in many of the societies at the time. Nor were the differentiations between the Aryas and the Dasas – based on perceptions of ways of living, economies, customs, rituals, languages, static definitions, for identities kept changing over time and the connotations of these labels also changed.” [Thapar, 1999]

As Marxist scholar late R.S Sharma himself concludes, “Towards the end of the eighteenth century, when William Jones discovered that Sanskrit was similar to Greek, Latin and other European languages, it was postulated that the Aryans lived in an area either in Central Asia or Eastern Europe. They were supposed to have descended from the same racial stock. This concept prevailed in the Nineteenth century and was used as a political weapon in Nazi Germany during the Anti-Jewish campaigns launched by Hitler. After 1933, it was declared that German people constituted a pure Aryan race. In the Nazi view, they occupied that highest place among Aryans and were hence entitled to hegemony all over the world. But scholars who have studied the Aryan problem deeply have come to the conclusion that those speaking the same language need not necessarily belong to the same racial or ethnic stock. Most scholars now think in terms of a proto-Indo-European language rather than once single race”. [Sharma R.S, 1999, 5-9]

Romila Thapar again states: “The historiography of the Aryan question goes back to the nineteenth century. The term Aryan as it is used in English with a capital 'A' was invented in the nineteenth century. It was invented by European scholars who then proceeded to project Aryan as both a language and a race. I will come to that in a moment. The term Aryan itself is derived from two sources. There is a very famous ancient text from Iran, the Avesta, which is linked to the religion of Zoroaster, what is known these days and practised virtually only by the Parsis. The Avesta which was probably written at approximately the same time as the Rigveda uses the term 'airiya' for describing the authors of the text. The authors refer to themselves as 'airiya' from which

of course later on you get Iran. And the Rigveda uses the term Arya. So taking both these terms into consideration it was decided that this new language and these new people were to be called Aryan. Now the nineteenth century scholars, this includes people like Max Muller were fully aware that language and race are different things and yet frequently they confused languages with the race and equated them. And that is where in many ways the problem arises. They talked about an Aryan race on the basis of people speaking the same languages. Strictly speaking they should be speaking not about the Aryans but about the Aryan speaking people. But since this is an awkward phrase to use it got cut down to the Aryans. It ceased to be just a language label and became a label for a racial entity as well. The difference between language and race is enormous. The two cannot be equated. Why? This is because language is cultural. It is a functional construct deliberately forged by a society for communication and articulation. When a society wishes to communicate within it or with other societies it invents language. When it wishes to express something it invents language. So it is a deliberate cultural construct--that is why a particular language has different forms and it varies from one social group to another. And when a person starts speaking in a language you can generally tell if you are familiar with the language which social group that person comes from. Race on the other hand is physical, biological descent. It has got nothing to do with social construction. So language and race are in fact totally separate distinct features and the two cannot be equated. But right through the nineteenth century with reference to the Aryans the two were equated and right through the twentieth century in the popular mind in India they continue to be equated. So please keep this in mind that you cannot talk about an Aryan race. Similarly you cannot talk about a Dravidian race because once

again the notion Dravidian race is based on language group, the Dravidian language group and it is incorrect to equate the two. Nor can you talk about a Munda race. These are all language labels and you have to be very careful to keep them as such. The implication of this is also that you cannot equate a language with an archaeological culture in the absence of a script. If you are excavating and there is no script available you cannot say this culture that I am excavating is Aryan or Dravidian or whatever it may be. This is impossible because Aryan is a language label and you can only call archaeological culture Aryan because strictly speaking if you find some evidence of the use of that language.” [Thapar, 1999]

In the modern context, the term Indo-Aryan is most often used to refer to a group of languages forming a part of the Indo-European group of languages, whose discovery was famously announced by William Jones in Calcutta in 1786. Indus archeologists also often use the term ‘Aryan’ while referring to skeletal remains to differentiate them from other Harappan skeletal remains. This term is still misleading, however, as acculturation may have already taken place by then. As Witzel himself points out, attempts to look for physical Aryan bones or for an Aryan identity have generally proven unfruitful. While it is true that the late Dr. Gregory Possehl did talk about ‘Aryan bones’ at times, he, despite his pioneering work in Indus archeology, in most other respects, and like living scholars like Asko Parpola and others, belonged, at the time of his death, to the now very antiquated Nineteenth century school of Indology. No one is perhaps more experienced in Harappan skeletal biology than Kenneth A R Kennedy. He has categorically and

vehemently stated on more than one occasion that attempts to look for an Aryan biological entity have been unsuccessful.

It is most unfortunate that obsolete nineteenth century interpretations of the term ‘Aryan’ still haunt us on occasion to this day, and have not been fully obliterated from the general public consciousness. It is for this reason that we named our paper ‘Syncretism and Acculturation in Ancient India: A new Nine phase acculturation model explaining the process of transfer of power from the Harappans to the Indo-Aryans’, as it would have been much more easily understood in the West and India, but eventually renamed it ‘A new nine phase acculturation model explaining the transformation of Harappan India to Post-Harappan India.’ As Edmund Leach states, obviously lamenting the fact that archaic connotations of the term continue to be widely used to this day “As Indo-European studies developed during the Nineteenth century, there was at first no fixed dogma about how the linguistic dispersion of the Indo-European family had come about. Around 1850, Max Muller was still vague. He wrote of the Aryan language, spoken in Asia by a small tribe, originally by a small family living under one and the same roof, as if it were the mother tongue of the human race. But prior to 1872 (and occasionally after that date) he was careful not to distinguish the study of languages from ‘ethnology’ the study of movement of peoples: ‘There are Aryan and Semitic languages, but it is against all rules of logic to speak, without an express or an implied qualification, of an Aryan race, of Aryan blood, or Aryan skulls’. But the last quotation comes from a lecture given at the Imperial University of Strassburg in May 1872, just after the annexation of Germany by Alsace (against the express wishes of the local German-

speaking inhabitants). In the earlier part of the lecture, Max Muller expressed his Germanic pride in the reunification of the German nation. His distinction between language and race is clearly under strain. By 1878 he writes without equivocation about the Aryans as if they were a racial group moving outward of some central Asian homeland by a process of conquest. By the 1890's, the linguist Sir George Grierson was explaining all Indo-Aryan dialect distributions in Northern India as due to past military conquest, a view that appeared without criticism in the 1969 printing of the Encyclopaedia Britannica. “[Leach 1990]

Likewise, the term Dravidian refers to a language family, the discovery of which was made in 1816 by Francis Whyte Ellis, and this language family comprises four major and many minor languages, and does not refer to a racial group. South Indians and Tamils themselves are therefore, a racially mixed lot. The Term Dravida does not appear in the Rig Veda, which would, in the eyes of most, be inconceivable if the Harappans had interacted with Dravidian speakers. On the other hand, the term Dravida does appear in later Sanskrit literature, often as a geographical label. The misappropriation of the term ‘Dravidian’ to mean race, similarly, is only a product of Nineteenth century colonialism, and there are no references to a Dravidian race anywhere in Indian literature. The term ‘Dravidian’ cannot certainly be used as a racial expression in the modern context as several rounds of assimilation have occurred between peoples; but there was probably no such thing in Ancient times either; the people of the Rayalaseema region in Southern Andhra Pradesh have definite physical characteristics that set them apart from Tamils; yet they speak a Dravidian language. This was unquestionably the case in Ancient times too,

and Dravidian languages existed in South India since time immemorial. This is why we call for a complete and a comprehensive overhaul of all terminologies, and invite other scholars of repute to contribute. New terminologies and concepts must also be explained clearly and in simple terms to the layman and the non-specialist, and this is a challenge that is not to be taken lightly. One possible solution may be to develop a notation which comprises the haplogroup, the language family and the name of the language to describe the people of any given region, and this is something we will leave to other scientists. The research possibilities are of course limitless and endless.

The determination of physical characteristics of Aryans based on anatomical data did gain some currency when Anders Adolph Retzius introduced the cephalic index in 1840, and the theory of cranial shapes in the Academy of Sciences at Stockholm. [Sharma R S, 1995] However, most modern scholars are abandoning the idea of race, in favour of the idea of biological populations, each with its range of variation of traits, which naturally overlap with the ranges of other biological populations. Frank B. Livingstone [Livingstone, 1962, 279] suggests that there are no races at all, only continuous gradations of bodily traits such as complexion without sharp discontinuities which can be taken as the boundaries between races. In 1864, Paul Broca had already rejected the correlation of cranial shapes with language, history or archeology. However, one still needs to take into account linguistic similarities between India and Europe, and most scholars accept Marija Gimbutas' (1921-1994) Kurgan hypothesis which postulates the spread of IE speakers from Central Asia after the domestication of the horse. [Gimbutas, 1980, 273-315]



Fig 1. The Great Bath at Mohenjodaro. Is this Dravidian? Is this Vedic? Is this Paramunda? Source: www.wikipedia.org

Similarly, standard, over-simplified models such as the Out-of-Africa theory are also coming under increased scrutiny, and are being increasingly questioned by many modern scholars who now prefer more complex models of human evolution, and all these factors must call for a complete re-examination of the terms Dravidian and Aryan. Scholars, such as Alan R. Templeton, have also criticized the Out-of-Africa model, and the issue of origins of human races is far from resolved.

Indians are classified by many modern anthropologists as belonging to an admixture of one of the four following different morphological or ethno-racial subtypes, Caucasoid (concentrated in the north), Mongoloid (concentrated only in some areas in northern India), Australoid (concentrated in the south), and Negrito (located in the Andaman Islands). Dravidians are generally classified as members of the Proto-Australoid or Australoid race, with an admixture of the other types specified above, in

varying degrees by region, and there is no concept of a Dravidian race as such. [Cavalli Sforza et al, 1994]

According to the Anthropological Survey of India, there are 4,635 identifiable communities, diverse in biological traits, dress, language, forms of worship, occupation, food habits and kinship patterns. Most of these communities have a mixed ancestry and it is now almost impossible to identify their roots. They could be traced to Proto-Austroloid, Palio-Mediterranean, Caucasian, Negroid and Mongoloid. The racial component is also quite varied, drawing from almost every stock in the world. This plurality is also reflected in the number of languages in use. Apart from thousands of dialects there are as many as 325 languages and 25 scripts derived from various linguistic families - Indo-Aryan, Tibeto-Burman, Dravidian, Austro-Asiatic, Andamese, Semitic, Indo-Iranian, Sino-Tibetan, Indo-European and so on. The Indian society, as a consequence, is a social and cultural amalgam with many of its constitutive elements losing their specific identity, and at any rate none existing in its initial pure form. [Singh K S, 1995]

Thus, the division of Indian peoples into imaginary 'Dravidian' and 'Aryan' races is absurd and fallacious, and can be termed atavistic at best. The term 'Aryan' can be said to have the following uses in the modern context, and the term modern includes Nineteenth century colonialism too:

- (a) Aryans as a race or a group of people in Nineteenth century colonialism and Nazism: this definition will have no place in any 21st Century school of Indology as it is patently absurd.
- (b) The term ‘Aryan’ as used in the term Indo-Aryan group or family of languages. This term will have validity until an alternative expression is found. As we discussed, IA languages as not derivatives of the PIE (now to be known as Base Indo-European and this may have comprised more than one language) per se, but interacted with various languages of the region as was explained.
- (c) The term ‘Aryan’ as used by scholars such as the late Dr. Gregory Possehl while referring to Aryan bones. However, this term is fallacious as we have discussed, and attempts to look for an Aryan biological entity cannot prove successful. Skeletal remains may at best be termed alien under specific circumstances.

We will be looking forward to a situation where the next generation of Western and Indian Indologists puts these two highly misused terminologies in perspective and educates the general public as well. This is extremely important because obsolete paradigms have been at the root of many other ideologies which have often operated to the detriment of public interests, Nazism and extreme Dravidian nationalism being two chief examples. Some Hindu Chauvinists, have, though much less frequently, projected themselves as ‘Aryans’ and this is also wrong. The end result of all this is radical politicization and communal hate, apart from the fact that it encourages Hindu nationals by giving them something to shout about. Such antiquated notions form the bedrock of many ideologies that work against the interests of science, communal harmony and

scholarship. They are partly right here: the tell-tale effects of antiquated scholarship are only now being obliterated from public consciousness, and the pace must greatly quicken in the coming years if these ideologies are to be killed off.

Many adherents of the Dravidian Harappa Hypothesis never appear to have made a clear distinction between language and race, and never appear to have taken a strong stand on the racial identity of the Harappans. Even if we consider the hypothesis that the Harappans only spoke a Dravidian language, but were biological ancestors of the people of north-west India, we may still be on extremely shaky ground on account of the following factors (a) The location of the IVC does not correspond to the area where Dravidian languages are spoken at all, which is the southern part of India. (b) No supporter of the Dravidian Harappa hypothesis has probably carried out a very detailed study of the transformation of Harappan cultures to Post-Harappan cultures. (c) Such theories do not explain how Dravidian languages got imposed on the people of the region, and then vanished without leaving a trace.

Skeletal Biology

Almost all studies have reinforced the idea that the Harappans were biologically similar to the present-day inhabitants of the region, and that there was no large-scale disruption in the skeletal record of North-west India from the period of the Indus Valley Civilization to the present times. This should convincingly negate the Dravidian Harappa hypothesis.

Kenneth A.R. Kennedy, a U.S. expert who has extensively studied skeletal remains in the region, observes, "Biological anthropologists remain unable to lend support to any of the theories concerning an Aryan biological or demographic entity." Chaubey et al. (2007) find that most of the India-specific mtDNA haplogroups show coalescent times of 40 to 60 millennia ago. Kennedy also concludes that the ancient Harappans "are not markedly different in their skeletal biology from the present-day inhabitants of Northwestern India and Pakistan". The craniometric variables of prehistoric and living South Asians also showed an "obvious separation" from the prehistoric people of the Iranian plateau and western Asia. Furthermore, the results of craniometric variation from Indus Valley sites indicate "significant separation" of Mohenjo-Daro from Harappa and the others. [Kennedy, 2000] Kennedy also concluded, "There is no evidence of demographic disruptions in the northwestern sector of the subcontinent during and immediately after the decline of the Harappan culture. If Vedic Aryans were a biological entity represented by the skeletons from Timargarha, then their biological features of cranial and dental anatomy were not distinct to a marked degree from what we encountered in the ancient Harappans." Comparing the Harappan and Gandhara cultures, Kennedy (in Erdosy 1995:49) also remarks: "Our multivariate approach does not define the biological identity of an ancient Aryan population, but it does indicate that the Indus Valley and Gandhara peoples shared a number of craniometric, odontometric and discrete traits that point to a high degree of biological affinity. Cephalic measures though might not be a good indicator as they do not necessarily indicate ethnicity and there might be a tendency of plasticity due to

environment.” [Lahiri, 2000] A recent study by Hemphill, Lukacs and Kennedy (1991) also lends credence to the thesis that ancient Gandharans and Harappans shared significant similarities in craniometric, odontometric and discrete trait variables, thus implying that the Harappans were ancestors of present-day inhabitants of the region. [Hemphill, Lukacs and Kennedy, 1991]

Therefore, it would be very prudent to assume that the Harappans spoke languages that were the very remote ancestors of the languages of the present-day inhabitants of the region, and the onus would be on anyone who wishes to differ with the very reasonable and logical assumption that this was the case, to make out a clear case for themselves and show why this hypothesis might be wrong. If gradualism is today the norm in understanding human anatomy and cranial variations, it logically has to be the norm in theories of the origin and spread of languages as well. Dravidian Harappa proponents must convincingly explain how are large-scale displacement of languages took place in the North-west of India after the decline of the Indus valley civilization. If such explanations cannot be provided, we will assume that the languages of the IVC were very remote ancestors of the languages now spoken in the region. We may refer to this as the First Law of Cultural Diffusion.

From our model, the Indus Valley was only gradually settled in from Baluchistan. The languages of Baluchistan, an example being Pashto, are a part of the Eastern Iranian family of languages, and are distinct from what we may refer to as Old Indic (which refer to the pre-Sanskritic languages of India and include the languages of the IVC), on the

lines of Gimbutas' Old Europe. However there is a time gap of 4400 years from Mehrgarh Phase One to the start of the Mature Harappan phase, and is quite likely that the spilt up between Eastern Iranian and Old Indic (i.e. the languages of the IVC) had already taken place by then.

We also propose the following topology for Old Indic. i.e. Old Indic may be further sub-divided into

- (a) Indo-Semitic or the languages of the IVC
- (b) Proto-Burusharski and other easily distinguishable language groups spoken in the IVC. A spilt of Indo-Semitic into various language groups may be achieved in the near future as Indologists apply the methods in this paper.
- (c) Dravidian languages as spoken in South India.
- (d) Munda languages as spoken in parts of Central India.

Migrations from Central Asia could have been small

Migrations from Central Asia could have been small in relation to the populations of the Indus valley civilization, which means that small groups of people may not have replaced the languages of the region entirely. Instead, it is very likely that the immigrants, who were very small in number, killed their own language, and took on the languages of the Harappans, and then re-influenced them in later periods in time. This is quite similar to J.P Mallory's roller-ball model.

We can calculate the size of migrations by taking into account the size of populations in Central Asia versus that of India, and one can obtain the earliest reliable data to assess the size of migrations. Large migrations are also quite untenable because people would not have had any reason to migrate without a valid reason. An obsession with, or an over-emphasis on migrations may need to be avoided, and we will even argue that migrations must always be justified with reasons. We may refer to this as the Second Law of Cultural Diffusion. What is unfortunate is that even scholars of the caliber of Kamil Zvebil have succumbed to this temptation. What is important is to show how various aspects of Indian culture got formed, and show it convincingly from any model. Migrations have to be inferred only because of linguistic and cultural evidence such as fire worship, and the importance the RV gives the horse, and acculturation models work very well even if we assume that as few as say three hundred male migrants moved to India in 2750 BC, looking for, literally, greener pastures. Their population would have multiplied by 2300 BC to a larger figure, and a series of acculturations would account for the spread of IE culture, a key event being the migrations of the Harappans to the Gangetic plains in 1900 BC. This again proves that the migrants would not have been able to replace, under ordinary circumstances, the languages of the region, and may have at best been able to transform them significantly. This would also mean that the languages of the Harappans were the remote ancestors of languages spoken in the North West of India and this rules out the possibility of Dravidian being a candidate for the IVC.

Edwin Bryant puts it quite appropriately,

"Such conservatism is, indeed, extremely surprising, especially since the Indo-Aryans did not enter in sufficient numbers to be perceivable in the skeletal record of the subcontinent...One also wonders how such small numbers of immigration could have eradicated the names of rivers and places in the Northwest of the subcontinent in the few hundred years..." [Bryant, 2005, 76]

Asko Parpola, who supports the Dravidian Harappa Hypothesis, likewise admits in his paper 'The horse and the language of the Indus civilization' [Parpola, 2008] that the immigrants could only have, for very obvious reasons, numbered a small fraction of the Harappans. Professor K N Panikkar, likewise, states that the Aryans came in small groups, [Panikkar, 2000] and most statements made by Witzel since 2000 only talk about trickle in and acculturation. Most recent models such as the one proposed by the Allchins emphasize the small number of migrants, and there is even a school of thought that language primarily spread through cultural diffusion that was not accompanied by any migration at all. While we do not agree with this school of thought, the arguments in this paper should convincingly drive home the point that large-scale migrations are a virtual impossibility.

Baluchistan could not have been the originating point of Dravidian languages

It is now almost universally accepted that the Indus valley originated in Baluchistan where the Neolithic site of Mehrgarh dated to 7000 BC has been excavated

[Kenoyer, 2005], and there is no convincing theory in place to show that Dravidian languages originated in Baluchistan. It is widely known that the Harappans only very gradually settled in the Indus valley, having slowly moved in from Baluchistan and the outlying regions, and the site of Mehrgarh is widely believed to have been the predecessor of the Mature Harappan phase.

A new civilization called Jiroft is being excavated just west of the Indus valley. This would have naturally served as a conduit between the Indus and civilizations further west, and if the Dravidian hypothesis were true, it would quite logically imply that the entire old world was Dravidian speaking, given that the Indus was only the easternmost extremity of a wide arc of old world civilizations, which was next to, and unquestionably shared at least some cultural affinities with other old world civilizations. This alone, in the view of most, should serve to negate the Dravidian Harappa hypothesis: a civilization has to be understood by studying its role amongst its contemporaries, and the Dravidian Harappa Hypothesis may be disputed and falsified on cultural grounds, unless proponents of the Dravidian Harappa hypothesis are able to present overwhelming evidence to the contrary.

David McAlpin's Elamo-Dravidian Hypothesis has been superseded by other theories

David McAlpin's Elamo-Dravidian hypothesis, which proposed the existence of similarities between the languages of the Middle East and the Dravidian languages of

South India, may have had some currency several decades ago, but most modern scholars would not subscribe to it at this very late date, as it has been superseded by more complex acculturation models, which have studied the spread of languages at a greater degree of precision and granularity. This hypothesis also has to be disputed on both geographical and cultural grounds and the so-called linguistic similarities between the languages of West Asia and Dravidian languages, if indeed any, can also be explained convincingly from current acculturation models. Vaclav Blazek's theory on the similarities between Elamite and Afro-Asiatic languages also contradicts McAlpin's model. [Mc Alpin, 1974]. This theory has also been criticized by modern scholars such as George Starostin [Starostin, 2002]

Brahui may have spread to Pakistan much more recently

Many scholars think that Brahui spread to Pakistan only in very recent times, as recently as the Tenth or the Thirteenth century, and their ancientness has never been proven. [Josef Elfenbein, 1987]. Therefore, the presence of Brahui in the region cannot be used to 'prove' that the IVC was Dravidian-speaking. Jules Bloch also reached a similar conclusion as early as 1924. [Bloch, 1924] Furthermore, Brahui is only spoken by a small number of people, numbering a little over two million people, in Pakistan and NW India, and a majority of people in the region, numbering well over one hundred and fifty million in number, speak IA languages, none of which could have been displaced by a chiefly liturgical language like Sanskrit. Its claim to ancientness was convincingly shattered upon a preliminary analysis of its substrate. Although it was heavily influenced

by Balochi, there are virtually no traces whatsoever of Avestan or any archaic form of Iranian in its substratum, despite the fact that Brahui is today spoken in a region where languages of the eastern Iranian family are spoken. Moreover, Brahui speakers are tribes, and this hypothesis can always be questioned on cultural grounds. Dravidian languages also exist in pockets throughout India, examples of these being the Gondi, Malto, Parji, Kurukh, Kolami and Kul of the Gangetic plains, or Central India, and the total number of these speakers is certain to have been less than those of even Munda speakers. Given the fact that IE speakers could only have been small in number, the notion that the older languages of the region were obliterated must forthwith be abandoned, and this approach alone will call for a radical reassessment of the early linguistic scenario of North India. [Emeneau, 1962] [Elfenbein, 1987, 215-233]

Location mismatch between Dravidian cultures and the IVC

There is also a complete location mismatch between the region where Dravidian languages are spoken in India today, and the region covered by the IVC. The IVC was centered in the north-west of India, and Dravidian languages are spoken in the southern part of India. As a matter of fact, it would be fairly obvious, that the area where IA languages are spoken in India today is equal to the Area covered by the IVC along with the Vedic homeland and the Aryavarta taken together, clearly and very precisely excluding the region where Dravidian languages were spoken. We have used this to show that the PIE, or Base Indo-European (comprising more than one language) had interacted with several pre-Sanskritic languages in the region to form Vedic Sanskrit and different

Prakrits which are the ancestors of languages spoken over North India. This shows that the IVC could not have been Dravidian, and as a matter of fact, clearly disproves the Dravidian Harappa hypothesis. It also shows that the languages of the IVC did have a very major role to play, in addition to Sanskrit, in the development of the IA languages of North India. Tamil Culture does not make any references to the North-West of India at all, and this region does not figure at all in folklore, literature or legends of Tamilnadu. The only ‘proof’ that has been evidenced for this is ‘Metakam’, or upper country as a supposed synonym for the Indus or ‘Meluhha’. Readers can judge for themselves whether this is proof enough. Tamil is the oldest among Dravidian languages. If the Harappans had indeed moved south, how did Telugu and Kannada get Sanskritized, while Tamil was only Sanskritized only to a smaller extent? All this should logically call for abandoning the Dravidian Harappa hypothesis, and clearly demonstrates that it may not be tenable if all evidence is taken into account.

All substratum-based approaches can be misleading

We can also argue that substratum-based approaches (attempting to identify the identity of the inhabitants of the IVC by identifying the sub-stratum of Sanskrit) may be highly misleading, and if such approaches are indeed to be used, must be accompanied by checks and balances as we will explain in the paper. If this approach is adopted without accompanying checks and balances, it can even be used to prove that the Harappans spoke languages belonging to any Indian language groups, Modern or Ancient, given the fact that the ‘substratum’ of Sanskrit, the definition of which is itself highly ambiguous,

given the fact that Sanskrit was itself largely a product of Indian soil, will almost certainly comprise of at least some words which can be traced to any Indian language or language group, alive or extinct. As M.B Emeneau points out, a large number of such studies were haphazard, lacking distressingly in academic rigour. While this method may have been the only one available in its day, in addition to the decipherment of the logographic Indus script, there are now a wide variety of other approaches to reconstruct the languages of the IVC, and these approaches are presented in the paper.

The concept of a sub-stratum is too ambiguous is today's parlance as the PIE was quite obviously far removed from Vedic Sanskrit (and the latter obviously existed only in India). If the PIE were Sanskrit, it would obviously result in a conundrum and would imply that the whole IE world was Sanskrit-speaking or was at least influenced by Sanskrit. As Vedic Sanskrit could not have been the PIE, it was already influenced by local languages very heavily, and this makes the concept of a sub-stratum extremely ambiguous. As Witzel himself points out, comparing the non-Indo-European words in Indian and Iranian,

"The range of the non-Indo-Aryan words of the RV is perhaps even more interesting than their number. They include names for local plants and animals, and also a large number of terms for agriculture -- precisely those terms which are not expected in the vocabulary of the largely pastoralist Indo-Aryans who left the tedious job of the ploughman (kinasa) and farming in general (tilvila, phala, pippala, khala, la, gala, etc.) to the local people. Instead, they preserved only a few general IE terms, such as yava, 'barley, grain', ka 'to scratch, plough', sa 'to sow', sita, 'furrow', sira, 'plough'. Some local

river names, always a very resistant part of the vocabulary, were preserved as well. In sum, an early wave of acculturation of the immigrant speakers of Old IA (Vedic) and the local population has seriously influenced even the IA poetic language and many other aspects of their traditional culture, religion and ritual. This "Indianization" of the Indo-Aryans began even before our extant RV texts (Kuiper 1967, 1991). A certain amount of codification of this process can be detected with the formulation, in the Puru a hymn (RV 10.90), of the system of the four classes (varna) which system has been called, "the first constitution of India". On the Iranian side, however, one has observed, so far, very little of linguistic and other acculturation (Skjaervo 1995). It would indeed be surprising, how little Old Persian and the other Iranian languages seem to have been affected by the preceding (substrate) languages of great cultures such as those of the BMAC area, Shahr-i Sokhta, Mundigak, Yahya Tepe and Elam, all of which amounts to nothing that would be comparable to the influx of Dravidian, Munda or other local words into Rig Vedic Sanskrit. However, this is an erroneous impression, due to the surprising neglect by Iranists of etymological studies of Old Iranian (not to speak of Middle Iranian where we even do not have comprehensive dictionaries). There are, indeed, quite a number of words that are foreign even in Indo-Iranian (Witzel 1995, 1999 a,b, Lubotsky, forthc.) 66 and there is a host of unstudied Iranian words taken from the various local substrates (Witzel 1999 a,b, forthc. b)." [Witzel, 1999]

Since Vedic Sanskrit would have obviously comprised of the following elements:

PIE influences + West Asian Influences + words belonging to languages spoken in an area covered by the IVC + words transmitted later to other Indian cultures + words in the languages existing in the Gangetic plains when the Rig Veda was compiled,

The sub-stratum would comprise of

Words belonging to languages spoken in an area covered by the IVC + words transmitted later to other Indian cultures + words in the languages of the Gangetic plains when the Rig Veda was compiled.

In other words, the Substratum would naturally comprise of Munda and words transmitted to Dravidian languages. This “proof” cannot certainly be proof enough. This can be proven by the fact that the maximum number of so-called Dravidian words will be much lower than the number of words to be expected by this equation.

Therefore, if

Vedic Sanskrit – PIE – West Asian influences \diamond Dravidian [OR]

Words belonging to languages spoken in an area covered by the IVC + words transmitted later to other Indian cultures + words in the languages of the Gangetic plains when the Rig Veda was compiled. \diamond Dravidian,

The Dravidian Harappa theory automatically fails.

Nonetheless, we will argue that those who still wish to adopt substratum-based approaches must address at least the following basic issues:

- (a) Proof of ancientness of language family – Proponents of the Dravidian Harappa hypothesis must prove using independent methods that Dravidian languages existed in the region during the period of the Indus valley Civilization. Dravidian does not automatically pass this test, because written records in Tamil date only to the Sangam age in the 2nd century BC, and the earliest inscriptions in Tamil-Brahmi in the Southern Part of India are dated to the 6th century BC.
- (b) Proof that the language family existed in the particular region in question, and Dravidian clearly fails this test. As a matter of fact, this only goes to prove that the IVC was not Dravidian.
- (c) Must show how linguistic transformations from Harappan to Post-Harappan India occurred.
- (d) Must show how cultural transformations from Harappan India to Post-Harappan India occurred.
- (e) They must also provide theories to explain the origin and the spread of these languages in these regions, and Dravidian very clearly fails this test.
- (f) They must also explain, wherever applicable, how these languages might have been annihilated, given the very small genetic input from Central Asia, and Dravidian very clearly fails this test.

- (g) Must be accompanied by as many additional checks and balances as possible, and we have identified five smoking guns in this paper. We have also shown under what conditions the 'Dravidian' words in the substratum of Sanskrit could be used to disprove the Dravidian Harappa hypothesis, and it would be instructive for readers to read the smoking guns in this paper to understand why the Dravidian Harappa hypothesis may no longer be tenable.
- (h) The above test should be quite convincing to most people, and this can give the right to the opponents of the Dravidian Harappa hypothesis to even assume that the Dravidian Harappa hypothesis is wrong unless Dravidian Harappa proponents can justify all these factors.

Thomas Burrow in *Trans. Philol. Soc.*, [Burrow, 1946:13-18] also set forth seven criteria to identify Dravidian loan words in Sanskrit. Wherever Dravidian words also exist in IA languages, the Dravidian Harappa hypothesis is inconclusive and such words may have spread later to the south.

As M.B Emeneau states, "Sanskrit scholarship in the West soon saw that some of the Non Indo-European features of Sanskrit were Dravidian (or possibly Munda) in type. The retroflex (domal or cerebral) consonants in Sanskrit may explain for some of their occurrences as being the reflexes of Indo-European consonant clusters of certain types. The fact, however, that the later in Indo-Aryan linguistic history we go, the greater, is the incidence of retroflex consonants, and the further fact that most of the Dravidian languages and Proto-Dravidian itself have this type of consonant in abundance, (the case

is not so clear for Munda but is probably similar) can only lead to the conclusion that the later Indo-Aryan developments are due to a borrowing of indigenous speech habits through bilingualism, and to the well grounded suspicion that even the early development of retroflexes from certain Indo-European consonants results from the same historic clause". [Emeneau, 1980, 89]

If the methods proposed to reconstruct the languages of the Harappans in this paper throw up words belonging to any languages or group of languages not attested in the region covered by the IVC, or whose ancientness is in question, these must be removed with a proper justification.

All long-held assumptions may need to be revised in the context of newer acculturation models, and the fact that we have long passed the days of the AIT. IE speakers, who may have been pastoralists, and extremely small in number, may not have had much of a vocabulary to speak of, much less the kind of vocabulary found in the RV, and it would be even safe to assume that virtually the whole of Vedic Sanskrit excepting words that can be reliably be traced to Central and West Asian sources, are indigenous in origin. IA languages are in many ways different from the other IE languages, word order and sentence structure being well-known examples, and it would be instructive if researchers could explore unique features of IA languages as well. All these would drive home the point that the Dravidian Harappa hypothesis is no longer valid. Therefore, if the Dravidian Harappa hypothesis were true, it would imply virtually that Dravidian languages are equal to Indo-Aryan languages, and this is quite absurd.

As Witzel, (who does not subscribe to the Dravidian Harappa hypothesis) likewise states "The high number of non-Indo-European and non-Dravidian loan words in the RV alone should have acted as a warning in all such decipherments, but this warning has simply been ignored, is declared linguistic "speculation", or, to a very minor extent so far, is explained away with special pleading using secondary explanations: as poetical coinage, or unrecorded Sanskrit words." [Witzel, 1999]

No North-South migrations may have ever taken place

No north-west to south migrations perhaps ever took place, and the only scholar who ever spoke of such migrations was the late Ram Sharan Sharma. Migrations on the other hand, indeed took place from the Indus to the Gangetic plains, and this is accepted by almost all mainstream scholars today, as this accounts for the rise of urbanization in the Ganga-Yamuna valley and the desertification of North West India.

As Kenoyer points out, "One of the more important developments is the emergence of new peripheral centers in the Gangetic region concomitant with the eclipse of urban centers in the old core of the Indus valley. This suggests that the late Harappan period is not so much a time of decline in the Indus valley, but rather of social, economic and political organization on a larger scale that includes both the Indus and Gangetic regions as well as the adjacent Malwa plateau." [Kenoyer, 2001]

Therefore, the knowledge of this fact would imply that that if inhabitants of the IVC were Dravidian speaking, the inhabitants of the Gangetic plains would also have been Dravidian speaking. But this is not the case. Proponents of the hypothesis that the IVC was Dravidian-speaking must also address this point.

Continuity between Harappan and post-Harappan Cultures of Pakistan

One must also account for the cultural similarities between Harappan and Post-Harappan India. One very interesting example is the Priest-king at Mohenjodaro, and the shawl he donned bore an unmistakable resemblance to the Sindhi shawl Ajrak. Many elements of Harappan culture would also have been carried forward to the cultures of the Gangetic plains, when the movements of the Harappans to the Gangetic plains took place in 1900 BC, and this was also very likely because the immigrants would not have had much of a material culture to speak of, and as most scholars have pointed out, post-Harappan Chalcolithic cultures would have most certainly have only emerged as a result of Harappan cultures, synthesizing with other local or non-local cultures.

Objects in the Indus do not resemble Dravidian culture at all

There are several objects in the IVC such as a Chessboard, the Swastika symbol, Yogic postures, Harappan Gods and goddesses and the Great Bath at Mohenjodaro which do not resemble Dravidian culture at all. Proponents of the Dravidian Harappa hypothesis would perhaps be ill-prepared to carry out a logical evaluation of a complete

transformation of Harappa to post Harappan cultures, and the Dravidian Harappa hypothesis, would again fail the test of reasoning and logic.

A few “Dravidian” objects have indeed been claimed in the Indus at various points in time, but what about other objects which do not bear any resemblance to Dravidian objects at all? Here is a simple test: if “Dravidian” objects are also found (or known to have existed) in post-Harappan India or the cultures of the Gangetic plains, then the Dravidian Harappa hypothesis is wholly inconclusive, as these could have been shared with or transmitted to South India at later points in time, when a pan-Indian ideology began to spread. A classic example of this is Proto-Siva. The remaining so-called Dravidian objects will perhaps be so few in number, that they could have been transmitted to the south as a result of early North-west to south cultural contacts. If the exercise of identifying objects and trying to trace them to different sources is done systematically, the Dravidian Harappa Hypothesis can perhaps be convincingly refuted. Furthermore, the Great Bath at Mohenjodaro and ritual bathing, which was one of the most visible signs of the IVC, was carried forward to the cultures of the Gangetic plains in modified form, but not to the Dravidian cultures of South India.

Prakrits cannot be derivatives of Sanskrit

We have also undertaken a very detailed discussion of the relationship between Sanskrit and the Prakrits in this paper, and all findings have been presented in an annexure. Our approach to the issue comes with its own checks and balances or smoking

guns, and few will be able to disagree with the general idea that a derivation of Prakrits from Sanskrit is impossible, and this by itself refutes the Dravidian Harappa hypothesis. M. B Emeneau, Madhav M Deshpande and Alfred C Woolner have pointed out Prakritisms in the RV. We have cited the views of many scholars on the issue in this paper. We have also explained the “Dravidian” words in the substratum of Sanskrit, and in what cases this “proof” cannot be a proof at all, and all this should be enough to call for a re-examination of the issue. Also, as Witzel points out, Indus words in the Mesopotamian region weren’t Dravidian, and this meant that these were only shared with South India at a later point in time. [Possehl 2003, 144]

Many scholars have made the case that Prakrits have co-existed with Sanskrit from the time of the RV. If so, where could these have come from?

Franklin C Southworth has discussed existing theories and decipherment in detail in his book “Linguistic Archaeology of South Asia”.

He says “However, it is clear that varieties of speech with Prakritic phonology or morphology existed from the Rig Vedic period onwards. Hock and Pandharipande cite for example, the Prakritism “Kim” or what for older “Kad” both of which appear in the Rig Veda. Furthermore, a number of cases have been shown where the Prakrits retain forms which are more archaic than the equivalents in the earliest Vedic, showing that these dialects are continuous from the Vedic period. Thus, the Prakrit languages or dialects known from early inscriptions (such as those of King Ashoka in the mid-third

century BC), from the early writings of Buddhists and the Jains, and from the early Sanskrit dramas, were contemporary with the Sanskrit of the period. For the earlier Vedic period, although there is no direct evidence for any form of speech other than Vedic, the existence of contemporaneous “Prakritic” varieties must be inferred.” [Southworth, 2005, 53]

M B Emeneau also notes

“Tedesco ...prefers to call this dialect parallel to Rig Vedic “Archaic Middle Indic”; probable Proto-middle Indo-Aryan (or Indic) is as good. No absolute chronology is possible for it, but we can guess that the latter “Proto-middle Indo-Aryan” type of dialect was in existence from the beginning of this time span. Thus, the presence of a parallel body of language can be inferred. [Emeneau, 1966, 131]

Alfred C Woolner makes this rather ambiguous interpretation

"Even in the Rig Veda, we find, "prakritisms", that is phonetic variations along just those lines that were followed by Prakrits. For e.g., we can find the word Sitihra, meaning loose, instead of Srthira, as might be expected from the root Srath. From this, and other instances, it is not necessary to deduce a wide difference between the language of the hymns and contemporary speech. Rather, the inclusion of such Prakritisms in the sacred texts indicates that the priests regarded them as possible forms of the same language, and were not yet aware of any gulf between the two forms of speech. [Woolner, 1928, 9]

As M.A Mehendale points out “The term prakṛta as opposed to saṃskṛta, either as ‘natural, unsophisticated’ form of speech as opposed to saṃskṛta, which is ‘refined, polished’ form of speech, It must be remembered that this prakṛta could not have come directly from the late literary or standard Sanskrit, but from its earlier spoken variety in the Vedic period. This explains why in Pali we have *l* and *lh* in place of *d* and *dh* exactly as in the Rig Veda, but not in the Classical Sanskrit, or why we have the instr. pl endings –*ehi* (Pali) or *ehim* (Prakrit) < Vedic *ebhih*, or the nom. Pl ending –*aso* (Pali), *aho* (Mg) < Vedic – *asah*; the Classical Sanskrit does not have these terminations but has – *aih* for instr. Sg. and – *as* for nom. Pl.” [Mehendale, 1968, 46]

As Madhav M Deshpande further points out, ‘The existence of Prakritisms in the Rig Veda suggests that the colloquial language of the Rig Vedic masses must have been some early form of Prakrit, rather than Dravidian. This does not contradict the existence of several words in the Rig Veda which can only be explained as loan words from Dravidian and Munda languages. The loanwords do indicate contact with non-Aryan peoples. However, even if one accepts the entire list of Rig Vedic loanwords provided by Kuiper, Burrow and Southworth, the total number of these words in the Rig Veda is still not as great as the number of Indo-Aryan loan words in Tamil or South-east Asian languages.’ [Deshpande, 2005]

The absence of a consensus on the identity of the Harappans

There is no consensus on the identity of the Harappans yet, and among the current generation of Indologists, only Asko Parpola remains the most vocal supporter and the staunchest defender of the Dravidian Indus Theory. Iravatham Mahadevan takes a more cautious approach to the issue, and both admit Dravidian is only a candidate for the Indus, and that this hypothesis remains unproven. FBJ Kuiper was a Paramunda Indus proponent, as is Witzel, but Witzel has admitted on many occasions that the issue remains unresolved, and admits to many possibilities. W.Norman Brown suggests that there may have been many possibilities, and statements by Thomas Burrow, M.B Emeneau and Alfred C. Woolner seem to contradict the Dravidian Harappa hypothesis. The late Ahmad Hassan Dani, one of Pakistan's leading intellectuals, was always of the view that the Dravidian Harappa hypothesis was untenable, while most other Indologists remain non-committal on the issue. Madhav M.Deshpande, S Kalyanaraman and the Author have supported the remote ancestor of Prakrit hypothesis in some form, and this hypothesis is, if logically analyzed, not different from an Indo-Iranian hypothesis, notwithstanding the fact that these languages were probably highly Indianized given the vast spaces in time of several millennia between the Indus and the already "Indianized" progenitor cultures of Baluchistan.

Names of Dasas are not Dravidian

The names of places and people of the IVC as known through from Sanskrit literature are even more interesting, and are clearly non-Dravidian. Hariyupiha (Harappa): RV 6.27.5 (which can be dated to 1500 BC), Pipru: RV 1.51.5 (1500 BC),

Ilibisa: RV 1.33.12 (1500 BC), Susna: RV 1.33.13 (1500 BC), Ibra: (Who was a man from Meluha during Naram-Sin's rule in 2254-2218 BC, as known from contemporary West Asian texts).

No Dravidian place names in the North-West

One must also take into account the fact that there are no Dravidian place names in the North-West. Given the fact that a genetic input would have been small, place names would not, in the normal course of events, have been obliterated. Sanskrit literature has no record whatsoever of any Dravidian place names in the region, and the name Hariyupiha (Harappa): RV 6.27.5 is not Dravidian either.

Theories explaining the origin of Dravidian languages

Before 1900 BC, it was quite likely that both Dravidian languages and Munda languages were spoken in the Gangetic plains and the South of India. Dravidian languages dominated in the South of India and parts of Chattisgarh and Jharkhand, while Munda languages perhaps dominated in certain other pockets of Jharkhand and Chattisgarh and some areas further North. The populations of these regions would have been much smaller than that of the Indus Valley Civilization. There can be three hypotheses to explain the origin of Dravidian languages

- (a) An archaic form of Tamil broke up into Kannada and Telugu in a region north of present-day Tamilnadu in around 600 BC or earlier, the date being no constraint.
- (b) An old form of a Dravidian language known as proto-Dravidian broke up to form ancestors of Kannada and Telugu around 600 BC or much earlier than this, the date itself being no constraint.
- (c) Various Dravidian languages co-existed since time immemorial, with consolidation of various dialects taking place due to various reasons, which includes political and geographical factors, and out of these Tamil was the first to develop a highly-developed independent literature. However, its script, Tamil Brahmi was borrowed from the North.

These theories conflict with the Dravidian Harappa hypothesis.

Sanskrit and Prakrit words in Tamil

No one would deny the fact that among the Dravidian languages, Tamil developed fairly independently, at least in comparison to other languages such as Malayalam, Telugu and Kannada. However, there are many word-borrowings from both Prakrit and Sanskrit into Tamil, and it would be quite instructive for anyone to pick up a Tamil dictionary and make out a list of word borrowings from Sanskrit and Prakrits. A few thousand of these words exist, and are referred to as Vadacol on the ancient Tamil treatise on grammar, the Tholkappiyam. The term Vadacol means words brought from

the North. This would quite obviously imply that Tamil itself was not brought from the North. The number of Sanskrit and Prakrit loan words in Tamil is greater than the so-called Dravidian sub-stratum in Sanskrit, negating the Dravidian Harappa hypothesis clearly.

Logo-syllabic, but not necessarily Dravidian

The Russian scholar Yuri Knorozov, who is also known for his contributions towards the study of the Mayan hieroglyphs, suggested that the symbols in the Indus Valley represented a logo-syllabic script, and suggested, based on a computer analysis by his team, that a Dravidian language was the most likely candidate for the Indus script. While the Indus script was perhaps indeed logo-syllabic, it is very likely that most of the signs in the Indus script were word signs, and seals were probably primarily non-linguistic in nature, rendering such studies wholly null and void. The relationship between the Indus script and spoken language remains largely conjectural and tenuous given the fact that the relationship between a logo-syllabic script and spoken language would remain largely a function of usage, and would be more distant when a large number of signs are word-signs. This would mean that trying to identify the languages of the Harappans through a structural analysis of the Indus script would be extremely difficult to justify, moreover when the glyphs are short. [Knorozov, 1968]

The regions where IA languages are spoken today correspond to the regions covered by the IVC, the Vedic homeland and the Aryavarta taken together.

It is also obvious that the regions where IA languages are spoken today correspond to the regions covered by the IVC, the Vedic homeland and the Aryavarta taken together. This would be explained by our roller-ball model which is shown in Annexures A and B of this paper. This shows how two distinct streams of languages interacted with each other to give birth to Vedic Sanskrit and various Prakrits and this should convincingly negate the notion that the IVC was Dravidian speaking. Thus the IA languages shared some affinities with the old languages of West Asia in some very remote period in antiquity, but not with Dravidian languages, significant exceptions being cross-borrowings of words only.

Dravidian speakers outside the South of India number less than even Munda speakers: Dravidian languages could not have been brought from the IVC

Before 1900 BC, the population of the Gangetic plains was believed to have been quite small. The Harappans would have shown little interest in the land-locked and thickly forested region to the East, and the population of the Gangetic plains would have been infinitesimally small in comparison to the IVC. One might even argue for a population of 250,000 or less. Dravidian speakers outside the South of India number less than Munda speakers. Dravidian languages are spoken only in pockets in Jharkhand and Chattisgarh outside of South India, and these languages have no literary records to speak of, unlike the Dravidian languages of South India which are much more developed. These could not have been brought from the IVC for one simple reason: if this had been the

case, the whole of the Gangetic plains would have been Dravidian-speaking when the transfers of population took place to the Ganges basin in 1900 BC. On the other hand, Dravidian and Munda are spoken today only in residual pockets, which would imply that these survived because these were not obliterated by IE. In other words Dravidian languages (whose speakers are smaller in number in the Gangetic plains than Munda speakers) existed not because they were brought from the IVC, but because they were not obliterated by the IA. This is the reason why they are found, not in the river valleys of Uttar Pradesh and Bihar to where the majority of the Harappans would have naturally migrated, but to residual pockets in Jharkhand and Chattisgarh. This very logical and basic observation should again negate the Dravidian Harappa hypothesis. The Dravidian Harappa hypothesis would also imply, again that Baluchistan was the originating point of Dravidian languages, given the fact that the populations of the IVC would logically have been far greater than that of the Gangetic plains or peninsular India during the period 2600 BC to 1900 BC. If the IVC was Dravidian, how did Dravidian languages already exist in South India? If they were pushed from the North-West, how did they vanish without a trace in the North-West? The Dravidian Harappa hypothesis ceases to pass elementary common sense tests. It may have been based on a very naïve assumption: if something was not “Aryan”, it could only have been “Dravidian”. The usage of both terminologies is wrong. Although the IVC crucially influenced the development of Indian cultures, India as an entity did not exist during the period of the IVC. Therefore why is Jiroft not proclaimed as Dravidian? On what basis did Dravidian Harappa proponents arrive at the term India? Was it British undivided India? While the region of the IVC, the Vedic homeland, the Aryavarta and Dravidian cultures taken together does

indeed correspond to the region covered by modern India and Pakistan, was it a coincidence or was a definition of India scientifically arrived at? What prevented India from absorbing cultural influences from further West? How did languages transform themselves so magically from Semitic to Dravidian in a distance of just two hundred kilometers? While the same paradox would hold good for Dravidian and Indo-Aryan languages in modern India, it was clear that IA languages were brought from the North-West of India to the Gangetic valley in 1900 BC, and the obvious interplay of two different streams of languages helped in the formation of these languages as explained in this paper. It is obvious even upon a superficial examination, that the IVC was influenced by, and shared affinities with cultures further West, and none of these could have been Dravidian.

Megalithic pottery inscriptions of South India

It has been pointed out that Megalithic pottery inscriptions of South India dating to around the Christian era bear a striking resemblance to Indus inscriptions. A dish from Sulur near Coimbatore dated to 100 BC is now in the British museum, London, and bears a striking resemblance to the Indus script [Mahadevan, 2006]. While this may be true, these could have been brought from North India at a later point in time, as contradictory evidence must be taken into account. This inscription dates to a period well after the demise of the IVC, and no earlier inscriptions were found in South India. Also, older instances of the Indus script, dating to well after the disappearance of the IVC, were found in Dalmiabad, Maharashtra and Bihar as well. Sulur has yielded Roman coins as

well, implying the site is much less ancient, and given the fact that the Indus script was a logo-syllabic script with a far greater proportion of word signs than scripts of its class, the link between spoken and written language is a function of usage, and tenuous. This find cannot be naturally used to prove that the IVC was Dravidian-speaking. This does however prove that the Indus script was a secondary script in Post-Harappan India, and although literacy itself at best may have been limited to small sections of society, more instances of this script will eventually be found in post-Harappan contexts.

Other reasons: The Dravidian Indo-Aryan Paradox

As Witzel himself points out, immigrants would not have had any sophisticated vocabulary whatsoever to speak of, much less the kind of vocabulary of the RV, and therefore immigrants would have taken over the vocabulary of the region. The Dravidian Indus theory would clearly imply that Dravidian languages were practically synonymous with Indo-Aryan languages. This notion is obviously absurd and would negate the Dravidian Harappa theory convincingly. On the other hand, even Dravidian Harappa supporters have been able to claim only between 150 or 350 “Dravidian” words in the “substratum” of Sanskrit, and this number varies widely from source to source, the general limits being the ones specified above. The Dravidian Harappa hypothesis would again imply that virtually the whole of the RV was Dravidian.

Lemuria and Kumarikandam

Lemuria is the name of a hypothetical lost land variously located in the Indian and Pacific Oceans, and generally to the south of India. The concept's origins can be traced back to the early 19th century and resulted from the desire to account for discontinuities in biogeography; however, the concept of Lemuria has been rendered obsolete by modern theories of plate tectonics. Though Lemuria is no longer considered a valid scientific hypothesis, it is referred to by some Tamil writers of India, and most mainstream researchers do not subscribe to it. Tamil writers also refer to it as Kumarikandam. Therefore, the idea of a lost continent to the south of India has little mainstream backing. The Dravidian Harappa therefore would imply that the Dravidians came from the North, and this can be questioned on multiple grounds.

The Dravidian Harappa hypothesis may now be obsolete given the fact that the AIT has been abandoned

Thus, everything considered, we will argue that the Dravidian Harappa is no longer tenable because the Aryan Invasion theory has been abandoned, and the theory itself may be based on older western definitions of the term 'Aryan' and 'Dravidian'. The former has varying connotations for different sets of people, although it is only has a cultural connotation in the RV. Wherever the term refers to bones, human remains, or a set of people, it is a crude and a working definition at best, perhaps already archaic and obsolete, and must be superseded by improved and less misleading terminologies. The term Dravidian has no legitimate meaning beyond its linguistic connotation. It is extremely unlikely that anyone in the south of India, or even Tamil nadu, would have ever imagined that the IVC was Dravidian, as knowledge of the IVC is scarcely in the

public domain in Tamil nadu, apart from the interest it generates among a very small group of scholars and specialists, and Dravidian nationalists are quite apparently only standing on the shoulders of archaic Western scholarship.

Now, if the Dravidian Harappa hypothesis were indeed correct, its proponents must put forward a strong case, and others must accept it too whether they like it or not. But if they cannot refute all the points raised above, it may be time for a thorough re-examination. Dravidian cultures have also contributed in no meager measure to pan-Indian cultures and to Hinduism, and all such contributions must be appreciated and acknowledged. The fact that the Indus wasn't Dravidian doesn't diminish the glory of Dravidian languages and cultures. But we will argue that only an approach driven by reasoning and logic will pave the way for a more logical assessment of the contribution of Dravidian culture to Indian culture in general, only such approaches will be in the long-term interests of science and scholarship. Over the next decade, we will look forward to more and more scholars joining the battle against ideology-driven approaches which are untenable in today's globalized world and only throw up a series of counter-reactions. If Dravidian Harappa supporters still wish to put forward a case, they must refute all the points raised above.

Why the Vedic Indus Hypothesis is not tenable

In the second section of the paper, we will provide a criticism of the Vedic Indus theory. This section consists of several independent objections against the Vedic Indus theory and proponents of the VIT are welcome to address all the points raised in this paper.

From Mehrgarh to Mohenjodaro: The direction and spread of both civilizations

The IVC spread only gradually from Baluchistan towards the Indus valley, and the predecessors of the IVC in Baluchistan are dated to a period when horses were not yet domesticated in any part of the world, and well before the PIE (or the Proto-Indo-European language, now known as Base Indo-European) [Beekes, 1995] [Sihler, 1995] existed, according to any of the contending theories explaining the origin of these languages. The Vedic homeland corresponds to the Mid-Himalayan region, and all Hindu holy places invariably point in this direction. The Importance Aryan culture gives to the horse, and its centrality to Aryan culture can be judged from many hymns in RV 1.162 and 1.163. [Griffith, 1896]

Location mismatch

The Aryavarta was spread over a very large region primarily in the Gangetic plains. The IVC did not cover most of the Gangetic plains, and the Aryavarta was primarily centered on the Gangetic plains. We may also note that Sanskrit literature does

not talk about any large cities on the Indus. The only cities mentioned in Sanskrit literature were further west, i.e. Gandhara, which served as a conduit for trade with West Asia, and this again shows that the epicenter of the Aryavarta was the Gangetic plains. On the other hand, the Indus valley was the core region of the IVC, and its easternmost extremity is believed to have been a region close to Delhi. The list of the Mahajanapadas of Post-Harappan India from the Buddhist Anguttara Nikaya is as follows: Kashi, Kosala, Anga, Magadha, Vriji, Malla, Chedi, Vatsa, Kuru, Panchala, Matsya, Surasena, Assaka, Avanti, Gandhara, Kamboja, the locations of which are well-known, and other Buddhist texts talk about smaller kingdoms as well. One can check out for himself whether the location tallies with the cities of the IVC or not. Other Buddhist texts mention other kingdoms, none of which tally with the IVC.

The Manu Smriti (2.21-2) defines Aryavarta as "the tract between the Himalaya and the Vindhya ranges, from the eastern to the western sea". The Vasistha Dharma Sutra I.8-9 and 12-13 locates Āryāvarta to the east of the disappearance of the Sarasvati in the desert, to the west of Kalakavana, to the north of the mountains of Pariyatra and Vindhya and to the south of the Himalaya. Baudhayana *Dharmasutra* 1.1.2.10 delineates Āryāvarta as the land that lies west of Kalakavana, east of Adarsana, south of the Himalayas and north of the Vindhyas, but in 1.1.2.11 of the Baudhayana *Dharmasutra* Aryavarta is confined to the Ganga- Yamuna doab. Patañjali's book on Panini 6.3.109 defines Āryāvarta as the country bounded by Adarsa on the west, Kalakavana on the east, Himavant in the north, and Pariyatra in the south and these locations do not match with the IVC.

The Indus Valley Civilization also comprised of several important sites further West, notably in Baluchistan and even as far as the Iranian border, which were alien to Indo-Aryan culture, and fell wholly outside of their cultural ambit.

Indian culture does not talk about any civilization with the Indus as its epicenter

Ancient Indian texts do not talk about any civilization with the Indus as its epicenter. Indians themselves were surprised, and as surprised perhaps as anyone else anywhere else in the world, to learn about the discovery of the Indus, which was first described by Charles Masson in *Narrative of Various Journeys in Balochistan, Afghanistan and The Panjab*, and whose discovery was announced to the world by Sir John Marshall in “The Illustrated London News of 20 September, 1924”. The only settlements that Sanskrit literature talks about were petty kingdoms on the river Saraswathi, and all Hindu holy places are either in the Himalayan region or on the banks of the river Ganges. The settlements on the banks of the river Saraswathi, though numerous, are smaller and relatively less important. They are also younger than the sites to the West of the Indus. If the 'Aryans' had been the authors of the IVC, they would certainly have glorified it and eulogized it given its size and importance. Instead, they are referred to as the Dasas, and the only mention one finds about settlements on the banks of the River Saraswathi in the RV is:

Citra is King, and only kinglings [rājaka] are the rest who dwell beside Sarasvati.

(Rig Veda 8.21.18)

The terms Daha or Dahyu are also used in Iran, where these appear to mean tribe or native Inhabitant or people residing in the neighbourhood. These terms appear to have been used in many cultures synonymously. In the Rig Veda, the term Dasa also seems to connote people who did not follow Aryan religion. Dasas are described in great detail in the RV 1.33.4, 1.33.9, 1.51.5,8, 2.11.4, 8.18.3, 5.30.8,9, 1.103.3, 1.80.10, 2.19.6, 6.31.4, 2.20.8, 4.26.3, 8.86.14, 3.34.1, 4.32.10, 5.34,6, 1.33.12,13, 1.63.4, 1.32.6,6.27.5 and few will deny these refer to the Harappans. The Rig Veda (Hymn 10.22.8) describes the Dasas and the Dasyus as a-karman (non-performers of Aryan sacrifices), anya-vrata (observers of other rites) and in the Rig Veda hymn 10.105.8 they are described as anrc (non-singer of laudatory hymns). In the Rig Veda 8.70.11 they are described as a-deva-yu (not regarding the Aryan gods).



Fig 2 Are these Dravidian? Are these Vedic? Are these Paramunda?

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This should clearly rule out the possibility of the “Aryans” being the authors of the civilization.

Sanskrit was only a liturgical language, not the language of the masses

Even the most rabid of Hindutva supporters accept the fact that Sanskrit was not a widely spoken language, and the primary usage of Sanskrit appears to have been liturgical. We have taken Sheldon I Pollock’s views on this issue, and Madhav. M. Deshpande, likewise concludes that the language of the Rig Vedic masses would have been various Prakrits. It also primarily served as a lingua franca of the elite, because no Prakrit would have been able to play this role, and was primarily projected as a cultural symbol of ancient India. We have also studied the relationship between the Prakrits and Sanskrit in very great detail, along with several checks and balances and this should serve to negate the Sanskritic Indus theory completely. [Pollock, 2006]

Hinduism does not comprise of just Vedic cultures

One will have to account for all elements of the modern term Hinduism which refers to the religious traditions of the subcontinent. This term was first used from between the 16th and the 18th century in the Bengali Gaudiya Vaishnava texts, which includes the Chaitanya Charitamrita and Chaitanya Bhagavata, and was introduced in the English language in the Nineteenth Century. Vedic cultures alone do not constitute

Hinduism, and various elements of Hinduism only appear to have been fused into a harmonious whole in the Gangetic plains in Post-Harappan India. Therefore, proponents of the VIT must provide an explanation for the origin of non-Vedic elements of the modern term Hinduism.

The Rig Veda 1.164.46 states, showing that a fusion of various faiths may have already been happening: (Yama clearly is a non-Aryan God)

They call him Indra, Mitra, Varuna, Agni, and he is heavenly nobly-winged Garutman. To what is One, sages give many a title. They call him Agni, Yama, Matarisvan.

A philosophical interpretation of the Oneness of God in Hinduism does not equate to a study of the historical origins of Hinduism

The Chandogya Upanishad 6:2:1 states:

He is One only without a second.

However, this is a philosophical interpretation of the Oneness of God, and this should never be confused with a historical study of the origins of Hinduism, and many elements of the religion probably date back to the Stone Age, and as discussed, a scientific study of the origins of all aspects of what we today call Hinduism will probably show that Hinduism is an amalgam of several faiths, practices and beliefs practiced in the

region over millennia, and the origin of all forms of worship must be satisfactorily accounted for.

Anyone who claims that the whole of Hinduism was just Vedic will have to account satisfactorily for all other elements of Hinduism. Therefore, if the whole of the Indus was Vedic, where did the Non-Vedic elements of Hinduism come from?



Fig 3. The Priest King at Mohenjodaro Is this Vedic? Is this Dravidian? Is this Paramunda? www.wikipedia.com



Fig 4. Are these symbolic of Dravidian, Vedic or Paramunda cultures? www.wikipedia.com

From Harappa to Hastinapura: Cultural incompatibility

We also know that there were several differences between Harappan and post-Harappan cultures. The Harappans are believed to have buried their dead, as large burial sites with burial pottery have been found, even very recently, in places like Farmana. The RV, on the other hand, talks about both burial and cremation. The Harappans are believed to have eaten beef, while beef consumption also appears to have been abandoned gradually in the Gangetic plains. The Harappan culture was also known for its seal writing which was absent in post-Harappan cultures, and the introduction of the horse, the chariot and iron shows a definite cultural makeover. While even Hindu nationalists admit to migrations to the Ganga-Yamuna doab in 1900 BC, where did a cultural makeover come from?

Although the idea that post-Harappan India was rural is obsolete, and must also be rendered invalid on cultural grounds, (we can cite the views of Pargiter (1922), Smith (1973), W.Rau, Witzel (1989), Colin Renfrew, Dietmar Rothermund, Hermann Kulke, George Erdosy, Frank Raymond Allchin and B.B Lal who have refuted this, and the word pur is attested to by RV 9.101.8 and RV 9.33.6, while the word fort occurs in 5.34.7 and 7.25.2). Post-Harappan India only knows kingdoms and dynasties but not cities on the kind that were found in the IVC, and the Gangetic plains did not perhaps trade with Mesopotamia and Egypt the way the Indus did. These are major differences between the IVC and the cultures of the Gangetic plains, and should serve to negate the Vedic Indus theory completely.

The relative egalitarianism of the Indus and the Caste system

The IVC was believed to have been more relatively egalitarian than the caste-ridden society that followed it (the caste system is explained in the Rig Veda 10.90.11,12), and caste system may have taken shape when a fusion of different people took place in the Gangetic plains. While caste certainly does not equate to race, it has been suggested that upper castes have more genetic similarities with Europeans, and the Harappans were perhaps related to West Asians, and IE speakers to Central Asians. The VIT cannot explain the Caste system at all, apart from brushing the Caste system aside as a classification of convenience.

Any theory must account for linguistic similarities between India and Europe

Any theory must also account for similarities between Indo-Aryan and other Indo-European languages. Marija Gimbutas' Kurgan hypothesis, which is supported by most modern scholars, and the Anatolian hypothesis which is supported by some scholars such as Colin Renfrew, Tomas V. Gamkrelidze and Vyacheslav V. Ivanov provide a detailed explanation of how this might have happened. On the other hand, indigenists, brush off this evidence, like they do with almost anything else that comes in their way. It is virtually impossible that the languages of the IVC were in any way Indo-European, if we may use the term somewhat recklessly and loosely, and just to drive home a critical point, as these languages were only similar, in remote antiquity to the Semitic languages of West Asia. These were very obviously Pre-Indo-European.

India cannot be a candidate for IE expansion: issues in locating an urheimat

A few early Indo-Europeanists, such as Voltaire, Immanuel Kant, and Karl Wilhelm Friedrich Schlegel thought India was the Urheimat of all Indo-European languages. Most scholars, such as William Jones, however proposed that Sanskrit and related European languages had a common source, and that no attested language represented this direct ancestor.

The development of historical linguistics, specifically the law of palatals and the discovery of the laryngeals in Hittite, is believed to have rendered Sanskrit's claim as the ancestor of IE languages void. H.H. Hock has supposedly refuted the Out of India theory, too, in 1999, demonstrating the virtual impossibility of Indo-Aryan languages being ancestors of IE languages, and the impossibility of establishing India as the IE homeland by valid linguistic methods.

Migrations from Central Asia to the mid-Himalayan region, and then to the Ganges are more plausible and logical than migrations from the Gangetic plains: why would pastoral people who lived in the Gangetic plains, climb the Himalayas and then migrate to the rest of the IE world? This model also conflicts with the Indo-Aryan process of evolution: Aranyaka to Mahajanapada. OIT proponents have also never attempted to, and may have never even shown any interest in reconstructing the cultural history of the sub-continent, and such approaches may be ideology-driven. Migrations have to be inferred on linguistic and cultural grounds, the names of Gods, and fire-

worship., besides the fact that the horse could not have been native to India, and the author has it on authority that this could not have been the case. What evidence do supporters of autochthonous theories demand for migrations? Hoof marks? The *Equus Namadicus* and the *Equus Sivalensis* are both believed to have been long extinct, their extinction having occurred during the ice age, and this should drive home the absurdity of such arguments.

The Kurgan hypothesis which was formulated by Marija Gimbutas and is supported by most leading researchers such as J P Mallory, calls for an urheimat in south central Asia or in the Pontic-Caspian steppe, while the Anatolian hypothesis supported by some scholars such as Sir Colin Renfrew calls for an urheimat in Anatolia or present-day Turkey. The multi-PIE hypothesis we present in this paper is similar to the Kurgan hypothesis and postulates that there may not have been one PIE, but several, and the movements of peoples began after the domestication of the horse. Gimbutas' homeland calls for a homeland including regions to the East of the Caspian Sea and this includes Georgia, Azerbaijan and Armenia, and parts of Turkmenistan and Uzbekistan as well. Our theory will not cause any major disruption to this model, and will call for extending the urheimat slightly eastward to include more regions in Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, (encompassing Samarkhand, Dushanbe and Tashkent) and even parts of northern Afghanistan and regions to the west of the Khyber pass from where the purported migrations to India took place. Modifications to Gimbutas' model have been proposed by scholars such as Kortlandt too, and this proposed a homeland in the Eastern part of Ukraine, or the north of the

Caspian sea, and such wide divergences in opinion, which result in differences of up to three thousand kilometers or more in the source location, can die if a multi-PIE approach is indeed adopted. We can identify two stages. Stage A: Movements within the homeland after the domestication of the horse leads to the dissemination of cultural traits and the evolution of common cultural traits within the urheimat. Stage B: Movements of people take place from various parts of the Urheimat to Europe, Iran and India. We may note the following here: (a) it is not necessary that movements of people to Europe, Iran and India took place from the same location (b) it is not necessary that transhumance movements to Europe, Iran and India took place at the same time, and the timeframes for migration may vary widely for each region, even if only one wave of migration to each such region had occurred. Methods to test this theory can be put in place, and this can include comparing present-day languages in the Urheimat (i.e. individually) with those of Europe and India, and tracing characteristics of languages in the urheimat individually to languages in Europe and India. This approach can, in turn, be of major use in defining the boundaries of the Urheimat. Improved acculturation models from India can have a major bearing on Iranian studies and Indo-European studies in general, and we will be looking forward to such a revolution in the years to come. This can even unleash a transformation in the study of human languages and migratory patterns.

From Dholavira to Dwaraka: Current acculturation models are complex and explain all aspects of Indian culture well

As Witzel himself points out, the days of crude invasions are over, and no mainstream scholar anywhere in the world, Marxist scholars included, subscribe to the AIT anymore, and these have long since been replaced by complex acculturation models. Acculturation models such as the one proposed by the Allchins have become extremely complex over the past couple of years. The model presented in Annexures One and Two of this paper is perhaps even more detailed, and a far cry from the AIT, and readers are urged to take anything they want about Indian culture in general, and make an honest and sincere attempt to fit it into this model. Maps drawn to the very last century are available in this paper in Annexure One. All cultures played a crucial role in the development of Indic cultural and religious traditions, and Vedic culture was highly internalized and Indianized.

As Colin Renfrew, who always appears to have supported innovative solutions to most issues, points out: “We should, in other words, seriously consider the possibility that the new religious and cultural synthesis, represented by the Rigveda, was essentially a product of the soil of India and Pakistan, and that it was not imported, ready-made, on the back of the steeds of the Indo-Aryans. Of course, it evolved while in contact with the developing cultures of other lands, most notably Iran, so that by a process of peer polity interaction, cultures and ideologies emerged which were in many ways similar to each other.” [Renfrew,1999]

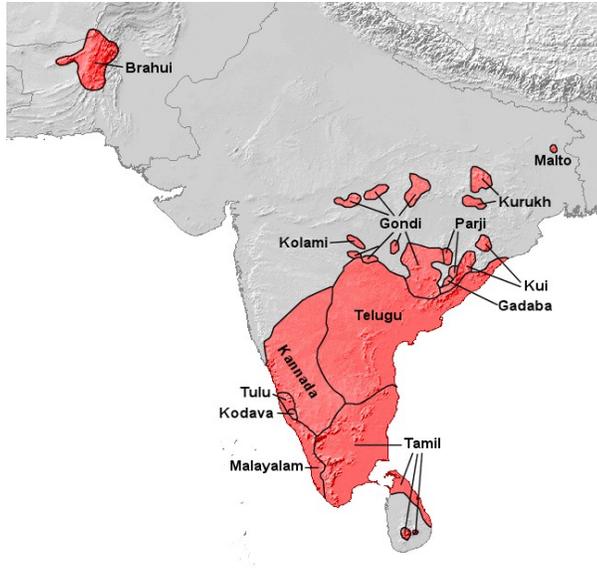


Fig 5 Dravidian languages are spoken in the region excluded by the IVC plus the Aryavarta plus the Vedic homeland taken together, negating the Dravidian Harappa hypothesis www.wikipedia.com

As Stuart Piggott likewise states, “Perhaps it would be too much to say that Chandragupta Maurya and his dynasty were the ghosts of the Harappan empire sitting crowned on the ruins thereof, or to claim, in Toynbee’s phrase, that the Harappan kingdom was ‘apparented’ to that of the Mauryas. But to the complex pattern of the Indian Middle ages, the ancient urban civilization of the Punjab and the Indus surely contributed not a little.” [Piggott, 1999]

This would suggest that many groups played an important role in the development of Indian cultural and religious traditions, and from even a nationalistic perspective, current acculturation models pose no threat to national unity.

From Surkotada to Surasena: The necessity of taking into account the evidence of Horse bones

The earliest examples of horsebones in India have been traditionally dated to 1500 BC, 1700 BC or 2000 BC, as observed from different sources. However, some scholars, including the late Archeozoologist Sandor Bokonyi, have claimed the existence of Horse bones as early as 2200 BC. These are disputed by some scholars such as Richard Meadow. In the Indus Valley, the horse was first reported in 1931 in Mohenjo-daro by Sewell and Guha. An alleged clay model of a horse has been found in Mohenjo-Daro by Mackay in 1938, and an alleged horse figurine in Periano Ghundai in the Indus Valley was reported by Stuart Piggott. Another Archeozoologist, Bhola Nath, has claimed the discovery of horse bones in the Indus, but all these finds have not been agreed upon through consensus. A.K Sharma had, over twenty-five years ago, identified horse bones at Surkotada in the Indus valley. In 1979, SR Rao had claimed the discovery of horses in his excavations at Lothal. In 1972-73, A.K Sharma had claimed to have found horse bones at Malvan at Gujarat as well. [Anthony.D, 1991:193-222]

On the other hand, Mehrgarh, which is dated to around 7000 BC, is believed to have been the precursor of the Indus civilization, and domestication of the horse is not believed to have begun until several millennia later anywhere in the world. The earliest evidence for control of horses consists of bit wear on the premolars of a horse excavation at Dereivka on the Dneiper river in Ukraine and can be dated to 4200- 3800 BC. Bit wear has also been detected on five horse premolars from Botai in Kazakhstan and is dated to

between 3300-2900 BC, well before the date of migrations i.e. 2750 BC as per the model explained in this paper, but much later than the date of 7000 BC. This is in line with standard theories of the PIE. The VIT, will, as usual, fail this test as well. [Sharma A.K 1990, 372-383]

The IVC was intensely multilingual: why the Sanskritic Indus theory cannot be justified

We also know that the IVC was intensely multi-lingual, and the IA or the Indo-Aryan family of languages comprised of a large number of languages. There were perhaps as many languages spoken in a region as extensive as the IVC as there were Prakrits. Besides, languages such as Proto-Burushaski have also been attested in the region, and few will be willing to take the hypothesis that the IVC was Sanskrit speaking anymore. Dardic languages (Kalasha-mun, Palula, Dameli, Gawar-Bati, Nuristani, Yidgha, Gujar, Wakhi, Kyrgyz, Pashto, Dogri (Himachal Pradesh)) are labeled Indo-Aryan, despite their differences with other Indo-Aryan languages. Languages like Marathi are believed to be descendants of Maharashtri Prakrits. The theory that five or ten million people were speaking Sanskrit as a native language is very hard to justify, and it would be very hard to justify that Sanskrit was a spoken language in regions such as Sutkagen Dor or the Baluchistan Iran border, and some sites further West, which were fully outside the ambit of Indo-Aryan culture. Do VIT supporters subscribe to the theory that Sanskrit originated in Baluchistan and Iran? The VIT would also imply that Sanskrit was closely related to the old Semitic languages of West Asia, and this clearly is not the

case. The VIT is, all things considered, rightly seen as a Hindutva theory, and has very little mainstream backing.



Fig 6 Indo-Aryan languages are spoken in an area covering the IVC, and the Aryavarta and the Vedic homeland combined, convincingly negating the Dravidian Harappa hypothesis www.wikipedia.com

The IVC went into decline by 1900 BC and vanished by 1300 BC unlike the Mahajanapadas

The IVC went into decline by 1900 BC and vanished by 1300 BC (the sites were abandoned completely!) unlike the Mahajanapadas. The latter continued to exist till 600 BC. VIT proponents would imply that Vedic culture was extinct by as early as 1300 BC. This negates the VIT clearly.

The River Saraswathi

The River Saraswathi is mentioned in Rig Veda 2.41.16, 7.96.1, 7.95.1,2, besides many other hymns. The RV accords more importance to the River Saraswathi than the River Indus and the Ganges. Those who claim that the river Saraswathi was not the Ghagra Hakkar are on extremely shaky ground. This is because millions of people would not have moved east without any apparent reason. The IVC couldn't have flourished or taken shape with the Thar desert in the middle – cities are on either side of what is today known as the Thar desert- Harappa and Mohenjodaro on the West and Dholavira on the East. The identification of the Ghagra Hakkar as the Saraswathi is accepted by leading scholars such as Gregory Possehl and supposedly by Romila Thapar as well. Those who claim that the date of 1900 BC is inaccurate are also on shaky ground. This is because the date of 1900 BC (a) Tallies with the end of the mature Harappan phase (b) Tallies with the dates of the Cemetery H culture (c) Fits in very well with the acculturation model shown in Annexure One and Two of this paper. This identification cannot be however used to prove that the Indus was Vedic or Sanskrit speaking, and if this was the case, the Indus should have been pronounced Vedic a long time ago because the Sindhu was known in Post-Harappan India.

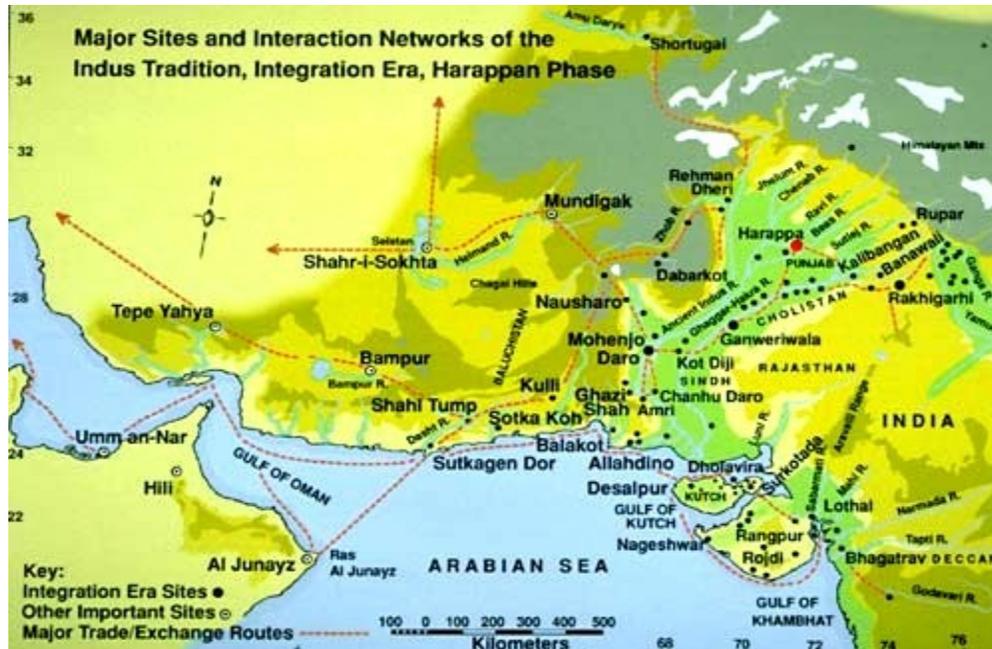


Fig 7 Can these be representative of Dravidian, Vedic and Paramunda cultures?

www.harappa.com

The River Saraswathi was described by F.E.Pargiter in 1922, before the discovery of the Indus valley civilization. Sir Aurel Stein and Sir John Marshall had proposed as early as 1931, that the climate of the region was significantly wetter than in modern times. Although a large number of Indus sites were on the River Saraswathi, the major sites are on the Indus, and as observed, the IVC spread from west to east and not the other way around.

The date of the compilation of the RV

Hindutva proponents have even claimed on occasion that the RV was compiled in 4000 or 5000 BC. The evidence that has been presented supposedly has its roots in

“Archaeoastronomy”, and this kind of approach clearly qualifies as a pseudo-science. It can be convincingly proved to be a pseudo-science, because the results thrown up by such methods will not tally with the results thrown up by other fields of study. Such early dates for the RV are untenable because (a) Chariots could not have existed this early, and even bullock carts were probably not invented by then (b) the Iron age could not have begun this early (c) domestication of horses would not have begun this early (d) if the RV was central to the IVC, memories of the RV would have dated to 7000 BC, or to the Mehrgarh phase and few would consider this to be a likely scenario. It is also well-known that contacts with West Asia played a key role in the compilation of the RV, and similarities with Old Avestan, dated to the Second Millenium BC are quite evident. Contacts with West Asia were also very crucial for the development of Vedic culture in general, and technologies such as Chariots, Iron and Alphabetic scripts could not have naturally been imported from Central Asia. A multi-disciplinary approach can greatly help not only in the reconstruction of Ancient Indian history, but also in Iranian history, and the timeframe of the commencement of such contacts can be established from as study of Indian history itself. It would be extremely beneficial if Iranists and Indologists could work together in this regard, as further clarity would be crucial to the progress in the reconstruction of the history of Ancient Iran as well.

The location of the compilation of the RV

Many early scholars had erroneously postulated that the RV was compiled in the Punjab. While few modern scholars would subscribe to this, the RV was unquestionably

compiled in the Gangetic plains, and given the fact that the IVC spread from West to East, the RV could not have been compiled neither in Mehrgarh or the Indus (the sites on the Saraswathi were small and late), as would have been the case if the IVC was Vedic. A few Hindutva proponents have claimed that the RV was compiled on the banks of the Saraswathi, even if to force-fit the IVC into a Vedic mold. While this by itself is questionable given the research done by scholars such as F E Pargiter, the VIT can be falsified on many grounds. Even VIT supporters have never claimed that the RV was compiled in a region to the west of the epicenter of the Indus Valley Civilization. (If they i.e. Hindutva proponents claim that the RV was compiled in the mature phase of the IVC, it would conflict with the direction of Aryan culture, and would mean that horses were domestication in India, and the chariot invented in India). This quite clearly shows how illogical the Hindutva approach is. Hindutva proponents would therefore be negating the VIT because the sites on the Srasawathi date to 2300 BC, while the roots of the IVC are in Mehrgarh (7000 BC)!

Continuity does not connote authorship

It must be stated that continuity does not connote authorship, and if the identity of the Harappans is to be proved, contradictory evidence must also always be taken into account, and we must recall our golden rule, “If contradictory evidence exists, it means that the model is over-simplified or wrong”. B B Lal and S R Rao, have claimed the presence of Aryan objects in IVC sites, and have likewise argued for a cultural continuity from Harappan to Post-Harappan India. While such discoveries must be welcomed (they

are most certainly nothing to be afraid of, as they help hone acculturation models to complete perfection), they must necessarily be studied against the contradictory evidence available that should convincingly put the VIT to rest.

As Stuart Piggott states in this regard [Piggott, 1961, pp. 238-9,285-8] “ Since the discovery of the Harappan culture, it has been recognized that many elements in medieval and modern Hinduism which cannot be traced to an Aryan source are in fact foreshadowed in what we know by inference, of the religious cults of the older civilization. There is no need to elaborate this point, which has clearly been demonstrated in detail and has won general acceptance. Clearly after the first drastic Aryanization of the Punjab, some sort of modus vivendi was arrived at; if not there, eastwards in the Ganges Basin as the frontier receded eastwards, and Harappan ideas permeated the religious thought of Brahmins.’

How much Euro-centrism and how much Hindutva? (Also read this section as “Hindu fanatics: their technology, their line, their fraud”)

No theory presently exists that posits a European origin for IE languages. Both the Anatolian and Kurgan hypothesis posit an Asian origin for IE languages, not a European one. Even the multi-PIE hypothesis presented as a part of this paper postulates an urheimat which was spread from south central Asia to Western Asia. What Eurocentrism can be found here, given the fact that all theories call for a migration of IE speakers into Old Europe? A summary of points negating the OIT or an Indian homeland for IE

languages have been presented in this paper, and readers may go through the relevant sections to assess for themselves whether these are plausible. No one accuses all VIT or OIT supporters of fanaticism. Many scholars have presented the VIT and the OIT, which, for many reasons are untenable, in good faith, and among them, were doyens of the caliber of S R Rao. It is the approach of rabid Hindutva proponents, one which usually excludes all meaningful debate and a comprehensive assessment of issues, that is quite worrisome, and the key components of the Hindutva approach is presented below:

1. Shouting out against a myth, an obsolete or a half-imaginary theory i.e. The Aryan Invasion theory (which should have been abandoned before it actually was-or at least the fact that it was abandoned should have been communicated properly to all affected or concerned parties). This was the chief strategy of Hindutva revisionists in the 1990's and the early 2000's, and was usually a ploy to promote Hindutva theories such as the VIT. In any case, no present-day scholar anywhere in the world subscribes to the AIT anymore. Therefore, a criticism of the Aryan Invasion theory is wholly irrelevant from a Twenty-first century standpoint. As Romila Thapar points out in the article "Hindutva and history" (Frontline, Volume 17, issue 30, Sept 30-Oct 13, 2000) "Why then do Hindutva ideologues - Indian and non-Indian - keep flogging a dead horse and refuse to consider the more recent alternative theories? For them the only alternative is that if the Aryans were not invaders, they must have been indigenous. That there is a range of possibilities between the two extremes of invaders or indigenous does not interest them. The insistence on the indigenous

origin of the Aryans allows them to maintain that the present-day Hindus are the lineal descendants of the Aryans and the inheritors of the land since the beginning of history. This then requires that the presence of the Aryans be taken back into earliest history. Hence the attempt to prove, against the prevailing evidence from linguistics and archaeology, that the authors of the Rigveda were the people of the Indus cities or were possibly even prior to that.” As Witzel says of N S Rajaram (EJVS, Volume 7, (2001), issue 2 (March 31) “As Rajaram's star dimmed, however, renewed beating began of a much more ancient dead horse -- the Aryan Invasion Theory ("AIT") -- of which, 50 years after the theory's heyday, I am fantasized by Rajaram et al. as the archetypal Western champion.”

2. Confusing immigration with invasion (i.e. deliberately) is another tactic of Hindutva proponents. A definition of the two terms can be found in any English dictionary. A very morbid fear of complex acculturation models – these have become extremely complex in the recent past, and can explain all aspects of Indian culture well – also characterizes Hindutva. As Witzel points out, “K (Kazanas) does not have a firm grasp on the complexity of the AIT discussion; he confuses, like Elst, invasion (intentionally) with immigration, trickling in etc.; this leaves all disturbing details by the wayside and simplifies his job enormously: always beating down the straw man, 'invasions', as in his elaborate Norman example! In fact, his summary (p. 22) § 19 reads like a farce... (Ruckspiegel, Pratibimba, Rear view mirror “The Kazanas fiasco” (7/5/2001)). Dr Robert Zydenbos, who has unequivocally stated that he does not support the idea of an invasion, only immigration, has spoken very strongly against Hindutva tactics and

calls AIT-bashing “shouting out against a myth”. (He has likewise been fantasized by Hindutva proponents to be an archetypal AIT supporter, which, as stated above, he is not.) Zydenbos very categorically states ““In recent years, certain persons in India have revived a 'debate' over what is known as the Aryan Invasion Theory. Basically, this oversimplified and outdated theory says that the original speakers of Indo-European languages (Sanskrit and its derivatives), the Aryans, were invaders who overran the subcontinent, destroying older civilizations and subjugating the peoples of those earlier civilizations. Although certain elements of this old theory still hold good (such as the origin of the Indo-Aryan, i.e., Indian branch of the Indo-European language family being outside the Indian subcontinent), no up-to-date academician today takes the whole of the old theory as valid.” (‘A Hindutva polemic’, by Robert Zydenbos)

3. The general Hindutva obsession with the issue of whether the “Aryans” came from inside or outside India, to the exclusion of all other serious problems facing Indology. This is irrelevant to history because identities can keep changing from generation to generation, and as immigrants could only have been extremely small in number (it is also virtually impossible that they identified themselves as ‘Aryans’), they would have lost their identity long ago. The question of immigration or non-immigration is practically irrelevant from any standpoint, more so given that only small groups of people were involved, and should not interest anyone except a small group of specialists. Very few can even deny that people of this kind are not interested in history but in politics. The “Aryans” migrated to Iran and other parts of the world as well, but nobody creates a hue and

cry there. Witzel has, time and again, pointed out that the term ‘Aryan’ only has a cultural connotation in the RV. Hindutva protagonists deliberately introduce covert shenanigans and proffer dubious arguments to mislead the laity and the gullible.

4. Let us assume momentarily that the Aryan Invasion theory did exist in the popular public consciousness till 2005. We give them this liberty as there unquestionably been a failure from many sides. The BJP and their cohorts have however, killed it in polemical style since; now that the RSS and their ignominious cronies have killed it off, why shout about it after they themselves have pronounced its death? Anyone who shouts out against the defunct AIT will be declared politically motivated.
5. Hindutva proponents are, if all these arguments are taken into account, very clearly not interested in history or have no love for history for history’s sake: The history of the Gangetic plains was, and is being researched by scholars such as F.E Pargiter, Smith, Rau, Witzel and several others. Hard-core Hindutva proponents will not be interested in history because it will conflict with their ideology.
6. We also draw our readers’ attention to the Indus script fiasco: In 2004, Steve Farmer proposed that the Indus script was not a script at all. This provoked several angry reactions from Western and Indian scholars. Scholars of many different hues and colours objected. These included several truth-seekers and lovers of science and history. Among the Indian scholars who very strongly objected were Rajesh Rao, S Kalayanaraman, Mayank Vahia, Nisha Yadav and

Iravatham Mahadevan. One may like to draw to attention of Hindutvavaadins' role in this fiasco. Hindutva proponents, (they will, of course, go deliberately unnamed) were conspicuously absent even as most Western scholars defended the Indus script theory on behalf of Indian scholars and researchers; the reason for this would be quite clear to most impartial observers: The Indus script is very clearly outside the purview of Hindutva. This speaks volumes about their patriotism and clearly exposes the shallowness of the Hindutva ideology.

7. Equating a sub-sect of Hinduism to the whole of Hinduism and then equating Hinduism to the whole of India is an obvious tactic adopted by proponents of Hindutva ideology. The term Hinduism is itself a mirage, because it is recent in origin, and the obvious objective of all Hindutva strategies is to demonize Christians and Muslims. It would be obvious to most that Hindutva is nothing but crass and degenerate Brahminism of the worst kind. While few will deny that Brahminism has contributed in a major way to what is what is today known as Hinduism, and Sanskrit has played a major role in the cultural and linguistic unification of India in a manner no other language could have, given the fact that it was primarily a lingua franca of the elite in post-Harappan India, Hinduism does not comprise of Brahminism alone. This would be very greatly undermining the diversity of Indic religious traditions. Proponents of extreme versions of Hindutva will also never talk about Sanathana Dharma. The reasons for this are not too far to seek: Hindutva has nothing whatsoever to do with the capaciousness of Sanathana Dharma or the tolerance or the innate respect for diversity enshrined therein.

8. When it was proposed that the IVC could not have been Vedic, Hindutvaadins began introducing a crude “is “mine” older” or “is “theirs” older” competition .i.e. Vedic civilization is pre-IVC theory. This type of an approach does not qualify as a science at all; Hindutva relies on history to promote its political ideology. No more, no less.
9. Using the services of foreigners who probably cannot understand the complexity of Indian culture to promote Hindutva. Employing the services of foreign scholars has been a key component of the Hindutva approach.
10. Using the perceived weaknesses and irrationality of Marxist historiography as an excuse for promoting the Hindutva movement. Readers are welcome to read the writings of Marxist Historians such as D.N Jha, for example, and assess for themselves whether they are unbiased or not. Remember the golden rule, “One kind of bias provides a justification for every other kind of bias” (scholars of this type are as guilty as Hindutva proponents themselves because such scholarship throws up counter-reactions and only leads to a polarization of views). If the menace of Hindutva is to be contained, balanced scholarship is the only way. The only difference between these groups of people is that the former is driven entirely by the desire to boost sectarian pride, the latter by dogma. The day may even come when people of this type are declared to be as guilty and as inimical to national interest as Hindutva proponents themselves. However, Hindutva proponents use such ideology-driven approaches as a pretext to promote their own theories. Using Dravidian nationalism as an excuse to promote Hindutva is another Hindutva technique, and Dravidian nationalism will

almost certainly perpetuate the Hindutva menace, and therefore, a change in attitude from all sides is warranted. A desire to boost sectarian pride will never get people very far; it breeds counter-reactions always. Dravidian Harappa proponents must always be willing to take contradictory evidence into account, and must present their ideas only if they are convinced that they are correct. Sentimental approaches make people nutty. Of what use is a proposal if it does not stand the test of time or if the targeted audience makes a mockery of it? Using Euro centrism as an excuse to promote Hindutva is also a well-known Hindutva strategy. Read posts in 'Indo-Eurasian research list' for example, and the day may even come when people of this type are declared to be as guilty and as inimical to science as Hindutva proponents themselves. Many scholars, both Western and Indian, have been critical of this type of an approach. Farmer's approach has been undermine the hard-work put in by scores of American, European and Indian scholars in uncovering India's past. While no scholar, Western or Indian will oppose a quest for the truth, few would deny that Farmer's approach is loaded with bias and prejudice, and this fact was tacitly acknowledged by Farmer himself in a post in the 'Indo-Eurasian research list'. (We say this not because of any antipathy but to drive home a point. We say this in the interests of science and scholarship.) This approach is dangerous for many reasons (a) it sets a bad precedent not only for Indology but for other sciences as well. (b) it undermines the hard work put in by American, European and Indian researchers, makes a mockery of objective scholarship, and results in a loss of confidence in mainstream scholarship,

particularly Western scholarship in Indology, which at the time of writing this article, may already be in very steep decline. This is unfortunate, because most moderate Indians insist on an East-west collaboration in Indology as well as a major role to be played by the west as this would be crucial to the containment of religious fanaticism and other kinds of ideology-driven approaches. People of this type are therefore, typically not India's problem. They are America's problem, and a problem of the West, because they give American and Western science a bad name, and this is distressing, more so because the West has much to benefit from it financially and intellectually. While Steve Farmer may be no friend of India, it is clear that is no friend of science and objectivity either, and while we acknowledge their contributions in tackling the Hindutva menace, they owe their existence almost entirely to Marxist dogma in India and well-entrenched cabals that would like the Nineteenth century school of Indology to continue in some form or the other. (c) such approaches automatically lead to a polarization of views and as long as such approaches continue, Hindutva will almost certainly exist. Farmer's approach has also been to "corrupt" scholars of the caliber of Witzel and Dr Richard Sproat, whether they may be individually guilty or not, and it is most sad that this has been allowed to happen, to the detriment of science. His approach has also always been to drag Indology backwards, in the direction of the Nineteenth century, parading it as objectivity. One may read the so-called Indo-Eurasian research list if he likes. We say this not because we have any hatred against him at a personal level. We say this because it stymies progress in many areas and produces counter-reactions. All this is ephemeral and transient;

such digressions cannot last long and will ultimately be left by the wayside. Many new epigraphic and archeological discoveries are being made constantly in the subcontinent. The IER, with its apparent bias and racism is not a place where new discoveries are analyzed and discussed, although Witzel may, individually, not be entirely guilty, as Steve Farmer may have been largely responsible for his degradation over the past few years, and at times have made an earnest attempt to bring order into to the mayhem, at other times being swayed by his assistant. If, on the other hand, they are willing to change, and turn over a new leaf, everyone must welcome it. This approach is like Katherine Mayo's in her much-maligned 1927 book 'Mother India' i.e. to take anything that may be of some pride to locals and negate it, to give Western culture an upper hand. Can this kind of an approach survive in the longer run? We leave it to the lay-man to decide. The plight of colonialism is well-known. One of her fixations was Indian cultures' imagined cruelty towards animals. Is this true, in comparison to other cultures given that many Indian sects abhor cruelty towards animals in any form? Given that Western universities depend on Indian students, India-bashing of this kind, in the guise of scholarship is not a bad business strategy, it is anachronism. Archaic Western scholarship had for long depended on Marxist dogma to propagate imperialism. All this will change in the next decade as both get consigned to the rubbish-heap of history. On the other hand, what contribution did Hindutva proponents make in exposing this bias? Absolutely nothing, in the view of most. This may be because they are not interested in anything that is outside the purview of AIT-bashing! This is by now a hackneyed, and a stale old trick, and would now even appear

ludicrous to most. What other tricks do Hindutvavaadins have in their stable? Their approaches clearly reflect their narrow and parochial mindset. Hindutva will not survive if like-minded individuals create and awareness among the larger sections of the public. On the other hand the fact the viable alternatives do not exist means that Hindutva is a ticking time-bomb. Hindutvavaadins, sensing mainstream scholarships imminent demise, are waiting on the wings to take over.

11. Using the fact that current approaches to Indology are considered to be hopelessly obsolete to their full advantage instead of opting for via media solutions. There can be no smoke without fire; Hindutva proponents managed to wrest control of institutions such as the Indian Council of Historical research because there is a failure from all sides. Older Indologists must understand the limitations and drawbacks of obsolete models and Marxist historians must similarly understand that they must take a major portion of the blame. Marxists historians have argued that all schools of historiography have been encouraged. This is wrong, because dogmatic scholarship such as those always attributed to Marxist historians throw up counter-reactions. Marxists themselves are legitimizing Hindutva. As long as dogmatic Marxist historiography exists, Hindutva will continue to exist. We will even argue that dogmatic Marxist historiography is one of the pillars of Hindutva. The approach must be to marginalize Hindutva, not to give it a reason to exist. Only people who are free from ideology or dogma will have the moral and ethical right to speak out against Hindutva. Only the abandonment of their ideology will give them enormous power and the ethical and moral right to criticize other ideologies as well. While

there may be no consensus on most or many issues even among the so-called Marxist intelligentsia, the fact that there is a clear and an illogical and an irrational bias among some sections of the left is visible and apparent to most logical thinkers. This, of course may be a purely ideology-driven one, and not necessarily one driven by an intention to deceive. When a Warangal-based student painted Hindu deities in the nude, he was supported, as it was artistic freedom. The same was the case with M F Hussein. When the Dutch cartoon controversy erupted, the response was tragically and quite drastically different. We only demand that all sections of the intelligentsia take a common stance regardless of religion. A section of the left intelligentsia categorically stated that they would not condone fanaticism of any kind, irrespective of whether it was Hindu or Islamic. This kind of a pronouncement is always welcome, but must be followed up with action consistently. A change is nonetheless perceptible, and this will serve to bring people on all sides of the table together one day, regardless of ideology. The Marxist magazine 'Frontline' criticized the Varanasi bomb blasts, and rightfully so. Even former hardliners like Prakash Karat have apparently learnt to change with the times. This kind of a change in approach is welcome, and would actually be beneficial to the interests of scholarship. This cannot however be said of all sections of the left, and one may do his or her own homework to assess whether this statement is substantiated. We will differentiate between the left, the far left (the differences being the degree of ideology), and what we may call the disoriented and antediluvian far left, which is essentially driven by dogma. At least the third category has to change, and the author is of the firm conviction that

this can eventually happen. If this does, Hindutva will be marginalized. We will always say, ‘one kind of a bias legitimizes every other kind of bias.’ We will also be looking forward to a quantification of bias and prejudice of all kinds, and this is an exercise interested scholars must undertake. This can be done only by proving Hindutva and Marxist dogma empirically, analyzing Hindutva and Marxist writers and their works thoroughly, that we can lay the foundations for a more objective school of Indology. We will look forward to such works from scholars in the near future. Remember the golden rule: Absence of a male fide intention can be no excuse. The road to hell can be paved with the best of intentions. If dogmatic Marxist historians still wish to persist, others must declare them to be anti-science and anti-national just as Hindutva is declared anti-science and anti-national. Mainstream Western and Indian scholars are equally guilty because they persist with outdated paradigms. Marxist scholars have clearly made no effort whatsoever to expose Farmer’s bias in the IER even though it is as damaging to science as Hinduva misuse of history. Clearly, dogmatic Marxist historiography of the kind practiced in India is biased, one-sided and irrational, and due to this, we declare them anti-national in some respects, even though they may have no mala fide intentions per se. The fact that their approach is one-sided has been pointed out by many other scholars and we are certainly not the first to have done so. In many cases, they may be working against national interest, and in what cases they are working against national interest, they themselves may have no control, given that they may be entirely driven by dogma, unlike that approach that should be ideally adopted by logical-thinking individuals. As has

been pointed out Marxist historiography has become synonymous with obsolescence and senility, and this kind of an approach cannot even continue beyond one or two generations, and will lead to depleted intellectual faculties, illogical and irrational behavior, loss of personal respect and dignity, lowered level of professional competence, and such individuals may frequently act against national interest and interests of science and will inflict, like Hindutva, damage on the education system as well. We will persist with this categorization, however provocative it may seem, till they change, or can at least provide a convincing refutation backed by data. We can still find Western and Indian scholars talking about the terms 'Aryan' and 'Dravidian' in a racial context, and arguing facetiously for second millennium BC migrations, for example. All this needs to change, as they can be pronounced guilty for encouraging Hindutva. Modernization of Indology is the only surefire method to nip Hindutva in the bud before it evolves into a Frankenstein monster of uncontrollable proportions and devours objective scholarship completely in the next couple of years. Those who do not want such a thing to happen must forge a consensus to found a new school of Indology. This must happen as soon as possible because we are leaving too many things open to risk, and the loss of objectivity in scholarship will be to the major detriment of the west. Marxist intellectuals rightly criticized Hindutva and their endeavours that culminated in the containment of Hindutva must be highly appreciated. However, by persisting with outdated paradigms, Marxist intellectuals are actually encouraging imperialism and racism. Marxist historiography is one-sided, and India is none the better for it. Hindutva misuse

of history may be a reaction to Marxist historiography. Needless to say, Hindutva proponents have a vested interest in promoting their own ideology, not just criticizing Marxist historiography because it may be biased, and the result of one kind of bias is that it produces an unequal counter-reaction, the end-result being far worse than the relatively innocuous Marxist dogma that may have produced it in the first place. Both ideologies i.e. the Marxist-imperialist nexus and Hindutva may have actually depended on each other for survival, even to some extent providing a stimulus and a *raison d'être* for both. One ideology cannot be a substitute for another. The best antidote for Hindutva fascism is objective scholarship, not any other form of ideology; the latter will be clearly exacerbating it more in the longer run. All students who wish to join Indology courses in mainstream institutions must become a harbinger of change by insisting that obsolete paradigms be abandoned forthwith. The nineteenth century school of Indology will have a vested interest in prolonging its existence, and those who subscribe to it may have an emotional attachment to it that is not in the long-term interests of scholarship. Scholarship is global, not local. By resorting to tactics such as these, Western scholarship will not only be digging its own grave (this will be sad as it has contributed so much and the rest of the world has still so much to benefit from Western scholarship) but will also be producing counter-reactions that will undermine its own well-being.

12. Taking full advantage of the fact that the man in the street cannot understand or will not be interested in understanding the complexity of the Aryan problem and using his historical naivety to their advantage. Hindutva

strategies are extremely complex, albeit somewhat stale now, and those who understand them must expose them. It is of paramount importance that the masses, or at least intellectuals be educated on Hindutva strategies, and modern paradigms must be similarly widely disseminated.



Fig 8. The Location of the IVC doesn't tally with the Mahajanapadas at all, clearly negating the Vedic Indus theory. www.wikipedia.com

Why the Paramunda Indus Hypothesis is not tenable

In the third section of this paper, we provide a refutation of the Paramunda Indus theory. This section, again, consists of several independent points refuting the Paramunda Indus theory, and those who subscribe to the Paramunda Indus theory are invited to address these issues.

Possible colonial motives and motives of Nineteenth Century German scholarship

“Ages and ages ago, there sat, side by side, the ancestors of the English, Rajputs and Brahmins. (upper caste Indians) Now after ages ...”, British Prime Minister Stanley Baldwin thundered in his speech in the House of Commons in 1929, “the two branches of the Aryan ancestry have again been brought together by Providence ... By establishing British rule in India, God said to the British, ‘I have brought you and the Indians together after a long separation ... it is your duty to raise them to your level as quickly as possible ... brothers that you are’”! [Baldwin, 1929]

Thus, perhaps began another aspect of the misuse of the term ‘Aryan’.

Missionaries such as John Muir and J.Wilson also supported the idea that the aborigines were indigenous to India and that upper castes were invaders. Fredric W. Farrar likewise, argued that it was the duty of the British to convert Indians, particularly the upper castes into Christianity so that they may be witness to the same cultural progress as their European brethren (Leopold 1974:596-7). The idea that the natives of the region were aborigines also finds some support in the writings of the Indian Jyothiba Phule, who, opposing the hegemony of Brahmins, preferred racialized versions of the AIT and selective readings from Hindu myth to ‘demonstrate’ the conquest and the subjugation of the tribes by the Brahmins.

To Germany, Indology and India owe a great deal. A scientific study of India’s past began in Germany long before Indians had the capability and the energy to begin researching their past. However, as Douglas T. Mc Getchin points out contrasting and comparing motives in Germany and England

"Although I touch here on the impact of German scholarship in modern India, it was ancient, not modern India that was important for nineteenth-century German scholars. As Kaushik Bagchi has argued, “Modern India and modern Indians did not really interest [German Indologists]. Modern India and Indian antiquity were for these scholars, two separate compartments. One was their professional interest of job, and the other an object of curiosity that was related to their professions, but not central to it.

Modern Germans' representation of Ancient India had a narcissist element, that is, it was informed by Germans' interest in themselves rather than a genuine "other". German Sanskrit scholars considered the ancient Aryans to be their own ancestors, so they portrayed them in a bold and a favorable light. Albrecht Weber made it a point to divorce the Ancient Aryans from their modern Indian descendants. "In this free strength, this vigorous self-consciousness, a very different, and a far more manly and noble, picture of the Indian is presented to us than that to which we are accustomed from later times." Weber considered the enervating influence of the new climate as the primary reason for the decline of the ancient people. Muller's case shows that the lack of a direct German colonial presence on the Indian subcontinent did not mean German Indology was free of Imperial and colonial patterns of thinking and interests. AW Schlegel, described how Germans would harvest the "intellectual treasures" of India even if the English took the material goods.' [Mc Getchin, 2010, 185]

As Thomas R Trautmann states, acknowledging the continuing legacy of colonialism "Speaking for myself, having been awakened from my dogmatic slumbers and having gone back to the British pioneers of Indology for a closer look, doing so has been a revelation for me, filled with unexpected discovery. At the outset, it became very clear that most the British Sanskritists, without any exception were empire loyalists and scholars who took it for granted that there was a very close connection between their scholarship and the British colonial adventure in India." [Trautmann, 1999, 277]

As Edmund Leach also pointed out as recently as in 1990, “The origin myth of British colonial imperialism helped the elite administrators in the Indian Civil Service to see themselves as bringing ‘pure’ civilization to a country in which civilization of the most sophisticated, but morally corrupt kind was nearly 6000 years old. Here I will only remark that the hold of this myth on the British Middle-class imagination is so strong that even today, 44 years after the death of Hitler and 43 years after the creation of an independent India and Pakistan, the Aryan invasions of the second millennium BC are still treated as if they were an established fact of history. This attitude fits well with the prejudices of the Nineteenth century English and German scholars who were committed to maintaining a system of sexual apartheid to separate the rulers from the ruled.” [Leach, 1990, 243]

The Paramunda Indus hypothesis has been supported by scholars such as FBJ Kuiper and Michael Witzel who may have even presented their theories in good faith, despite Witzel’s supposed penchant for unscholarly IVC-bashing (due to whatever reason and at least from around 2000 to 2009), and it would be unjust to cast any aspersions against people without evidence, as Witzel has, in particular, been of the opinion that the Indus question is far from being satisfactorily resolved. As Witzel himself says, “If the Indus language is a kind of Para-Munda it cannot, however, be excluded that one or more *unknown* languages are involved (cf. Zide and Zide 1973:15) in the Rigvedic substrate. From the older RV onwards, we find a number of words that cannot be determined as Para-Munda. Examples include the words with geminates e.g. *pippala* RV 5.54.12 and an undetermined number of the c. 300 ‘foreign words.’” The image of blond-eyed Aryans

overriding barbaric tribes, is a fantasy, very often with pronounced political overtones, and is capable of producing disastrous counter-reactions. Accept it if it is true, but we now show why Paramunda cannot even be considered a contender for the Indus.

The term Paramunda is not used by most scholars

The term Paramunda is not widely used by most scholars. The term Munda, however, refers to a group of languages spoken in Central India, and is relatively used much more widely. The Munda group of languages of the Austroasiatic family is spoken by so-called 'tribals' in central and eastern India. They are classified into North and South Munda. The Munda group of languages consists of languages such as Sora, Gorum, Gta, Gutob, Remo, Kharia, Juang, Asuro, Korwa and Kurku, They are the least well-known and most poorly documented languages of the Indian subcontinent, and the history of the evolution of these languages is notoriously unreliable despite the fact that some work has been done by Norman Zide, Heinz Jurgen Pinnow, Peter W Schmidt, Michael C. Shapiro, Harold F. Schiffman, Jeremy H. C. S. Davidson and many others. Paramunda Indus proponents must explain what is meant by the term Paramunda, as they themselves define it as a hypothetical family of languages, and must clearly explain the relation of this term to Munda as well. Indian nationalist author Shrikant G. Talageri has likewise, criticized the idea of proposing non-existent language groups as candidates for the IVC.

No Munda languages in NW India and Pakistan

There are no Munda languages spoken in NW India and Pakistan at all, despite the fact that the IVC is believed to have been multi-linguistic with many language families spoken there. Munda languages are only spoken in Central and Eastern India. Furthermore, Munda languages are only spoken by five million people while IA languages are spoken by several hundred million. These factors should serve to negate the Paramunda Indus hypothesis.



Fig 9. Munda Tribes in Central India

Similarity with West Asian cultures

The Harappans shared several cultural similarities with the people of neighbouring civilizations in Jiroft, Mesopotamia and Egypt, traded with them, and were only a part of a larger network of ancient civilizations. This should clearly rule out the Paramunda hypothesis, which fails all the tests that were used to negate the Dravidian Harappa hypothesis, one of them being that Ancestors of the Indus languages originated in Baluchistan.

As D.Q Fuller points out “New linguistic research points out that Munda Ancestry and the large Austro-Asiatic family, should be placed in South Asia. In recent discussions archeologists have assumed that Munda was a relative late-comer to the subcontinent coming from South East Asia, South West China (E.g. Higham 1998, 2003, Bellwood 2001, 2005, Fuller 2003 c). This has also tended to be the assumption of linguists, since the South-East Asian Mon Khmer languages already noted the reconstructed vocabulary, tree, the modern linguistic geography suggest an Eastern Indian (Orissan) homeland for the Proto-Munda, which would suggest that these language substrates as well as Munda-like place names in the Gangetic zone (Witzel 1999, 2005) come from an earlier pre-proto-Munda branch of Austro-Asiatic” [Anderson, 2008] [Fuller, 2007]

Cultural differences

Munda speakers are mostly tribal and belong to the lowermost strata of society. The IVC was one of the most advanced civilizations in its time. Thus, the Paramunda Indus hypothesis has to be disputed on cultural grounds. Any adherents of the Paramunda Indus hypothesis must additionally convincingly show how cultural and language transformations from Harappan to Post-Harappan India took place.

Skeletal biology

Munda speakers were similar to the aborigines of central India. On the other had, the Harappans were clearly ancestors of present-day inhabitants in Pakistan and the north-west of India, (as there was no major disruption in the skeletal record) and we have taken the views of several scholars in a previous section of this paper.

Munda speakers exist only in isolated pockets: Munda languages could not have been brought from the IVC

Munda languages are spoken only in pockets in Jharkhand and Chattisgarh. These could not have been brought from the IVC for one simple reason: if this had been the case, the whole of the Gangetic plains would have been Munda-speaking after the transfer of populations took place to the Gangetic plains in 1900 BC. On the other hand, Dravidian and Munda are spoken today only in residual pockets, which would imply that these survived because these were not obliterated by IE languages. This should again negate the Munda Harappa hypothesis.

Other reasons

We also showed that IA languages were spoken in a region covering the IVC, the Vedic Homeland and the Aryavarta taken together. This clearly shows that the Harappans could only have primarily spoken languages which included remote ancestors of languages which much later came to be known as Prakrits, and that these languages interacted with the PIE to form Vedic Sanskrit and the Prakrits. The Paramunda Indus hypothesis would imply, given the small genetic output from Central Asia, that

Paramunda languages were the ancestors of languages of North India and few with agree that this is a viable proposition. As Witzel himself points out, immigrants would not have had any sophisticated vocabulary whatsoever to speak of, much less the kind of vocabulary of the RV, and therefore immigrants would have taken over the vocabulary of the region. The Paramunda Indus theory would clearly imply that Paramunda was equal to Indo-Aryan languages. This is absurd, and is an obvious Paradox. Therefore, the Paramunda Indus theory is absurd. We have also proposed methods to reconstruct the languages of the Harappans along with smoking guns. If these throw up any words belonging to the Munda group of languages, these will indeed have to be removed. This is because there would certainly have been many languages in the Gangetic plains besides Sanskrit, and ancestors of Prakrits and composers of the RV would certainly have interacted with many types of people in the sub-continent. However, if the ‘substratum’ of Sanskrit throws up words present in the present-day Munda family of the languages, it would not automatically imply that the Indus was Paramunda.

All these factors should serve to drive home the point that the Paramunda Indus hypothesis is untenable. The onus is on Paramunda Indus adherents convincingly refute all the points we have raised above.

What is the way forward?

New methods to reconstruct the languages of the Harappans were presented in the second part of the paper ‘Syncretism and Acculturation in Ancient India: A new nine

phase acculturation model explaining the process of transfer of power from the Harappans to the Indo-Aryans', published in the ICFAI journal of History and Culture. The second part was published in January 2010. These methods are again presented in the end of this paper for the benefit of readers, and would be very self-explanatory to anyone who has not read the previous papers. This paper is therefore independent, and can be understood independently. We had, in these papers, introduced the following hypotheses, and backed them up with very detailed logic and reasoning:

- (a) We proposed that the Harappans spoke many languages belonging to many language groups.
- (b) We suggested that these languages included (the emphasis is on the word "included" here) several languages which much later came to be known as the Prakrit family of languages.
- (c) We had argued that the term Prakrit did not exist until much later, and was not in use during the period of the IVC.
- (d) In other words, these were linear ancestors of languages which much later came to be known as Prakrits. There is as much of a difference between the statement 'The Harappans spoke Prakrits' and 'The Harappans spoke languages which much later came to be known as Prakrits' as there is between the statement 'The Gauls spoke French' and 'The Gauls spoke remote ancestors of languages that much later developed into French'.
- (e) To put it somewhat differently, these languages were half-way between the very old Semitic languages of West Asia and the much later Prakrits of the Gangetic plains and the NW of India, but were clearly already Indic. This is

attested from the fact that the languages of Sindh are different from the languages of Baluchistan, and the split up between Iranian and Old Indic (i.e. Indo-Semitic or the languages of the IVC) must have happened well before the Mature Harappan as there was a time gap of 4400 years between Mehrgarh Phase One and the Mature Harappa.

- (f) We argued that this would not preclude other languages, and it is quite likely that many other language families existed there, as discussed in the paper. Examples of these were Indo-Iranian and proto-Burushaski.
- (g) We proposed that all languages in the IVC were pre-Sanskritic.
- (h) We proposed that the PIE interacted with several languages in the region to form two separate groups of languages in the manner explained in this paper, i.e. Vedic Sanskrit and various Prakrits.
- (i) We had shown in these papers, that while the RV was compiled between 1650 BC and 1380 BC, migrations during this period would not be tenable, and that migrations had perhaps taken place around 2750 BC. Dates were scientifically arrived at.
- (j) Pre-Sanskritic languages of India were labeled Old Indic, and these can be sub-divided into further categories as explained. The languages of the IVC were termed Indo-Semitic.
- (k) Maps explaining the model are available in Annexure One of this paper, and are self-explanatory, as very detailed notes have been provided throughout.

- (l) The process of interplay between the PIE and the other languages of the region is explained in Annexure Two and would be quite obvious to anyone who has read the maps in Annexure One of this paper.
- (m) Methods to reconstruct the languages of the Harappans are presented in Annexure Three of this paper and would be self-explanatory to anyone who has read Annexures One and Two as detailed above.
- (n) Smoking guns, or checks and balances to be adopted while reconstructing the languages of the Harappans are presented in Annexure Four and would be fairly self-explanatory to anyone who has gone through the first three annexures of this paper.

This theory is very similar to many other existing theories, although the methods we used to reach our conclusions were quite different. Some of these theories are listed below, and these are essentially the same as our proposals, despite minor differences:

- (a) ‘Early form of Prakrit’, by Madhav Deshpande (Prof. of South Asian literature and linguistics, University of Michigan, Ann Arbor, Michigan). This proposal was presented in ‘The Aryan debate’ edited by Thomas R. Trautmann, Oxford University Press 2005.
- (b) ‘Mleccha Prakrit hypothesis’ by S. Kalyanaraman, Independent scholar
- (c) Indo-Iranian hypothesis by Ahmad Hassan Dani, one of Pakistan’s leading scholars on www.harappa.com. Although he does not use the term Prakrit, the two hypotheses are conceptually similar as the IVC originated in Baluchistan

(Baluchistan is very close to Iran). Both hypotheses naturally imply that these languages were pre-Sanskritic.

(d) Malati J. Shengde's Elamite hypothesis

(e) Masica's language 'X', and similar other studies carried out in various points in time, and a partial list of such studies was compiled in 'The SARVA (South Asia Residual Vocabulary Assemblage) Project' by F. C. Southworth, University of Pennsylvania (Emeritus) in the year 2005.

(f) We have taken the views of several other leading scholars such as Franklin Southworth, M B Emeneau and Alfred C Woolner that would imply that this hypothesis is correct. We have reproduced quotes in this paper.

(g) This theory is very similar to a proposal made by Witzel himself in his paper "Substrate Languages in Old Indo-Aryan (Rigvedic, Middle and Late Vedic)."

As Witzel says in this paper, apparently ruling out the Paramunda Indus theory and providing an indirect support to the hypothesis laid out in this paper, (this quote is from his paper, "Substrate Languages in Old Indo-Aryan (Rigvedic, Middle and Late Vedic)."

"However, there are indications that another language was prevalent in Sindh before the immigration of the Dravida. The trade of the Indus civilization with Sumeria and later Mesopotamia has left us a number of words that are not Dravidian. It is perhaps best to call this language "Meluhhan" after the name the Sumerians gave to the country, Meluhha. Its language was also sufficiently different from Elamite or Sumerian to require

a ‘translator from Meluhha’ (Possehl 1996a: no. 2), whose name is Suilisu (Parpola 1994: 132). In fact, “the language of Marhasi [Bampur area, just west of Iranian Baluchistan] is different from that of the Simaskians [Tepe Yahya in southern Central Iran], and only very partially Elamite-related.” (Vallat 1985: 52). This indicates that there was a language boundary, somewhere to the west of the present Iran-Pakistan border, probably in a southwards prolongation of the Iran-Afghanistan border. Possehl identifies the area of Meluhha (1996, 1997) as having a center in the hills and mountains of Baluchistan, closer to the population center of the early Indus civilization, which allows for a hypothetical identification of the Marhasi language with that of Meluhha and makes a thorough investigation of the data of RV 8 even more important. There are men with *Meluhha* as a personal name, thus apparently ‘the Meluhhan’; several persons, among them *Urkal* and *Urdlama*, are called the son of *Meluhha*. There also is a village of Meluhha, from where a person called *Nin-ana* comes. The products of Meluhha include *gisabbameluhh* (*abba* wood, a thorn tree), *mesu* wood (‘of the plains’), ships of Meluhhan style (*magilum* boat), (Possehl 1996a). In total, there are some 40 “Indian” words transmitted to ancient Mesopotamia, some of which may have been coined by Dilmun (Bahrain) traders.”

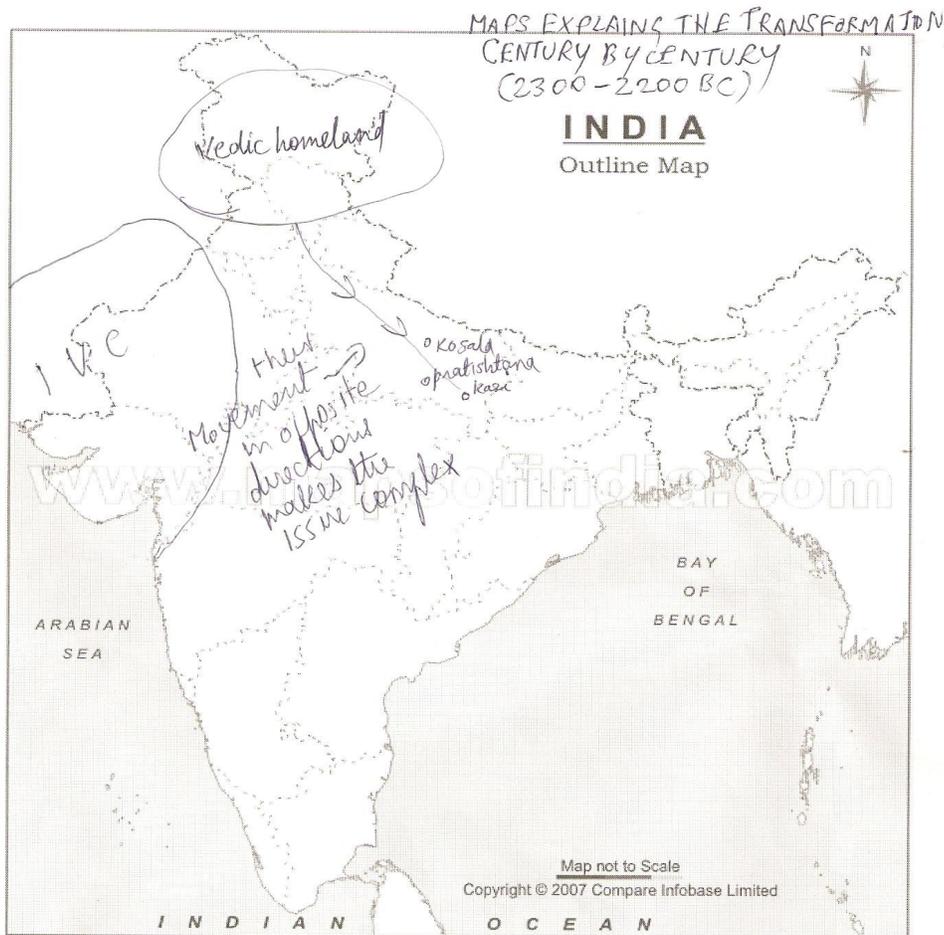
The linguistic boundary between the IVC and the regions further west was observed by Witzel too, and should prove to be a blessing in disguise because it can allow the languages of the IVC to be reconstructed independently and facilitate a comparison with languages further west.

Three crucial and critical additional metrics, i.e, the percentage of the Munda words in the languages constructed using the methods in the above paper, the percentage of such words using some of the methods proposed such as taking the NW Prakrits as a base, and working backwards (the percentage of Munda words if this method is employed, should be nil), and the percentage of words transmitted to Dravidian languages, which should be a small percentage of the languages of the IVC constructed, should convincingly negate the Munda hypothesis.

The author welcomes feedback on the paper, and will willingly address any questions or queries readers may have.

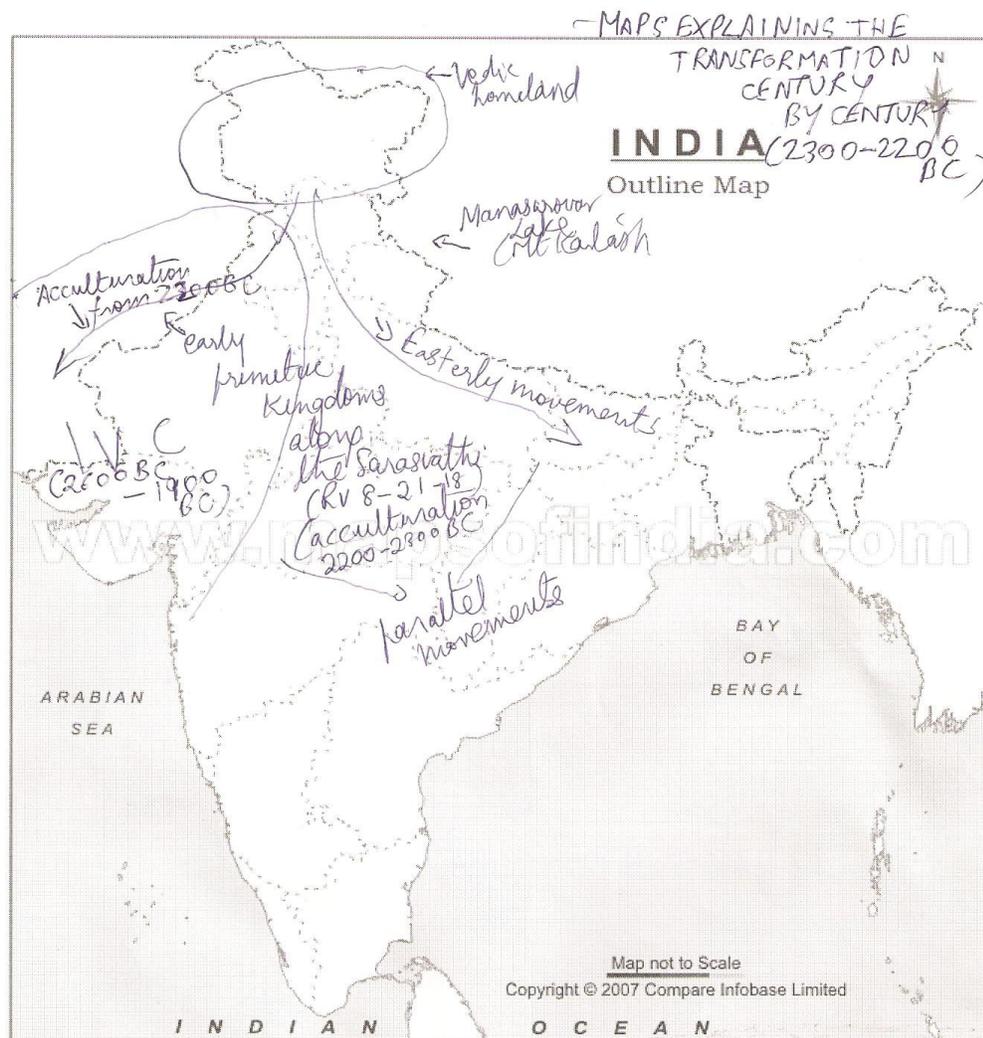
Annexure One

Maps explaining how the transformation of Harappan India to Post-Harappan India took place are below. There was perhaps a small genetic input, and migrants had not yet identified themselves as Aryan. These maps are self-explanatory and the interplay between two streams of languages as explained in Annexure Two can be easily understood after one has read these maps.



Note the eastward movement of the Indo-Aryans. They left the Himalayan region between 2200 BC and 2300 BC and moved along the Ganga and the Yamuna, through jungles. They founded many kingdoms there e.g (a) Pratishtana (Lunar Dynasty or Moon dynasty) (Later known as Prayag and then Allahabad) (b) Kosala (Ayodhya) (c) Kasi (Benares or Varanasi).

Given that the number of migrants from Central Asia even in multiwave models would be limited to the populations there (it is unlikely that two people rode in per horse), and the fact that there were a small number of people in the Gangetic plains before 2200 BC would suggest that the inhabitants of the IVC were ancestors of the people living in the UP-Bihar region. Even if we assume that the immigrants were small and were male (they would then have naturally lost their identity in the Himalayan region itself), we can convincingly explain the spread of IE culture century by century.



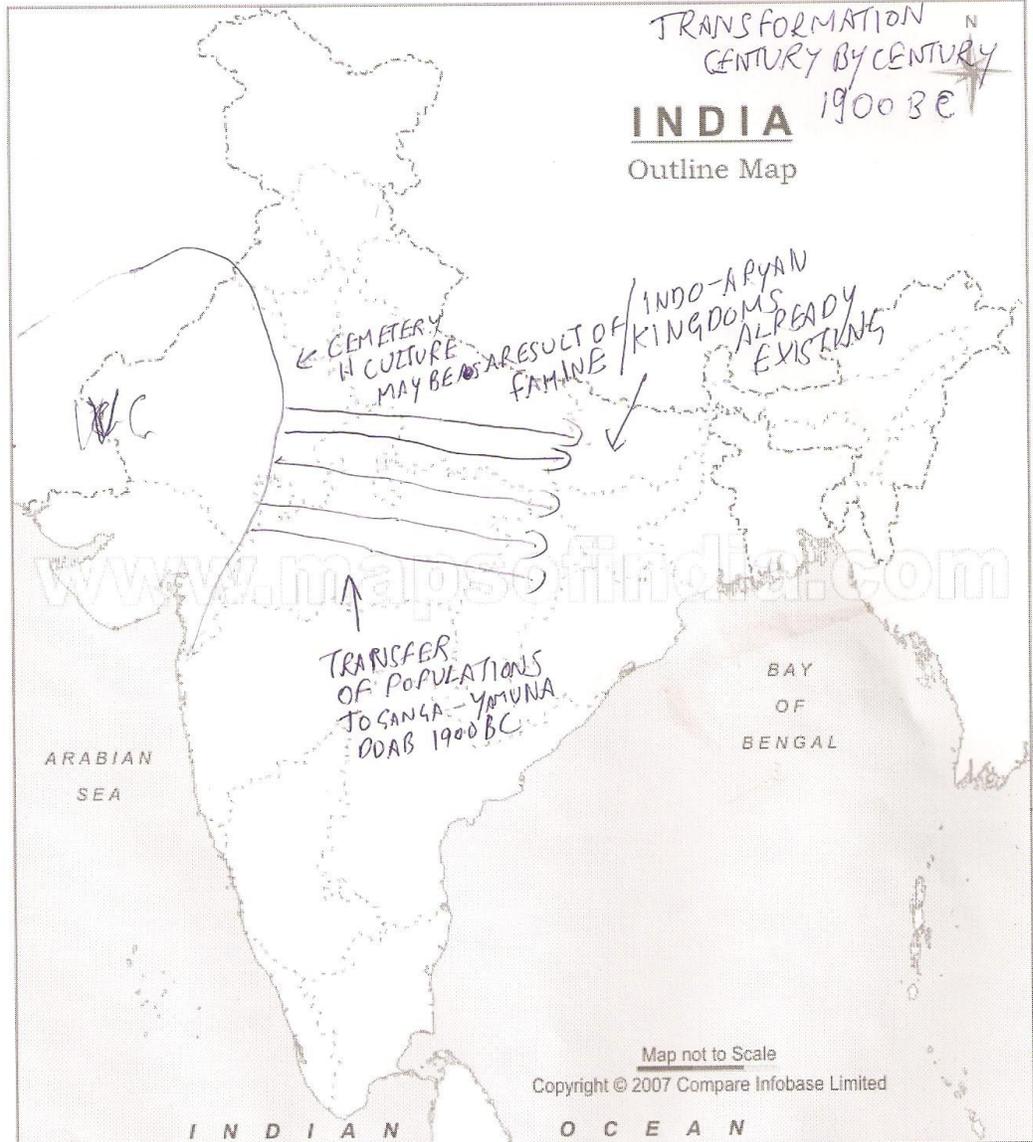
Note the parallel movements of the Indo-Aryans. Acculturation within the IVC would explain the Saraswat Brahmins (Note: It is necessary to understand the southward migrations of 1900 BC well and the acculturation must have already begun before that), the presence of alien objects, the petty kingdoms along the Saraswathi river according to the RV and changes in Burial practices by 1900 BC- the Cemetery H culture may be as a result of a famine in 1900 BC when the eastward movement started. It is fascinating to understand, always using logic and reasoning, taking century by century snapshots, how composite Indian culture got formed starting from the Kot Diji phase of 3300 BC. This would be a fascinating voyage of understanding.

<http://www.mapsofindia.com/maps/outlinemaps/india-outline-map.gif>

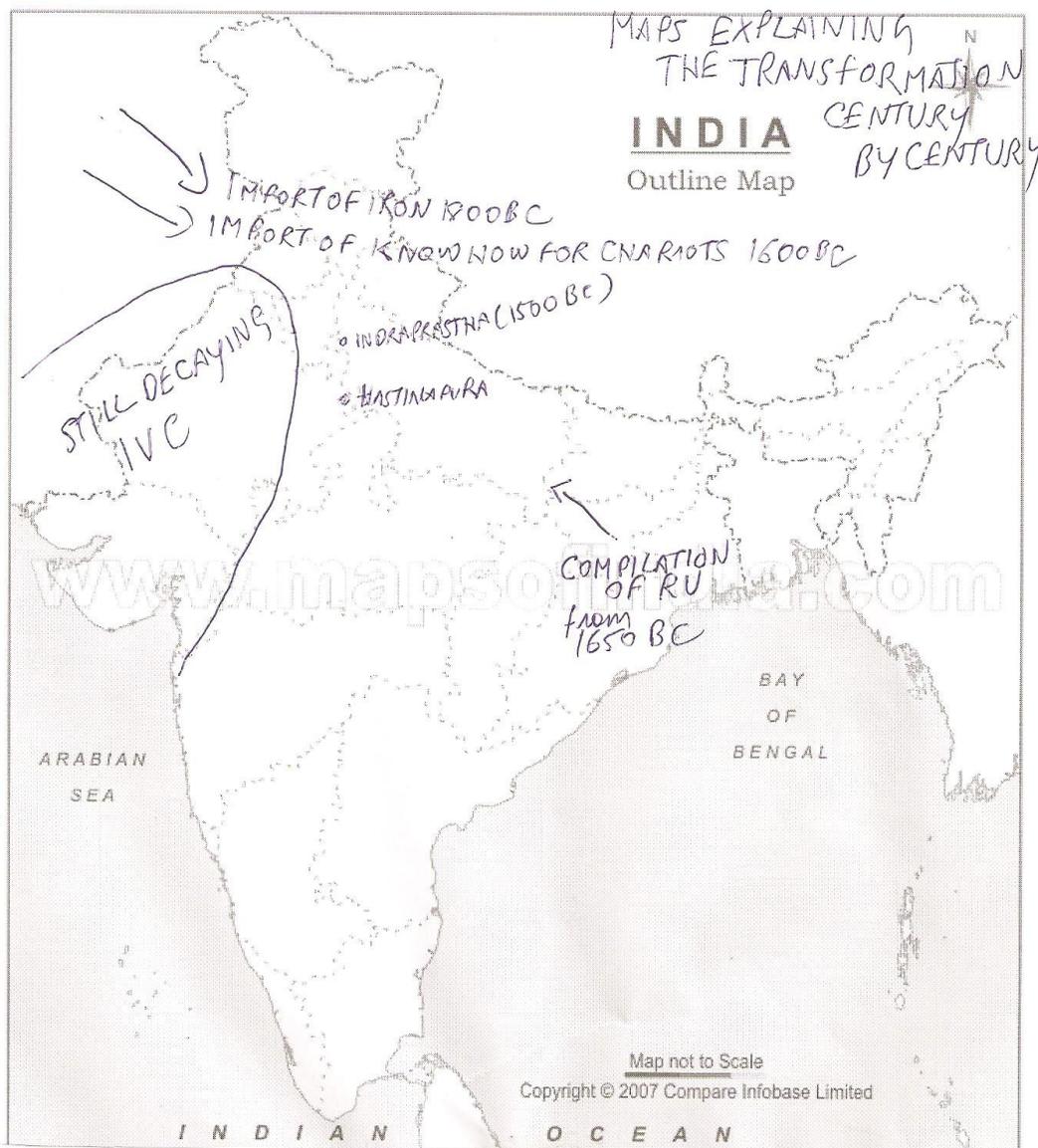
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MAPS EXPLAINING THE TRANSFORMATION CENTURY BY CENTURY

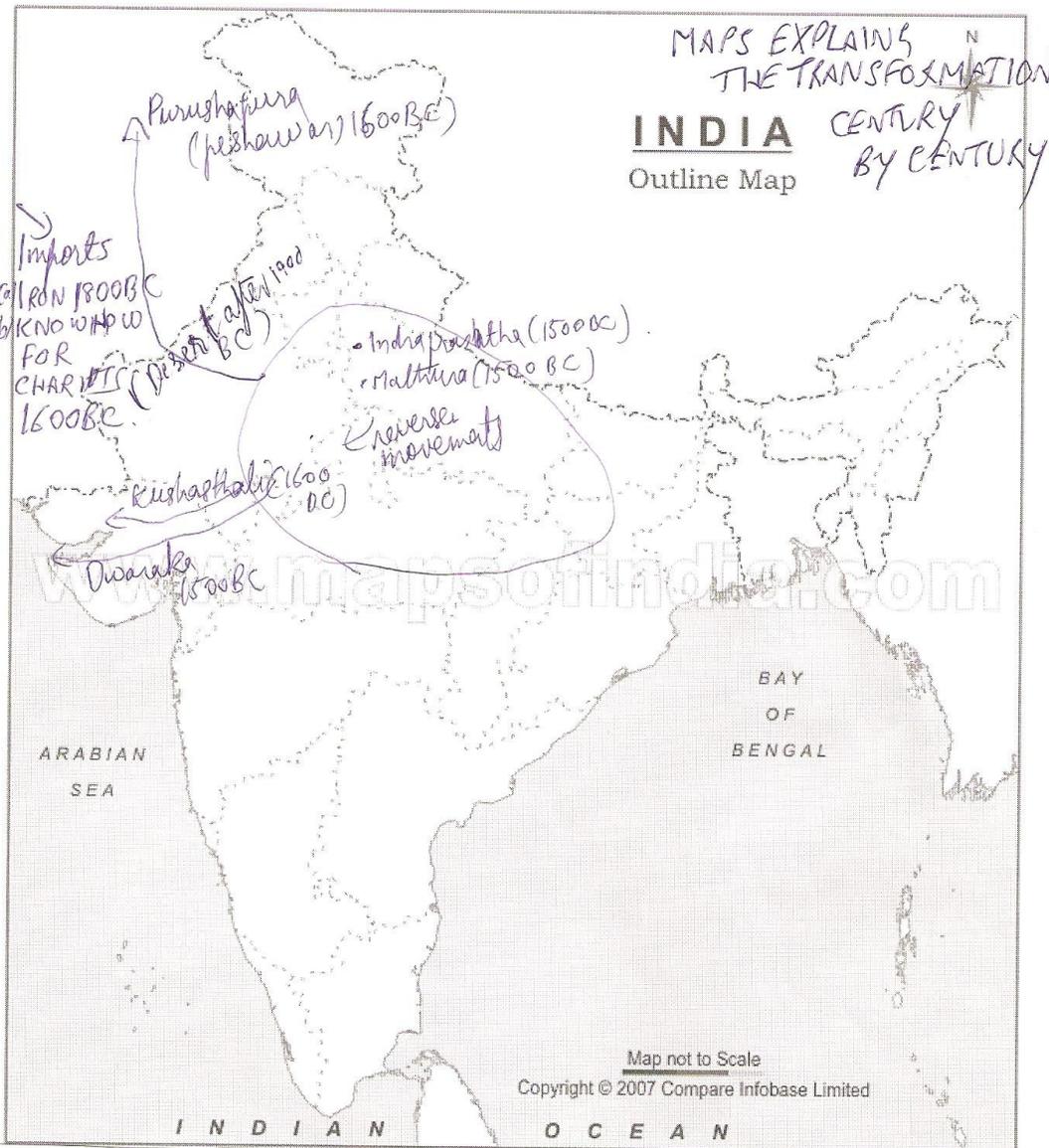
INDIA 1900 BC
Outline Map



The Saraswathi river must have dried up around 1900 BC as suggested by the ASI because this date tallies with the Cemetery H culture and the beginning of the decline of the IVC well. The Cemetery H culture may have been the manifestation of a famine as a result of the drying up of this river.

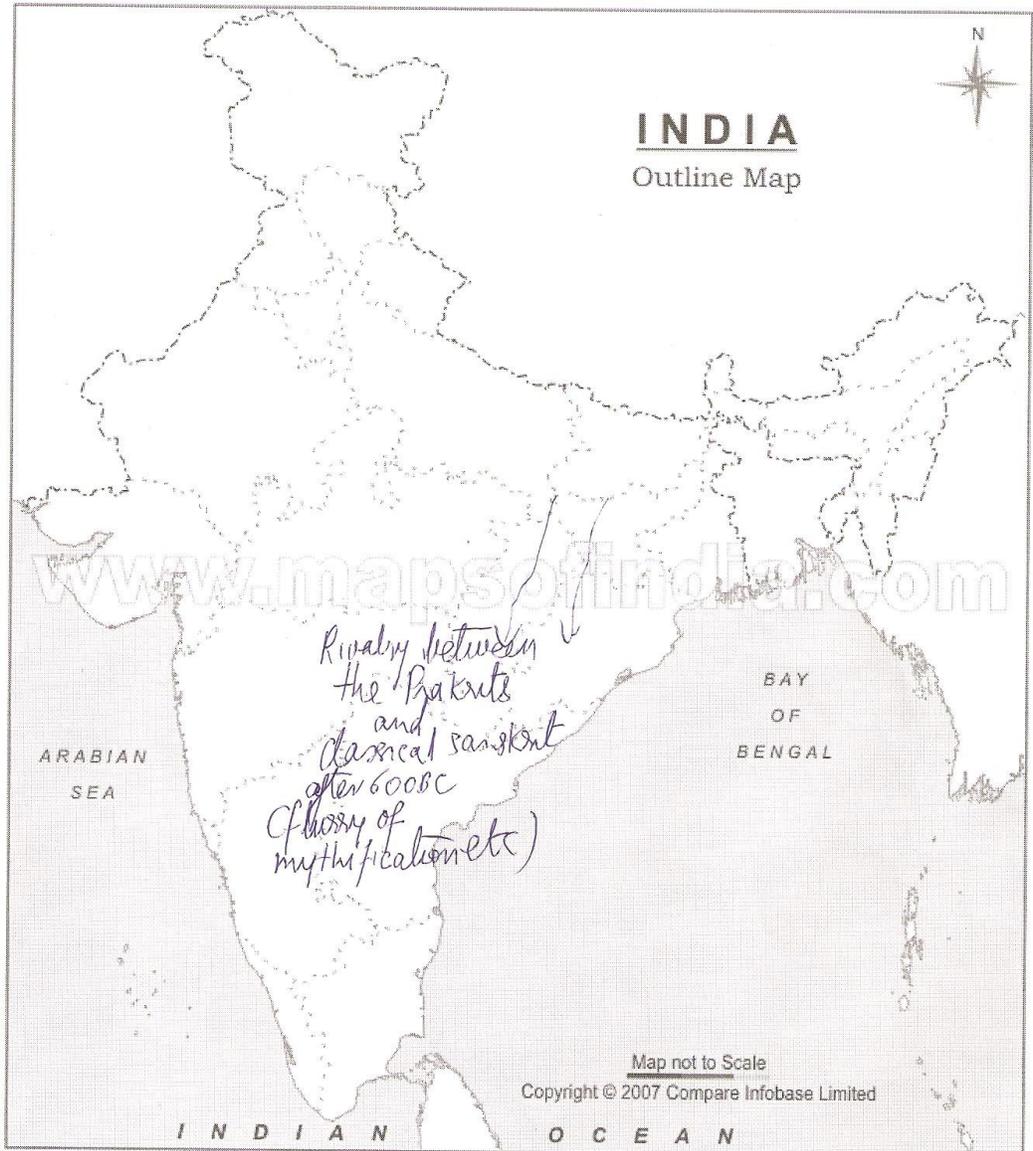


Trade and cultural contacts with West Asia began around 1800 BC, or perhaps a little later than this. Iron was perhaps imported starting 1800 BC and knowhow for chariots around 1600 BC. Indraprastha and Hastinapura were founded around 1500 BC. The concurrent dating paradigm means that several events were taking place in parallel. Readers must take anything they know about the Gangetic plains and fit it into this model.

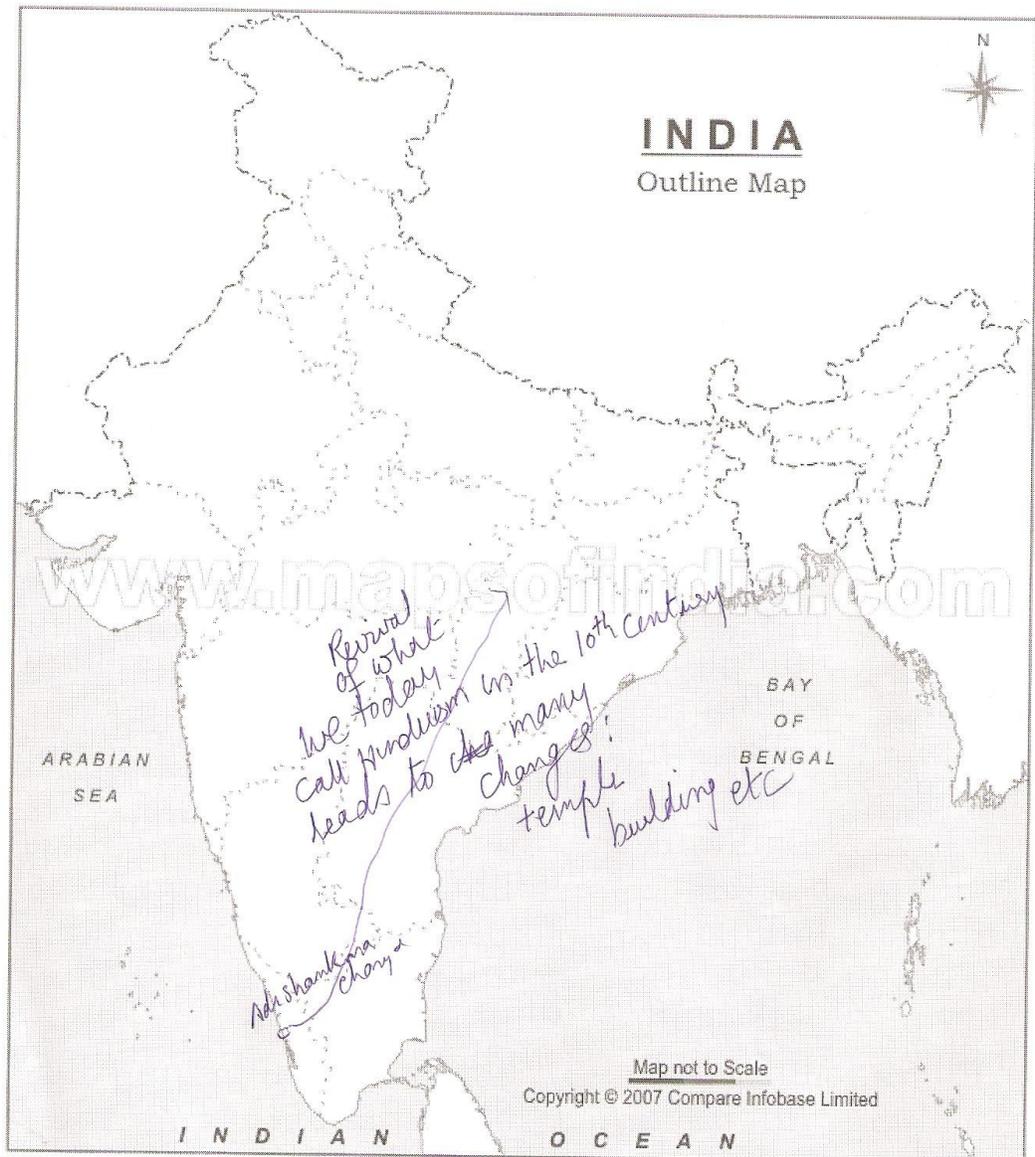


Note how the Indo-Aryan kingdoms moved back close to the decaying IVC. However, the region between the two became a desert after the eastward migrations of 1900 BC, when the populations of the IVC were split up between the Gangetic plains and the Indus.

However, this model differs fundamentally from earlier models in many respects: While IE culture spread, they killed their own language and made it (i) a liturgical language and (ii) a lingua franca of the elite. Secondly, Prakrits did not derive from Sanskrit but closely interacted with them over millenia. This theory if accepted, would change the way we look at IA languages and understand the probable distant relationships between modern IA languages like Punjabi, Gujarati and the languages of the Indus. Note our century by century depiction of the transformation.

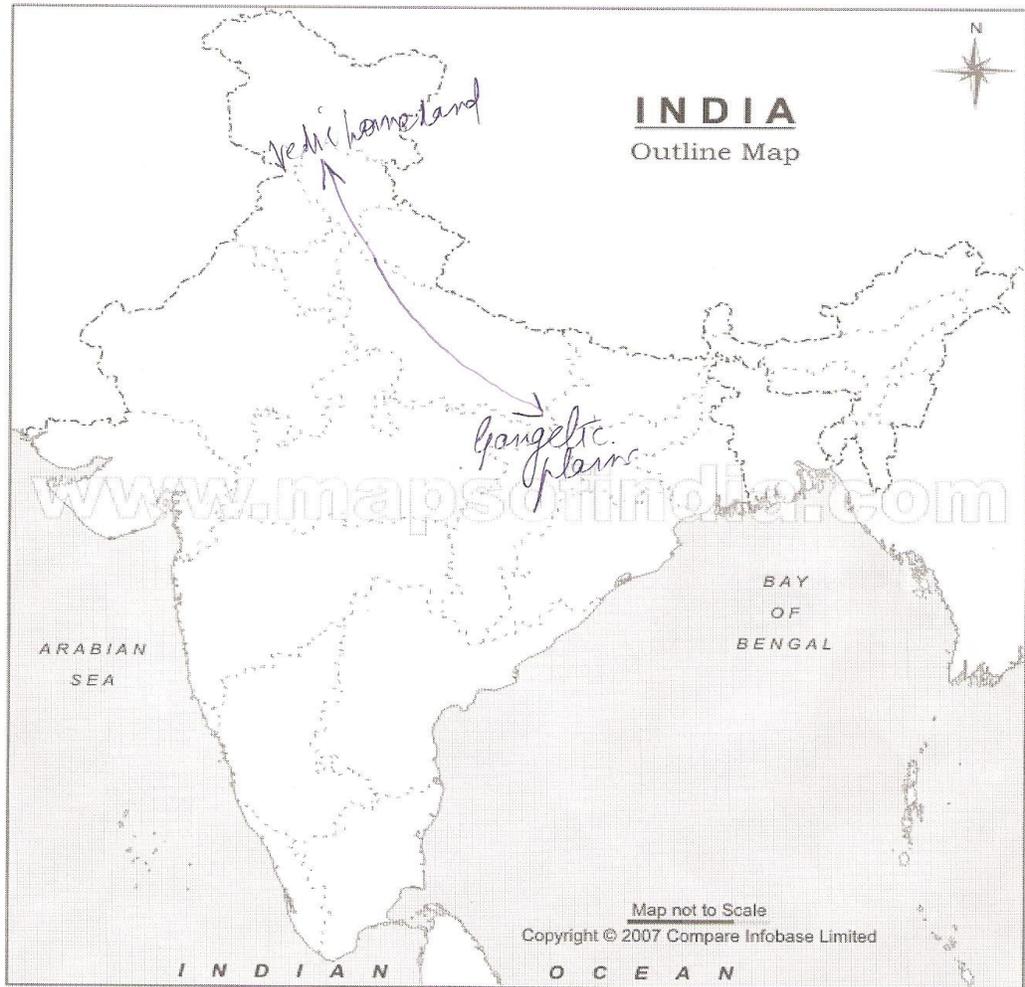


Note the changes to Indian culture as a result of the competition between Buddhism and the threatened Vedic orthodoxy. Classical Sanskrit began to emerge after 500 BC. Another trigger was perhaps Asoka's conversion to Buddhism around 200 BC which resulted in composition of new works and significant changes to religion.



Around 800 AD, the religion that is now called Hinduism appears to have been threatened by Buddhism again. Adi Sankaracarya was an Indian philosopher who

popularized the Vedas. The period appears to have been marked by many changes to religion such as temple building.

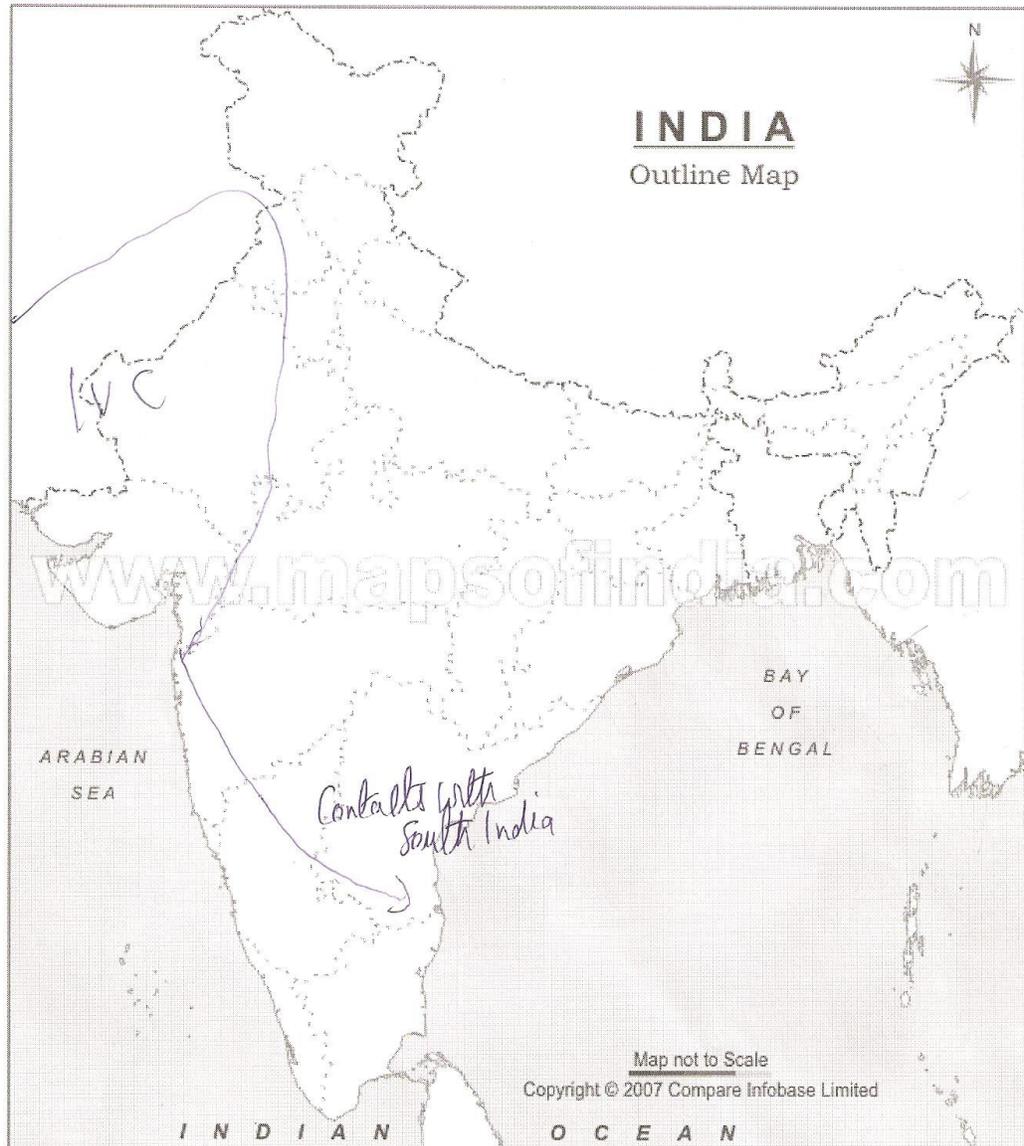


Contacts between the Gangetic plains and the Vedic homeland will explain the retention of names of plants found in cool climates when the Vedas were compiled.

<http://www.mapsofindia.com/maps/outlinemaps/india-outline-map.gif>

02/03/2009

Note: It is not necessary to justify migrations in the second millennium on account of the mention of plants found in cooler climates in the RV, and these is enough evidence to adduce that migrations did not happen in the Second Millenium BC.



Direct contacts between the IVC and the South of India will explain many aspects of Indian culture not accounted for by our Nine phases as discussed in this paper. The problem with the Dravidian Harappa hypothesis is that all aspects of Dravidian culture are not represented in the IVC.

Annexure Two

In this annexure, we will show how the interplay between the two streams of languages took place. This will be self-explanatory once the maps in Annexure One are understood. Speakers of the PIE would have settled in the Vedic homeland in 2750 BC. Sanskrit spread into the Gangetic plains when these people moved to the Gangetic plains in 2300 BC-2200 BC. It died out as a spoken language when the eastward movement of the Harappans took place in 1900 BC, and became a liturgical language, and popular as a lingua franca of the elite. The speakers of IE languages then took on the languages of the descendants of the Indus for everyday speech because of the transfer of populations to the Ganga-Yamuna doab. Sanskrit then re-influenced the languages of the region, in a process that continues to this day even after it disappeared as a spoken language.

The transition of the PIE would therefore have taken place as follows:

PIE (before 2750 BC) => Some Ancestor of Vedic Sanskrit in the Vedic homeland (which could have influenced and been influenced by the languages of the region) (between 2750 and 2300 BC) => Again influenced by the early languages of the Gangetic plains before 1900 BC when the Indo-Aryans spread beyond the Vedic homeland (2300 BC to 1900 BC) => Was influenced by the languages of the IVC after the eastward movement of the Harappans in 1900 BC and also influenced them (1900 BC) => killed itself (1900 to 1600 BC) => Became a liturgical language (1900 to 1600 BC) => Also became a lingua franca of the upper echelons of society (1900 to 1600 BC) => This language took on influences from West Asia (1700 to 1400 BC) => (The substratum in Sanskrit would consist of all the above influences) => This liturgical language re-influenced the other languages of the region in several periods, right up to the modern period after it became a symbol of Indian culture. For example, in the first instance, the competition between Buddhism and the threatened Vedic faith appears to have seen the re-emergence of

Classical Sanskrit. In the second instance, the religion that we nowadays refer to as Hinduism appears to have become popular in the 10th Century. There have been movements promoting the Sanskritization of Indian languages even in recent times.

The transformation of the now extinct languages of the IVC had happened as below:

Ancestors of Semitic (some Ancient period around 7000 BC, perhaps) => Some early form of Indic after 3300 BC and 2600 BC due to (however, there would have been a vast difference between the first two because of the vast time gap and it is natural to expect that there would have been several types of people living in the North-west of India and Pakistan already). The IVC itself was perhaps polyglot => Heavily influenced by Sanskrit after 1900 BC after the migrations to the UP-Bihar region and could have been transformed significantly by around 1700 BC => were not written languages because the Brahminical orthodoxy prevented them from emerging as languages of power (However, there is evidence to establish that literacy always existed in the Gangetic plains in pockets) => they were re-popularized after the emergence of Buddhism. => They were influenced by Greek, Persian and other languages subsequently and by Sanskrit, many times.

Also,

The Prakrits of the Gangetic plains would have been de-synthesized from the Prakrits of the Indus after 1900 BC => There would have been a re-synthesis after Aryan culture spread back into Pakistan after 1600 BC.

Prakrits (which were already influenced by Sanskrit) influenced South Indian languages as a result of contacts between the North and the South

Similarly,

Sanskrit particularly Classical Sanskrit, which itself was born as a liturgical language influenced Dravidian languages

Annexure Three

Proposed methods to construct the spoken languages of the Harappans are given below. This will be obvious after one has read annexures One and Two of this paper.

We proposed the following methods for the reconstruction of the languages of the Indus:

Vedic Sanskrit – PIE influences – West Asian influences (Recommended!)

This is because, Vedic Sanskrit would have had Central and West Asian influences, as explained, and the balance would therefore represent Indo-Semitic. This is because the North-west of India was the only significantly populated region at the time. This would be the simplest and most reliable method and would be far superior to the only existing approach. The arrived at can be easily broken up into language groups). The residual IE words may again be removed. If this throws up words pertaining to Munda or languages which did not exist in the region and period in question, these will again need to be removed.

Method B

Taking the base in NW Prakrit languages of Ancient times including Dardic languages after removing Sanskrit words in whatever form PLUS (Vedic Sanskrit - PIE – language influences from West Asia during the compilation of the RV)

This method can be used once the smoking guns presented as a part of this paper are employed and may assist in a much more comprehensive reconstruction.

Method C

Taking the Prakrits of North-Western India and removing PIE influences from them. This method can be used once the smoking guns presented as a part of this paper are employed

Method D

Taking modern IA languages of the region including Dardic languages and working backwards from the present is another approach we can recommend. If modern languages of the region are to be taken as the base, we must systematically remove all later influences starting from the present. The advantage of the second and third methods is probably that they would permit us to reconstruct the different languages spoken in the IVC separately.

Method E

Substratum of Sanskrit

This is an already-existing controversial method and can throw wrong results. If this method is to be employed, these must be accompanied by checks and balances, and these are below. If proponents of this method argue for a particular language, say language A, they must provide proof of the following, and using independent methods. If they cannot provide proof, their conclusions may be termed speculative. If opponents are able to clearly prove that the following checks and balances disprove language A as the substratum, this hypothesis is deemed falsified because these words would have (a) belonged to the Gangetic plains as in the case of Munda (The RV was compiled there) or (b) would have been shared with South India much later in time as would have been the case with Dravidian:

- (a) Proof of ancientness of language family – Proponents of the any hypothesis must prove using independent methods that the language (or the language family) in question existed in the region during the period of the Indus valley Civilization.
- (b) They must also provide theories to explain the origin and the spread of these languages in these regions.
- (c) They must also explain, wherever applicable, how these languages might have been annihilated, and this is all the more important because IE speakers would have been small.
- (d) Must show how linguistic transformations from Harappan to Post-Harappan India had taken place, as we have in this paper, moreover, given the fact that immigrants would not have been large in number.
- (e) Must show how cultural transformations from Harappan India to Post-Harappan India occurred in detail.
- (f) Must be accompanied by as many additional checks and balances as possible, and we have identified five smoking guns in our present paper.

Method F

A combination of all the above.

Annexure Four

The five smoking guns: The following checks and balances must be adopted while reconstructing the languages of the Harappans. These will be self-explanatory to anyone who has read this paper

Smoking gun A

Vedic Sanskrit – PIE influences – West Asian influences = North West Prakrits + Dardic languages + Proto-Burushaski (after removing later influences including Sanskrit influences, i.e working backwards)

If the above is approximately true, the remote ancestor of Prakrits hypothesis is true. Otherwise, it is false. This is because a mass extinction of languages in the region could not have taken place given the small number of migrants.

Smoking gun B

The languages constructed from our methods need to be compared with later Prakrits to investigate whether Prakrits are independent languages or derivatives of Sanskrit.

If the result is positive the Remote Ancestor or Prakrits hypothesis is correct and the Dravidian Harappa hypothesis is wrong. This is again because a mass annihilation of languages could not have taken place in the region.

Smoking gun C

Here is our third smoking gun: If the substratum of Sanskrit contains Dravidian words and these words are present in IA too, the Dravidian Harappa hypothesis is inconclusive. If the Dravidian Harappa hypothesis is wrong, we can explain borrowings as having arisen as a result of cultural contacts between North and South India at a much later point in time.

Smoking gun D

Vedic Sanskrit – PIE influences – West Asian influences = Prakrits + Dardic languages + Proto-Burushaski (after removing later influences including Sanskrit influences, i.e working backwards)
If the above equation does not tally, the Dravidian Harappa hypothesis has a chance (but it must pass all the other tests we proposed). Otherwise, it may be incorrect

If the Dravidian Harappa hypothesis is wrong, we can explain borrowings as having arisen due to cultural contacts between North and South India.

Smoking gun E

Vedic Sanskrit – PIE influences – West Asian influences contains Dravidian words which do not exist in Indo-Aryan languages

The Dravidian Harappa hypothesis has a chance (but it must pass all the other tests)

Annexure Five

| Sno | Current terminology | Proposed terminology | Justification |
|-----|----------------------------|--|---|
| 1 | PIE or proto-Indo European | Base Indo-European | Base Indo-European may have consisted of more than one language. It is not necessary that modern Indian and European languages may have been descendants or one of these languages; they may have only interacted with them in a process of prolonged interplay as demonstrated in our paper. |
| 2 | IE speakers or 'Aryans' | Speakers of Base Indo-European which would have comprised of more than one language. | The term 'Aryan' referring to a group of people is outdated and harks back to the nineteenth century; it must be abandoned to prevent misuse. |
| 3 | IA languages | Indian branch of the Indo-European family of languages | Indian languages comprising the Indo-European family of languages evolved when one of the base Indo-European languages interacted with Old Indic languages spoken in the IVC to form both Vedic Sanskrit and various Prakrits. |
| 4 | Pre-Aryan languages | Old Indic | Old Indic which would have comprised of several families of languages; the languages in the IVC were neither Dravidian nor Munda but |

| | | | |
|---|-------------------------------|-----------|---|
| | | | <p>were remote ancestors of languages which much later came to be known as the Prakrit family of languages. These may be split up into</p> <p>(a) Indo-Semitic or the languages of the IVC.</p> <p>(b) Proto-Burusharski and other easily distinguishable language groups spoken in the IVC. A split of Indo-Semitic into various language groups may be achieved in the near future as Indologists apply the methods in this paper.</p> <p>(c) Dravidian languages as spoken in South India.</p> <p>(d) Munda languages as spoken in parts of Central India.</p> |
| 5 | Dravidian family of languages | No change | <p>It must be emphasized that the term ‘Dravidian is a linguistic label’ and does not refer to a race. Dravidian languages were a part of Old Indic but not spoken in the IVC. The term ‘Dravidian’ cannot be used as a racial expression in the modern context as several</p> |

| | | | |
|---|-----------------------------------|-------------------------------|---|
| | | | <p>rounds of assimilation have occurred between peoples; but there was probably no such thing in Ancient times either; the people of the Rayalaseema region in Southern Andhra Pradesh have definite physical characteristics that set them apart from Tamils; yet they speak a Dravidian language. This was unquestionably the case in Ancient times too. This is why we call for an overhaul of all terminologies, and invite other scholars of repute to contribute. Existing terminologies are woefully inadequate, if not outright misleading.</p> <p>One possible solution may be to develop a notation which comprises the haplogroup, the language family and the name of the language to describe the people of any given region, and this is something we will leave to other scientists. The research possibilities are of course limitless and endless.</p> |
| 6 | Aryan India, Iron age Vedic India | Post-Harappan India | The term Post-Harappan India does justice to the diversity of the Gangetic plains. |
| 7 | Aryan bones in the IVC | Alien skeletal remains in the | The term Aryan is misleading as several rounds of acculturation may have already occurred. |

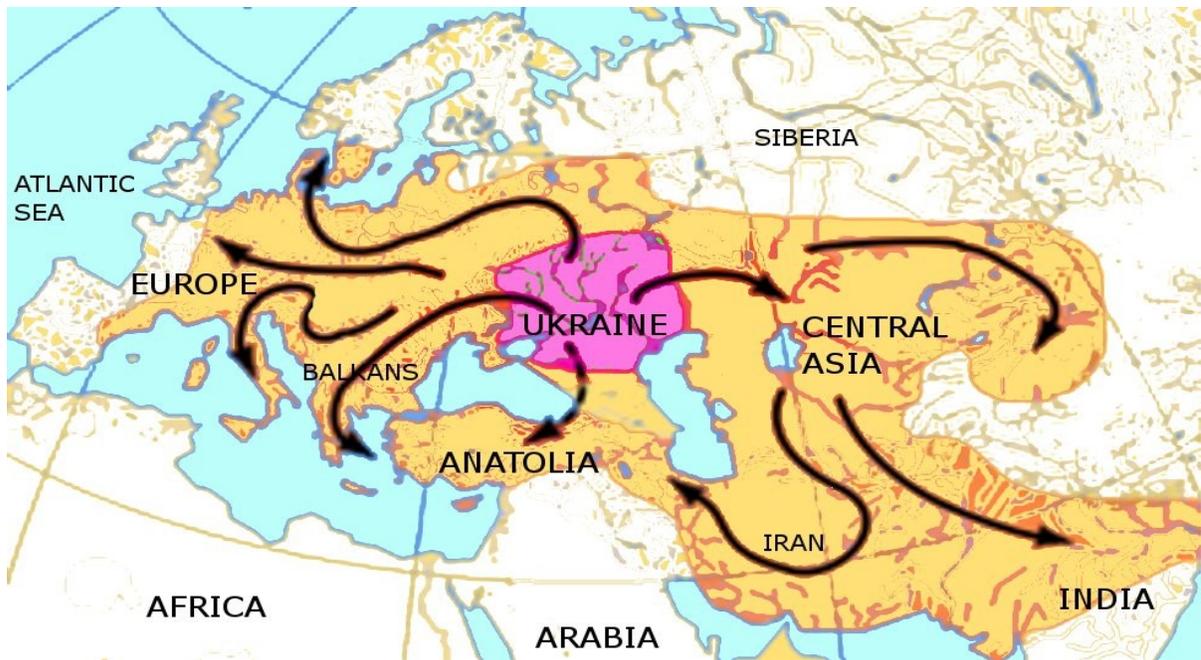
| | | | |
|--|--|-----|--|
| | | IVC | |
|--|--|-----|--|

Annexure Six

Additional maps



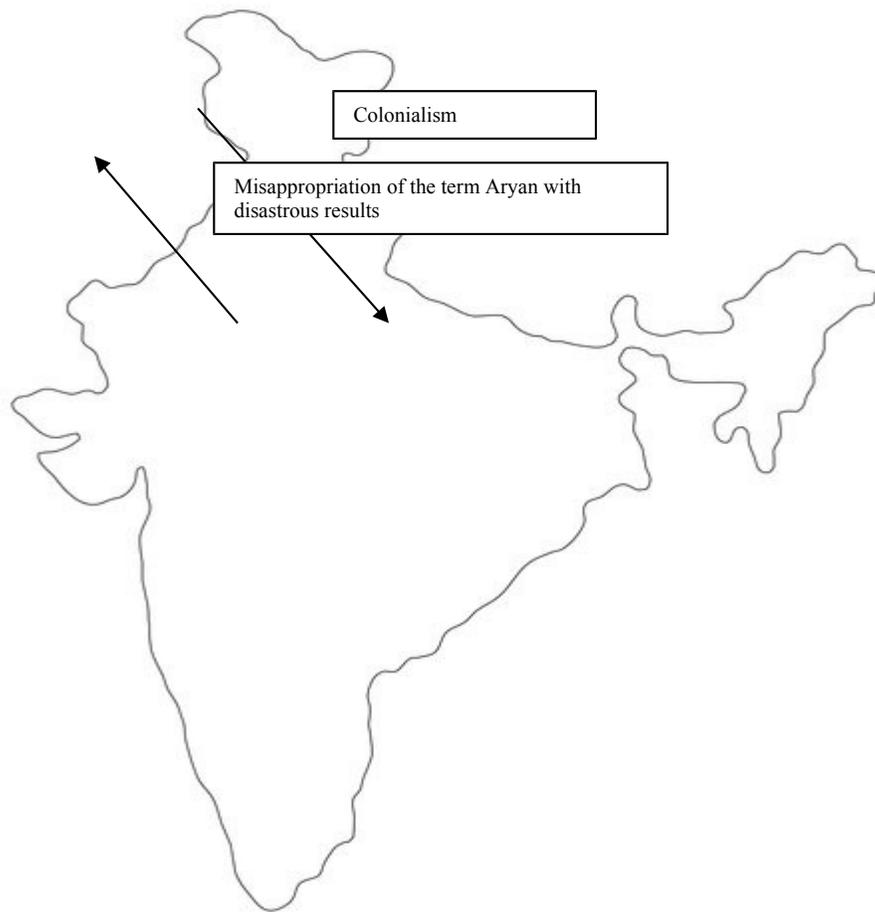
Note that most regions of Baluchistan speak languages that are not labeled Indic. Pashto is itself a part of the Eastern Iranian family of languages. (and is quite distinct from Indic). As the IVC was only gradually settled in from the Baluchi hills, the languages of the IVC (core region of the IVC) were already Indic. This is because there was a time gap on 4400 years between the start of Mehrgarh phase one and the mature Harappan. These were obviously the present-day ancestors of languages of the region! We may resist the temptation of succumbing to migrations unless there is evidence either direct or indirect to support it.
Source: <http://indianhistory.info/indus.htm>



Note the spread of IE peoples according to the Kurgan hypothesis. The location of the urheimat is irrelevant to our paper. There may have been more than one; the domestication of the horse may have been a trigger for movements. The number of IE speakers into India would have been small in comparison with the large population of the IVC. (source: www.protogermanic.com)



Note that the term Aryan would have been brought from Iran to India during the compilation of the RV between 1700 BC and 1500 BC. In the RV, the term Aryan was cultural. The small numbers of people who had migrated from an urheimat much earlier in 2750 would not have called themselves Aryan. (source: www.countryreports.org)



Note that the misappropriation of the term 'Aryan' to mean a race began only in the nineteenth century. Its usage in the West was virtually unknown before the eighteenth century. Exceptions were its usage in specific contexts. An example being Megasthenes' use of the term Arianos to refer to countries close to India.

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