Syncretism and Acculturations in Ancient India: A New Nine Phase Acculturation Model explaining the process of transfer of power from the Harappans to the Indo-Aryans Part One

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Section A
Abstract

Part One of this paper provides a case for rejecting the Autochthonous Aryan theory and proposes an alternative to the Aryan Migration Theory, i.e. it examines why the genetic input from Central Asia may have been extremely small and how the Spread of IE language and culture in India might have occurred in trickle in scenarios i.e. when movements of IE speakers were small. It suggests that the IE speakers first migrated into and settled in the northernmost tip of the sub-continent, trickled into the plains due to climatic changes in the northernmost tip of India, synthesized with the Harappans, fused with them and got the upper hand when the transfers of population from North-West India into the Gangetic plains took place around 1900 BC, and then desynthesized with whatever was left of the Harappan civilization till it vanished around 1400 BC. Cultural contacts with West Asia and then with South India would complete the process of Spread of IE language and culture in India. This paper suggests the need for delinking race with spoken and written forms of language and culture while studying the identity of the Harappans, analyzes the role of internal and external migrations in shaping Indian culture and questions some other long-held assumptions about Post-Harappan India. This paper also suggests that an integrated framework be developed for studying Ancient India. This paper stresses the need for adopting via media approaches for resolving the Aryan issue and comes up with a new hypothesis which the author hopes will be taken up for a debate and discussion. This also proposes a concurrent dating paradigm and a new heuristic framework which the Author hopes will be useful both for future cultural studies of Ancient India and for conducting further archeological excavations, and then uses this framework to make his own inferences about the cultural and religious history of the sub-continent. The methodology the author adopts is to take the Aryan Migration Theory (1500 BC) as a base and work backwards to arrive at a fresh set of conclusions. Part Two contains all the major conclusions such as methods to derive and reconstruct the languages of the IVC, the origin of IA languages etc.
Section B
Introduction: The Genesis of a vexed issue

The Aryan issue has been the subject of academic and polemic debate for decades and has seen much sophistry particularly in the recent past. The Aryan migration theory was first postulated by Max Muller, a German Indologist over a hundred and fifty years ago. The origin of this theory however probably harks back even further in time, when William Jones observed in the eighteenth century that Sanskrit bore a very striking resemblance to classical European languages. This, he believed, could not be attributed to coincidence alone. Max Muller, finally put forth his theory that the Aryans had migrated into India somewhere in the middle of the second millennium BC, from an unknown urheimat or homeland postulated to be somewhere in Central Asia. It was then believed that there was no civilization of consequence before 1500 BC in India and that these people had subjugated various primitive indgenous tribes and had established the Vedic culture in India.

After the discovery of the Indus valley civilization in Northwestern India in the 1920's, a civilization which, through consensus, was recognized as having been advanced for its time, the theory had to be completely revised: it then came to symbolize the destruction of a very advanced civilization of indgenous origin by either invaders or nomadic, pastoral tribes. The AIT was thus born with Sir Mortimer Wheelers denouncement of Indra as an invader.

Although some people are of the mistaken notion that criticism of this theory is of a relatively recent origin, the AIT was controversial from the start. Criticism of this theory has however, undeniably fortified in the recent past as it does not seem to have withstood the incessant battering it was subject to, especially in the light of most recent claimed contradictory evidence. Quietly, it has had to be buried, many of its erstwhile supporters having already acknowledged it as a dead horse. Many proponents of this theory replaced the word "Invasion" with "Migration" in due course: despite the apparent ambiguity of most manifestations of this theory, such theories have not been abandoned, the ostensible reason being the lack of a viable alternative.

International debate on this issue by and large does not tend to be India-specific. It tends to focus on the study on IE expansion from a hypothetical PIE urheimat more from an international standpoint. Indian critics accuse most western scholars of refusing to grapple with the complexity of the issue from an Indian perspective and understand the cascading effect that any proposed changes to international models might have in the Indian context. Suspicion between Indian and Western Indological scholars, and even among laymen continues to this very day. This has become a major red herring preventing any further meaningful progress in Indological studies.

People who postulate theories suggesting migrations around 1500 BC have had to face very serious criticisms. Firstly, the notion of such large migrations seems untenable in view of the fact that all candidates for a proposed Indo-european homeland have populations that are a microscopic fraction of that of the Indian subcontinent. The later the proposed migration, the larger the required numbers. Secondly, sequential models, one civilization originating after another, seem extremely simplistic at best and ridiculous at worst, if one were to consider the diversity and size of the subcontinent. Thirdly, some Vedic scholars have pointed out that that Vedic literature describes a complex society involving the uses of Iron and Chariots, for example. These are not typically associated with nomads. Many historians have also pointed out the Indus Valley civilization is now known to be much larger than hitherto envisaged, and the destruction of such a complex civilization by pastoral tribes, nomads or barbarians does not seem to pass even basic common sense tests unless one is able to present overwhelming evidence to the contrary.
Another river by the name of “Saraswathi”, which supposedly flowed east of the Indus as a perennial river and dried up completely around 1900 BC, has been another bone of contention between different sets of historians. Although some archeologists have in principle accepted the identification of this river with the Ghagra – Hakkar river flowing through Rajasthan, the Punjab and the Sind, acceptance of the Indus Valley civilization as Vedic not been forthcoming because the differences between the two cultures, despite a supposed overlap, are far too many and far too basic to enumerate here.

In a nutshell, the following are the problems in understanding the issue from an Indian context:

1. Difficulty of obtaining archeological evidence in the Vedic homeland in Punjab and in the thickly populated Gangetic plains for various reasons, the most obvious reason being that the process of continuous build up in the region makes it difficult, though not impossible, to look for archeological evidence.
2. No historians in India before 600 BC: the earliest reliable dates only pertain to the post-Buddhist period
3. Dating of texts has been a contentious issue and has been mostly putative.
4. Dating of the supposed historical events mentioned in the texts is even more contentious.
Part C
Problems with models proposing large migrations of IE speakers to India

We now attempt to identify potential problems with models proposing (a) Large migrations of IE speakers into India and (b) migrations around 1500 BC, or after the end of the Harappan civilization. We also discuss why the size and the timing of the migrations would have some bearing on our conclusions.

Models suggesting Large migrations maybe inherently flawed

One can argue that the most fundamental and fatal flaw of models proposing very large migrations is that they do not attempt a basic reconciliation of the size of migrations with the populations of all potential candidates for a hypothetical PIE urheimat: In what is common public knowledge, the population of the largest of those countries in Central Asia is perhaps under two million even today, or one by five hundredth the population of Indian subcontinent, and there is very little reason to believe that this proportion would have been radically different three and a half millennia ago when migrations were hypothesized. Even if we were to consider a highly unlikely scenario where the whole of Central Asia migrated to India, their population would have been much small that the Harappans.

Another problem with such models is that such a large number of domesticated horses are unlikely to have existed either in India or in the PIE homeland. The horse may never have been a common man’s transport in India and may have at best been used in extremely small numbers by the ruling class and by the elite. One would also be at a loss to explain why such large migrations of people happened without any apparent reason; migrations involving smaller groups of people would be far easier to explain. It would be sufficient if we assume, given the quantum of linguistic evidence available, and the lack of evidence of mass intrusions or forced landings, that one such group which had ventured out for greener pastures into uncharted territory, decided not to migrate back, triggering, as a consequence, a series of cultural changes in the subcontinent.

Such large migrations would not be required to explain the diversity of the sub-continent either: the Harappans were not a homogenous group of people, and the migrating Aryans, who in due course became synthesized with many other groups of people, could have at best constituted only a tiny fraction of the population i.e the ruling class, the elite and the clergy.

Determining the size of migrations: Results thrown up by Genetic studies

Genetic studies have progressed remarkably in the past two decades, and more particularly since the turn of the present century. One can therefore expect more progress to be made as analyses and interpretation of results progresses over the next couple of decades. Although some earlier models had indeed suggested a mass intrusion of IE speakers into the
subcontinent, let us now briefly examine the results of a few other Genetic studies that have been carried out in the past couple of decades:

1. Studies by Partha Majumdar, Anthropology Unit, Indian Statistical Institute Kolkata, Sangamitra Sahoo et al suggest that the size of migrations may have been extremely small. The latest study by Sangamitra and others suggest that migrants were primarily male.

2. A study by scientists at the Central Forensic Science Laboratory in Kolkata led by Vijendra Kashyap published in the journal "Proceedings of the National Academy of Sciences" has again revealed that size of migrations may have been very small. This view is also attested too by Peter Underhill, a research scientist at the Stanford University School of Medicine's department of genetics.

3. Brian E. Hemphill and Alexander F. Christensen's study in 1994 of the migration of genetic traits does not in any way support a migration of Indo-Aryans into the Indus Valley around 1500 BC. According to Hemphill's study, "Gene flow from Bactria occurs much later, and does not impact Indus Valley gene pools until the dawn of the Christian era."

An article to this effect also appeared in the National Geographic magazine in January 2006. Titled "India acquired language, not genes from west, study says", this article presents the findings of Kashyap’s study and suggests that genetic inputs from Central Asian pastoralists, though indeed present, may have been small; it suggests that such influences were mainly related to language and culture through what one may call an Elite Dominance Model.

Why argue about the size of migrations?

We might also want to argue that terms such as "large" and "small" still involve a certain degree of subjectivity, and it would be somewhat naïve and unproductive to engage in any debate which attempts to define the size of migrations. However, this paper argues that the Spread of IE language and culture in India, the evils of the Caste system, the genetic and ethnic composition of present day Indians could be satisfactorily accounted for even if were to assume that a genetic input from Central Asian pastoralists were small, and the transfers of power happened due to a series of acculturations and fortuitous events such as the drying up of river basins which enabled the migrants, now known as the Indo-Aryans, to take the upper hand. The “size” of the migrations is, in another way, quite critical to this model; we use this to speculate about the identity of the Harappans and other indigenous populations and corroborate it with other evidence available.

The English Archaeologist Colin Renfrew, had, in the light of recent discoveries that the causes for the decline of the Harappan Civilization were complex and in large part may have been due to the desertification of North-Western India when a river dried up there, presented various likely scenarios for the movement of IE speakers into India, including a mass intrusion of IE speakers into the Indian sub-continent, where the genetic input from Central Asia was significant and impacted the genetic makeup of the local populations substantially. In another scenario, he however suggested that even if there was a migration of the Indo-European speaking people from Central Asia, it may have been carried out by a relatively small number of people. Thus it may have had an insignificant impact on the population and the Genetic makeup of the Indian sub-continent, the major impact having been the imposition of a new language and culture.

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1 Polarity and Temporality of high resolution Y-Chromosome distributions in India identify both Indigenous and exogenous expansions and reveal minor Genetic influence of Central Asian Pastoralists by Sanghamitra Sengupta et all In American Journal of Human Genetics volume 78 Feb 2006 (p201-p221)
3 Kivisild et al., The Genetics of Language and Farming Spread in India, Examining the farming/language dispersal hypothesis, edited by Peter Bellwood & Colin Renfrew, McDonald Institute of Monographs, 215-222, 2003
5 The journey of Man, Spencer Wells, Random House, 2002 Page 163
Recent Genetic studies have shown that the Genetic marker M17 which is largely found in Central Asia was also found among IE speakers in New Delhi. This would therefore very strongly suggest a biological affinity between upper caste Indians and Central Asians.

While movements of people may not always happen in tandem with movement of languages, we might at the very outset, like to reject the notion of pure acculturation i.e of movements of people not having occurred at all especially when most studies carried out till date have indeed suggested that there was a genetic input from Central Asia: anybody proposing such a model would need to offer a viable explanation or a parallel from human history of how language spread happened in the complete absence of transhumance movements and vested interests that would have facilitated this kind of a spread. All things considered, this may be somewhat unlikely.

No wonder then, many modern researchers, taking into account only the common non-controversial elements in the gamut of somewhat inconclusive Genetic data now available, have increasingly preferred to use terms such as trickle-in and acculturation in lieu of classical theories of Invasions and mass intrusions.

Acknowledging the fact that most of the acrimony of the recent past may be highly misplaced in view of changing trends in Indology, Romila Thapar remarks

"Why then do Hindutva ideologues 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."

Professor Robert Zydenbos agrees with this line of thinking when he 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."

The Allchin’s, similarly arguing for a via media approach, state in their 1982 book "The rise of civilizations in India and Pakistan", “We would like to insist that the arrival and spread of the Indo-Aryan languages must have been associated with the movement of the Indo-Aryan speaking people, and that their relations with the populations they encountered must be conceived as a dynamic process of culture contact, producing a variety of cultural responses. This process must have continued over many centuries. Its result was to produce a cultural synthesis which we may refer to culturally as Indo-Aryan, that is a synthesis of Indus or Indian and Aryan elements."

**Continuity in skeletal record**

Several studies conducted in the recent past have shown a remarkable continuity between the skeletal biology of the Harappans with those inhabiting North Western India and Pakistan in modern times, suggesting that a genetic input in the post-Harappan period may have been small. It would be interesting to reproduce details of a few of these studies below:

1. Kenneth Kennedy who examined 300 skeletons from the Indus Valley civilization more than two decades ago, concluded that the ancient Harappans were not markedly different in
their skeletal biology from the present-day inhabitants of Northwestern India and Pakistan”.

2. A study conducted Hemphill, Lukacs and Kennedy in 1991 did not find any major or marked evidence of discontinuities in skeletal record during and immediately after the decline of the Indus Valley Civilization. In other words, the skeletal record of the Indus valley peoples, this study concluded showed a remarkable contiguity with the record in people inhabiting these regions in modern times.  

3. Archeological evidence, too, seems to contradict the notion of a large scale intrusion by Indo-Aryan hordes. Rather, the influx appears to be much smaller with the newcomers largely being absorbed into existing cultures (Shaffer 1984: Erdosy 1995: Kennedy 1995; Shaffer and Lichenstein 1995)  

4. Echoing similar sentiments, J M Kenoyer adds: “Although the overall socioeconomic organization changed, continuities in technology, subsistence practices, settlement organization, and some regional symbols show that the indigenous population was not displaced by invading hordes of Indo-Aryan speaking people. For many years, the ‘invasions’ or ‘migrations’ of these Indo-Aryan-speaking Vedic/Aryan tribes explained the decline of the Indus civilization and the sudden rise of urbanization in the Ganga-Yamuna valley. This was based on simplistic models of culture change and an uncritical reading of Vedic texts…”

5. Another study carried out by Hemphill, Lukacs and Kennedy in 1991 supports the thesis that the Ancient Gandharans usually equated with the Indo-Aryans, share significant similarities in craniometric, odontometric and discrete trait variables with the Harappans. This would suggest that while there was a significant change in culture, a fresh genetic input may have been small. However, a study performed by Wolfram Bernhard in Gandhara in 1967 suggests that there was indeed a genetic input from Central Asia.  

Admittedly, the results thrown up from these studies would not be too surprising: even if we made the unlikely assumption that the whole population of Central Asia migrated to India, their numbers would still be extremely small in relation to the Harappans.

Part D

The Rig Veda in its final form may date to 1500 BC, but is it necessary to equate dates of migration with the date of a text? Problems with models proposing Migrations of IE speakers in 1500 BC

We now examine some problems with late migration models i.e. models proposing migrations of IE speakers in or around 1500 BC. We also use these arguments to arrive at an alternative acculturation model that would work fairly well both in case of trickle in and relatively larger migration scenarios.

Logical problems

Sanskrit PIE conundrum

Those who suggest that migrations occured in or around 1500 BC would, in a way, be walking into their own trap because they would be most certainly be implying that Sanskrit were the PIE: such notions were largely refuted years ago, due to the progress of comparative philology. Such a situation would not solve two paradoxes: One, Rig Vedic Sanskrit was already deeply

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11 Mait Metspalu Through the course of Pre-history in India: Tracing the mtDNA trail, Tartu University Press
12 Kenneth A.R Kennedy Have Aryans been identified in the Prehistoric skeletal records in South Asia? Biological Anthrolpology and concepts of Ancient races

influenced by many local languages as admitted even by Harvard university professor Michael Witzel and Romila Thapar and at the same time was very closely related to Iranian languages! Two, Similarities between the Rig Veda and Avestan pertained to structure and not to content. The Rig Veda again describes the Geography of India in very great detail and does not mention an external homeland at all. All Indian holy places point in the direction of the Vedic homeland.

Vedic Sanskrit was influenced by Avestan but was a distinct language by itself

To reiterate, there is no record of Sanskrit existing in the same form anywhere outside India. Therefore Sanskrit may have evolved in India (though perhaps from an earlier common Indo-European source). Anyone who suggests that a migration took place in 1500 BC always finds himself in a chicken and egg situation. Sanskrit and Avestan were related to each other both not the same. Avestan could not have transformed itself into Sanskrit in the few weeks that it would have typically taken to travel from West Asia to India. The same would be the case for the corpus of Vedic literature. They were related to each other but not identical. The Rig Veda in any case describes a mishmash of events and pastoralists from Central Asia were unlikely to have brought 10000 hymns with them: the Rig Veda describes their customs, beliefs, trials, tribulations and sorrows and would have been composed and canonized after they entered India.

Furthermore, West Asia was never a candidate for a PIE homeland. This suggests the need to split up influences in Vedic culture between West Asian and Central Asian.

Chariots in the Rig Veda

Most people would agree that Chariots were unlikely to have been a suitable mode of transport between Central Asia and India. In popular perception, Chariots are not a model of transport normally associated with nomads or pastoral folk or with the steppes. It might be more logical to assume that Chariots were developed with technology imported from West Asia through trade and cultural contacts around 1500 BC, since the documented history of the chariot is not significantly older and is generally dated to 2000 BC at the earliest.

The River Saraswathi

No other river in the Rig Veda is mentioned as many times as the River Saraswathi. As a matter of fact, the Rig Veda gives the river a status that is much higher than the Ganga, the Yamuna or the Indus, and mentions this river at least forty times. The River Saraswathi is termed the mother of rivers and many of its hymns are believed to have been composed on its banks. This river is so central to the Rig Veda that it is mentioned in nine out of ten mandalas. A few verses describing the river are reproduced below:

Ambitambe naditambe devitambe saraswati
The best of mothers, best of rivers, best of goddesses, Saraswathi! (Rig Veda 2.41.16)

I sing a lofty song, for she is mightiest, most divine of Streams.
Saraswathi will I exalt with hymns and lauds, and, O Vasistha, Heaven and Earth.(Rig Veda 7.96.1)

In the Rig Veda the Saraswathi is described as flowing to the ocean:

This stream Saraswathi with fostering current comes forth, our sure defence, our fort of iron.
As on a car, the flood flows on, surpassing in majesty and might all other waters.
Pure in her course from mountains to the ocean, alone of streams Sarasvati hath listened.
(Rig Veda 7.95.1,2)
The following hymn also talks about the River Saraswathi being a part of the Saptha Sindhu or the seven rivers in North India:

May the seventh (stream), Saraswathi, the mother of the Sindhu and the seven rivers that flow copious and fertilizing, bestowing abundance of food, and nourishing (the people) by their waters, come at once together.

According to Rig Veda 10.75.5, the River Saraswathi also flowed between the River Yamuna and the River Sutlej

Considering the importance that the Rig Veda accords the river Saraswathi as the epicenter of Vedic culture and considering how the river is used in relation to other geographical features in India in the Vedas, and in relation to other rivers in India, we are tempted to believe that this would connote a river within India.

However, contrary to popular (mis)conception, the River Saraswathi can prove nothing as far as the origins of the Vedic culture are concerned. The proponents of the Indigenous Aryan and the Vedic Harappa theory would still have virtually nothing to prove their case: had their arguments been valid, the IVC would have been proved Vedic long ago because the Indus (Sindhu) was common to both. This is quite clearly, a case of convoluted logic. However, the discovery of this river can throw vital clues as to how the transfer of power between the Harappans and the Indo-Aryans might have occurred.

In the earlier part of the Rig Veda, the Saraswathi has been stated to be a mighty river flowing from the mountains to the sea. The later verses of the Rig Veda no longer treat the Saraswathi with the same respect and consider it to be a much smaller river. The later Sanskrit epic, the Mahabharata talks about Saraswathi as a river that was gradually drying up. By the time the Panchvimsa Brahma (XXV. 10. 16) was composed, however, it appears that the river had completely dried up.

Although there was undoubtedly transfer of river names, something which could have happened in different directions at different points in time, associating the river with the Helmund of Afghanistan alone would not explain its centrality to the Rig Veda, or the fact that it flowed into the sea. Afghanistan is not a candidate for a PIE homeland either, and the desertification of North-west India around 1900 BC is now a widely accepted fact.

In the words of the Pakistani Archaeologist Rafique Mughal "Archaeological evidence overwhelmingly affirms that the Hakra was a perennial river through all its course in Bahawalpur during the fourth millennium B.C. (Hakra Period) and the early third millennium B.C. About the end of the second, or not later than the beginning of the first millennium BC, the entire course of the Hakra seems to have dried up and a physical environment similar to the present day in Cholistan set in. This forced the people to abandon most of the Hakra flood plain." 13

Interest in the River Saraswathi has increased exponentially in India since the 1980’s when attempts to trace its course through satellite mapping were made. Since this time, attempts have been made to prove that till around 3000 B.C., the Saraswati was a large river originating in Bandapunch massif and flowed through Punjab, Haryana, Rajasthan, the present day Thar Desert, large parts of Pakistan, and merged into the sea close to the Rann of Kutch in Sind. This river is believed to have gradually dried up in later years and by around 1900 BC it had completely dried up. This is mainly believed to be as a result of various natural causes such as diversion of water from the source of the river to the Ganga Yamuna doab in the east. There is also a popular myth which explains how the waters of the River Saraswathi were captured by the, Sutlej and the

13 Mughal, Rafique The consequences of River Changes for the Harappan settlements in Cholistan
Yamuna. In fact, this does correspond to the actual process of the drying up of the River Saraswathi very closely, and may have evolved out of this natural event.  

Conflict with Indian Tradition

While the Vedas were undoubtedly compiled and canonized along with Avestan literature around 1500 BC, the content of the Vedas, both in terms of its geography and purported historical content is undoubtedly Indian and contains a mishmash of events pertains to different periods in time. Therefore, there is no need to equate migration dates with the date of a text.

Any models that suggest large migrations around 1500 BC would also conflict with Indian tradition in the sense that Indo-Aryan culture is said to have evolved in the following distinct phases i.e. Aranyaka or forest based culture followed by Jana or tribes, Janapada or small kingdoms and Mahajanapada or mighty kingdoms, an evolution pattern that is similar to those of many cultures all over the world.

Kingdoms described in the Rig Veda

Such models cannot also explain the fact that Aryan and Non-Aryan kingdoms such as Gandhara, Chedi, Khamboja and Kikata (Magadha) (Rig Veda 3.53.14 and others) were already in existence at the time of the Rig Veda, and were explained in it in great detail.

Models proposing migrations in 1500 BC would be at a loss to explain how the Indo-Aryans got the upper hand

Any model must explain how the Indo-Aryans got the upper hand, something made more challenging when the size of migrations is small. Models proposing migrations in 1500 BC would be at a loss to explain how the power transfer took place: it would be a lot easier to assume that the Indo-Aryans had already been present in the Punjab and to a lesser extent, in the Gangetic plains before 1900 BC and that they got the upper hand in all dealings when the Harappans moved to their territory. Similarly, the caste system could be more convincingly explained if there were large internal migrations in additional to supposed earlier external ones. Internal migrations would have caused a fusion of different types of people into every city, town and village. Evidence from recent Genetic studies suggests that there was indeed some correlation between caste and ethnicity, and while division of labour may have played a part in the formation of the Caste system, this could only have been one half of the story.

Let us now consider the following verse of the Rig Veda

*When they divided Purusa how many portions did they make?*
*What do they call his mouth, his arms? What do they call his thighs and feet?*
*The Brahman was his mouth, of both his arms was the Kshatriya made.*
*His thighs became the Vaisya, from his feet the Sudra was produced (Rig Veda 10.90.11,12)*

This verse strongly suggests the Caste system had already been in existence when the Rig Veda was compiled, and since the Caste system would not have been brought by nomads from Central Asia, a fusion of various types of people must have already taken place by then.

Other evidence: Aryan influences towards the end of the Harappan civilization?

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The Vedic scholars RS Bisht and several others have prepared a list showing similarities between Vedic and Harappan cultures. Evidence for such similarities, mostly found in the eastern part of the Harappan civilization keeps presenting itself from time to time. The Cemetery H culture is also generally dated to 1900 BC. By this time the cultural makeover of the Harappan culture appears to have been pronounced. Evidences for Horse bones in Surkotada have been presented by A K Sharma and Fire altars in Kalibangan have been claimed although these are not accepted by all scholars.

The earliest non-controversial examples of horsebones in India date 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. Future excavations and serendipitous finds may cause the scales to tilt somewhat, but one must bear in mind that since nearly three quarters of a century of excavations have shown that the horse could never have been central to Harappan culture, such findings would at best help us hone existing acculturation models further to perfection by paving the way for a more widespread consensus on supposed dates of migrations.

**Cemetery H culture in the Punjab is dated around 1900 BC**

The Cemetery H culture refers to a culture found in the Northern part of India in 1900 BC. This is one of the three phases of the Localization era of the Indus valley. The major distinguishing feature of this culture is the Cremation of Human remains, which were stored in burial urns. This apparently was a marked change from the Indus valley where bodies were buried in wooden coffins, strongly suggesting a cultural makeover wrought by external influences. This phase also corresponds to the dismemberment of the Indus valley civilization and the decay of trade contacts between the Harappan civilization and West Asia. Gordon Childe in 1926 and G D Kumar in 1973 had made a case that the Cemetery H Culture represented Aryan influences and even Sir Mortimer Wheeler hesitatingly refers to this in his paper “Harappa 1946: The defences and Cemetery R37”.

**Iron in the Gangetic plains in 1800 BC**

Dr Rakesh Tewari of the UP directorate of archaeology has claimed the use of Iron in India as early as 1800 BC through excavations in the Gangetic plains in present day Uttar Pradesh. His findings were published in the paper “The origin of iron working in India: New evidence from the Central Ganga plain and the Eastern Vindhyas”.

**The putative Indo-Iranian language split-up of 1500 BC actually reinforces this theory**

The putative Indo-Iranian language split-up, it can therefore be argued took place as a result of contacts with West Asia and a subsequent cessation of these contacts. We can even go to...

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17 A K Sharma ‘Evidence of Horse from the Harappan settlement at Surkotada’, Puratattva, no 7, pp 75-6,1974
18 Sandor Bokonyi Horse remains from Surkotada
19 Richard H Meadow and Ajita Patil Comment on Horse remains from Surkotada
21 Have Aryans been identified in the Prehistoric Skeletal record from South Asia? Biological Anthropology and Concepts of Indian races Kenneth AR Kennedy
22 Childe, Gordon, New light on the most Ancient East 1934
23 Extracts from Ancient India: Bulletin of the Archeological survey of India, no 3,1947,pp. 58-130
24 Rakesh Tewari, The origin of iron working in India: New evidence from the Central Ganga plain and the Eastern Vindhyas
the extent of saying that the putative Indo-Iranian language split-up of 1500 BC, actually disproves that migrations of people took place in 1500 BC as attributing such a split-up to large transhumance movements would cause certain insurmountable logical problems which are briefly explained below:

(a) Sanskrit despite similarities with West Asian languages of the same period was a distinct language in its own right and West Asian languages could not have possibly changed into Indian languages in the few weeks it might have taken to travel to India.

(b) Vedic literature, despite sharing many commonalities with the literature of West Asia of the same period was a voluminous corpus of literature in its own right. It is virtually impossible that migrating Aryans destroyed the old literature and created a new corpus of literature overnight. In any case, the Rig Veda describes life in the subcontinent, and not outside it. In any case, West Asia is not a popular candidate for a PIE. Had migration to India happened at the time of the compilation of the Rig Veda, the Aryans would have taken it with them throughout the IE world! Furthermore, the Rig Veda is quite clearly a compilation, with the mandalas arranged in the descending order of number of Gods depicted.

(c) In any case, the Rig Veda is full of Chariots, and it is very unlikely chariots could have been used for movements from West Asia or Central Asia. Very likely, chariots were developed with knowhow from West Asia.

Gandhara “Grave culture” or Swat culture of 1600 BC

This term “Grave culture” itself may be offensive because Gandhara, according to traditional Sanskrit sources, was an Ancient kingdom with three cities in it. This location does not correspond with the hypothetical PIE homeland at all. Gandhara was a trading link with Persia and may have at best played a part in the canonization of the Rig Veda. The Aryans were unlikely to have set up a kingdom in Gandhara enroute to India, abandoned it and then migrated to India. This kingdom was believed to have been founded by King Gandhara (whose father King Aruddha and very remote ancestor King Yayati were already Indo-Aryan kings). We can therefore argue that first migrations into India during this period can be ruled out. In other words, The Gandhara Grave culture cannot be used to arrive at a set of dates for migrations.

Other controversial or inconclusive evidence

More recently, in 2007, Dr Rakesh Tewari of the UP directorate of Archaeology, has reported the discovery of a treasure trove in Auriya district of Central Uttar Pradesh several hundred kilometers east of Delhi belonging to the Chalcolithic age weighing approximately 25 kilograms all spread over an area of between one and a half and two acres. This treasure trove included several weapons and an Anthropomorphic figurine, provisionally dated to 2000 BC.  

While it is too early to draw any conclusions yet, let alone connect it to any culture it is interesting to note that this trove consisted of a large number of objects all found in one place, a few hundred kilometers of the hitherto acknowledged easternmost boundary of the IVC and that Anthropomorphic figurines were found in the both in the IVC and the Gandhara Grave culture of 1600 BC as well, a culture also known for continued usage of copper. From our model, the Aryans only perhaps introduced Iron from West Asia and the earliest hymns in the Rig Veda perhaps did not know the use of iron. This haul needs to be investigated more thoroughly. Another interesting discovery has been that of the Ochre Coloured Pottery culture in the Gangetic plains (<2000 BC) which some scholars think could be partly contemporaneous to the IVC.

25 The Hindu 2007/09/21
26 Digital South Asia library Schwartzberg Atlas p 160
27 The Autochthonous Aryans? The evidence from the old Indian and Iranian texts
representative of a decadent IVC and a predecessor to the Black and Red Ware cultures. Perhaps it is too early to draw conclusions yet and one must wait till a consensus is reached.  

The Mittani inscriptions

The Mittani inscriptions have bewildered scholars for decades. The Boghaz Kuei inscription, the most famous of all these, dates back to 1400 BC and mentions the Indo-Aryan king Indra along with Mitra, Nasatya and Varuna, all of Rig Vedic origin as being witnesses to a treaty between the Mitanni king Matiważa and the Hittite king Suppiluliuma. There is also the evidence furnished by a text on the training of horses, which uses several Sanskrit words like ekavartana, trivartana, sattavartana etc. Further, other inscriptions found in the area contain many Indian names and expressions such as Marutta i.e Maruts. After examining this piece of evidence, the scholar Thomas Burrow had concluded: “The Aryans appear in Mitanni from 1500 BC as the ruling dynasty, which means that they must have entered the country as conquerors.” If so, from where could have these conquerors come? Around 1500 BC there was no other country in the entire world except India where these above-mentioned gods were worshipped.  

As a matter of fact, It was one Paul Kretschmer who formally gave birth to this hypothesis when, in his work Inder am Kuban (Wien, 1944) he mentioned several facts and historical evidence to state that tribes mentioned by Herodot, namely Sindes and Maeotes, were of Indo-Aryan origin.  

In a series of articles issued in Russian, American and German journals between 1975 and 1989 by Oleg Trubachov, who gathered a volume of data from various Pontic districts and the Caucasus also hypothesized that the languages of people who inhabited the region were influenced by Indo-Aryan languages. The book by Trubachov combining all his previous articles was called Indoarica in the North Black Sea region and was published in Moscow in the year 1999.  

Similarly, there is enough evidence to show that cultural contacts with West Asia played a part in the compilation of the Rig Veda around 1500 BC. How can we explain all this then if the Indo-Aryan culture had not been entrenched in India by this time?  

Pargiter the redoubtable Englishman too observed similarly (According to Pargiter, this was noticed by Professor Jacobi too) (a) That there was an outflow of people from India to West Asia before the fifteenth century BC. (b) That they brought the Aryan Gods to West Asia from India (c) That the Aryans and the Gods existed in India by the sixteenth century BC (d) That the Aryans had entered India earlier still. All these were apparently in complete disagreement with contemporaneous notions of migrations in the middle of the second millennium BC.  

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33 Kretschmer, Paul, 1944: Inder am Kuban, Vienna.  
34 Trubachov, Oleg N., 1999: Indoarica, Nauka, Moscow.  
35 JRAS 1909 P 723 Keilschrifttexte aus Boghazkoi  
36 Prof Keith JRAS 1914
The case of the Saraswat Brahmins

The Saraswat Brahmins of Kerela and Karnataka have claimed from time immemorial to have originated from the Saraswat valley (This would indeed have been possible because these parts of India would have been accessible via the Arabian sea – this would suggest that Brahmins, who formed the uppermost echelon of the Caste system had been in the Saraswat valley in 1900 BC suggesting that a mix up between Harappans and Indo-Aryans had already taken place by this time. We can argue that any other explanation would be inadequate unless one wants to postulate that the Harappans themselves became Brahmins.

The Bet Dwaraka excavations

Another important piece of evidence comes from the Bet Dwaraka excavations off Dwakara in the state of Gujarat in the Western coast of India. First discovered by SR Rao of the Archeological survey of India in the 1960’s, this has since become one of the most important archeological sites of the subcontinent and is currently being excavated by the ASI. Although Dwaraka is canonically associated with the Indo-Aryans (associating literature and archeological evidence still involves some amount of controversy), it is highly unlikely to be a traditional Harappan site: not only is it much less ancient, (it is dated around 1600 -1500 BC which makes it clearly post-Harappan), it is smaller, and contains a sole example of a script which is markedly different from the Harappan script.

Indian Gods and Godesses

Indo-Aryan Gods like Indra, Brahma and Vishnu and many other beliefs described in the Vedas were already different from those of other Indo-Europeans (though the earliest and long forgotten God Dyaus Pitar may have been similar to the Zeus of the Greeks). This would strongly suggest that the Indo-Aryans evolved slowly, over a period of time.

The Indian and Persian Gods estranged from each other very, very slowly and in phases. All different phases were already captured in the Rig Veda. This too suggests that the Indo-Aryans evolved slowly. In the older part of the Rig Veda, however, Asura refers to the supreme spirit, like the Zoroastrian Ahura Mazda, or to another group of Vedic deities like the Devas. In later Vedic texts and in Hindu mythology, Asuras become demons or titans who warred against the Devas or the Gods. Some scholars derive the word Asura from Ashur, the Assyrian god.

Thus, the meaning of the word Asura appears to have had at least four meanings: While in the early Rig Veda, it referred to a Class of Gods, it later appears to have meant a class of beings opposed to the Gods. Sometime after this it had come to mean Demon, perhaps when the original Asuras had ceased to be relevant. It later Sanskrit literature this word appears to have referred to a class of kings opposed to the Gods. i.e Non-Aryan kings.

The following two verses from the Rig Veda show two different contexts in which the word Asura was used. The first hymn talks of the Asura as a divine being, while the second suggests the subjugation of the Asuras by Indra:

Rudra art thou, the Asura of mighty heaven: thou art the Maruts’ host, thou art the Lord of food,
Thou goest with red winds: bliss hast thou in thine home. As Pusan thou thyself protectest worshippers (Rig Veda 2.1.6)

To Indra, Dyaus the Asura hath bowed him down, to Indra mighty Earth with wide-extending tracts, to win the light, with wide-spread tracts.

All Gods of one accord have set Indra in front preeminent (Rig Veda 1.81)

On the other hand, the situation is reversed in Persia, Assyrria, Babylon and subsequently in Zorastrianism: While the Ahuras (or the Asuras) are referred to as Gods, the Daivas (Devas) are referred to as Demons. While in India, Devas became gods and Asuras became demons, in the Assyro-Babylonian civilization, Ahuras became gods and Daivas became demons. Later Persian kings like Darius and Xerxes had even discouraged the worshipping of the Daivas. It is therefore likely that these represent two streams of an ancient belief system, influences of which can be found in many parts of the world.

Similarly we must also account for the fact that while Dyaus Pitar (related to Zeus?) might indeed originated from a hypothetical common source, the Gods Indra, Mitra, Varuna and Nasaty have names easily recognizable as Sanskrit, and are not found anywhere outside India albeit their spread for a brief period into West Asia as evidenced by the Mittani inscriptions of circa 1500 BC. Had the Indo-Aryans migrated in 1500 BC, or during the time of the Rig Veda, they would have carried their religion with them and their Gods would have been found throughout the IE world!

There may be no basis for a Two Wave migration model

The Two Wave theory was first proposed by A.F.R Hoernle and later supported by George Grierson, director of the linguistic survey of India. Some scholars in the recent past, most notably the Allchins, Asko Parpola and Irfan Habib, have, based on evidence of intrusions and cultural changes in the IVC in or around 2200 BC or later, suggested the need for the adoption of a two wave model, in which the first Wave comprised of Non-Vedic Aryans and the second Wave comprised of Vedic Aryans. We can argue that there may be no basis for such a line of thinking firstly because such models create their own set of problems, many of which have already been discussed in this write up and secondly because there is no genetic evidence to support such a model. Instead, from our model and line of argument, the “first wave” would appear to represent the external influences that manifested themselves during the synthesis phase, while the “second wave” would represent the core Rig Vedic period, after the transfer of populations from the North-West of India to the Gangetic plains took place.

We cannot discredit the Vedic homeland

We cannot discredit the Vedic homeland in the Sapta-Sindhu region i.e. the Northernmost tip of India and North eastern Pakistan. It is likely that the Indo-Aryans lived here for some time, hence, the appellation, homeland.

Pargiter (1852-1927) also states, "All ancient Indian belief and veneration were directed to the mid-himalayan region, the only original sacred outside land. The list of rivers in Rig veda x,75 is in regular order from East to the North West - Not in the order of entrance from the North-West, but the reverse. If the Aryans entered India from the North-West, and had advanced eastward through the Saraswathi or the Yamuna when the Rig Vedic hymns were composed, it is very surprising that the hymn arranges the rivers, not according to their progress, but reversely from the Ganges which they had hardly reached" 39

Sub-stratum in Sanskrit

Identifying the substratum in IE perhaps needs to be done with much greater rigour after eliminating Iranian and IE influences, considering the fact that existing studies may be old and may

38 The Indo-Aryans of Ancient South Asia: Language, Material Culture and Ethnicity By George Erdosy
39 FE Pargiter Ancient India Historical Tradition OUP 1922 page 298
have made several a priori assumptions, (We may note that M.B Emeneau states 40 “The end result of the block, however was that very few scholars attempted to identify borrowings from Dravidian into Sanskrit; those who were interested worked unmethodically and without establishing criteria for recognition of possible, probable and unlikely examples, and their research was universally ignored.” Similarly, W.Norman Brown had always maintained that Dravidian was never the only candidate for the language of the IVC 41) even Michael Witzel observes, 42 comparing the non-IE substratum in the Indian and Iranian branch of the IE.

"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 Indō-Aryans who left the tedious job of the ploughman (kināśa) and farming in general (tilvilla, phala, pippala, khala, lāṅgala, etc.) to the local people. Instead, they preserved only a few general IE terms, such as yava 'barley, grain'; kāṇa 'to scratch, plough'; sā 'to sow', sitā 'furrow', sīra 'plough' (see however, EWA II 733 for the problematics of the root sā). 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 Ilr. 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 Puruṣa hymn (RV 10.90), of the system of the four classes (varūṇa) instead of the more common IE three, which system has been called, by P. Mus, "the first constitution of India". On the Iranian side, however, one has observed, so far, very little of linguistic and other acculturation (Skjaervø 1995). It would indeed be surprising, how little O. Pers. 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, Shahri 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 rigvedic 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)."

Is the date of 1500 BC still valid? A refutal of earlier arguments

The date of 1500 BC for supposed Indo-Aryan migrations was arrived at some one hundred and sixty years ago, in the middle of the nineteenth century and long before even the cities of the Indus were discovered. While this may have been an approximation with the evidence then available, we have yet to find anyone offering any substantial evidence in support of the precise date of 1500 BC

We will now try to negate factors that may have once been used to arrive at a date of 1500 BC:

Horse-riding and chariots: An approximate timeframe

While it was earlier thought that humans harnessed horses before actually riding them, new archaeological research from Eurasia now suggests a date of approximately 4000 BC, for the first horseback riding back i.e around 1500 years earlier than earlier acknowledged. Excavations from Dereivka in the Ukrainian steppes have have unearthed horse teeth from this period which show signs of bit wear. 43 44 This would mean that man began riding horses soon after domesticating

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40 MB Emeneau  The linguistic pre-History of India, 43 The United States and India and Pakistan pp. 131-2 (Cambridge Harvard University Press, 1953) 42 Michael Witzel  The Autochthonous Aryans ? The evidence from the old Indian and Iranian texts 43 Institute for Ancient Equestrian studies 44 The Equine Genetics and Evolution Research Information Network
them. This is not too difficult to believe: Chariots wouldn’t have fitted in with the steppes culturally or geographically and would have been ill-suited to travel out of the steppes to other parts of Asia. Therefore if we talk about chariots preceding horse riding, we might have to do away with the notion of horse domestication originating in central Asia. These dates also fit in with the framework of the Kurgan and the Anatolian Hypotheses.

The following hymn in the Rig Veda, among others clearly talks about horse riding:

Where are your horses, where the reins? How came ye? how had ye the power? Rein was on nose and seat on back.
The whip is laid upon the flank. The heroes stretch their thighs apart, like women when the babe is born. Rig Veda 5.61.2-3

**Dating the PIE: A time frame for IE expansion from Central Asia into other parts of the world from the Kurgan and other hypotheses**

The PIE or Proto-Indo European language refers to the hypothetical ancestor of Sanskrit and European languages. The PIE is generally dated between 5000 BC to 3000 BC. Since the supposed Indo-Iranian language split up of 1700 BC- 1500 BC can no longer be considered a Red Herring, the Kurgan hypothesis, introduced by Marija Gimbutas (1921-1994) in 1956, would come in most handy to understand the chronology of supposed Indo-European expansion. Marija Gimbutas had identified a set of cultures called "Kurgan" named after Russian burial mounds and had traced their spread into various parts of the world. According to her, IE expansion occurred in waves starting in around, or just before, 4000 BC. This theory is supported by most researchers. Other theories include the Anatolian hypothesis and the Armenian Hypothesis. The former dates the PIE to around 5000 BC while the latter suggests a more conservative date of around 3000 BC.

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**Part E**

**Other issues to be considered**

**Equating the Harappans with the Indo-Aryans may be virtually Impossible**

There are several logical problems in equating the Harappans with the Indo-Aryans and while enough literature has already been published on the subject, the major objections are reiterated below:

(a) The Harappan culture spread from West to East, the roots of this culture having been in Baluchistan. The Vedic homeland was centered on the Punjab
(b) Horsebones or no Horsebones, the Harappan civilization as understood through decades of excavations, could not have been horse-centric.
(c) Population: The Harappans numbered five to ten million in number, the Indo-Aryans numbered only a small fraction of the number.
(d) The IVC was a Bronze Age civilization while the Indo-Aryans knew the use of Iron.

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45 The domestication of the Horse in Asia by David Anthony
Hence, equating the two cultures may be virtually impossible and examining various acculturation models may be the only viable way forward. Autochthonous theories also ignore linguistic evidence and tend to be rejected out of hand in academic circles.

The Decline of the Harappans may have occurred due to several reasons

No uptodate researcher believes that the decline of the Harappans happened due to Aryans alone, the most fundamental flaw with such hypothesis being that the IVC is now known to be much larger than hitherto acknowledged, and uptodate variants of the AMT suggest trickle in or in extreme cases, pure acculturation. Several scholars\(^\text{50-53}\) have proposed several possible reasons for the decline of the Harappans, such as the decline of trade links with West Asia and decline in fertility in the Ghagra-Hakkar basin.

Are older theories still valid?

The Dasas were a set of people described in the Rig Veda. A similar term, Dasyu, is also frequently used in the Rig Veda. The difference between the two terms however remains unclear. The word Das also means man in Sansrit.

The terms Daha or Dahyu are also used in Iran, where these appear to mean tribe or native Inhabitant. Similar words have been traced all the way to Turkey or Anatolia. These terms therefore appears to have been used in several cultures synonymously. In the Rig Veda, the term Dasa also seems to connote people who did not follow Aryan religion. The Rig Veda (Hymn 10.22.8) describes the Dasas and the Dasyus as a-ka\-m\-a\-n (non-performers of Aryan sacrifices), anya-\-v\-r\-a\-t\-a (observers of other rites) and in the Rig Veda hymn 10.105.8 they are described as an\-r\-c (non-singer of laudatory hymns). In the Rig Veda 8.70.11 they are described as a-deva-yu (not regarding the Aryan gods).

The following verses in the Rig Veda describe the Dasas

Thou slewest with thy bolt the wealthy Dasyu, alone, yet going with thy helpers, Indra!
Far from the floor of heaven in all directions, the ancient riteless ones fled to destruction.
Whether they weep or laugh, thou hast o'erthrown them, O Indra, on the sky’s extremest limit.
The Dasyu thou hast burned from heaven, and welcomed the prayer of him who pours the juice and lauds thee. (Rig Veda 1.33.4)\(^\text{54}\)

As thou enjoyest heaven and earth, O Indra, on every side surrounded with thy greatness,
So thou with priests hast blown away the Dasyu, and those who worship not with those who worship. (Rig Veda 1.33.9)

Thou, hero-hearted, hast broken down Pipru’s forts, and helped Rjisvan when the Dasyus were struck dead.
Thou from of old wast born to strike the Dasyus dead.
Discern thou well Aryas and Dasyus; punishing the lawless give them up to him whose grass is strewn.
Be thou the sacrificers strong encourager all these thy deeds are my delight at festivals.
Rig Veda (Rig Veda 1.51.5,8)

\(^{50}\) Shereen Ratnagar. The End of the Great Harappan Tradition
\(^{51}\) Ancient Cities of the Indus Valley Civilization, JM Kenoyer
\(^{52}\) Harappan Civilization: A Contemporary Perspective, Gregory L. Possehl
\(^{53}\) Kalibangan: Death from Natural causes Robert Raikes
\(^{54}\) Rig Veda by Ralph TH Griffith 1896
We who add strength to thine own splendid vigour, laying within thine arms the splendid thunder-
With us mayst thou, O Indra, waxen splendid, with Surya overcome the Dasa races. (Rig Veda 2.11.4)

Thou, thou alone, hast tamed the Dasyus; singly thou hast subdued the people for the Arya.
In this, or is it not, thine hero exploit, Indra? Declare it at the proper season. (Rig Veda 6.18.3)

There, seeking man's prosperity, thou torest away the head of Namuci the Dasa.
Pounding the head of Namuci the Dasa, me, too thou madest thine associate, Indra!
Yea, and the rolling stone that is in heaven both worlds, as on a car, brought to the Maruts.
Women for weapons hath the Dasa taken, What injury can his feeble armies To me?
Well he distinguished his two different voices, and Indra then advanced to fight the Dasyu.
(Rig Veda 5.30.8,9)

Armed with his bolt and trusting in his prowess he wandered shattering the forts of Dasas.
Cast thy dart, knowing, Thunderer, at the Dasyu; increase the Arya's might and glory, Indra.
(Rig Veda 1.103.3)

For Puru thou hast shattered, Indra ninety forts, for Divodasa thy boon servant with thy bolt,
O Dancer, for thy worshipper.
Lauded with our new hymns*, O vigorous in deed, save us with strengthening help, thou Shatterer of Forts! Thou, Indra, praised by Divodasa's clansmen, as heaven grows great with days, shalt wax in glory. (Rig Veda 1.80.10)

And Indra, for the sake of Divodasa demolished Sambara's nine-and-ninety castles. (Rig Veda 2.19.6)

Indra the Vrtra-slayer, Fort-destroyer, scattered the Dasa hosts who dwelt in darkness.
For men hath he created earth and waters, and ever helped the prayer of him who worships.
Thou smostest to the ground the hundred castles, impregnable, of Sambara the Dasyu,
When, Strong, with might thou helpest Divodasa who poured libations out, O Soma-buys, and madest Bharadvaja rich who praised thee. (Rig Veda 6:31.4)

To him in might the Gods have ever yielded, to Indra in the tumult of the battle.
When in his arms they laid the bolt, he subdued the Dasyus and cast down their forts of iron. (Rig Veda 2.20.8)

In the wild joy of Soma I demolished Sambara's forts, ninety-and-nine, together;
And, utterly, the hundredth habitation, when helping Divodasa Atithigva. (Rig Veda 4.26.3)

Thou knowest well, O Sakra, thou Most Potent, with thy strength, Indra, to destroy these castles.
Before thee, Thunder-armed! all beings tremble: the heavens and earth before thee shake with terror (Rig Veda 8.86.14)

Fort-render, Lord of Wealth, dispelling foes, Indra with lightning hath overcome the Dasa
They laud the mighty acts of him the Mighty, the many glorious deeds performed by Indra.
He in his strength, with all-surpassing prowess, through wondrous arts crushed the malignant Dasyus. (Rig Veda 3.34.1)

We will declare thy hero deeds, what Dasa forts thou brakest down,
Attacking them in rapturous joy. (Rig Veda 4.32.10)
Indra broke through Ilibisa's strong castles, and Susna with his horn he cut to pieces:
Thou, Maghavan, for all his might and swiftness, slowest thy fighting foeman with thy thunder
Fierce on his enemies fell Indra's weapon: with his sharp bull he rent their forts in pieces.
He with his thunderbolt dealt blows on Vrtra; and conquered, executing all his purpose.
(Rig Veda 1.33.12,13)

Exceeding strong in war he stays the chariot wheel, and, hating him who pours not,
prospers him who pours.
Indra the terrible, tamer of every man, as Arya leads away the Dasa at his will.
(Rig Veda 5.34.6)

When, Hero, thou, great souled, with easy conquest didst rend the Dasyus in their distant dwelling. (Rig Veda 1.63.4)

He, like a mad weak warrior, challenged Indra, the great impetuous many-slaying Hero.
He, brooking not the clashing of the weapons, crushed--Indra's foe--the shattered forts* in falling. (Rig Veda 1.32.6)

In aid of Abhyavartin Cayamana, Indra destroyed the seed of Varasikha.
At Hariyupiya he smote the vanguard of the Vrcivans, and the rear fled frightened.
(Rig Veda 6.27.5)

Therefore

(a) The Dasyus had 99 forts
(Rig Veda 4.26.3, Rig Veda 6:31.4, Rig Veda 6:31.4) and several other verses reproduced above
(b) The Dasyus were very wealthy (Rig Veda 1.33.4)
(c) They were an ancient people (Rig Veda 1.33.4)
(d) Chariots were used extensively in interactions with Dasyus/Dasyus. Chariots could not have been used to conquer Persia from India, just as they could not have been used to conquer India from Central Asia! They certainly could not have been transported or transplanted overnight
(e) According to Rig Veda 7.18.19, some Dasyus also had horses, suggesting a prolonged acculturation.
(f) These verses are also described as being new (Rig Veda 1.80.10)
(g) Sumerians called the people of the Indus Meluhha. The Vedic Aryans called them Mleccha. These two names would therefore appear to be synonymous
(h) The consonant h in West Asian literature is frequently replaced by s and ch in Sanskrit literature.
(i) The Mlecchas as described as followers of a different faith from that of Vedic Aryans
(j) The Mlecchas were described as beef eaters, a potentially interesting topic for further discussion by itself, and suggestive of the fact that there may already have been a change in the Aryans’ dietary habits by the time these verses were written.
(k) The word Daha is also used in West Asia to mean people of the neighbourhood. The fact that there were trade contacts with West Asia during the Rig Vedic period is now acknowledged by many.
(l) Since the Genetic input from Central Asia was so small, it is likely that the Harappans and Indo-Aryans were quite essentially of the same ethnic stock, cultural divergences in the intervening period notwithstanding, the separation having only been caused by migrations to the Ganga Yamuna doab.
(m) In post-Harappan sites such as Bet Dwaraka (1500 BC) most objects and cultural elements were carried forward from the Harappan era.
Similarly, Sanskrit literature talks about different types of aliens living in Ancient India, not just the Dasas.

Romila Thapar and Pargiter have suggested that the name Indra was only used as an invocation.

Some “Indo-Aryan” kings had names such as Trasadasyu

Even the Battle of the ten kings suggests that a complex set of political relationships had already been formed between several people living in the region

This event is not described in later Sanskrit texts at all and disappears completely unlike many other events which are corroborated by other texts as well.

Mleccha was also a language spoken in Ancient India i.e The epic Mahabharata describes a conversation between Vidura and Yudhishthira in Mleccha. Mlecchas are described as being vratyas; they lived in dvipas or islands. We can connect this with the Bet Dwaraka site of the late Harappan period on the sea in Gujarat where the epic was supposed to have taken place. Mleccha was also the language of Artisans and Coppersmiths according to Sanskrit literature: we can again connect this with the Harappans.

It may also be interesting to note that a seal of the Akkadian period refers to its owner as ‘Silusu, Meluhha interpreter’, suggesting that the term Meluha was also used is the middle east to refer to a language.

Therefore, the term Meluha perhaps also loosely referred to a language label i.e. the language or languages spoken by the Meluhans. Note that this is only a hypothesis and needs to be proved or disproved with further evidence. Perhaps, the Indo-Aryans derived this name from West Asia since they traded with them in the post-Harappan era. This, we can argue, may have been likely because West Asian references to Meluha as a language may be much older. Quite likely, the truth will never be known. There are other references to Mlechha as a language in Sanskrit literature, but the nature and the identity of this language needs to be studied in greater detail. We have no surviving literature in Mlechha either. According to one theory several Mleccha dialects later evolved into Prakrit, the common mans lingua franca in the first millennium BC. Prakrit also may have evolved from several sources other than Sanskrit. Recently, this hypothesis was also made by a gentleman by the name of S Kalyanaraman. However uncovering the truth might involve

(a) Identifying the substratum in Sanskrit
(b) A study of Prakrit and Pali by removing Sanskrit influences
(c) Studying the names of the Dasas and the names of Meluhans, if any, in West Asian literature

We can also infer that these verses may pertain to a period of around 1500 BC, arguably after both sides were already highly synthesized, with some Dasysus riding horses and the Aryans themselves probably consisting mostly of descendants of the Harappans ever since migrations to the Gangetic plains took place. Similarly, there were supposedly several Aryan objects in the IVC, on which consensus is to be reached. Recent Archeological evidence has unearthed a Chess board, figurines depicting the Indian Namaste and Swastika signs. There is therefore, some amount of continuity in later cultures, despite the fact that many of these may be of Harappan origin. Also, some Dasas referred to mythical creatures and some Dasa referred to other Aryan kings. At best these may have been petty internal skirmishes between a set of partly synthesized and de-synthesized people who, later cultural divergences apart, may have been ethnically similar to one another as the Genetic input from Asia was perhaps so small. Furthermore, the major cause of the decline of the IVC as it is now known through hundreds of studies carried out in the past few decades was due to climatic changes and decline in trade with West Asia.

The concept of an Aryan Invasion in the strict sense of the term is now widely considered obsolete. As a matter of fact, even Ms. Romila Thapar was convinced as early as in 1969 that there could never have been an Aryan invasion as it was originally interpreted by early Indologists. The Aryan problem, she said, in her Presidential address to the Ancient Indian History Session at
Varanasi, "was perhaps the biggest red herring dragged across the path of the historians of India".

Romila Thapar further states in her article Hindutva and History (frontline Volume 17 - Issue 20, Sep. 30 - Oct. 13, 2000) "In 1968, I had argued at a session of the Indian History Congress that invasion was untenable and that the language - Indo-Aryan - had come with a series of migrations and therefore involving multiple avenues of the acculturation of peoples. The historically relevant question was not the identity of the Aryans (identities are never permanent) but why and how languages and cultures change in a given area."

Colin Renfrew, Professor of Archaeology at Cambridge, in his famous work, Archaeology and Language: The Puzzle of Indo-European Origins, Cambridge University Press, 1988, makes the following comments about the real meaning and interpretation of Rig Vedic hymns:

"Many scholars have pointed out that an enemy quite frequently smitten in these hymns is the Dasyu. The Dasyus have been thought by some commentators to represent the original, non-Vedic-speaking population of the area, expelled by the incursion of the war-like Aryas in their war-chariots. As far as I can see, there is nothing in the hymns of the Rig Veda which demonstrates that the Vedic-speaking population were intrusive to the area: this comes rather from a historical assumption about the ‘coming’ of the Indo-Europeans. It is certainly true that the gods invoked do aid the Aryas by overthrowing forts, but this does not in itself establish that the Aryas had no forts themselves. Nor does the fleetness in battle, provided by horses (who were clearly used primarily for pulling chariots), in itself suggest that the writers of these hymns were nomads. Indeed the chariot is not a vehicle especially associated with nomads. This was clearly a heroic society, glorifying in battle. Some of these hymns, though repetitive, are very beautiful pieces of poetry, and they are not by any means at warlike."

Indra was only an invocation according to Romila Thapar, Pargiter and others, an not a historical figure. He was apparently invoked frequently.

But, were the Indo-Aryans really limited to the Punjab? A shibboleth revisited

Although the epicenter of the Rig Veda was undoubtedly the Punjab, we must also bear in mind the following factors

(a) The Ocean is already described in the Rig Veda in the following verse

Ye wrought that hero exploit in the ocean which giveth no support, or hold or station, What time ye carried Bhujyu to his dwelling, borne in a ship with hundred oars, O Asvins. (Rig Veda 1:66)

Four ships most welcome in the midst of ocean, urged by the Asvins, save the son of Tugra, Him who was cast down headlong in the waters, plunged in the thick inevitable darkness. (Rig Veda 1:63)

(b) Frequent transfer of river names between India and Afghanistan suggests that their influence may have encompassed a larger area, a fact made possible in no small measure by the use of the domesticated horse.

55 Ancient Indian social history: some interpretations by Romila Thapar
56 India: A history by John Keay

(c) The discovery of the Gandhara grave culture (1600 BC), Bet Dwaraka (1600-1500 BC), recent evidence of the use of Iron in the Gangetic plains in 1800 BC, Black and Red ware culture (1300 BC), Painted Grey ware (1100 BC) and the Mittani inscriptions in West Asia in 1380 BC suggest that the naturally peripatetic Aryans may have operated out of a much larger area.

One possibility is that the Indo-Aryans spread to the plains when the River Saraswathi began to dry up.

The following verse in the Rig Veda (8.21.18) talks about a number of petty kings living along the course of Saraswathi,

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

F.E Pargiter (1852-1927) similarly talks about an early Indo-Aryan king Yayati who reached the banks of the River Saraswathi, and several other kings performing horse sacrifices on its banks.

(d) The boundaries of Aryan territory or Aryavarta according to various texts are given below

The Vasistha Dharma Sutra I.8-9 and 12-13 locates Aryavarta or Aryan territory to the east of the disappearance of the Saraswathi in the desert, to the west of Kalakavana, to the north of the mountains of Pariyatra and Vindhya (i.e. the region separating North and South India) and to the south of the Himalaya. Baudhayana Dharmasutra 1.1.2.10 likewise states that that Aryavarta or Aryan territory lay west of Kalakavana, east of Adarsana, south of the Himalayas and north of the Vindhys (The mountain range separating North and South India). In Baudhayana Dharmasutra 1.1.2.11 however Aryavarta or Aryan territory is confined to the Ganga - Yamuna doab. The Gandhara region of Pakistan and Afghanistan is also similarly described as a part of Aryan territory in the, with many important kingdoms such as Gandhara, Kamboja and Takshashila located there.

(e) Difference between the Vedic homeland and the Aryavarta

Therefore a difference must be drawn between the Vedic homeland in the Saptasindhu region comprising the Northernmost tip of India and North east Pakistan and the Aryavarta representing the full extent of Indo-Aryan territory covering most of North India, Pakistan and Afghanistan in the immediate Post-Harappan period.

**Were the Indo-Aryans literate or illiterate? Yet another shibboleth revisited**

The traditional theory has it that the Indo-Aryans were illiterate. However we must bear in mind the following:

Indus scripts in post-Harappan contexts

Examples of Indus scripts have recently been found in places as far apart as Daimabad in Maharashtra (this example dates to 1800 BC) Vaisali in Bihar, and Mayiladuthurai in Tamilnadu, all in the post Harappan period, pertaining to periods between 1500 and 1100 BC. This would suggest that there was some continuity in tradition between the Harappan and the post-Harappan period and that some literate traditions may have been retained by the Indo-Aryans and other cultures. This would also suggest that the Harappan script did indeed have some uses outside the

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38“Discovery of a century” in Tamil Nadu by T.S. Subramanian The Hindu May 01,2006
context of the IVC. More recently, Iravatham Mahadevan has claimed the discovery of an urn in Sulur on the outskirts of Coimbatore pertaining to 100 BC, containing a script, which, he claims, may be related to the Indus script.\(^\text{59}\)

The “script” at Bet Dwaraka

While serious research on the script at Bet Dwaraka has not been conducted yet, none of the eight signs, barring one rarely occurring Indus sign, was found in any other Harappan site this far and all things considered may not have been derived from the Harappan script at all: instead one finds a marked similarity with the Phoenician alphabet (An ancient script of West Asia derived from the Proto-Canaanite alphabet. See illustration.) In any case, why would the Harappans, already moribund by 1500 BC, take such great pains to develop a new script? A new script would more likely suggest the infusion of new ideas or a new culture.\(^\text{61}\) Here is another observation: The classical Indus script was retained unchanged till as late as 1100 BC. The script at Bet Dwaraka though different from the classical Indus script is a full four hundred years older, suggesting that two scripts were in use in the Post-Harappan period. This is not very difficult to believe since there is other evidence to support that there were plenty of cultural contacts between India and West Asia in the immediate Post-Harappan period, a few of which are discussed elsewhere in this write-up.

The age of Brahmi

A more recent archeological find from Adichanallur in Tamilnadu shows an urn containing examples of the Tamil – Brahmi script dated to 600 BC. Early examples of this script were also found in Sri Lanka. By this time, clearly, this script had traveled all the way to the southernmost part of India, and had even metamorphosized into several variants, strongly suggesting that this script may have been of a greater antiquity than hitherto envisaged.

The ruins of Taxila

The Taxila University (now in Afghanistan) is widely believed to have been a major centre of learning in the Ancient World by at least 700 BC, suggesting that literate traditions had spread by at least this point in time.

Was Vedic Culture necessarily rural and bucolic?

A Comprehensive study has been done by F.E Pargiter (1852-1927) on the Indo-Aryan Kingdoms of < 2000 BC to 600 BC in his book “Ancient Indian Historical tradition OUP-Oxford 1922” \(^\text{62}\) after thirty years of back-breaking work which began in the nineteenth century: A hugely informative piece of work, replete with a series of king lists before the birth of the Buddha, all pertaining to different kingdoms, but sadly, not looked at seriously, largely because it was overshadowed by the discovery of the Harappan civilization.

According to this book, the Indo-Aryans had settled down in the fertile plains of the Ganges in a triangle extending from Bihar in the east to Punjab in the North west and Gujarat in the south many generations before the Buddha. These people spoke many related dialects, some spoke other languages, were warlike, but most could all trace themselves to a common ancient ancestor or God. According to him the Rig veda itself described several phases in history.

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\(^{60}\) A megalithic pottery inscription and a Harappa tablet, a Case of extraordinary resemblance, Iravatham Mahadevan

\(^{61}\) Phoenician script and the falsies for Phoenician Generation of Greek Alphabet By A. Krassanakis

\(^{62}\) F.E Pargiter “Ancient Indian Historical tradition OUP-Oxford 1922”
According to the Buddhist text Anguttara Nikaya, the following sixteen Mahajanapadas were in existence before the time of Buddha i.e. 600 BC: Anga, Magadha, Kashi, Koshala, Vajji, Malla, Vatsa, Chedi, Kuru, Panchala, Matsya, Surasena, Ashvaka, Avanti, Gandhara and Kamboja. Another Buddhist text Digha Nikaya mentions the twelve Mahajanapadas and omits Ashvaka, Avanti, Gandhara and Khamboja from the list. Another Buddhist text Chulla Nidesa adds two more Mahajanapadas Yona and Kalinga and drops Gandhara from the list. The Jaina classic The Bhagavati Sutra gives a slightly different list of sixteen Mahajanapadas i.e Anga, Vanga, Magadha, Malaya, Malavaka, Accha, Vaccha, Kochcha, Padha, Ladha, Baji or Vajji, Malla, Kasi, Kosala, Avaha and Sambhuttara. This Jain work has obviously not considered the kingdoms of the far north, and has included some less important kingdoms.

These texts also classify these kingdoms into Aryan and non-Aryan. While Kasi was described as being an Aryan Kingdom, Magadha, Gandhara and Anga were non-Aryan. The Buddhist texts describe the location of these kingdoms in great detail, and a large number of these of these correspond to the large states of Uttar Pradesh, Rajasthan, Madhya Pradesh and Bihar in North India. Gandhara and Kamboja on the other hand correspond to present day Pakistan and Afghanistan. Some of these are also corroborated by the Rig Veda and the Atharva Veda.

Let us now list out the major kingdoms and identify the cities described in each of these kingdoms (cities are in bold letters) along with their approximate location. Some kingdoms like Kikata (Magadha) are already described in the Rig Veda. Note that all these cities were built over, most till the present day, unlike the cities of the Indus all of which were abandoned and hence preserved intact for posterity. Nonetheless, these cities may one day become the focus of archeological research as we progress to close gaps in Indian history. The problem with the rural Aryan hypothesis is that it was not perhaps based on a corroborative reading of texts, and proponents of such hypothesis may have very little going in their favour and may even one day be ripped apart by the scant but ever-growing body of archeological evidence. Moreover, it is instantly at odds with popular Indian tradition which “remembers” various kingdoms, towns and cities. Hence, a dichotomy between popular tradition and history textbooks, quite naturally the starting point of a whole lot of trouble. While it is unlikely that post-Harappan India would have ever had the economic conditions or the trade networks that would have produced a level of prosperity similar to that of Harappan India, these kingdoms must nonetheless become an important area of focus for future research.

Gandhara

Gandhara (c 1600 BC) was a large Kingdom comprising present day Pakistan and Afghanistan. The people of this region are mentioned in the Rig Veda and the Atharva Veda. The Aitareya Brahmana refers to king Naganajit of Gandhara who was contemporary of Raja Janaka of Videha. Gandharas and their king figure prominently as strong allies of the Kuru against the Pandavas in the Mahabhara war. Therefore this kingdom can be traced to the periods of both Indian epics, the Ramayana and the Mahabharata. According to Puranic traditions, this Kingdom was founded by King Gandhara, son of King Aruddha, a descendent of King Yayati. The princes of this country are said to have come from the line of King Druhyu who was a famous king mentioned in the Rig Vedic period. Taksashila (Taxila), Purushapura and Pushklavati were three important cities of this Kingdom. Legend has it that Taksha an ancient Indian king who ruled in a kingdom called Taksha Khanda (Tashkent) founded the city of Takshashila.

Hecataeus of Miletus (549-468 BC) refers to Kaspapyros (Kasyapa i.e Kashmira) as another Gandaric city. The Taxila University was a renowned center of learning in ancient times i.e from atleast 700 BC, where scholars such as Panini and Kautiliya came to seek higher education. Gandhara was located on the road to west Asia and was a centre of international commercial activities.

Kamboja
Kamboja is known to have comprised regions on either side of the Hindukush mountains in Pakistan and the North West of India. The evidence in Mahabharata and in Ptolemy’s Geography supports the existence of Kamboja settlements. The capital of Kamboja was probably Rajapura (modern Rajori) in south-west of Kashmir. The Kambojas were also a well known republican people since the epic times. The Mahabharata refers to several Ganahs or republics of the Kambojas.

In a struggle for supremacy after 600 BC, the growing state of Magadhas emerged as the most predominant power in ancient India annexing several of the Janapadas of the Majjhimadesa. The Brahmin Puranas mentions that the Magadhan emperor Mahapadama Nanda exterminated all Kshatriyas, none worthy of the name Kshatrya being left thereafter. This would obviously refer to the Kasis, Kosalas, Kurus, Panchalas and the Vatsyas.

These nations also fell a prey to the Achaemenids of Persia during the reign of Cyrus (558-530 BC) Kamboja and Gandhara formed the twentieth and richest strapy of the Achaemenid Empire. Cyrus I is said to have destroyed the famous Kamboja city called Kapisi (modern Begram).

**Kasi**

Kasi was an Aryan kingdom corresponding to the eastern part of the present day north Indian state of Uttar Pradesh in India. The capital of Kasi was at Varanasi. Before Buddha, Kasi was the most powerful of the sixteen Mahajanapadas. The Jataka texts speak of the prosperity of this kingdom and of long and bitter rivalries with the neighbouring kingdoms of Kosala, Anga and Magadha. Kasi became a part of Kosala around the time of Buddha i.e 600 BC. Several later Vedic texts also mention the name Kasi. Kasi was also the seat of Brahminism and learning in India.

**Kosala**

Kosala was located to the north-west of present day Gorahkpur in Uttar pradesh in North India. Its capital was Savathi. This kingdom also comprised modern day Oudh which is also in Uttar Pradesh. It was bounded by the river Ganga in the south, river Gandhak for its eastern and the Himalaya mountains in the north. The kingdom was ruled by king Prasenjit and later, by his son King Vidudabha. There was struggle for supremacy between king Prasenjit and King Ajatasatru of Magadha which was finally settled once the confederation of Lichchavis became aligned with Magadha. Kosala was ultimately merged into Magadha when King Vidudabha was Kosala’s ruler. Ayodhya, Saket and Savathi were the three chief cities of Kosala.

Various Jatakas indicate that the struggle between Kasi and Kosala had been a very prolonged one. Sometimes the Kasi king would attack Kosala, capture the king and rule over the country. At others the Kosala king would invade Kasi and annex it to his own territory. The names of several such Kosala kings are mentioned in various Jatakas - e.g., King Dabbasena, King Dighavu Vanka etc; the last of these having been given the title of “Baranasiggaha,” in recognition of his conquest of Kāsi. Other kings of Kosala who came in conflict with Kasi are also mentioned - e.g., King Dighiti, King Mallika and King Chatta.

**Kuru**

The country of the Kurus roughly corresponded to modern Thaneswar, union territory of Delhi and Meerut district of Uttar Pradesh in North India. According to the Jatakas, the capital of Kurus was Indraprastha near modern Delhi which extended on seven leagues. At Buddha’s time, the Kuru country was ruled by a titular chieftain (king consul) named Korayvya. The Kuru of Buddhist period did not occupy the same position as they did in the Vedic period, and their importance appears to have declined. Though a well known monarchical people in earlier period, the Kuru are known to have switched to republican form of government during sixth/fifth century BC.

**Magadha**
The Rig Veda also mentions a king Pramaganda as a ruler of Kikata. Magadhas were referred to in the Atharva Veda as being not yet Brahmanised. Later Vedic literature refers to Kikata as synonym of Magatha. This would help us date the origins of this kingdom to as far back as 1500 BC. Excepting for King Pramaganda of the Rig Veda, no other Magadhan king is mentioned in the Rig Veda or any other Vedas. According to the epic Mahabharata and the other Puranas, the earliest ruling dynasty of Magadha was founded by king Brihadratha, but Magadha came into prominence only under king Bimbisara and his son Ajatasatru. In the war of supremacy which went on for long between the nations of Majjhimadesa, the kingdom of Magadha finally emerged victorious and became a predominant empire in India.

The kingdom of the Magadhas roughly corresponded to the regions of Patna and Gaya in Bihar. It was bounded on the north by river Ganga, on the east by the river Champa, on the south by Vindhya mountains and on the west by river Sona. Its earliest capital was Girivaraja (later known as Rajagriha and then as Rajgir). Other important cities were Magadhapura, Brihadrathapura, Vasumati, Kushagrapura and Bimbisarapuri. Later on and just before 600 BC, Pataliputra i.e present day Patna became the capital of Magadha.

Panchala

The Panchalas occupied the country to the east of the Kurus between the mountains and river Ganga. It roughly corresponded to modern Budaun, Farrukhabad and the adjoining districts of Uttar Pradesh. The country was divided into Uttara-Panchala and Dakshina-Panchala. The North Panchala had its capital at Adhichhatra or Chhatravati (modern Ramnagar in Bareilly District of Uttar Pradesh), while southern Panchala had it capital at Kampilya or Kampil in Farrukhabad District. The famous city of Kanyakubja or Kanauj was situated in the kingdom of Panchala. Originally a monarchial clan, the Panchals appear to have switched to republican corporation in the sixth and fifth century BC.

Let us now list out the smaller kingdoms and identify the cities in these kingdoms:

Anga

The earliest reference to the people of this kingdom can be found in the Atharva Veda where they are mentioned as a despised people. By the time of Jain texts were written down, however, some cultural assimilation appears to have taken place and these are referred to as Aryan. According to the epic Mahabharata, the country of Anga corresponded to the region of Bhagalpur and Mongyr in present day Bihar. Its capital Champa, formerly known as Malini, was located on the right bank of river Ganga, near its junction with river Champa. It was a great center of trade and commerce and its merchants regularly sailed to the far east.

Assaka or Ashmaka

The territory of the Assakas was located in South India. In Buddha’s time, Assakas were located on the banks of river Godavari in present day Andhra Pradesh. The capital of Assakas was Potana or Potali which corresponds to Paudanya of the Mahabharata.

Avanti

Avanti was an important kingdom of western India and was one of the four great monarchies in India when Buddhism arose, the other three being Kosala, Vatsa and Magadha. Avanti was divided into north and south by river Vetravati. Initially, Mahissati or Mahishamati was the capital of Southern Avanti, and Ujjaini or Ujjayini was of North Avanti, but by around 600 BC, Ujjaini was the capital of integrated Avanti. The country of Avanti roughly corresponded to modern Malwa, Nimar and adjoining parts of Madhya Pradesh in central India.

Chedi or Cheti
The Chedis, Chetis or Chetyas had two distinct settlements of which one was in the mountains of Nepal and the other in Bundelkhand in present day Uttar Pradesh. **Sotthivatnagara**, the Sukti or Saktimati of the epic Mahabharata, was the capital of Chedi. The Chedis were an ancient people and are mentioned in the Rig Veda: They must have therefore dated back to 1500 BC

*Machcha or Matsya*

Matsyan territory lay to south of the Kurus and west of the Yamuna which separated them from the Panchalas. It roughly corresponded to former state of Jaipur, Alwar and Bharatpur in present day Rajasthan in North India. The capital of Matsya was at **Viratanagara** (modern Bairat) which is said to have been named after its founder king Virata.

*Malla*

The Mallas are frequently mentioned in Buddhist and Jain works. They were a powerful people in Eastern India. Panduputra Bhimasena is said to have conquered the chief of the Mallas in course of his expedition of Eastern India. The epic Mahabharata mentions Mallas along with the Angas, Vangas, and Kalingas as eastern tribes. The Mallas were republican people with consisting of nine confederated clans. Two of these confederations, one with **Kusinara** (modern Kasia near Gorakhpur) as its capital, second with **Pava** (modern Padrauna, also close to Gorakhpur) as the capital, had become very important at the time of Buddha.

*Fig 3: India in 1500 BC: The Gangetic plains and the Bramhaputra basin were perhaps thick jungles during the Harappan period. It is now believed that the population of the Gangetic plains increased manifold after 1900 BC when massive population movements from North Western India occurred. Source Wikipedia*

*Surasena*

The territory of the Surasenas lay to south-west of Matsya and west of Yamuna. It had its capital at Mathura. **Mathura**, the capital of Surasena was believed to be the birth place of Krishna of the epic Mahabharata and was also known at the time of Megasthenes as the centre of Krishna worship. The Surasena kingdom had lost its independence on annexation by Magadhan empire.

*Vajji or Vriji*
The Vajjians or Virijis included eight or nine confederated clans of whom the Lichchhavis, the Vedehans, the Jnatrikas and the Vajjis were the most important. Mithila (modern Janakpur in district of Tirhut) was the capital of Vedeha which became the important center of political and cultural activities of North India. It was in the time of king Janaka that Vedeha came into prominence. On the ruins of his kingdom arose the republics of Lichchhavis, Vedehans and seven other small republics. Vaisali (modern Basarh in Muzaffarpur district of Bihar) was the capital of Lichchhavis.

Vamsa or Vatsa

The Vatsas, Vamsas or Vachchas are stated to be an offshoot of the Kurus mentioned in the epic Mahabharata. The Vatsa or Vamsa country corresponded with territory of modern Allahabad in eastern Uttar Pradesh in North India. It had monarchical form of government with its capital at Kausambi close to present-day Allahabad. Kausambi had been very prosperous city where large number of millionaire merchants resided. It was most important entrepot of goods and passengers from north-west and south.

Archeological evidence in the Gangetic plains

In spite of the fact that obtaining archeological evidence from a thickly populated region such as the Gangetic plains where the oldest structures may be a couple of decades old at best may pose several challenges and call for specialised methods of study (another crucial difference perhaps having been that the Harappan cities were abandoned while the settlements in the Gangetic plains were built over), the limited Archeological evidence that had been found for the Indo-Aryans till date, i.e Taksashila, Gandhara (1600 BC), Bet Dwaraka (1500-1600 BC), Pataliputra, Nalanda etc has been been incredibly consistent with Sanskrit literature, even in terms of location and place names. Again, one need not rely solely on information obtained Sanskrit literature: Buddhist and Jain literature also describe cities, and one of these, Pataliputra was described in an edition of the Guiness book of World records and in Chandler’s and Modelski’s list as the largest city in the world just before 300 BC with a population which touched a peak of 350,000 in 200 BC. Anyone who argues that the Indo-Aryans were necessarily rural, would need to explain how such large cities appeared from nowhere in 600 BC. The fact that some urban centres must have existed makes sense especially when Pargiter (1852-1927) (He was an Englishman working in the colonial government, in the Civil Service. Interestingly, his work was published before India’s independence and therefore long before the rise of nationalist movements and even the discovery of the IVC. We could therefore rule out political motives). listed them with descriptions of locations: there were migrations into the Gangetic plains from the north-west of India and it is likely that there was some urban activity as large populations were packed into a relatively small area.

For obtaining further archeological evidence of this period, we may need to study the king lists and traditions pertaining to this period and look for cities that were described as having been abandoned. Abandoned sites can also perhaps be found on the banks of the River Saraswathi.

The River Saraswathi cannot be used to prove that the Indus was Aryan or that the Aryans were indigenous

Although many Archeologists have accepted the identification of the Ghagra-hakkar as the Saraswathi, to use this as an evidence to conclude that the Harappan and the Vedic civilization are the same is erroneous. We must remember that even Ms Romila Thapar had remarked that only the River Saraswathi could account for the desertification of West India and the spread of populations to the Ganga Yamuna doab. She has however been always strongly opposed to the term Saraswathi Sindhu civilization.

Therefore, we can even argue that the River Saraswathi is not a problem: it is a solution to the Indo-Aryan problem. Additionally, only the River Saraswathi can satisfactorily account for the
invention and the spread of the caste system, the simple reason being that a fusion of different types of people as it apparently happened in Ancient India can be convincingly explained only in case of large internal migrations in addition to supposed earlier external ones. In this case, large groups of people would have been drawn into to the Gangetic basin around 1900 BC and the complete fusion of different types of people into every city, town and village would have taken place.

The absurdity of the claims of individuals who have attempted to equate that Harappans with the Indo-Aryans on the pretext of the discovery of the River Saraswathi can be summed up by the fact that this rationale and logic would have held for the Indus (Sindhu) as well. Had this logic been applied, the IVC would have been christened the Vedic Civilization aeons ago because the River Indus (Sindhu) was a common denominator to both. In any case, rivers flow for millions of years and different people living on its banks have different names for them.

How far back can we go?

Many people argue through Archeological evidence that the Indo-Aryans had been influencing the Harappans from 2300 BC onwards on the plains and in the Harappan sites of Dholiavira, Surkotada etc (500 point list by Bisht), if we work backwards from this point (following the Indo-Aryan political process) a date of 2500 BC or a little earlier than this shouldn’t be too unreasonable. The only argument that some people put forth to support earlier dates are those based on Astronomical observations (2800 BC) and some observations on descriptions of River Saraswathi in the Punjab which seem to suggest a date of around 3000 BC. We may note that some people have claimed evidence for an even earlier dates: 3800 BC and 4500 BC. The former is related to the discovery of a “Head of Vashista” in the 1950’s by one Mr Harry Hicks. 63 This was dated to 3800 BC, but this date has still not found widespread acceptance. The latter is based on certain Astronomical observations and has reportedly been refuted. Establishing dates based on astronomical evidence has no acceptance as a mainstream scientific methodology: it is still considered a pseudo-science. To use such evidence as inputs for further study, it is essential to establish it as a legitimate methodology, and establish mitigation strategies for any associated risks. As things stand, this may be too risky an approach.

However parsimonious one might deem it prudent to be, the reason why we can retain the date of around 2500 BC is that it would match the common man’s view of Indian tradition which describes a slow process of evolution from the Vedic homeland onto the plains and would help pre-empt demands for revisionism forever.

Future efforts to estimate the date of arrival of the Indo-Aryans may make use of Glottochronological studies and an identification the distance of Genetic markers from future genetic studies.

Part F
Findings and Recommendations

A Concurrent Dating Paradigm

Future historians may want to adopt some kind of a Concurrent Dating Paradigm as different kingdoms and clans would have coexisted during a period. Similarly the content of different texts would have evolved over a period and would have been canonized at different points in time, at would yet talk about the same personalities: the results would then be there for all to see: Ancient India would then come alive and begin to make sense!

63 Hicks, Harry H. and Robert N. Anderson
Analysis of an Indo-European Vedic Aryan Head - 4500-2500 B.C. JIES Volume 18 nos 3 &4
This would mark a radical departure from any earlier theories which considered the Rig Veda as having pre-dated the epic age: Although the earliest layer of the Rig Veda may date back to an earlier era, the Rig Veda must have continued to evolve till the epic age, both in different parts of the sub-continent.

Nothing could probably illustrate this better than the following example. The epic Mahabharata states that Balaram, the elder brother of Krishna undertook a journey, starting from Dwaraka, along the banks of Sarasvati and visited a number of holy places during the time of the Mahabharata war. During his pilgrimage, Balaram visited Vinasana, the place where the Sarasvati disappears in the desert (Mbh. 3.80.118; 9.36.1; 3.130.4). In Mahabharata 9.53.11, Balaram visited karapacava (the place where the Yamuna originated) shortly after visiting Plaska Prasravana (the place where the Sarasvati originated). The Mahabharata also records that the Sarasvati, after having disappeared in the desert, reappeared in some places (e.g. Mbh. 3.80.118). According to the Mahabharata (3.81.115), Kurukshetra was south of the Sarasvati and north of the Drishadvati. The Mahabharata also states that the Sarasvati was the first creation among rivers and that it flowed to the ocean (Mbh. Anus'a_ana 134.15, clearly suggesting that the epic does indeed talk about several events in the second millenium BC, a date closer to the Rig Veda, not withstanding the fact that in its canonical form it might be datable to a more recent period as traditionally suggested. Similarly, several events pertaining to both Gandhara and Dwaraka are mentioned in the Mahabharata in very great detail. Both are datable from archeological evidence to 1600 and 1500 BC respectively.

Our observations are supported by the Englishman Pargiter’s (1852-1927) views on the subject who averred at the end of his thirty year study that the Rig Veda was canonized long after the evolution of historical time in India and that the Rig Veda itself described different periods in time. To quote Pargiter "By the time of King Bramhadatta of Southern Panchala, the collection of Vedic hymns appear to have been largely constituted, for they were definitely combined into a whole by his two ministers, Kandarka or Pundarika and Subalaka or Galava. Kandarka is described as the promulgator or pravartaka of the Veda Sastra. Babharavya Pancala was bahvra and acarya and knew all the satras; he composed the siksa and instituted it; he also devised the krama, mastered it thoroughly and instituted it; Tradition thus declares that the first substantial compilation and the study of the hymns of the Veda in its triple departments of \( \text{rc} \), yajus and saman were made in Southern Pancala by these two Brahmin ministers of Brahmadatta whose position may be estimated as a century and a half before the Bharata battle (1500 BC- 150 BC=1650 BC?). But Kandarka’s compilation was not the Veda as we have it now,first because certain hymns, such as Devapi’s, for instance could not have been included since they were later; and since secondly because tradition is unanimous that Vyasa arranged the Veda, which means a real arrangement of the Veda as it was finally settled"
However, some work on the Rig Veda seems to have begun a few decades earlier, under the tutelage of King Hiryanyanabha of Kosala who was contemporaneous to King Sukrti of Southern Panchala, the fifth predecessor of King Bramhadatta, and also during King Bharata’s reign according to Pargiter (1700 BC?)

Romila Thapar too has repeatedly spoken about the difficulty in dating the Mahabharatha is view of later additions to the text. Pargiter too opines that the priests at Kasi added to and mythified texts in a continuous process, and the bulk of these additions date to a period of around 200 BC to 200 AD when the the Vedic faith was imperiled by a new dark horse, Buddhism. One would hope that techniques such as this, and other hermeneutical techniques corroborated with archeological and genetic evidence may indeed help reconstruct the history of this period some day or the other.

To summarize this section, we present our findings in a table

<table>
<thead>
<tr>
<th>Text</th>
<th>Compiled</th>
<th>Events described</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rig Veda</td>
<td>1650 BC -1380 BC (during the time of a King Bramhadatta of Southern Panchala according to Pargiter, some work was done by his predecessors and some additions were made later). This date range is also consistent with linguistic evidence.</td>
<td>Pertaining to various periods. However, this is quite clearly a compilation, the mandalas having been arranged in the descending order of the number of dieties</td>
</tr>
</tbody>
</table>
| Mahabharata | 200 BC to 200 AD (This is a highly mythified text). This date range is also consistent with linguistic evidence. | (1) The Mahabharata describes the River Saraswathi frequently which dried up in 1900 BC  
(2) The submergence of Dwaraka (Bet Dwaraka?) in around 1500 BC (This event is central to the Mahabharata)  
(3) Gandhara (founded in 1600 BC is also quite central to the Mahabharata)  
(4) The Mahabharata talks about people such as the Purus who lived in 1500 BC and not when the epic was compiled. The same people are also mentioned in the Rig Veda. |

Although, the Mahabharatha was compiled and mythified between 200 BC and 200 AD, it is logically quite impossible that the events described in this text, even if we assume that it has a historical core, pertain to the period of between 200 BC and 200 AD when this text was compiled.

The textual reconstruction of early Indian History using an “Anchor Point model”

For a textual reconstruction of early Indian History, we may recommend an “Anchor point model” and this would work as follows. This model should work very well even if there is limited evidence and put whatever evidence is available to optimal good use.

(a) The first step in this approach would be to complete a textual reconstruction.
(b) The second step would be to identify as many Anchor points as possible. An anchor point in our parlance, may be termed as a reference point which can be attested using corroborative evidence.
(c) Corroborative evidence can be genetic, archeological or any other form of evidence (inter-relationships with other cultures such as West Asian, Harrappan and other cultures) arrived at through consensus.
(d) The third step would be to arrive at a set of dates
(e) The fourth step would be to carry out a comprehensive study of the traditions described in each period to see if the fit in with the cultural framework of the era. As a part of this exercise later additions to the text (which continued all the way to 200 AD), if any need to be identified and isolated.
(f) The fifth step would be to assess the general reliability of the textual reconstruction and identify parts which may not be reliable.
(g) The sixth step would be a de-mythification exercise (discussed separately)
(h) The seventh step would be to reject Anchor points that were not used with reasons
(i) The eighth step would be identify further anchor points and obtain further corroborative evidence till this model is perfected
(j) The last step would be to obtain International consensus on the issue particularly with regard to the dates and the extent of information obtained which can be reasonably established as historical facts

We will assume a date of 1550 BC for the Mahabharata war based on the following factors:

(a) This date fits in very well with Dr S R Rao’s excavations at Bet Dwaraka. He dates this site to 1550 BC [S.R. Rao served the Archaeological Survey of India for over 32 years. He is the discoverer of a large number of Harappan sites including the port city of Lothal in Gujarat.] Further information on this finding can be found on the internet or can be obtained from the Government of India. Interestingly, Ms Romila Thapar has described this war as a feud internal to the subcontinent.
(b) This fits in very well with the River Saraswathi. The epic talks about the river as slowly drying up. (This is also known to have happened slowly after 1900 BC)
(c) This is the first battle in Ancient India where chariots were used. This does not conflict with the history of the Chariot either.

We will try to identify Eight major anchor points for dates: (Readers can judge for themselves whether all these return approximately the same date or not)

(a) The Bet Dwaraka excavations (Radio carbon dating to be done by international experts) 1500-1550 BC
(b) The Gandhara excavations 1600 BC
   (interrelationships between Gandhara and other kingdoms re mentioned in Sanskrit literature) i.e Gandhara was founded by King Gandhara, son of King Aruddha whose remote ancestor, King Yayati was already an Indo-Aryan king.
   The kinglists in chronological order & the details of the interrelationships of the kings © The timeline drying up of the Saraswathi as the description of small cities and kingdoms supposedly founded on its banks eg Sudyumma (c <1900 BC)
(d) The Mittani inscriptions in Persia and details of inter-relationships of Indian kings with with Persian kings (Boghaz kuei/ Indra/ Suppiliuma/ Matiwaza etc)
(e) Excavations and Radio carbon dating of all the 25+ pre-Budhist era cities described in Budhist and Pali literature.
(f) Pattern of supposed Vedic influences in the Eastern Harappan sites eg Dholavira (500 point list prepared by Bisht and some others) – to be examined by an international committee of experts after excavations at the remaining 95% of the sites are carried out.
(g) Timeline of generally known facts e.g Timeline of the Development of the Chariot
(h) The Rig Veda was compiled 150 years before the Mahabharata war according to Pargiter (1852-1927) during the reign of King Bramhadatta i.e around 1650 BC. This would also need to be corroborated with linguistic evidence.

We will now work backwards: King Yayati is supposed to have lived 90 generations / successions of kings before the Mahabharata according to Pargiter (1852-1927) and information in other literature. We will now place this at 2200 BC. Working backwards, we get the following timeline: (Note the early “Kings” may have been petty insignificant kinglings with shorter reigns (Rig Veda 8.21.18)

<table>
<thead>
<tr>
<th>S N o</th>
<th>Name of the King</th>
<th>Putative Date</th>
<th>Brief History of Each king (further information on the background and life and times of each king is available from many sources.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>King Sudyumma</td>
<td>2270 BC</td>
<td>Sudyumma establishes a kingdom on the banks of the River Sarasvati.</td>
</tr>
<tr>
<td>2</td>
<td>King Iskhvaku (Important king)</td>
<td>2250 BC</td>
<td>Founder of the Solar or the Ishvaku Dynasty in present-day Uttar Pradesh. This later became the province of Kosala.</td>
</tr>
<tr>
<td>3</td>
<td>King Pururavas Aila (Important king)</td>
<td>2250 BC</td>
<td>Adopted son of Sudyumma. His children were Ayusha, Amavasu, Visvayu, Srutayu. He vanquished a king of the Ishvaku dynasty</td>
</tr>
<tr>
<td>4</td>
<td>King Amavasu</td>
<td>2250 BC</td>
<td>Founded a kingdom which later came to be known as Panchala.</td>
</tr>
<tr>
<td>5</td>
<td>King Ayusha</td>
<td>2230 BC</td>
<td>Ayusha had five children, one of them was Nayusha.</td>
</tr>
<tr>
<td>6</td>
<td>King Nayusha</td>
<td>2120 BC</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>King Yayati (important king)</td>
<td>2200 BC</td>
<td>Great Grandson of Pururavas Aila. Married Devayani. Children: Yadu and Turvasu. Succesor:Puru</td>
</tr>
<tr>
<td>8</td>
<td>King Puru</td>
<td>2180 BC</td>
<td>Successor of Yayati</td>
</tr>
<tr>
<td>9</td>
<td>Turvasa, Drhuya, Anu and Puru</td>
<td>2180 BC</td>
<td>Founded new kingdoms to the West of the River Saraswathi</td>
</tr>
<tr>
<td>10</td>
<td>The Paurava Kings</td>
<td>2200 BC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2100 BC</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>King Shashabindhu</td>
<td>&gt; 2100 BC</td>
<td>King of Yadav dynasty</td>
</tr>
<tr>
<td>12</td>
<td>King Mandhatr</td>
<td>&gt; 2000 BC</td>
<td>King of Ishvaku dynasty</td>
</tr>
<tr>
<td>13</td>
<td>King Sagar</td>
<td>2000 BC</td>
<td>King of Ayodhya (some migrations into India took place during this period) These were migrations of Kshatriyas from West Asia. This means that the Indo-Aryans were in India long before this, even as rulers!</td>
</tr>
<tr>
<td>14</td>
<td>King Anshuman</td>
<td>1950 BC</td>
<td>Grand son of King Sagar</td>
</tr>
<tr>
<td>15</td>
<td>King Bhagiaratha</td>
<td>1900 BC</td>
<td>Grand son of King Anshuman</td>
</tr>
<tr>
<td>16</td>
<td>King Dushyanta</td>
<td>1750 BC</td>
<td>Married Shakuntala</td>
</tr>
<tr>
<td>17</td>
<td>The Satvant Dynasty</td>
<td>1750 BC</td>
<td>A Dynasty in the westernmost part of India</td>
</tr>
<tr>
<td>18</td>
<td>King Bharata (Very important king: Major conqueror of Ancient times)</td>
<td>1700 BC</td>
<td>Bharat was perhaps the greatest conquerer of the early Vedic age. He conquered areas both to the west and the east of his kingdom, which lay on either side of the</td>
</tr>
</tbody>
</table>

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64 'Builders of Indian Civilisation' by P.L. Bhargava, Asian Humanities press, Berkeley, California
river Sarasvati. In the west, the defeats of Satvants, the descendants of Yadu, by him is recorded in the Satpatha Brahmana. In the east, he went further than any previous Aryan king had gone. He also attacked “Mleccha Hordes”. He is the first recorded Aryan king who carried arms beyond the Yamuna up to the river Ganga. He had nine sons, but since he did not find any of them fit to govern his kingdom after him, he disinherited all of them and adopted a descendant of Bharadvaja named Vidatha as his son and successor. This selfless and courageous act further raised him in the esteem of the people.

During the reign of this king, there were several cultural contacts with Persia via Bactria (references abound to this)

<table>
<thead>
<tr>
<th></th>
<th>The Bharata kings</th>
<th>1700 BC to 1550 BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>The Mahabharata war</td>
<td>1550 BC</td>
</tr>
<tr>
<td>21</td>
<td>King Aruddha</td>
<td>1625 BC</td>
</tr>
<tr>
<td>22</td>
<td>King Gandhara</td>
<td>1600 BC</td>
</tr>
<tr>
<td>23</td>
<td>King Brahmadatta</td>
<td>1650 BC</td>
</tr>
<tr>
<td>24</td>
<td>The development of major cities in the Gangetic plains</td>
<td>&gt; 1500 BC to 600 BC</td>
</tr>
<tr>
<td>25</td>
<td>Some kings from the Magadha dynasty: King Brihatkarman (1407 BC to 1384 BC) King Senajit (1384 BC to 1361 BC) King Srutanjaya (1361 BC to 1321 BC) King Vipra (1321 BC to 1296 BC) King Suchi (1296 BC to 1238 BC) King Kshemya (1238 BC to 1210 BC) King Subrata (1210 BC to 1150 BC) King Dharma (1150 BC to 1145 BC) King Susuma (1145 BC to 1107 BC) King Dridhasena (1107 BC to 1059 BC) King Sumati</td>
<td></td>
</tr>
</tbody>
</table>
The Gangetic region saw the rise of four kingdoms founded by the four sons of Manu named Sudyumma, Iksvaka, Pramsu, and Saryati, the most famous of whom were the first two. Sudyumma established a kingdom on the banks of the Sarasvati. Being childless, he adopted a son of his sister Ila. This was the celebrated Pururavas Aila, whose great-grandson Yayati made his kingdom very prosperous.

Yayati had five sons, Yadu, Turvasa, Drhuya, Anu and Puru. The youngest of them, Puru, succeeded him, while the other four founded new kingdoms towards the west of the river Sarasvati, probably by conquering part of the territory over which the descendants of Pramsu ruled. The descendants of Puru were called the Purus or Pauravas. Fifteen generation after Puru, a king named Dusyanta was born in his dynasty. Dusyanta married the beautiful maiden Sakuntala. The son of Dusyanta and Sakuntala was the illustrious king Bharata.

Bharata was a king with a difference. The Rigveda, the Aitareya Brahmana, the Satapatha Brahmana, the Mahabharata and the Puranas all sing his eulogies. He was a pious king, a great conquerer, a magnificent sacrificer and a man of high principles.

Bharata was perhaps the greatest conquerer of the early Vedic age. He made conquests both in the west and the east of his kingdom, which lay on either side of the river Sarasvati. In the west the defeats of Satvants, the descendants of Yadu, by him is recorded in the Satpatha Brahmana. In the east he went further than any previous Aryan king had gone. He is the first recorded Aryan king who carried arms beyond the Yamuna up to the river Ganga.

He had nine sons, but since he did not find any of them fit to govern his kingdom after him, he disinherited all of them and adopted a descendant of rishi Bharadvaja named Vidatha as his son and successor. This selfless and courageous act further raised him in the esteem of the people.

Bharata’s descendans were called Bharatas or Bharatas.
The ninth in the line of heritage of Bharata was king Kuru, descendants of whom are known as the Kaurava(s) and Pandava(s) of the Mahabharata. Other Kuru Kings included Trasadasyu, Kuru-Sravana, Parikshita and Janamejaya”

(Excerpts from the book ‘Builders of Indian Civilisation’ by P.L. Bhargava, Asian Humanities press, Berkeley, California)

Demythification

Demythification is essential to achieve a sane and a logical understanding of Ancient India history, and therefore, only events which, through consensus, can be reasonably considered as facts must be included in textbooks. The existence of myths does not necessarily mean discarding an event altogether (There are myths and legends even in the Islamic period eg. Legends of Birbal and in the Medieval Hindu period eg. Legends of Tenali Ram). It is highly unlikely that a series of kings sequentially arranged and with clearly mentioned interrelationships between dynasties would be required for a story: Indeed, there is very little to suggest that all these kings would be mythical. Similarly information such as trade and cultural contacts, migrations and the fact that many of these kings were the supposed ancestors of historical personalities such as the Buddha suggest their historicity. The sheer breadth of information available about many kings is truly mind-blowing. Additionally, The names of the city-states these kings ruled in correspond with the city-states described in Buddhist and Jain literature. These kinglists were compiled by an Englishman in the 1920’s who swore by their authenticity.

Demythification strategies would need to be arrived at only through International consensus. We can again recommend the “Anchor Point Model” here. This can be used to anchor an event at a certain point in time and then anchor additions to subsequent periods: thus, the history of mythification can be traced.

Figure 4A The Phoenician and the Proto-Canaanite scripts of West Asia from c 1500 BC. Note the similarity of signs.
A strong case for delinking race with spoken and written forms of a language and culture: Who were the Harappans?

No up-to-date researcher assumes that language and race movements happened in tandem. Even Michael Witzel admits “The combination of a specific language with any 'racial' type is not maintained by linguists. At this late, post-Meso/Neolithic stage in human development, language no longer has any very close relation to ‘race’. Even the early Indo-Europeans were a quite mixed lot, as has been stressed for decades.\[N.16\] Recently developed methods of genetic testing (mtDNA, non-recombinant Y chromosome) have and will shed further light on this (Cavalli-Sforza 1994, 1955, Kivisild 1999, Semino 2000, Underhill 2000, Bamshad 2001, etc.). It must be pointed out that genetic evidence, though still in its infancy, is often superior to (even multi-variate) palaeontological evidence as it more specific than distinguishing types reflected in osteology, based on the simple phenotype adaptation to living conditions. Genetic evidence frequently allows to pinpoint (sub-) branches in the cladistic tree at a particular point in time and space.”\[65\]

It would therefore be incorrect to necessarily associate language with race. While the theory that the Harappans spoke an “Aryan” language has always been a non-starter, the hypothesis that the Harappans were biologically similar to the Dravidian speakers of South India would imply the following:

1. The population of the IVC is now believed to have been up to 10 million and there was a West East transfer of population and never a North-South transfer. Therefore, if the Harappans were biologically similar to the present day inhabitants of South India, it would result in a scenario where the present day inhabitants of the Gangetic plains were similar to the present day inhabitants of South India.
2. There is a remarkable continuity of skeletal record between the Harappans and the present day inhabitants of the Northwestern part of India and Pakistan as evidenced by recent research. Therefore, assuming that migrations of IE speakers was small, the Harappans were more or less similar to the present day inhabitants of the Gangetic plains since there was a West-East transfer of populations, since apart from migrations to the Gangetic plains, the Harappans were not uprooted in any way.

\[65\] (EIVS) Vol. 7 (2001), issue 3 (May 25)
3. The Harappan culture originated from Baluchistan. If the IVC were “ethnically” Dravidian, it would imply that Baluchistan were the originating point for Dravidian culture. This may be quite unlikely.

One argument generally put forth by those who claim that the Harappans spoke a Dravidian language is that a member of the Dravidian language family Brahui is spoken by a small and an ever-decreasing number of inhabitants in modern day Pakistan. There are therefore several likely possibilities: we can argue that the people of the Indus valley spoke several languages which may have included those of the Hypothetical elamo-Dravidian group, the Paramunda group or isolates, or a combination of all these, but were ethnically closely related to the people of Northwest India and Pakistan as there were no major skeletal discontinuities observed in the Post-Harappan period. Anthropological studies and comparative linguistics might help, thereby opening up several vistas for future research. Various scholars have attempted to identify the substratum in Sanskrit and have arrived at different results. Some scholars have suggested, even if for the want of another alternative, Dravidian as the substratum, although this finding was disputed by Witzel who suggested Paramunda as the substratum. One might want to argue that such studies may be already beginning to get outdated, and a reconciliation with the results thrown up by newer Genetic studies may be wanting. We have even argued earlier in this paper that Meluha/ Mleccha may have loosely referred to a language group. However, we can still argue that the Harappans were ethnically diverse as the following verses in the Rig Veda (2.20.7,9.73.5,1.130.8,4.16.13) suggest that the Dasas were dark or atleast dark in relation to the Indo-Aryans.

Nonetheless, all things taken together, we can quite convincingly argue that all future endeavours in this direction must not blindly assume that language necessarily spread with race: this would prove to be a tragedy and undermine further progress in the field of Indological studies. A few common examples to prove this point are reproduced below.

1. There are around a million speakers of Brahui, a Dravidian language in modern day Pakistan. Speakers of this language however belong to various ethnic groups.
2. Most inhabitants of Tamilnadu, a state in Southern India speak Tamil, a Dravidian language. However, all speakers of Tamil are not ethnically similar to one another. The Tamil language itself has external loan words such as sooriyen (sun), nashtam (loss), labham(gain), paapam (sin), punyam (virtue), nakshatram (star), swargam (heaven), narakam (hell) and many more all related to Sanksrit. Arguably, Sanskrit influences exist even in in Dravidian languages such as Tamil.
3. Many people living in Central India belong to the Austro-Asiatic group of tribes. They are however speakers of Indo-European languages such as Hindi.
4. Speakers of other Dravidian languages such as Malayalam, Telegu and Kannada similarly belong to various ethnic groups.
5. People living in the North-Eastern part of India are ethnically related to Mongoloids. However, they speak Indo-European languages such as Assamese.

A common example to show that spoken languages and scripts need not have a common point of origin

We can even quite convincingly argue that language and scripts can owe their origins to different sources: A classic example to prove this point would be Tamil: The language is the oldest among the Dravidian languages extant today, dating in a written form to atleast 500 BC, which quite clearly, could not have originated with the Indo-European languages of North India. Quite remarkably, however, the Tamil script is known to have been derived from the Brahmi script of North India, a script, which may itself have been related to the ancient early alphabetic scripts of the Middle East. Ditto for other Dravidian languages. The latter arrangement in Indo-aryan and Dravidian languages, with minor variations, is the same.

A common example to show that culture and race may not always spread in tandem
While North and South Indians, (both are ethnically diverse) do not necessarily belong to the same ethnic groups, do not speak languages from the same group, they share many common religious practices like Siva and Ganesa worship, celebrate the same festivals (Eg Diwali) and have many similarities in customs and attire.

Summary of inferences from this section

We can quite easily conclude that the origins and spread of all four elements ie. Race, spoken and written language and customs must be analyzed separately with separate methodologies devised for each.

Who then where the Harappans?

Techniques that may be adopted to identify the language(s) spoken by the Harappans could include but need not be necessarily limited to the following:

(a) Identifying the substratum in Sanskrit
(b) Studying the nature of Prakrit and Pali after removing Sanskrit influences on them

On the other hand, the ethnicity of Harappans would perhaps be ascertained through archeological excavations and the study of Human bones. Another option would be to study the ethnic makeup of people living in the Gangetic plains. Since the people there would have migrated from the North-west of India in 1900 BC, valuable clues may be found by studying their ethnicity.

The theory that the Harappans were ethnically related to Dravidians may be untenable, because the roots of the IVC were in Baluchistan. Furthermore, migrations were from West to East and not North to South. Others may beg to differ. Critics will cite the prevalence of Siva worship in the south for example. But then, the “Proto-Siva” of the Indus was probably related to some deities of the middle east also. Siva was an integral part of the Hindu trinity and was worshipped in North India as well. Siva worship could have spread to the south from there. Siva worship could have have spread to the south before the Aryan age as some Harappan seals were found in South India as well. The possibilities are endless. However, in situations like this, where there is contradictory data to be dealt with, the best approach may be to take the most convincing evidence into account and alternative explanations sought for the remaining. As said, the history of different elements in Indian culture will need to be traced separately.

Linguist David McAlpin has been a chief proponent of the Elamo-Dravidian Hypothesis. This hypothesis speculates that the extinct language(s) of the Indus Valley may be part of the Elamo-Dravidian language family which includes many languages of the middle east. On the other hand, According to Michael Witzel, there are not many Dravidian loan words in the earliest stratum of Vedas, although, the Dravidian influence quickly increases in the post-Rigvedic period. In the essay "Substrate Languages in Old Indo-Aryan", Prof. Witzel says "As we can no longer reckon with Dravidian influence on the early RV, this means that the language of the pre-Rigvedic Indus civilization, at least in the Panjab, was of (Para-) Austro-Asiatic nature."

Study of the Indus script would perhaps be less central and less critical to the progress of Indic studies than formerly, and in the absence of a Rosetta stone, would continue to be baffling and enigmatic for the foreseeable future, guesswork notwithstanding.

The Proposed Nine Phase Acculturation model between the Harappans, Indo-Aryans and other cultures to explain how the transfer of power took place from the Harappans to the Indo-Aryans (Note that the phases are arranged logically and not necessarily chronologically)

We now recommend a Nine phase acculturation model by taking into account all the contradictory evidence discussed this far. This model seeks to explain how the transfer of power
happened from the Harappans to the Indo-Aryans by proposing a model wherein the Harappans and the Indo-Aryans evolved separately, synthesized with each other, fused when migrations into the Ganga Yamuna doab took place, and subsequently de-synthesized as the Harappan civilization, already moribund since 1900 BC continued on its inexorable path to decline till 1400 BC when it finally vanished into oblivion.

Readers are urged to draw their own maps, several times over, if required, understand how the model works and then evaluate it for themselves. Anyone wanting to differ with this model must explain how the all contradictory evidence collected this far can be pieced together harmoniously and offer a systematic refutation. This model, we can argue would be satisfactorily able to explain the Spread of IE language and culture in India both in case of Trickle in and relatively larger migration scenarios. Underlying evidence is presented either in the narrative or below.

**Phase One: The Harappan Evolution to Maturity phase (Evolved starting 7000 BC, Early phase 3300 BC to 2600 BC, mature phase 2600 BC to 1900 BC)**

The Harappan Civilization, India's and South Asia's oldest civilization evolved independently and covered a large part of South Asia, stretching up to Iran in the West. The roots of this civilization were perhaps in Mehrgarh probably in the seventh millennium BC. It is now believed that there was a gradual migration of people from the Baluchistan region to the Sind and Punjab region in the period preceding the Harappan civilization. At its peak, the IVC was centred around large parts of Pakistan and India comprising Sind, the southern part of Punjab, Rajasthan, Haryana and parts of Kutch and Gujarat and it is now believed by most scholars that the Harappan civilization was truly cosmopolitan and that different sites had different local influences. Important towns and cities in this civilization were Mohenjodaro (Pakistan), Harappa (Pakistan), Rakhigarhi (India), Dholavira (India), Chunchudharo (Pakistan), Ganweriwala (Pakistan), Kalibangan (India), Lakhmirwala (India) and Surkotada (India).

**Phase Two: The Indo-Aryan Evolution phase (before 2500 BC)**

The Indo-Aryans may have first arrived in the Northern most tip of India in statistically in significant numbers and settled in the Sapta Sindh region or the Vedic homeland comprising of present day Punjab, Uttarakhand, Himachal Pradesh, Southern Kashmir and large parts of North Eastern Pakistan) from a homeland believed to be somewhere in Central Asia (formulated in several hypotheses already discussed in this write-up) sometime before 2500 BC (3000 BC is the Author’s preference for the likely earliest date based on the description of the River Saraswathi as a free flowing river: some may want to adopt more conservative dates, as terms such as large and free flowing can be highly subjective. Skimpy evidence for earlier dates notwithstanding, this model works well even if one were to assume a date of 2500 BC, around the same time migrations were purported to have taken place to Europe). The precise date of immigration may one day be thrown up from Genetic research as studies progress to provide results with a greater degree of accuracy. This date may also one day be arrived at through glottochronological studies. However various objections to models proposing migrations in 1500 BC are already discussed in the paper.

Also note that their hypothetical date of arrival would depend on the timeframe of the Indo-Aryan political process and the time they might have spent in the Vedic homeland. It is reasonable to expect that they lived there for sometime. Hence, the appellation “homeland”. This would also explain the fact that all Hindu religious places such as Haridwar and Rishikesh invariably point in the direction of the Vedic homeland.

The first in a series of acculturations: Since some recent genetic studies have suggested that the size of migrations were small and the immigrants were primarily male, it is likely that the migrants intermarried and synthesized with several people living in the Vedic homeland during the time they were there, causing an increase in populations. Early Vedic texts talk about several Janas of the Indo-Aryans, all following a semi-nomadic way of life, intermingling with local inhabitants in many cases, and frequently quarrelling with each other over petty issues. Some of the clans
mentioned Vedic literature are Bhrigus, Angirasas, Kaushikas, Vasishthas and Kashyapas. This probably represented the first round of cultural synthesis between the Aryans and others living in the area. It would not be inappropriate to reiterate this here, more so, in view of the fact that our model is based on a series of acculturations and not waves of migrations.

Phase Three: The Indo-Aryan Maturity phase (>2300 BC)

The Indo-Aryans later settled down in isolated pockets in a triangular shaped area to the east of the Saraswathi stretching from Bihar in the East to the Punjab in the North and Gujarat in the South-west, an area which would have already included many Harappan settlements.

This is evidenced by

(a) The Gandhara grave culture or the Swat culture (now in Afghanistan) of 1600 BC. This site is traditionally associated with the Aryans. This history of Gandhara, the name of the founder and his ancestors, arrived at through a textual reconstruction, is discussed elsewhere in this write-up.
(b) The Bet Dwaraka excavations of 1500 BC to 1600 BC in Gujarat which are also discussed elsewhere in this write-up.
(c) The spread of the Cemetery H culture in the Greater Punjab from 1900 BC and its influence on Harappan culture.
(d) Other evidence: Transfer of River names, (one example is the Helmund river in Afghanistan. Since Afghanistan is not a candidate for a PIE, one might also want to argue that this river was named when the Indo-Aryans lived in this region in 1600 BC) the description of the Ocean in the Rig Veda and the discovery of Iron in the Gangetic plains from 1800 BC.
(e) FE Pargiter’s 30 year study on the Indo-Aryan kingdoms as discussed elsewhere in this write-up. He has suggested that some early Indo-Aryan settlements were founded further east in the Ganga Yamuna Basin. We have dated these to around 2200 BC.
(f) The description of tiny kingdoms on the banks of the River Saraswathi in the Rig Veda as discussed elsewhere in the write-up.
(g) The fact that Chariots are typically associated with the plains and that the presence of the Indo-Aryans in the plains from before 1900 BC would provide a ready explanation of how the transfer of power to the Indo-Aryans might have taken place and how the Gangetic plains were populated. Many scholars have written about this kind of a migration "Around 1900 BC, Harappa and other urban centres began to decline as people left them to move east to what is now India and the Ganges" (Chouinard)

The outward spread of the Indo-Aryans from the Vedic homeland into the rest of India may have occurred due to three vital reasons:

(a) Their use of the domesticated horse
(b) The slow drying up of the Saraswathi river in the northernmost tip of India which would have necessitated their dispersal of the naturally peripatetic Aryans into the plains
(c) Increase in their infinitesimally small numbers through synthesis

Why did the Indo-Aryans spread out first? Since the Archeological survey of India report suggests that the River Saraswathi dried up due to a diversion of water at the source of the river, the upper reaches could well have dried up easily, causing the naturally peripatetic Aryans to spread into the plains. On the other hand, the immobile Harappans, tied to the material life in Rajasthan, Sind, Gujarat and Haryana would have logically have chosen to wait until it became inevitable for them to migrate eastward too. It is also common for people to move along rivers, and the Ganga and the Yamuna originated in the Himalayas too. The migration path postulated in this hypothesis would have been the most natural path for the Aryans to spread after they left the Vedic homeland.
Why did the Indo-Aryans spread out mainly on the East? The answer would again be fairly straightforward. The IVC was centered on the Indus, the Vedic culture in its early days on the Saraswathi which was to the East of the Indus. Therefore, when the Indo-Aryans spread out on to the plains, they would have naturally explored empty land to the East of Harappan territory.

It however appears, from the textual reconstruction attempted earlier in these pages, that their early settlements lay in a narrow strip to the east of Harappan territory (Pre-Mahajanpada kingdoms) (Note that these are also alluded to in the Rig Veda) while some lay further east. Some later Indo-Aryan settlements such as Kamboja and Gandhara were however probably much further west.

We may also note that the Indo-Aryans must have constituted a statistically insignificant portion of the total population of the sub-continent and must have comprised of mainly the ruling class in each of their kingdoms.

The earliest small Indo-Aryan settlements on the Gangetic plains (till then arguably a thickly forested region) may date back to 2200-2300 BC based on a set of factors already discussed. However these regions were considered to have been very sparsely populated till 1900 BC when their population increased after the migration into the Ganga Yamuna doab took place after the desertification of North-West India. The key attribute of the Indo Aryans after 2300 BC perhaps was their mobility, which owed itself in part to the domesticated horse with would have enabled them to traverse greater distances on land with relative ease.

Phase Four: Harappan and Indo-Aryan Synthesis phase (>2300 BC)

We can argue based on this model that Indo-Aryan influences would be present more in the Eastern sites and perhaps more or less absent in those of the West. Vedic influences would be largely present in the eastern sites. But in Mehrgarh, Sutkagen-dor and even Mohenjodaro, Vedic influences would be non-existent. Thus, the Cemetery H culture was to the north-east of the IVC, the alleged example of a fire altar found in Kalibangan in the eastern half, the alleged example of a horse in Surkotada, again in the eastern half.

Different types of interaction between the Harappans and the Indo-Aryans may have theoretically included the following, though a clearer picture may emerge through further Archeological excavations

(a) Co-existence without any contacts
(b) Co-existence with different types of trade and cultural contacts
(c) Incursion and cultural assimilation
(d) Indo-Aryans may have ruled over various types of heterogeneous people in virgin territory to the east of the Harappans

Also note, since the Genetic input from Central Asia was so small, the Harappans and Indo-Aryans were probably essentially of the same stock, cultural changes having been brought about through ethno genesis.

Some Kshatriya migrations from West Asia took place around 2000-2200 BC according to our textual reconstruction (To be corroborated with further Genetic research)

We can further sub-categorize this phase for our convenience as follows:

The Early Synthesis phase (2200 BC) where only alien objects would be found.
The Middle Synthesis phase (2000-1900 BC) where cultural make over would be pronounced (Eg Cemetery H culture)
The Late Syntheses phase (>2000 BC) where the take over would have been completed (Eg Bet Dwaraka. This site may have however been independently established by the Indo-Aryans)
This phase would need to be studied in greater detail by through archeological discoveries and Radio carbon dating of sites to establish the movement pattern of Indo-Aryans across the plains.

Another compelling evidence is the Cemetery H culture of 1900 BC. While the mass cremations of this period may have something to do with famine in 1900 BC owing to the drying up of the River Saraswathi, the beliefs of the Harappans had already probably changed by then. The Rig Veda talks about both burial and cremation.

**Phase Five: Harappan and Indo-Aryan Fusion Phase (>1900 BC) (Encompassing the Canonization of Vedic Beliefs in 1500 BC)**

After the river Saraswathi dried up (>1900 BC), there was a general movement of people eastwards (from the Rajasthan – Sind region to the Uttar Pradesh – Bihar region). Some also moved to the south via the Arabian Sea, as evidenced by the Saraswat Brahmins, but some (already partly synthesized people) perhaps stayed on in the Indus. The clearest evidence for this is the fact that while there were migrations eastward in 1900 BC, that by itself did not constitute the end of the Indus Valley Civilization. As a matter of fact the cities of the Indus were not abandoned until 1400 BC. Also note that that some Indo-Aryan settlements (Pre-Mahajanapada kingdoms) that we have identified from our textual reconstruction may have also been drawn eastwards into the Gangetic plains. On the other hand, the Cemetery H culture, strongly suggestive of fundamental changes wrought by external influences, lay in the northeast a full five hundred years earlier.

By this time, Indo-Aryans clearly would have had the upper hand in all relationships, (as the Harappans moved into Indo-Aryan territory), and the Caste system would have rigidified during this period. Similarly, “Hinduism” (this name was not in use at the time) may have absorbed several Harappan influences during this period. Eg Pashupathi (Siva) described as the God of destruction, in Hinduism.

Since many earlier researchers have pondered on the origins of the Caste system, we can argue that Harappans, who were traditionally associated with trade and commerce, became the Vaishyas or the Business class, while the Kshatriyas or the Warrior class, as suggested by FE Pargiter, were themselves migrants from West Asia. Likewise, the Brahmins or the priests may have established themselves at the topmost layer of the vortex. While this system was naturally exploitative, this rule of classifying people by origin may not always have been adhered to, and occupation or natural ability may have played a role too.

There may also have been a logical need to canonize Vedic beliefs at this stage, as the Indo-Aryans would have somewhat unexpectedly found themselves at the helm of affairs, and would have been in dire need of retaining their power and pelf. The usage of the word Arya meaning noble (also used in Iran) can be traced to this phase and may have arisen due to contacts with West Asia. The word Arya and Dasa, we can argue, cannot be construed as a racial interpretation as both sides would already have been partly synthesized. The word Arya may have also been used to connote those who were brought into the Vedic fold. This topic is discussed elsewhere in the write-up in a greater level of detail.

**Phase Six: Harappan and Indo-Aryan De-Synthesis Phase (1900 BC to 1300 BC)**

After the river Saraswathi dried up (>1900 BC), the sites in the west were culturally alienated from the rapidly synthesizing areas of the east. By 1900 BC, the cities of the Indus and the Saraswathi were already declining due to natural causes.

Between 1900 BC and 1500 BC The Vedas were compiled along with Avestan literature. The canonization pertained mainly to structure and not content. The content was of course, Indian and describes various periods in History.
There were some kinds of internal conflicts such as the Battle of the Ten Kings which involved a diverse set of people including the moribund Harappans. These could have taken place around 1400 BC, and certainly not much earlier than 1500 BC as the Chariot was extensively used. By this time, a complex set of political relationships had already been formed. This is also corroborated by evidence in the Boghaz Kuei inscriptions Suppiliuma/ MatiwaЗа evidence and others suggesting the rapidly spreading influence of the Indo-Aryans during this period (From India, towards present day Afghanistan and Iran). Similarly, conflicts such as the Dasa Dasyu conflict could only have been internal to the subcontinent as the chariot was extensively used. Since the Genetic input from Central Asia was so small, the Harappans and Indo-Aryans were perhaps by and large of the same ethnic stock, apart from cultural differences after 1900 BC when migrations to the Ganga-Yamuna doab had taken place. The word daha was also used in West Asia and meant people in the neighbourhood. This is a detailed discussion in this paper about the identity of the Dasas.

Phase Seven: Post-Harappan Indo-Iranian Synthesis phase (1800 BC to 1300 BC)

Between 1700 BC to 1300 BC, or in the immediate Post-Harappan era, Indo-Aryan influence had spread over most of North India, Pakistan and Afghanistan (from India) as evidenced by the Gandhara and the Bet Dwaraka excavations and the usage of Iron in the plains. Cultural contacts with West Asia may have begun because the Indo-Aryans had become very powerful by 1700 BC and there would have been a logical need for horse trade which would have been necessary to keep up with their spread of power. The Atharva Veda talks about horse trading, and most researchers acknowledge the fact the Rig Veda and the literature from West Asia of the period were very closely related to each other, in structure though not in content.

Cultural contacts with West Asia are evidenced primarily by

(a) The Mittani inscriptions and worship of Indian Gods by the Hurrians
(b) Structural similarities between the RV and West Asian literature of the period.
(c) Descriptions of Vedic chariots and iron in the Rig Veda which were likely to have been imported from West Asia. They were not likely to have been imported from West Asia.

The similarities in Indian and West Asian cultures during this period may be ascribed to:

(a) Similarities arising out of an Ancient PIE source
(b) Similarities arising out of trade and cultural contacts between India and West Asia which many scholars have acknowledged
(c) Similarities due to Indian hegemony in West Asia for a short duration between 1700 BC and 1300 BC as evidenced by the Mittani inscriptions

We may further sub-divide this phase into the early and the late syntheses phases for our convenience and understanding.

The Early Synthesis phase (>1700 BC) where states such as Gandhara were established to the west of the decaying Harappan culture in around 1700 BC

The Late Synthesis phase (1500 BC to 1300 BC) where Indo-Aryan influence pushed further West towards the Mittani kingdoms, albeit for a brief period.

By the end of this phase, the Spread of IE language and culture throughout North India, Pakistan and Afghanistan was perhaps complete.

Notes on this period:
1. There appears to have been a language fusion between India and West Asia followed by a split up when Indo-Aryan power receded (1300 BC and 600 BC) as evidenced by language similarity between the regions.

2. Using the Indo-Iranian split up (of languages) of 1500 BC to account for an inward migration into India (at this particular point in time i.e. 1500 BC) may be incorrect because Iran is not a candidate for a potential PIE homeland (on the other hand, many scholars have accounted for the spread of Indo-Aryan influence from India to West Asia for a short duration of around 500 years from 1800 BC to 1300 BC (Mittani inscriptions, Gandhara, further evidence from a textual reconstruction etc).

3. This model solves another very important paradox: Rig Vedic Sanskrit was already deeply influenced by many local languages and at the same time was very closely related to Iranian languages.

4. Using the Indo-Iranian language split up to account for an inward migration at this point would also be incorrect because all evidence for a syntheses (E.g. cemetery H culture) occur in the east and at an earlier point in time 1900 BC or earlier. This would conflict with migrations proposed from West Asia. Therefore we can conclude that the Indo-Iranian language split up of 1500 BC did not happen due to migrations.

5. The chariot was introduced into India between 1800 BC and 1700 BC, (possible West Asian influence). Chariots were unlikely to have been introduced to India from Central Asia. They were not a mode of transport associated with Vedic tribes: they were perhaps introduced when the Indo-Aryans had emerged as a ruling class.

6. Iron was brought to India arguably around 1800 BC from West Asia. Iron, could not have been introduced to India from Central Asia.

Phase Eight: Post-Harappan Indo-Iranian De-Synthesis phase (>1300 BC)

After 1300 BC Indo-Aryan power receded from west Asia and India apparently became more inward looking. The Indo-Iranian language split up happened at this stage.

There are several possible reasons for this: The Indo-Aryans may have become relatively more powerful after 1900 BC when the transfer of power to the Ganga- Yamuna doab took place (This can explain the founding of several settlements to the west to the Indus, their expansion to West Asia etc Anybody who goes through the King list will also vouch for the fact the time of king Bharata’s reign corresponds to the immediate post Harappan mature phase (>1900 BC) and that the period of Harappan decline (1900 BC to 1300 BC matches with Indo-Aryan power expansion perfectly with a 100-200 year time lag). One conjecture is that their economic power did not perhaps keep up with their spread of power. West Asia was also arguably less prosperous than before. After 1300 BC India seems to have become inward looking, except for some trade with the Far East (Kingdom of Anga). This period is marked by bitter rivalries between kingdoms in the Gangetic plains, the rise of Upanishadic cultures, the cementing of cultural traditions, the further rigidification of the caste system perhaps in the post-Upanishadic era. “Hindu” holy places like Haridwar, Rishikesh, Badrinath etc, of course pointed in the direction of the Vedic homeland in the Punjab. The end of this period perhaps saw some kind of a cultural renaissance for a limited period (founding of centres of learning etc). In any case, by 600 BC Buddhism became very powerful.

Notes on this period:

1. The Deva Asura Dichotomy may have arisen at this stage. While in India, Devas refer to Gods and Asuras to Demons, the situation is reversed in the Middle East. On the other hand, the term Asura referred to a Godly being in earlier layers of the Rig Veda, this probably having been as a result of Synthesis with West Asia.

Phase Nine: Cultural contacts between North and South India

Cultural contacts between North and South India are suggested by
1. The discovery of Harappan seals in South India in the states of Tamilnadu and Karnataka.
2. The usage of Prakrit and Sanskrit words in Tamil by around 300 BC.
3. The spread of Buddhism in Sri Lanka by 600 BC.
4. The presence of the Saraswat Brahmins in South India.
5. Various descriptions of Cultural contact with South India as mentioned in the epics.
6. The fact that the Tamil script, attested to at least 600 BC was itself derived from Brahmi.

These may have caused the spread of Aryan influence throughout most of the sub-continent.

**Contacts between North and South India in the Pre-Aryan age**

Trade and Cultural contacts between the Northwest and South India may have also existed during the chalcolithic Harappan period or earlier, i.e., when India was perhaps not significantly Aryanized. This may explain the presence of Siva worship in South India since time immemorial. An evidence of this is the discovery of Indus seals in South India.

**Causes for the eventual hegemony of the Indo-Aryans**

We can also argue that the eventual hegemony of the Indo-Aryans can be chiefly attributed to the following factors:

1. Horse-riding and the mobility of the Indo-Aryans on land.
2. The desertification of North-west India and the resultant migration to the Ganga-Yamuna doab.
3. Ethnic kinship and contacts between the Indo-Aryans and West Asians which may have resulted in the import of many new technologies to India in the immediate post-Harappan period.

**Influences in Sanskrit**

We can conclude from this model that Rig Vedic Sanskrit was a product of the following internal and external influences. There is no need to isolate foreign influences only to a hypothetical PIE source:

(a) An ancient and a long-forgotten PIE source language.
(b) Linguistic influences due to migrations from West Asia.
(c) Influences from Harappan languages (Harappan languages may have been strongly related to (via Mehrgarh) or at least influenced by Sumerian - we may note that both these civilizations had trade links. Also weights and measures were similar from the Indus all the way up to Greece).
(d) Linguistic influences due to Trade and cultural contacts via Bactria /Persia (>1800 BC) – We have discussed this in passing elsewhere in the writeup.
(e) Cross-borrowing of words during the Compilation of the Rig Veda (Vedic and Avesthan literature).
(f) Several other local influences.

Although Rig Vedic Sanskrit (i.e. 1500 BC) may never have been the language of the majority or even a statistically significant portion of the population (It may served as a lingua franca of the elite (much like English is today) and the language of the clergy and may have been culturally quite important: again we do not know whether it had administrative usage, neither do we know the extent to which the knowledge of Vedic Sanskrit had percolated to the masses), some ancestor of Vedic Sanskrit may have been spoken in the northernmost tip of India before 2200 BC. This

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66 [www.harappa.com/arrow/stones_celt_indus_signs.html](http://www.harappa.com/arrow/stones_celt_indus_signs.html)
67 On The Origin Of The Early Indian Scripts: A Review Article by Richard Salomon, University of Washington
language perhaps broke up into dialects, and these were in use by the ruling class as late as 1500 BC.

Some Migrations from West Asia?

The Yadavas are a very large community in India even to this day. A recent hypothesis by Stephen Knapp on his website has suggested that the Yadavas were linked to the Jews and initially spoke a language that was related to Hebrew.

Like the Yadavas, people like the Yavanas and Pahlavas, and Paradas were believed to have lived to the West of India and integrated with Vedic culture. Perhaps they were also given the Kshatriya or Vasiya status in India’s caste system.

It would be useful to corroborate this poorly researched event with future Genetic evidence.

The need to Isolate Central Asian, West Asian and Harappan influences in Vedic culture

We can also argue that isolating Central Asian, West Asian and Harappan influences in Vedic culture would be critical if we were to make further meaningful progress in Indology. Let us now examine certain key elements of Vedic culture and examine their likely origin:

<table>
<thead>
<tr>
<th>S no</th>
<th>Key characteristic</th>
<th>Likely date of origin</th>
<th>Likely source of origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Horse riding</td>
<td>&lt;2500 BC</td>
<td>Hypothetical central Asian IE urheimat</td>
</tr>
<tr>
<td>2</td>
<td>Chariots</td>
<td>1800 BC -1700 BC</td>
<td>West Asia (could not have been Harappan or Central Asian)</td>
</tr>
<tr>
<td>3</td>
<td>Iron</td>
<td>&lt;1500 BC</td>
<td>West Asia (could not have been Harappan (which was a bronze culture) or Central Asian)</td>
</tr>
<tr>
<td>4</td>
<td>Similarities between Sanskrit and Iranian languages</td>
<td>1800 BC -1300 BC</td>
<td>Due to contacts with West Asia. Some similarities likely due to an ancient PIE split-up</td>
</tr>
<tr>
<td>5</td>
<td>Pashupati (Siva)</td>
<td>Harappan period</td>
<td>Harappan (unlikely to have been Central Asian)</td>
</tr>
<tr>
<td>6</td>
<td>Yoga. Figurines were found in the IVC. These were perhaps absorbed into later cultures.</td>
<td>2300 BC at the least</td>
<td>May have been predominantly Harappans with some Vedic influences</td>
</tr>
<tr>
<td>7</td>
<td>Ocean going vessels as described in the RV</td>
<td>Synthesis period</td>
<td>Harappan (could not have been Central Asian)</td>
</tr>
<tr>
<td>8</td>
<td>Burial</td>
<td>Synthesis period</td>
<td>Harappan (the Vedas talk about both burial and cremation)</td>
</tr>
<tr>
<td>9</td>
<td>Ayurveda</td>
<td>Unknown</td>
<td>May have evolved from the practices of the Rig Vedic tribes</td>
</tr>
</tbody>
</table>

Further inferences from this model: Arya referred to a language group, not a race

No up to date researcher equates the word Arya with a race. In this context, it would be prudent to quote Romila Thapar’s views on the subject:

“For the last 30 years I, together with other historians, have been refuting the concept of an Aryan race or a Dravidian race. I have stated categorically in “A History of India,” Vol. I, published in

http://www.stephen-knapp.com/death_of_the_aryan_invasion_theory.htm
1966, that Aryan is a linguistic term. I discussed this in greater detail in my presidential address to the Ancient Indian History Section of the Indian History Congress in Varanasi in 1968, where I argued that Aryan is a linguistic label and not a racial category. And just for the record, since I am frequently misquoted on this by some people, I argued further that although I did not accept the notion of an Aryan invasion, I did support the idea of a graduated migration of Aryan-speaking peoples from the Indo-Iranian borderlands into north-western India. This resulted in an interface of various cultures and this interface needs to be explored and many of us have done so, as would be apparent from our other publications on the subject.” (as quoted in “The Hindu”)

Romila Thapar observes yet again in her talk ‘The Aryan question revisited” in 1999

“Now, 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 2 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? 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 itself 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 becomes an impossibility 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.”

Our model, we might observe, would tally with Romila Thapar’s observations on race and language very well and provide a strong case for delinking language with race, ethnicity and biology: We can argue that the word Arya (which meant noble in any case even in West Asia) and Dasa might have evolved out of contacts with West Asia in or around 1500 BC. The word Arya, we can argue, cannot be equated with race for the simple reason that it would have referred to an already synthesized group of people, including those brought into the Vedic fold. We have listed out various references to the words Arya and Dasa from the Rig Veda already. This would be a
plausible explanation and would suggest that the words Arya and Dasa might have been invented much after the hypothetical entry of IE speakers into the subcontinent.

Since, the genetic input from Asia may also have been extremely small (The population of “Indo-Aryans” would have been anyway very small in relation to the Harappans even if we make the unlikely assumption that the whole of central Asia migrated to India), the “Aryas” and the “Dasas” would have ethnically largely been from the same stock separated only after 1900 BC when the migration to the Ganga-Yamuna doab took place.

A Brief note on the Genetic makeup of Indians as understood from this model

We can therefore suggest, from this model, that the Genetic makeup of Indians may comprise of:

1. Dravidian speakers who are believed to have migrated to India around the last Ice age more than 60,000 years ago
2. Austro-Asiatic tribal groups found in Eastern and Central India
3. Other ethnic groups related to the Mongoloids
4. The Harappans or the inhabitants of the Indus Valley who may have separated from the people of the Ancient Middle east. This split up perhaps happened in Baluchistan around 7000 BC. These people, along with various other people who inhabited the Indus are believed to have numbered between five to ten million people between 2500 BC and 2000 BC may have migrated to the Gangetic plains in 1900 BC and would constitute a bulk of the upper caste Indian population. Their population must have increased manifold between 7000 BC and 1900 BC because of the economic prosperity in the region.
5. Pastoralists from Central Asia who may have been very small in number. They perhaps imposed their culture and their language through elite dominance. We have developed a Nine Phase Acculturation model to explain this.
6. Further migrations from West Asia (around 2000 BC?) as obtained through textual evidence. Clearly, more research needs to be done on this topic.

Possible future extensions of this model

Although future researchers may one day want to adopt extensions of this models by calling for migrations along river basins from the west coast of India into other regions of India, for example, this would currently involve far too many leaps of logic, and would depend on the outcome of genetic studies as they progress to collect genetic data, by state, region and community, and then work backwards to match them to acculturation models.

Phases in the evolution of India religious traditions

An understanding of the phases in the evolution of Indian religious traditions may be attempted as follows as a logical extension of our acculturation model:

1. Harappan beliefs and their contribution to what much later came to be known as Hinduism (2600 BC to 1900 BC): This would be evidenced by the continuity between some Harappan traditions and later cultures, most notably Siva worship, which may have been later adopted by the Aryans as the God of destruction..
2. Vedic Beliefs (perhaps from 2500 BC onwards in some early form): This dates can be derived from dates of migrations.
3. Various other local traditions that may have existed in the region (before 2300 BC)

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69 Did the Dravidian speakers originate in Africa? Clyde Winters
70 Status of Austro-Asiatic groups in the peopling of India: An exploratory study based on the available prehistoric, linguistic and biological evidences VIKRANT KUMAR and B MOHAN REDDY* Anthropology and Human Genetics Unit, Indian Statistical Institute, Kolkata 700 108, India
4. Early synthesis phase (2300 BC onwards) when these cultures began intermingling with each other
5. Fusion or crystallization phase (1900 BC onwards) when populations were drawn eastwards into the Gangetic plains. Hence Siva may have become the God of destruction, and the Caste system as described in the Rig Veda may have been formed.
6. Formalization phase when religious traditions were formalized in the Rig Veda (1500 BC)
7. Post-formalization phase. This phase, Indian religious traditions continued to evolve and works such as the Upanishads were produced. (>1500 BC)

We now explore various elements in Hinduism and they likely origin

<table>
<thead>
<tr>
<th>Sno</th>
<th>Custom</th>
<th>Likely source</th>
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<tbody>
<tr>
<td>1.</td>
<td>Fire worship</td>
<td>Aryan</td>
</tr>
<tr>
<td>2.</td>
<td>Horse sacrifices (now no longer practised)</td>
<td>Aryan</td>
</tr>
<tr>
<td>3.</td>
<td>Siva</td>
<td>Perhaps Harappan</td>
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<tr>
<td>4.</td>
<td>Water purification rituals (were common in the Ganges)</td>
<td>Perhaps Harappan as some historians believe that the Great bath at Mohenjodaro served a ritualistic purpose</td>
</tr>
<tr>
<td>5.</td>
<td>Namasthe</td>
<td>Perhaps Harappan (A figurine depicting the Indian greeting was found in the IVC)</td>
</tr>
<tr>
<td>6.</td>
<td>Swastika</td>
<td>Perhaps Harappan (Swastika signs were found in the Indus)</td>
</tr>
</tbody>
</table>

![Image](http://www.harappa.com/indus4/315.html)

*Fig 7 Pashupati or Proto-Siva of the Indus which may also have got absorbed into the Hindu pantheon of Gods. Source wikipedia*

**Phases in the evolution of the Caste system**

We have argued earlier that Harappans, who were traditionally associated with trade and commerce, may have became the Vaishyas or the Business class, while the Kshatriyas or the Warrior class, were perhaps themselves migrants from West Asia. Likewise, the Brahmins or the priests may have established themselves at the topmost layer of the vortex. While this system was naturally exploitative, this rule of classifying people by origin may not always have been adhered to, and occupation or natural ability may have played a role too.

The various phases in the evolution of the Caste system (The caste system is mentioned in the Rig Veda 10:90) would likewise suggest themselves from our model as follows:

1. Formative phase (2300 BC to 1900 BC) when different types of people where beginning to interact with each other.
2. Fusion or Crystallization phase (1900 BC to 1500 BC) when populations were drawn into the Gangetic plains. This is the only logical explanation for the Caste system explained in the Rig Veda, a system not found in an identical form anywhere else on the planet, with four

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71 The Saraswathi Flows on, BB Lal
main and several sublayers, yet, arguably created by relatively few individuals. Internal migrations could have caused the fusion of different different people into every town and village with the Indo-Aryans at the helm of affairs. Notably, the caste system remains deeply entrenched in the Gangetic plains even to this day, more so than most other parts of India. It would also come as no surprise to observe that the Caste system and Brahminical traditions are also deeply entrenched in the West coast of India.\(^{73}\)

3. Formalization phase (1500 BC): The Caste system was formalized in the Rig veda verse 10.98

4. Post-Formalization phase (>1500 BC) when the Caste system would have rigidified even further and been used as a means of exploitation.

### Phases in the evolution of Aryan Material culture from this model

The phases in the evolution of Aryan Material culture as derived from this model would be as follows:

1. Rural life in the Vedic homeland from c 2500 BC (Known as Aranyaka)
2. Tiny settlements in the Gangetic plains from 2200 BC (They knew the domesticated horse but perhaps not the Chariot which was introduced much later due to cultural contacts with West Asia)
3. Introduction of the Chariot due to contacts with West Asia c 1600 BC
4. Mahajanpadas or mighty kingdoms from 1500 BC

Despite some continuity, it would appear that the IVC was clearly the predecessor and foreran Indo-Aryan cultures by around a millenium. The IVC peaked from 2600 BC onwards, the Indo-Aryan cultures, in spite of a probable early entry of the Aryans into India appears to have peaked from 1600 BC onwards.

### Some observations on the Harappan script

One might be tempted to make a few observations on the Harappan script at this stage. The author believes these are the ten most important characteristics of the Indus script:

1. There were 400 - 600 signs (midway between typical logographic and syllabic scripts).
2. There was a standardization of symbols across the civilization, with only a few sites being non-literate.
3. The length of signs was however extremely short.
4. The script was written from right to left as demonstrated by B B Lal, and sometimes followed a boustrophedonic style.
5. Number signs were apparently present.
6. The Harappans acheived advanced engineering and standardization in length, weight and mass, something which would have been implausible had they not been literate.
7. The number of seals was large which means its usage would have been more widespread. (cuneiform was difficult and would therefore have been less suitable for widespread usage)
8. The Indus script was perhaps used to write many languages (cuneiform would not have worked if the Indus valley was truly polyglot.)
9. The discovery of a Pre-harappan script suggests that the Indus script evolved gradually
10. The Indus script has recently been found in iron age sites (outside the context of the indus valley) as late as 1100 BC. Iravatham Mahadevan has recently claimed it was being used at an even later date. That means it was suitable for use outside the IVC as well.

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\(^{73}\) Genetic Evidence on the Origins of Indian Caste Populations
Michael Bamshad, Genome research Vol. 11, Issue 6, 994-1004, June 2001
The importance of studying Post-Harappan India: Why do demands for revision exist?

We must bear in mind that this period was a very crucial period in Indian history. It was supposedly a period when the key characteristics of Indian culture had taken final shape. We must also assure anybody who plays down the importance of the reconstruction of this period of Indian History that it is very unlikely indeed that public interest or curiosity about this period will ever die out. Studying Indian history without reconstructing post-Harappan, pre-Buddhist history would be like trying to understand the history of Ancient Egypt without taking into account the Pharaonic period or by trying to understand the United States by studying its history only from the year 1945. Perfection in history writing of other periods would be inconsequential if we do not address this historical "black hole" (The word "black hole" may be a misnomer: information on this period whether authentic, or in a distorted, mutilated or garbled form is already available for free on the internet or elsewhere. In other words, it is available everywhere, even in popular legends, everywhere except perhaps in textbooks). It is only when the history of this period is reconstructed, that the history of the Caste system can be reconstructed, for example. It is only when the history of this period is reconstructed that the cultural history of the subcontinent can be reconstructed, for example. All these topics of study are tightly interlinked and one cannot progress without the other. While the Harappans may have been materially and technologically more advanced, modern day Indians had absolutely no knowledge about Harappan India, till this civilization was unearthed through excavations early in the 20th century. In other words, although many elements of Indian culture as understood through recent excavations were undoubtedly of Harappan origin (Swastika symbols, Yoga, Chess, figurines depicting Yogis etc) they cannot directly relate themselves to Harappan India. On the other hand, they are culturally lost if the Post-Harappan period is not taught to them. They therefore take recourse to comic books and alternative sources of History. What is taught in textbooks about Post-Harappan India stand completely at odds with the culture they breathe day in and day out. Horse-riding, chariot racing, gambling, dice, chess and other pasttimes, they know, were the hallmarks of pre-Buddhist cultures. Tales of many such kings abound in the collective historical consciousness of the general public, too: coronations, matrimonial alliances, wars and the history of each king up to three or four generations. Vested interests are only using the fact that a majority of Indians are confused and confounded about the origins of their culture to their advantage to drag them to the Hindutva camp. Once the history of this period is satisfactorily reconstructed, demands for revision will automatically stop, notwithstanding the possible lingering after-effects of those imbued with the revisionist mindset.

The study of Post-Harappan India must logically become the next major area of indological studies, and scholars and archeologists from all over the world must be invited to participate.

Uniqueness of Indian culture

It is also apparent from this study that the Harappan culture was spread over much of Northwestern India and Pakistan, from Baluchistan to Gujarat and Haryana. The Vedic homeland was likewise spread over the Northernmost tip of India and Pakistan. Similarly, the Indo-Aryan kingdoms were spread over North India, Pakistan and Afghanistan. The Harappan and Vedic cultures had interacted with each other very closely, to produce the classical Indian culture. Even North Indian and Tamil cultures are very closely related to each other in terms of festivals, names of people, the Brahmi script, scores of Sanskrit loan words in Tamil, Gods like Ganesa, Siva etc. The list is endless. Despite this, individual cultures have retained their own uniqueness while amalgamating into a greater Indianness. That is why India is perhaps an amazing example of Unity in Diversity. This is something which has not yet been brought out in textbooks.
Part G
A Visual Depiction of all Nine phases of this model with explanatory notes

A Visual Depiction of all Nine phases of this model with explanatory notes is given in the next few pages. The reader may want to note that this must be understood in conjunction with the explanations given in the preceding sections of the paper.
Phase One: The Harappan Evolution to Maturity phase (Evolved starting 7000 BC, Early phase 3500 BC to 2600 BC, mature phase 2600 BC to 1900 BC)

Observations in brief (To be read in conjunction with the main text): The Harappan civilization which peaked between 2600 BC and 1900 BC is now believed to have had five to ten million inhabitants spread over Pakistan and Northwestern India (Sind, Punjab, Rajasthan, Gujarat and Haryana). It is believed that the ancestors of the Harappans migrated to the Indus Valley gradually from the Baluchistan- Iran border from around 7000 BC. The Harappans knew Copper and Bronze, built large cities and sailed regularly to West Asia.

While speculating about the identity of the Harappans this paper argues that one must not blindly assume that Language and genealogy necessarily move in tandem, by giving two common examples. Preliminary studies have shown that the Harappans were not biologically unlike the present day inhabitants of the North-west of India and Pakistan. The major flaw with models proposing that the Harappans were biologically close to the inhabitants of South India is that studies have shown that there were only migrations from the Indus Valley to the Ganga-Yamuna doab and not from North to South India. However this does not preclude the possibility that the Harappans spoke different types of languages, some of which may have had something in common with Dravidian languages. Some linguists have suggested the existence of an Elamite-Dravidian group of languages although this disputed by some other scholars.
Phase Two: The Indo-Aryan Evolution phase (before 2500 BC)

Observations in brief (To be read in conjunction with the main text): The Indo-Aryans perhaps first settled in the Vedic homeland comprising the Northernmost tip of India and Northeast Pakistan perhaps before 2500 BC and may have migrated in very small numbers from an IE homeland postulated to be in Central Asia. Their approximate date of migration may only be yielded from Genetic research as it progresses to provide more accurate information (current results produce errors in 1000’s of years). There is a detailed discussion on their possible date of arrival including logical problems with migrations proposed in 1500 BC (The Rig Veda may have however been compiled around this date). This model also examines problems with models postulating migrations of very large numbers of IE speakers and argues that the Aryanization of India, the Caste system and the Genetic makeup of modern day Indians can be easily explained even in tickle in scenarios.
Phase Three: The Indo-Aryan Maturity phase (-2300 BC)
Observations in brief (To be read in conjunction with the main text): This paper argues for a gradual diffusion of IE speakers into the plains, the main "trigger" having perhaps been the gradual drying up of the River Saraswathi in the Northernmost tip of India. This paper discusses a range of evidence which might suggest the gradual spread of IE influence and their synthesis with different types of people living in the region. This paper also discusses Kshatriya migrations from West Asia based on available textual evidence.
Phase Four: Harappan and Indo-Aryan Synthesis phase (>2300 BC)
Observations in brief (To be read in conjunction with the main text): This paper discusses various types of evidence to show how the acculturation of the Indo-Aryans with the Harappans might have taken place. This would be a precursor to the Aryanization of South Asia. This paper also suggests that evidence for Indo-Aryan acculturation would only be in the Eastern and the Northern parts of the IVC, the Western parts being left largely untouched. This paper also attempts to trace the history of Indo-Aryan settlements in the Gangetic plains based on available evidence.
Phase Five: Harappan and Indo-Aryan Fusion Phase (>1900 BC) (Encompassing theCanonization of Vedic Beliefs in 1500 BC)

Observations in brief (To be read in conjunction with the main text): It is now widely acknowledged (see text for references) that there was a major transfer of population from North-West India and Pakistan into the Ganga-Yamuna doab in 1500 BC. This paper shows how this might have played a pivotal role in the Aryanization of India by allowing the Indo-Aryans to take the upper hand. This paper discusses various elements in the Caste system and tries to fit different elements of the population into the Caste System, even while suggesting that the "Indo-Aryans" may themselves have statistically formed a very small portion of the overall population. This paper, therefore suggests that Post-Harappan India was an ethnically very diverse society.
Phase Six: Harappan and Indo-Aryan De-Synthesis Phase (1900 BC to 1300 BC)

Observations in brief (To be read in conjunction with the main text): This paper shows how there was a de-synthesis between the populations of the Gangetic plains from around 1900 BC when the transfer of population to the Ganga-Yamuna doab till around 1400/1300 BC when the Indus Valley civilization finally disappeared. This paper argues that both sides were already synthesized at this stage, i.e Some Dasyus has horses (RV), while the word “Arya” itself may have included many people who were brought within the Vedic fold.
Phase Seven: Post-Harappan Indo-Iranian Synthesis phase (1800 BC to 1300 BC)

Observations in brief (To be read in conjunction with the main text): This paper discusses the import of several technologies by the Indo-Aryans from West Asia such as Iron and Rig Vedic Chariots in the immediate post-Harappan period. Iron and Rig Vedic Chariots could not have possibly been brought by Nomads from Central Asia anyway. This paper also discusses known structural similarities between Vedic and Avestan literature and the presence of Vedic influences (albeit for a very brief period) in the Harran culture of West Asia.
Phase Eight: Post-Harappan Indo-Iranian De-Synthesis phase (>1300 BC)

Observations in brief (To be read in conjunction with the main text): This paper argues that the Indo-Iranian language split up could not have happened due to transhumance movements but due to contacts with West Asia followed by a cessation of these contacts. This paper therefore argues that Vedic Sanskrit would have Central Asian as well as West Asian influences.
Phase Nine: Cultural contacts between North and South India

Observations in brief (To be read in conjunction with the main text): This paper also discusses cultural contacts between North and South India which would have played a crucial role in spreading Indo-Aryan culture throughout the subcontinent.
Part H
Testing this Hypothesis

This model rests on four pillars (which will then used to make further inferences, all of which will presented in Part Two)

(a) The nine phase acculturation model explaining the process of transfer of power from the Harappans to the Indo-Aryans and its role in shaping Indian culture.
(b) The need to study the entire corpus of Indian literature concurrently
(c) The method used to calculate dates
(d) The need to delink race, spoken language, written language and cultural elements while researching Ancient India

and must be first evaluated from a logical and a common sense perspective, a search made for political or any other hidden or underlying motives, and tested as Archeological evidence in the eastern and northern Harappan sites suggesting various external influences and samples of Genetic data from different states, districts (a sub-division within a state), towns and communities become available over the next couple of decades. If this hypothesis, or a variant of it, is accepted, it could automatically propel the debate to a higher plane; if rejected, it would add to a long list of failed attempts to move towards a solution of this issue. Nonetheless, any refutation must address vital aspects of how the transfer of power happened, explain the religious and cultural history of the sub-continent and explain how the Caste system was institutionalized. Quite obviously, history can be no vaudeville show: statements like Civilization A flourished in period A and was replaced by Civilization B in period woud naturally be over-simplistic for a sub-continent the size of India, and solutions we can argue, must be therefore be mired in reality. The AMT (1500 BC), for example, does not explain how the transfer of power happened, neither does it try to explain what happened to ten million Harappans. The author looks forward to an endorsement or a systematic refutation of this model and a corroboration with Genetic and other forms of evidence, especially those gathered to test specific aspects of this model such as migrations into a particular geographical region in a particular time period.

Fig 9: Early form of a Tamil Brahmi script 600 BC which may have developed from the Brahmi script of North India (Courtesy ASI, Chennai circle).
Fig 10: Pre-Harappan script 3500 BC. It is thought that the Mature Harappan script evolved from this script

Fig 11: Yoga postures Harappa 2300BC: Although some elements of this civilization may have survived into later cultures, modern day Indians do not have a “living memory” of this civilization.

Fig 12: Spread of Indo-Europeans according to the Kurgan Hypothesis. Source: Wikipedia

Part I
Conclusion of Part One

Any meaningful progress in Ancient Indian studies we can argue, can come no more through compartmentalization of Indological studies into rigid schools of thought such as Hindutva, Colonial, Indo-centric and Marxist, a clearly untenable proposition in this age of free-flowing and seamless information, a tendancy capable, perhaps, only of producing dangerous counter-reactions and providing further ammunition to the “opponents” camp, but by a willingness to develop new heuristic models by bringing together a large amount of contradictory evidence under a single umbrella. In the true spirit of scientific enquiry, the author welcomes contradictory evidence.
Let us conclude Part One with some extracts of a lecture delivered on 11th October 1999, at the Academic Staff College, JNU by the Marxist historian Romila Thapar:

“Let me begin by saying the obvious, that the Aryan question is the probably most complex, complicated question in Indian history. ..................What I tried to suggest to you first of all is that the Aryan question is a very complex question and I hope you are all absolutely staggered by the complexity and reeling under all the complexities that I have pointed out to you. So please do not take one version as "the" version. Always question every version, including mine. The second point that I want to emphasize is that I think as historians it is time now that we moved away from this century and a half old obsession with who were the Aryans, what was their origin, how we identify them, who has descended from them. These are irrelevant questions. These are questions that are only important to political parties and political ideologies. The important question is to identify the data that you have for reconstructing early phases of Indian society and how to proceed with this reconstruction. I have tried to suggest one way in which this reconstruction can be carried out. I may be incorrect but I would like you to look at this period now in terms of a search for a historical reconstruction of the times.”