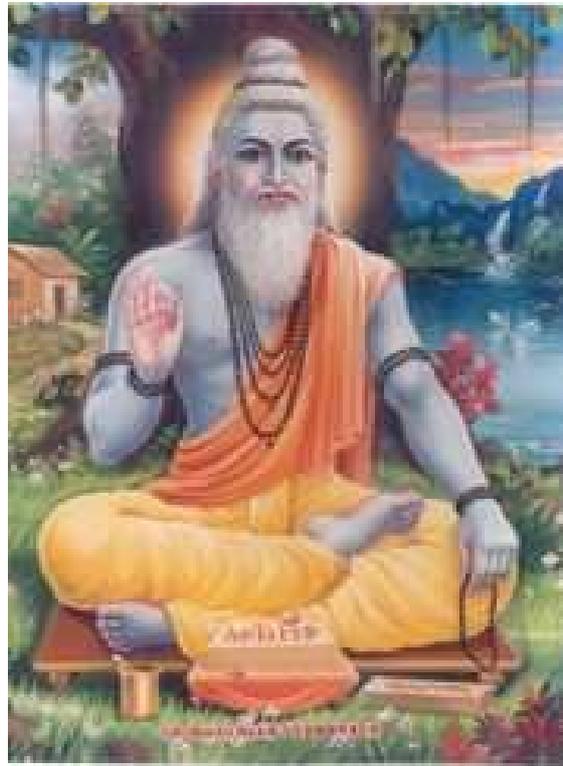


**THE RIG VEDA
FOR THE FIRST TIME READER**

BY

N.KRISHNASWAMY



**Veda Vyasa
A Vidya Vrikshah Publication**



AUM

IS THE SYMBOL OF
THAT
ETERNAL CONSCIOUSNESS
FROM WHICH SPRINGS
THY
CONSCIOUSNESS OF
THIS
MANIFESTED EXISTENCE

THIS IS THE CENTRAL TEACHING OF THE UPANISHADS
EXPRESSED IN THE MAHAVAKYA OR GREAT APHORISM

तत् त्वं असि

THIS SAYING **TAT TVAM ASI** TRANSLATES AS
THAT THOU ART

Dedicated
to the
three blessings I have received in my life from
the Universal Mother
:
My mother Sivakamu, wife Meenakshi and daughter Uma

ACKNOWLEDGEMENT

This book draws from some of the writings of David Frawley, N.S.Rajaram, S ubhash Kak, Georg Fuerstein, Shrikant Talageri, Narahari Achar, Bal Gangadhar Tilak, Aurobindo Ghose and others. Being in the nature of a review/overview for a small private circulation, for dissemination of their wonderful view points, I have not sought prior approval from them or their publishers. For this I seek their indulgence. I have been inspired by their writings and for this I express my gratitude to them.

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ERRATA

Page 43 : Please insert the following at the start of the transliterated text :

mamōpāttasamastaduritaḥṣayadvārā śrīparamēśvaraprītyartham śubhē
dinē śōbhanē muhūrtē

Page 50 : Please replace the Sanskrit text and its transliteration as below, but not the translation :

यज्ञेन वाचः पदवीयमायन्तामन्वविन्दन्नृतषिषु प्रविष्टाम् ।

तामाभृत्या व्यदधुः पुरुत्रा तां सप्त रेभा अभि सं नवन्ते ।।

yajñēna vāca: padavīyamāyantāmanvavindannṛtaṣiṣu praviṣṭām .

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The Rig Veda For The First Time Reader

PREFACE

Knowledge in society has two dimensions, depth in individuals, and spread across people and places and through time. The knowledge of most people is conditioned by their own subjective and objective experiences. But people of all climes and times have always recognized that beyond the limits of what they know or sense externally or internally, are vast areas of the unknown, to which they relate through faith in, or fear of, a higher power that appears to control everything, both known and unknown.

Every society and every age has always had a small number of people, seers and sages, who have been able to see far beyond the external physical world and deep into the internal world of thought, emotion and intuition, for a more integrated and complete understanding of all human experience. And they have found that subjective experience is inseparable from objective experience and that they are indeed the inseparable faces of the same coin. From this integrated understanding, they drew guidelines for people of every level of understanding, for handling their lives, which, in time, came to form their scriptures.

The Vedas too must have originated in much the same way, and come to occupy a place of centrality in the lives of the Indian people. Of course, this would be with features similar in many ways, to what has evolved in other cultures, but in many ways, uniquely different. One refrain for instance, that is common to many traditions, is the claim to a divine origin for their scriptures. That the scriptures were the word of God is affirmed as firmly by the Bible or the Koran as by the Vedas. Without being drawn into contentious argument over such statements, it seems reasonable and adequate for all practical purposes to interpret them to mean that their scriptures found first expression through the minds of seers and sages, which of course, in their humility, they attributed to divine inspiration, and described as the word of God.

The Rishis who thus articulated the Vedas, were obviously extraordinary men whose vision traversed the whole gamut of the inner world of man and the outer world of the cosmos. Seeing everything within a context of Infinity and Eternity, they articulated whatever they experienced as best as they could within the vocabulary limits of the language available to them, and possibly, adding sounds and words as they found necessary or appropriate. And what they saw or sensed and set

into words, acquired the status of divine revelation for the Vedas, represented by the words “Drushti”, meaning “What was Seen”, and “Sruti”, meaning “What was Heard”. Their intuitive faculties did indeed give them a reach into the highest sources of inspiration, to perceive the highest truths, and explain them very simply as the divine word heard by them. The world was described by them in terms of Nama and Roopa, or Name and Form. And while Forms were just too numerous, there were far too few Names available in the language to represent them. This resulted in their extensive resort to symbol and synonym, and metaphor and analogy to refer to the Forms, a feature of usage of the language that often went beyond the understanding of scholars of later times who were simply not attuned to the word usage and imagery of the ancient times. More often they misinterpreted them to refer to myths or just plain superstition.

There are however, several other remarkable features that make the Vedas unique among the world’s scriptures. They are now widely recognized now as possibly mankind’s oldest. Secondly, they are unquestionably, the most massive and incisive explorations of man in the fields of religion, philosophy and spirituality. And thirdly, they have come to us in one of the most scientific languages devised by man, namely Sanskrit. These claims to uniqueness are recognized by scholars from all over the world, men of enormous scholarship and impeccable credentials, and a sampling of what some of them have said in this regard is set out in Appendix - A. These features will of course, soon become evident to the reader himself as he starts getting glimpses into the Rig Veda presented in this book.

One extraordinary and unique aspect of whatever we have today of the Vedas, not to be found in any other culture, is that the texts retain their entirety, accuracy and authenticity, and form a living presence in the daily lives of the millions of India today, despite the fact that they have been entirely orally transmitted through the numerous generations of several millenia that have passed since the texts were composed. This is due to the establishment even then, of six supporting disciplines, namely, Siksha (Phonetics), Vyakarana (Grammar), Chandas (Poesy), Nirukta (Etymology), Kalpa (Ritual Procedure) and Jyotisha (Astronomy and Astrology). These disciplines, called the Vedangas, or limbs of the Vedas, were intended to provide the strict framework; the first four, providing rules for the composition of text, and the last two, the rules of procedure of rituals, and determining the auspicious place and time for their performance. Specifically for the Vedas, these disciplines were designed to ensure that the observance, propagation and preservation of sacred texts in their pristine purity would endure for all time, despite a completely oral mode of transmission. In particular, remarkable techniques of memorizing and reciting the texts, were designed and prescribed, so that even today, priests and scholars, who have been trained in this tradition, can pick on any word at any point in any large text, and recite it from memory from that point for hours !

These disciplines enabled adoption of an extraordinary inter-locking strategy to establish the above objective, a strategy operating at several levels, and across vast spans of time and distance. At the most basic level of this strategy, a strict grammatical structure of the language and the meter of the compositions provided a rigid framework for the texts. Every work also carried inbuilt references to the authorship and size of each level of the component text. At the next level, highly developed teaching methods resting on highly scientific techniques for memorizing the texts were prescribed and followed, as indicated earlier, where recitation could never go wrong. The texts were embedded into strict rituals, resting on hope of rewards and fear of punishments, that commanded the unquestioning faith of the common people as a whole, and become part of the psyche of the people. And at the final level, successive generations of teachers and disciples carried the Vedas to different parts of India, and in the course of time, the processes of their observance, propagation and preservation got institutionalized into Sakhas or Schools, each with a large membership, and each of whom preserved and carried forward a particular Vedic rescension. The Muktikopanishad has it that at one time, there were 1180 Sakhas in existence, but only a handful survive today. Not counting several fragments that have been retrieved over the years, the following is a summary of the surviving complete Sakha-wise component texts, preserved by the large membership of each Sakha :

	RIG	YAJUR	SAMA	ATHARVA
Samhita	1	6	2	1
Brahmana	2	3	9	1
Aranyaka	2	3	-	-
Upanishad	3	6	3	2

It will be of special interest to the first time reader, to look, at the outset, at a few examples of how the lofty thought, spirit, form and words of the Vedas as they were composed over 6000 years ago, continue intact as a living tradition in our daily lives in India today. One verse, for instance, that is central to the prayers we offer today is the Gayathri Mantra that occurs in the Rig Veda (V-62-10), and is attributed to the Rishi Viswamitra. The following is the Sanskrit text with a Roman transliteration and an English translation :

ॐ भूः ॐ भुवः ॐ सुवः	ōm bhū: ōm bhuvah ōm suvah
तत् सवितुः वरेण्यम्	tat savituh: varēnyam
भर्गो देवस्य धीमहि	bhargō dēvasya dhīmahī
धियो यो नः प्रचोदयात्	dhiyō yō naḥ pracōdayāt

The Mantra is invoked in the first line of above text with the holy sound OM applied to Bhu, Bhuvah and Suvah, respectively representing the gross Physical, the subtle Spiritual and the potential Causal planes of all existence. The Mantra itself then follows in the next three lines which translate as below :

We meditate upon the effulgence of that Divine Reality. May that Divine Being, the Sun, illuminate our intellect to realize That Reality.

The use of the plural “नः” meaning “our”, may be noted : the prayer is not for oneself, but on behalf of all.

To make the perspective complete, whenever today, anyone announces his identity to his elders, it is always typically in terms of his inheritance of this ancient tradition in the following words in Sanskrit which transliterate and translate as below :

अभिवाद्ये वैश्वामित्र, आघमर्षण, कौशिक, त्रय- आर्षेय प्रवरान्वित,
(कौशिक) गोत्रः (आपस्तम्ब) सूत्रः, (यजुः) शाखाध्यायी, श्री (-----) शर्मा
नामाऽहं अस्मि भोः ।

abhivādayē vaiśvāmitra, āghamarṣaṇa, kauśika, traya-
ārṣeya pravarānvita, kauśika gōtra: āpastamba sūtra:, yaju:
śākhādhyāyī, śrī (---- name) śarmā nāmāhaṃ asmi bhō:.

Bowing to you, Sir, I announce myself as belonging to the spiritual lineage of the three Sages Viswamitra, Akarshmana and Kausika, to the family lineage of the Kausika Gothra and to the religious disciplines of the Apasthamba Sutra of the Yajur Veda, and I bear the name (so-and-so).

The reader will now see the truth of the statement made earlier that the ancient tradition has a living presence in our daily lives today. Who then were the Rishis like those whose names appear as above, who founded this tradition, from whom we are descended, whose injunctions we follow, and who composed the hymns that we recite today ? And who was Vyasa who retrieved all the scattered remains of the thousands of those hymns composed by hundreds of such Rishis in remote antiquity, and compiled them into the single massive canon of the four Vedas, the Rig, Yajur, Sama and Atharva, on which the ancient Indian tradition is founded and has reached us today across the millenia ? And when did he accomplish this ?

All that we know today of these ancient Rishis is that they were quite a large number and lived in the 1000 years preceding Vyasa who himself lived towards the close of the Dvapara Yuga which ended in 3102 BC, the year that marked the start of the Kali Yuga. One important point to remember here is that the number of these ancient Rishis was large and their output was prolific. Thus typically, the Rig Veda alone as compiled by Vyasa, had 10028 hymns and are attributed to as many as 414 Rishis, whose names are recorded in the Anukramanis, the Indices embedded in the Veda text itself. The original composition of Rig Veda is considered to have occurred over a time span of 1000 years or more, preceding the time of their compilation by Vyasa at the time of the Mahabharata War, which itself is placed at around 3102 BC. This would place the composition of the Rig Veda, the oldest of the Vedas at around 4000 BC or perhaps much earlier, because of references in the Rig Veda itself, to earlier ancient Rishis. The above dating of the Mahabharata War, described in the great historic epic of the same name, and composed by Vyasa. rests on its own internal evidence, which is substantial and substantive.

Vyasa, is the great poet and visionary who not only compiled the four Vedas and 18 Puranas, but also wrote the Brahma Sutras, a monumental summary of all the Vedic texts, and also the Mahabharata epic, in the events of which, he was himself personally involved. This super—human feat gives him the status of a divine incarnation and he is indeed listed as one of the seven Chiranjeevis, or immortals of Indian tradition, and this is indeed true in the sense that he lives so vividly today even after 5000 years, in the lives the millions of India. He is said to have been born to the Sage Parasara through Satyavati, the daughter of a boatman, who later married the King Shantanu, from whom the Kauravas and Pandavas were descended. Vyasa was himself a direct witness to the momentous events of the Mahabharata war and this itself invests the epic with authenticity as a true history of those times. One cannot obviously dismiss Vyasa simply, as modern historians have done, as a fictional character, or at best a writer of fiction with his Mahabharata, at best a historical novel.

The word Veda means Knowledge or Wisdom, and hence the four Vedas constitute a vast compilation of Knowledge. The four Vedas present an interesting approach on the part of Vyasa, their compiler. It is important to consider that what he compiled was possibly a careful selection from a vast corpus of material that was still available in the oral traditions of his day. And in respect of the internal structure and content of whatever he compiled, the Rig Veda is seen to be set in the poetic form, the Yajur in the form of prose, the Atharva, a mix of prose and poetry, while the Sama Veda had its hymns set to music. Within each Veda again, one can see a progression of functional sequences, commencing with the basic authoritative texts in the Samhita, their ritualistic context in the Brahmanas, the rationale of text and ritual in the Aranyaka and ending with their ultimate philosophical import in the Upanishads. The Rig, Yajur and Sama traverse the progression from the early pastoral adoration of the powers of Nature, through the personification of these powers as deities and gods and finally to the ultimate single undivided Reality into which all existence, subjective or objective, finally merge. The Atharva Veda alone stands apart, in that its mantras address the more common experiences of the common people – the world of distress and disease, the spirits that cause them, the charms that prevent them and the medicines that cure them.

The Rig Veda is comprised, as its name indicates, of Riks or hymns, of which there are 10028, not counting 11 supplementary hymns, spread over 10 Books called Mandalas, a name that is also applied to the stellar constellations. These are hymns of adoration of several deities personifying the physical powers of Nature, and yet at the same time, symbolizing the spiritual links that bind the human and the divine, and maintaining and sustaining all that exists as part of a single Reality. The sacrifices and the hymns that accompany them thus carry an appeal as much to the common man as to the initiate. Most of the hymns address the deities Indra (250), Agni (200) and Soma (100) while the rest address different deities like Varuna, the Asvin twins, Ushas and Aditi. The Rig Vedic text is composed in poetic form, set in as many as 15 different meters, but mainly in the Gayathri meter, comprised of 3 sections of 8 syllables each and that takes its name from the Gayathri Mantra, cited earlier. This is considered the most sacred Mantra of the Vedic canon, just as OM is considered to its most sacred sound, standing for the first manifestation of the Unmanifest.

The Sama Veda has 1875 verses, only 75 of them new, but the rest taken from the Rig Veda. The Sama Veda is set to music and the chanting of its verses is done by specially trained priests. The Yajur Veda has 1975 verses spread over 40 Chapters, and brings new deities like Prajapati, Vishnu and Rudra-Siva into prominence. One third of its verses are derived from the Rig Veda. The Yajur Veda provides the textual and physical basis of all the Vedic sacrifices or yajnas or ritualistic sacrifices. This Veda provides the framework of ritualistic practice of Hinduism which remains

unchanged till the present day. The Atharva Veda lies possibly at the end of the Vedic chronology. It has 5977 verses, about one-fifth of them being derived from the Rig Veda. It deals with cures, charms and spells intended to alleviate distress and disease. The foregoing facts of course establish the Rig Veda is the oldest and also the source of much of the content of the other Vedas. Indeed, all the scriptural texts of later times recognize and proclaim all the Vedas as the ultimate source and infallible authority on which their own authority rests. It does seem amusing that modern scholars presume to question their authority or to pass judgment on their intent, content or value.

What then is the significance of the Vedas being regarded as a Sruti, a body of knowledge received from the divine source; specified indeed as having been received from Brahma himself, and transmitted through successive generations of seers; and from which all later scholars drew the authority for whatever elaborations or additions they proposed. It is possible that the Vedas, their massive size notwithstanding, were themselves but a brief summary of the central truths of a much vaster storehouse of accumulated pre-existing knowledge, but also providing pointers to greater details that could be discovered in that storehouse, or elaborated, or perhaps discovered afresh by later generations of scholars. This seems indeed to be the case, when one sees that for centuries after Vyasa's compilations, vast clarifications and elaborations on the earlier formulations and fresh contributions, by scholars in every branch of knowledge, continued to pour into the mind-boggling Knowledge corpus. Considered in this light, we can readily see how the Vedangas, the six supporting Knowledge disciplines, were but the first logical clarifications and elaborations that flowed from the Vedas.

One of the greatest misconceptions that is widely prevalent is that the Vedas are primarily ritualistic in their intent and content. Even in its own day, the Vedic scholars seemed to be aware of possibilities of a degeneration of ritual if isolated from its true philosophical and spiritual intent. Indeed the Chandogyia Upanishad has a charming verse, maybe allegorical, and possibly satirical, in intent, describing a novice Baka Dalbhya, instructing a pack of hungry dogs on chanting the following sloka :

ओं मदामों पिबामों देवो वरुणः प्रजापतिः
सवितान्नमिहा हरन्नपतेऽन्नमिहा हरो हरोमिति १।१२।१।४

“Om, May we eat, Om, May we drink, Oh Lord of Food, bring food to us ” !

At the outset, on this question of the place of ritual, we need to recognize that religion itself, whether considered rational or not, fulfils a deep human need. Be it remembered that rationality itself

does not rest on absolute standards of any kind, but is necessarily relative to state of knowledge that prevails at any time. And at all times, the human mind recognizes that the individual is circumscribed by the state of knowledge that obtains in the circumstances of his brief existence. As a consequence, he has a fundamental need to relate to whatever lies beyond the reaches of his physical and cognitive faculties. As man gazes at the skies and the stars, he is filled with wonder and awe. Reflecting on what power has created and sustains the endless reaches of Creation, he settles on the word "God", for the name of that Power, and this sets him on the path of religion, where experience can be expressed only by special words and symbols. And when he finds that rewards and punishments in life come without rhyme or reason he becomes ready to attribute those to the dispensations of a higher power and to place his trust in any ritualistic prescription that placates that power.

No religion can therefore be free from symbolism, and ritual and prayer are just symbolic expressions. All religions have their share of prayer and ritual, and differences between them in this regard are only in form or degree. And the prayer is mostly in the form of the spoken word, accompanied by a posture like bended knees, or a gesture like folded hands. The Vedic approach to prayer proceeds from a deep understanding of human psychology, where it prescribes a convergence of thought, word and action. When these three components do not act in concert, we have the beginnings of dishonest speech or thoughtless action. Therefore the Vedic prescription for prayer rests squarely on such a convergence, which implies that the involvement in prayer must be total. The Gayatri Mantra derives its timeless appeal and power from the convergence of its high thought, and the beautiful words by which its thought is articulated. The exceptional person can, of course, concentrate his mind on the spirit of the prayer, and may have no need for the word, gesture or posture components. But for the common individual, whose mind is given to wandering, these components are essential, because they compose his body, calm his mind and compel his attention. The offering of water, a leaf, a flower or a fruit to the deity of one's choice, while chanting the words and the faith with which the offering is made are thus what makes the prayer complete. This, says Krishna in the Gita (IX-26), is what makes the prayer acceptable to God.

There is yet another aspect to the true role and impact of ritual that is so obvious, that it is astonishing that it is not emphasized enough by scholars and historians. Why is it that the ritualistic Vedic tradition has had such a phenomenal hold on the minds of millions of people through

vast periods of time ? Is there something in ritual itself that has this phenomenal power, that is seen in every culture ? The real reason would appear to be, that below the superficial mechanical aspects of observance of a ritual, is the deeper psychological comfort and reassurance that comes from the attendant faith in its power, that simply cannot be rationalized or articulated. Here then, is a power that goes deep into levels of consciousness of which we know little, and perhaps into the deeper levels of the unconscious of which we know nothing. A few persons of perception can understand these deeper levels, but the common mass of people can only vaguely sense them without understanding them. But it is precisely such a sensing, however vague, that is enough to account for its power and hold on everyone, whatever be the level of the person's understanding. The depth and detail of the Vedic ritual clearly point to a consciously devised structure that rests on the phenomenal power of faith. Dismissing blind faith is clearly an all too common blindness to the reality of its power. The Vedic prescriptions were clearly designed to cater to people, guided by faith, often propelled by fear or desire, while also clearly providing doors to higher knowledge and higher objectives. The design also aimed, not just the advancement of the individual seeker, but for an inclusive elevation of the human race. The following luminous words of Aurobindo point indeed to the awesome vision of the ancient seers in the composing and of Vyasa in the compilation of the Vedas :

“The whole mass of its litannies may be only a selection made by Veda Vyasa out of a more richly vocal Aryan past. Made by the colossal compiler, with his face turned towards the commencement of the Iron Age, (the Kali Yuga ?) towards the centuries of increasing twilight and final darkness, it is perhaps only the last testament of the Ages of Intuition, the luminous dawns of the Forefathers, to their descendents, to a human race already turning in spirit to the lower levels and the more easy and secure gains --- secure perhaps only in appearance --- of the physical life and of the intellect and the logical reason”

The ritualistic emphasis in the interpretation of the Vedas was last set, almost as a final seal, by the last ancient Vedic commentator, Sayana (1315-1389) and it is on this, that the first Western scholars rested their understanding, and that the Western colonists sought to use to subvert and discredit the Vedic teaching, for the purpose of establishing political control over the country. Specifically, the Yagna or sacrifice, occupied a position of centrality in the Vedic texts and also in the vast spread of ritualistic practice amongst the people. It is certainly inevitable that ritual should find widespread appeal and acceptance among the common people because it satisfied a basic psychological need on a very simple and effective physical basis of objects and actions and on the motives on which worship rested. But it is as important that the Yagna should be understood in its spiritual, philosophical and psychological dimensions as

well. The progression of the Vedic texts from the Samhita, through the Brahmanas, Aranyakas and Upanishads, themselves emphasized this. And in more recent times, this was strongly re-emphasized by great Indian scholars like Swami Dayanand (1824-1883), Bal Gangadhar Tilak (1856-1920) and Aurobindo (1872-1950).

The Vedic civilization is now acknowledged as one of the most, if not the most ancient of the world's civilizations, which greatly influenced all other contemporary or later societies. Modern scholarship, while acknowledging Sanskrit to a part of a common Indo-European heritage, has nevertheless, all but rejected the theory projected by the early Western historians, that the Indian civilization grew out of the Aryan invasion from the West around the first millenium before the Christian era. The evidence has been mounting that the Vedic civilization was indeed very much older and very Indian in its origin and growth. The evidence is growing that similar advanced ancient civilisations existed all around the world, discrediting the Western theories that the emergence of the human from the savage was a first and comparatively recent development. The evidence is growing that there were extensive trade linkages by land and sea in antiquity between India and the societies of the Middle East, the Mediterranean and indeed as far as Mexico and Peru, which carried to them, not only the arts and crafts and products, but also much of the advanced knowledge and wisdom of India. While the knowledge that was so passed on included the sciences of mathematics, astronomy and medicine, it also extended to the higher insights of religion, philosophy and spirituality that greatly influenced the thinkers and philosophers of those cultures and triggered the onward growth of those ideas in those cultures. History has now ceased to be a shallow narrative of kings and queens, and wars and conquests, but has now become a study of man himself without reference to dividing lines of nation or race. The study of man has become a study of thought, because man everywhere is distinguished by his thinking faculty. And as of now, no older or more profound study of thought is known to exist than that of the Rig Veda.

The investigation of the age of the Vedas presents an interesting study of history, or rather how the writing of history was largely dictated by contemporary social or political factors rather than by an accurate presentation of the objective truth. How these factors operated in the reconstruction of ancient Indian History is broadly set out below. Over the centuries, the history of the earth itself was the subject of a long theological and impassioned debate by Christian scholars in the West. In one 17th century study based on a literal reading of the Genesis in the Old Testament of the [Bible](#), along with an interpretation of an astronomical reference in it of an autumnal equinox, [James Ussher](#), the [Anglican Archbishop of Armagh](#) (in what is now [Northern Ireland](#)) postulated that the earth was created on the 23rd October, 4004 BC. This date was close to dates proposed earlier by other distinguished names like Sir Isaac Newton

(who proposed 4000 BC) and Johannes Kepler, (who proposed 3992 BC), the famous astronomer, whose astronomy tables were used by Bishop Ussher, whose date was even quoted as an authority in the early St. James versions of the Bible. The Ussher chronology starting from 4004 BC would place the great Biblical Flood around 2448 BC and given a 1000 year period for the impact of the great floods to subside, that would place a possible founding of all new societies after 1400 BC. Much as this chronology came to be disregarded and even ridiculed from the 19th Century onwards, it did still have a considerable following among theologians and historians of that time, and in particular, historians tended to use it as a benchmark for their theories on the chronology of all societies, and for denying older chronologies claimed for other ancient ones.

Two important political factors seemed to be in play at that time. One was the drive for world domination through colonial expansion by Britain and Europe springing from the desire for economic power, a desire also conditioned by feelings of racial superiority and Christian fervour. One far reaching impetus came from the 'discovery' of Sanskrit by Sir William Jones (1786), a distinguished scholar and Judge of the High Court of Calcutta. He was one of the first Britishers who not only mastered the Sanskrit language, but found an extraordinary range of similarity to most of the European languages, that clearly pointed to a common linguistic heritage. The following table, typically, of the names of the numerals in the different Indo-European languages provides a quick look at these striking similarities.

THE NAMES OF THE NUMERALS IN NINE INDO-EUROPEAN LANGUAGES

ENGLISH	SANSKRIT	PERSIAN	GREEK	LATIN	LITHUANIAN	CELTIC	GOthic	GERMAN
ONE	EKA	YAK	ELS	UNUS	VINAS	ONE	AINS	EINS
TWO	DVA	DU	DUO	DUO	DVY	DAU	TWAI	ZWEI
THREE	TRI	SIH	TRELS	TRES	TRYS	TRI	THREIS	DREI
FOUR	CATUR	CHAHAR	TERSSARES	QUATTAR	KETURI	CETHIR	FIDWR	VIER
FIVE	PANCA	PANJ	PENTE	QUINQUE	PENKI	COIC	FIMF	FUNF
SIX	SHAT	SHASH	EZ	SEX	SZEZI	SE	SAIHS	SECHS
SEVEN	SAPTA	HAFT	EPTA	SEPTEM	SEPTYNI	SECHT	SIBUN	SIEBEN
EIGHT	ASHTAU	HASHT	OKTO	OCTO	ASZTUANI	OCHT	AHTAU	ACHT
NINE	NAVA	NUH	ENNEA	NOVEM	DEVYNI	NOI	NIUN	NEUN
TEN	DASHA	DAH	DEKA	DECEM	DESZIMT	DEICH	TAIHUN	ZEHN

Sir William Jones became recognized as the founder of the new discipline of comparative linguistics His discovery gave a powerful impetus to an interest, especially in Europe, not only in the Sanskrit language itself, but in its implications of a possible common indo-European cultural and racial

heritage. Deeply divided by the politics of Europe, the Germans were then casting around for their own fulfilment as a people of racial superiority and a destiny as a strong nation. Their search found expression in high academic excellence, with one line of activity leading to their interest in the deep study of Sanskrit and a fascination with the culture of India. These studies starting from comparative linguistics went on the launch of the two new disciplines of Philology and Indology. At the same time it happened that the British who were directly involved in administering India, were increasingly realizing that their success in establishing British authority in India rested on a study of Sanskrit, the bedrock of Indian culture, in order to understand its extraordinary hold over the entire people. With such an understanding, they felt that they could then subvert that culture and supplant the Hindu with the Christian faith through an English education.

It was this extraordinary confluence of historical circumstance that led to a meeting in December 1854, at Oxford, of Lord Macaulay (1800-1859) with Max Muller (1823-1900) the German scholar, one of the rising stars of the time in the world of Sanskrit learning. Lord Macaulay who had shaped the beginnings of the British hold on India through the East India Company, now commissioned Max Muller to undertake a full-time study of Sanskrit that would be of help to the British for their purposes in India. This led Max Muller, to become one of the pioneers of Indological studies with his monumental work, *The Sacred Books of the East*, where he presented his translations of the Vedic corpus. Given the close correspondence of the Vedic language, Sanskrit, to the European languages, that had been observed by scholars at that time, and interpreting the Sanskrit word, Arya, to refer to a superior Aryan race, it was a short step for Max Muller and other scholars of the time to assume a superior Aryan origin and identity for Europe and propose the theory of an Aryan invasion, spreading out from the West towards the East and establishing the Vedic civilization in India by 1200 BC. Here then indeed was a complete theory that provided an Aryan identity and racial superiority that could be deeply satisfying to the German people who were yearning for such a higher identity, and that indeed, in later years, was to be embraced by the Nazi ideology.

Max Muller's conclusions were questioned by the great German scholar, Hermann Jacobi (1894) and the great nationalist Indian Bal Gangadhar Tilak (1893). They were Max Muller's contemporaries, and their work which was known to him, pointed to astronomical reference to an equinox in the Rig Veda itself that suggested a historical chronology for India that reached back as far as 4000 BC. Yet Max Muller's preference for a Vedic origin in the Aryan Invasion from the West in 1200 BC prevailed, perhaps because of the prevailing Western bias in favour of the Biblical evidence behind it, rather than the evidence of the Rig Veda, even though both referred to astronomical evidence in support of their respective

chronologies. Muller's awesome authority as a scholar also tended to guide most scholars, and overshadow all other viewpoints for a very long time. But in his last book "Six Systems of Indian Philosophy, published in 1900, Muller himself did seem to sense a lack of finality in respect of the speculations on the age of origin of the Vedas, when he commented "Whatever may be the date of the Vedic hymns, whether 1500 or 15000 BC, they have their unique place and stand by themselves in the literature of the world". It is possible that he was disappointed that the British whose purposes he had served so well, denied him the Boden Chair for Sanskrit Studies at Oxford which he thought he deserved, and instead gave it to Sir Monier Monier-Williams. It would however be fair to Max Muller, in the light of his comments quoted above, and the great scholar that he was, to say that his higher academic instincts may have prevailed towards the end of his life.

It is also to be noted that the Western studies of Sanskrit and the Vedic texts of those times, remained for long, restricted to a superficial philological approach which lacked the sensitivity and sophistication of later times, with very little attention to any evidence in them of possible historical relevance. Their translations rested largely on the authority of Sayana's 14th. Century commentary of the Vedic texts, that was focussed on their ritualistic content and purpose. This was not easy for the Western mind to correctly understand and much less, interpret. And the mindset of those times, misled by literal understanding, led them quite readily to dismiss the ritualistic content that dominated the texts, as depriving the texts of all historical relevance. More importantly, the scholars who engaged in these studies had no moorings in the sciences, where the great advances of later times enabled later scholars, along with far greater mastery of the linguistic nuances of Sanskrit, to open whole new vistas and perspectives in which the texts could be better understood and interpreted.

The point of this narrative is simply that it suggests that it was not just a love of a genuine study of history or of human progress, but the shared objectives of Western Christian evangelism and the racially driven colonialism that would appear to have given birth to the theory of the Aryan invasion. Macaulay seemed indeed to achieve phenomenal success in establishing the theory through the country-wide system of English based education and administration that he established in India, to the point that even Indian historians accepted the theory, in denial of their own cultural moorings. The Indian History Establishment, as it is called, even today suffers the basic weakness of inadequate familiarity with the spirit of the Vedic tradition and the subtle metaphoric nuances of the Sanskrit language in which it is clothed and is largely influenced by English translations and interpretations by Westerners or their methods. Those translations not only miss the spirit and subtlety of the original text but import distortions,

unwitting or conscious, of interpretations that have great potential for damage to or distortion of correct understanding of history.

The Establishment therefore remains even today, largely wedded to the Aryan invasion theory, or modifications of it, though now for different political reasons. The vast socio-economic inequities into which the ancient Vedic tradition degenerated over the centuries, and characterize Indian society to this day, are under severe challenge by the disadvantaged classes, who are now being urged by the newly emerging political forces, to see their condition as the direct result of control and influence over their lives, by the Brahminical class upholding the elitist and exclusive Vedic ideology. By identifying this class with a foreign Aryan race, exploiting an indigenous population, history today is being shaped by class ideology of power politics, that is purely Marxist or plainly communal. In this era of vast socio-economic transition, the Indian History Establishment has little choice but to maintain the silence of the status quo, rather than stick their necks out and get silenced by the dominant political forces. Thus politics of today, as indeed of the past, finds advantage in shaping history to its purposes. These vast distortions that come in the way of man's adherence to or search for truth are best explained in the ancient texts as the work of the forces of darkness or as best expressed by the resolve of Satan in the words of Milton in *Paradise Lost* : "Till I in Man residing through the Race, His thoughts, his looks, words, actions all infect, And season him thy last and sweetest prey."

It must be clearly stated here that whatever has been stated above is not to detract from the enormous contribution of the British rulers, or Western scholars. We need to be generous enough to say that they were products of their times, and cannot be blamed entirely for the negative aspects of the compelling circumstances that shaped their lives, views and actions. The work of Max Muller and scholars like him is awesome in terms of the range and depth of their studies and presentations. Max Muller himself has been in fulsome praise of the Vedic contribution of India. In ringing words that reached deep into the minds of the West, he said, "If I were asked under what sky the human mind has most fully developed some of its choicest gifts, has most deeply pondered on the greatest problems of life, and has found solutions of some of them which will deserve the attention even of those who have studied Plato and Kant – I should point to India. And if I were to ask myself from what literature we, here in Europe, we who have been nurtured almost exclusively in the thoughts of Greeks and Romans, and of one Semitic race, the Jewish, may draw that corrective which is most wanted in order to make our inner life more perfect, more comprehensive, more universal, in fact, more truly a human life, not for this life only but a transfigured and eternal life – again I should point to India".

Luckily the Vedic tradition does not depend on the indulgences of transient forces of time and circumstance, because the tradition lives deep in the psyche of millions of people and has shown its capacity to survive intact for so many millenia, despite the invasions and upheavals of the intervening times. But what is particularly encouraging is the emergence of a new generation of scholars, both from India and other countries of the world, of impeccable integrity, with far greater mastery of philological principles and linguistic nuances, rooted in true scientific attitude, and equipped with a phenomenal range of new and powerful scientific tools of such disparate disciplines as ecology, genetics, chemistry, mathematics, astronomy and computers, to unveil the vast truths that are embedded in the texts of the Vedic corpus. Some of these great developments are presented in detail in this book. The new understanding and visions, not constrained by political and religious biases, were triggered by a first generation of great scholars like Aurobindo Ghose and Bal Gangadhar Tilak. To these must be added the new contemporary generation of scholars, steeped in Indian culture and trained in the Sciences like K.D.Sethna, Subhash Kak, Georg Feuerstein, David Frawley, K.L.Kashyap, Narahari Achar, and Shrikant Talageri

Western contributions have been of inestimable value, also in quite another context. The British no doubt, contributed to the distortion of Indian history by establishing the theory that the Vedic civilization was established by the Aryan invasion of India, through the teaching of history in schools and universities in India and also building upon it through History Establishment of the country. But they also contributed to building the administrative structures for Archeological investigations, which, by a strange twist of circumstance unveiled the ancient civilization of Harappa and Mohenjodaro, which ultimately led to the demolition of the Aryan Invasion Theory. An even more valuable British contribution through the educational system was the opening of the approaches and methods of Science through the medium of the English language, that has enabled scholars in India, to not only to master all branches of modern knowledge but use them to correctly understand and interpret the Vedic texts and establish that India was the first to master of all branches of knowledge in the ancient world as well.

The excavations in the area of the Harappa civilization has thrown up impressive evidence that the area was indeed an integral part of the Vedic civilization that covered both the Indus-Saraswathi valley and the Gangetic valley, but survived largely in the latter, when the former area was overtaken by geological and ecological upheavals around 2000 BC. What survives today, through over 7 or 8 millenia, is very much the direct successor of the Vedic civilization which must have initially encompassed the Indo-Gangetic Plain, and gradually embraced the rest of the country. If today the Vedic tradition is a living presence in the every day lives of its

people, then we must certainly recognize that the Vedic texts have some power in them that compelled their unquestioning acceptance of the authority of the Vedas by vast millions through these vast millenia. Our understanding of this central fact of Indian tradition and history, must surely begin with a study of the Rig Veda.

Taking the Rig Veda then as the first and oldest source, we may see at the very outset, the awe-inspiring perspective in which it emerges and presents itself. It presents all existence, in both its micro-cosmic and macro-cosmic aspects, as set in a single framework of a Consciousness, Time and Space ranging from the Consciousness within the transient existence of the individual to the Infinite and Eternal existence of a cosmos pervaded by a Supreme Consciousness. It traces the evolution of OM, the primeval sound of the Cosmos, into the letters, words and speech of the language, personified by Saraswati, the goddess of Speech. Names, and descriptions of events and experiences are shared by men, stars, powers and divinities. Indra and Vrtra at once personify respectively, the power of Nature that brings Rain and the forces of the Cloud that holds it back; or represent respectively the hold of Light and Darkness on the Mind. Saraswathi is at once a goddess and also a mighty river, conferring the gifts of learning and wealth. Vasishta and Arundati are not only the great sage and his wife, but also a pair of stars in the sky, symbolizing marital harmony, and at which newlyweds are required to gaze, to obtain the blessing of the same marital felicity. Time and distance are measured from the stars and scaled down to apply to men's structures and activities. The sacrifices are events of interactive exchanges between men and gods who place the powers of Nature at the service of mankind. All these are clothed in the Rig Veda in language, often simple and direct but more often metaphoric or symbolic, that can be obscure to all but those who know the nuances of the language or the ideas that it conveys.

One of the most incisive and insightful recent studies of the Vedas has been from Shrikant Talageri, a scholar of the highest order from Maharashtra. Proceeding entirely from a profound in-depth linguistic analysis of the vast corpus of both Vedas and the Puranas, he has thrown up a completely new scenario for the history of those times. Not resting merely with a complete refutation of the Aryan Invasion Theory and its projecting a Western origin for the Vedic civilization, he has literally reversed the direction of the West to East movement of that view of history. He has now presented a compelling body of internal evidence of the Vedic corpus through an interpretation of those texts at a level of sophistication not seen from scholars so far. He begins with building a logical internal chronology for the Vedas and linking the clear internal cross-references to events, also found in the text of the Puranas. He then proceeds to reconstruction of the history of the Vedic period, which involved not only a consolidation of the ancient culture in the Vedic

heartland of the Punjab and the Gangetic valley, but a movement of large segments of its discordant elements who carried elements of the culture, language and knowledge through North-Western India into Afghanistan, Iran, Iraq, Egypt and beyond to Europe, thus accounting for the common strands of an Indo-European language and knowledge heritage. Talageri's studies, resting mainly on an incisive linguistic analysis and understanding of the Vedic corpus, has provided a profound complementarity to the studies that are based on the Science-based disciplines, and has all but marked the end of the old Aryan Invasion Theory and its attendant founding of the Vedic civilization. In its place he has provided a new cohesive and logical picture of the Vedic Civilization being entirely indigenous to India, and also as a source of much of Vedic language and knowledge tradition that contributed much to the later civilizations of Iran, the middle East and Europe.

The Rig Veda For The First Time Reader

INTRODUCTION

It would be appropriate to provide a brief Introduction to the intent of this book and how it's content has been structured to fulfil that intent. This book is for the first time reader, especially the young one, of every culture, to demonstrate that the approach of the Indian scriptures is at once completely humanistic and totally universal in its reach and has a validity and relevance for all time. But because of the sheer size, the range and depth of the experiences that are addressed, the enormous difficulties of interpretation and understanding of the usages of the Sanskrit language, and its extensive use of metaphor and analogy to express exoteric and esoteric ideas, the Rig Veda can be a formidable challenge to the mind-set of the modern reader, especially the first time reader.

This book therefore seeks to make the reader's task as simple and manageable as possible, and in a language and idiom that will be easier to understand and accept. The content may be approached from any perspective to which the reader is pre-disposed: literal, religious, philosophical or spiritual. Specifically the book is built around a very small set of the original Sanskrit slokas of the Rig Veda, each with an English transliteration and translation, spread over ten basic chapter topics, and set in simple explanations and perspectives, that attempt to encapsulate their essential spirit, reach and relevance. This hopefully, will provide the first time reader with a compass to find his way in his onward exploration of the Vedas. Such an exploration may well be likened to a modern Space expedition, but originating from the depths within himself and stretching into the cosmos outside of him, where, at any point, he may be prepared to meet with Sages and Seers, Planets and Stars, Powers and Divinities, and a Light which illuminates the endless reaches of Infinity and Eternity.

Note

1. A CD version of this book is enclosed. Three fonts included in this CD (iitmsans.ttf, iitmvsans.ttf and iitmipa.ttf) will need to be installed to ensure that the Sanskrit and IPA texts are displayed correctly on the computer screen.
2. The apostrophe (') is used for transliterating the Avaragraha symbol (ऽ).

The Rig Veda For The First Time Reader

Chapter – 1 : Creation

No ancient scripture of the world presents philosophical speculations on the creation of the cosmos in greater grandeur or profundity than the Rig Veda as in its hymns reproduced below :

Rig Veda : X - 129

नासदासीन्नो सदासीत्तदानीं नासीद्रजो नो व्योमा परो यत् ।

किमावरीवः कुह कस्य शर्मन्नम्भः किमासीद्रहनं गभीरम् ॥ १ ॥

nāsadāsīnnō sadāsīttadānīm nāsīdrajō nō vyōmā parō yat .

kimāvarīva: kuha kasya śarmannambha: kimāsīdrahanam gabhīram .. 1 ..

Nonexistence and existence were then not; there was not the air nor the heaven beyond. What did it contain and where and under whose protection? Was there be water, unfathomable, profound ?

मृत्युरासीदमृतं न तर्हि न रात्र्या अह्ना आसीत्प्रकेतः ।

आनीदवातं स्वाधया तदेकं तस्माद्धान्यन्न परः किं चनास ॥ २ ॥

mṛtyurāsīdamṛtaṃ na tarhi na rātryā ahna āsitprakēta: .

ānīdavātaṃ svādhayā tadēkaṃ tasmāddhānyanna para: kiṃ canāsa ..

Death or immortality was not then. There was no distinction between night and day. That One breathed, windless, by its own power. Other than that there was nothing beyond.

तम आसीत्तमसा गूळ्हमग्रेऽप्रकेतं सलिइलं सर्वमा इदम् ।

तच्छयेनाभ्वपिहितं यदासीत्तपसस्तन्महिनाजायतैकं ॥ ३ ॥

tama āsīttamasā gūḷhamagrē`prakētaṃ saliilaṃ sarvamā idam .

tacchyēnābhvapihitaṃ yadāsīttapasastanmahinājāyataikaṃ ..

In the beginning there was darkness concealed by darkness. All this was water without distinction. The One that was covered by voidness emerged through the heat of austerity.

कामस्तदग्रे समवर्तताधि मनसो रेतः प्रथमं यदाससीत् ।

सतो बन्धुमसति निरविन्दन्हृदि प्रतीष्या कवयो मनीषा ॥ ४ ॥

kāmastadagnē samavartatādhi manasō rēta: prathamam yadāsaṣīt .

satō bandhumasati niravindanhr̥di pratīṣyā kavayō maṇīṣā ..

In the beginning, desire, the first seed of mind, arose in That. Poet-seers, searching in their hearts with wisdom, found the bond of existence in non-existence.

तिरश्चीनो विततो रश्मिरेषामधः स्विदासीशुपरि स्विदासीशुत् ।

रेतोधा आसन्महिमान आसन्त्स्वधा अवस्तात्प्रयतिः परस्तात् ॥ ५ ॥

tiraścīnō vitatō raśmirēṣāmadha: svidāśīśdupari svidāśīśt .

rētōdhā āsanmahimāna āsantsvadhā avastātprayati: parastāt ..

Their (visions') stretched across (existence and non-existence). Perhaps there was a below; perhaps there was an above. There were givers of seed; there were powers; effort below, impulse above.

को अद्धा वेद क इह प्र वोचत्कुत आजाता कुत इयं विसृष्टिः ।

अर्वाग्देवा अस्य विसर्जनेनाथा को वेद यत आबभुव ॥ ६ ॥

kō addhā vēda ka iha pra vōcatkuta ājātā kuta iyaṃ visrṣṭiḥ .

arvāgdēvā asya visarjanēnāthā kō vēda yata ābabhuva ..

**Who knows the truth ? Who here will pronounce whence this birth?
Whence this creation ? The Gods appeared afterward, with the creation of
this world. Who then knows whence it arose ?**

इयं विसृष्टिर्यत आबभूव यदि वा दधे यदि वा न ।

यो अस्याध्यक्षः परमे व्योमन्त्सो अङ्ग वेद यदि वा न वेद् ॥ ७ ॥

iyaṃ visrṣṭiryata ābabhūvayadivā dadhē yadi vā na .

yō asyādhyakṣaḥ paramē vyōmantsō aṅga vēda yadi vā na vēda ..

**Whence this creation arose, whether it created itself, or whether it did not ?
He who looks upon it from highest space, he surely knows. Or maybe, He
knows not.**

Chapter - 2 : The Cosmos, Space and Time

The ancient Indian tradition holds Eternity, to be a never-ending cycle of finite periods of Time, called the Kalpa. The following is a beautiful account by a distinguished Scientist-Sanskritist scholar, Dr.V.Krishnamurthy, of this time scale. The Kalpa was subdivided into units measured on two scales, one cosmic and the other human. The Kalpa itself was but a cosmic day in the life of Brahma, the Creator, who himself had a finite life span of 100 cosmic years, each of which was comprised of 300 cosmic days and 300 cosmic nights. The Universe was created by Brahma at the beginning of each cosmic day and dissolved at the beginning of each cosmic night. How does the cosmic day relate to the human day ? The cosmic day, or Kalpa, is equal to 4.32 billion years on the human scale as explained below.

THE MANVANTARA

The Kalpa is divided into 14 Manvantaras, each ruled on behalf of Brahma, by a Manu. The following is the sequence of the Manvantaras :

Past : SWAYAMBHUVA; SWAROCHISHA; UTTAMA; TAAMASA, RAIVATA; CHAAKSHUSHA

Current : VAIVASVATA

Future : SAVARNI; DAKSHA SAVARNI; BRAHMA SAVARNI; DHARMA SAVARNI

THE MAHAYUGA & YUGA

Each of the 14 Manvantaras is divided into 71 Mahayugas and are separated from one another by an interval called a Sandhya. There are thus 15 separating Sandhyas which together last 6 Mahayugas. Thus the total duration of the Kalpa is $(14 \times 71) + 6$ ie 1000 Mahayugas. Each Mahayuga breaks up to a repetitive sequence of 4 Yugas, viz Satya (or Krita), Treta, Dvapara and Kali Yuga with the following breakup:

Satya(Krita)	17,28,000	years
Treta	12,96,000	years
Dvapara	8,64,000	years
Kali	4,32,000	years
Total	43,20,000	years

We are to-day in the Kali Yuga of the twenty-eighth Mahayuga and the Kali Yuga began in 3101 B.C. If Brahma had a clock like ours, every 43.2 seconds on it would be equal to 1 Mahayuga on the human scale. One of our days in 1995 would show as 11-29 A.M. on what is "to-day" for Him.

On the human scale, around 1,972,949,100 years have passed since the present Kalpa, which is his "to-day", began.

It would be appropriate to refer at this point to refer to the finer divisions within the human year :

12 months per year

30 days per month

24 hours per day

60 ghatikas per day (1 ghatika = 24 minutes)

60 palas per ghatika

6 asus (breathing) one pala

1 asu = 2.5 kasthas (the time interval of 4 seconds)

1 kastha = 4 dirgha matras

This panoramic view of our sense of time as a finite part of Eternity comes from the Srimad Bhagavatam, a great and revered work of 1,00,000 verses in Sanskrit, ascribed to sage Vyasa. And it places at different points of the vast time span of the present Kalpa all the great and revered figures that vividly live even to-day in the minds of the millions of India. The Matsya Avatar comes in the dawn before the break of the present Kalpa. The Varaha and Narasimha Avatars along with Dhruva, later immortalised as the Pole Star, come in the first Manvantara of the new Kalpa. This Kalpa is called the Svetavaraha Kalpa as it was ushered in by the Varaha Avatar. Rama , Krishna and Vyasa come in the Dvapara Yuga of the twenty-seventh Mahayuga of the seventh Manvantara.

The Bhagavatham is replete with vivid stories of all these central characters and events that appeared at different points of the vast span of this Kalpa. One charming story it has, tells of a character who traversed the vast time span of the first 27 Mahayugas of the current Vaivasvata Manvantara. Kakudmi was a king who lived on earth in the Satya Yuga of the first Mahayuga of the current Manvantara. Searching for a good match for his beautiful daughter Revati, he went to Brahma Loka, the world of Brahma, to get his advice. There, he had to wait for around 20 minutes (on the cosmic scale) for Brahma to return from watching a dance performance. Seeing him, Brahma told Kakudmi that during this period of his waiting, 27 Mahayugas had already elapsed on earth, and if he (Kakudmi) were to return now, he would find people on the earth enjoying the avatar of Krishna. In addition, he would also find in Krishna's brother Balarama, the right match for his daughter. Kakudmi followed Brahma's advice and thus it was that Revati came to be married to Balarama. Can science fiction of today produce a more imaginative and charming story ?

It would be interesting to note that whatever prayer people in India engage in today, always commences with a Sankalpa, a statement of resolve, that sets out the time and place of its offering in the following terms

:

ममोपात्तसमस्तदुरितक्षयद्वारा श्रीपरमेश्वरप्रीत्यर्थं शुभे दिने शोभने मुहूर्ते अद्य ब्रह्मणः द्वितीयपारार्धे
श्वेतवराहकल्पे वैवस्वतमन्वन्तरे अष्टाविंशतितमे कलियुगे प्रथमे पादे जम्बूद्वीपे भारतवर्षे भरतखण्डे
मेरोः दक्षिणे पार्श्वे शकाबदे अस्मिन् वर्तमाने व्यावहारिके प्रभवादीनां षष्ट्याः संवत्सराणां मध्ये ———
नामसंवत्सरे(.....)

adya brahmaṇaḥ dvitīyaparārdhē śvētavarāhakaalpē vaivasvatamanvantarē
aṣṭāvīṁśatitamē kaliyugē prathamē pādē jambūdvīpē bhāratavarṣe bhāratākhaṇḍe
mēroḥ dakṣiṇē pārśve śakābadē asmin vartamānē vyāvahārikē prabhavādīnāṃ
ṣaṣṭyāḥ saṃvatsarāṇāṃ madhye nāmasaṃvatsarē(.....)

“This day, in the second half of Brahma’s life, during Svetavaraha Kalpa, during Vaivasvata Manvantara, in the first quarter of the 28th Kali Yuga, in the Bharatha Year, in the Jambudvipa continent, in Bharathavarshs country, South of the holy mountain Meru, in the current year, within the middle of the current 60 year cycle commencing with the year Prabhava,” (I offer this prayer for the satisfaction of the Supreme God)

What could be a greater indicator of an ancient tradition in a living presence in our daily lives today, expressed as our existence as a tiny dot in the Infinite and Eternal dimensions of this Cosmos !

The great attention given by the ancients to Time, within a common cosmic and terrestrial framework is related to the importance given by them to the timing of ritual sacrifices where the individual, the Purusha of the microcosm, is brought in touch with the divine, the Purusha of the macrocosm. Time, inevitably, is determined by the stars of the cosmos and what time is auspicious and what time is not is determined by the vast body of empirical observation and correlation of the concurrent timing of both celestial and terrestrial events and codified into a common framework of Astronomy and Astrology, which comprise the Jyotisha Vedanga.

The modern mindset of Science draws an arbitrary line between physical and human events, where the former are predictable and the latter are not. There is an inherent inconsistency here, when one considers the

principles of probability to be more reliable for physical events, but not human events. It ignores the fact that probability in human events has a psychological importance. If, on the basis of extensive empirical observation and intuitive inference, a specific time is adjudged to be auspicious, it also provides a basis for psychological confidence for undertaking an activity which could lead to its fulfilment, where the fulfilment may be physical or just psychological. But without being drawn into such a contentious debate, we may focus on another critical point. The rejection of modern historians of astronomical references in ancient Indian texts as all ritual, astrology and superstition misses a critical point. One may reject interpretation of astronomical phenomena, but it is certainly not scientific to reject physical observation of the phenomena.

The Mahabharata is replete with observations of astronomical events but are set in considering their bearing on events as omens or indicators of looming disaster. But the observations are themselves beyond question and it would be an atrocious travesty to say that Vyasa has fabricated them. Chapter – 8 has given details of a striking investigation by Dr. Narahari Achar of such evidence to arrive at compelling conclusions of the precise dates of several such observations in the Mahabharata.

Chapter – 3 : Speech, Writing and Knowledge

The ancient Seers saw that Knowledge that connected Man with God must be made available to all mankind and for this purpose they needed use of the Word. Their deep contemplation took them beyond the reaches of the eye and the intellect into the realm of intuition, for a perception of a truth and for a word to describe it, a perception through sight and sound, which have come to be represented by the words Dhruv and Sruti. The ancient Rishis considered sound – specifically the sacred primordial sound OM, as the first manifestation of the Divine, and several Seed sounds, the Bija Akshras, from which Mantras bearing special meaning and power could emanate. Basic sounds were assembled into the most expressive words into what became the Sanskrit language. The task was undertaken with deep care and reverence, and this was reflected in the name Sanskrit that they gave to the language, a word that means “made to perfection”. And in this new language they embodied the truths that were revealed to them in their physical and psychic vision, in the poetic form of Riks or poems with different meters.

Words of a language have necessarily to be comprised of descriptive nouns assigned to persons, places and things, verbs to represent actions and adjectives to reflect attributes. Words, also necessarily limited in number, need to be applied to perceptions and experiences, which were numerous with new ones constantly accumulating. Words have therefore to be shared, carrying different meanings in respect of different perceptions and experiences. Words got assigned to and shared by events and persons on earth, to events and stars in the sky and to the powers and divinities in the heavens, and to their inter-relationships. The names Vasishtha and Arundati, for instance, referred to a great sage and his wife, who were later conferred with immortality through identification with the two important stars in the firmament, who were assigned the same names. This sage and his wife lived as ideal models of marital felicity and this fact led to the custom prevailing even today, of newly weds being required to look at these stars and invoke their blessings and follow their example.

The limited number of words in the language, of course, accounted for the extensive use and sharing of symbol and metaphor. The difficulty becomes insurmountable when dealing with the symbolism of rituals. The sacrificial fire is not easily understood as explained elsewhere, as an interface, as much physical as spiritual, for the interaction between the human and the divine. The ritual was clearly and consciously designed with actions and materials and clothed in words, each of enormous symbolic and psychological significance, which could not be understood

except through personal instruction by a teacher. It is clearly to be understood that the ritual is possibly the one single mechanism of enormous power, that has inscribed the ancient Vedic tradition into the psyche of the people and preserved it as an oral tradition through the millenia, through the symbolic language. Anyone without a deep insight, involvement or understanding of the culture of those times would clearly find it difficult to interpret its language usages. It is this that presented much of the problems of scholars of later times, in matters of understanding and interpretation of the Vedas.

Here is a description in the Rig Veda of the first sacrifices that brought the divine gifts of speech, words and language from their basic beginnings:

Rig Veda : VIII-100-11

देवीं वाचमजनयन्त देवास्त्वां विश्वरूपाः पशवो वदन्ति ।

सा नो मन्त्रेषमूर्जं दुहाना धेनुर्वागस्मानुप सुष्टुतैतु ॥

dēvīm vācamajanayanta dēvāstvām viśvarūpā: paśavō vadanti .

sā nō mandrēṣamūrjaṃ duhānā dhenurvāgasmānupa suṣṭutaitu

The gods produced Vak, the goddess of speech; her do animals of every kind utter; may she, Vak, the all-gaddening cow, yielding meat and drink, come to us worthily praised.

A related hymn suggests how choice of words for the language proceeded, and describes the process to winnowing the barley grain to remove the chaff of unsuitable words. The following hymn suggests the stage where the Rishis finalised the words and set them into meters of the Vedic hymns. The charming metaphor here of the seven noisy birds refer to the 7 meters in which the hymns were composed and articulated.

Rig Veda : X-71-3

यज्ञेन वाचः पदवीयमायन्तामन्वविन्दन्नृषिषु प्रविष्टाम् ।

तामाभृत्या व्यदधुः पुरुत्रा तां सप्त रेभा अभि सं नवन्ते ॥

yajñēna vāca: padavīyamāyantāmanvavindannṛṣiṣu praviṣṭām .

tāmābhr̥tyā vyadadhu: purutrā tāṃ sapta rēbhā abhi saṃ navantē ..

The wise reached the path of speech by sacrifice, they found it centred in the Rishis: having acquired it they dispersed it in many places; the seven noisy birds meet together.

The following hymn refers to a first propitiation of the Sadhya divinities, who are interpreted to refer to the Chando-Abhimanah:, the deities who preside over the offering of meters; this would suggest the stage of final approval of the language and use in the Vedic hymns.

Rig Veda : I-164-50

यज्ञेन यज्ञमयजन्त देवास्तानि धर्माणि प्रथमान्यासन् ।

ते ह नाकं महिमानः सचन्त यत्र पूर्वे साध्याः सन्ति देवाः ॥

yajñēna yajñamayajanta dēvāstāni dharmāṇi prathamānyāsan .

tē ha nākaṃ mahimānaḥ sacanta yatra pūrvē sādhyāḥ santi dēvāḥ ..

The gods sacrifice with sacrifice, for such are their first duties; those mighty ones assembled in heaven, where the Sadhya divinities who are to be propitiated reside.

Difficulties of understanding the texts were greatly accentuated by the way their interpretation was handled by the methods of Philology developed and used by the early scholars. Aurobindo went to the heart of this problem by looking at the very origins and course of development of words and language. He pointed out that in their remote origin, words must have been small in number and entirely reflected a physical context, and the words must have only gradually acquired added meaning in descriptive and psychological terms, as may be observed in the early stage of Sanskrit word usage in the Vedas. A word like “dhenu” may have originated to specifically represent the cow, but later acquired the more generic meaning of “nourisher”, and used in different contexts in the Vedic texts to indicate a nourisher of different things like energies or powers of the body, the mind or the soul. Also, insofar as a word or a collection of words whose meanings brought the higher energies and powers into play, they would thereby seem to acquire the status of Mantras invested with those very energies and powers. So while a lay person might understand a word in its literal sense, an initiate would see different metaphoric meanings and purposes for it in the different contexts of its use. Aurobindo therefore argued for a fresh rebuilding the science of philology from a fresh scientific foundation, where word origins and developments rested on sounder scientific principles. Without such a sound starting point, the early Western scholars were easily led into gross misinterpretation through literal understanding. And their reliance on Sayana’s overly ritualistic interpretation of the Vedas, served largely to

mislead them. The result was that they dismissed what they could not understand as myth, or just mumbo-jumbo, and in the process, dismissed the Vedas as a source of history. By what they dismissed, they missed the truth.

It only in recent years that philologists are getting to look at the discipline in a more sensitive and scientific way. Historians have also started to recognize that what was considered as myth and legend in ancient cultural traditions, really reflected a remembered history, recorded in the collective psyche of those societies, whether or not recorded physically in inscriptions on any medium. The new realization has indeed been forced on them by striking evidence thrown up by archaeological, astronomical and other investigations in respect of events in ancient myths and legends of many of the world's ancient cultures.

One question that is often asked is why there was such an exclusive dependence on the oral transmission of the Vedic knowledge, to the point that there is little evidence of effort to develop systems of writing. One view is that they were considered the sacred preserve of the priestly class and oral transmission through the class was the best way of maintaining the integrity and authenticity of that knowledge. It might equally well be that this was simply seen by the ancient seers and scholars to be both a necessary and sufficient mechanism for maintaining the rigid mental discipline on which all spiritual endeavour must rest, and that resort to writing was not really necessary for this and might indeed detract from effectiveness of mental disciplines that was needed as the prime requisite. Indeed the spiritual dimensions of its concepts and the extensive language symbolism in which they had necessarily to be clothed, made the texts quite difficult to understand in all their depth, that there was no way in which they could be understood or even sensed, except by the personal teaching of the Guru. Even the Guru could take the disciple only up to a point, and beyond that, merely point to the implications. The only way in which he could refer to the Highest Truth was with the word "That". Fuller understanding could only follow from the teaching by first memorizing the texts and then deeply reflecting on them, till their full implications were realized and internalized.

It seems difficult to believe that the ancients who had such a phenomenal skill of devising the syllabic structure of the fifteen meters that they developed for articulating the text, could not have developed writing systems which was a matter of designing a small set of physical symbols for the letters or syllables. Their design of a large number of Yantras, or sacred geometric patterns used in worship speaks of their skills of graphic and symbolic representation. There are textual indicators in the Rig Veda itself that are suggestive though not explicit, that writing systems may indeed have been developed at that time, but the Vedic scholars may have

chosen not to avail of them, because it was not considered critical to their specific teaching objectives and methods. The Rig Verse (RV – X – 71 - 4) speaks of Speech that is heard and also seen. The Taittiriya Samhita (TS – V – 2 – 8) speaks of the divine sign (Devalakshmam) written three fold (tryalikhita) that would appear to refer to the OM symbol that is written with three strokes. The Mahabharata itself records that it was written to Vyasa's dictation by the God Ganesha, who used a bit of his tusk as a stylus. One might ignore what may appear as the super-natural features of this account, but can one ignore the reference to the act of writing ? And in terms of incontrovertible physical evidence of writing systems, there are the extensive seal artifacts of the Indus civilization, coterminous with Vedic times, which presents several Vedic motifs along with around four hundred symbols indicative of a script related to the Brahmi script which was the source all written scripts of later times. Later Upanishads refer to writing with references to several aspects of the alphabet. These later developments could well have been derived from earlier forms. To assert that something that is not extant did not exist is to deny what was possible or probable.

Even today, however much we may value the printed word in its critical role in the dissemination of knowledge, we still find the need to fall back on the spoken word of the teacher for that bit of insight that helps us bridge the gaps in our understanding. The superficial criticism of today that ancient knowledge was held as a close private preserve for maintaining the privileges of the priestly class may have some truth in the perversions of socio-economic and political values and institutions of later times. But this may not be true of the early generations of teachers brought up in a tradition that clearly obliged them morally, to impart the knowledge to anyone who came to them, genuinely seeking and thirsting for knowledge. This knowledge was also not of interest or practical value to the large mass of people whose needs were only for the skills relevant to daily physical subsistence and perhaps for some simple rituals for their spiritual sustenance. Even today, few want to lead a life exclusively devoted to religion or spirituality and when they do, the need for a guide or teacher becomes critical. The development of writing systems has indeed, clearly been related, in those times, and as in all cultures, to the needs and impetus of commercial activity. These facts only stress the need to retain an open and generous mindset in making our judgments of the past, where the demands of living were so different.

The Vedic approach to Knowledge as seen even in the Rig Veda itself, was holistic in its sweep, all of human experience, all the way from the secular to the sacred, covering the entire spectrum from the purely physical to the highest spiritual level. Significant references can be found in it of all the branches of secular knowledge that must have existed at the time of the Rig Veda, but got elaborated and documented in later times in

amazing detail and sophistication in what are called the six Vedangas or limbs of the Vedas : Siksha (Phonetics), Vyakarana (Grammar), Chandas (Poesy), Nirukta (Etymology), Kalpa (Ritual procedures) and Jyotisha (Astronomy and Astrology). Of these, the first four relate to linguistics. The distinguished writer A.L.Basham, writing on the classic work around the 4th Century BC of Panini, said that his reducing the complex structure of Sanskrit to a terse set of 4000 rules, was without doubt, “one of the greatest intellectual achievements of any ancient civilization, and the most detailed and scientific grammar composed before the 19th Century in any part of the world”. Panini himself named several ancient works to be the source of his knowledge.

Here is a hymn that speaks of a surgical procedure to provide an artificial limb to one whose leg had been cut off in a battle :

Rig Veda : I – 116 - 15

चरित्रं हि वेरिवाच्छेदि पर्णमाजा खेलस्य परितक्म्यायाम् ।

सद्यो जङ्घामायसीं विशलायै धने सर्तवेप्रत्यधत्तम् ॥

caritraṃ hi vērivācchēdi parṇamājā khēlasya paritakmyāyām .

sadyō jaṅghāmāyasīm viśalāyai dhanē sartavēpratyadhattam ..

The foot of Vispala, wife of Khela, was cut off like the wing of a bird in a battle by night, over a hidden treasure, but you (the Asvins, responding instantly to prayers) gave her an iron leg that she might be able to walk.

The Sushruta Samhita, the great compendium on medicine and surgery, attributed to the sage and physician Sushruta, who is placed in the 6th Century BC must certainly be regarded as a culmination of a long period of development of the science of Ayurveda, derived from the Atharva Veda and sometimes described as the fifth Veda. Ayurveda has recorded astonishingly, that the human body had as many bones and bone-like components as the number of days in the year : comprised specifically of 312 bones, 32 teeth and 20 nails making a total of 360 !

What would be surprising to many is the intimate bearing the fifth Vedanga, Kalpa, or Ritual procedures, has not only on the physical principles of Astronomy and Mathematics but on the individual's inner life in terms of psychology and spiritualism. Here is a hymn that outlines the astronomical and mathematical implications of the Ritual procedures :

द्वादशारं हि तज्जराय वर्वर्ति चक्रं परि द्यामृततस्य ।

आ पुत्रा अग्ने मिथुनासो अत्र सप्त शतानि विंशतिश्च तस्थुः ॥

dvādaśāraṃ hi tajjarāya varvarti cakakraṃ pari dyāmṛtatasya

ā putrā agnē mithunāsō atra sapta śatāni viṃśatiśca tasthu:

The twelve-spoked wheel of the true (Sun) revolves round the heavens, never to decay, and (O Agni) seven hundred and twenty children in pairs, abide in it.

This is clearly an allegoric description to the never-ending motion in the sky of the Earth around the Sun, that refers to the unceasing cycle of 360 days in terms of 720 pairs of days and nights, of the 12 months of the year. This is certainly a pointer, as much to the then existing knowledge of Astronomy, as to a knowledge of Geometry, and which may have been picked up or further developed and presented in later times as the full blown sciences : Astronomy in the Jyotisha Vedanga, or Geometry and Mathematics in the later Sulba Shastras. It is interesting that many of these insights have been extensively recognized for their relevance to many of the insights of modern science. Erwin Schroeder, one of the creators of the Quantum theory, which transformed all understanding of modern science and led to the great advances of science and technology, was explicit in stating that quantum mechanics gave form to the non-dualist philosophy of Vedanta.

The psychological and spiritual implications of Ritual procedures are elaborated elsewhere in another Chapter.

Chapter – 4 : Ritual, Rationality and Spirituality

The Indian tradition always recognized the four human goals, the Purusharthas, in terms of Artha, or economic well being, Kama, or love and aesthetic fulfillment, Dharma, or morality, and Moksha, or spiritual liberation. It is possible that the interests of the individual also tends to evolve in that order as he advances in age and as his experiences expand. But the highest value and emphasis was always placed on the last goal, to the point that spirituality pervaded every facet of Indian life, including all art and culture.

With the Rig Veda acknowledged as India's oldest scripture, and cited as the ultimate authority for all Knowledge, it will be interesting to see how this text brings knowledge built on an infrastructure of ritual, rationality and spirituality, and a superstructure from which each of these three perspectives emerge seamlessly and in astonishing detail.

Ancient Indian Seers recognized a common basic unity and order underlying both individual and cosmic existence. They were led to place both subjective and the objective experience into a vast, integrated, common framework of consciousness, and of physical and psychic existence, with clear inter-connections and inter-dependencies across every part of it. The individual and the cosmos and its stellar firmament were seen as subject to the same vast cycle of Creation-Preservation-Dissolution within a single vast context, though on different scales of Space and Time. And it was part of the same vast consciousness that enabled the individual to understand his place in this vast existence, to understand how the cosmos stretched from deep within his own mind, into the far reaches of Space and Time, of Infinity and Eternity. In the Vedic metaphor, the word Purusha, means the resident of the Pura, the city represented by the individual's body, and also refers to the Supreme Spirit that pervaded the entire cosmos. It is in this vast context that the ancient Seers set their understanding of existence. It may be significant that the Seers of the Rig Veda, being the priests of the Puru tribe, may have coined the word Purusha to stand for man. The word Purusha was then applied the highest Being from whom all cosmic existence originated. This word has remained unique to the Vedic vocabulary, in contradistinction to the word Manushya, or one descended from Manu, the first man, and which got widely adapted in the Indo-European language family.

The following hymn, significantly called the Purusha Suktha of the Rig Veda, is a widely regarded and recited in prayer, describing the process of evolution from the Purusha, the Highest Being, the Macroscopic Man, into all the forms of cosmic existence.

पुरुष एवेदं सर्वं इस यद्भूतं यच्च भव्यं ।

उतामृतत्वस्येशानो यदन्नेनातिरोहति ॥

puruṣa ēvēdaṃ sarvaṃ yadbhūtaṃ yacca bhavyaṃ .

utāmṛtatvasyēśānō yadannēnātirōhati ..

Purusha is verily all this (the manifest world) and all that is to be; he is also the lord of immortality for he extends (beyond himself) for the food (of all the living).

It is important to note the use of two words : 'Idam' or 'This' to denote this existence that is bounded by Time and Space, and 'Tat' or 'That' to denote that source which is Eternal and Infinite, and from which all existence originates, and is delimited. This concept comes through beautifully in the following oft-quoted sloka from the Shukla Yajur Veda :

ॐ पूर्णमदः पूर्णमिदं पूर्णात्पूर्णमुदच्यते ।

पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते ॥

ōm pūrṇamadaḥ pūrṇamidaṃ pūrṇātpūrṇamudacyatē .

pūrṇasya pūrṇamādāya pūrṇamēvāvaśiṣyatē ..

Om ! That is perfect. This too is perfect. From That is This born. Yet That remains undiminished.

Is this not a Vedic version of the mathematical statement that of subtraction of no amounts can diminish Infinity !

Here is an affirmation that all different names refer but to the One highest divinity : that this religion is not poly-theistic, but mono-theistic :

Rig Veda : I – 164 - 46

इन्द्रं मित्रं वरुणमग्निमाहुरथो दिव्यः स सुपर्णो गरुत्मान् ।

एकं सद्विप्रा बहुधा वदन्त्यग्निं यमं मातरिश्वानमाहुः ॥

indraṃ mitraṃ varuṇamagnimāhurathō divya: sa suparṇō garutmān .

ēkaṃṃ sadviprā bahudhā vadantyaagniṃ yamaṃ mātariśvānamāhu: ..

They have called him Indra, Mitra, Varuna and Agni, and he is the celestial well-winged Garutmat, for the learned priests call one by many names as they speak of Agni, Yama or Matarsvan.

The need of the seeker for the help of a teacher for his first perceptions of the truth are expressed in the following hymn :

Rig Veda : I – 164 - 37

न वि जानामि यदिवेदमस्मि निण्यः सन्नद्धो मनसा चरामि ।

यदा मागन्प्रथमजा ऋतस्यादिद्वाचो अश्रुवे भगमस्याः ॥

na vi jānāmi yadivēdamasmi niṇya: sannaddhō manasā carāmi .

yadā māganprathamajā ṛtasyādidvācō aśruvē bhagamasyā: ..

I distinguish not if I am all this; for I go perplexed, and bound in mind; when the first perceptions of the truth reach me, then immediately shall I obtain the meaning of that sacred word

Nama is reverential homage, expressed in the offering homage through the standing or prostrating before the elder or the teacher with folded hands, the Namaskara, that we are all familiar with. It symbolizes submission and reverence.

Rig Veda : VI – 51- 8

नम इदुग्रं नम आ विवासे नमो दाधार पृथिवीमुत द्याम् ।

नमो देवेभ्यो नम ईश एषां कृतं चिदेनो नमसा विवासे ॥

nama idugraṃ nama ā vivāsē namō dādihāra pṛthivīmuta dyām .

namō dēvēbhyō nama īśa eṣāṃ kṛtaṃ cidēnō namasā vivāsē ..

Reverence be to the potent (the universal gods); I offer them reverence: reverence sustains both earth and heaven: reverence be to the gods: reverence is sovereign over them: I expiate by reverence, whatever sin may have been committed.

An allied word is Sharanam or Sharanagati, or refuge, or surrender, the ultimate act that expiates all of one's wrong doing. is a similar word : One may recall the final message of Krishna in the Gita :

मामेकं शरणं ब्रज : Take refuge in Me alone.

Here is a hymn that suggests how the ancient sages, observing and meditating on the truth, with the power of Mantras, generated the dawn of knowledge :

RV – VII – 76 - 4

त इहेवानां सधमाद आसन्नृतावानः कवयः फूर्व्यासः ।

गूळ्हं ज्योतिः पितरो अन्वाविन्दन्त्सत्यमन्त्रा अजयन्नुषासम् ॥

ta iddēvānām sadhamāda āsannṛtāvāna: kavaya: phūrvyāsa: .

gūlham jyōti: pitarō anvāvindantsatyamantrā ajayannuṣāsam ..

Those ancient sages, our ancestors, observant of truth, rejoicing with the gods, discovered the hidden light, and reciters of sincere prayers, they generated the dawn.

Dawn and Light are keywords, symbols that appear throughout the Vedas. The following prayer to make the Sun visible, is a prayer for enlightenment with a higher consciousness where the Reality can be realized.

RV – VI – 17 - 3

एवा पाहि प्रत्नथा बृहदिन्द्र स्वधाव इमे पीता उक्षयन्त द्युमन्तम् ।

आविः सूर्य तवसं विभूतिं मत्सरासो जर्हन्त प्रसाहम् ॥

ēvā pāhi pratnathā bṛhadindra svadhāva imē pītā ukṣayanta dyumantam .

āvi: sūrya tavaṣaṃ vibhūtiṃ matsarāsō jarhaṣanta prasāham ..

Drink it as of old, and may it delight you; hear our prayer, and be pleased with our prayers; make the Sun visible, nourish us with food, and rescue our cattle.

Here is a hymn which refers to the ancient tradition of Karma, elaborated in later texts, of two paths that lead people beyond life, one for the godly to heaven and the others back to life on earth.

RV – X – 88 - 15

द्वे सुती अशृणवं पितृणामहं देवानामुत मर्त्यानाम् ।

ताभ्यामिदंविश्वमेजत्समेति यदन्तरा पितरं मातरं च ॥

dvē srutī aśṛṇavaṃ pitṛṇāmahaṃ dēvānāmuta martyānām .

tābhyāmidamviśvamējatsamēti yadantarā pitaraṃ mātaraṃ ca ..

I have heard that there are two paths for gods and ancestors; all this universe between the paternal (heaven) and maternal (earth) proceeds on its way by these two paths.

The British Vedicist, Jeanine Miller summed up the profundity of Vedic thought in the following words :

Vedic thought, especially with regard to meditation and eschatology , reveals an unexampled depth of insight into the intricacies of the human mind, the background philosophy of which was the root of all subsequent speculations. The hymns do not mark the start of the Vedic cult, they embody rather the culmination of a culture whose beginnings were already remote in the eyes of its promoters and to which they constantly looked back. The layers of thought that may be distinguished – mythological and philosophical – are steeped in an age-old tradition going back to a distant past, ever present in the rishis' mind as the time of their ancestors, the beneficent patriarchs whose heirloom was their treasure and the foundation of their civilization”

The Rig Veda is thus clearly an enormous complex of ritual, rational and spiritual concepts, with each of its hymns admitting of interpretation from any or all of these perspectives, and different commentators have emphasized one or other of these. The ritualistic emphasis in the interpretation of the Vedas was last set by the last ancient Vedic commentator, Sayana (1315-1389) and it is on this that the first Western scholars rested their understanding, and that the Western colonists used to subvert and discredit the Vedic teaching. Specifically, the Yagna or sacrifice, occupied a position of centrality in the Vedic texts and also in the vast spread of ritualistic practice amongst the people. The Yagna was also envisaged in two different contexts. The Griha Yagnas were designed to be essentially a private activity with observances in homes, on occasions like births, deaths and marriages, where individual priests might be invited to conduct them. The Shrauta Yagnas, on the other hand, were major public occasions, sponsored by rulers or public benefactors for the common good, and where teams of priests were organized for conducting them. With this twofold approach it was certainly inevitable that ritual should find widespread appeal and acceptance, and in particular, become established among the common people as a way of life because it provided a very simple and effective basis on which religious practice could get enmeshed in all their life activities and specially the special occasions when it was important to invoke divine support or blessing.

But it is as important that the Yagna should be understood, not just as a physical setting for its mechanical processes, but in its true psychological, philosophical and spiritual dimensions as well. And it was when the Yagna started to so degenerate into empty mechanical practices that later times saw movements for a return to essentials. The movement even in Vedic times was seen in the development from the Vedas, of the Upanishads, and later the mass movements of Buddhism and Jainism. And more recent times this corrective movement was provided by the great savants like Aurobindo and Swami Dayanand. They explained clearly that the Vedic teaching refers, not just to the externally manifested divinities and powers of Nature and the Cosmos, but also representatives of the same powers that were resident within man himself. The sacrificial altar and fire, and the priests and the mantras provided the physical interface that bridged the human and the divine, and the process was moderated by the holy fire, the god Agni, who provided the exchange mechanism to receive the human offering and bring back the divine blessing. The word Yagna, as Aurobindo explained, came from the ultimate root, Ya, to preserve; from this comes Yaj and its derivative, Yagna, to control; and other derivatives like Yam, to regulate, Yat, to practice, Yachh, to entreat, etc One sees at once the depth and sensitivity of Sanskrit in the range of nuances that spring from even a single consonant or syllable. The Yagna was therefore to be understood as much an internal as an external process, where the Yajamana, the person initiating the external process of reaching

out to the divine, also represented his soul conducting his own internal spiritual development.

The most perceptive and persuasive view that the Vedas are essentially spiritual in content and intent, comes from the Seer-philosopher, Aurobindo as may be seen from his luminous words quoted below :

“We speak of evolution of Life in Matter, the evolution of Mind in Matter; but evolution is a word which merely states a phenomenon, without explaining it. For there seems to be no reason why Life should evolve out of material elements, or Mind out of living form, unless we accept the Vedantic solution that Life is already involved in Matter and Mind in Life, because in essence, Matter is a form of veiled Life., Life a form of veiled Consciousness. And then there seems to be little objection to a further step in the series and the admission that mental consciousness may be only a form and a veil of higher states which are beyond the Mind. In that case, the unconquerable impulse of man towards God, Light, Bliss, Freedom, Immortality presents itself in the right place in the chain as simply the imperative impulse by which Nature is seeking to evolve beyond Mind”

Chapter – 5 : The Vedic People, Kings and Sages

What do we know of those referred to as the Sages who first articulated the wisdom of the Vedas, the Kings who fostered this wisdom and the people in whom the Vedas took such deep roots as to be sustained for millenia? What light does the Rig Veda itself throw on these points ?

The ancient tradition held that several tribes lived in the area now recognized as Punjab, Haryana and Uttar Pradesh. Two of them were prominent, referred to as the Solar race of the Ikshvakus, and the Lunar race of the Ailas. Among the descendents of the Ailas. Five tribes became prominent : the Yadus, the Turvasas, Druhyus, Anus and Purus. This is indicated in the following hymn of the Rig Veda, set as always, in the context of the activities of the Vedic Gods :

Rig Veda : I – 108 - 8

यदिन्द्राग्नी यदुषु तुर्वशेषु यद् द्रुह्युष्वनुषु पूरुषु स्थः ।

अतः परि वृषणावा हि यातमथा सोमस्य पिबतं सुतस्य ॥

yadindrāgnī yaduṣu turvaśēṣu yad druhyuṣvanuṣu pūruṣu stha: .

ata: pari vṛṣaṇāvā hi yātamathā sōmasya pibatamṣu sutasya ..

If you, Indra and Agni, be amidst the Yadus, Turvasas, Dhryus, Anus and Purus, come hither, O giver of benefits, to drink the Soma offerings.

From among the Purus emerged the Bharata dynasty, named after an ancient king of that name, and it is the Bharatas that find prominent reference throughout the Rig Veda. This line of kings, founded by Devavata, included at a later point of time, Divodasa and Sudas who played a prominent role in the consolidation of the dynasty in the land of the Purus, now clearly identifiable with the Punjab and Haryana as the Aryan heartland of the Rig Veda. The Rig Veda indeed refers to the Purus as “Purave Manave jane” or men of ancient stock and even coined a cognate unique word “Purusha” to stand for “man” as distinct from “Manushya”, derived as a descendent of the first man, Manu. It is interesting that while “Purusha” remained a unique Vedic word, that never found its way into the common Indo-European linguistic stock, as the word “Manushya” did, and which perhaps, surfaced later as “Man” in English. Incidentally one may notice the cognate word “Pura” standing for cities where men lived and “Purusha” itself also came to signify the divine, resident within man, and externally sustaining all existence.

The Purus occupy a central position of primacy in the Rig Veda that virtually identifies them as the Vedic Aryans, and it is from their Rishis that the Vedas originated. The Rig Veda gives a position of prime importance to the river Sarasvati and that the lives of the Purus centred around this river is explicitly stated in the following hymn :

Rig Veda : VII – 96 -2

उभे यते महिना शुभ्रे अन्धसी अधिक्षियन्ति पूरवः ।

सा नो बोध्यवित्री मरुत्सखा चोद राधो मघोनाम् ।।

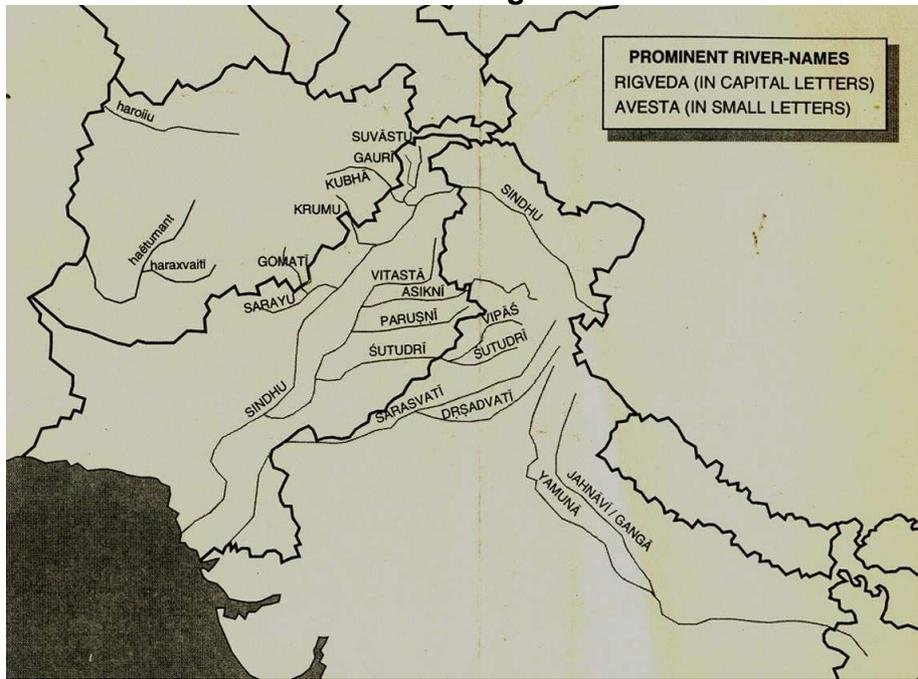
ubhē yatē mahinā śubhrē andhasī adhikṣiyanti pūrava: .

sā nō bōdhyavitrī marutsakhā cōda rādhō maghōnām ..

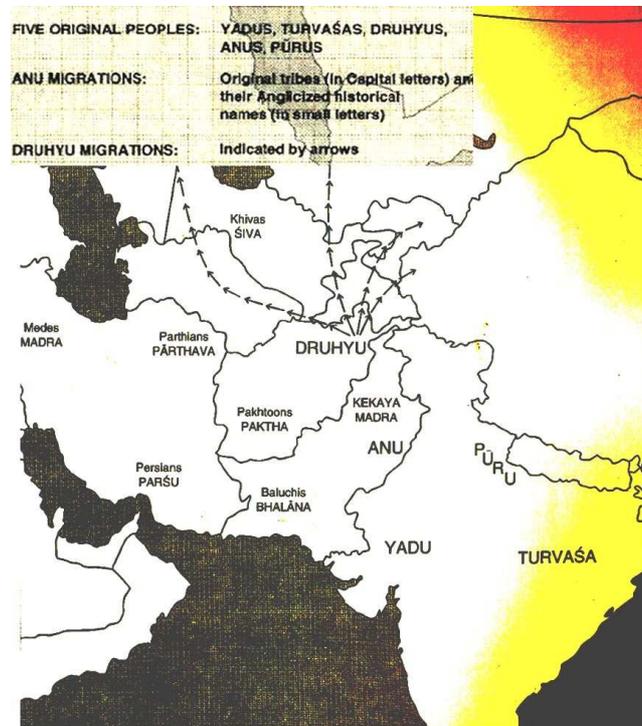
Beautiful Saraswati, inasmuch as by your might, you feed the Purus who dwell your two grassy banks, may you, O protectress, watch over us : may you, the friend of the Maruts, bestow riches upon the generous. (the devotees offering generous oblations).

All non-Purus constituted what are referred to as the Dasas, some friendly and some hostile to the Purus. While the Purus were centred around Kurukshetra, sustained by the bounty of the River Sarasvati, the Anus and Dhruhyus and Anus got established in the West and North West, while the Yadus and Turvasas settled in South West and East. The Rig Veda has accounts of wars where the Purus pushed the Anus and Dhruhyus westward, the latter into and beyond Afghanistan, where they became the fore-runners of the Avestan religion, which therefore bears a stamp of remarkable identity with the early Vedic heritage. Below are two maps reproduced from Talagheri's book "The Rig Veda – A Historical Analysis", showing the course of the rivers and distribution of the main tribes as they existed at the time of the Rig Veda

Rivers of the Rig Veda



Tribes of the Rig Veda



As indicated earlier, the Bharata dynasty of the Purus was founded by Devavata, and one of its later kings, Sudas has a special importance in the consolidation of the dynasty in the land of the Purus. Here is a specific reference to a critical battle waged by Sudas against the Anus and Dhruhyus :

Rig Veda : VII – 18-14

नि गव्यवोऽनवो द्रुह्यवश्च षष्टिः शता सुषुपुः षट् सहस्रा ।

षष्टिर्वीरासो अधि षड् दुवोयु विश्वेदिन्द्रस्य वीर्या कृतानि ।।

ni gavyavō-navō druhyavaśca ṣaṣṭiḥ śatā suṣupuḥ ṣaṭśahasrāḥ .

ṣaṣṭirvīrāsō adhi ṣaḍ duvōyu viśvēdindrasya vīryā kṛtāni ..

The warriors of the Anus and Dhruhyus, hostile to the pious Sudas, intending to carry off the cattle, perished to the number of sixty six thousand, six hundred and sixty, such is the glorious act of Indra.

It is with this group of people, the Purus, and their Kings, of the Bharata dynasty, the ancient Rishis shared the knowledge and practices of the Rig Veda. The ten books or Mandalas of the Rig Veda, were composed by ten families of Rishis, who recited their respective Aṭi-Suktas, or family hymns at the sacrifices they conducted, and whose identities are recorded in the Anu-Kramanis or chapter indexes in the Rig Veda itself. The Aṭi-Suktas and Anu-Kramanis provide the foundation, on which, together with the enormous wealth of internal detail in the texts themselves, it became possible for historians like Talageri build a formidable and unprecedented chronology of the Vedic tradition, The 10 Rishi families were the Angirases, Bhrugus, Viswamitras, Vasishtas, Agastyas, Kasyapas, Atris, Kanvas, Grtsamadas, and the Bharatas, the last being Kings who became Rishis. While most of the Rishis functioned as the Chief priests of the Purus, some, the Atris and Kanvas seemed to have reached out to non-Purus and composed hymns called Danastutis in praise of their Kings, who showered them with gifts. The Rishis were certainly men of remarkable insight whose hymns appeared mainly to be in praise of the Gods, portraying their victories over the forces of disorder and evil, and the victories of Kings over their enemies to be as much, the same handiwork of the Gods. Yet they also provided a framework for ritualistic practices and spiritual symbols for a deeper relationship between Man and God. These are aspects that are addressed in other Chapters of this book.

Chapter 6 : Civilization, Cities and Commerce

The American Historian Will Durant, defined the word Civilization beautifully and comprehensively in the following words :

“Culture suggests agriculture, bur civilization suggests the city. In one aspect civilization is the habit of civility; and civility is the refinement that townsmen, who made the word, thought possible in the ‘civitas’ or city. For in the city are gathered, rightly or wrongly, the wealth and brains produced in the countryside; in the city invention and industry multiply comforts, luxuries and leisure; in the city, traders meet and barter goods and ideas; in the cross-fertilization of minds at the crossroads of trade, intelligence is sharpened and stimulated to creative power. In the city some men are set aside from the making of material things, and produce science and philosophy, literature and art. Civilization begins in the peasant’s hut but it comes to flower only in the towns”

The ancient texts sets the origin of the Indic Civilization in the Sapta-Sindhu, the Land of the Seven Rivers, the large swath across Northern India, watered by the Indus and Ganges and their main tributaries, all together, seven in number. The Vedas themselves, as detailed in Chapter – 5, originated in the area of the Kurukshetra area of modern Haryana, but their influence went on to spread to a vast area to constitute the Indic Civilization, and ultimately capture the minds and hearts of people all over India with a hold of power and depth that remain intact today. And if as Will Durant says, civilization is characterized by the spread of cities, here is one of several hymns in the Rig Veda that refers to a large number of cities of this civilization where its influence must obviously have been present :

RV – VII – 3 - 7

यथा वः स्वाहाग्रये दाशेम परीळाभिर्धृतवद्भिश्च हव्यैः ।

तेभिर्नो अग्ने अमितैर्महोभिः शतं पूर्भिरायसीभिर्नि पाहि ।।

yathā va: svāhāgnayē dāśēma pariḷābhirdhṛtavadbhiśca havyai: .

tēbhirnō agnē amitairmahōbhi: śataṃ pūrbhirāyasībhirni pāhi ..

When we present to you, Agni, the sacred offering along with oblations mixed with milk and butter, then protect us, Agni, with those vast unbounded, innumerable golden cities.

It will be then apparent that the Indic civilization must have covered the vast advanced cities of Harappa and Mohenjodaro on the West, which flowered during Vedic times, under the life-giving sustenance of the mighty Sarasvati river, but which later disappeared along with that river in the geological and ecological upheavals towards 1800 BC.

Archeological excavations and later Satellite Imaging have yielded a phenomenal amount of evidence not only for the existence and course and canal network of the Sarasvati river, but of the existence of well developed cities at Harappa and Mohenjodaro, and several other locations in the Indus – Sarasvati basin. The evidence shows brick buildings laid out on well planned streets with water supply and drainage networks, which could not have been executed without a deep knowledge of geometry and skills of engineering. There was an existence of a wide range of arts and crafts involving working with cotton and metal. The Sulba Sutras of the Baudhayana school dedicated to the geometry and design of sacrificial symbols, carries a detailed design of the spoked wheel. This is a frequent motif among seals found in Harappa, which also carry inscriptions indicating use of writing systems, and suggesting use in trade and commerce, clearly point to the urban dimensions of the Indic civilization.

Here is a hymn that indicates the reach of the Indic civilization right up to the western coastline of India and points to an established environment of travel in large ocean-going boats, obviously manned by large numbers of sailors, that would indicate an involvement in maritime commerce.

RV – I – 116 - 5

अनारम्भणे तदवीरयेथानमनास्थाने अग्रभणे समुद्रे ।

ययदाश्विना ऊहथुर्भुज्युमस्तं शतारित्रां नावमातस्थिवांसम् ॥

anārambhaṇē tadavīrayēthānamanāsthānē agrabhaṇē samudrē .

yayadāśvinā ūhathurbhujyumastam śatāritrām nāvamātasthivāṃsam ..

This exploit you achieved, Asvins, in the ocean, where there is nothing to give support, nothing to cling to, that you brought Bhujyu, sailing in a hundred-oared ship, to his father's house.

When read with evidence in distant places like Egypt, Pheonicia, Babylon and Asia Minor, seen in records, seals, artifacts and linguistic and knowledge exchanges originating from the Indus civilization and the western coast of India, it is clear that there were extensive trade contacts in Vedic times both by land and by sea, with these distant lands. There is evidence of trading in 9755 BC by King Hiram of Tyre (Pheonicia) with India

through the port of Ophir near modern Mumbai. This port also carried the name Supara, a Sanskrit word indicative of the Vedic influence in that region before 1000 BC. Aryan elements were known to have migrated to Sri Lanka before the time of Buddha (563 BC). The Brahmi alphabet is seen in Indonesia in the 3rd Century BC. And Harappan dated to 2400 BC have been found in ancient Mesopotamia sites indicating contacts between the Harappa, Sumer and Akkadia civilizations, which had a special interest in importing timber from India. And as will be seen in Chapter – 8, there is clear evidence of the knowledge of these distant cultures of Astronomy and mathematics having originated from the Indic civilization.

Chapter – 7 : Archaeology & Support Sciences

Bal Gangadhar Tilak (1856-1920), was one of the great early leaders of India's freedom struggle, revered to this day as the Loka Manya, the beloved of the people. He was also a Sanskrit scholar of great erudition who was one of the first to look into the Vedas for their historical content. And as indicated in Chapter – 9, he put forward the astronomical references in the Rig Veda as incontrovertible evidence of such historical value. He did not confine himself to the main texts of the principal Vedas, but examined a wide range of texts like the Brahmanas, the Upanishads, the Puranas, and even the Iranian texts, without the biases of the establishment that considered them as legends and myths and not history. He also cast out much further and studied other archaeological, geological and ecological disciplines to find objective support for his thesis.

Archeology determined the chronology of civilizations in terms of the Paleolithic, Neolithic, Bronze and Iron Ages, with reference to artifacts found at surface levels of the earth. Geology looked at chronology of the earth itself in terms of the Primary, Secondary, Tertiary and Quarternary Ages. The last was further marked by Pleistocene or Glacial period, followed by the Post Glacial period, which saw large continental stretches of the earth submerged in ice, followed by periods emerging out of the ice cover. The Pleistocene Age also saw vast geological upheavals accompanied by vast redistribution of land and water leading to the formation of continents and oceans as we know them.

All these geological changes had their inevitable impact on ecological changes, rendering large land areas hospitable or inhospitable in terms of climate for the purpose of human habitation. And it is from these studies that Tilak concluded that at one time the Polar regions must have had a milder climate that made them habitable. In such a case the long and beautiful dawns and the Aurora Borealis must have left an indelible impression of wonder and awe in the inhabitants who could have been the ancestors of the Vedic Aryans. And when ultimately when these people migrated into India, they must inevitably carried these memories of the long dawns and transmitted down to their later generations to find a place the Vedic records as indicated In Chapter – 9

At this point we need only to remind ourselves that the vast geological upheavals and their ecological consequences, has left us with a trail of archeological evidence of several ancient civilizations coming to an end by drought, or by riverine systems consumed by the earth or coastal cities consumed by the sea. In the case of India, we have the examples of the ancient tradition of the loss to the sea of the cities of the First and

Second Tamil Sangam in the South, or the city of Dvaraka city around 1400 BC

The Sarasvati river occupies a position of central importance in the Rig Veda as the biggest and most important of the Sapta-Sindhu, the land of the Seven Rivers sustained by the vast area of the basins of the Indus and Ganges. The 'Sapta Sindhu' refers to the rivers Saraswati, Satadru (Sutlej), Vipasa (Beas), Asikni Chenab), Parosni (Ravi), Vitasta (Jhelum) and Sindhu (Indus). Among these, the Saraswati and the Sindhu were major rivers that flowed from the mountains right up to the sea.

One of the several hymns in the Rig Veda refer to the Sarasvati as below :

Rig Veda VII- 95 - 02

एकाचेतत्सरस्वती नदीनां शुचिर्यती गिरिभ्य आ समुद्रात् ।

रायश्चेतन्ती भुवनस्य भूरेर्घृतं परो दुदुहे नाहुषाय ।।

ēkācētatsarasvatī nadīnām śuciryatī giribhya ā samudrāt .

rāyaścētantī bhuvanasya bhūrēghṛtam parō duduhē nāhuṣāya ..

Saraswati, the chief and pure of rivers, flowing from the mountains to the ocean, understood the request of Nahusha for distributing wealth for many beings by providing milk and water.

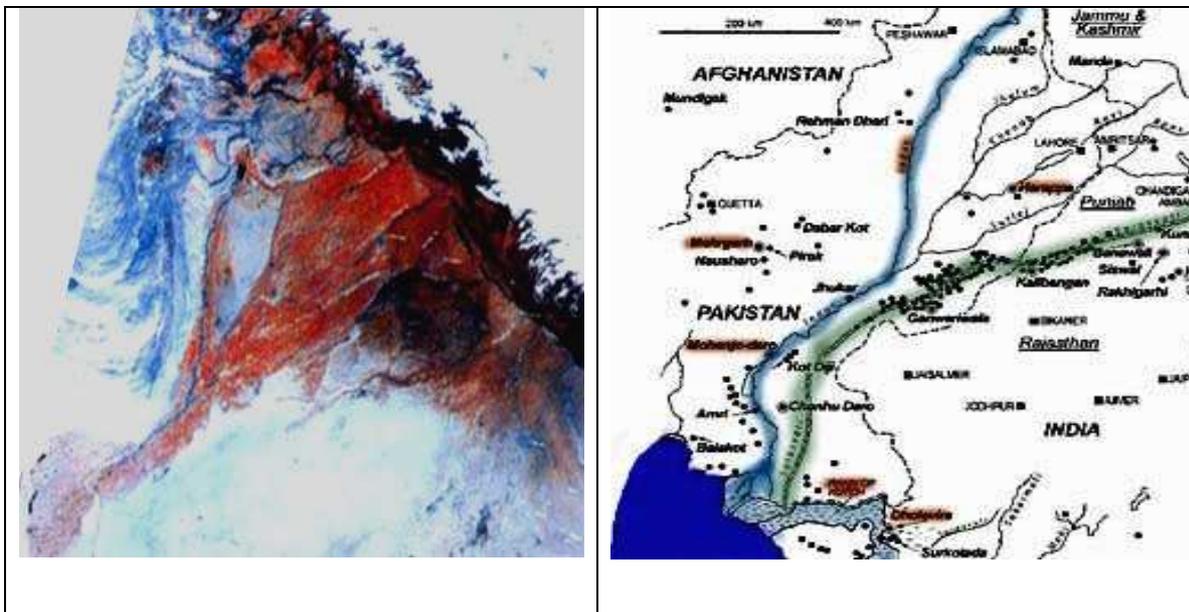
The phrase 'milk and water' is akin to the phrase 'milk and honey', we now use to describe prosperous lands.

Archeology :

The existence of the Saraswathi, now no longer existing, and for long considered by historians to be a myth, has now been clearly established by surface archaeological excavations, as a major river system that originated, along with the Indus and its tributaries in the Himalayan glaciers and terminated in the Arabian Sea off the Kathiawar coast of Gujarat, and supporting what is now established as the major Harappa – Saraswathi civilization – see Sapta-Sindhu River Map in Chapter – 5

Satellite Imaging :

The methods of Archeology of surface excavations have received a great boost after the development in recent years of the Remote Sensing technology by photography from satellites. Satellite images have now confirmed the existence of the extinct Sarasvati River with striking details of its course and of habitations that were supported by the river basin. The following is one such satellite image along with a reconstruction of a geographical outline map by its side :



The satellite image on the left is drawn in the map on the right, showing the Indus River in blue, the dry Sarasvati River basin in green and archaeological sites as black dots.

The river also binds the Rigvedic culture and the Sarasvati-Sindhu civilization since the Sarasvati river is the locus of over 1200 ancient archaeological settlements contiguous to the Rigvedic domain.

Geology & Glacio-geology :

Geology and Glacio-geology have methods that are able to throw light on the dating and chronology of changes in the structures of earth formations and ice-formations over periods on a millennial scale. An important glaciological dating tool is the fact that each glacier can supply waters into a major stream like the Ganga for a period of 10,000 years. The conclusions from these earth science perspectives are that when the Sarasvati river

was in its mighty flow, it had carried the glacier waters which are now carried by S'atadru and Yamuna.

Geological and Glaciological studies have shown the sequential history of the Sarasvati river through the following stages : (1) streams were flowing through Markanda river; (2) the streams migrated towards the Drishadvati river; (3) Drishadvati river migrated eastwards, linked up with Chambal which captured the Tons river stream flowing into Sarasvati river at PaontaSaheb in Himachal Pradesh; (4) S'atadru river stream which had joined Sarasvati river at Shatrana migrated westwards with a 90-degree turn at Ropar and ultimately became a tributary of the Sindhu river. After the rise of the Himalayas, S'atadru became the anchorage river of Sarasvati; what is now called Yamuna joined the Sarasvati river at PaontaSaheb. Ganga which had emerged from Gangotri received Chambal (now Yamuna) as its tributary at Prayag, Allahabad. Glaciological studies have also showed the existence of quartzite and metamorphic rocks in Paonta Doon valley and near Ad Badri in Siwalik ranges attesting to the existence of the mighty Vedic Sarasvati river which had brought in these signature rocks.

Isotope Analysis :

This is a powerful analytical tool based upon a measurement of the residues within ancient artifacts, of isotopes of several elements like carbon, hydrogen, which have well-defined periods of decay called the half-life periods.

Carbon dating based on the C-14 isotope of carbon has established the antiquity of the Ganeshwar mines in Rajasthan which provided the mineral sources and resulted in artifacts of the bronze age of the Harappa civilization. Tritium (an isotope of Hydrogen) analysis of deep water samples taken by the Bhabha Atomic Research Centre, Mumbai, has provided a broad spectrum dating for the waters of the Sarasvati river now found as groundwater sanctuaries and aquifers. The age of these waters range from 4000 to 8000 years Before Present (B.P.).

Cotton that has been so dated to 2500 BC, possibly originating from India has been found in Peru. There is extensive evidence in Peru of sea-borne contact with India and of the extensive prevalence of Sanskrit names and Vedic symbols, that would point to a considerable cultural and commercial exchange exchanges with India. The fact that the Hindus were capable of sailing to far off countries like Mexico and Peru is cited in an official publication of the Mexican Foreign Office. "Those who first arrived on the continent later to be known as America were groups of men driven by that mighty current that set out from India towards the east: An U. S. Ambassador Miles Poindexter states in his book, "primitive Aryan

words and people came to America especially from Indo-Arya by the island chains of Polynesia. The very name of the boat in Mexico is a South Indian (Tamil) word : Catamaran”

A study of the origin of cotton in India presents some interesting facts. The traditional Western bias that all of Indian history arose from the Aryan Invasion of India from the West, has held that cotton was earlier unknown in India and it was first known in Sumeria. The Rig Veda knows of fabrics and weaving but does not specify cotton or even have a word for it. The first word for it was Karpasa, used in the later Sutras, but the Harappa civilization that is coterminous with the Sutras and also coterminous with, if not earlier than the Sumerian civilization has thrown up clear evidence of the use of cotton and of weaving of cotton fabrics. Sumeria had contacts with Harappa and its word for cotton was Kapazum, suggesting a Harappan origin, for the word, if not the material.

There are similar theories of the Aryan Invasion protagonists that the horse was not known in India and came from the West. When horse bones were found in the Harappa excavations to show that the horse was known much earlier in India, one diehard ‘Invasionist’ historian went as far as to suggest that what was discovered were bones of asses. It could be well said that this historian made history by making an ass of himself.

Metallurgical Analysis :

Sophisticated methods have been developed to derive dating chronologies from metal artifacts of gold, silver, bronze and iron. These methods based on determining the purity levels of the metallic elements as progressing through time, provide indicators of the progress of the old societies in the sophistication of the technologies they used. Typically one can observe a progression in the refining of gold and the emergence of a clear separate identity and word for silver. This exemplifies how vocabularies that are shared at an earlier point of time expand as clear, separate identities emerge. To say that silver did not exist because the Rig Veda had a word for gold but not silver is a typical example of interpretation without the sensitivity that is called for.

Computer Technology :

A final word on one of the most powerful technologies that have become available today : Computer Technology. Two typical illustrations of its power would suffice here. Take the word Karpasa for cotton referred to earlier. How easy is it to check with certainty, whether and how often the word figures in the vast corpus of Vedic texts. To do it manually is a formidable task. But with the computer it becomes very fast and very reliable. Today inexpensive hardware and software are available that

enable us to locate and count the occurrences of any letter or syllable or word or phrase in any text of any size in a matter of minutes or seconds. Surely this opens up a whole new world of analytical capability for linguistic analysis that can throw open vast new perspectives in which our ancient texts can be viewed and analysed. A second example of the tremendous analytical power we may derive from the computer may be seen in Dr. Achar's dating the Mahabharata War, described in Chapter - 9

Chapter – 8 : Astronomy & Mathematics

Every ancient culture, whether Babylonian, Grecian, Mayan or Indian, shows abundant evidence of the deep interest of the people in the Planets, Stars and firmament, prompting not only deep religious and spiritual impulses, but also the practical implications of that knowledge, in terms of the day and night rhythms of daily life, the seasons and their relationship to agriculture, and the guidance they provided for traversing the oceans and desert to distant lands to establish trade, commerce, and exchange of vocabulary, knowledge and skills. The world would appear to have been more civilized and inter-connected, over 5000 years ago, than Europe may have been 500 years ago.

The ancient Seers always set all human thoughts and actions in a vast cosmic context of human-divine interaction. The ritual sacrifice symbolized this interaction in an amazing depth of detail, often involving an advanced knowledge of Astronomy and Mathematics. Many other hymns carry references to the distribution of the 27 stellar constellations over the 12 spans constituting the ecliptic and the relative motion of the Sun, Moon and Earth,, accounting for the months, seasons, the solstices, equinoxes and the eclipses. This enabled the Seers to settle on the right seasons and times for the conduct of the ritual sacrifices.

There is a reference in the following hymn of Rudra drinking the water that came of a process of vast churning,

RV – X – 136 - 7

वायुरस्मा उपामन्थत्पिनष्टि स्मा कुन्नमा ।

केशी विषस्य पात्रेण यदुद्रेणापिबत्सह ॥

vāyurasmā upāmanthatpinaṣṭi smā kunannamā .

kēśī viṣasya pātrēṇa yadudrēṇāpibatsaha ..

Vayu churned for him, the inflexible thunder ground it, when the radiant Sun with Rudra, Drank The water with his cup.

It has been suggested that this hymn has a bearing on one of the most vivid stories of Indian mythology, narrated in the Mahabharata, of Siva drinking the poison thrown up by the churning of the oceans for obtaining the nectar of immortality. This story is summarized here because of its unusual allegoric reference to an understanding of ancient astronomy. The story has it that the gods and the demons churned the cosmic ocean using the sacred mountain Mandara as a churning stick and the holy serpent Vasuki as a rope, in a race to retrieve the Amrita, the nectar of immortality. When the churning threw up a vast poison that threatened the world, Siva came to the rescue and swallowed the poison, turning his throat and neck blue in colour, an attribute that gave Siva the name Neelakanta, or one with a blue neck. The churning later brought up milk, then produced the Moon and then the Sun. Finally when finally the nectar came up in a white vessel, it was immediately grabbed by the demons. Before they could consume it, however, they were diverted by Vishnu, who appeared before them as the beautiful enchantress, Mohini, who seized the opportunity of their distraction, to seize the nectar vessel and pass it on to the gods, who promptly consumed it to ensure their immortality.

There are several points of significance to this great story. First, Siva's drinking the poison, to avert ecological disaster and maintain rta, the cosmos order. One wonders whether it is some divine impulse like this, that expresses the contemporary world's drive to save the planet from ecological disaster. The emergence of milk, the moon and sun, are expressions of the evolution of the cosmos, with the milk representing the Milky Way. The gods and demons correspond to the stars of the Northern and Southern celestial hemispheres. The Mandara is the polar axis of rotation of the earth and universe. The churning with the serpent rope represents the Sun's movement, relative to the earth, along the ecliptic, that marks the movement of both terrestrial and cosmic time. These movements of the Sun are seen to arise from the rotation of the earth around its own axis, which accounts for the day and night sequence of 24 hours. The revolution of the earth around the Sun accounts for 365 days of the year, with the skewed rotation of the earth accounting for the apparent North-South shift of the Sun relative to the earth accounting for the terrestrial phenomena of seasons, the two solstices and the two equinoxes. At the same time a slower circular shift in the axis of rotation of the earth itself, results in an apparent shift of the Sun, relative to the earth, called precession. This shift of the Sun is along the 12 Signs of the Zodiac, taking about 2160 years to traverse each of them, and covering the full Zodiac in 25920 years, which is said to constitute the cosmic Solar Year. The cosmic year is clearly reflected in the Yuga chronology of the ancients described in Chapter - 2. These last mentioned shifts of the Sun across each Sign of the Zodiac are assessed by the ancients as shifts in the state of order in the cosmos, marked by a short period of disorder and ultimate restoration of the old state of order, which are also reflected in similar disorders on earth, and again symbolized by the intervention of Siva for upholding order in both heaven and earth.

These ancient details of astronomical phenomena in all their astonishing detail and accuracy have largely been confirmed by modern knowledge. It will also be now clear from the above account that if such a range and depth of knowledge had to be compiled and preserved for the benefit of humanity for all time to come, the ancient Seers chose to set brief references to them in verse in the Vedas in a framework of myth, allegory and ritual, and to leave it to future generations of teachers for further elaboration and dissemination.

Such elaboration and dissemination did indeed follow in later times when the brevity and imagery of the Vedas was considered inadequate. Astronomy flowered in fuller and more explicit and practical detail in the Vedangajyotisha, one of the Vedangas or limbs of the Vedas, in the famous Aryabhatiyam of Aryabhata (476 AD), and the Panchasiddhanta compiled by Varahamihira (505 AD), which included the Suryasiddhanta, of which, a version revised around 1000 AD continues to be the most widely astronomy text to this day.

As stated earlier, other ancient cultures possessed a considerable knowledge of astronomy reflected in their remarkably accurate calendars and in the design of their monuments like the Mayan temples or Egyptian pyramids. In later times astronomers started to compute the chronology of ancient historical events from references in the related texts, to the Sun's precession positions in the Zodiac. One early example cited earlier in the Introduction is the dating of the Great Biblical Flood by the famous astronomer Johannes Kepler (1571- 1630). In our own day, determination of chronology of ancient Indian texts through astronomical evidence was slow in coming as Western historians had already prejudged the texts as irrelevant as sources of history, and it was left largely to Indian scholars led by Bal Gangadhar Tilak to seriously take up this challenge. It is no surprise that today Indians who have mastered modern science but remain strongly rooted in Indian tradition have started to make great contributions in this area of study. Many of them have had the benefit of computer programmes to handle all the related computation and analysis and quickly access vast tables of astronomical data covering periods of 10000 years or more. A striking example today is seen in the work of Dr B.N.Narahari Achar, Professor of Physics, University of Memphis, TN-USA he took note of the following reference to the near total solar eclipse recorded in the Rig Veda 5:40:5, associated with the Rishi Atri :

यत् त्व सूर्य स्वर्भानुस् तमसविध्यद् आसुरः ।
अक्षेत्रविद् यथ मुग्धो भुवनान्य अदिध्ययु ॥

This is translated as below :

When you Oh Sun, were darkened by the demon Svabhanu (another name for Rahu), the worlds were bewildered with its beings not knowing where they were. (The same material is expanded in *Kaushitiki* or *Sankhyayana Brahmana*. 24.4.). Dr Achar has been able to date this eclipse at the 14th October, 3067 BC.

The Mahabharata is replete with such observations of astronomical events but are often set in descriptions of them as omens or indicators of looming disaster. But whatever the inferences that might be drawn from the, the physical observations are themselves beyond question and it would be an atrocious travesty to say that they are a fiction fabricated by Vyasa. Putting together the evidence of all these events together for internal consistence and corroboration Dr. Achar has been able to arrive at compelling conclusions for the precise dates of several such events,, including the date of the 22nd November, 3067 BC for the start of the Mahabharata war, the pivotal marker for all of Vedic chronology.

The construction of the fire altar of the Vedic ritual sacrifices involve an astonishing depth of knowledge of geometry and mathematics. These technical principles are set out in the Sulba Sutras that form part of the Srauta or ritualistic part of the Kalpa Sutras, that in turn, form important auxiliary texts of the Vedas and are generally placed in the post-Vedic period, 3100 to 2000 BC. The pioneering and far-reaching work of the American scholar and mathematician, A.Seidenberg, based on a rigorous technical analysis of the mathematical knowledge of ancient Pythagorean Geometry and Old Babylonia, generally placed around 1700 BC are clearly anticipated far earlier by the mathematics seen in, and could possibly be traceable back to the Sulba Sutras considering their contacts with India of those times. A astronomical reference in the Sulba Sutras of the Asvalayana school, to the star Alpha-Draconus being the Pole Star of that time, would place its chronology to between 3100 to 2600 BC, and this would lend considerable support to the general consensus that set the dating of the compilation of the Vedas by Vyasa and the Mahabharata War around 3100 BC or earlier.

Chapter – 9 : History, Legend and Myth

The contribution of the early Western scholars to understand and document the ancient texts of Indian tradition was certainly impressive. And it certainly caught the attention and imagination of some of the greatest Western minds, some of whose responses are reproduced in the Annexure. But it also left behind an unfortunate and strong legacy, persisting to this day, of ignoring those texts as possible sources of history, and of providing their own version of ancient Indian history resting on a theory of an Aryan invasion from the West. Their formulations sprang from a Euro-Centric mindset that was convinced that there could be no more ancient and advanced civilization than the Graeco-Roman, from whom they were themselves descended, Of course this view was contested by scholars in their own day who knew that the Greeks themselves acknowledged a debt to more ancient civilizations like Egypt. One French savant of that time, Rene Guenon went on to describe the Euro-centric mind-set as “unable to cross the Mediterranean” Nevertheless that mindset, led by scholars like Max Muller, did prevail and left a warped legacy that continues to haunt us to this day.

The central failure of this legacy was the inability to understand the formidable Sanskrit complex of symbol, metaphor, allegory, paradox, legend and myth that characterized the Vedic text corpus. Their simple solution was to dismiss it all as irrelevant to historical purpose and nothing more than a primitive ritual ridden mass of superstition. And this view was widely disseminated by embedding it in the educational system that the British established in India. It was left to scholars of later generations both in India and abroad to bring a more sensitive and sophisticated understanding to bear on the Vedic texts in the light of big advances in diverse branches of knowledge like linguistics, philology, psychology as also powerful analytical tools of science and technology that became available to disciplines like archaeology, geology, ecology, physics, chemistry, astronomy etc.

One of the first breakthroughs came from the understanding of ritual. Here it was seen that the symbology and vocabulary of the ritual represented a whole new world-view of human experience – one where the sacrifice was seen as an interface and a medium of interchange between the individual and the cosmos. At an external, and physical level, the sacred fire received the prayerful offerings and gratitude of the individual to the gods and returning from the gods with the blessings of rain and food and the needs of living. At an internal and spiritual level, it was a surrender of the self-centred life in exchange for a god-centred existence. How could all these activities be ever expressed except by symbol and word, where meaning was embedded in the mystery of ritual,

legend and myth. had to be implicit, could never be explicit. This was clearly an environment that a Western mind-set could never understand unless that mind-set placed its judgments in suspense. It would be interesting to note that the ancient texts made extensive use of the word

गुह्यम्, or 'secret' to describe its inner teachings which really meant that they rested on concepts that could never, if ever, be comprehended by the normal human mind.

It has been left to a new generation of scholars, both Western and Indian to bring a new mind-set to the understanding of the Vedas, and this has indeed unleashed an astonishing range of new insights. One of the earliest of modern Indian scholars to boldly assert that history could be built from the internal evidence of the Vedas themselves was Bal Gangadhar Tilak. Though he was better known as of one of the great early leaders of the Indian freedom struggle, he was no less a scholar of the highest accomplishment who made a remarkably insightful of the Vedic texts to extract from them a surprising volume of historical information. The following is one example :

Rig Veda VII – 76 - 3

तानीदहानि बहुलान्यासन्या प्राचीनमुदिता सूर्यस्य ।

यतः पपरि जजारइवाचरन्त्युषोददृक्षे न पुनर्यतीव ।।

tānīdāni bahulānyāsanyā prācīnamuditā sūryasya .

yata: papari jajāraivācarantyuṣōdadṛkṣē na punaryatīva ..

Many are the days that have dawned before rising of the sun, on which, you Ushas, have been beheld like a wife repairing to inconstant husband, and not like one deserting him.

The Rig Veda has a large number of hymns like the one above, addressed to Ushas, the Goddess of Dawn. The great scholar, A.A.Macdonell considered Ushas to be the most graceful creation of Vedic poetry, and that there was no more charming figure than her in the descriptive religious lyrics of any other culture. This hymn talks of a prolonged dawn lasting many days, before the rising of the sun. This is beyond doubt, a reference to a phenomenon that could occur in only one unique geographical setting,

viz. the Polar region. How could such a vivid description find a place in the Rig Veda ? Tilak gave the remarkable answer : that it is a record from the memory of a race that must have originated in the Polar Region. Marshalling an impressive array of other connected references in the Vedic texts, together with ecological evidence that the Polar regions must have had, at one time, a milder climate that supported habitation, Tilak built a remarkable thesis that the Aryans must have originated from there and later, when the climate became inhospitable, migrated southwards till they found their final home in India. His thesis, despite its compelling reasoning, and given his nationalistic bearings, did not suit the British ruler, and was therefore officially ignored and excluded from all public attention. There is little doubt however, that Tilak's opposition to British rule must have been fuelled, not only by his own nationalistic fervour, but also by a sense of affront from the scant respect the British showed to the Vedic tradition. Even Max Muller respected Tilak's views and held him in esteem to the point of personally prevailing on the British rulers to release him from prison where he was confined due to his political activities. (A fact confirmed by Tilak himself). Much as Muller respected Tilak, he was himself far too committed to his own Aryan Invasion theory to be able to accept Tilak's views.

Tilak did not confine himself to the main texts of the principal Vedas, but examined a wide range of texts like the Brahmanas, the Upanishads, the Puranas, and even the Iranian texts, without the biases of the establishment that considered them as legends and myths and not history. He also cast out much further and studied other archaeological, geological and ecological disciplines to find objective support for his thesis. Archeology determined the chronology of civilizations in terms of the Paleolithic, Neolithic, Bronze and Iron Ages, with reference to artifacts found at surface levels of the earth. Geology looked at chronology of the earth in terms of the Primary, Secondary, Tertiary and Quarternary Ages. The last was further marked by Pleistocene or Glacial period, followed by the Post Glacial period, which saw large continental stretches of the earth submerged in Ice, followed by periods emerging out of the ice cover. The Pleistocene Age also saw vast geological upheavals accompanied by vast redistribution of land and water leading on to the formation of continents and oceans as we know them. All these geological changes had their inevitable impact on ecological changes, rendering large land areas hospitable or inhospitable in terms of climate for the purpose of human habitation. And it is from these studies that Tilak concluded that at one time the Polar regions must have had a milder climate that made them habitable. In such a case the long and beautiful dawns and the Aurora Borealis must have left an indelible impression of wonder and awe in the inhabitants and these memories must inevitably have been transmitted to their later generations into the records of Vedic tradition. And we may also remind ourselves that the vast geological upheavals and their ecological

consequences, has left us with a trail of archeological evidence of the ancient civilizations ended by drought, riverine systems consumed by the earth and coastal cities lost to the sea.

It would therefore not be surprising that in the profound influence of Tilak's school of thinking has resurfaced in later years, though with changed perspectives, but nowhere more striking than in the work of the brilliant Indian historian of our own times : Shrikant Talageri. This scholar has constructed a remarkable history from the Rig Veda and the Puranas where he has thrown up a completely new scenario for the history of the Vedic times. Not resting merely with a complete refutation of the Aryan Invasion Theory and its foundation on the Western origin of the Indo-European languages, he has virtually reversed the direction of the West to East movement of that view of history.

He has now presented a compelling body of internal evidence of the Vedic corpus through an interpretation of those texts of a sophisticated level not seen from scholars so far, and external evidence of the spread of Vedic ideas, language constructs, and symbols and artefacts westwards from India, through Afghanistan, Iran, Iraq, Asia Minor, Egypt and Greece, all the way to England, He begins with building a logical internal chronology for the 10 Mandalas of the Rig Veda, based on the identity of their Seer authors, as recorded in their own Anu-kramanis, or internal author indices. He then takes the precaution of starting with references in the Rig Veda, being the oldest text and linking them to clear internal cross-references to the same events in a wide range of later texts, for corroboration. Starting with names of rivers, something that is a stable and reliable element in tradition, he finds reference to the Jahnavi (or Ganga) occurring only in the earliest Mandalas, a reference to the Sindhu (or Indus) only in the end Mandalas, and a concentration of all the names of the Saraswati and the five rivers of the Punjab in the intervening Mandalas. This leads him to the strong inference of the Vedic origins in the Ganga region of the U.P, its spread and consolidation in the region of Punjab and Haryana and ending in the west at the Indus. He then goes on to a similar analysis of names of places and events, including local wars against tribes and groups hostile to the Vedic values, which led to the migration of such discordant elements towards the west and south towards Gujarat and Maharashtra and through the north-West to Afghanistan, Iran and beyond to Europe, thus accounting for the common strands of the family of Indo-European languages. Talageri's studies, resting mainly of an incisive linguistic analysis and understanding of the Vedic corpus, has provided a profound complementarity to the other studies that are based on the Science-based disciplines, and has all but marked the end of the old Aryan Invasion Theory and its attendant Indo—European Language Theory for the founding of the Vedic civilization. In its place he has provided a new cohesive and logical picture of the Vedic Civilization being entirely

indigenous to India, and also as a source of much of Vedic knowledge and tradition that contributed much to the later civilizations of Persia, Babylonia, Egypt and Greece.

It would be informative to look at a typical example of Talageri's methodology to show its incisive and convincing originality :

RIG VEDA : II – 3 - 7

दैव्या होतारा प्रथमा विदुष्टर ऋजु यक्षतः समृचा वपुष्टरा ।

देवान्यजन्तावृतुथा समञ्जतो नाभा पृथिव्या आधि सानुषु त्रिषु ॥

daivya hōtārā prathamā viduṣṭara ṛju yakṣata: samṛcā vapuṣṭarā .

dēvānyajantāvṛtuthā samañjatō nābhā pṛthivyā ādhi sānuṣu triṣu ..

Let the two divine invokers, foremost and wise, sincerely worshipping with sacred texts, excellent in form, offering homage in due season, present obligations in the three high places upon the navel of the earth

RIG VEDA : II – 3 - 8

सरस्वती साधयन्ति धियं न इळा देवी भारती विश्वतूर्तिः ।

तिस्रो देवीः स्वधया बर्हिरेदमच्छिद्रं पान्तु शरणं निषद्य ॥

sarasvatī sādhayanti dhiyaṃ na iḷā dēvī bhāratī viśvatūrti: .

tisrō dēvī: svadhayā barhirēdamacchidraṃ pāntu śaraṇaṃ niṣadya ..

May the three Goddesses, Sarasvati, perfecting our understanding, the divine Ila, and all-impressive Bharati, having come to our dwelling, protect this faultless rite offered for our welfare.

These verses are a clear reference to the three places, described as the holiest on earth, and sanctified by Sarasvati, Ila and Bharati, goddesses, represented in the region by three rivers of the same name and prominently referred to in the Rig Veda. These locations are corroborated in the Mahabharata. The river Saraswati does not exist today, but tradition associates it with the Triveni Sangam at Allahabad and Archeological evidence has established its existence and alignment beyond doubt. And even more importantly, the Researches of a brilliant historian, The brilliant research of the historian M.L.Bhargava, has identified the Ila location with the present day Shergadh and the Bharati location with Kopar in Kurukshetra, where worship of these goddesses is maintained till the present day. And the reader will be able to relate these riverine systems in

the map below provided by Talageri in his book, “The Rig Veda – A Historical Analysis”

Talageri’s raises a more fundamental question : if the oldest Rig Veda and the other later texts drew from the same accumulated stock-pile of ancient memories, vividly recalled by contemporary generations as a living tradition, why should the reliability test rest on the Rig Veda alone ? Why can’t evidence be drawn equally from later texts as well, provided the evidence was corroborated across different texts, notwithstanding their relative chronology ? Why indeed should we discriminate between history, legend and myth as long it was possible to get cohesive, sensible and corroborated findings ? The difficulty in the case of legend and myth could be that we are still unable to see beyond their metaphors, analogies and linguistic quirks and make out their true sense, but then for the inability of scholars to understand, should they be discounted and dismissed ? After all, later studies were able to discover substance in Moses leading his people across the Sea of Reeds, or in the existence of Troy, stories that were long held as myths. Myth, as explained by the British Vedicist, Jeanine Miller is “not merely an interesting made-up story, but a pictograph of great evocative power that is intended to connect us to the reality which it purports to image”. In respect of legends and myths therefore, where knowledge is lacking, clearly we need to suspend judgment.

Chapter – 10 : Past, Present and Future

As we in India today look back and discover these treasures that we have inherited from our remote past, and also at the same time look at our situation today with teeming millions steeped in ignorance, hunger, poverty, disease, distress and conflict, we inevitably ask the question as to where we are heading. Religion still remains widespread and deep seated in the psyche of the people, but considerably overshadowed by ritual and superstition, with the educated class getting increasingly distanced from the higher knowledge and values that we have inherited from the past. Scholarship today, under Western influence, seeks the truth outside in the powers of nature, in a vast pursuit of materialistic values, rather than searching within oneself where the powers of true cognition reside. This led Swami Vivekananda to posing a basic challenge to a world audience in the USA in 1893 in words of thundering eloquence :

“Shall India die ? Then from the world all spirituality will be extinct, all sweet-souled sympathy for religion will be extinct, all ideality will be extinct; and in its place will reign the duality of lust and luxury as the male and female dieties, with money as its priest, fraud, force and competition its ceremonies, and the human soul its sacrifice. Such a thing can never be”.

Surely Vivekananda was not expressing a hope but asserting a truth. And the truth is that the materialist values of Science of the West are yielding, as is they surely must, to the spiritual values of the Knowledge of the East. A great succession of scholars from the West – the most distinguished names in the fields of History, Literature, Linguistics, Religion, Philosophy, Psychology and even all branches of Science, have helped in overcoming the biases and limited mindsets of earlier scholars, and are increasingly discovering and articulating the deeper insights and universal values that the ancient Indian texts contain. Not only are Hindu temples and ashrams coming up in Western cities, but spiritual movements like the Krishna-consciousness and disciplines like Yoga and Ayurveda are getting an enormous world following. The methods of Science are being pressed into service to go into facts and events clothed in the inner meanings, metaphors and analogies in the ancient Sanskrit texts. There is now a willingness to recognize history in what was earlier dismissed as myth and legend. And Indian scholars both in India and abroad are rediscovering their roots and sharing them with scholars of the world, with the added strengths of the objective attitudes, approaches and methods of modern Science like Archeology, Ecology, Geology, Physics,

Chemistry, Genetics, Satellite Imaging, Astronomy, and Computerized analysis of vast stores of data.

World-wide interest today is going far beyond a search for historical facts, to areas of eternal human value, to a search for an integrated vision of divinity and humanity as the ancients of India saw them. This is best expressed in the message of the ancient Upanishads, "Tat Tvam Asi", translated as You (the human) Are the Same as That (the divine). This message originating from ancient times in India is clearly echoing today in the minds and hearts of mankind, far beyond the Indian shores, The seeming socio-economic regress within India today is quite clearly a superficial phenomenon, and is more than offset by the spread of ancient Indian knowledge and values across the rest of the world, beyond the material towards the spiritual, and a recognition by mankind that that is where his destiny lies.

One of the most fascinating things about a study of the Rig Veda is that it is so full of the past, so compelling in its influence in the present and so reassuring for the future. It puts us in a Time Machine where Past, Present and Future are reduced to chastening relativities in the larger framework of endless Time, and gives us a better sense of what existence is all about and what is our place and purpose in that framework. It provides us with an endless thread of continuity, within a brief taste of immortality.

One of the critical functions of history is to understand the past in order to understand how to relate to the present and prepare for the future. It cannot be merely in materialistic terms but also in terms of values that are critical to meaningful living. It is simply not sufficient to look at facts and events, as in Science, in a purely physical sense, completely sanitized of all value elements. The truly great historians, like Arnold Toynbee and Will Durant make history of past ages come vividly to life, as real indeed as the times we live in. Other historians present fossilized versions, often like the fossils they rely on as evidence. The famous dramatist Kalidas once said that he who teaches for profit is no teacher but a merchant. Many historians of today are no different : often they are politicians not historians, often in disguise, sometimes unabashedly undisguised. Many of the historians, both Western and Indian, who have attempted to present the history of ancient India, appear to belong to this category. Our great misfortune is that it is their versions that find their way with official approval into the textbooks of our schools and colleges of India.

Rebuilding history with material evidence is difficult enough. Marauding hordes destroyed the greatest library of ancient times in Alexandria. In our own times armed savages armed with guns addressed their gunfire to the great Sphinx in Egypt and in more recent times, the imposing Buddha at Bamian in Afghanistan. The building of the Multan-Sind Railway made use of bricks excavated at the sites of Harappa and Mohenjo Daro, where it is hard to assess how much of history have been thereby destroyed. And we still do not know how much lies buried lost to History, under our vast built-up cities or cultivated farms, or areas submerged by waters of our dams or even under the unexplored arid deserts. Our archaeological discoveries are often no more than unwitting accidents.

Every society has an inevitable mix of the materialistic and the spiritual aspects of their culture and traditions, and so far we have been seeing a predominance of the former in the West and of the latter in the East. Today's world of course, is seeing a two-way osmosis between them and perhaps this will usher in a better and more balanced future for mankind. But while these positive developments take place, we need to be wary that biases of the past and the headlong rush for materialistic values of the present do not weaken our ancient spiritual heritage. The wisdom of ancient India may still have a critical part to play in forging a holistic world vision to moderate the negative impacts of modern competitive and acquisitive materialism that is creating the twin dangers of nuclear proliferation and ecological disaster that could well wipe out humanity more extensively and completely than Nature did with many an ancient civilization.

The most perceptive and inspiring vision of the future are best expressed in the words of Aurobindo : "We of the coming day stand at the head of a new age of development which must lead to such a larger synthesis..... We do not belong to past dawns, but the noons of the future. A mass of new material is flowing into us; we have not only to assimilate the influences of the great theistic religions of India and of the world, and a recovered sense of the meaning of Buddhism, but to take full account of the potent though limited revelations of modern knowledge and seeking; and beyond that, the remote and dateless past which seemed to be dead, is returning upon us with an effulgence of many luminous secrets long lost to the consciousness of mankind, but now breaking out from behind the veil....."

Appendix – A

What the world's great minds have said about the Indian heritage

Aurobindo (1872-1950)

India saw from the beginning, and, even in her ages of reason and her age of increasing ignorance, she never lost hold of the insight, that life cannot be rightly seen in the sole light, cannot be perfectly lived in the sole power of its externalities.

Arthur Schopenhauer (1788-1860)

“In the whole world there is no study, except that of the originals, so beneficial and so elevating as that of the Upanishads. It has been the solace of my life, it will be the solace of my death!”

Sir Monier Monier-Williams (1819-1899)

"It may be with truth be asserted that no description of Hinduism can be exhaustive which does not touch on almost every religious and philosophical idea that the world has ever known. It is all-tolerant, all-comprehensive, all-compliant, all-absorbing. It has its spiritual and its material aspect; it's esoteric and exoteric; it's subjective and objective; it's rational and irrational. It has one side for the practical; another for the severely moral; another for the devotional and the imaginative; another for the philosophical and speculative."

Ralph Waldo Emerson (1803-1882)

" I owed a magnificent day to the Bhagavad-Gita. It was as if an empire spoke to us, nothing small or unworthy, but large, serene, consistent, the voice of an old intelligence which in another age and climate had pondered and thus disposed of the same questions which exercise us."

Wilhelm von Humboldt (1767-1835)

“Bhagvad-Gita is the most beautiful, perhaps the only true philosophical song existing in any known tongue.....perhaps the deepest and loftiest thing the world has to show."

Will Durant (1885-1981)

"Perhaps in return for conquest, arrogance and spoliation, India will teach us the tolerance and gentleness of the mature mind, the quiet content of the unacquisitive soul, the calm of the understanding spirit, and a unifying, a pacifying love for all living things."

Dr. Annie Besant (1847-1933)

“After a study of some forty years and more of the great religions of the world, I find none so perfect, none so scientific, none so philosophic, and none so spiritual as the great religion known by the name of Hinduism. The more you know it, the more you will love it; the more you try to understand it, the more deeply you will value it”

Henry David Thoreau (1817-1862)

"In the morning I bathe my intellect in the stupendous and cosmogonical philosophy of the Bhagavad Gita in comparison with which our modern world and its literature seems puny."

Voltaire (1694-1778)

" I am convinced that everything has come down to us from the banks of the Ganges, - astronomy, astrology, metempsychosis, etc."

Jules Michelet (1798-1874)

Each year, it is necessary to respire, to take breath again, to revive ourselves at the great living sources that forever keep their eternal freshness. Where can we find them if not at the cradle of our race, on the sacred summits from where descend the Indus and the Ganges....?

Max Muller (1823-1900) :

"If I were asked under what sky the human mind has most fully developed some of its choicest gifts, has most deeply pondered on the greatest problems of life, and has found solutions of some of them which will deserve the attention even of those who have studied Plato and Kant – I should point to India. And if I were to ask myself from what literature we, here in Europe, we who have been nurtured almost exclusively in the thoughts of Greeks and Romans, and of one Semitic race, the Jewish, may draw that corrective which is most wanted in order to make our inner life more perfect, more comprehensive, more universal, in fact, more truly a human life, not for this life only but a transfigured and eternal life – again I should point to India".

Swami Vivekananda (December, 1900, New York) :

"My whole life has been changed by the touch of one of those divine men about whom I am going to speak to you next Sunday; and the time is coming when these thoughts will be cast abroad over the whole world. Instead of living in monasteries, instead of being confined to books of philosophy to be studied only by the learned, instead of being the exclusive possession of sects, they will be sown broadcast over the whole world, so that they may become the common property of the saint and the sinner, of men, women and children, of the learned and the ignorant. They will then permeate the atmosphere of the whole world, and the very air that we breathe will say with every one of its pulsations "Thou art That" "

[Romain Rolland](#) (1866-1944)

If there is one place on the face of the earth where all the dreams of living men have found a home from the very earliest days when man began the dream of existence, it is India....For more than 30 centuries, the tree of vision, with all its thousand branches and their millions of twigs, has sprung from this torrid land, the burning womb of the Gods. It renews itself tirelessly showing no signs of decay.

[Niels Bohr](#), (1885-1962)

I go into the [Upanishads](#) to ask questions.

Erwin Schrödinger (1887--1961)

This life of yours which you are living is not merely a piece of this entire existence, but in a certain sense the whole; only this whole is not so constituted that it can be surveyed in one single glance. This, as we know, is what the Brahmins express in that sacred, mystic formula which is yet really so simple and so clear; tat tvam asi, this is you. Or, again, in such words as "I am in the east and the west, I am above and below, I am this entire world."

Dr. **Carl Sagan**, (1934-1996)

The Hindu religion is the only one of the world's great faiths dedicated to the idea that the Cosmos itself undergoes an immense, indeed an infinite, number of deaths and rebirths. It is the only religion in which the time scales correspond, to those of modern scientific cosmology. Its cycles run from our ordinary day and night to a day and night of Brahma, 8.64 billion years long. Longer than the age of the Earth or the Sun and about half the time since the Big Bang. And there are much longer time scales still.

The most elegant and sublime of these is a representation of the creation of the universe at the beginning of each cosmic cycle, a motif known as the cosmic dance of Lord Shiva. The god, called in this manifestation Nataraja, the Dance King. In the upper right hand is a drum whose sound is the sound of creation. In the upper left hand is a tongue of flame, a reminder that the universe, now newly created, with billions of years from now will be utterly destroyed.

A millennium before Europeans were willing to divest themselves of the Biblical idea that the world was a few thousand years old, the Mayans were thinking of millions and the Hindus billions.

Count Hermann Keyserling (1880-1946)

Benares is holy. Europe, grown superficial, hardly understands such truths anymore.....I feel nearer here than I have ever done to the heart of the world; here I feel everyday as if soon, perhaps even today, I would receive the grace of supreme revelation...The atmosphere of devotion which hangs above the river is improbable in strength; stronger than in any church that I have ever visited. Every would be Christian priest would do well to sacrifice a year of his theological studies in order to spend his time on the Ganges; here he would discover what piety means.

Mark Twain (1835-1910)

Land of religions, cradle of human race, birthplace of human speech, grandmother of legend, great grandmother of tradition. The land that all men desire to see and having seen once even by a glimpse, would not give that glimpse for the shows of the rest of the globe combined.

Dr. **Arnold J. Toynbee (1889-1975).**

It is already becoming clear that a chapter which had a Western beginning will have to have an Indian ending if it is not to end in self-destruction of the human race. At this supremely dangerous moment in human history, the only way of salvation is the ancient Hindu way. Here we have the attitude and spirit that can make it possible for the human race to grow together in to a single family.

So now we turn to India. This spiritual gift, that makes a man human, is still alive in Indian souls. Go on giving the world Indian examples of it. Nothing else can do so much to help mankind to save itself from destruction.

There may or may not be only one single absolute truth and only one single ultimate way of salvation. We do not know. But we do know that there are more approaches to truth than one, and more means of salvation than one. This is a hard saying for adherents of the higher religions of the Judaic family (Judaism, Christianity, and Islam), but it is a truism for Hindus. The spirit of mutual good-will, esteem, and veritable love ... is the traditional spirit of the religions of the Indian family. This is one of India's gifts to the world.

At the close of this century, the world would be dominated by the West, but that in the 21st century "India will conquer her conquerors."

[Albert Einstein](#), (1879-1955)

When I read the [Bhagavad Gita](#) and reflect about how God created this universe everything else seems so superfluous. We owe a lot to Indians who taught us how to count, without which no worthwhile scientific discovery could have been made.

Julius [Robert Oppenheimer](#) (1904-1967)

Access to the Vedas is the greatest privilege this century may claim over all previous centuries.

The general notions about human understanding... which are illustrated by discoveries in atomic physics are not in the nature of things wholly unfamiliar, wholly unheard of or new. Even in our own culture they have a history, and in Buddhist and Hindu thought a more considerable and central place. What we shall find [in modern physics] is an exemplification, an encouragement, and a refinement of old wisdom.

The juxtaposition of Western civilization's most terrifying scientific achievement with the most dazzling description of the mystical experience given to us by the Bhagavad Gita, India's greatest literary monument.

[Octavio Paz](#) (1914-1998)

The Hindu genius is a love for abstraction and, at the same time, a passion for the concrete image. At times it is rich, at others prolix. It has created the most lucid and the most instinctive art. It is abstract and realistic, sexual and intellectual, pedantic and sublime. It lives between extremes, it embraces the extremes, rooted in the earth and drawn to an invisible beyond.

[Queen Fredricka](#) of Greece (1931- 1981)

It was my advanced research in physics that had started me on a spiritual quest. It culminated in me accepting the non-dualism or absolute monism of Shankara as my philosophy of life and science.

You are fortunate to inherit such knowledge. I envy you. While Greece is the country of my birth, India is the country of my soul.

[Klaus L. Klostermaier](#) (Born 1933)

Hinduism has proven much more open than any other religion to new ideas, scientific thought, and social experimentation. Many concepts like reincarnation, meditation, yoga and others have found worldwide acceptance. It would not be surprising to find Hinduism

the dominant religion of the twenty-first century. It would be a religion that doctrinally is less clear-cut than mainstream Christianity, politically less determined than Islam, ethically less heroic than Buddhism, but it would offer something to everybody. It will appear idealistic to those who look for idealism, pragmatic to the pragmatists, spiritual to the seekers, sensual to the here-and-now generation. Hinduism, by virtue of its lack of an ideology and its reliance on intuition, will appear to be more plausible than those religions whose doctrinal positions petrified a thousand years ago.

[George Bernard Shaw](#), (1856-1950)

The Indian way of life provides the vision of the natural, real way of life. We veil ourselves with unnatural masks. On the face of India are the tender expressions which carry the mark of the Creators hand.

The apparent multiplication of gods is bewildering at the first glance, but you soon discover that they are the same GOD. There is always one uttermost God who defies personification. This makes Hinduism the most tolerant religion in the world, because its one transcendent God includes all possible gods. In fact Hinduism is so elastic and so subtle that the most profound Methodist, and crudest idolater, are equally at home with it.

[Christopher W. B. Isherwood](#) (1904-1986)

I believe the Gita to be one of the major religious documents of the world. If its teachings did not seem to me to agree with those of the other gospels and scriptures, then my own system of values would be thrown into confusion, and I should feel completely bewildered. The Gita is not simply a sermon, but a philosophical treatise.

[Sir Charles Eliot](#) (1862-1931)

I do not think that Christianity will ever make much progress in Asia, for what is commonly known by that name is not the teaching of Christ but a rearrangement of it made in Europe and like most European institutions practical rather than thoughtful. And as for the teaching of Christ himself, the Indian finds it excellent but not ample or satisfying. There is little in it which cannot be found in some of the many scriptures of Hinduism..."

The claim of India to the attention of the world is that she, more than any other nation since history began, has devoted herself to contemplating the ultimate mysteries of existence and, in my eyes, the fact that Indian thought diverges widely from our own popular thought is a positive merit.

Hinduism has not been made, but has grown. It is a jungle, not a building. It is a living example of a great national paganism such as might have existed in Europe if Christianity had not become the state religion of the Roman Empire, if there had remained an incongruous jumble of old local superstitions, Greek philosophy, and oriental cults such as the worship of Sarapis or Mitras.

Compared to Islam and Christianity, Hinduism's doctrines are extraordinarily fluid, and multiform. India deals in images and metaphors. Restless, subtle and argumentative as Hindu thought is, it is less prone than European theology to the vice of distorting transcendental ideas by too stringent definition. It adumbrates the indescribable by metaphors and figures. It is not afraid of inconsistencies which may illustrate different aspects of the infinite, but it rarely tries to cramp the divine within the limits of a logical phrase.

The Hindu has an extraordinary power of combining dogma and free thought, uniformity, and variety. Utmost latitude of interpretation is allowed. In all ages Hindus have been passionately devoted to speculation. It is also to point out that from the Upanishads down to the writings of Tagore in the present day literature from time to time enunciates the idea that the whole universe is the manifestation of some exuberant force giving expression to itself in joyous movement.

[Muhammad Dara Shikoh](#) (1627-1658 AD) the favorite Sufi son of Moghul emperor, Shah Jehan.

After gradual research; I have come to the conclusion that long before all heavenly books, God had revealed to the Hindus, through the Rishis of yore, of whom Brahma was the Chief, His four books of knowledge, the Rig Veda, the Yajur Veda, the Sama Veda and the Atharva Veda. The Quran itself made veiled references to the Upanishads as the first heavenly book and the fountainhead of the ocean of monotheism.

[Annie Wood Besant](#) (1847-1933)

After a study of some forty years and more of the great religions of the world, I find none so perfect, none so scientific, none so philosophical and none so spiritual that the great religion known by the name of Hinduism. Make no mistake, without Hinduism, India has no future. Hinduism is the soil in to which India's roots are stuck and torn out of that she will inevitably wither as a tree torn out from its place. And if Hindus do not maintain Hinduism who shall save it? If India's own children do not cling to her faith who shall guard it. India alone can save India and India and Hinduism are one.

This is the India of which I speak - the India which, as I said, is to me the Holy Land. For those who, though born for this life in a Western land and clad in a Western body, can yet look back to earlier incarnations in which they drank the milk of spiritual wisdom from the breast of their true mother - they must feel ever the magic of her immemorial past, must dwell ever under the spell of her deathless fascination; for they are bound to India by all the sacred memories of their past; and with her, too, are bound up all the radiant hopes of their future, a future which they know they will share with her who is their true mother in the soul-life.

[Sarvepalli Radhakrishnan](#) (1888–1975), *President of India* (1962-1967).

Hinduism is not just a faith. It is the union of reason and intuition that can not be defined but is only to be experienced. Evil and error are not ultimate. There is no Hell, for that means there is a place where God is not, and there are sins which exceed his love.^[1]

[Henry David Thoreau](#) (1817-1862)

In the morning I bathe my intellect in the stupendous and cosmogonical philosophy of the [Bhagavad Gita](#) in comparison with which our modern world and its literature seem puny and trivial.

What extracts from the Vedas I have read fall on me like the light of a higher and purer luminary, which describes a loftier course through purer stratum. It rises on me like the full moon after the stars have come out, wading through some far stratum in the sky.

Whenever I have read any part of the Vedas, I have felt that some unearthly and unknown light illuminated me. In the great teaching of the Vedas, there is no touch of sectarianism. It is of all ages, climes and nationalities and is the royal road for the attainment of the

Great Knowledge. When I am at it, I feel that I am under the spangled heavens of a summer night.

The Vedas contain a sensible account of God. The veneration in which the Vedas are held is itself a remarkable feat. Their code embraced the whole moral life of the Hindus and in such a case there is no other truth than sincerity. Truth is such by reference to the heart of man within, not to any standard without.

The Hindus are most serenely and thoughtfully religious than the Hebrews. They have perhaps a purer, more independent and impersonal knowledge of God. Their religious books describes the first inquisitive and contemplative access to God.

Ralph Waldo Emerson (1803-1882)

I owed a magnificent day to the Bhagavad-Gita. It was as if an empire spoke to us, nothing small or unworthy, but large, serene, consistent, the voice of an old intelligence which in another age and climate had pondered and thus disposed of the same questions which exercise us.

It is sublime as night and a breathless ocean. It contains every religious sentiment, all the grand ethics which visit in turn each noble poetic mind.... The Indian teaching, through its clouds of legends, has yet a simple and grand religion, like a queenly countenance seen through a rich veil. It teaches to speak truth, love others, and to dispose trifles. The East is grand - and makes Europe appear the land of trifles. ...all is soul and the soul is Vishnu .

Will Durant (1885-1981)

It is true that even across the Himalayan barrier India has sent to us such questionable gifts as grammar and logic, philosophy and fables, hypnotism and chess, and above all our numerals and our decimal system. But these are not the essence of her spirit; they are trifles compared to what we may learn from her in the future. Perhaps in return for conquest, arrogance and spoliation, India will teach us the tolerance and gentleness of the mature mind, the quiet content of the unacquisitive soul, the calm of the understanding spirit, and a unifying, a pacifying love for all living things.

India was the motherland of our race, and Sanskrit the mother of Europe's languages: she was the mother of our philosophy; mother, through the Arabs, of much of our mathematics; mother, through the Buddha, of the ideals embodied in Christianity; mother, through the village community, of self-government and democracy. Mother India is in many ways the mother of us all. Nothing should more deeply shame the modern student than the recency and inadequacy of his acquaintance with India....This is the India that patient scholarship is now opening up like a new intellectual continent to that Western mind which only yesterday thought civilization an exclusive Western thing. "As flowing rivers disappear in the sea, losing their name and form, thus a wise man, freed from name and form, goes to the divine person who is beyond all." Such a theory of life and death will not please Western man, whose religion is as permeated with individualism as are his political and economic institutions. But it has satisfied the philosophical Hindu mind with astonishing continuity. Even in Europe and America, this wistful theosophy has won millions upon millions of followers, from lonely women and tired men to Schopenhauer and Emerson.

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