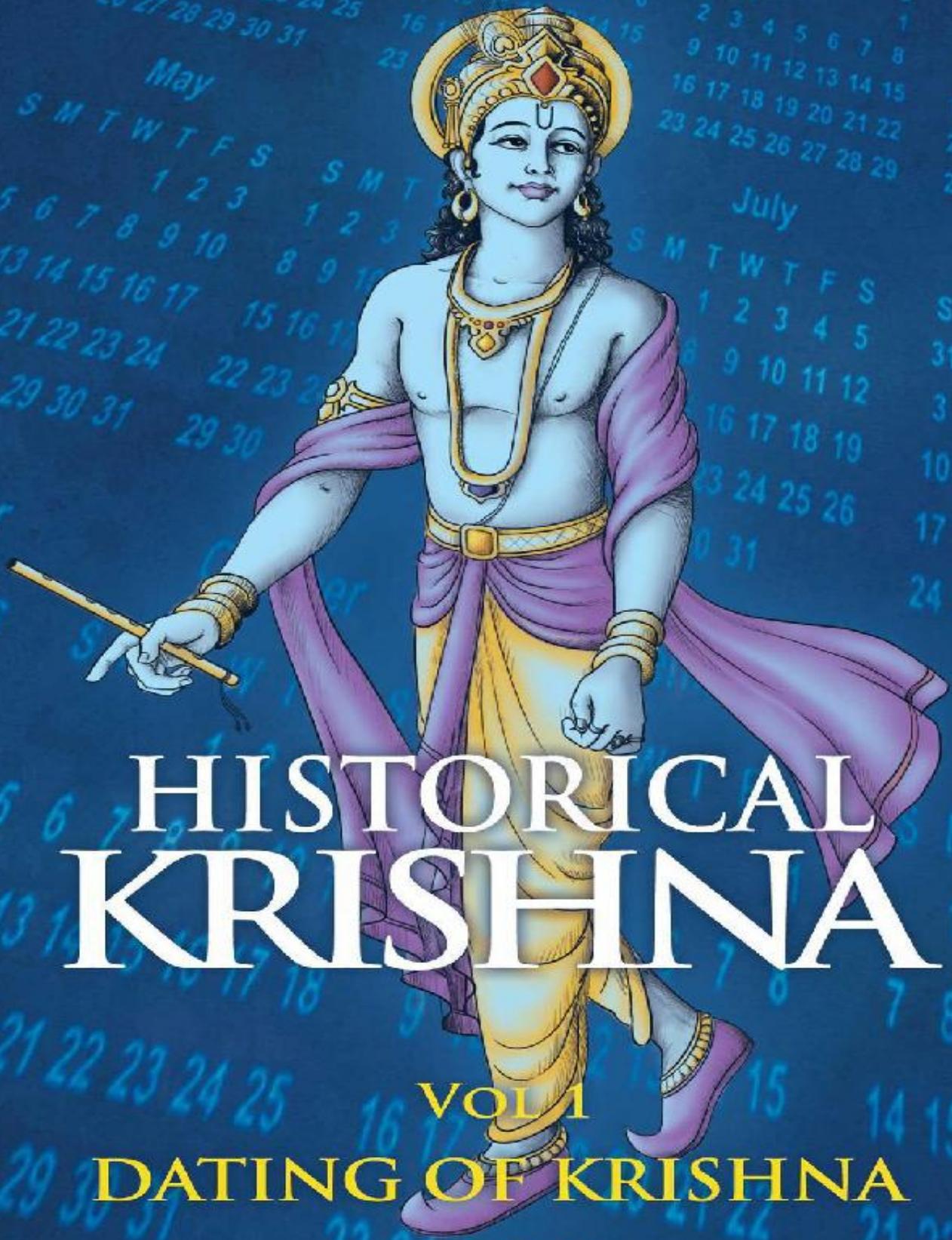




Bharath Gyan®



HISTORICAL KRISHNA

VOL I

DATING OF KRISHNA

D.K. HARI
D.K. HEMA HARI

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Back Cover

Krishna has been a subject of much intrigue.

Is He historical, mythical or divine? Who really was Krishna?

How did He get His name? When was He born?

Is the Mahabharata epic, a historical account?

This book is part of a journey into the past to search for answers to such questions that have intrigued many a mind. It is a search for India's lost history.

It uncovers the mystery behind how a 5000 year old history got reduced to mythology.

Historicity today entails dates as per modern calendar.

This book decodes the timestamp from the skies as recorded by our ancients, to scientifically establish Krishna and the Mahabharata in history with dates.



Bharath Gyan®

Sri Sri Publications Trust

The Art of Living International Center
Kanakpura Road, Bangalore - 560082.

Phone: +91-80-32722473 Email: info@srisripublications.com
For delivery of Bharath Gyan and The Art of Living products at your doorstep call Toll Free no. 1800-258-8888 or visit our website - www.artoflivingshop.com, www.bharathgyan.com

Cover Design

Krishna looks back in time.

Sky configurations from His days, which had time stamped events of His life have finally been decoded and mapped to dates as per modern calendar.

Krishna finds His rightful place in modern history.

This is an interdisciplinary approach to place Krishna in history.

This work is presented as 3 volumes.

Volume 1 – **Dating of Krishna**, arrives at dates for Krishna in the modern Gregorian calendar.

Volume 2 – **Footprints of Krishna**, traces Krishna across the geography of India.

Volume 3 – **Facets of Krishna**, looks at the different sides of Krishna to understand His historicity.

You are now holding Volume 1 **Dating of Krishna**.

Divinity is a matter of faith.
Historicity is a matter of existence.

18 19 20



D.K.Hari and D.K.Hema Hari are founders of Bharath Gyan, a knowledge initiative to compile and present the knowledge of India, its traditions, its culture, its global ties - in short, its ethos, from an Indian perspective.

This husband-wife duo of management and IT professionals who have turned research collators, have authored 12 books, many articles and a host of short films. They are also active on social media.

"This work is encyclopaedic."

- Dr. S .Kalyanaraman,
Sarasvati Research Centre

"This is monumental. This will appeal to the public."

- Prof. Narahari B Achar,
Memphis University, USA

"Beyond this, if someone wants further proof on Historicity of Krishna, they have to approach Devaki and Vasudeva."

- An Avid Reader



Bharath Gyan

HISTORICAL KRISHNA

Vol - 1

Dating of Krishna

D.K. HARI
D.K. HEMA HARI

Bharath Gyan Series

Benedictory Note



H.H. Sri Sri Ravi Shankar
Founder- The Art of Living

Krishna's historicity raises no doubts in the hearts and minds of a billion Hindus. It is some academicians who fashionably dismissed the historicity of Krishna. This book will pose some challenges to them. It will make them sit up and rethink about their imaginations, which they believed and made others believe as the gospel truth.

26 June, 2013
Bengaluru, India.

About Bharath Gyan



Bharath Gyan has been collating specific, scientific knowledge of India, using ancient knowledge sources and modern scientific tools and methods, from a present day perspective and relevance.

The knowledge of the Indian civilization is available scattered in various forms – books, manuscripts, oral tradition amongst scholars, various art forms, customs and traditions of the land.

The current generation is facing a barrier in reaching out to this knowledge due to the limited access to such sources. The ancient languages, the style of expression used and their approach to the subjects which differ from the present way of expression, pose a challenge too.

In Bharath Gyan, as part of our quest for the specific scientific knowledge and practices of the civilization, we have come across many stories, ideas, views, theories, factual events and statements.

With the help of traditional scholars with a modern bent of mind and modern scientists open to traditional knowledge systems, we have endeavoured to carefully sift through all this data, with an inquisitive, rational, logical and scientific mind to understand the knowledge from a fresh interdisciplinary perspective. The outcome of this analysis is the compilation of Bharath Gyan.

Over 13 years, spanning across 108 subjects, the independent facts and data collated, self validate and corroborate each other beautifully in this compilation, as pieces of a jigsaw.

Bharath Gyan, a not for profit, research organization, is in the process of bringing this knowledge out through far reaching and engaging mediums so that it can be easily understood and enjoyed by all across the world.

The objective is to bring out this knowledge and wisdom, with relevance to current day topics of interest, trials and tribulations faced by Indians as well as the world.

Besides filling the readers with wonder at the not-so-commonly known scientific facets of our ancient civilization, it is hoped that this knowledge and approach of the ancients will kindle or aid future research for the benefit of science and mankind.

Can we make the past converge with the present for the future?

Ours is perhaps not the first effort in this direction, neither should it be the last ...

As one of the initiatives, Bharath Gyan, encouraged by His Holiness Sri Sri Ravi Shankar, has entered into an alliance with the Art of Living group to jointly repurpose the compiled knowledge into various knowledge products for dissemination to the community at large.

Our website www.bharathgyan.com provides more insights into our activities.

Foreword



भारतीय इतिहास अनुसंधान परिषद्

Indian Council of Historical Research

(MINISTRY OF HUMAN RESOURCE DEVELOPMENT, GOVT. OF INDIA)

35, Ferozeshah Road, New Delhi-110 001

Professor Y. Sudershan Rao
Chairperson

Phone : 011-23386033, 23384869 (O)
Fax : 91-11-23383421
E-mail : chairperson@icahr.ac.in

I am grateful to Sri D. K. Hari and Smt. Hema Hari, for bestowing on me the great benefit of browsing their three volume typescript of “**Historical Krishna**” before it goes public.

Numerous works have come by now on various facets of Lord Krishna. Perhaps, ‘Historical’ may be a new title or attribute to Him. It is necessitated by the times now.

Though he declared Himself as *Kala* (the Time), Lord Krishna taught us through His life how to respect time in one’s earthly existence. In all our known past, right from the days of Creation, we witness a physically strong and powerful section of people known as *Danavas* at one time and ‘intellectuals’ who are wedded to *pratyakshavadain* the present times who questioned the existence of Lord Vishnu and His human incarnations. We have also seen that the devotees had to wait patiently bearing with all the insult and physical pain committed to them by this powerful anti-Vishnu section till some Prahlada like devotees or Vishnu-incarnations come down to earth and provide relief to those who are following the noble path. It is said in the *Vishnupurana* that Prahlada could at last make his father realise the Truth and later Hiranyakashyapa ruled for several years with devotion to Hari.

It is also said that Ravana knew that none else than Hari had come in the guise of Raja Rama and that he departed having realised the Truth. Even in our contemporary world, we personally know a number of our friends and family members who changed their line of thinking at least in their ripe age and realised that they were wrong till then.

The efforts of our Hari couple to make the present ‘intellectual’ world realise that Lord Krishna incarnated as Yadu Krishna and lived during such and such time may atleast help doubting ones to gain faith in their belief.

No doubt, the divinity of Lord Krishna was doubted by some of his contemporaries, but now his very historicity is being questioned by the modern ‘intellectuals’.

The western educated being separated from the traditional knowledge are following these ‘intellectuals’ blindly cutting off the branch on which they stand. The uneducated are still protected from these tendencies. I am not a specialist in the history of our ‘remote’ past. So I would only look at the question from a lay man’s point of view representing millions of lay-devotees.

Sri Rama and Sri Krishna are the heroes of the world’s oldest epics, the *Ramayana* and the *Mahabharata*. They are worshipped as very important incarnations of God, one as manifestation of *Dharma* and the other for Bodha (teaching) to guide men in the path of *Sanatana Dharma*.

The family trees of both Iksvaku and Yadu dynasties are clearly given in the Puranas with slight differences. Sri Rama had about 60 predecessors and about 30 successors in the line and the last ruler in the main line fought in the *Mahabharata* War on the side of Kauravas and he was killed by Abhimanyu, son of Arjuna. Later, the dynasty was split into many minor lines and Suddhodhana father of Siddhartha Gautama was the last ruler of a major sub-line as Siddhartha took *sanyasa* followed by his son, Rahula. Yaduvamsa (Yadu dynasty) came to an end quarelling among themselves after the departure of Sri Krishna as ‘cursed’ by Queen Gandhari.

The title ‘Ramayana’ itself means the life journey of Sri Rama written by none other than a Rishi (a ‘*Jnani*’) who was also a contemporary of Sri Rama. The title of ‘Maha Bharata’ (originally known as Jaya *kaavya* meaning victory to Dharma) is the history of Bharata *vamsa* connected to Chandra *vamsa*, the lineages are clearly given in the ancient literature. The writer was also a sage (Rishi- *Jnani*) who was not only a contemporary to Pandavas but also to three preceding generations.

Both of the writers were not only contemporary but they were also ‘participatory observers’ to use the terminology of modern “empiricists”. We find no parallel to such a phenomenon in the world’s ancient literatures of nations other than India. Both, Sage Valmiki of Ramayana and Sage Vyasa of Mahabharata stand role models for a ‘true historian’, being unbiased and truthful in their expositions. Though, both of them strongly believed that Sri Rama and Sri Krishna were none other than Lord Vishnu, they were keen in presenting facts as they happened impartially, leaving the judgement of the event to the readers.

To-day our intellectuals could criticize some of the actions of these great personalities, Sri Rama and Krishna, taking references only from these works.

Being devoted to Lord Vishnu, the sages could have hidden some negative references on the lines of some modern researchers who depend on select-data for their interpretations. But these great writers held Truth above even their venerable God. The birth-days of both, Valmiki Jayanthi and Vyasa Poornima, are being celebrated since times immemorial with great veneration in India. Their *Ashramas* are well identified. They have become pilgrimages being visited by thousands.

There are some ‘intellectuals’ who argue that the writers were real but not their ‘stories’.

In ancient Indian literature, Vedic literature is ‘heard’. Various Sastras are not fiction. The Purana, history of the Universe, was flashed to Sage Parasara, father of Sage Vyasa, as a ‘revived memory’. The subject-matter of later *Kaavya* literature was only taken from the earlier literature. Buddha’s Jataka stories are considered the stories of his previous births revealed to his disciples by the Buddha himself. Fiction writing has become more prevalent in the modern times when writing and printing have become gainful professions. By no means, we can bring the epic writers to the category of present fiction writers. The *Kathasaritsagara* or *Panchatantra* do not of course belong to the genre of modern fiction.

Both the epics give us a clear understanding of the geographical expanse of Bharat from Afghanistan in the north-west to Rameswaram in the south-east, and from Himalayan range in the north to the Dravidadesa in the south. The then inhabiting tribes -civilian and forest – are described. Their life styles, their customs and traditions, interrelations, social and political systems etc are also given to us very clearly. The geographical regions and political demarcations are described. The dynastic lineages are given. The events are narrated with the essential coordinates of time and space. The time is given so specifically that it is astronomically dated, the *tithi*, *nakshatra* constellations etc., which is more specific than modern dating.

As a text, the *Mahabharata* is more comprehensive than the *Ramayana*. The *Mahabharata* is also described as encyclopedia and revered as Fifth book of Veda. The Bhagavad Gita is considered the essence of Vedic knowledge guiding its followers in their *laukika* and *aadhyatmika* life. Lord Krishna’s *bodha* is meant for the present *Kali* times.

These facts are enough for a common man to believe the epic stories to be real and true. By raising doubts in the minds of Indian educated being alienated from their tradition about the historicity of Rama and Krishna, no good purpose will be served to the society by misleading people.

All the sites of *Ramayana* and *Mahabharata* are already identified. They are not only known to people since generations but they are considered pious *kshetras* for common man.

Mahabharata sites are identified archaeologically in the post-independent survey. Hastinapura, Indraprastha, Kurukshetra, Mathura, Dwaraka (submerged) are well known to every one. Kings from all parts of Bharat participated in the Great War. They along with their kingdoms are identified.

Archaeology suggests that the origin and growth of civilisation in the world could be traced to the end of last ice-age, may be around 10,000 years BP (Before Present). Many scholars -Indian and foreign - have brought out their theses on the date of *Mahabharata* War referring to the astronomical and scientific data given in the epic. Most of the modern works suggest the dates between 4500 BP to 5200 BP. Since about 30-38 rulers have succeeded Rama in Iksvaku lineage, the gap between Rama and Krishna should be as wide as 30+ generations. There were about 60

rulers before Rama in his line. Even by rough estimate, the origin of civilisation in India could be pushed back to a hundred generations from the Mahabharata times.

Early European scholars had arbitrarily fixed the average reigning years of a king to as low as single digit years. But, we find that all main characters of the epics, like Dasaratha, Dhrutarashtra, Bhishma, Drona, Krishna and others lived for quite a long time, some of them were even hundred plus. They, even at that age, were also active and strong. They fought a big war. By any estimate the hundred generations before Mahabharata might be in the range of about 3000 years on an average of 30 years (may be arbitrarily) for each reigning period. Thus, the state formation in India could be traced back to at least 8000 BP. We should not forget that even archaeological estimates or carbon analyses are also approximations but not precise. (I owe this understanding to *Sadguru, Mahamahopadhyaya, Dr K Sivananda Murtyji, D.Litt, Bheemunipatnam, AP*).

Here, the author-couple have endeavoured to answer the questions of many a doubting Thomas and presenting a scientific analysis of data available in the Mahabharata itself. They deserve a lot of appreciation from the scholars and serious readers.

Since the work has received the blessings of His Holiness Sri Sri Ravi Shankarji, it needs no more authentication.

I wish the learned couple all the best in their struggle for the cause of Sanatana Dharma.

Dated: 10.12.2014



(Y. Sudershan Rao)

Preface



D.K.Hari and D.K.Hema Hari
Founders, Bharath Gyan

While people at large accept the divinity of Krishna, some, at the same time, have doubts about the historicity of Krishna. This book is an effort to understand Krishna from a historical angle and bring out the fact that Krishna, a hero of the land of India, was indeed historical. Krishna had walked and lived on this earth, some time in the remote past.

When precisely is this remote past?

Do we have proof of His historical existence?

This book aims to shed light on the historicity of Krishna, using logic and science.

Out of Syllabus

Religious expressions of Krishna, the miracles attributed to Him and detailed discussions on philosophy, *Nishkama Karma* and the *Gita*, are not the focus of this book.

Historicity and Divinity

Some may feel that we are taking away the divinity from Krishna with this effort of trying to establish His historicity.

The idea here is not to offend the religious sentiments of such people. On the contrary, with the relegation of Krishna and the events of His times, to the status of a myth, the basis for His divinity itself is put to test too.

If there was no Krishna, how can He be divine?



Just Halo, an aspect of divinity sans historicity and
Lord Krishna, a combination of historicity and divinity

While divinity is a matter of faith, historicity is a matter of existence.

If the stories of Krishna are to be believed to have been true, then Krishna must have walked this earth.

In this effort, we are responding to those who tend to dismiss Krishna as a myth of cooked up stories.

Infact, once we are able to establish in our minds that Krishna was really a historical person, then those who are seeking the divine Krishna will find themselves a lot closer in established time and space, to cherish and revere Him better.

Krishna's times

The period that Krishna walked this earth, was tumultuous. A major war was fought.

It was epoch changing times. *Dwapara Yuga* was coming to an end and the world was entering into *Kali Yuga*. This change of *Yuga* was not an event

that occurred because of the birth and life of Krishna in that period. It was a unique astronomical event and the lifetime of Krishna overlapped with that period.

The occurrence of this unique event then, helps us now, to date the events during the times of Krishna, rather precisely.

Geography from Krishna's Times

If a person has to be historical, then he must have walked on this earth and those places on the earth, must be identifiable today.

There are indeed a plethora of places connected with Krishna's lifetime that can be identified in India today. The region around Vrindavan and Mathura, collectively known as *Braj Bhumi*, where Krishna was born and played His delightful childhood pranks, still goes by the same name and tradition.

We have Dwaraka, a city that Krishna got built for Himself and His people to live in.

If within this geography, archaeological remains from remote antiquity, mapping well into the life and times of Krishna can be found, then these will form ground evidences, if we are to have any. At the same time, the mere absence of such remains, cannot conclusively deny either the historicity of Krishna or the geographical location of the events of His times.

Literature Speaks Volumes

This land has had a continuity of literature mentioning the events in the life of Krishna with specific details. Such details are not sketchy accounts but are details that offer enough material for a detailed study to understand the historicity of Krishna and the events of His times.

An Interdisciplinary Approach

Converging results from a multi-pronged approach using inputs from literature, geography, archaeology and other disciplines can give the credibility that one would look for in establishing the historicity of Krishna.

Till recent times, the fields of history and sciences were distinct subjects, separate from each other, like parallel lines that do not meet. Today however, history needs the help of science to get uncovered and authenticated.

In modern times, sciences have to be judiciously used, correctly too, to prove the historicity of not just Krishna and Rama, but also a host of other such historical personages and events the world over.

This multi-disciplinary approach to any field of study is essential to move forward in an era where science is at the forefront.

Historical Personages



Mohandas Karamchand Gandhi

Mohandas Karamchand Gandhi was a historical person in India.

We have no doubt about this because we have all seen photos and films on Gandhi. We still have in our midst, people who have seen and interacted with Gandhi in flesh and blood. The memorabilia left behind by Gandhi including his writings, can still be seen on display in museums and private collections.



[Robert Clive](#)

Robert Clive, the first British Governor General of India, who paved the way for the British colonial rule in India, is also a historical figure. The British have kept meticulous records and sketches of their exploits in India and Robert Clive figures prominently in them.

Akbar, the Mughal emperor is also a historical figure of India. Akbar figures prominently in the history books of our schools. The buildings that Akbar built are available with us today in Delhi, Agra and Fatehpur Sikri.



[Akbar and Fatehpur Sikri](#)

Ashoka, the great Mauryan emperor who fought the bloody Kalinga war and who, immediately after, in repentance, embraced Buddhism, is also a historical figure. The edicts of Ashoka, the Ashoka pillars and the *Stupa* that he built are prominent monuments of India.



Ashoka and Ashoka Pillar - Vaishali

Alexander the Great, the Macedonian king who conquered most of the civilizations of the ancient world and came upto the north western part of India, is also a historical figure as noted from tales in Greece, Egypt, Turkey and Persia.

Challenges to History

It is fascinating to see how the imprints left behind by historical personages have blurred with time.

Starting with memorabilia and photos from recent past we find only portraits as we go back in time. Going further back, we only have monuments. Still further back we have stray edicts and inscriptions alone. Further still we find only oral history. Beyond that, we only have legends.

Evidences to prove the historicity of personages thus become less and less tangible as we go back further and further in time.

Fading Tangibility, Going Back In Time

3112 BCE	Krishna		Palm leaf	
326 BCE	Alexander		Tales	
300 BCE	Ashoka		Edicts	
1550 CE	Akbar		Fatehpur Sikri	
1790 CE	Robert Clive		Portrait	
1900 CE	Gandhi		Spectacles	 <p>A small photograph showing Gandhi holding his spectacles. The photo is mounted on a card with handwritten text in Devanagari script.</p>
			Letters	
			Photos	

If evidences have already blurred with the times of Alexander around 300 BCE, what can we expect to find from the times of Krishna to prove His historicity?

In the case of Krishna, apart from oral legends, there are written palm leaf manuscripts going back by many hundred years, supported by carvings and images going back to thousands of years.

The native, history keeping tradition of India, has kept alive the legends from the past. The traditional scholars of India had followed a meticulous style of record keeping on palm leaf manuscripts and rewriting them on newer ones, as they age, thus passing them down from generation to generation, until recent times.

In the case of Krishna, we have with us today, the work authored during the lifetime of Krishna Himself. It is the epic, *Mahabharata*, which is called an *itihasa*, history of this land.

We also have with us today, the submerged city of Dwaraka, which is an archaeological remain of the city built by Krishna, along the sea coast.

There are many more literary and archaeological proofs of Krishna, among other proofs, very similar to what we have of the other similar historical personages we have seen above.

Krishna is also revered as God Himself by many, the world over. The basis for ascribing divinity to this historical personage is beyond the scope of this work as faith is something that transcends the boundaries of mere written or oral communication.

While Krishna is a historical persona and a God to many, He has been made a myth in the last couple of hundred years, consequent to the writings of the colonial historians on the history of India.

Emperor Ashoka too was in a state of a myth till about 150 odd years ago. The historicity of Ashoka was established in the modern history books of India only when James Prinsep, a British historian who lived in Calcutta around 1830 CE, stumbled upon an edict with the word Devanampriya Piyadasi, which through his research in 1836 CE, he successfully managed to link back to Ashoka.



The Prinsep monument by the Hooghly River in Calcutta

It is only after this, that the historicity of Ashoka was recognized and accepted. The historicity of Ashoka has not been doubted since. But for this research and linking by Prinsep, Ashoka would have stayed on as a myth.

Similarly, with regards to historicity of Alexander and his visit to India, there are no records in India that describe such an event. The tales of Alexander and records of a few historians such as Arrian, Strabo, were collected from all across the world between Greece to Persia and compiled into books on Alexander. Places were associated with Alexander as well as images to thus reconstruct a coherent history for Alexander.

Today, with all these evidences, there is no ambiguity about these personages having lived on this earth and in their life time having left an indelible impression on history. They are historical figures with historical dates.

Similarly, Krishna is also a historical figure.

The way in which, in the 1840s, by the collective work of some colonial historians and archaeologists, the historicity of Ashoka was established,

which we have since then unambiguously adopted in our history books. Similarly, in the last couple of decades, there has been a sustained effort by quite a few researchers to establish the historicity of Krishna from an inter-disciplinary perspective.

This work may also be added to this collective effort as our contribution to re-establish the historicity of Krishna.

Challenges in Presenting

There are so many evidences for the historicity of Krishna from various disciplines and sources, that more than the challenge of collating them, the bigger challenge in front of us was how to present them.

How to present them with technical details but still keep it lucid, easy to figure?

How to present them in logical sequence but still retain the interdisciplinary connect?

How to present them with sufficient details but still keep it manageable in size?

Keeping all these in mind, for the convenience of readers, we have split this work into 3 volumes currently.

Volume 1 – Dating of Krishna which deals with facts from history, literature and archaeo-astronomy that go towards establishing the historicity of Krishna as well as ascribing dates to Him and the events in His life.

Volume 2 – Footprints of Krishna which deals with imprints left behind by Krishna and His people on the Geography of this land. Evidences unearthed through archaeology, both on land and underwater are used to examine the historicity of Krishna and the places connected with Him and His people.

Volume 3 – Facets of Krishna. Establishing the historicity of Krishna does not still answer many of the mysteries and myths that shroud Krishna. This volume is dedicated for unearthing the facts behind the various facets of Krishna to understand Him better as a historical personage.

You are now holding **Volume 1- Dating of Krishna.**

Here we shall examine facts that not only establish the historicity and time period of Krishna but also provide insight into the history and historicity of India along with that of another popular son of India, Gautama Buddha and that of the *Mahabharata* text itself.

Let us get to know Krishna, as a historical person who also walked this earth, like other historical personages.

D. K. Hari

D. K. Hema Hari

17th August 2014

Sri Krishna Jayanthi, Janmashtami

5126th Birth Anniversary of Krishna

Acknowledgements

We have been singularly fortunate to have been born in this land of ancient wisdom and seers. We owe a lot to our parents who have brought us into this world and provided us with the right education, upbringing and guidance. The values and traditions of this ancient civilization inculcated in us by our family and teachers are what have formed the basis for our work at Bharath Gyan. We owe a lot to our family and friends for their continued support and encouragement in our endeavour.

Having embarked on our quest, many scholars, thinkers and students of the knowledge of India have come forward and helped us in this collation. Some have helped by offering data and some through their questions that made us think and look for the data.

Many traditional scholars have patiently tolerated our inquisitiveness and have laboriously searched and retrieved from the ancient texts, the data we had requested of them and explained the same to us in simple layman terms. Without their mastery over old and new, their knowledge, their mind-set and support, this bridge from the ancient to the present day would never have been built.

Then faced with the task of dissemination, many friends and experts have come forward to review our works and take it to stages of production and distribution. We owe a lot to their support, without which this compilation could not have seen the light of the day.

We are indebted to His Holiness Sri Sri Ravi Shankar for the faith reposed in us and our work and for offering us a platform, to share the knowledgebase we have collated, with the community at large.

We would be failing in our character, if we do not acknowledge more importantly, the unseen forces which have connected us up with these right sources of information and noble people just in time, just as we were looking for the information and help.

The list is therefore very long and words fail us to thank everyone sufficiently. Hence we take refuge in the all encompassing words of the 18th century Indian poet Saint Thyagaraja –

Entharo Mahanu Bhavulu Anthariki Vanadanamulu

There are many noble persons (behind this work) and we salute them all.

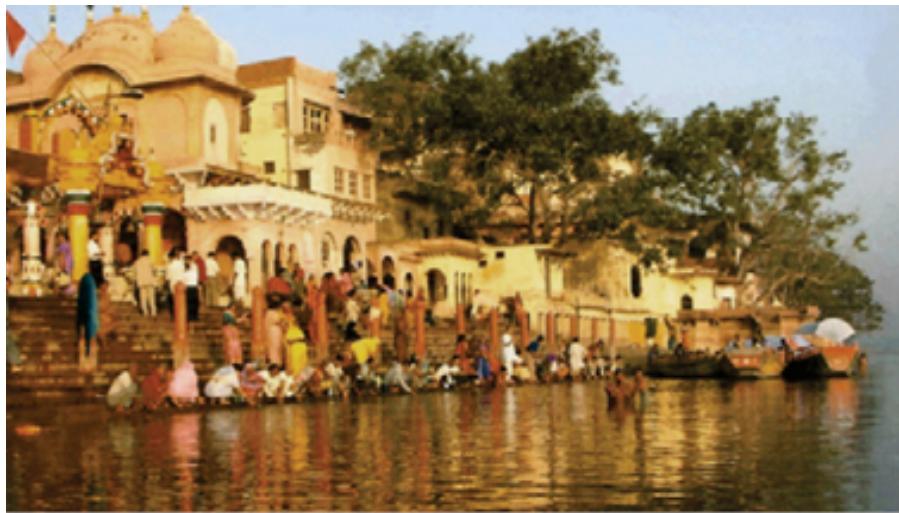
D K Hari

D K Hema Hari

PART ONE – GETTING TO KNOW KRISHNA

The Story of Krishna

Once upon a time, on the banks of the Yamuna, in the ancient city of Mathura, ruled by a despotic king called Kamsa, was born a dark and delightful baby boy, called Krishna. Krishna was born in the *Vrishni* family, in the lineage of *Yadu*.



Mathura City by the Yamuna River

Krishna was born to Princess Devaki and her husband, a Noble called Vasudeva. Devaki was the sister of King Kamsa and Mathura was the capital of his kingdom.

Born in Captivity

It had been prophesized that Kamsa's doom would be wrought about by his own sister, Devaki's eighth child. Hence Kamsa had imprisoned her with her husband and killed every one of their children as soon as they were born. Krishna was the eighth born child to Devaki and Vasudeva and He was born in the middle of the night in the prison of Kamsa.



Kamsa visiting Devaki and Vasudeva in jail to take away their child – an illustration

Soon after Krishna's birth, as though in answer to Devaki and Vasudeva's earnest prayers to save Him from Kamsa, the prison cells opened and Vasudeva walked out of the prison carrying the just born Krishna.



Krishna born in prison

It was a windy and rainy night and Vasudeva had to cross the river Yamuna in spate, to take the baby to his friend, chieftain Nanda in Gokul, for safety. Vasudeva held the baby aloft over his head as he entered the river. To his amazement, the waters were parting to make way for him to cross and it was as though the baby was being shielded from the rains, by the hood of a snake.



Krishna being carried by Vasudeva across Yamanu River in spate

Krishna thus reached the household of Nandagopa in Gokul, on the other side of the Yamuna.

Growing Up In Love

Krishna grew up as the son of the local cowherd chieftain, Nanda and his wife Yashoda. He therefore came to be called Nandalala or Nandakumara, meaning the son of Nanda.

Krishna was very dear to Yashoda. Yashoda's love for Krishna is spoken of as one of the highest examples of motherly love, the likes of which is considered unparalleled. The ir relationship, spiced with Krishna's antics, forms an integral part of folklore, to this day. It is for this that Krishna is also called *Yashodanandana*, son of Yashoda, as much as He is called *Devakiputra*, son of Devaki.

News of the new born Krishna in Gokul, somehow reached the ears of Kamsa. Suspecting this child, Krishna to be the eighth born child of Devaki, Kamsa sent many emissaries in different forms to kill the baby. But it was in vain as Krishna miraculously managed to thwart all these attempts and killed the emissaries instead.

Fearing for the life of Krishna however, Nandagopa migrated to Vrindavan with his people.

A Child prodigy

Krishna was a child prodigy. His childhood was marked with extraordinary feats and many pranks.

As a child, Krishna was very fond of butter, which He and His friends stole from the houses of the other village folk as a regular prank.

He charmed the cows, the cowherds, *Gopas* and milkmaids, *Gopis*, with His flute and danced with them. The stories of His lovable pranks have come to become legendary.



Krishna with His friends, stealing butter

One of the popular incidents was when He swallowed some mud. Eating mud is an impulsive act of many children. But when Yashoda prised open Krishna's mouth to clear the mud, she could see the whole Universe in His mouth.



Krishna's mother seeing the whole universe in His mouth

This event is usually taken literally as a manifestation of Krishna's divinity. It can also be seen as a poetic expression of how Krishna was the world for Yashoda or how as a child prodigy, His knowledge was universal in range and depth.

There are numerous miracles attributed to Krishna, right from the moment of His birth.

Even as a child, Krishna subdued the venomous snake, *Kaliya*, in the nearby river Yamuna.

There are many legends describing how Krishna vanquished the terrible assassins who were sent by Kamsa to kill Him, such as Putana, Arishtasura, Aghasura to name a few. Krishna single handedly, even as a child managed to overpower them with His extraordinary powers.

Leaves Vrindavan for Mathura

Krishna left Vrindavan for Mathura with Balarama, His brother, on Kamsa's invitation, when He was twelve. There Balarama and Krishna were challenged by Kamsa's wrestlers, Mushtika and his wrestling partner Chanura to a wrestling bout – *Mallayuddha*. Mushtika and Chanura were killed in this bout. Krishna then took on the vile Kamsa and killed him too.

He then freed His parents, Devaki and Vasudeva from captivity, as well as His maternal grandfather Ugrasena, from whom Kamsa had usurped the kingdom.

Thereafter, Krishna reinstated King Ugrasena on the throne.

The death of Kamsa angered Jarasandha, who had given his two daughters in marriage to Kamsa. He attacked Mathura to take revenge. Krishna and Balarama stoutly defended the citadel of Mathura from the repeated attacks of Jarasandha, seventeen times over the next few years.

Krishna was about twelve years old when He left Vrindavan.

For Krishna to have excelled in warfare in His teens, clearly goes to suggest that He was a precocious child.

Leaves Mathura For Dwaraka

The repeated attacks of Jarasandha and his allies on Mathura were taking their toll on the army and the people of Mathura. Krishna therefore decided to move away from the continuous local feuds of this region. He moved away with His people to the western coast of India and built His own city there, called Dwaraka.



Location of Dwaraka

At Dwaraka

Krishna established the port city of Dwaraka by reclaiming land from the sea. He then settled down to a married life in Dwaraka with His eight wives.

Krishna exhibited various facets of His personality throughout His life, such as charisma, mischief, love, war strategy, friendship, concern for society, scholarship, philosophy, rationality to name a few besides divinity.

Krishna's Cousins – The Pandava

Krishna's paternal cousins, the *Pandava*, were born in the Himalaya, north of the Sarasvati River, around the same time as Krishna's birth. They were the sons of King Pandu of Hastinapura who had retired to the forest to recuperate with his two wives Kunti and Madri.

While in the forest, Kunti gave birth to three sons and Madri to two. Their names were Yudhishtira, Bhima, Arjuna, Nakula and Sahadeva. Krishna and Arjuna were of the same age. King Pandu died young and Madri joined King Pandu in his death, leaving behind Kunti with their five young sons.

Kunti accompanied by the five children, returned to the Hastinapura kingdom which was under the care of Pandu's elder brother, the blind Dhritarashtra.

Dhritarashtra and his wife Gandhari, who had also blindfolded herself sympathizing with her husband, had hundred sons called the *Kaurava* and one daughter. The eldest among the *Kaurava* was Duryodhana. The *Kaurava* and the *Pandava* princes grew up studying together.

Duryodhana, from his childhood, considered himself to be the defacto heir to the throne of Hastinapura and cherished the desire, to one day, rule over Hastinapura. He therefore harboured animosity towards his cousins, the *Pandava*, who were considered by all as the rightful heirs to the kingdom of Hastinapura, who also excelled during their training regimen.

Start of troubles for the Pandava

When it was time for Yudhishtira, the legal heir to Hastinapura, to be declared crown prince, Duryodhana struck a plan of doing away with the

Pandava. Under the guise of good will, he hosted them in a palace in *Varanavat*, in the forest. He had this palace made of wax with the intention of burning them all alive. The *Pandava* who were advised about this just in time, escaped by building an underground tunnel that took them out safely into the forest.

Winning Draupadi in Marriage

After their escape, they wandered in the forest in disguise, bidding their time till they were prepared to stake claim on their rights to the kingdom. During this period they heard about the *Swayamvara*, marriage contest of Draupadi, the princess of the Panchala kingdom. They made their way there with the hope of winning her hand and thereby the alliance of her father Drupada and his powerful kingdom.

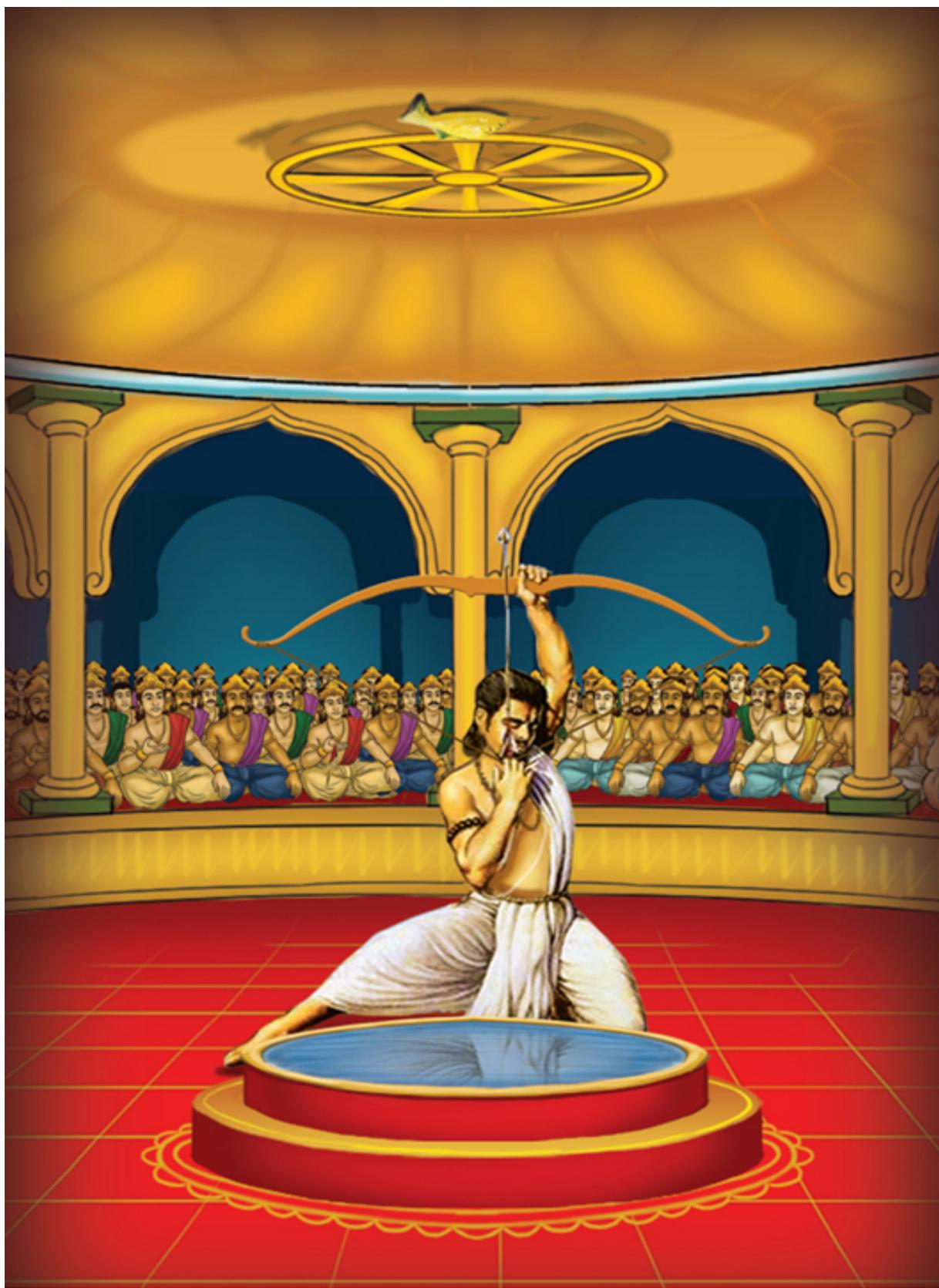
The prospective suitors in the *Swayamvara* were faced with the tough task of shooting at the eye of a revolving fish by looking at its reflection below, to win Draupadi's hand in marriage. Arjuna, the ace archer among the *Pandava*, accomplished this task with ease and won Draupadi's hand in marriage.

Krishna Meets the Pandava

It was at this *Swayamvara* that Krishna met His cousins, the *Pandava* brothers for the first time in the *Mahabharata* story. Krishna had come to the *Swayamvara* as a guest of honour.

After this contest, it came to be known that the victor was Arjuna in disguise and that the *Pandava* were still alive.

As atonement for the wrong that had been done by Duryodhana, Dhritarashtra requested the *Pandava* to return to Hastinapura. He offered them one half of the Hastinapura kingdom, albeit a barren half called Khandavaprastha. The *Pandava* established their capital there and called it Indraprastha.



Arjuna aiming at the revolving fish during the contest

Krishna's Support to the Pandava

From here on, Krishna became a very close friend and ally of the *Pandava*. A life long bond developed between them. Krishna counselled the *Pandava* princes during the trying times thrust upon them by their cousins, the *Kaurava*.

End of Jarasandha

After a few years of rule, Yudhishtira decided to perform the *Rajasuya Yagna*, an act that would establish him as an emperor. Jarasandha who was also aspiring to establish himself as an emperor was a common threat to both Krishna and the *Pandava*.

Krishna, Bhima and Arjuna went to Magadha Desha of Jarasandha where Bhima challenged Jarasandha for a physical duel, *Mallayuddha*. In this duel, Bhima tore Jarasandha into two, thus ending forever, the menace of Jarasandha for Krishna and the *Pandava*.

Times of Misfortune for the Pandava

Soon after the *Rajasuya Yagna* however, the events took a hapless turn for the *Pandava*. They were defeated through deceit, in a game of dice with Duryodhana and lost everything including their kingdom. To further humiliate them, Draupadi was shamed in the assembly. The *Pandava* were sent on exile for thirteen years with the condition that the thirteenth year was to be *aghnyatha vas*, incognito, failing which they would have to repeat the thirteen years of exile.

War Times

After completing the thirteen year exile as per the terms agreed, when the *Pandava* were still denied their rightful share of the kingdom, the stage gets set for a great war. At this juncture, the *Pandava* seek Krishna's counsel.

Krishna, A Peace Ambassador

Krishna goes on a Peace Mission to mediate with Duryodhana and the elders of Hastinapura for the rightful share of the *Pandava*. He proposes an amicable settlement to avoid war.



Krishna as *Pandava Doota*, a Ravi Varma Painting

Krishna, for this role as a peace emissary, is called as *Pandava Doota*, the emissary of the *Pandava*. However, His peace mission failed, as the *Kaurava* refused to relent. Krishna returned to the *Pandava* after fixing the date for a war.

The Great War

Kingdoms from different parts of India, as well as around India, offered their support to the two warring sides and assembled at the war theatre with its epicentre at Kurukshetra.

At Arjuna's request, Krishna joined the side of the *Pandava* under condition that He would not take up any arms and would only don the role of a charioteer for Arjuna. His army, on the other hand, was enlisted by Duryodhana for the *Kaurava* camp.

This war is called the *Mahabharata* War or the Kurukshetra War.

Krishna – Friend, Philosopher and Guide

Just before the start of the epic battle between the cousins, Arjuna, the great warrior in the *Pandava* Army, has apprehensions about waging the battle. He is tormented by the thought of fighting against an army which, apart from his estranged cousins, comprised of his grand uncle Bheeshma, the foremost and noblest son of their clan, Drona, his *Guru* in archery and a whole host of others whom he respected.



Gita Upadesha

Krishna, who had donned the role of charioteer for the duration of the war, counsels Arjuna on the purpose and meaning of life, the roles that one has

to play and on the concept of one's soul. This *upadesha*, counsel of Krishna, on the battlefield to Arjuna, is called the *Bhagavad Gita*.

After listening to this *upadesha*, Arjuna steels himself for the battle in front of him, as an act of duty that he has to perform.

Krishna thus was Arjuna's "friend, philosopher and guide", in the complete sense of this phrase. If at all one is looking for a real example for this phrase, it can be seen in the relationship between Krishna and Arjuna.

While this eighteen day battle to the finish was bloody for that generation, the *Bhagavad Gita Upadesha* of Krishna to Arjuna, offered solace to mankind, for the next 5100 years of the Indian civilization and continues to do so till date.

Krishna's Revelation

During this *Upadesha*, Krishna revealed His true self, *Vishvaroopa Darshan*, to Arjuna.



Krishna's Vishvaroopa Darshan to Arjuna

This *Upadesha*, counsel and the *Darshan*, vision have since, deified Krishna in the minds and hearts of the people of the land.

A Brilliant Warrior and Strategist

Krishna was a great innovator in warfare, which is why, during the Kurukshetra War, Arjuna was happy to choose Krishna, who had refused to take up arms in the battle, instead of the *Yadava* Army.

The strength of the army of the *Pandava* and *Kaurava* was in the ratio of 7:11. The *Pandava* Army, though numerically smaller, won the battle in the end, due to strategic advice from Krishna.

Last Few Years

After the war, Krishna settled down in Dwaraka while the *Pandava* ruled Hastinapura justly. It was 36 years post the war. Krishna called His *Yadava* folk together and forewarned them of an impending threat to Dwaraka. He advised them to migrate to the lands in the East, West and South.

Krishna Himself retired further down the coast, to Prabhas Pathan where He was mistakenly felled by the arrow of a hunter.

Many, who followed Krishna's advice to migrate, carried the stories of the heroic deeds of Krishna worldwide. Some, continued to remain in Dwaraka to fight the bitter internecine war called the *Yadava* Civil war, for the rule of Dwaraka.

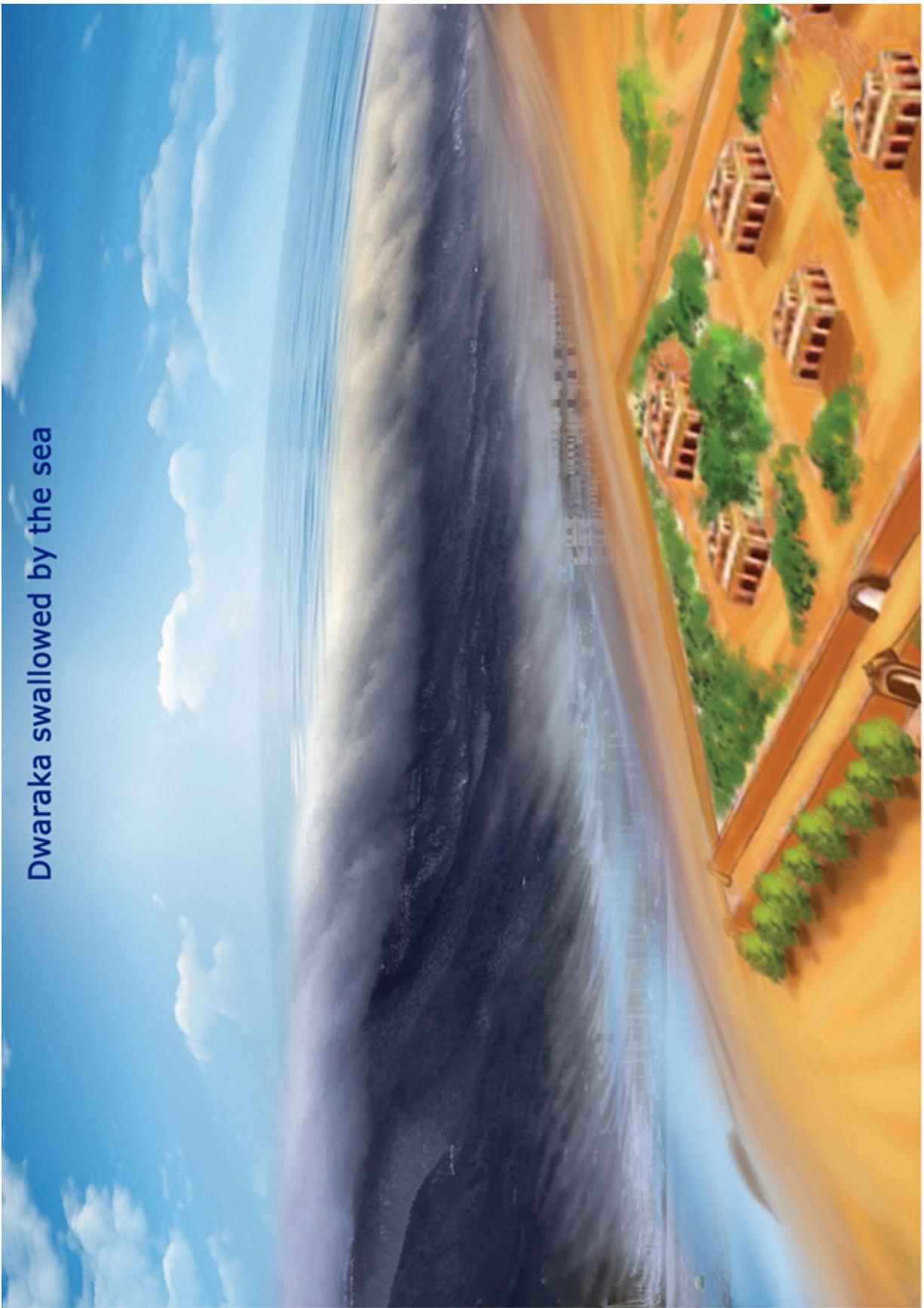
Dwaraka submerges

Soon after Krishna left this earth, the whole city of Dwaraka was washed away by the sea. This city of Dwaraka, established by Krishna by reclaiming land from the sea, though a magnificent city, was but a short lived city.

End of a Saga

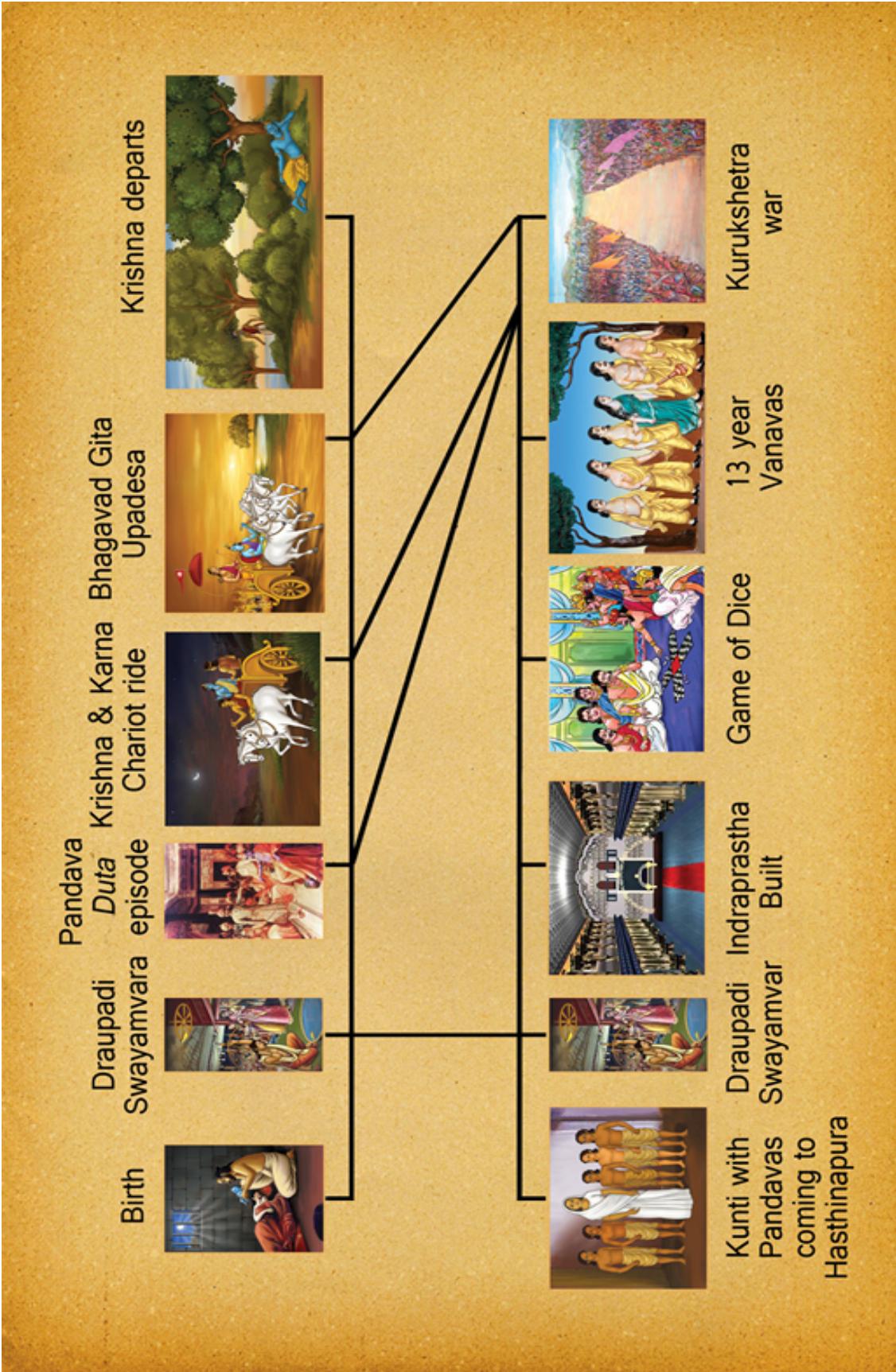
Post this major catastrophe and having lost their dear friend Krishna, the five *Pandava* princes along with their wife Draupadi, ascended the *Swaragarohini* mountains in the Himalayan range to shed their mortal

coils, having lived the purpose of their life. This brought to an end, the saga of the *Mahabharata*.



Dwaraka swallowed by the sea

Intertwining of Krishna's and the Pandava's lives



THE INTERTWINING

Krishna's life thus ran parallel with that of the *Pandava*, at times intertwining and at times distantly engaged in other pastimes.

Krishna's life and pastimes are found detailed in certain texts. The life of the *Pandava* and the events around their lives have been found chronicled in certain other works.

The beauty lies in how the sequence and description of events in these independent texts dovetail into each other perfectly.

This would not be the case if Krishna was a myth.

CONTINUITY OF LINEAGE

King Parikshit

Krishna was particularly close to Arjuna, third among the *Pandava* princes who were His paternal cousins. Krishna's sister Subhadra was married to Arjuna.

It was King Parikshit, the grandson of Arjuna and Subhadra, who continued the lineage of the *Pandava*.

Veda Vyasa, the author and Grand Sire

Krishna Dwaipayana, who is reverentially known to us as Veda Vyasa, was the biological grandfather of the warring princes, the *Pandava* and the *Kaurava*. He was recording for posterity, the events that were unfolding between his grandchildren. When he saw a war was imminent between his grandchildren, he looked to the sky for omens. What he observed of the astral movements, he recorded in detail, in his autobiographical work which he called *Jaya*, meaning "victory". This has come down to us today as the epic, *Mahabharata*.

With the help of the recorded sky observations of Vyasa, today we can date the events of *Mahabharata* and the lifetime of Krishna, to the precise day.

WHO REALLY WAS KRISHNA?

On more than a few occasions in His life, Krishna showed that He was God incarnate, an *Avatara*. Through the ages, He has therefore been venerated as *Bhagawan*, God, along with being remembered as an *Itihasa purusha*, a historical person.

World history is replete with many historical heroes who have been elevated and revered as divinity post their period.

Krishna, however, has the singular distinction of having exhibited Himself as God incarnate, to different persons even during His own lifetime.

But that does not detract from His historicity. While Krishna is divine, it is also a fact that He is a historical person of this land and we shall see how through this work.

Many a Krishna

MEANING OF THE WORD KRISHNA

There were many a Krishna during Krishna's time itself.

The term *Krishna* means dark, dark hued.

Krishna, the central character to our book, is often in poetry and songs, referred to as *Megha Shyama*, meaning “*dark as the rain bearing cloud*”.

THE PROMINENT KRISHNAS

Three Krishnas

There have been many a dark hued persons through the times in this land and since the word “*Krishna*” denotes dark hued, more than a few of them have been called Krishna.

To avoid confusion, the central character of this book Krishna, the Yadava Prince, is often referred to as “*Devakiputra Krishna*” meaning “Krishna, the son of Devaki”.

The author of the epic *Mahabharata*, whom we reverentially call Veda Vyasa, was named Krishna at birth, for he was also dark. He was called *Krishna Dwaipayana* meaning “Krishna, the island born” as he was born on an island in the middle of a river, to Satyavati who was a boat woman.

Veda Vyasa is a title given to him, as he had also compiled the four *Veda* and organized them in a format which is in vogue to this day. The word *Vyasa* means “a compiler”.

Draupadi, the wife of the *Pandava* princes, was also named Krishnaa at birth. She was also dark hued in colour.



Devakiputra Krishna & Devakiputra Krishna & Draupadi Krishnaa

Why only people? Even rivers were named Krishna.

Krishna is the name of a mighty river flowing in Andhra Pradesh. Many think that this river was named after Devakiputra Krishna. But this river is also referred to as the elder sister of Ganga, which means that this river and its name are treated as feminine gender. The original name of this river is actually *Krishnaveni*, meaning “dark plaited”.

BLUE NOT BLACK

In *Samskrt*, the word “*Neela*” is used to denote any dark substance.

In northern parts of India, until a few years ago, the local way of commenting that someone has tanned or become dark, was by using the word “*Neela*”.

Neela also means “dark blue”. So, in Indian imagery we find the colour dark blue associated with dark and not black. This can be seen in visual representations in the form of a blue coloured Devakiputra Krishna, Draupadi and so on.

It can also be seen from some of the ancillary names given to Krishna such as *Neelamegha Shyama*, meaning “dark as the dark cloud”.

USAGE OF THE WORD KRISHNA

Krishna Paksha

The moon, every month, goes through two cyclical phases of a fortnight each, called *Paksha* in *Samskrta*.

The waxing phase, in which the moon grows brighter day by day is called *Shukla Paksha*. *Shukla* means “white”, “fair”.

The other phase of the moon, where the moon grows darker day by day is called *Krishna Paksha*.

Clearly the term *Krishna Paksha* has come about due to its association with darkening and not due to its association with an individual by name Krishna, as many are wont to think today.

Krishnamayam Jagat

There is an ancient popular phrase - “*Krishnamayam Jagat*.”

This has been simply expressed by those who eulogize Krishna, to say that Lord Krishna fills this entire world, *Jagat*.

When we look at this same phrase from a scientific level, it offers us a completely new meaning.

Krishna, we now know, means “*dark*”.

Mayam as a suffix, qualifies the word preceding it. *Mayam* denotes “being possessed of”, “being encapsulated” in the quality denoted by the preceding word.

Jagat at a basic level means “this world”. It also means “anything that is moving”, “that, which is moving with good speed”, “moving with life”. All these are true for this world. Hence it is called *Jagat* and also *Jag* in Hindi.

The universe is also called *Jagat*, as everything in this universe is also moving. The word *Jagannath*, Lord of the Universe, comes from this word *Jagat*.

What is further relevant to us today, from the phrase, *Krishnamayam jagat*, is that, everything in this universe is encapsulated in darkness. Darkness pervades everywhere.

Modern science states that, only 4% of the universe is made of matter that can be seen. The rest, 96 % of the universe is in the form of dark energy and dark matter. This dark energy, dark matter, is dark and unseen through known forms of vision, natural or otherwise, because of which it is called “dark”.

So this world is indeed prevailing in darkness. Suddenly this phrase *Krishnamayam jagat*, throws new light.

Is this our own interpretation, taking cue from modern scientific findings and trying to give a new meaning to an old phrase?

Our earlier works **Creation – Srishti Vignana** and **Understanding Shiva**, in the Bharath Gyan series, on the traditional description from the *Veda* and the *Purana*, on how this Universe was created, show that this meaning of *Krishnamayam jagat*, does not seem incredulous, but indeed eminently possible.

This universe is indeed *Krishnamayam*.

WHAT IS IN A NAME?

The name “*Krishna*” for Devaki’s son was chosen by *Rishi* Garga, the son of *Rishi* Bharadwaj and Garga’s wife Susheela. This *Rishi* Garga is also referred to as *Garga Muni*. He was the preceptor of the Nanda family.

After being safely taken out of cruel Kamsa’s prison and across the river Yamuna in spate, Krishna was brought up in the Nanda family. Krishna’s naming ceremony, *Namakarana*, therefore took place in the Nanda household. .

Krishna is called *Nandakumara*. One explanation is that He got this name as He grew up as the son, *kumara* of the chief Nanda.

But technically, the chief came to be called *Nanda Gopa* as he had offered protection to the little boy.

Nanda means young one and *gopa* means to cherish, to protect. *Nanda gopa*, is the one who protected the *Nanda*, small one.

We see this usage of *Nanda* in the other names for Krishna Himself such as *Yashodanandana* - young one of Yashoda, *Devakinandana* - young one of Devaki, *Yadunandana* - scion of the Yadu clan and also names of Rama such as *Raghunandana* - scion of the Raghu clan and *Dasarathanandana* - young one of Dasaratha.

How did He get the name Krishna?

Namakarana, The Naming Ceremony

On the *Namakarana* day, Garga *Muni* sat in meditation in front of this dark, captivating child. In his meditation, he divined this name “*Krishna*” for the child.



Garga *Muni* in meditation before baby Krishna
at His naming ceremony

As His Holiness, Sri Sri Ravi Shankar says,
*“Prayer is the way of speaking to the Divine.
Meditation is the way of listening to the Divine.”*

This method of sitting in meditation, listening to the Divine and naming children accordingly, has been a traditional practice of the land. This is the role played by an elder in the family or the preceptor or a realized soul in whom the family has faith.

A name has a few components to it.

- Every name denotes certain attributes.
- Every name is an aspect of Nature and has a lyrical flow to it, which is calming.
- Utterance of the name each time makes one reflect on the qualities represented by the name.

A sound mix of all these factors makes calling out a name a resonating experience for both the caller and the person called.

A repeated hearing of that name moulds the behaviour of the child towards the same divination as well.

It is only when a child is explained all this, can the child live up to all the qualities represented by the name, lovingly divined by parents and elders.

This is the significance of the *Namakarana* ceremony.

Garga Muni's Divination

Perhaps Garga *Muni*, in his meditation during the *Namakarana* ceremony of Krishna, saw in the eyes of the dark and beautiful child Krishna, the dark and deep whorls of the unfathomable Universe and hence named Him “*Krishna*”, “meaning the dark one”.

True to the name divined for Him, Krishna on many occasions, right from His childhood, revealed the secrets of the dark Universe and the profound meaning of life in this Universe.

So, what is in a name? Well, everything seems to lie in a name!

A Rose by any other name may not smell as sweet.

A Chrysanthemum though by another name, would have been easier to spell.

Krishna - Mythology or History?

1. Mathura, the place where Krishna was born
2. Vrindavan, by the banks of the Yamuna river, where He played pranks with His childhood friends and the local milkmaids
3. Dwaraka, the place He made His capital
4. Jyotisar in Kurukshetra, the place where Krishna gave *Bhagavad Gita*, His *Upadesha* on life and its purpose
5. Mul Dwaraka near Somanath, the place where He decided to leave His mortal coils, are all real, historical places in the geography of India.



In each of these places, the memories of Krishna are enshrined in commemorative temples.

The legends of these places tally well with the geography of these respective places.

What is interesting to note is that, till about 200 years ago, no Indian doubted the historicity of Krishna.

Krishna had always been a Historical Hero of this land.

What then happened to make Krishna a mythological figure?

PART TWO – COURSE OF INDIAN HISTORY

From History to Mythology

During the colonial period, some European historians, applying so called “scientific methods”, reduced the legends of India and heroes such as Krishna, Rama and other kings of those times to the status of a myth.

For, an antiquity of India that went beyond 5000 years prior to their times, was not acceptable to the European colonial historians. This was because during their times, the prevalent thought was that the world itself had been created only on 23rd October, 4004 BCE.

The European colonists were the political masters of India then.

If European history did not go back beyond 5000 years, then how could it be possible for Indian history to go back over 5000 years?

It was not acceptable for them that India could have a history more glorious and more ancient than their own. Given this mindset of the colonial historians, it was but natural for them then, to reduce ancient Indian history to mythology.

What then is the antiquity of India's history?

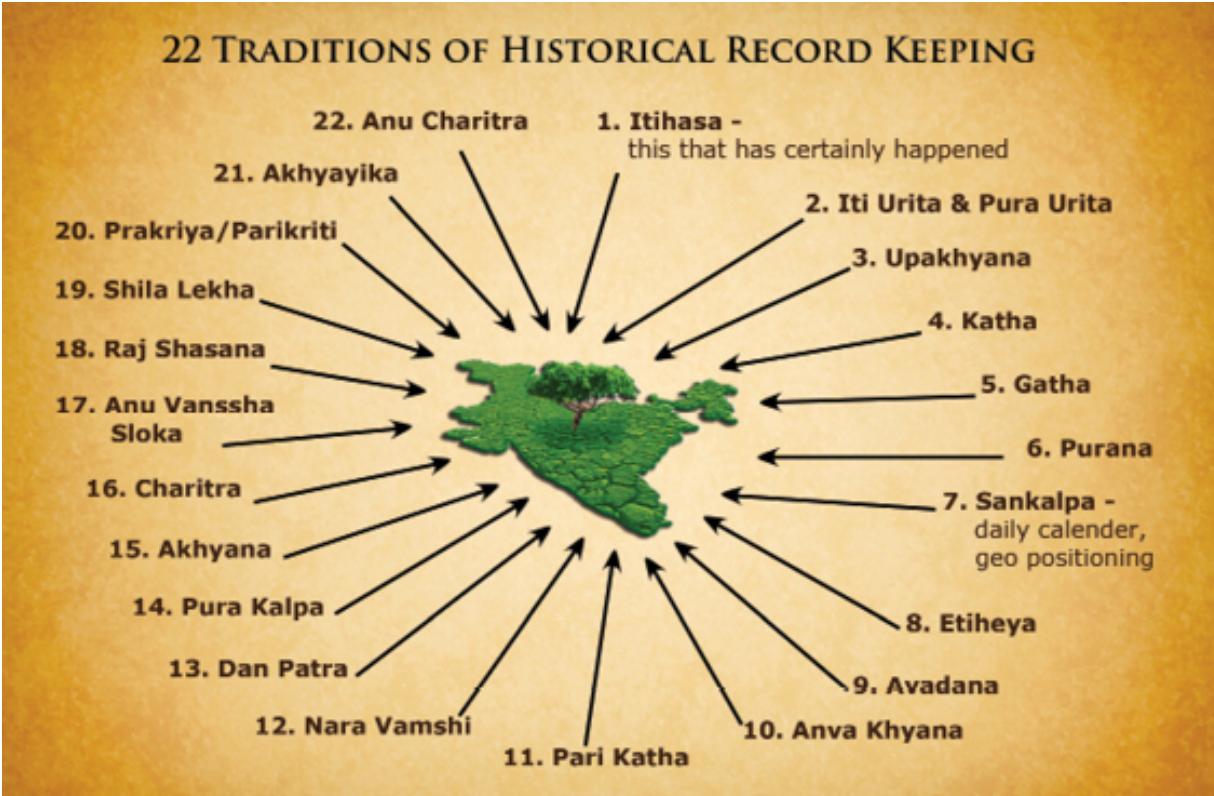
How was it recorded?

INDIA'S RECORDING OF HISTORY

India has had a very long recorded history for thousands and thousands of years.

In fact, there are atleast 22 different ways of recording history and sharing that with the people for their collective good.

22 TRADITIONS OF HISTORICAL RECORD KEEPING



22 Traditions of Historical Record Keeping

Of these, the better known records of ancient Indian history are the *Puranic* legends and the *Itihasa* epics. There are 2 *Itihasa*, 18 main *Purana* and many *Upa Purana*, ancillary *Purana*.

PURANA

Purana, as the name suggests, are texts that embody ancient legends. This body of writing contains popular expositions of knowledge and history inherited by the people from their ancestors.

They deal with wider aspects of subjects such as:

- Life
- Human activity

- Culture
- Religion
- Philosophy
- Economy

The *Purana* sometimes combined stories of real life personages with symbolic personification of scientific and natural phenomena.

Thus the *Purana* are more than plain historical records of kings and their victories. The list of Kings, *Vamsavali*, is just a small component of the *Puranic* records. The *Purana* contain moral values and scientific information as well.

Purana	No. of Sloka
Brahma	10,000
Padma	55,000
Vishnu	33,000
Shiva	24,000
Bhagavata	18,000
Narada	25,000
Markandeya	9,000
Agni	15,000
Bhavishya	14,000
Brahma Vaivarta	18,000
Linga	11,000
Varaha	24,000
Skanda	81,000
Vamana	10,000
Kurma	17,000
Matsya	14,000
Garuda	19,000
Brahmanda	12,000

Focus – Indian Ethos

Each *Purana* had a focus and highlighted different aspects of life or individuals. The *Bhagavata Purana* focused on highlighting the divinity in Krishna.

The ancient Indian historians had realized that the civilization had been existing for many tens of thousands of years and chronological dating of events had little meaning while talking of such long spans of history.

Instead, the recorders of the *Puranic* legends focused on recording history as stories to inculcate moral values in the people of the land.

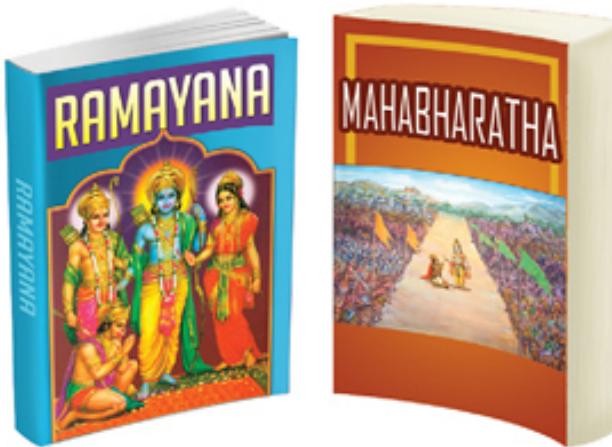
Does this mean that Indian records do not have proper dates?

THE *ITIHASA*

The two *Itihasa*, great epics of India are the *Ramayana* and *Mahabharata*.

“*Epic*” is the English word for these long texts.

In all Indian languages, they are still called *Itihasa*, meaning historical texts of the land.



The *Ramayana* and The *Mahabharata*

These two texts alone, among all ancient texts in India, have been traditionally termed as *Itihasa*, meaning “it thus happened”, as these two *Itihasa* describe the unfolding of events in the lives and times of Rama and Krishna respectively, in a chronological order.

The historical aspect of *Ramayana* and of its central character Rama has been dealt in detail in our book, “**Historical Rama**”, which is a part of the Bharath Gyan series.

AN UNDERESTIMATION OF INDIAN TEXTS

The *Itihasa* and *Purana*, were all written during different periods, by different authors, in different regions, with different focus. Yet they all conform to a similar framework. Inspite of the vast expanse of subjects,

the time span and geographies that they cover, the contradictions are relatively fewer. By and large, they are internally consistent in their genealogy, geography and record of achievements of the various individuals who have walked through this land across times.

These texts are structurally and ideologically very different from the other works of India which have recorded the sciences and technologies such as *Veda*, *Upanishad*, *Brahmana*, *Siddhanta* and other treatises.

This speaks volumes for the amount of organized writing and recording that has existed across India, across the times.

The fact that the *Purana* and *Itihasa* overlap in their characters and there are internal consistencies in the genealogies and records of deeds across the *Purana* and the *Itihasa*, also indicates that these were not written about some fictional characters.

Rather, they were records of real individuals and real events.

They were records of history, actually.

Hence, to say that India had no system of recording history or writing, defies logic. Such a viewpoint only reveals a deliberate and systematic prejudice.

Specific historical details were available in India, as we shall see in this book, as we go along. Yet the colonial historians twisted and contrived Indian history. Why did they do this?

REASONS FOR TWISTING INDIAN HISTORY

Dating

We talk here, not of the one involving romance but of the dating of an event as per calendar.

To understand the dating of events, we need to understand the psychology of peoples and their respective cultures.

In the Indian culture, more than the chronological dating of events to calculate the elapsed time, noting the day of occurrence in terms of the sky configuration that day, took primacy.

The objective was to recollect that day, every year in the Indian calendar in remembrance of the *Dharma*, the principles that the event stood for.

In stark contrast to this thought of India, the historiography methodology of the medieval historians of Europe was trained on the chronology of their kings and their wars.

We should understand this thought process from the situation the medieval European historians came from.

HISTORY SHAPES HISTORIOGRAPHY

European Dark Ages

Europe was just coming out of 1000 years of bloody, dark ages, where free thought was labelled Pagan and was crushed ruthlessly in the process of establishing Christianity in the European continent. Between 400 CE and 1400 CE, the history of Europe is bloody and murky.

Given this background, the medieval European historians had to contend with chronicling shorter time intervals of history such as between 600 BCE to 400 CE and 1400 CE onwards.



Dark ages, Europe

Focus of European History

Since the medieval European historians came with this baggage, their timeline of writing history was only a few hundred years wide, due to which, in their historical methodologies, their focus was more on the chronology of the kings and the wars they fought and won or lost.

In Europe, reading and understanding history was not viewed as a moral lesson, as it was in India. Teaching of morals was left to the Church.

This school of thought and flow of events determined the historiography methodologies of medieval Europe.

Short Sight

When the medieval European historians looked for ancient history, their window for ancient history was very limited with mainly a 1000 year period of Greek and Roman history, spanning 600 BCE to 400 CE.

The Egyptian civilization, which was nearby at hand, although its history went upto 3000 BCE and was far more ancient than that of Europe, was not considered in the main stream of European history, for it had been annihilated.

This mindset of medieval Europe, well explains the school of thought of the colonial British and other historians in writing the history of India and other parts of Asia which they colonized one after the other.

Connecting India and Europe Historically

In order to bring Indian history on the same timeline as that of Europe, early colonial historians such as Elphinstone and others were looking for a common bridge between European and Indian historical personages. The one obvious link that they could establish between Europe and India from ancient history was Alexander, who had come upto the borders of India.

They therefore came up with three base points revolving around Alexander for setting the dates of Indian history.

1. *Alexander's invasion had to form the sheet anchor for Indian history.*
2. *No event in India prior to visit of Alexander in 327 BCE, could be considered historical as dates could not be fixed.*
3. *Only after Alexander's visit did culture flow into India and until that time, the Indians were barbarians.*

ALEXANDER'S VISIT - A BENCHMARK ?

Alexander II was the son of King Philip of Macedonia. While today Macedonia is a part of Greece, in those times it was a separate kingdom.

From his teens, Alexander displayed proficiency in military skills and even during his father's reign proved his worthiness to be a successor by the successful completion of the military missions that he took up.

King Philip's sudden assassination made Alexander the king of Macedonia when he was barely twenty.

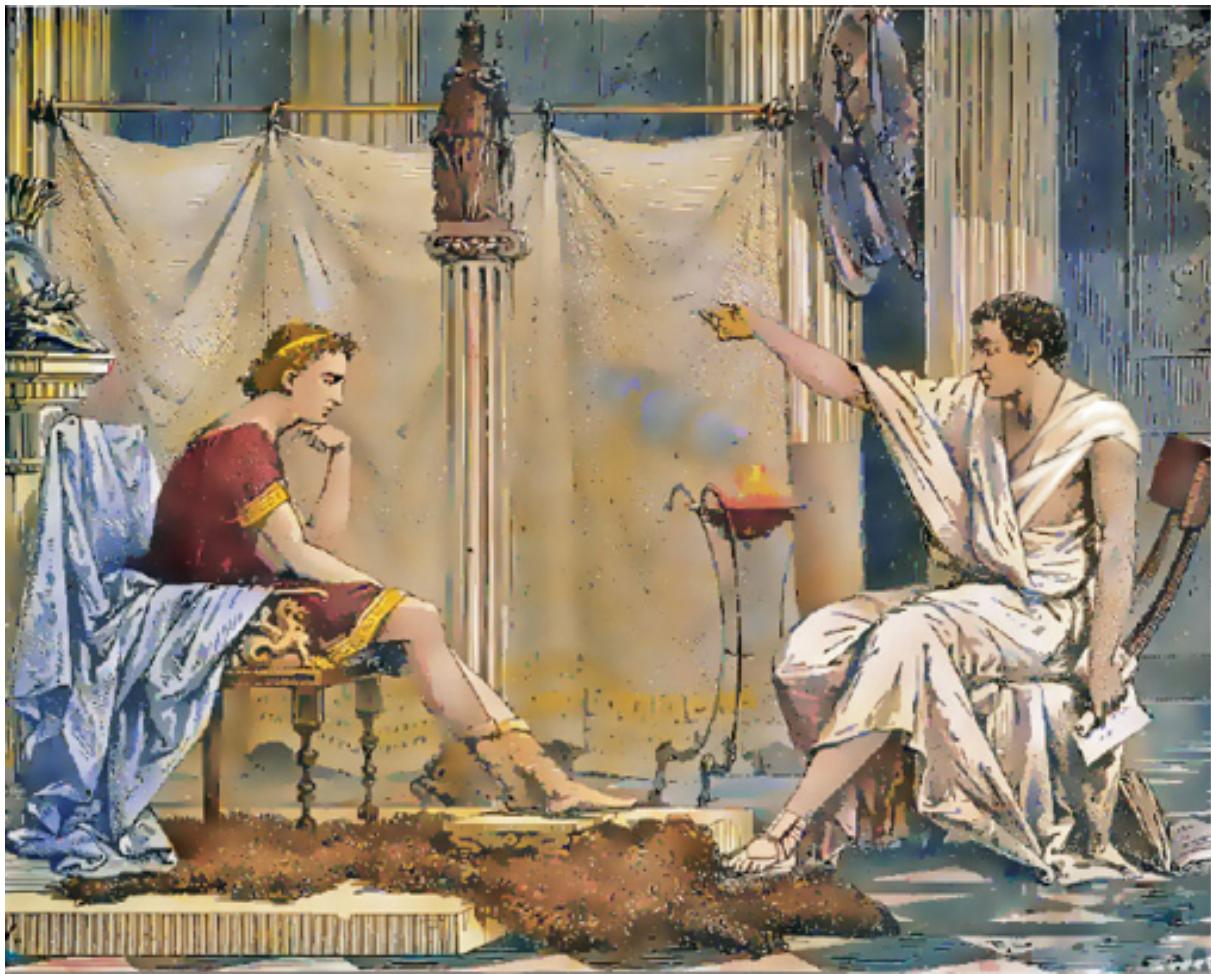
The arch rivals of the ancient Greeks were the Persians. There was a 200 year old enmity between the two as a result of wars that had been fought repeatedly between them before the times of Alexander, during the 5th century BCE. At times the Greeks had the upper hand while at other times, it was the Persians.

Alexander's young, aggressive blood was eager to score a victory over Persia to prove his might to the world. He therefore set out to conquer Persia. He was barely 25 then.

He already had the rest of Greece, including Thrace, under his control. Enroute he captured Egypt, Asia Minor, Babylon and many other kingdoms in between, growing from strength to strength, before he finally declared war on Persia. King Darius III of Persia with all his strength could not resist Alexander's army for long. He was finally defeated by Alexander and the wealth of Persia came into the hands of Alexander.

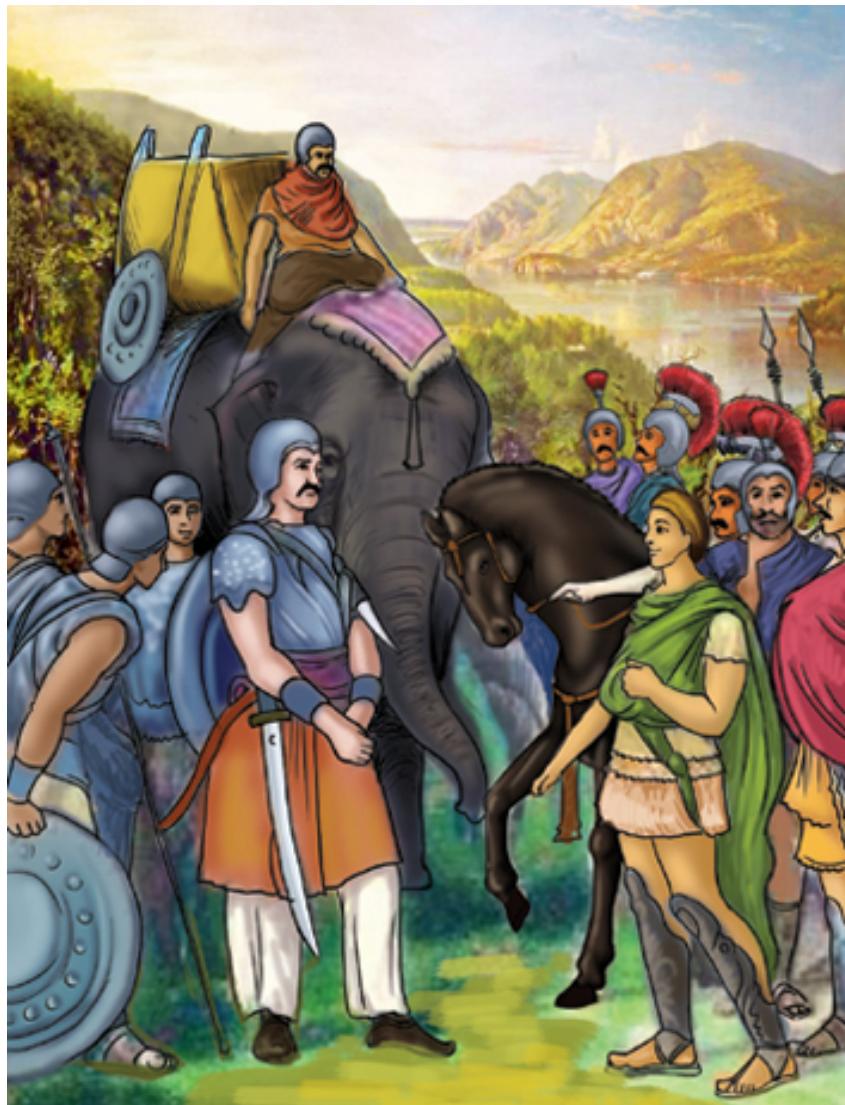
All these victories earned this Macedonian king the name "Alexander the Great".

Aristotle, the celebrated thinker of Greece, who had been Alexander's tutor, had advised Alexander to go all the way upto India in his expeditions, if he could.



Alexander being advised by Aristotle

He had told Alexander stories of India's prosperity, culture and wisdom. He had also advised Alexander that there were many wise men in India and if at all Alexander were to meet any of them, he should treat them with respect. He had also requested Alexander to bring back some of them, so that he could interact with them to exchange knowledge.



[Porus meets Alexander](#)

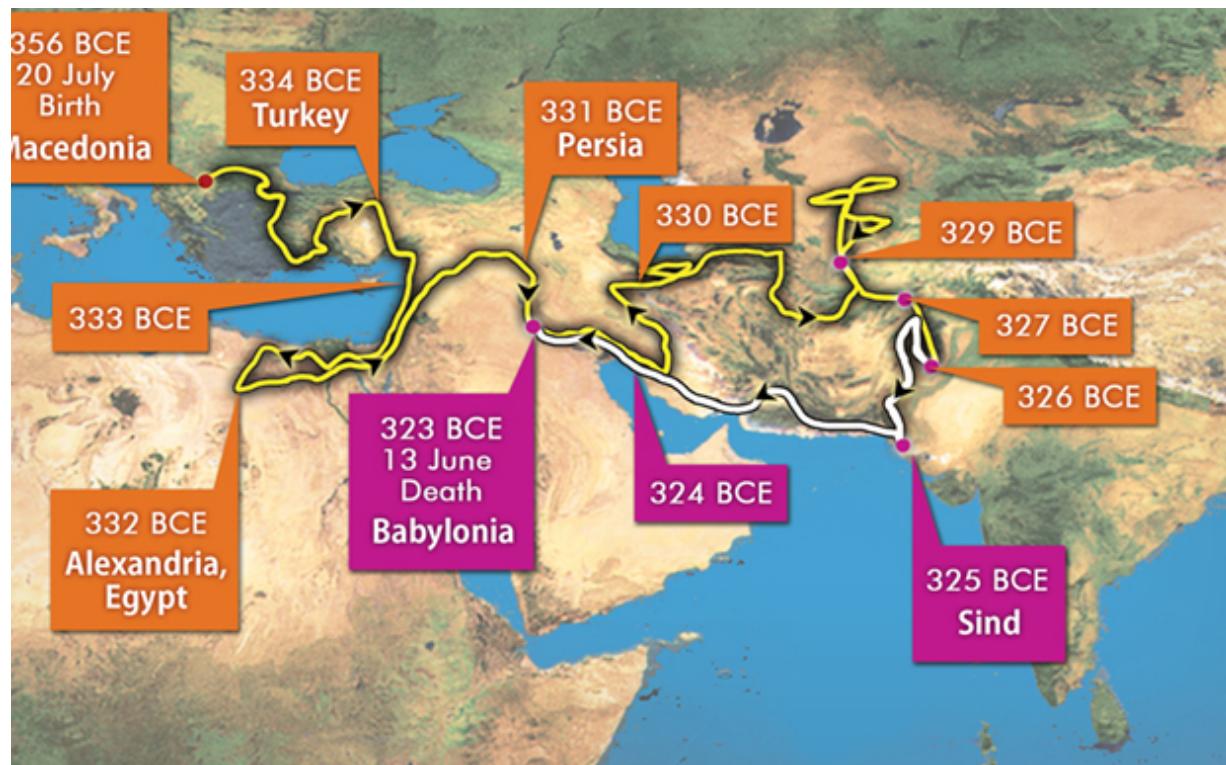
Alexander had also heard about the river Ganges and the peacocks of India and cherished a desire to see them. Hence after conquering Persia, Alexander was now ready to start his march to India.

This Alexander the Great came upto the northwestern borders of India where he was stoutly opposed by a local border chieftain Pururava, referred to as Porus by the Greek.

Alexander was injured, defeated by Porus in that battle. He was pardoned and allowed to withdraw his forces, which was the norm of battle in India

those days. These norms of warfare are discussed in detail in our work **Autobiography of India** in the Bharath Gyan Series.

More on Alexander's defeat by Porus can be found in our work **Breaking the Myths of India**, in the Bharath Gyan Series.



Extent of the march of the army of Alexander

SUMMING UP ALEXANDER'S "VISIT TO INDIA"

Alexander did not come into India

Alexander's visit to the borders of India is well documented in European history. In contrast however, there is nothing written about Alexander's visit to the north west borders of India, either in the *Purana* or other historical texts of the land. It is only in the history of India written by the colonial historians that Alexander's visit to India was given any importance.

This non-existence of reference to Alexander in Indian texts is probably because his entry into the plains of India had been arrested at the northwestern frontiers itself, by the border chieftain Pururava.

Alexander defeated by Pururava

Contrary to the popular view held by many, especially Indians, Alexander did not defeat Porus, Pururava. Instead, Alexander the Great was defeated by a local border chieftain, Raja Pururava or Porus and this battle was not considered important enough by the Indians to warrant a mention in the pages of Indian history.

Colonial Mind At Work

For the colonial historians though, an European being defeated by an Indian border chieftain was unacceptable. Hence they twisted history, writing that Alexander defeated Porus but gave Porus back the kingdom and due to soldier fatigue, decided to turn back to Babylonia.

Alexander the Great, was the only ancient European link to India that these colonial historians could establish with ease.

For these colonial historians, who wanted to use this invasion of Alexander as the benchmark of Indian history, Alexander could not be shown as a defeated king.

The history of India as written by the colonial historians, was tweaked for many reasons. To show Alexander as a victor, was one of them.

India is yet to unshackle itself from these tweaks of its history.

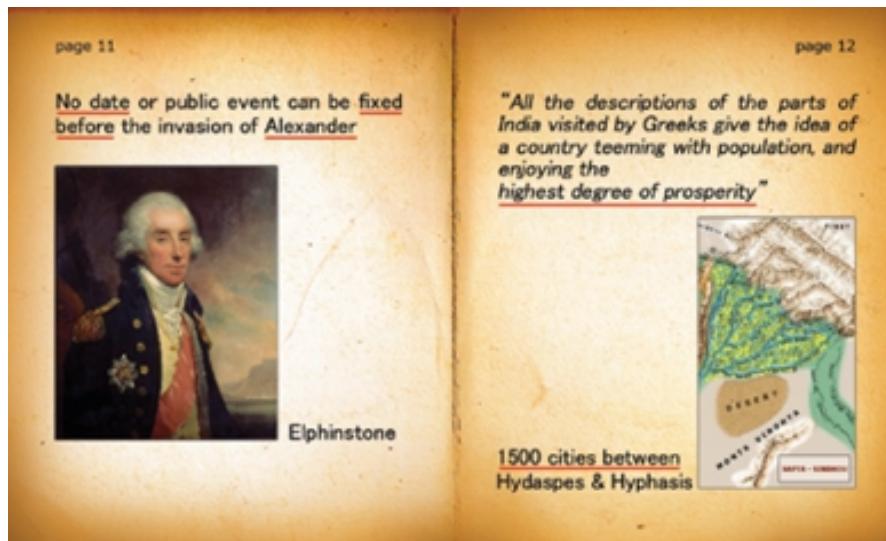
THE CONTRADICTIONS

“No dates or public event can be fixed before the invasion of Alexander.” wrote Elphinstone in Page 11 of his book, “History of India”.

In stark contrast to this statement, in this same book, in the very next page, page 12, he clearly states that, *“all the descriptions of the parts of India visited by the Greeks give the idea of a country teeming with population*

and enjoying the highest degree of prosperity, living in 1500 cities between the rivers of Hydaspes and Hyphasis".

Hydaspes and *Hyphasis* was what they called the rivers of the *Sapta Sindhu*, the rivers that water the modern day state of Punjab in North West India. *Hydaspes* refers to the river Jhelum and *Hyphasis* was their name for the river Beas.



The stark contrast

How could a civilization so advanced and prosperous not have had a history?

The inability of the Europeans to find amongst their archives, a dated event connecting Europe and India prior to Alexander, did not necessarily mean that India did not have her own history, historical records or dates for events in her history. The Indian texts *Mahabharata* and various *Purana* do speak of a glorious civilization, during the times of Krishna.

Such points clearly illustrate the inconsistencies in the colonial historians' recordings.

For the European colonists, the very thought that India was more civilized than Europe, was detrimental to their ruling of India.

How could Indians, barbarians, in their opinion then, who had no culture, have had 1500 cities of high prosperity?

How could civilization have been possible in India, before the Greeks came and made India civilized?

So, the glorious past of the whole Indian civilization had to be reduced to a myth.

LONG TIMELINES OF INDIAN PAST

The colonial historians, trying to write the history of India, also carried with them the medieval European thought on Creation.

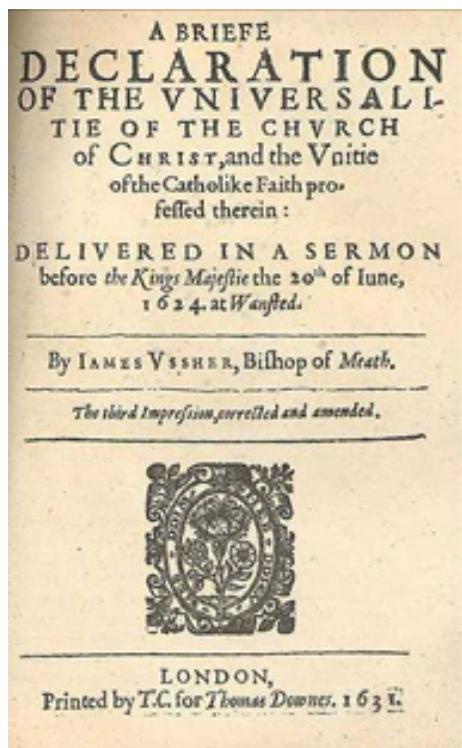
Medieval European Creation Theory

It was deep in their minds that the world was created by God at 9AM on 23rd October, 4004 BC.



Rev. James Ussher

This date had been expounded by Rev. James Ussher, Arch Bishop of Ireland, in 1624 CE. He had declared the date and time of Creation as 9 AM on 23rd October, 4004 BC and had issued a proclamation that, “anyone who will say anything else about it will be considered a heretic”.



James Ussher's Proclamation

The underlying understanding of this proclamation was that, no civilization could have flourished before 2500 BCE because after Creation in 4004 BC, there would have been effects of floods for about 1000 to 1500 years, before any civilization could form and settle down and before kingdoms could start to flourish.

Compare this with the stories in the *Purana*.

The *Purana* talk about prosperous kingdoms, rich in wealth, culture, knowledge, technology and skills that go beyond even present day understanding. The *Purana* talk of long genealogies with men, women and children of great beauty, character, arts, integrity, divinity and power, all of which come with culture. The *Purana* speak of accomplishments, extraordinary feats, large scale battles, trade, navigation, strategies, politics, administration, morals and law, all of which come with advancement in thought.

In a nutshell, the *Purana* spoke of a state of civilization that is hard, even by today's relatively open standard of thinking, to comprehend. Imagine

what this would have meant for people coming straight out of the restricted thinking of the Dark Ages.

When the *Puranic* information of India and the ground evidences in India went against the upper ceiling date of 9 AM, 23rd October, 4004 BCE, the colonial historians were constrained to constrict the genealogies and dates of India to fit within this ceiling.

A medieval, unscientific theory of Bishop Ussher of Ireland, determined the length of Indian history and the antiquity of its civilization. Unfortunately, it is this history of India that many still read today around the world.

It is a history that has sadly not been corrected. The historical baggage thrust upon India is yet to be shed by the Indian mind.

Today it has been scientifically proven beyond any doubt that God did not create the world at 9 AM on 23rd October, 4004 BCE.

This aspect, as well as the ancient Indian view of not only the Creation but what caused Creation, is dealt in greater detail in our book, “**Creation – Srishti Vignana**”, which is a part of the Bharath Gyan series.

So, without this medieval baggage, we should take a relook at the timeline of Indian history, from its true perspective, using modern scientific methods to understand its antiquity.

Let us start with taking a relook at the historicity of Krishna in particular and through Him, Indian history in general.

Re-establishing Historicity of Krishna

In this effort of re-establishing the historicity of Krishna, we shall use similar scientific reasoning, as was applied by the colonial historians, but with current scientific techniques, data and applications, to look at Krishna's historicity afresh.

AN ENCOURAGING PARALLEL

Before embarking on this process, let us look at a similar parallel from Europe.

The places mentioned in the Bible were all thought to be mythical as the medieval European scholars could not pin it down to present day geography and the places known today by their present day names.

When Ur, in present day Iraq, was identified with the place Ur mentioned in the Bible, in what was known as Mesopotamia in those days, it opened up the floodgates for Biblical history. All of a sudden, people realized that the places mentioned in the Bible could be real and could be geographically located on this earth.



Ur in Persia

They discovered that if interdisciplinary research were conducted, connecting the fields of sciences, literature, history and geography, many of the legendary places in the Bible could be identified with present day locations in the world.

Thereafter many places mentioned in the Bible were carefully and successfully identified with various archaeological sites across West Asia.

Here, we find the European scholars using modern scientific techniques and an interdisciplinary approach to establish the historicity and authenticity of the places and events mentioned in the Bible.

When such a process has yielded results for the Europeans with respect to the Bible, why will not a similar effort yield results for the Indians with regards to their legends?

In Bharath Gyan we have carried out a similar exercise with dating the lifetime of Rama, the other legendary hero of India. This is now available through our trilogy of books, “**Historical Rama**”, “**Ramayana in Lanka**” and “**Ayodhya – War and Peace**”, in the Bharath Gyan Series.

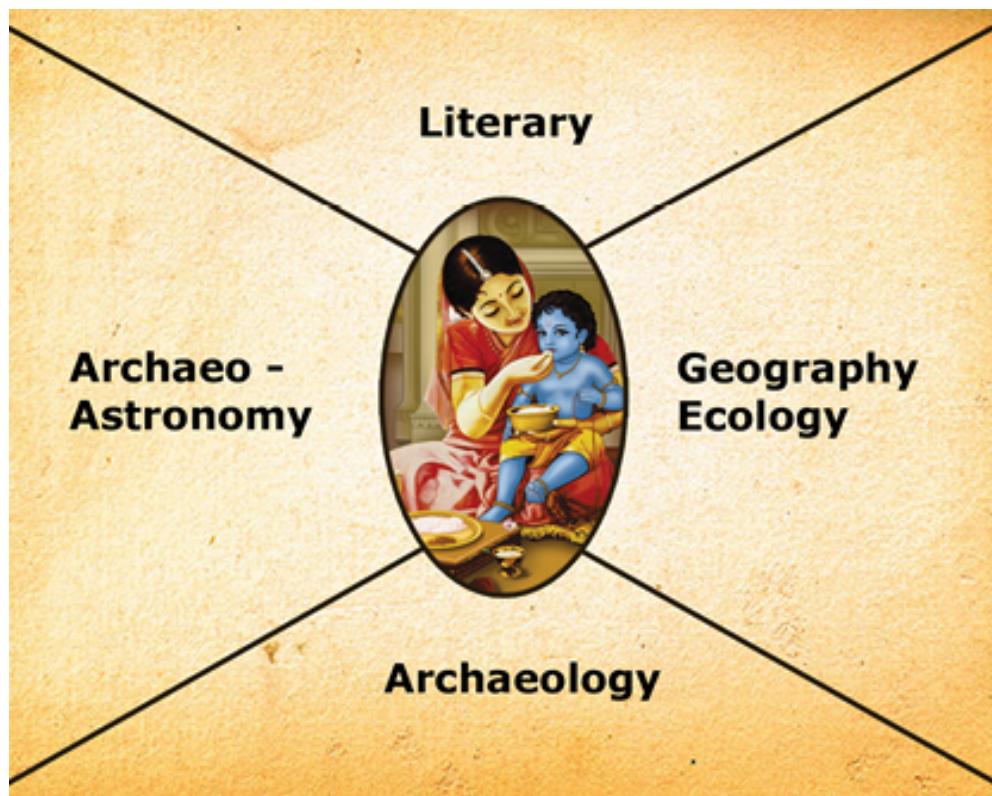
Let us, similarly explore the times of Krishna and the events that unfolded during, as well as before and after His time.

An Interdisciplinary Approach

In this effort, we shall look at the historicity of Krishna from four distinct perspectives:

- Literary
- Geography, ecology
- Archaeology
- Archaeo-Astronomy

Relevant data from the vast amount of research done in these independent fields will be examined to see if they provide a converging picture for the historicity of Krishna.



4 perspectives to look at historicity

The Exclusions

Situations such as when Krishna miraculously offered endless reams of *sari*, upper cloth, to Draupadi during the shameful *vastra apaharanam*, the forceful disrobing of Draupadi, are not discussed here.

Similarly, the philosophies or religious implications of Krishna's teachings too are not being considered for the purpose of this effort of looking at the historicity of Krishna.

PART THREE – PEGGING KALI YUGA

History of the Mahabharata Story

The *Mahabharata* is one of the foremost works in the *Samskrta* language.

In fact, it is the longest poem of the world. It is over one lakh i.e., a hundred thousand verses long.

Krishna's life runs parallel to the events of the *Mahabharata*.

If *Mahabharata* is the narration of a battle of righteousness over covetousness, Krishna is one who taught the essence of righteousness.

Mahabharata contains the *Bhagavad Gita*, the *Upadesha*, counsel of Krishna on life and *Dharma* to Arjuna, His friend, cousin cum brother-in-law, on the battle field.

Mahabharata thus forms one of the main literary works to be considered, to understand the historicity of Krishna.

The other texts include :

- ***Harivamsa***, which speaks about the genealogy and other stories of the lineage of Hari Krishna. Hari is a popular name by which Krishna is addressed. *Vamsa* stands for lineage.
- ***Vishnu Purana***, which includes the events revolving around the life of Krishna as one of the incarnations of Vishnu.
- ***Bhagavata Purana***, also known as *Srimad Bhagavatam*, which also contains information about the events surrounding Krishna's life time. It is a compilation of 18000 verses divided into 12 *Skanda*, Cantos, spanning 332 chapters. The 10th *Skanda* focuses on the life and deeds of Krishna.

These four texts offer ample evidence to reconstruct the historical account of Krishna and His times.

Origins of the Mahabharata

Mahabharata is a popular, accepted textual evidence of the happenings of that time period. *Mahabharata* is an *Itihasa*. It is autobiographical in nature with incidents around the family and times of Krishna Dwaipayana, whom we reverentially call as Veda Vyasa.

This Krishna Dwaipayana, was born to Satyavati, the boat woman and Rishi Parasara. He was born to her, before her marriage to King Shantanu of Hastinapura.

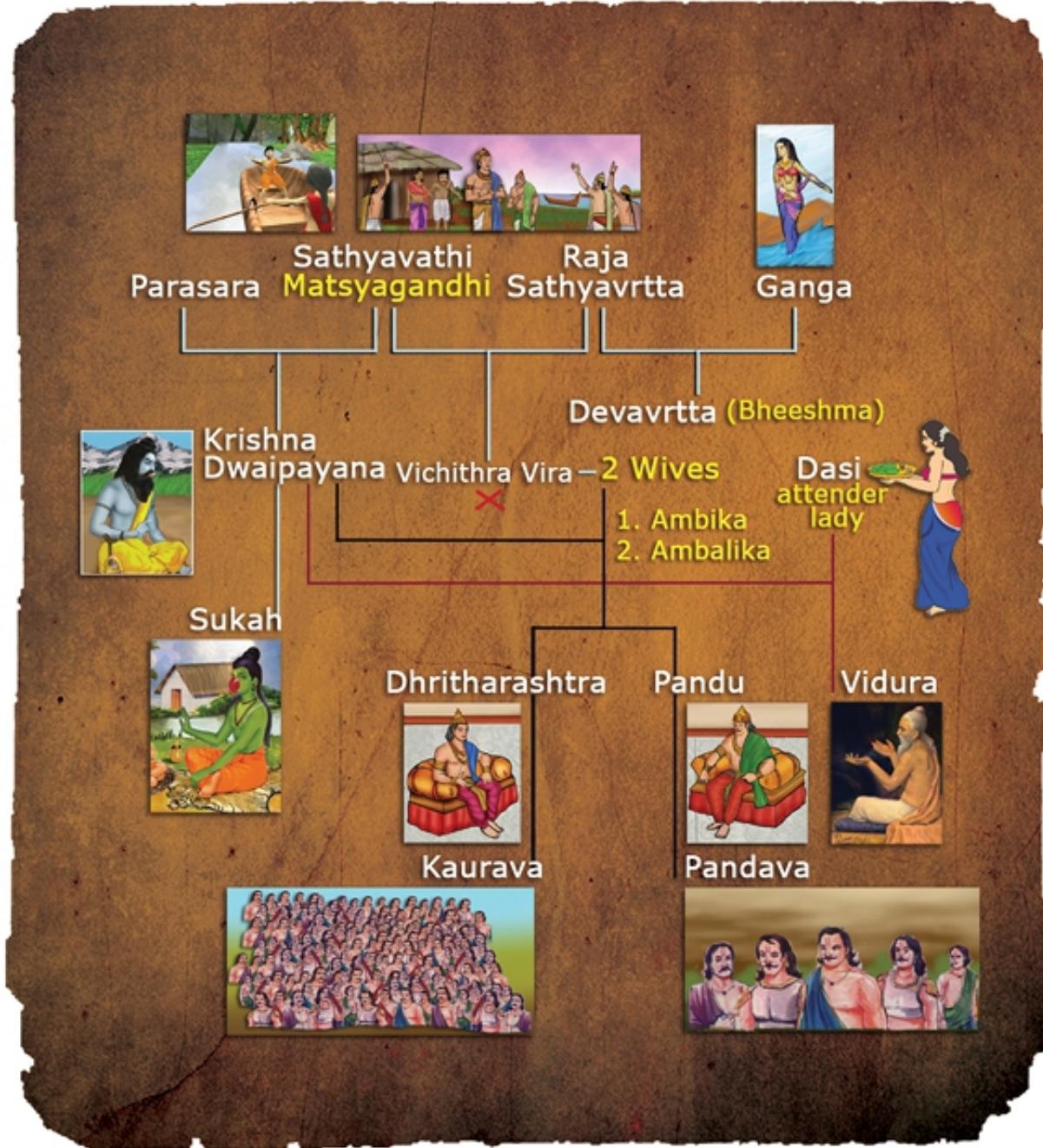
He was thus the half brother of Bheeshma, the son of King Shantanu through his first wife Ganga. Bheeshma was the eldest statesman in this real life drama.



Bheeshma

An irony in the flow of events led Krishna Dwaipayana to become the biological father of the next generation of the Kuru dynasty of Hastinapura. He sired 3 sons for Hastinapura - Pandu, Dhritarashtra and Vidura.

The *Mahabharata* story is the unfolding of the events connected with the tussle for power between the sons of Pandu and Dhritarashtra, who are collectively called the *Pandava* and the *Kaurava* respectively - *Pandava* for the five sons of King Pandu and *Kaurava* for the one hundred sons of King Dhritarashtra.



Family Tree of the Pandava and Kaurava

The *Pandava* and *Kaurava* princes who fought each other in the epic battle of Kurukshetra were thus Krishna Dwaipayana or Veda Vyasa's own grandchildren. The *Mahabharata* epic is an eye witness account of the events leading to this war and of the characters involved in it.

It is Veda Vyasa's own account of his own family and thus a family history. It was not a history written by some chronicler few hundreds of years after the event, but chronicled by a person central to the events, the biological grandfather of the protagonists and antagonists of the epic, during that period itself, as an eye witness report.

It is for this reason that the *Mahabharata* text written by Krishna Dwaipayana is called *Itithasa*, meaning “it thus happened”.

Devakiputra Krishna, by His qualities and the role He plays in the events that unfold, takes the centre stage in the epic.



Mahabharata dictated by Krishna Dwaipayana to Ganesha

THE JOURNEY OF MAHABHARATA

The initial work composed by Krishna Dwaipayana, Veda Vyasa, was called “*Jaya*”. It was composed soon after the Kurukshetra war.

Jaya

Rishi Krishna Dwaipayana withdrew to the Himalayas and put together a detailed account of the events that had unfolded and called his *Itihasa* work as “*Jaya*”.

Jaya to Bharata Samhita

King Janamejaya was the grandson of Abhimanyu. Abhimanyu in turn, was the son of Arjuna, the *Pandava* prince and his wife, Subhadra, who was also the sister of Krishna, the subject of this book.

In short, King Janamejaya was the great grandson of Arjuna, the *Pandava*. He was also the great grandnephew of our legendary hero, Krishna.

Janamejaya wanted to know about his ancestors, their deeds and the happenings of their times. On his specific request to know about the lives of his immediate forefathers, Krishna Dwaipayana directed Vaishampayana his disciple, who knew the story “*Jaya*”, to narrate it to King Janamejaya.

What Vaishampayana narrated, came to be known as *Bharata Samhita*.

The narration *Bharata Samhita*, by Vaishampayana too needs to be looked at as the history of that family as it contains *Jaya* plus additional narrations by Vaishampayana who had also lived during the times of Vyasa, who was Vyasa’s direct disciple and was equally exposed to the events and stories of Vyasa’s times.

Bharata Samhita to Mahabharata

Soota Romaharshana, another disciple of Krishna Dwaipayana, Veda Vyasa, later narrated this story to an assembly of *Rishi* in the *Naimisha Aranya*, the *Naimisha* forest. *Aranya* means “forest”.

Soota were a class of people who were narrators and charioteers. *Roma* means “hair”. Romaharshana was a *Soota*, a narrator, whose engrossing style of narration gave people goosebumps making their bodily hair stand up in awe as they listened to him.

Soota comes from the root *Sooth* meaning yarn, thread. *Soota* is one who can thread events into an engrossing story for narration.

The word “*Soota*” is allied with the commonly used word *Sootradhar* for the central character of a story, one who leads the act. *Soota* was also the name given to charioteers as they controlled the horses with the reins.

Incidentally the expression commonly used in English for telling a story is, “to spin a yarn”. Interesting to note the similarity in concept between this phrase and the *Samskrt* word “*Soota*” and “*Sootradhar*”, for narrators.



Suta Romaharshana with the assembly of *Rishi* in *Naimisha Aranya*

Soota Romaharshana’s narration used Vaishampayana’s *Bharata Samhita* as a kernel and had further questions and answers built around it, to clarify the story further to the assembly of *Rishi*.

The completed narration acquired the name “*Mahabharata*” because of its size and weight, both qualitatively and quantitatively.

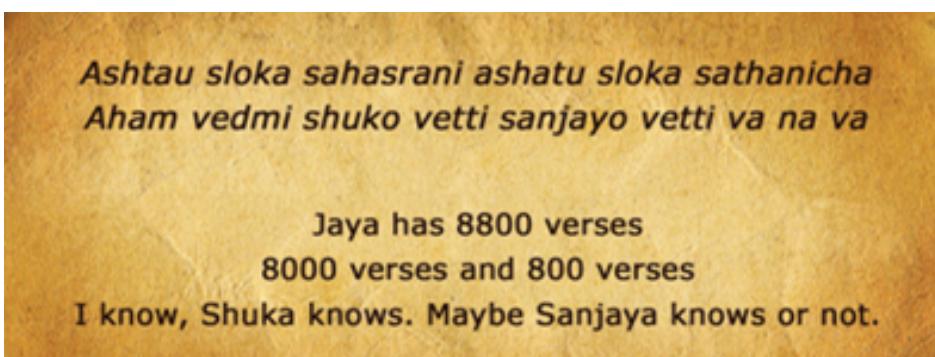
TRACING THE EVOLUTION OF MAHABHARATA

The original *Jaya* has been traced to portions from *Bheeshma Parva* (the sixth *parva*) to *Sauptika Parva* (the tenth *parva*). The sections before and after these *parva* are believed to have been added as part of its journey from *Jaya* to *Bharata Samhita* and then on to *Mahabharata*.

Mahabharata itself contains the history of its own evolution.

8800 Verses

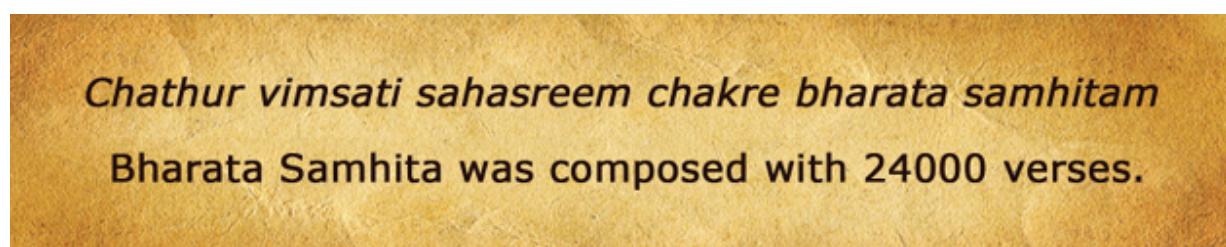
It says,



This tells us that *Jaya*, the original version, had 8800 verses.

Jaya had 18 chapters with 8800 verses in them.

8800 to 24000 verses



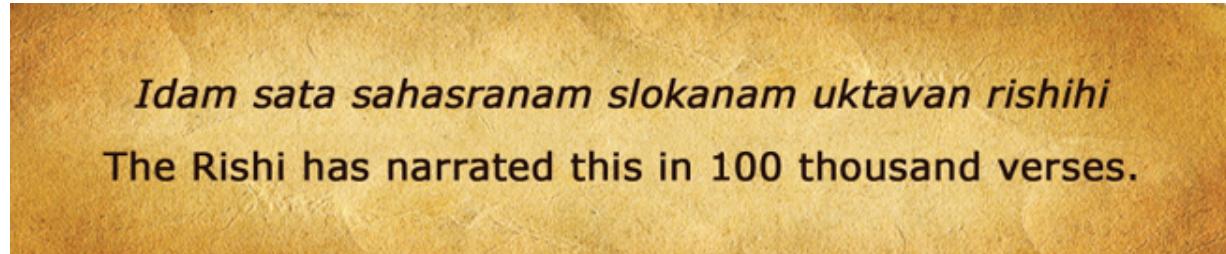
From this we gather that *Bharata Samhita*, as narrated by Vaishampayana had 24000 verses.

How did it grow to this size?

When Janamejaya asks Vaishampayana for the story of his ancestors, Vaishampayana narrates the story *Jaya*.

Janamejaya then asks questions of Vaishampayana and Vaishampayana answers these doubts. Vaishampayana's narrative thus grew to 24000 verses.

24000 to 100000 verses



When *Soota* Romaharshana addressed the assembly of *Rishi* in Naimisharanya forest, *Soota*'s narration to the *Rishi* includes Vaishampayana's answers as well.

The *Rishi* further ask *Soota* questions and *Soota* answers them, taking the total size of the narration to 100000 verses.

From there on, it became popular and spread all over the land when the *Rishi* who had assembled in *Naimisha Aranya* spread the story wherever they went. From then on, the epic story grew in stature.

Redactions

A redaction occurs when a text undergoes significant additions or deletions. In contrast, recensions are more or less the same. They are versions that are available simultaneously amongst different groups but differ in some minor respect.

NAME OF THE WORK	NUMBER OF VERSES	AUTHOR / NARRATOR	NARRATED TO WHOM
Jaya	8800	Krishna Dwaipayana (author)	
Bharata Samhita	24000 without Upakhyana	Vaishampayana (Narrator)	Janamejaya
Maha Bharata	128000 including Upakhyana	Romaharshana & Ugrasrava	Saunaka & other Rishi

The Three Redactions of Mahabharata

We thus see that in 3 narrations, the original text had undergone three redactions and had come to be called *Mahabharata* with over 100000 verses. These 3 narrations occurred within a span of 3 to 4 generations. It was by the original author Krishna Dwaipayana and by his immediate disciples who had heard it from him personally.

These redactions were not brought about few hundreds or few thousand years later by scholars who were unrelated to the event or who had not lived in the period of the event. All these 3 redactions happened probably within a span of 100 years. All the 3 redactions were authored by people who were part of the events and lived as the events were unfolding.

It is this quality that makes *Mahabharata* an *Itihasa*, “it thus happened”.

The Period of Mahabharata

KALI YUGA AND MAHABHARATA CONNECTION

The events of *Mahabharata* are unambiguously written in this text to have occurred in the interim period, “*antare*”, between the closing stages of *Dwapara Yuga* and the start of *Kali Yuga*.

Hence, in the effort to correctly date Krishna, we need to understand this key, epoch marking, calendrical event of that time - the transition from *Dwapara Yuga* to *Kali Yuga*. For that, we need to first understand what a *Yuga* is.

YUGA AND THE INDIAN CALENDAR

The Indian calendar is cyclical in nature and is divided into four periods with the duration of each being a multiple of the base unit, *Kali Yuga*.

1. *Krta or Satya Yuga* = 4 times *Kali Yuga*
2. *Treta Yuga* = 3 times *Kali Yuga*
3. *Dwapara Yuga* = 2 times *Kali Yuga*
4. *Kali Yuga*

The four *Yuga* are taken together to form one cycle, called *Chatur Yuga*.

The term *Yuga* which is common to all the above terms, is like the generic term “age”, “aeon”, “era”.

Yuga, from *Yuj*, means “*to join*”, “*to align*”. It is a conjunction of stars and planets in an alignment.

A related word in the English language is “*Yoke*”, that which binds or brings 2 bullocks in line.

Thus a *Yuga* is a generic measurement unit. The actual elapsed time of a *Yuga* will depend on the individual scale used and can vary from one year on an earthly calendar scale to 4,32,000 years in an astronomical scale.

The table below lists various types of *Yuga* scales that have been prevalent in India since millennia.

	Yuga	Period in earth years
1.	<i>Sanskara</i>	1, 4, 5, 12, 18, 19 in which education & other human based activities are achieved
2.	<i>Manava</i>	60, 100, 120 human life span
3.	<i>Parivarta</i>	360
4.	<i>Sahasra</i>	time taken for <i>Saptha Rishi</i> (Ursa Major) to rotate round the 27 <i>nakshathra</i>
5.	<i>Dhurva</i>	3 times <i>Sahasra Yuga</i>
6.	<i>Ayana</i>	26,000 - Milankovitch Cycle
7.	<i>Chathur</i>	43,20,000

The seven different types of *Yuga*

KALI YUGA DATE FROM ASTRONOMY

Astronomically, one such conjunction of all the planets in the Solar System with the Sun and the Aries Zodiac, which is an unique event, took place on the night of Friday, the 17th/ 18th February, 3102 BCE. This is taken as the onset of *Kali Yuga*.

This date is not based on the birth or death of any individual or any historical event on earth. It is an astronomical event, which is dateable scientifically using an ephemeris table or a planetarium software.

KALI YUGA IN PANCHANGA

The Indian almanac is called “*Panchanga*”.

The *Panchanga* calendar is based on the combination of five key astronomical factors. There are varieties of *Panchanga* in different parts of India. All these *Panchanga* have been in use from time immemorial.



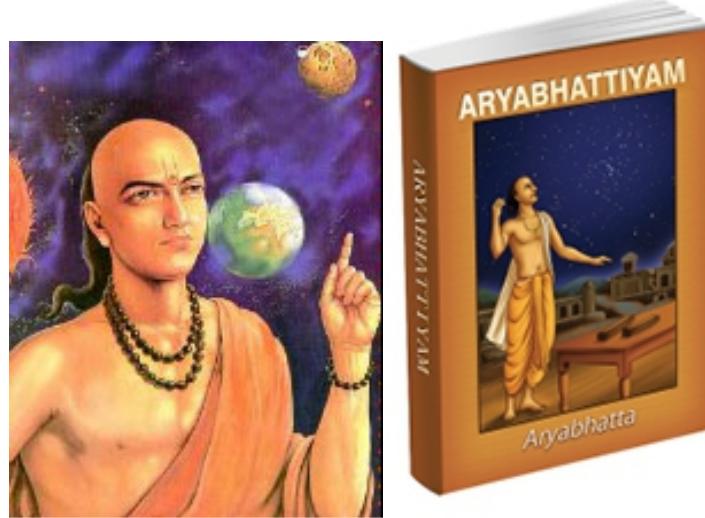
Panchanga, the Indian Almanac

All these *Panchanga* observe only one date for the start of the *Kali Yuga*, i.e., 17th / 18th February, 3102 BCE. The start of the *Kali Yuga* also denotes the start of the fresh era in the Indian almanac.

KALI YUGA AS PER ARYABHATTA

Aryabhatta was one of the foremost mathematicians of medieval India. He was born in the year 476 CE. His treatise on mathematics and astronomy called *Aryabhattiyam*, is considered as one of the pioneering works in the field of mathematics.

Aryabhattiyam was written in the year 499 CE, when Aryabhatta was just 23 years old. This information is given in his work itself.



Aryabhatta & *Aryabhattiyam*

Start of Kali Yuga

Regarding the start of *Kali Yuga*, the relevant quotation for this can be found in his work.

*Kaho manvo da, manuyugaha; skha
gataste ca, manuyugaha: chuna ca
Kalpadheryugapadha ga ca
gurudhivasacca, bharatat purvam*

-*Aryabhattiyam*, 1.5

which means,

“Out of 4 parts, 3 parts of the Yuga have elapsed, the 28th Yuga has come. That Thursday has gone with that Yuga which is prior to bharatat.”

The word *bharat* here indicates the *Mahabharata* War.

In the first part of the above explanation, the three parts of the *Yuga* that have elapsed are the *Krta Yuga*, *Treta Yuga* and *Dwapara Yuga*. The next *Yuga*, that is *Kali Yuga* had started after Thursday had gone by, ie. on Friday.

Calculation of Start of Kali Yuga

Further, in the introduction to his work and speaking of his birth date and age at the time of writing, Aryabhatta gives information that helps in calculating the start of *Kali Yuga*. He specifically mentions the time that had elapsed since the start of *Kali Yuga*, at the time of writing the book.

“When 60 times 60 years and three parts of Yuga had elapsed, 23 years had then passed since my birth.”

What does this statement mean mathematically?

As we have already seen, there are 4 components to the *Yuga* calendar - *Krta Yuga*, *Treta Yuga*, *Dwapara Yuga* and *Kali Yuga*.

3 parts of *Yuga* had elapsed, means the previous 3 *Yuga* had elapsed and *Kali Yuga* had set in.

60 times 60 years = 3600 years

Aryabhatta thus writes that, at the time of writing *Aryabhattiyam*, he was 23 years old and 3600 years had elapsed since the start of *Kali Yuga*.

The accepted year of birth of Aryabhatta is 476 CE.

Hence 476 CE + 23 years = 499 CE.

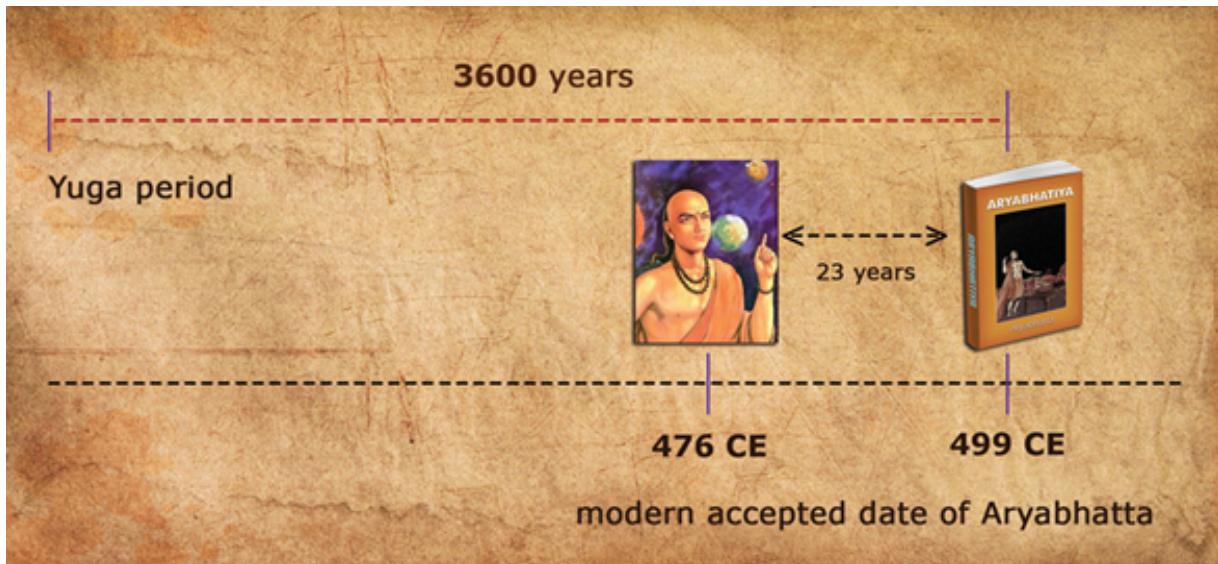
If in 499 CE, 3600 years had elapsed since the start of *Kali Yuga*, then *Kali Yuga* should have started in 499 CE – 3600 years, i.e., in 3102 BCE, as there is no Zero year and we have 1BCE before 1CE.

$$60 \times 60 = 3600 \text{ years}$$

$$-3102 \text{ BCE} + 3600 \text{ years} = 499 \text{ CE}$$

$$499 \text{ CE} - 23 \text{ years} = 475 \text{ CE}$$

Calculation of Aryabhatta's lifetime



Timeline of Aryabhatta, *Aryabhattiyam* and *Kali Yuga*

These two statements of the *Aryabhattiyam*, when read together, clearly takes us to only one date for the *Kali Yuga* as per the calculations of the astronomer, mathematician par excellence. It takes us to the year 3102 BCE.

Aryabhatta composed his work *Aryabhattiyam* in 499 CE. This is about 1500 years before the present.

So, 1500 years ago itself, the start of *Kali Yuga* had been calculated and used as a bench mark by Aryabhatta to place his work on the timeline, for posterity.

KALI YUGA DATE FROM AIHOLE INSCRIPTION



Aihole in Karnataka

Aihole is situated in the North Eastern part of the present day state of Karnataka in South India.

There, in a Meguti Jain temple built during the reign of the Chalukya King, Pulakesi, we find an interesting inscription with which we can date the start of *Kali Yuga* to 3102 BCE. This inscription has been dated to 634 CE by modern archaeologists.

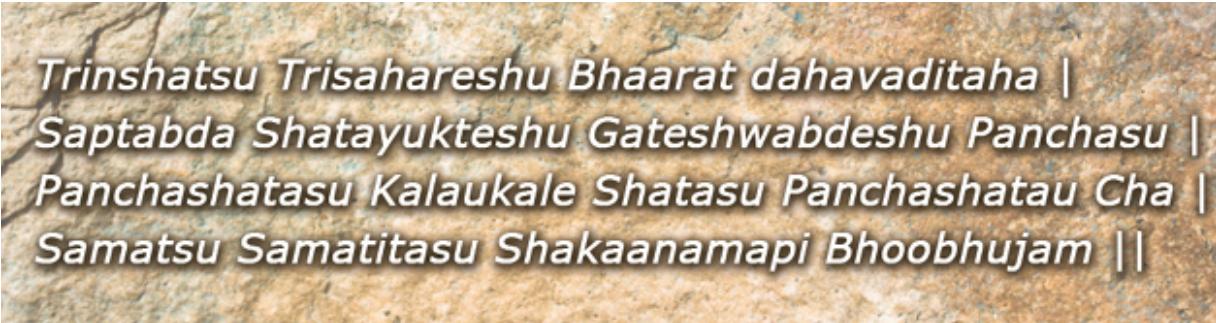


Meguti Jain Temple



Inscription in the Meguti Temple

The Aihole inscription reads,



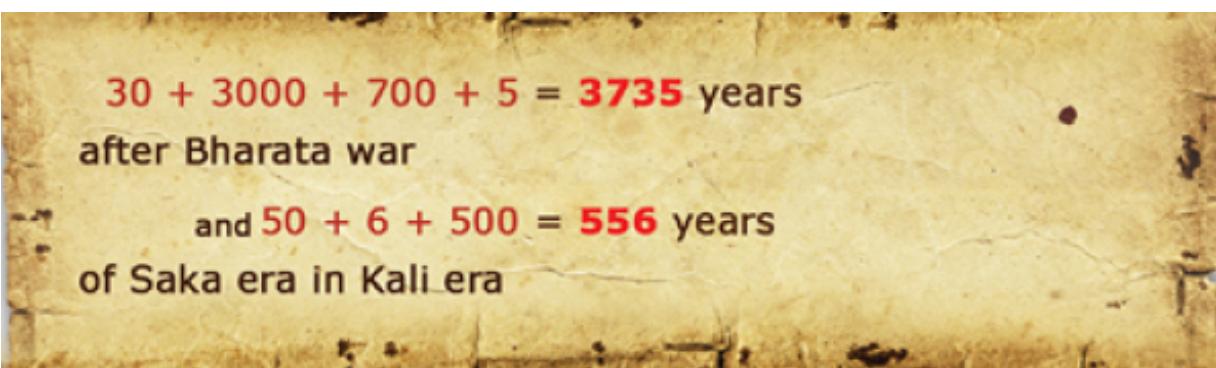
Aihole Inscription - English transcription of *Samskrta* text

This inscription mentions the year when it was inscribed.

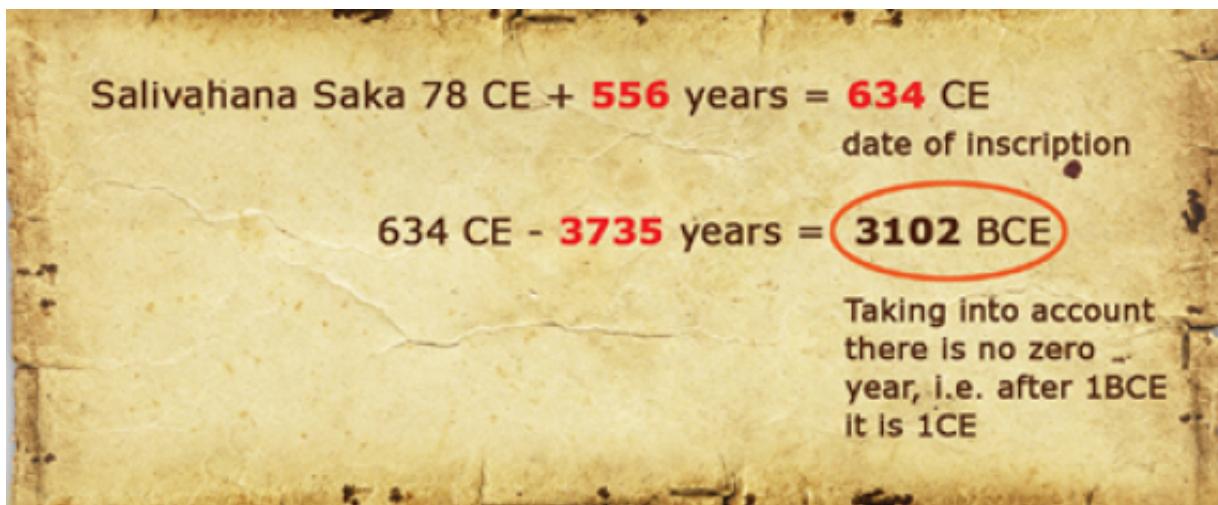
The text in arithmetical terms indicates the years elapsed since the start of the *Bharatha* war and the start of *Kali Yuga*.

It also mentions the year in terms of the elapsed time in the Saka Era, i.e., with respect to the date of Salivahana's period.

The Saka Era is one of the other prominent calendars used in medieval India and is dated from the date of King Salivahana's ascension to the throne.



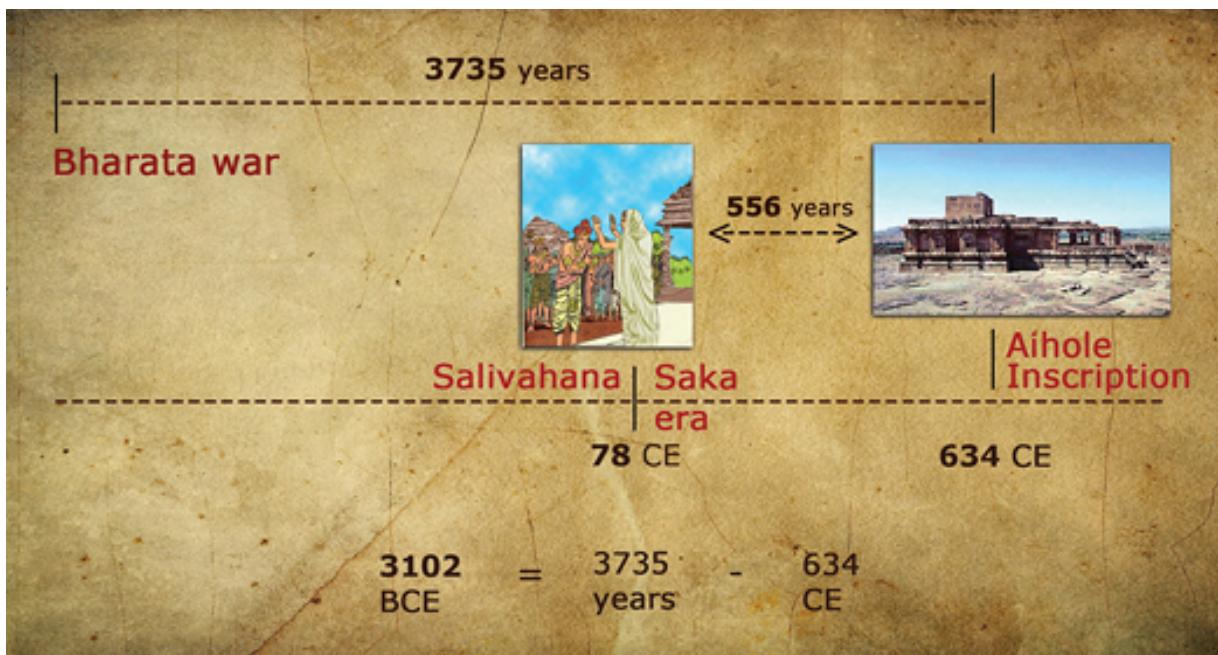
Year as mentioned in the inscription



Calculation for Start of *Kali Yuga* in 3102 BCE

From these two references to the year of the inscription and the fact that the inscription has been archaeologically dated to 634 CE, we can calculate the start of the *Kali Yuga*.

This Aihole inscription is one the best examples of inscriptions from medieval India, from which we can derive precisely the start of *Kali Yuga*.



Graphic Timeline - dating Kali Yuga

What is interesting to note here is that, the Meguti temple is not a Hindu temple but a Jain temple.

This places beyond doubt that both the events, the *Mahabharata* war and *Kali Yuga*, were looked upon as historical events in India across ages and their date, back in history, was known precisely.

KALI YUGA DATE FROM BRAHMAGUPTA

Brahmagupta was a great Indian mathematician and astronomer who lived between 598 CE and 668 CE. He was born in Rajasthan and later became the head of the astronomy centre in Ujjain.

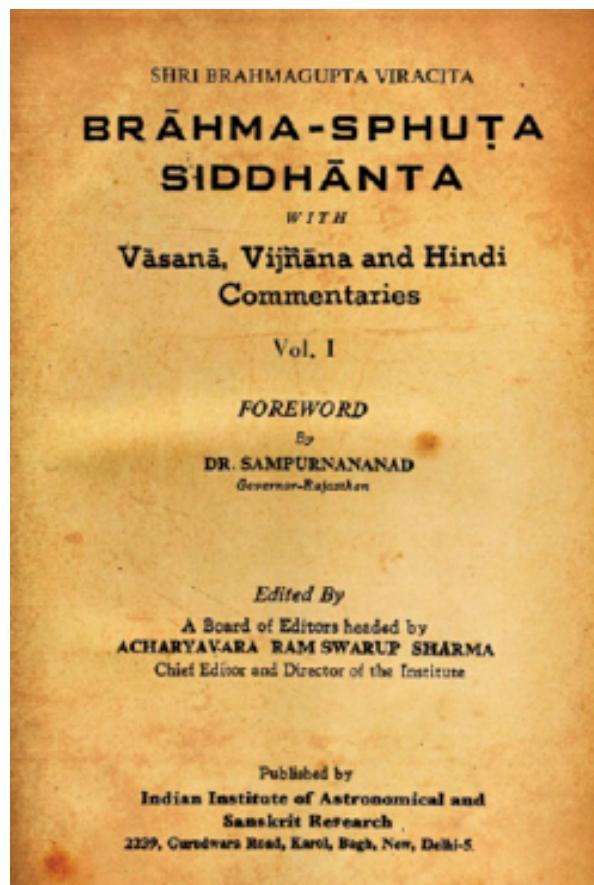


Brahmagupta, the renowned mathematician

He authored many works on mathematics of which *Brahmasphuta Siddhanta* is the most popular. This work found its way to Baghdad during the 8th century CE and provided the Arabic world with a link to Indian mathematics and astronomy.

In his work *Brahmasphuta Siddhanta*, in 628 CE, he writes that the *Salivahana Saka* started from the 3179th year of *Kali Era*. *Salivahana Saka* started in the year 78 CE.

This means that the *Kali Era* started in 3102 BCE and tallies well with the date arrived at from other sources.



कल्पपराद्वैमनवः षट्कस्य गताश्चतुर्युग्मत्रिघनाः ।
त्रीयिकृतादीनिकलेऽर्गैक गुणाः शकान्तेऽब्दाः ॥
नवनगशशि मुनिकृत नव यमनगनन्देन्द्रवः शकनृपान्ते ।
सार्वमतीतमनूनां सन्विभिराद्यन्तरान्तगैः ॥

In time calculation, 3179 years have elapsed in the present *Kali Yuga*

KALI YUGA DATE FROM BHATTOTPALA

Bhattotpala was another mathematician, who lived around 966 CE and wrote several commentaries on Brahmagupta's works as well as works by other mathematicians who had lived before him such as Aryabhatta, Varahamihira.



Bhattotpala

His claim to fame was his critical analysis of all the works prevalent in the domain of mathematics during his times.

In his critical study too, he concurs with Brahmagupta's dating of *Kali Yuga* era.

PEGGING *KALI YUGA*

Thus it is not just one author dating *Kali Yuga* at random, but a host of luminaries in the field of mathematics and astronomy having dated it independently and all arriving at the same year of 3102 BCE for the start of *Kali Yuga*.

Bhattotpala's critical examination and stamp of approval to this date for *Kali Yuga*, gives it that extra level of credibility and mathematical correctness.

Dating this *Kali Yuga* from multiple sources such as,

- statements of medieval mathematicians and astronomers,
- archaeological inscriptions,
- from *Panchanga* calculations,
- modern astronomy and

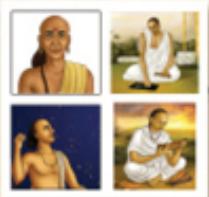
all four converging to the same date, pegs *Kali Yuga* to only one date – 17th/18th February, 3102 BCE.

Pegging start of *Kali Yuga*, which occurs during the lifetime of Krishna to 3102 BCE, in turn also pegs the times of Krishna and the *Mahabharata* to around 3100 BCE.

Later in this book, in the section on archaeo-astronomy we will get to see the exact dates of the events in the life of Krishna, which fit in well around this date of *Kali Yuga*.

PEGGING KALI YUGA

MEDIEVAL
ASTRONOMERS



PANCHANGA



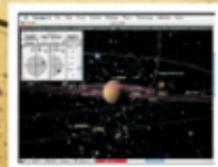
KALI YUGA



AIHOLE INSCRIPTION
MEGUTI TEMPLE



ARCHAEO
ASTRONOMY



3102 BCE
17/18TH FEB

PART FOUR – HISTORICITY FROM LITERATURE

From *Upanishad* – A Part of the *Veda*

The *Upanishad* are explanatory text of the *Veda*. There are many *Upanishad* that explain and lend meaning to the *Veda*.

Chandogya Upanishad is one such work.

Every *Upanishad* lists the teachers who have come in that tradition and propagated the teachings of that *Upanishad*. In such a list in the *Chandogya Upanishad*, is featured the name, Ghora of the Angirasa clan and this is followed by the name Devakiputra Krishna, listed as his student and as another contributor in that tradition.

Angirasa

Fire which was only produced in Nature was first created at will by man using sticks and stones. This perhaps was the first invention of mankind. The *Veda* attribute a name for the *Rishi* who knew how to churn fire. He was called Angirasa. The Angirasa clan were thus fire churning who continued to maintain the technique of churning fire at will and keeping the fire alive.



Angirasa – producing fire on need

The name Devakiputra Krishna, not only mentions that there was a Krishna who was a disciple of *Rishi* Ghora Angirasa, but that this Krishna was the son of Devaki, *Devakiputra*. This description leaves us with little doubt on the identity of this contributor to the *Chandogya Upanishad*, called Krishna.

If the *Veda* and the allied works such as *Upanishad* are historical, then it makes the contributors such as Krishna also historical.

Dating the timeline of Krishna will also help in the dating of these works because if the name Krishna is listed here, the work is atleast as old as Krishna and even more.

Purana and Other Ancient Texts

Besides the 18 main *Purana* and many other *Upa Purana*, there are many *Sthala Purana*, legends pertaining to various places.

The tradition of updating and maintaining the *Purana* continued through generations. Almost all *Purana* contain information upto the start of the Saka Era – 57 BCE.

“The Purana preserve good historical tradition.”

– R.Morton Smith, *Samskrta Scholar*, Canada.

“There exists ample material to write a history of India even though the greater part of it has been destroyed by the Islamic onslaughts which particularly targeted the centres of learning.

For the ancient period, India’s records greatly exceed those of all other civilizations of the ancient world combined.”

- Col. James Todd, *Annals and Antiquities of Rajasthan*.

NILMATA PURANA

Nilmata Purana is one of the *Sthala Purana* texts, which primarily focuses on the historical events of Kashmir. *Nil*, *Neel* means blue and *Mata* means “a seat of knowledge”, *Mutt*. *Nilmata*, stands for the seat of knowledge, high in the blue mountains.

This *Nilmata Purana* contains a dialogue between Janamejaya the descendant of the *Pandava* and Vaishampayana, the pupil of Vyasa. The dialogue starts with Janamejaya questioning as to why the army of Kasmira, as Kashmir was known traditionally, did not take part in the Kurukshetra War.

It then goes on to explain the incident when the king of Kasmira sought a duel with Krishna and lost in the combat. As per its narrative, after that combat, Krishna did not usurp the Kasmira kingdom but instead coronated

the pregnant queen as the ruler of the kingdom so that the future born son could rule the land. Since the boy was still very young at the time of the Kurukshetra War, he and his army were not solicited by either the *Pandava* or the *Kaurava* for support and hence the kingdom of Kasmira, Kashmir did not take part in the *Mahabharata* War.

Vasudeva Krishna thus has been referred to in a historical vein in this *Purana*.

It is to be noted here that *Bhagavata Purana* and *Vishnu Purana*, two major *Purana* of India, which also deal with the legends of India, too speak of Krishna, but from a divinity perspective.

In the case of *Nilmata Purana*, Krishna has been spoken of, mainly from a historical perspective.



Nilmata Purana

A Long Family Tree

The tracing of one's family tree is a new fad the world over.

Specific software tools for creating family trees and tracing one's family have mushroomed across the world, connecting via the internet, families separated by the seas and time zones.

People take effort to trace their ancestry to about 5 or 6 generations. In the case of royalty or prominent people, the records of many more generations are available.

KRISHNA'S FAMILY TREE

In the case of Krishna too, who was a popular hero, a detailed family tree is available, spanning not just a couple of generations on either side. From His ancestors on both sides, to His descendants, it spans well over 15 generations both above and below.

If Krishna were just a myth or a hero of a ballad, there would have been mention only of Him and a few other characters in the plot. In the case of Krishna, we have a detailed genealogy, both of His ancestors and His descendants, for a number of generations on either side. These ancestors and descendants are independently corroborated by other literary works or archaeological evidences.

FROM RAMA TO KRISHNA

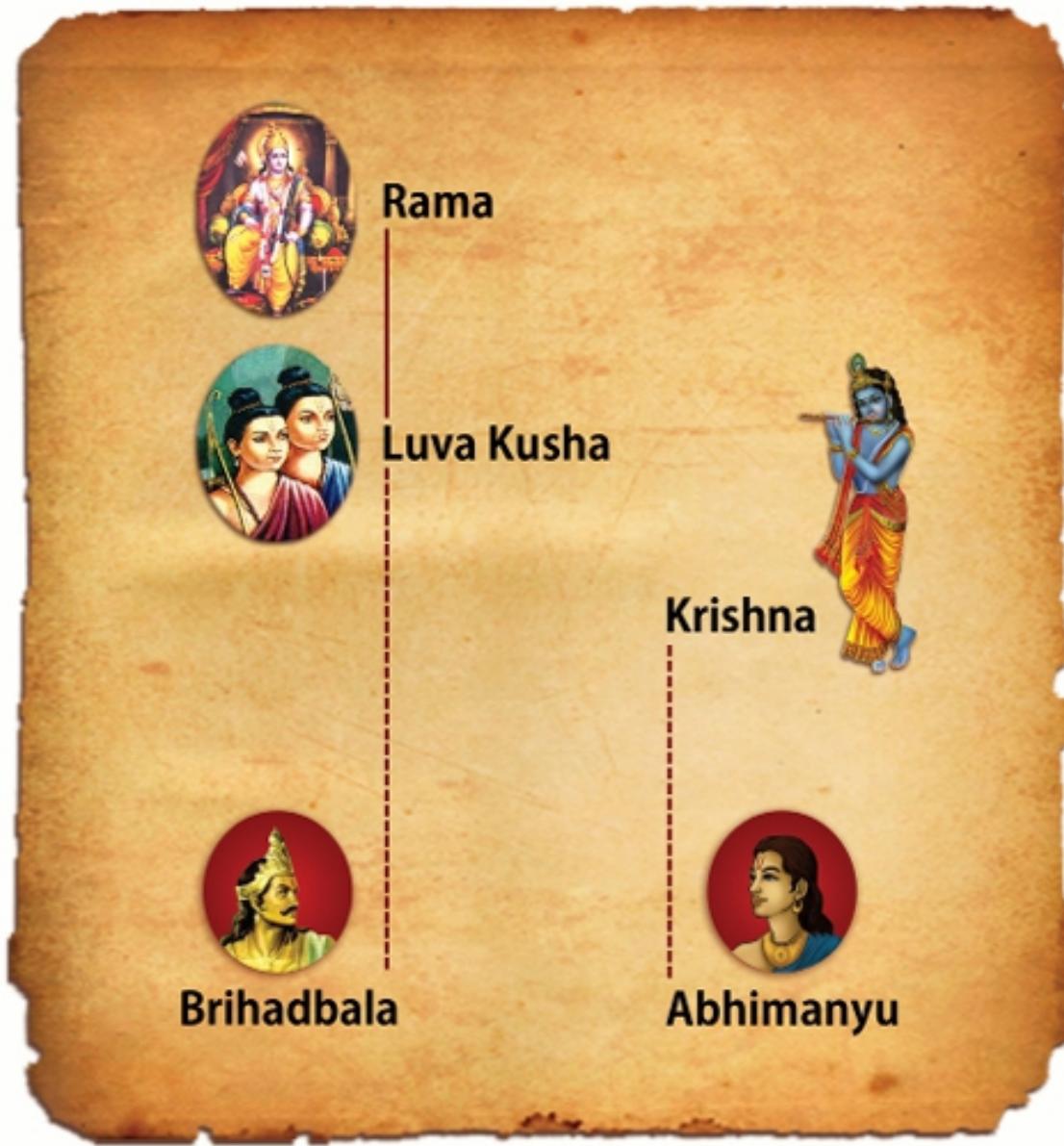
Ramayana is the other great epic of India apart from *Mahabharata*, where Rama is the central character of the epic.

There are instances where personages from the lineage of Rama of the epic *Ramayana* have met with those from the lineage of Krishna of the epic *Mahabharata*.

Rama had two sons - Luva and Kusha. The 32nd prominent descendant from Rama was a King called Brihadbala. This Brihadbala is recorded to

have participated in the Kurukshetra War on the side of the *Kaurava*. It is also mentioned that he was killed by Abhimanyu, a nephew of Krishna.

A quirk of fate indeed - One epic hero's descendant being killed by a later epic hero's nephew!



Rama to Brihadbala

CHANDRA VAMSA AND SURYA VAMSA

World over most of the famous dynasties, claim their descent from either the Sun or the Moon, as these two astral bodies, have maximum effect on the earth and earthlings.

Rama belonged to the *Surya Vamsa*, Solar dynasty and so did various other rulers of the ancient world like the Pharaohs of Egypt and others.

These are discussed at length in our other books, ‘**Historical Rama**’ and ‘**Ayodhya - War and Peace**’, which are part of the Bharath Gyan series.

The other famous lineage is the *Chandra Vamsa*, Lunar dynasty.

Krishna, Balarama, the *Yadava* clan, the House of Vrishni, all claim their descent from the moon, *Chandra Vamsa*.

Incidentally, the moon is known for its qualities of beauty, for influencing fertility and the mind.

Balarama, depicted as one wielding a plough, comes across as one who emphasized the value of agriculture and farming which epitomize fertility of the land.

Krishna epitomized beauty and the ability to influence people’s minds with His knowledge and strategies.

LINEAGE - HISTORICAL VS IMAGINARY

The interesting link between these two lineages in these epics brings out yet another facet of these epics.

We all know the difficulty in churning out coherent sequels to stories even just across a few generations. We do not come across many sequels in the world today that span across many generations in the same land and that too, carrying minute details pertinent to the specific generation’s social conditions.

The corroborating connections between the various people and locations mentioned in the epics and *Purana* of India show an interconnect that stands the test of coherence in terms of generations, time periods and social conditions as applicable to those time periods.

Moreover, fictitious sequels are soon forgotten over generations, whereas history is revered and carried forward across multiple generations.

The above go to show that the epics and *Purana* of India while they are dismissed as stories, are in reality an Indian style of integrated, historical accounts of the so classified ‘pre historic times’. The characters, places and periods mentioned therein cannot therefore be easily dismissed as myths.

Dating Krishna Through Buddha

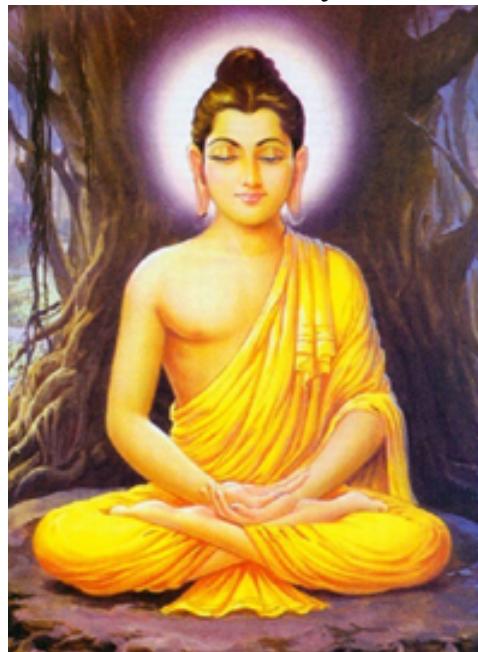
BUDDHA, AN ANCHOR

For the calendar of the modern world, Jesus Christ is the benchmark.

The Gregorian Calendar is divided into BC and AD. BC stands for Before Christ and AD for *Anno Domini*, the number of years from Christ. Jesus' birth forms the benchmark of this Gregorian Calendar.

Buddha is also a great noble son of this earth.

His birth and enlightenment is not just a benchmark for thought and philosophy in Asia, but His period also served as an anchor for the colonial historians to fix the events in Indian history.



Buddha

Why did Buddha's period become a benchmark for colonial historians writing Indian history?

BUDDHA'S TIMES – A BENCHMARK

The colonial historians who visited India between the 17th and 19th century, found it difficult to fathom the history of India recorded in the traditional form of recording. They also grappled with the dating of these historical events as the thousands of years of time periods ran contrary to their then views on the concept of Time and Creation of the World.

The colonial historians were therefore looking for a date in the timeline of the Gregorian calendar to anchor Indian personages.

Buddha, chronologically came after Rama and Krishna. His teachings were not just limited to India but were spread right from Afghanistan to South East Asia. Inscriptions of Buddhist teachings were available in this vast geographic expanse. Buddha seemed more recent for the colonial historians and they therefore tried to ascribe a date for Buddha first.

The colonial historians had come across the name Sandracottus in the records of Alexander's visit to India, which was phonetically similar to the name Chandragupta. Hence they jumped to the conclusion that this Sandracottus, referred to in Alexander's times, must have been none other than Chandragupta Maurya, a powerful king, who was also the grandfather of the great Emperor Ashoka, a follower of Buddha. Also Ashoka's inscriptions on Buddha were found all over the land.

They had not factored in, that Chandragupta was a popular name in India and that there were many kings by the name Chandragupta, for example, there was a Chandragupta in the Gupta dynasty too.

In this manner, they arbitrarily fixed Chandragupta Maurya around Alexander's period. Since Ashoka, the grandson of Chandragupta Maurya, converted to Buddhism post the Kalinga War, they concluded that Buddha must have lived just a few centuries before Ashoka.

With this premise, the year in which Buddha attained *PariNirvana*, salvation, was fixed as 483 BCE.

Not only did this fit in well with their ceiling of history based on their Creation date of 23rd October, 4004 BCE, it collapsed the large timelines of Indian history and brought it within their reach. It also did not violate their

premise that India was barbaric and did not have much history before the visit of Alexander.

Thus Buddha was dated close to Alexander's visit to India and this date for Buddha became a benchmark to fix other dates in the colonial version of Indian history.

INFLUENCE OF BUDDHA OVER KRISHNA

Dating Mahabharata and Krishna from Buddha

The *Purana* describe the number of years of reign of the different kings in different dynasties all the way from *Mahabharata* to Buddha's times and beyond. The *Puranic* lineage which runs to over 1200 years from the time of *Mahabharata* to the time of Buddha, is expressed in good detail in *Vishnu Purana*, *Vayu Purana*, *Matsya Purana*, *Bhagavata Purana* and *Bhavishya Purana*. Some Buddhist texts also speak of this dynasty for the period around Buddha.

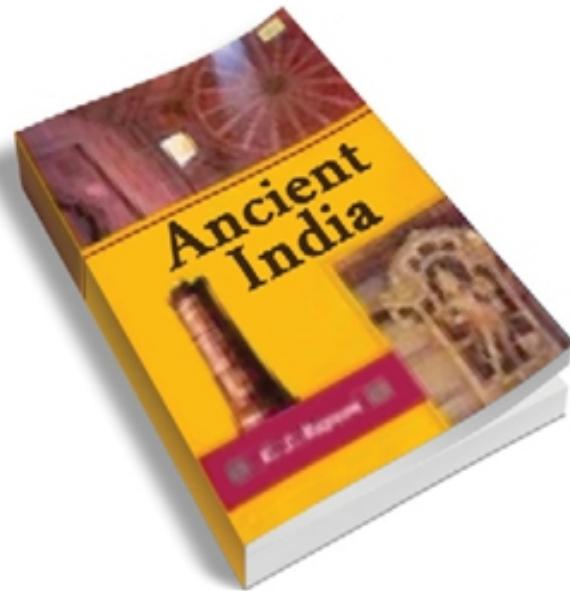
Using this *Puranic* lineage, working 1200 years backwards from Buddha's *Nirvana* date, assumed as 483 BCE, a date of around 1600 BCE to 1500 BCE was assigned to the *Mahabharata* period and Krishna.

But this date is nowhere near the *Kali Yuga* date of 3102 BCE as we have just seen.

While the *Puranic* lineage of 1200 years is a fact, taking 483 BCE for Buddha's lifetime and as the benchmark for Indian history, is where the problem seems to stem from.

The date for *Mahabharata* and Krishna has to satisfy not only the *Kali Yuga* criterion but also the lineage described in the *Purana*. Hence it becomes important to date Buddha and the *Puranic* lineage to see if there is a convergence between dates for Krishna arrived at from this angle with that arrived at from other sources.

483 BCE – A PROVISIONAL AND IMAGINARY DATE



The date 483 BCE, for the *Nirvana* of Buddha, was assigned by the colonial historian E.J.Rapson. When propounding this date for Buddha, Rapson in his book, “**Ancient India**”, states,

“Exact date of Buddha’s nirvana is not known, and hence the popularly accepted date of Buddha’s nirvana is imaginary and can at best be taken as provisional”.

The question we need to ask here is that, in a scientific, historical analysis, how can an imaginary or provisional date be taken as a benchmark and that too, to date another legendary hero of the land?

OTHER ATTEMPTS AT DATING BUDDHA

Other historians have come up with their own dates for Buddha.

Max Muller’s Dating



Max Muller

Max Muller, a colonial authority on India, had a very different date for Buddha, going back to 1221 BCE.

Fa Hien's Dating



Fa Hien

The Chinese Buddhist scholar Fa Hien, who travelled to India in 400 CE to study Buddhism in detail, during his times itself had concluded the time of Buddha to be around 1050 BCE.

Dr. Fleet's Dating

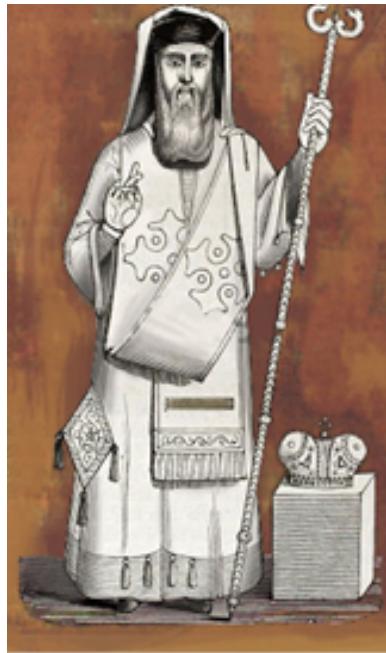


Dr. J.f. Fleet

Dr. John Faithful Fleet, a British historian, better known as Dr. J. F. Fleet, who lived between 1847 and 1917 CE, wrote seven authoritative books on Indian history, particularly on the Pali inscriptions. This was published in 1878 by Her Majesty's Stationery Office in London. Pali was the primary language of the Buddhist teachings.

In his work, Dr. Fleet suggests the date of Buddha's *Nirvana* to be in the year 1631 BCE.

Bishop Bigandet's Dating



Bishop Bigandet

Bishop Paul Bigandet was born in France in 1813. He went to Myanmar on an evangelistic mission and became the Titular Bishop of Ramata, a province of Myanmar. Later he became the Vicar Apostolic of Southern Myanmar in the year 1870 and died in Myanmar in 1894.

As we all know well, Myanmar has been a Buddhist country for more than a millennium.

An author H. Fielding, in his book, “**The Soul of a People**”, on the country of Myanmar, writes about Bishop Bigandet as,

“*Bishop Bigandet was in no sympathy with Buddhism.*”

This phrase here is to help us understand that the Bishop was not sympathetic to Buddhism, the predominant religion of Myanmar.

This Bishop Bigandet, in his work “**The Life or Legend of Gaudama**”, clearly comes up with his date of 1807 BCE for Buddha’s Nirvana and March 31, 1886 BCE for His birth.

Bishop Bigandet could well have stuck to the generally accepted, imaginary date of 483 BCE for Buddha, put forth by Rapson. India and Myanmar were not very far off. Their sources of research would have been similar.

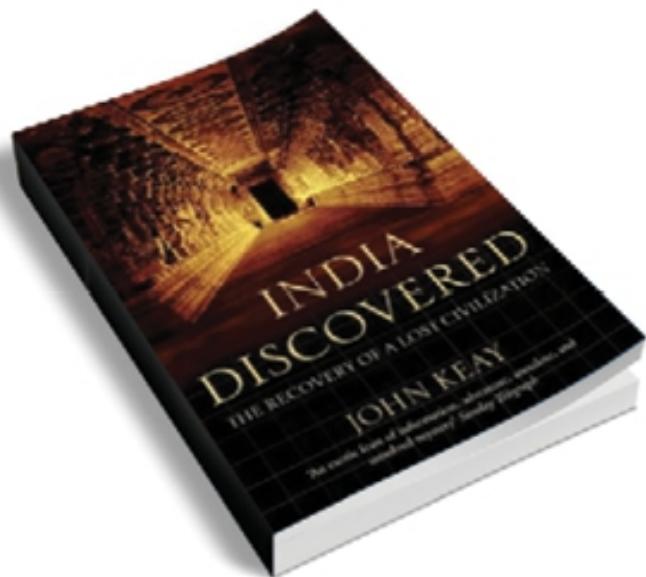
It is interesting to note that inspite of the prevalent opinion then and his antipathy towards Buddhism, the Bishop did his own research and came up with his date of 1886 BCE in his book.

Continuing Search



[John Keay](#)

Some of these variant dates for Buddha and the scholars who have researched on them, have also found mention in John Keay's book, "**India Discovered**".



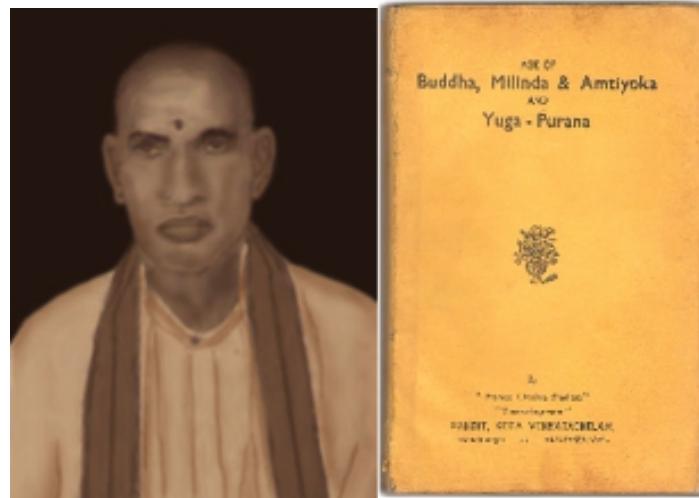
[John Keay's book](#)

So, the attempt to date the lifetime of Buddha to understand Indian history is not new. It is a topic that has been widely in discussion among the seekers of history.

Dating by Independent Scholars

This same year of 1887 BCE has also been proposed by some independent scholars of four countries which include India, Tibet, China and Japan.

Kota Venkatachelam

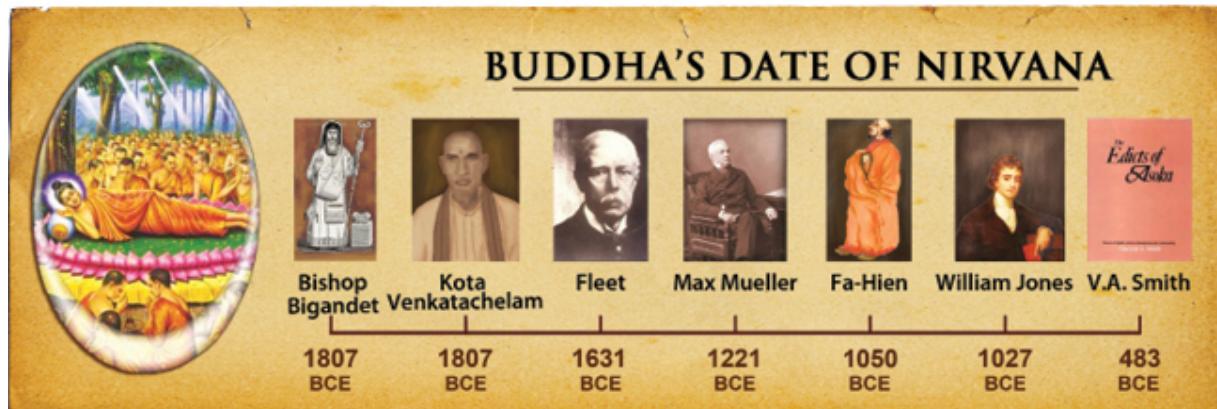


Kota Venkatachelam and his book on Dating Buddha, Krishna and Greek visitors

Kota Venkatachelam, an eminent Indian scholar, made a singular effort to find out the correct date for Buddha and came out with a detailed book on his findings along with the methodology. In his research, he came up with the date of March 27, 1807 BCE for Buddha's *Nirvana*.

A Wide Variance in Dates

The chart here gives the various dates for Buddha.



Timeline showing different dates for Buddha's birth

If there is such a wide variance in the dates proposed for Buddha, how do we zero in on the exact date?

The correct date for Buddha has to tally from astronomical angle, tally with the *Puranic* lineage as well as the date for *Kali Yuga* arrived at from other sources.

DATING BUDDHA ASTRONOMICALLY

Buddha's PariNirvana

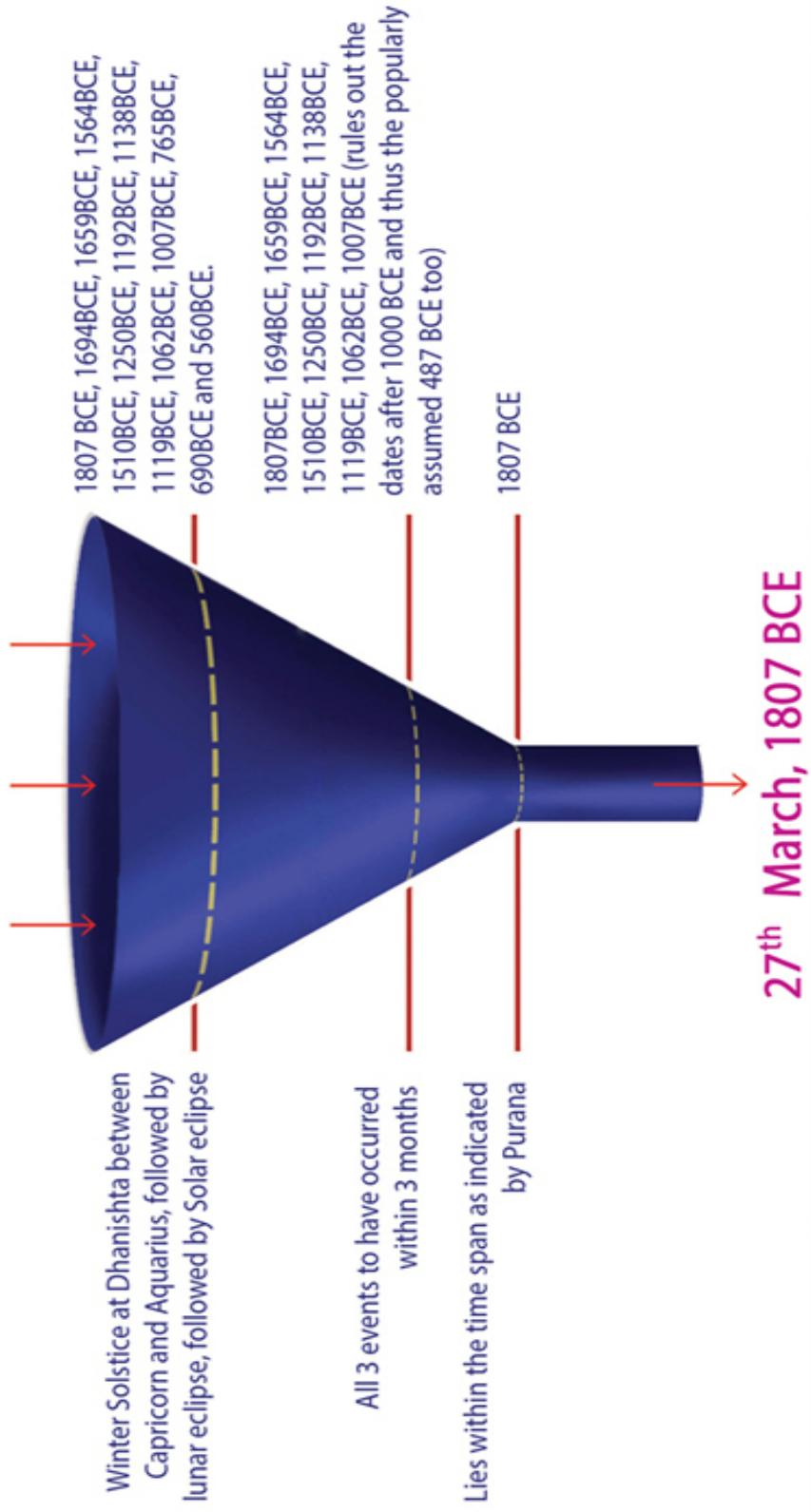
Buddhist texts such as *Samyutta Nikaya*, describe that Buddha spent the last 3 months of His life in Shravasti from where He saw the winter solstice followed by a lunar eclipse and then a solar eclipse. The winter solstice had occurred when the sun was at *Dhanishta* star, between Capricorn and Aquarius

Prof. Achar of the Memphis University, after scanning the years from 1900 BCE to 500 BCE for such a sequence of astronomical events has come up with the list of years which eventually get filtered down to the year 1807 BCE as the date for Buddha's *PariNirvana*, demise.

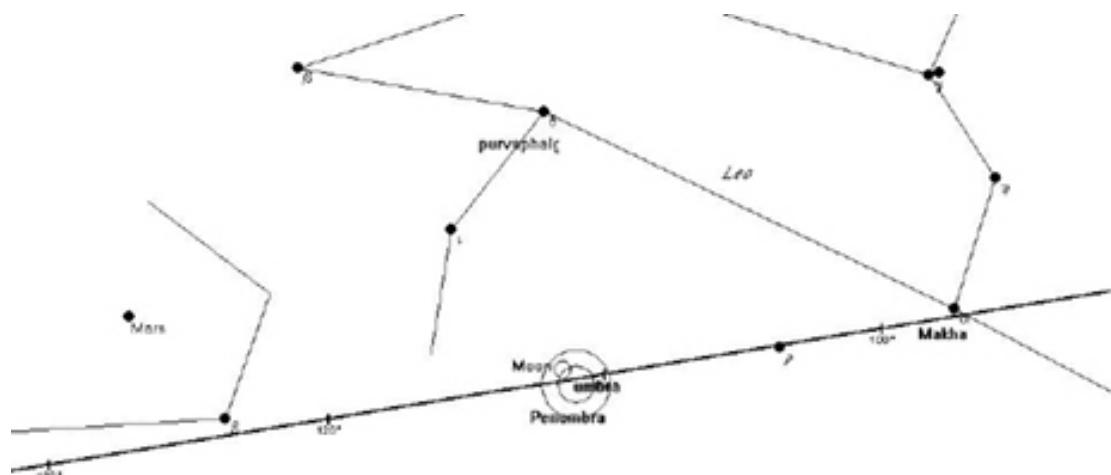
In 1807 BCE we find that the sequence of events as noted astronomically tally with the literary descriptions.

BUDDHA'S PARINIRVANA

Sky Configurations between 1900 BCE and 500 BCE

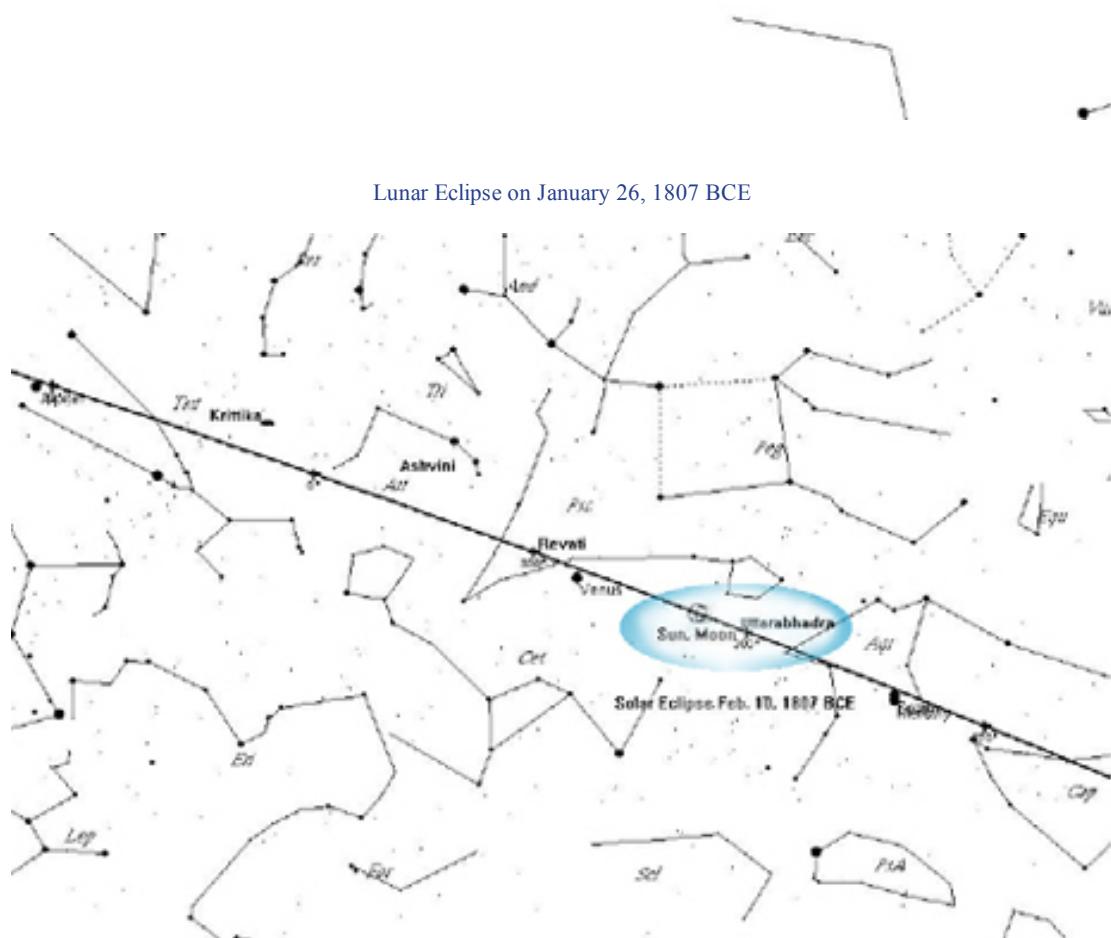


Process of arriving at Buddha's PariNirvana date

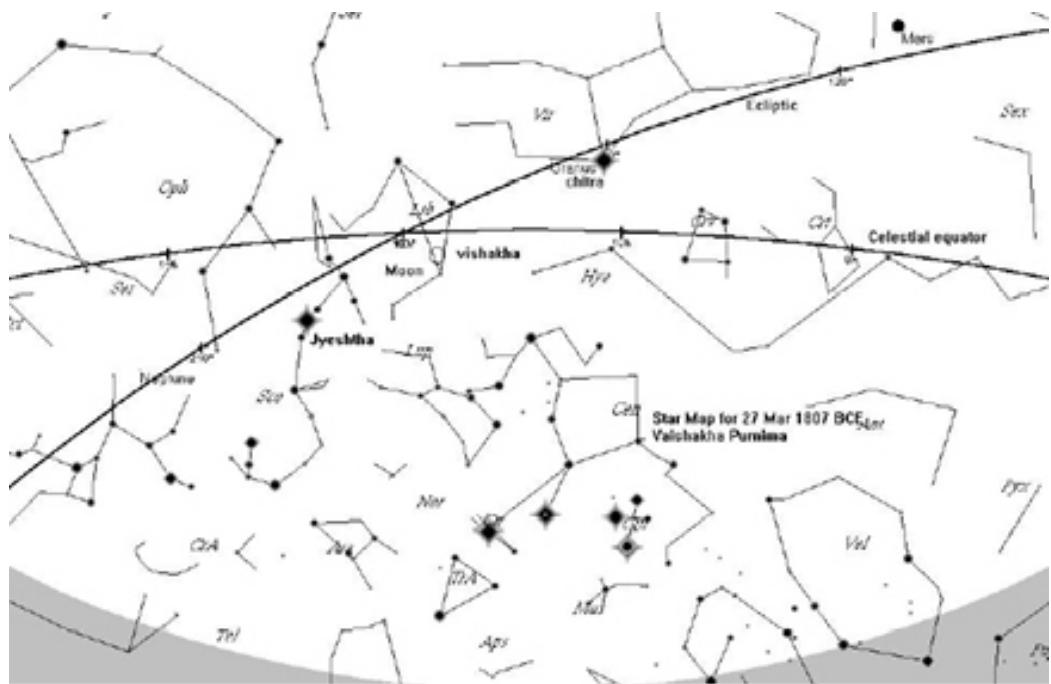


Lunar eclipse on Jan. 26, 1807 BCE

Stadius



Solar Eclipse on February 10, 1807 BCE



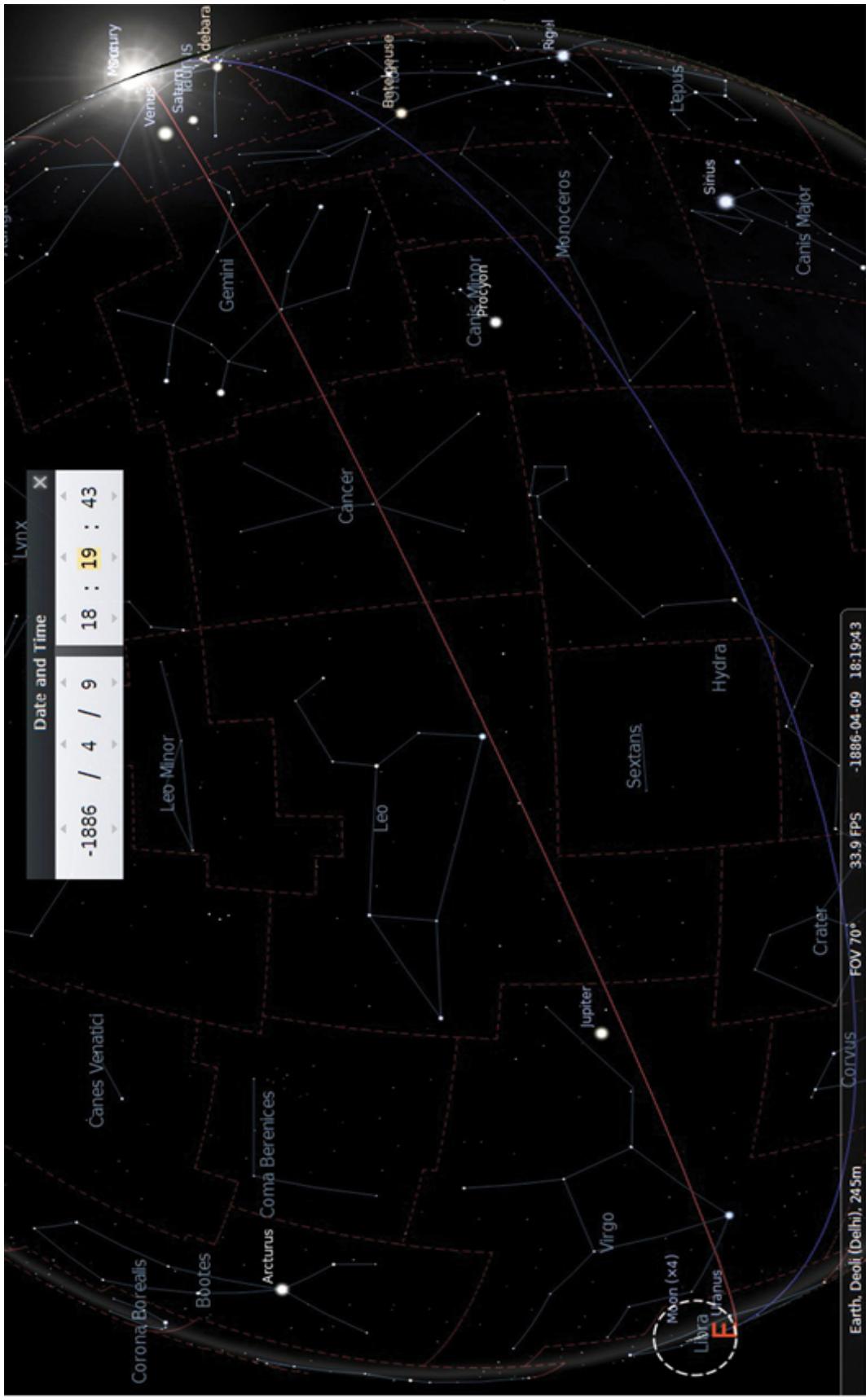
Star Map for March 27, 1807 BCE: Buddha's *PariNirvana*
Full Moon at *Vishaka*,

The dates of the events around Buddha's *PariNirvana* emerge as

- Winter Solstice – January 5, 1807 BCE (between Capricorn and Aquarius)
- Lunar Eclipse – January 26, 1807 BCE
- Solar Eclipse – February 10, 1807 BCE
- Buddha's *PariNirvana* – March 27, 1807 BCE (*Vishaka Poornima*)

Buddha's Birth

Literary records claim Buddha to have lived for 80 years. Hence, He must have been born in 1887 BCE. Using further details of sky configuration mentioned in the Buddhist texts, we can arrive at the date of Buddha's birth as April 9, 1887 BCE.

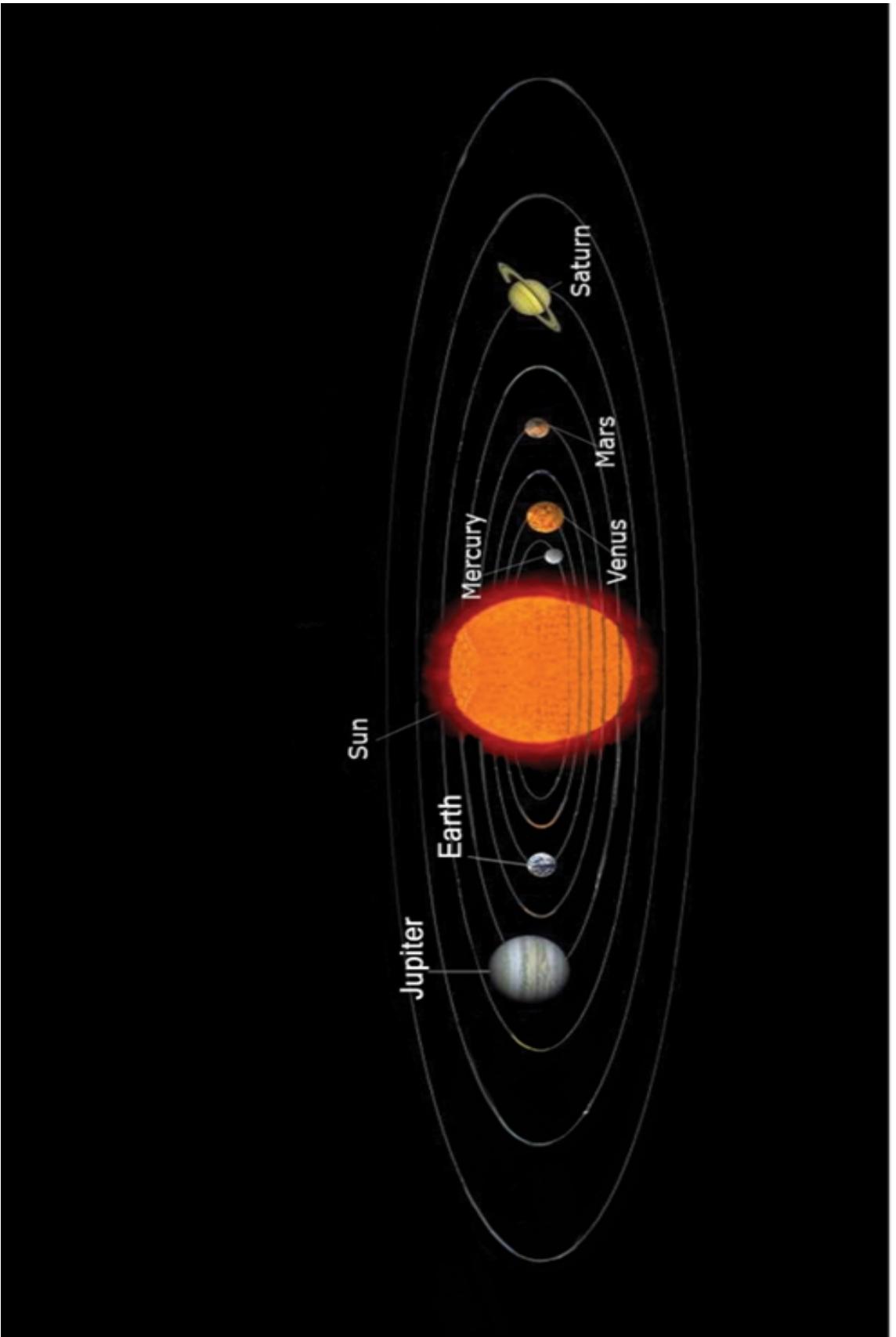


Buddha's Birth 9th April, 1887 BCE. Vaishaka Poornima.
Sun can be seen setting in Taurus while Full Moon rises in Libra (Vishakha).

Buddha's Birth 9th April, 1887 BCE. *Vaishaka Poornima*. Sun can be seen setting in Taurus while Full Moon rises in Libra
(*Vishakha* star) in East

It is interesting to see that on this date, Mercury, Venus, Saturn and Sun were in conjunction in Taurus and Mars was not far away in Aries. Jupiter alone was in Virgo, almost in opposition. It was also a Full Moon meaning Sun and Moon too were exactly opposite to each other on either side of the earth.

This means as seen from outside earth, all the planets, moon and the sun were almost in a straight line, aligned with Taurus.



View of the Planetary alignment on Buddha's birth

BUDDHA IN THE PURANIC LINEAGE

The Line Taken

The points that stand out from the expression of the lineage of dynasties in the various *Purana*:

1. One thing that comes out common among all these texts is that, they speak of a continuous kingship of Magadha for over 1200 years, starting from the Barhadratha dynasty. Brihadratha was the father of Jarasandha, the father-in-law of Kamsa and this dynasty was named after him. Jarasandha was killed by Bhima much before the *Mahabharata* War. Jarasandha's son Sahadeva who took over the reign of the Magadha kingdom was killed during the *Mahabharata* War. The Magadha kingdom was then led by Somadhi the son of Sahadeva. So, the reign of Somadhi and the history of Magadha can be traced to the *Mahabharata* war which has been independently dated to 3067 BCE as we shall see later in this book. Jarasandha, Sahadeva and Somadhi were all contemporaries of Krishna and had lived during His times.
2. The *Purana* express not only the lineage of the kings of Magadha but they also express with clarity the lineage of kings in various other dynasties especially the Ikshvaku dynasty, the dynasty in which Buddha was born. The listing of the Ikshvaku dynasty is much longer and traces its lineage across many millennia, all the way back upto Rama and also His ancestors.
3. The *Mahabharata* war provides a common time window from which to juxtapose these dynasties. Both the Barhadratha dynasty of Magadha and the Ikshvaku dynasty contain names of kings who started reigning after the *Mahabharata* war.
4. The listing of both these dynasties and the fact from other *Puranic* and Buddhist sources, that Buddha was born to King Shuddhodhana while Magadha was ruled by King Kshemajit, shows a concordance indeed. King Shuddhodhana was the 23rd king in Ikshvaku dynasty since *Mahabharata* war while King Kshemajit was the 31st king since *Mahabharata* war to rule Magadha.
5. The names and order of the kings in the various dynasties as listed by the different *Purana*, as well as the number of years of their reign, tally,

save for a few. This is understandable for a literature that has come down so many millennia and contains a listing that spans across many millennia prior to that.

6. The most important of all is that, this 1200 year period has been expressed among other scholars, by Horace Heyman Wilson in his English language work, “*Vishnu Purana - A System of Hindu Mythology and Tradition*” as well as by F.E.Pargiter. Coming from English historians, this lineage and time span, has been accepted by colonial historians.
7. Where the colonial historians differ from traditional scholars of India is that, they fix the date of Buddha as 487 BCE based on Alexander’s visit and work back 1200 years to fix the *Mahabharata* date as 1700 BCE. Whereas the traditional scholars of India fix the *Mahabharata* date based on the astronomical *Kali Yuga* conjunction as 3102 BCE and work forward 1200 years to trace Buddha’s period between 1900 and 1800 BCE.

The Litmus Test

Puranic and other literary records mention that Buddha was born in the Ikshvaku dynasty to King Shuddhodhana when King Kshemajit, also known as King Kshatrujas ruled Magadha. The year 1887 BCE, arrived at astronomically, should fall within the reign of King Kshemajit and King Shuddhodhana arrived at from the *Purana*.

Similarly, since literary records also claim that Buddha attained *PariNirvana* during Magadha King Ajatashatru’s 8th year of reign, it implies that Ajatashatru’s reign should have started in 1814 BCE using 1807 BCE arrived at astronomically.

The Lineage

The following table has been arrived at by going through the *sloka* and English translations of *Vishnu Purana*, *Vayu Purana*, *Matsya Purana*, *Bhagavata Purana* and *Bhavishya Purana* by H.H,Wilson as well as F.E.Pargiter. An analysis of the list of kings and the number of years of their reign across these *Purana* has been done to arrive at this table with maximum concordance across them all.

Puranic Lineage		Years		
		Number of Years	Start (BCE)	End (BCE)
	Barhadratha Dynasty			
Jarasandha				
Sahadeva (Killed in Mahabharata war)				3067
Somadhi		58	3067	3009
Srutasravas		67	3009	2942
Ayutayus		26	2942	2916
Niramitra		40	2916	2876
Sukshatra		58	2876	2818
Brihatkarman		23	2818	2795
Senajit		23	2795	2772
Srutanjaya		40	2772	2732
Vibhuh		28	2732	2704
Suchi		58	2704	2646
Kshemya		28	2646	2618
Suvrata		64	2618	2554
Dharmanetra		5	2554	2549
Nirvrti		58	2549	2491
Susrama		38	2491	2453
Dhridasena		48	2453	2405
Sumati		33	2405	2372
Suchala		32	2372	2340
Sunetra		40	2340	2300
Satyajit		83	2300	2217
Viswajit		25	2217	2192
Ripunjaya		50	2192	2142
		925	Years	
	Pradyota Dynasty			
Pradyota		23	2142	2119
Palaka		24	2119	2095
Visakhayupa		50	2095	2045
Ajaka		21	2045	2024
Nandivardhana		20	2024	2004
		138	Years	
	Shishunaga Dynasty			
Sisunaka		40	2004	1964
Kakavarna		36	1964	1928
Kshemadharman		36	1928	1892
Kshemajit / Kshemarchis / Kshatrujas (Buddha was born in 1887BCE)		40	1892	1852
Bimbisara/ Vimbisara/ Vidmisara/ Vindhushena / Vindhayasena		38	1852	1814
Ajatasatru (Buddha attained MahaNirvana in 8th year of rule, 1807 BCE)		27	1814	1787
Vansaka		25	1787	1762
Udibhi / Udasin		33	1762	1729
Nandivardhana		42	1729	1687
Mahanandi		43	1687	1644
		360	Years	

We see that the periods arrived at for the reign of Ajatasatru and Kshemajit through astronomy, do tally with the *Puranic* sources.

We see Ajatasatru's reign starting in 1814 BCE, tallying with the astronomical finding that in the 8th year of his reign, i.e., 1807 BCE Buddha attained *PariNirvana*.

We also see that Kshemajit's reign spanning from 1892 BCE to 1852 BCE, covering the astronomically arrived at 1887 BCE for the year when Buddha was born to King Shuddhodhana in Ikshvaku dynasty.

This places in clear light, the timeline of not only Buddha to 1800 BCE but of *Mahabharata* and Krishna to 3100 BCE.

WHAT DOES ARCHAEOLOGY SAY?

For the last 100 years and more, archaeologists have held that Buddha was born around 400 BCE.



Mayadevi Temple, Lumbini, Nepal

But during recent excavations at the Mayadevi Temple in Lumbini, Nepal, a UNESCO World Heritage Site, long identified as the birth place of Buddha, archaeologists have now unearthed an earlier temple there, previously unknown, which was a Buddhist temple.



Fresh Excavation near Maya Devi Temple

A timber structure here of a Buddhist shrine below the brick structure suggests that a Buddha temple existed here even before 400 BCE, probably belonging to 6th century BCE or even earlier.

This archaeological research finding has been led by Robin Coningham from Durham University, UK who said, “Now for the first time, we have an archaeological sequence at Lumbini that shows a building there, as early as 6th century BCE.”

Archaeology, the touchstone of approval for the traditional historians has also started pushing back the date of Buddha.

The Buddhist Texts

BUDDHIST WORKS

Buddha, the enlightened one, lived about 1200 years after Krishna.



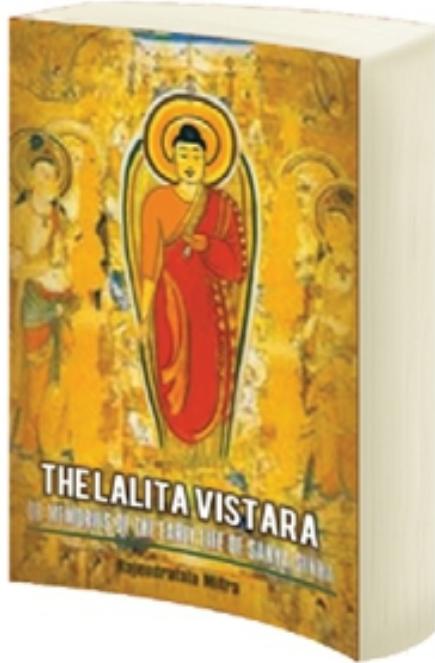
Buddha teaching His disciples

Some of the teachings of Buddha ran contrary to the teachings of Krishna, in the *Bhagavad Gita*.

In the Buddhist works, *Sutra Pitaka* and *Lalita Vistara*, there is a mention of Krishna. However, in both these texts, Krishna is referred to as an *Asura*. A derogatory reference indeed!



Sutra Pitaka



Lalita Vistara

The derogatory reference to Krishna in the text could be because Krishna's teachings centered around *Nishkama Karma* – detached performance of duty without expectation of rewards.

These view points were inimical to Buddha's teachings which emphasized renunciation of the materialistic life.

Arjuna, before the start of the *Kurukshetra* war, refusing to fight, lays down his weapons and expresses his desire to renounce everything and go away from the battlefield.

Krishna then advises Arjuna through the *Bhagavad Gita* how renunciation is not an easy, casual act and how it is a superior, ultimate goal, which is hard to achieve. He cautions against using renunciation as a means to escape from worldly problems.

Krishna points out that total renunciation is possible only for those who are mentally qualified. He then advocates *Nishkama Karma*, a philosophy of doing one's duties in a detached manner, without expecting any returns, as the way to mentally prepare oneself for the ultimate act of renunciation and then liberation.

Nishkama Karma thus holds significance in a worldly life, full of materialistic bonds, activities and rituals.

Krishna propounded the ideology of every individual continuing to live in household and society but practicing *Nishkama Karma* itself as a duty, *Dharma* to attain liberation.

Whereas Buddha's advice to His followers was to ask them to inculcate knowledge, so that they could develop themselves, understand the futility of worldly objects, understand that nothing in the world is permanent and that therefore, there was no point in desiring anything. Buddha thus advised people to renounce and remove all desires to attain liberation.

This is a simplistic explanation for the limited purpose of easy understanding of what could have been the reason for Krishna being denigrated as an *Asura* in Buddhist texts.

The focus in the above discussion is not to analyze Buddha's teachings vis-à-vis Krishna's teachings, but to bring to light, the acknowledgement of Krishna's historical presence, even about 1500 years before present, when these texts may have been written.

The point to be noted here is that, by referring to Krishna, although in unfavourable terms, these texts were also acknowledging His historical presence and His teachings.

Need a Real Person to Scold

One can find fault with or scold a person only when one acknowledges his historical presence.

Why would someone criticize a mythical, non-existent person, that too in an acknowledged philosophical treatise, the Buddhists texts in this case?

There is no point in doing so.

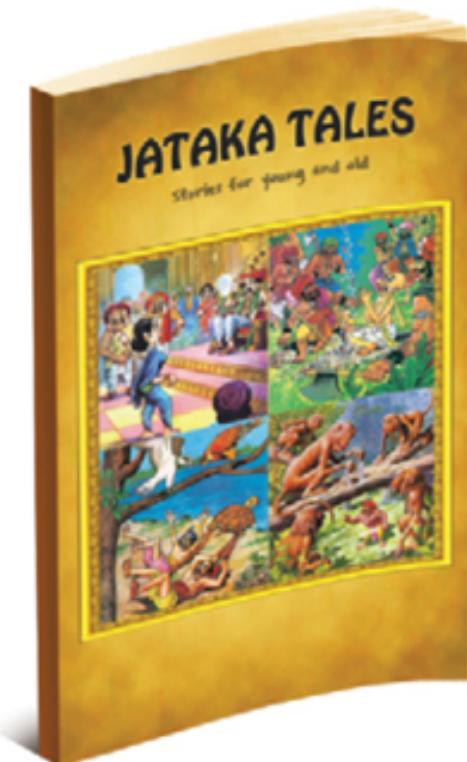
This is a case of an acknowledged and authentic Buddhist text acknowledging historical existence of Krishna many centuries before it.

JATAKA TALES

Apart from these Buddhist treatises, we have the popular *Jataka* tales.

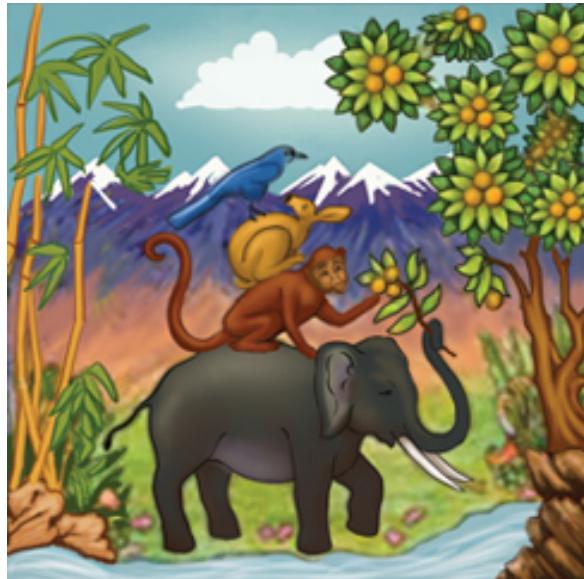
These are a compilation of moral stories with animals and humans as main characters.

These *Jataka* tales are primarily Buddhist works.



Kunala Jataka

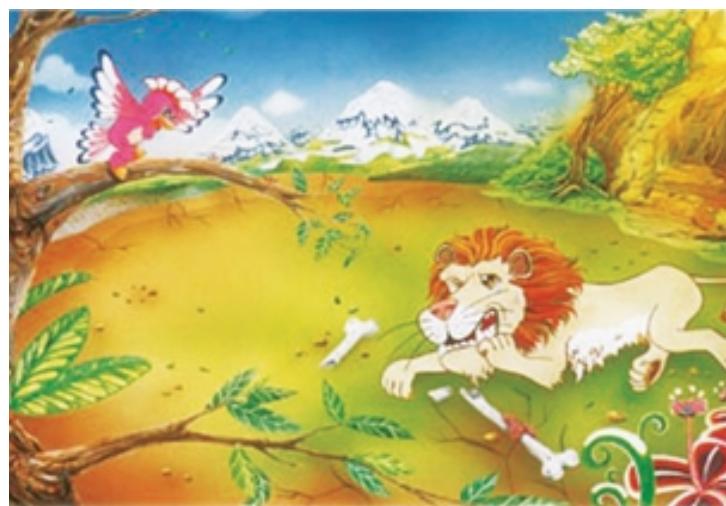
In *Kunala Jataka* – 536, we find mention of the five *Pandava* brothers and their wife Draupadi.



Kunala Jataka 536

Dhumakari Jataka

In *Dhumakari Jataka* 413, the *Swayamvara* of Draupadi, where Arjuna, the *Pandava* prince, also called as Dhananjaya for his skill, won her in an archery contest, forms the canvas for the story.



From this it is clear to us that in the serious, philosophical, Buddhist texts of *Lalita Vistara* and *Sutra Pitaka*, as well as in the moral *Jataka* stories for children, not only Krishna but also the *Pandava* princes are discussed as examples, so that the commoner can understand the story well and relate to the content.

In storytelling, the way to relate to the reader is through well known characters.

What better characters to use as reference for the Jataka stories, than the historical personages from the famous *Mahabharata* events?

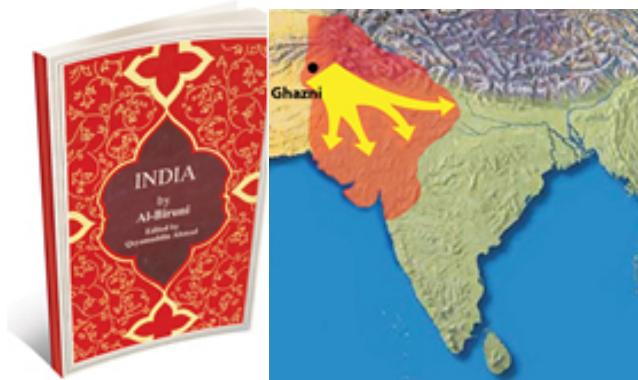
The Persian Chronicles

ALBERUNI ON HISTORICITY OF KRISHNA

Alberuni was a Persian Chronicler. He came to India in 1019 CE along with Mahmud of Ghazni. While Mahmud of Ghazni destroyed and plundered India, Alberuni, as his chronicler, interacted with the locals and prepared a detailed chronicle of India. His work is a magnum opus and is called “**Kitab ul Hind**” or “**Tariqh al-hind**”.



Alberuni & Mahmud of Ghazni



An English abridged edition of Kitab ul Hind & Region invaded and plundered by Mahmud of Ghazni

In this **Kitab ul Hind**, Alberuni specifically refers to Krishna as a historical person of this land.

Page 214 of the abridged English edition of his work states,

“Somnath was originally erected on the coast, a little less than 3 miles west of the mouth of the Sarsuti river, east of the golden fortress Baroi, which had appeared as a dwelling - place for Vasudeva, not far from the place where he and his family were killed.”

Somanath or Somnath, is a temple town, south of Dwaraka, in the southern part of the Saurashtra peninsula on the coast of present day Gujarat. This Somnath was plundered repeatedly by Mahmud of Ghazni.



Somnath Temple



Sarasvati River flowing near Somnath

Alberuni had come to India as a chronicler along with Mahmud of Ghazni. He travelled wherever Mahmud of Ghazni went and raided. He painstakingly made notes of the raids, the state of the town before and after the raid, social life and geography of that town. So, Alberuni in all probability must have visited Somnath too. His statement about Somnath, about Sarasvati river, referred by him as Sarsuti, having flowed there and about Vasudeva i.e., Krishna having breathed His last near Somnath, therefore corroborates the historicity of Somnath and hence of Krishna.

A supporting evidence for the fact that the Sarasvati River continued to flow during Alberuni's times are the *Vavs*, step wells of present day Gujarat.

The Rani Ki Vav, one of the famed step wells of Gujarat, was built around 1000 CE, the time when Alberuni visited India. This Vav, even today, shows an input channel into the well from the currently dry river bed of what was once the flowing Sarasvati River, nearby.



Gujarat Region and Rani Ki Vav, Gujarat



The reference by Alberuni to Vasudeva here denotes Krishna. Krishna was fondly also called Vasudeva, to distinguish him as the son of Vasudeva.

We can draw a few conclusions from this statement of Alberuni.



Bahalka Temple, final resting spot of Krishna

1. The river Sarasvati drained into the sea at Somnath. This point will be revisited later in this book.
2. Krishna left His mortal coils at the estuary of this river Sarasvati. Even to this day there is a monument here, a temple to commemorate this event and the place.

The Tamil Texts

There are many works which do not belong to the region of Hastinapura, Kurukshetra or do not come from the collection of Krishna Dwaipayana authored texts. Yet they speak of the historicity of Krishna.

THE SANGAM TEXTS

The *Mahabharata* text and the *Purana* are written in the *Samskrta* language whose antiquity goes back to atleast 8000 years and more.

In the southern part of India is the Tamil language, which has a similar antiquity.

The Sangam Period

In this ancient Tamil language, the oldest texts available today, belong to the *Sangam* period - a historical period, which lasted upto 2000 years ago.

From this *Sangam* period, which was rich in literature, there are a few texts that have come down to us today.

Purananooru

Of this *Sangam* literature, *Pura Nanooru*, as the name suggests, is a compilation of 400 poems. *Nanooru* means 400 and *Puram* means “outside” in Tamil. It speaks of *Veeram*, bravery. It pertains to the lives of kings and societal life. Another equally ancient *Sangam* text is *Aha Nanooru*, where *Aham* means “inside” in Tamil. It speaks of love, family and private life.



Tamil Scholar of *Sangam* period

Pura Nanooru is a respected and authoritative text and bears a mention of Tamil *Velir* kings, who claim their descendency from Dwaraka City.

நீயே, வடபால் முனிவன் தடவினுள் தோன்றி,
செம்பு புனைந்து இயற்றிய சேண் நெடும் புரிசை,
உவரா ஈகை, துவரை ஆண்டு,
நாற்பத்தொன்பது வழிமுறை வந்த
வேளிருள் வேளே! விறற் போர் அண்ணல்!
தார் அணி யானைச் சேட்டு இருங் கோவே!

Pura Nanooru Tamil Text (Poem 201-8-12)

neeye, vad.apa_I munivan tad.
avinul. to_nr-i cempu punaintu
iyar-r-iya ce_n.ned.um puricai
uvara_i_kai tuvarai a_n.t.u
na_r-pattonpadu var..imur-ai vanta
ve_l.irul. ve_l.e_ vir-ar-po_r an.n.al
ta_r an.i ya_naic ce_t.t.u irunko_ve

The translation of the relevant verse being: -

- “*King among kings, who ruled from Dwaraka, descending from 49 generations*”.

The reference here is to a *Chera* King called Irungo Vel. Dwaraka is known as *Thuvarai* in Tamil.

A **CHERA KING, DESCENDANT OF KRISHNA**

This *Chera* King, Irungo Vel, is being proclaimed in the Tamil text *Pura Nanooru*, as the 49th descendant of Krishna from Dwaraka.

As is well known historically, the *Chera* Kings ruled the southern part of present day Kerala state. The word “*Chera*” denotes people who live in the hill slopes, coming from the classical Tamil word “*Cheral*” for mountain slope. It is from this, we also have the present Tamil word “*charivu*” meaning slide, slope. The very word “*Kerala*” for the region spanning the Malabar hills of India, is believed to be a variation of this word “*cheral*”.



Hill Slopes of Kerala

The *Chera*, along with the *Pandya* and *Chola* ruled the regions of South India for more than a couple of millennia. This is evident from the fact that they find mention even in the *Mahabharata* and *Aitreya Aranyaka*, an ancillary text in the body of the *Veda*, as having participated in the Kuruksehtra war.

This is probably the earliest reference to Krishna of Dwaraka in Tamil Literature.

PART FIVE – DATES FROM ARCHAEO-ASTRONOMY

The Field

ARCHAEO-ASTRONOMY

In contrast with archaeology, where one digs into the ground for evidence, in Archaeo-Astronomy, one digs into the sky to trace past star configurations and to date them.

It is like going back in time, seeing the skies as they had appeared then and based on the same, arriving at dates for various events of the past. For doing so, it is however important that we have for reference, detailed description of how the skies had appeared when those events took place.

This method of dating events of the past, based on the observation of the planetary configuration recorded then, has now been classified as a distinct field of study, namely Archaeo-Astronomy.

The “archaeo” denotes that this field deals with the study of the past, archaic. The “astronomy” denotes that this field involves the use of astronomical sciences to get to the history.

It is thus a multi disciplinary field of study which besides the knowledge of history and astronomy, also demands proficiency in linguistics and scripts to be able to read and understand correctly the ancient records containing the astronomical data from the past.

In Archaeo-Astronomy, one can go back in time using painstaking manual calculations or in present times, one can make use of special purpose software called Planetarium Software, to do so with relative speed, ease and accuracy.

ANCIENT INDIANS - TIME KEEPERS OF THE WORLD



Modern Clock - 3 hands on a numbered dial

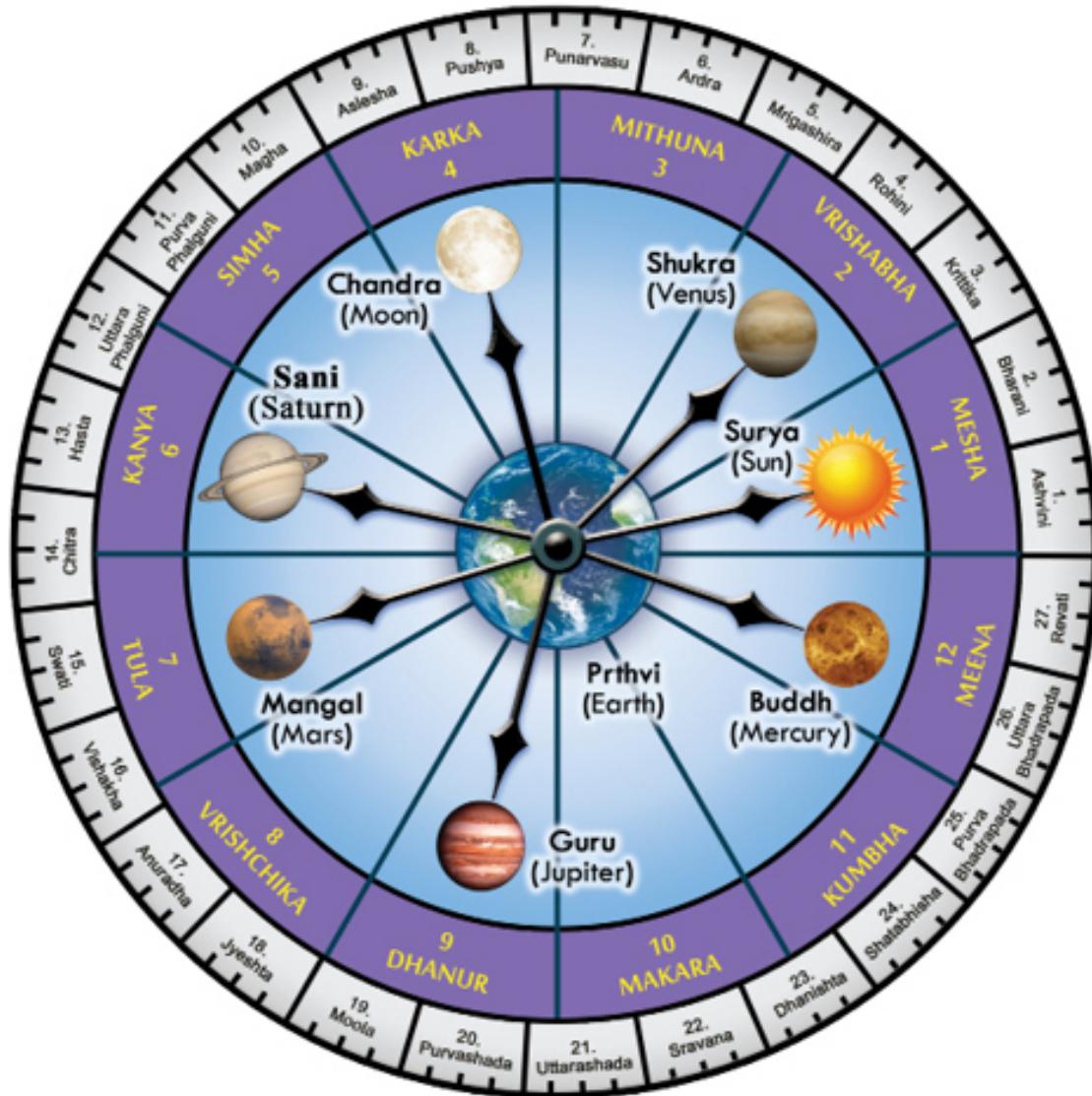
We now measure the passage of time with the help of a clock which has 3 hands to it - hour, minute and second, with 12 marks on the dial.

This method of marking time is good for a short duration of time, like a day.

The ancient Indians followed a very ingenious and scientifically exact way of recording time that spanned across years. They followed a method of time keeping that involved tracking the objects in the skies and noting their movements and positions.

It was at the same time, both simple and complex.

It was simple in the sense that the face of their clock was the sky itself.



Ancient Clock - 7 hands with sky as dial

It was complex in the sense that

- instead of 12 numbers, the face had 27 *nakshatra*, stars as the markers or points on the face
- instead of 3, it had 7 hands from the point of observation , i.e., earth, to the sun, moon and the five planets, namely Jupiter,

Saturn, Mars, Venus and Mercury. These hands tracked the motion of the planet, sun or moon,

-

The arrangement of the planets, sun and moon visible in the sky as against the face of the sky, made up the sky configuration for that instant.

This sky configuration described that instant of time.

Since the motion of planets spanned across years, the sky as their clock was thus capable of allowing them to track time span across years.

Thus, their clock was also their calendar.

Since the permutation and combination of 27 units and 7 hands were innumerable, the chances of repetition of the same sky configuration was rare.

This makes every night sky configuration almost unique and the repetition almost improbable within the grasp of mankind's memory and thus history.

Sky Configurations from *Mahabharata* Times

DATING KRISHNA USING ARCHAEO-ASTRONOMY



Rishi observing night sky

The *Mahabharata* and other texts which discuss Krishna's life history, contain over 150 sky configurations, mentioned in great detail with astronomical positions.

These astronomical observations, when run through the planetarium software, give us excellent data to almost precisely arrive at the date, when these observations were actually made and hence recorded.

Of these 150 astronomical observations, only a few of them relate directly to Krishna's presence at an event and we shall look at them closely, to date Krishna.

1. Krishna's departure to Hastinapura

2. Krishna – Karna chariot ride
3. Start of Balarama’s pilgrimage
4. Completion of Balarama’s pilgrimage
5. Start of Kurukshetra war
6. Krishna Departing from Earth
7. *Yadava* civil war

A STELLAR EFFORT

Obviously for such a method of dating, the astronomical positions and observations mentioned in the *Mahabharata* and other allied historical texts have to be relied upon. All of this calls for a good knowledge of *Samskrta* as well as Indian astronomy, coupled with expertise in modern astronomy and usage of computers to be able to use the Planetarium software - a rare combination of skills.

Many researchers with such skills and interested in Indic studies have made an effort to identify the dates for these 150 observations and have individually come to very similar conclusions. Many have also relied on manual methods of calculations. While there is divergence of dates, most have arrived at similar dates around 3100 BCE.



Dr.Narahari Achar with the author D.K. Hari

In the particular effort of using Planetarium software as an aid and Archaeo-Astronomy as a technique to date Krishna and the events of the *Mahabharata*, Dr. Narahari Achar of the Memphis University, USA, seems to be a forerunner in our times. Equipped with the rare combination of skills needed for this exercise, Dr.Achar has meticulously mapped the specific relevant information in the texts to sky configurations and come up with the most probable dates for Krishna's period.

For each of these dates, the sky chart, the astronomical observations mentioned in the text and the star positions as per the Planetarium software tally well.

Let us look at each of these events.

Krishna's Entry Into *Mahabharata*

Krishna appears for the first time in the *Mahabharata* text only during the *Swayamvara* of Draupadi.



Draupadi *Swyamavara*

Swayamvara is a function where a woman chooses her husband, sometimes through a contest of valour or of her own choice. Here, in this *Swayamvara* of Draupadi, Arjuna the *Pandava* prince wins the hand of Draupadi in a feat of archery.

First mention of Krishna in Mahabharata

It is at this Draupadi *Swayamvara* function, that Krishna's presence is mentioned for the first time in the *Mahabharata* text, where He meets His cousins, the *Pandava* princes for the first time.

The *Mahabharata* text was authored by the biological grandfather of the *Pandava* and the *Kaurava* princes, the main protagonists and antagonists

of the story and war. Krishna, like other characters, comes into this *Itihasa*, historical epic for the specific role He plays.

The texts that focus on Krishna specifically are the *Bhagavata Purana* and *Hari Vamsa* wherein, the birth of Krishna and His childhood exploits are detailed, some with astronomical details and some with eulogy.

We shall first rely on the *Itihasa Mahabharata* for the data that it can provide for the period of the lifetimes of the *Pandava* and *Kaurava*, as Krishna was their contemporary and cousin.

From there, we shall attempt to reconstruct the lifetime of Krishna.

Krishna's Peace Keeping Mission

KRISHNA – THE PANDAVA DHUTA

A specific sky observation connected with Krishna in the *Mahabharata*, comes fairly long into the epic.



The mood for the Kurukshetra war is setting in.

Since their childhood, there was a belligerence between the cousins the Pandava and the Kaurava. The Kaurava princes had always looked at the Pandava as their sworn enemy and had refused to budge to accommodate their fair request for their rightful share of kingdom.

Now this animosity had blown up into a full blown war like atmosphere.

Krishna, the maternal cousin to the Pandava princes, offers to mediate on behalf of His cousins the Pandava, with their paternal cousins, the then ruling Kaurava princes, to avoid the escalation of the situation into a war.

Krishna embarks on a peace keeping mission as a Pandava Dhuta, meaning ambassador of the Pandava.

Krishna arrives at the court of Dhritarashtra and is given due honours as given to an ambassador. The peace negotiations take place but they turn infructuous, as the Kaurava brothers stubbornly refuse to release even a single speck of land to their cousins, the Pandava. Krishna tries infusing the Kaurava with a sense of fairness and that too falls on deaf ears.

This attitude of Duryodhana came out of his deep rooted hatred for Pandava.

Why this deep rooted hatred for the Pandava?

Root Cause for Duryodhana's hatred towards the Pandava

It was on one main count that Duryodhana was jealous of the Pandava, which was that, Duryodhana and everybody around him knew that he was only the son of a regent, Dhritarashtra and did not have right to the throne. Only the king's son, i.e Yudhishta, the Pandava, son of late King Pandu, had the right to the throne.

Added to this was the fact that not only was Yudhishta, the son of a king, but he was also elder to Duryodhana. Yudhishta was also known to be of a nobler mettle and more just and fair, for

which he was given an honorific name, Dharmaputra, from his childhood, meaning one who diligently follows the path of righteousness.

So, on all three counts, it was Yudhishtira who had the right to the throne.

Also, the unity among the Pandava was so strong that they could not be overpowered.

There was no way Duryodhana could undo any of these and become king ever. He had grown up with the knowledge around him that Yudhishtira would one day become King and he would have to serve him. This was the one fear that he had and his hatred towards the Pandava and everything else around them, stemmed from here.

Duryodhana's Attempt to Avert War

Duryodhana creates a trap door under Krishna's chair to capture and imprison Krishna during this visit to his court.

Duryodhana in his folly, thinks that by trapping Krishna, he can close any chance of a negotiation for a share of the kingdom and Krishna being an ally of the Pandava, it would also immobilize the Pandava camp and avert a war for their share.

Blinded by Desire

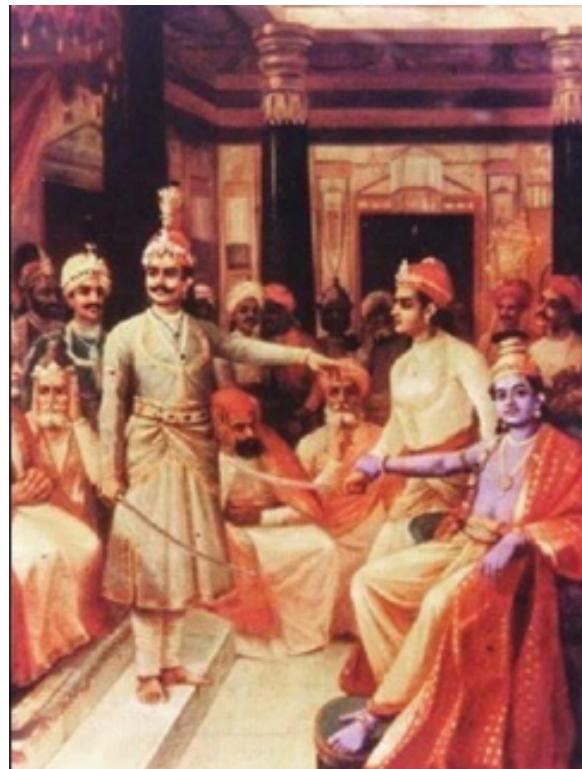
Krishna instead of falling into the trap shows His cosmic form, Vishwa Roopa Darshana to drill into Duryodhana that He was beyond all these earthly trappings, He could not be trapped as He was the keeper of the cosmic law in the entire cosmos. Yet, even after seeing this both, frightening and enlightening form, Duryodhana is so blinded by his desire for power that he does not see the message in Krishna's cosmic form. His hatred towards the Pandava is so powerful that it overpowers even his experience of the sight of the cosmic form of the Divine.

His father, the King Dhritarashtra is blind physically and also blinded by his love for his son Duryodhana that he too does not see light in the negotiations of Krishna and relents to Duryodhana's stand.

The stage was thus set for the start of the Kurukshetra battle.

Krishna had failed in His peace keeping mission.





Krishna as *Pandava Dhuta*, a Ravi Varma Painting

The story of this *Pandava Dhuta* role of Krishna, has come down over millennia and continues to engage people to this day through various art forms and even through temples dedicated to this episode.



Pandava Dhuta Temple, Kanchipuram -
a giant sized idol commemorating Krishna as *Pandava Dhuta*

KRISHNA'S DEPARTURE TO HASTINAPURA

The *Mahabharata* text describes Krishna's visit to Hastinapura, the capital of the *Kaurava* kingdom, as an envoy of the *Pandava*, in great detail, including the sky configurations on the day of His departure.

Krishna leaves for Hastinapura on this mission of peace, in the *Maitri muhurta*, in the month of *Kartika*, on the day of *Revati nakshatra*.

This data is elicited from the *sloka*....

*Tato vyapete tamasi surye vimala udgate
maitre muhurte samprapte mrdvarcise divakare ||
Kaumude masi revatyam saradante himagame
sphitasayasukhe kale kalyah sattvavantam varah ||*

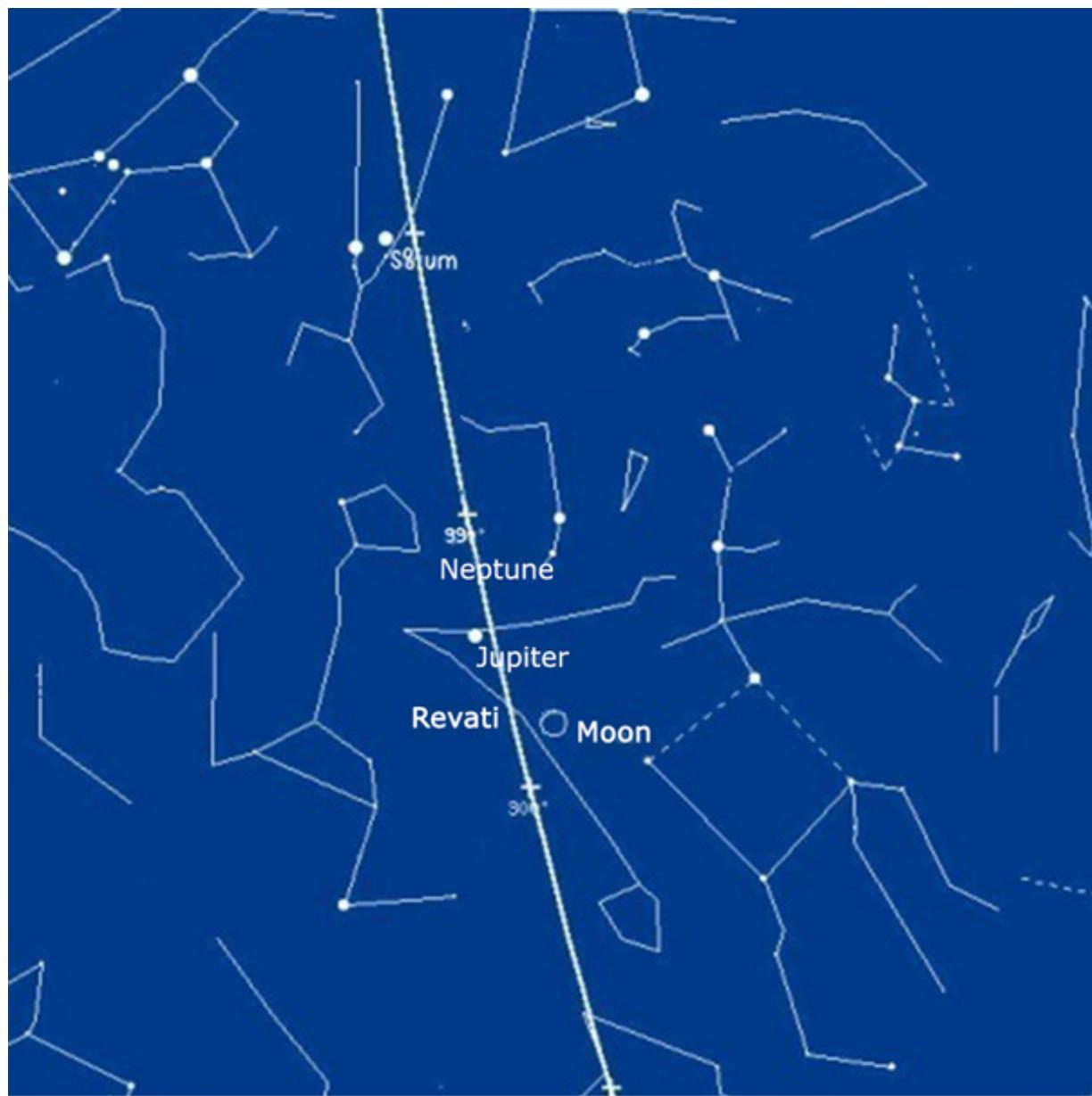
The *sloka* on the departure of Krishna to Hastinapura

The translation of which is,

"Krishna leaves for Hastinapura on the diplomatic peace mission in the Maitri Muhurta in the month of Kaumuda, on the day of Revati Nakshatra."

Kaumuda refers to the period around the *Deepavali* festival.

Searching for this sky configuration in the past, using the planetarium software, we arrive at the date 26th September, 3067 BCE as the day when this configuration was seen in the skies.



Sky chart – Departure on *Pandava Dhuta* Mission on 26th September, 3067 BCE

From this date, we get the dates for the day on which Krishna revealed His cosmic form.

Krishna reached Hastinapura two days later on 28th September, 3067 BCE when the moon was at *Bharani Nakshatra*.

On reaching Hastinapura, He paid His respects to Kunti, the mother of the *Pandava*, who had chosen to stay back at Hastinapura city.

He stayed at the residence of Vidura, the wise counsel of Dhritarashtra, preferring it to the palatial grandeur and luxury offered to Him by Duryodhana.

He then conducted peace negotiations on behalf of the *Pandava*, at the court of King Dhritarashtra. When the peace negotiations seemed to be falling apart, on the day of *Pushya Nakshatra*, which fell on 5th October, 3067 BCE, Krishna revealed His cosmic form, *Vishwa Roopa Darshana* to those present there.

Unfortunately despite this vision of the cosmic form, the peace mission of Krishna did not yield favourable results and Krishna prepared to leave from Hastinapura.

Krishna Karna Chariot ride

ELDER THAN THE ELDEST

After the failed peace mission, Krishna meets Karna and tells him how Karna is the first born son of Kunti and how the *Pandava* were his brothers.



Unwed Kunti setting her first born son Karna afloat

He tries to coax Karna into parting ways with Duryodhana as Duryodhana had ignored the pleas of one and all to return the land rightfully due to the *Pandava* and was thus inviting a war.

Karna acknowledges this, but explains how he is indebted to Duryodhana for all that he had done for him in his life. Therefore abandoning Duryodhana when he needed him the most, would not be right on the part

of Karna, despite the fact that he would have to fight his own brothers in the war.

Karna makes Krishna promise that he would not reveal to the *Pandava*, the fact that he was their own brother. Krishna gives His word, a promise that He stood by till the end of Karna's life.

TALLER THAN THE TALL

This reply and stand of Karna highlights the righteousness and loyalty of Karna.

The *Mahabharata* is replete with towering personalities. Even amongst this galaxy of tall personalities, Karna stood out taller, not only for his prowess in warfare but also for,

- his charity
- his righteousness
- his loyalty towards a friend and above all
- his endurance of all the shame and misfortune that had hounded him right from his birth.

One wonders what would have happened if only Karna had accepted Krishna's offer and sided with the *Pandava* and taken over the kingdom of Hastinapura?

There perhaps would have been no war. Both the *Pandava* and Duryodhana would have been happy with the choice of Karna as the king. But it was not to be. Also Karna, being the righteous soul that he was, would not have sat on the throne and duty bound, would have offered it to Duryodhana. The war was therefore destined to happen anyway.

Krishna and Karna were key persons on the opposite sides of the battle camp, yet Karna thought fit to see Krishna off from Hastinapura.

All these speak volumes of the refined conduct even in the way battles were fought and the principles followed by the warring parties then.

Such a battle fought for principles and on principles, is called a *Dharma Yuddha*. *Dharma* standing for righteousness and *Yuddha* meaning war.

THE CHARIOT RIDE

Post these discussions, as Krishna leaves Hastinapura, Karna accompanies Him to the outskirts of the city, in His chariot , to see Him off.

Krishna and Karna discuss about how the season was suitable to go for war and they decide to declare a state of war, 7 days from then.

Bidding Krishna farewell, Karna then returns to Hastinapura.



Krishna Karna chariot ride

DATING THE CHARIOT RIDE

The information contained in their discussions gives us the vital inputs needed to plot the sky chart for the date of the discussion.

*prājāpatyam hi nakṣatram grahas tiksṇo mahādyutih
śanaiścaraḥ pīdayati pīdayan prāṇinodhikam//
kṛtvā cāṅgārako vakram jyeṣṭhāyām madhusūdana
anūrādhām prārthayate maitram samśmayannival//
nūnam mahadbhayam kṛṣṇa karuṇām samupasthitam
viśeṣena hi vārsneya citram pīdayate grahaḥ//
somasya lakṣma vyavṛttam rāhurarka mupesyati
divaścolkāḥ patanyetāḥ sanirghātāḥ sakampānāḥ//*

*Mahabharata sloka 5.141.7 to 10,
Sloka describing the conversation between Krishna and Karna*

1. Saturn is at *Rohini*
2. Mars which had exhibited a retrograde motion earlier has once again become prograde
3. *Chitra nakshatra* is being harassed by a *graha*

Mahabaratha 5.141.7 to 10

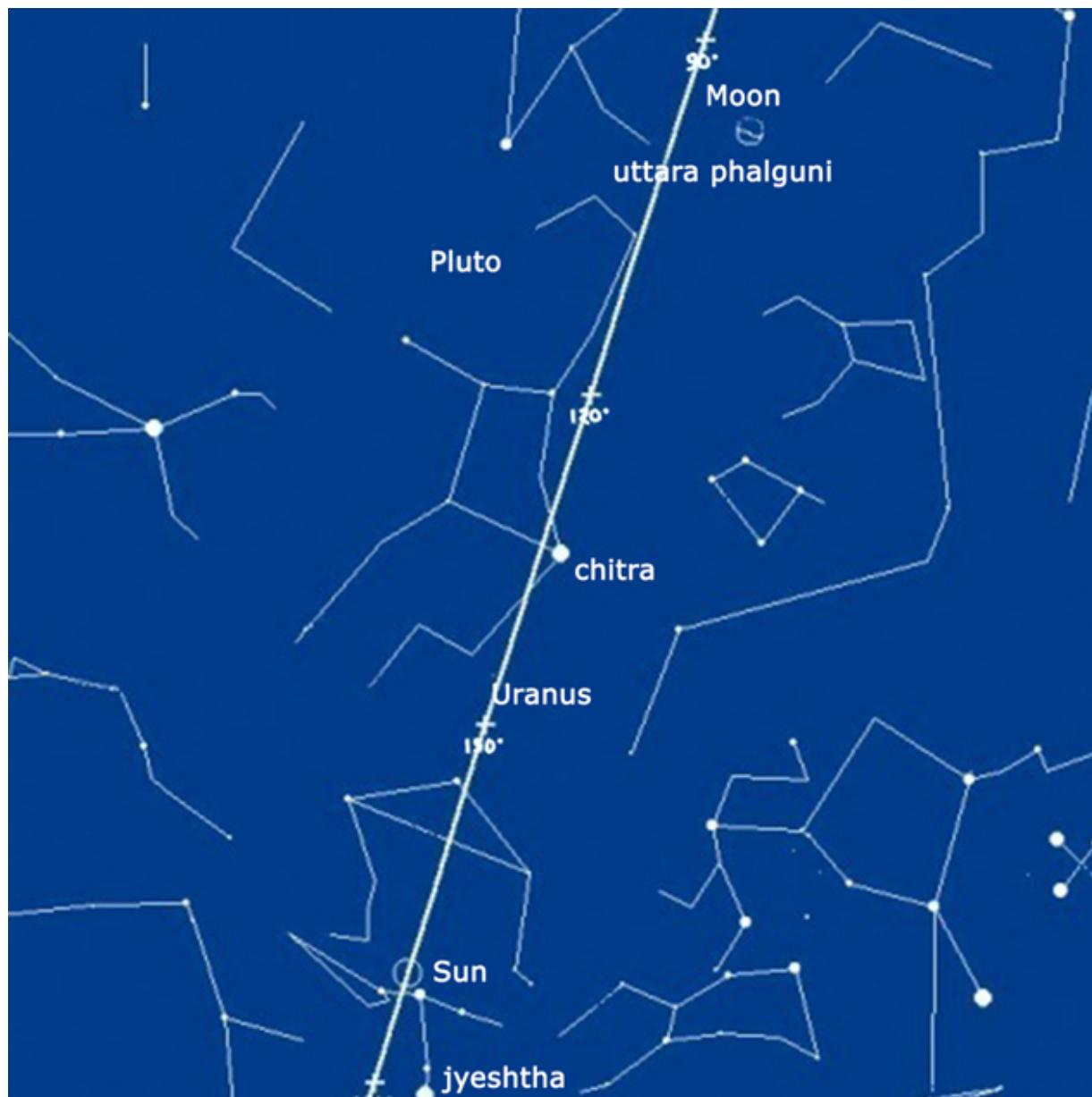
English translation of the above *sloka*

From this and other *sloka* pertaining to this event, we can gather that during this chariot ride, Krishna and Karna had observed that:

- It was *Uttara Phalguni* day
- Saturn was observed at *Rohini* star

- A planet was observed near *Chitra nakshatra*
- The planet Mars which over the earlier few days was in a retrograde motion, had retraced to a prograde motion at the time of this observation.
- It was 7 days to go for *Amavasaya*, the new moon.
- This new moon was to occur near the star *Jyeshta*, Antares in the Scorpio constellation.

From these observations and searching for such a configuration in the past, one arrives at a date of 8th October, 3067 BCE, as the date for this chariot ride.



Sky chart on 8th October, 3067 BCE

It was on this date that between Krishna and Karna, they had concurred that both the sides should declare a state of war on the day of the coming New Moon, which was to occur near the star Antares, *Jyeshta*.

The significance for the star *Jyeshta* here is that, this star in Indian astronomy, is associated with Indra, the chief of divinities. This could therefore have been considered as an auspicious period for a war.

An auspicious start for a war?

Truly paradoxical, but anyone embarking on an important task would like to do so with all odds in their favour. And this was a war.

Thus concludes Krishna's journey on the peace keeping mission.

The Imminent War

A war has been declared between the cousins.
Hastinapura is worried.

Other kings and kingdoms are getting involved too as they have been wooed to join sides.

The elders, of whom there are many, are a worried lot. They are at a loss for they do not know of a way out of the imminent war between their young ones.

KRISHNA DWAIPAYANA – A WORRIED GRANDFATHER

Here, Krishna Dwaipayana, the grandfather of the *Pandava* and the *Kaurava*, the author of the *Mahabharata*, is a worried man. He is going to witness a bitter battle between his grandsons.

The worried grandfather looks to the sky for answers to the questions in his mind.

TRIPLE ECLIPSE – AN OMINOUS SIGN

It is then that he observes this unique event of a triple eclipse. Three eclipses in one month.

Lunar eclipses occur only on a Full Moon, *Poornima* and Solar eclipses can occur only on a New Moon, *Amavasya*. But eclipses by nature, do not occur on every Full Moon or New Moon. Generally in a year, there occur around five to six eclipses and not all are usually visible from the same place.

So three eclipses occurring back to back, in two successive fortnights, in a 30 day span, a lunar month, is a bit rare indeed.

Krishna Dwaipayana observes such a celestial event and records this with amazement.

*caturdasim pancadasim bhutapurvam ca sodasim;
imantu nabhijane ham amavasyam trayodasim.
candrasuryavubhaugrastau ekamasim trayodasim;*

Sloka on the three eclipses before the war

“Fortnights of 14, 15 and 16 days are known in the past. But never have I heard of a fortnight in 13 days. Never have I known in 13 days, in a single month, both a lunar and a solar eclipse.”

Ekamasim means “in a single month”, *trayodasim* means “13 days”.



Krishna Dwaipayana observing 3 eclipses

A 13 day, Paksha, Fortnight

A *Paksha*, fortnight is the duration between a New Moon to Full Moon or a Full Moon to New Moon. This duration is normally 14 to 15 days depending on lunation.

In the particular eclipse sequence that occurred then, Krishna Dwaipayana observes that not only is it a triple eclipse, but one of the eclipses in the series, was occurring within a gap of just 13 days.

Here, the author is speaking of a unique occurrence of a New Moon and a Full Moon within a gap of 13 days. This is a rarest of rare case.

THE TRIPLE ECLIPSE SEQUENCE

Krishna Dwaipayana explains in detail the occurrences of the three eclipses in a month and expresses amazement as well as apprehension at the same.

This eclipse season is described as a sequence of

1. a lunar eclipse,
2. followed by a solar eclipse,
3. then followed by another lunar eclipse,

all in one month.

We also find specific data on the astronomical position of each of these eclipses.

- The first lunar eclipse is described as having occurred in the *nakshatra* called *Bharani Kartika*, the Pleiades group of stars.
- The second occurrence of the eclipse in the sequel, is the Solar eclipse which is described as having occurred near the *nakshatra Jyeshta*, the star Antares.
- The third eclipse, which is again a lunar eclipse, occurred in the *nakshatra Margashira*, a group of stars, in the Orion constellation.

It was also a *paksha* of 13 days with an eclipse at either end.

Stringent parameters

This detailed description found in the *Mahabharata* text, not only helps us to understand the sequence of the eclipses, but also fixes the star near

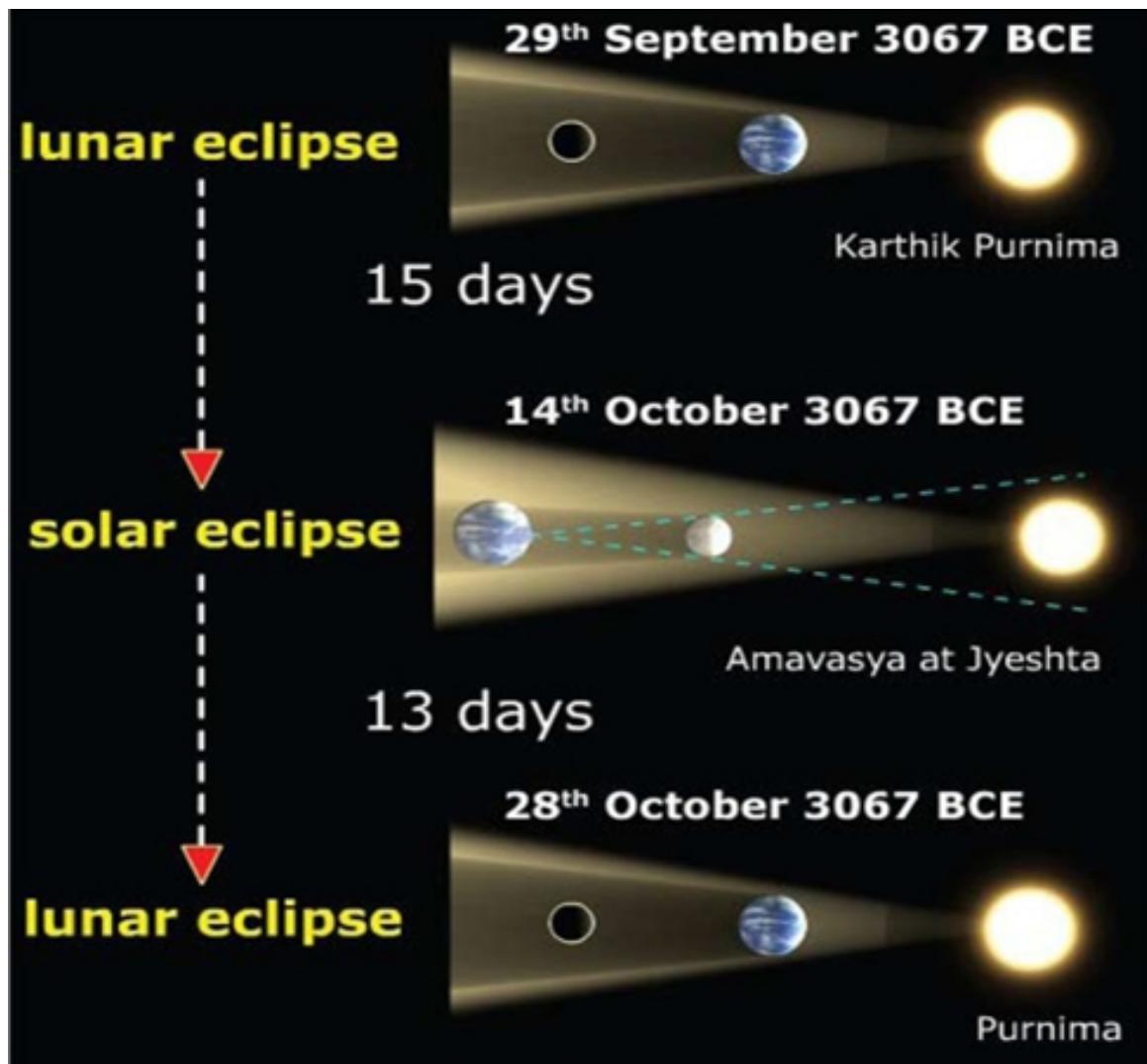
which the eclipse actually happened.

These are very stringent parameters.

- Equinox near star, *Jyeshta*
- A Triple eclipse sequence
- Solar eclipse only at that particular star, *Jyeshta* and not anywhere in the sky
- Solar eclipse flanked by two lunar eclipses
- 13 days prior to the second lunar eclipse was a solar eclipse

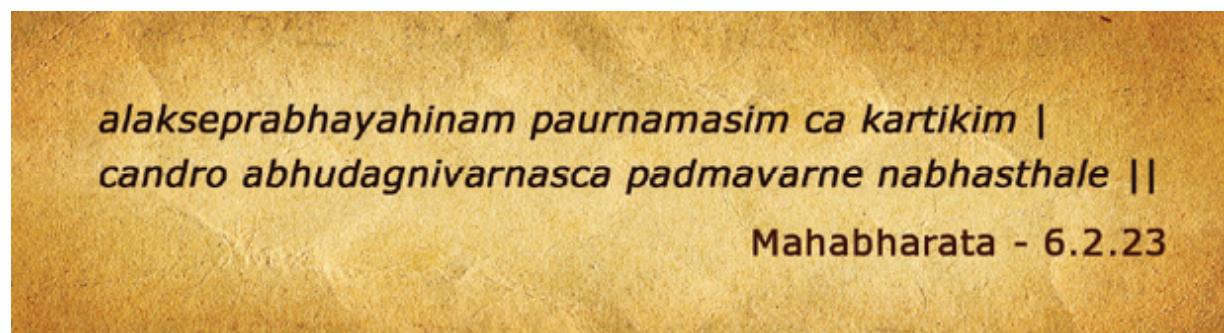
Today, using the planetarium software we can find out with relative ease if indeed such astronomical occurrences did really take place.

We find that such a set of Triple Eclipse did occur in 3067 BCE.



The Triple Eclipse in 3067 BCE

What is fascinating to note here is that, the sky charts thrown up by the planetarium software meet all these stringent requirements.



Sloka on the occurrence of lunar eclipse on **Karthik Poornima** full moon night

The moon is hardly visible, devoid of glory,
with a fiery tinge and the sky is of lotus hue.

English translation of line 2 of above *Sloka*

This verse suggestively describes it to be a penumbral eclipse with a lotus hue.



Photo of the Moon when in penumbral eclipse

Such a lunar eclipse took place on 29th September, 3067 BCE as indicated by the planetarium software and it was a penumbral eclipse indeed, tallying with the text.

A Tight Fit

Dr. Narahari Achar, who has worked on this dating using the Planetarium software says,

“If I say that Amavasya has occurred at Jyestha, then this will occur again in 19 years, but if I say that a solar eclipse has occurred at Jyestha, then this occurs again at Jyestha only after 340 years. Add Saturn at Rohini and we take this to 1 in 7,000 years. This set of conjunctions takes all of these into consideration, but also takes all the other data into consideration.”

We see from this statement that this sequence of astronomical events happening together, in the configuration as stated in the text, makes the repetition of it rare, thereby increasing the probability of its occurrence on this date of 29th September, 3067 BCE. This along with the other sequence of events helps fix the date even tighter.

Difference due to Different Systems

The differential of 14 days between the dates shown by the Planetarium software in contrast to 13 days mentioned in the text, is understood to arise because of the difference in the concept of calculating days in the Gregorian and the Indian calendrical systems. The Gregorian calendar date change is calculated from midnight to midnight whereas in the Indian traditional system, the day calculation is from sunrise to sunrise and the Nakshatra at sunrise is taken as the Nakshatra for the day.

Balarama's Pilgrimage

While there was a furore going on to prepare for the war, Balarama the elder brother of Krishna, showed no interest in taking part in the Kurukshetra war.

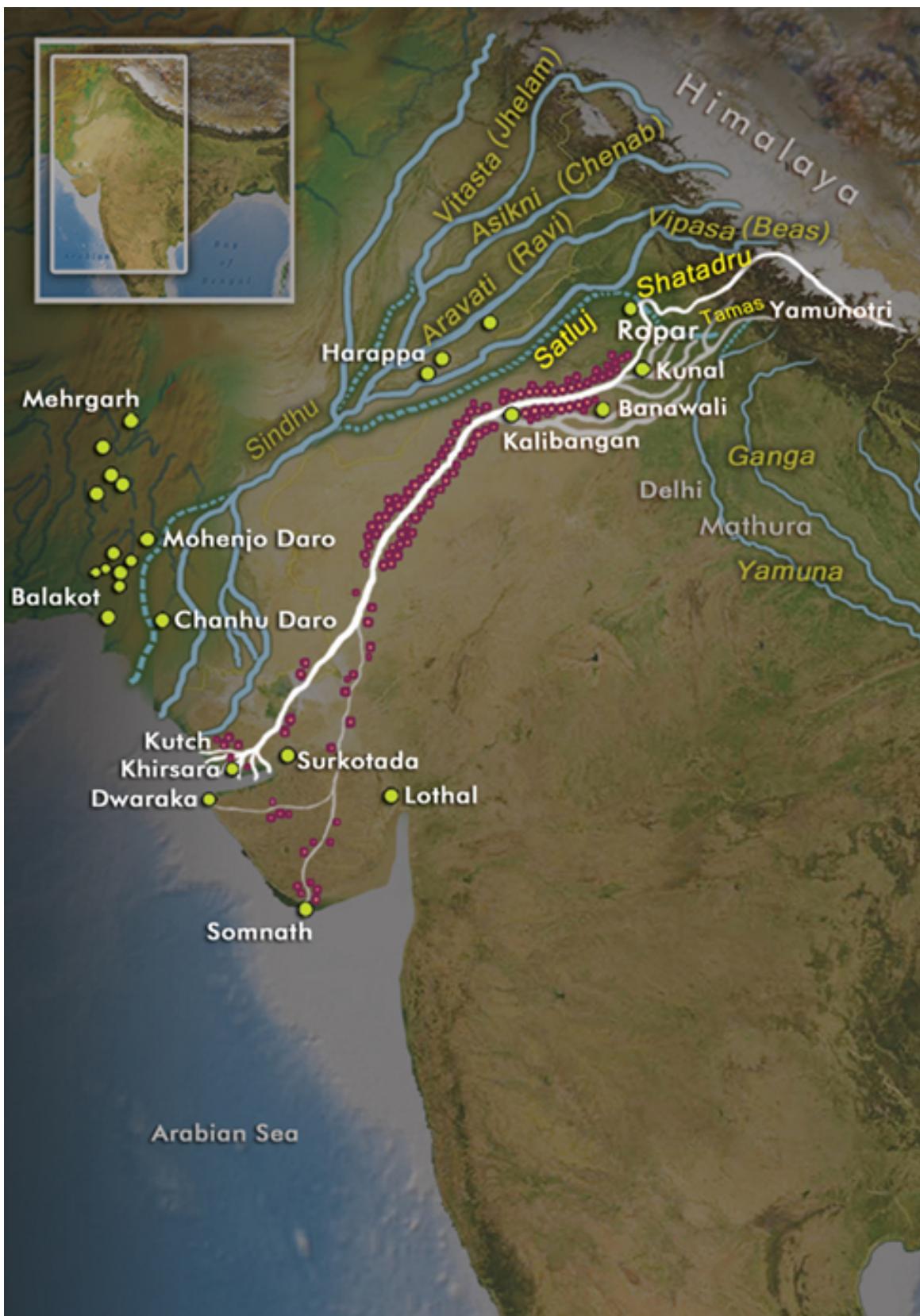
Both Bhima, the mighty *Pandava* and Duryodhana, the eldest *Kaurava*, were students of Balarama. They had learnt *Gada Yuddha* - mace fight and *Mal Yuddha* - wrestling, from Balarama. Balarama was fond of both these students who had excelled in learning the art of combat.

So, when it came to making a choice between supporting Bhima or Duryodhana during the war, Balarama declined support to both the *Pandava* and the *Kaurava*. He instead left on a *Theertha yatra*, pilgrimage, upstream of the then flowing Sarasvati River.

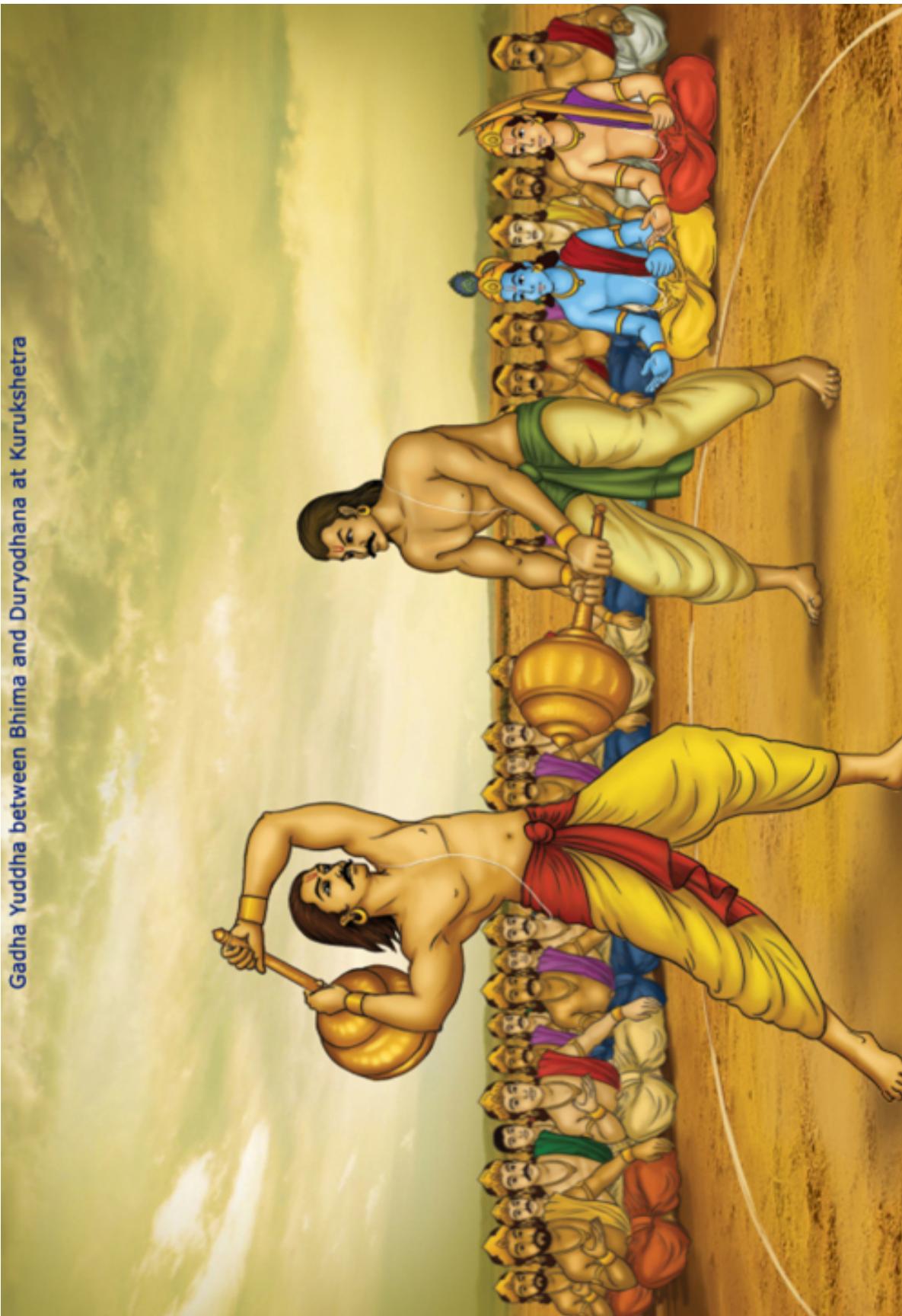
PILGRIMAGE ROUTE

Balarama undertakes this pilgrimage starting from Dwaraka and going upto Somnath, known then as Prabhas Patan.

From there, he traces his way upstream of the Sarasvati River. In the Shivalik range of the Himalaya, he treks up along the then flowing Tamas river, a tributary of Sarasvati, all the way upto Yamunotri. From there he follows the Yamuna downstream to Mathura, his childhood town. From Mathura, Balarama goes to Kurukshetra, the scene of the battle, on the last day of the war, just in time to view the *Gaddha Yuddha* - mace duel between his two disciples Bhima and Duryodhana.



The region from Mathura to Dwaraka with over 2600 Nagarā



Gadha Yuddha between Bhima and Duryodhana at Kurukshetra

BALARAMA'S SANKALPA

At the time of embarking on the pilgrimage, Balarama takes a *sankalpa* - a personal commitment. Such *sankalpa* are usually taken before the start of any event or pilgrimage.

In the process of taking a *sankalpa*, one recites in sequence, the passage of time, starting from Creation, right upto the current day of the year, in astronomical terms, including the geographical location.

This is an unbroken tradition of India, with the practice being traced all the way back from present times to Balarama and Krishna here, 5100 years ago, to the times of Rama, 7100 years ago and farther back in time too.

The process of reciting the *sankalpa* and how it brings forth the count of time as well as geo-astral positioning of the location from where it is being recited, is detailed in our work, “**Autobiography of India**”, a part of the Bharath Gyan series.

The *sankalpa* of Balarama, today, helps us pinpoint and date the start and completion of his pilgrimage, about 5100 years after the event.

DATES FOR BALARAMA'S PILGRIMAGE

From the *sankalpa* taken by Balarama on the starting day and on the day of completion of the pilgrimage, we can learn that the pilgrimage lasted for 42 days.

Balarama sets off on the pilgrimage on *Pushya nakshatra* day and completes it on *Sravana nakshatra* day, the difference between these two events being 42 days, the relevant *sloka* for this being,

*Catvarimsadahanyadya dev ca me nihsrasyavai |
Pusyena samprayatosmi sravane punaragatah ||*

Mahabharata Sloka-9-33 o-- -5 on the duration of Balarama's pilgrimage

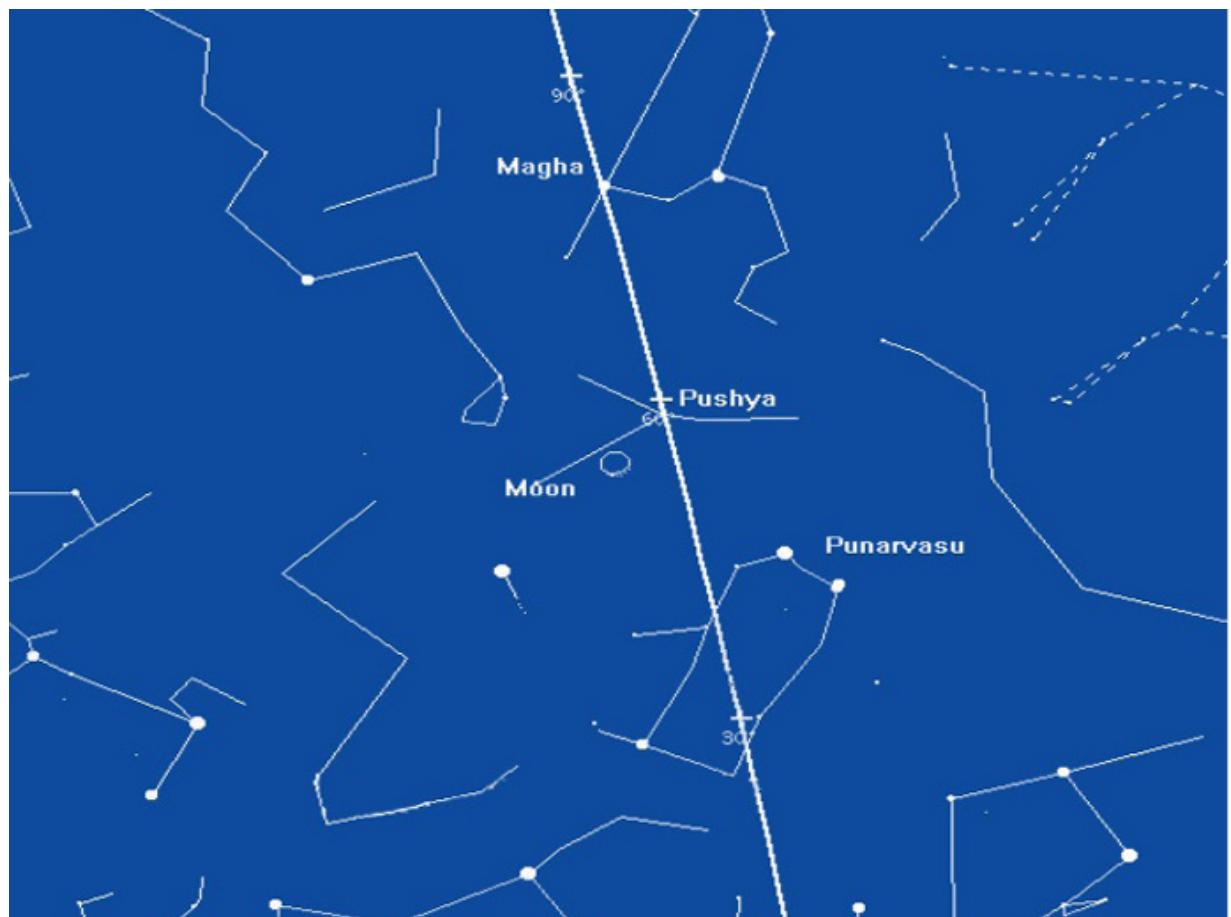
"42 days have passed since I left on pilgrimage.
I set off on the day of **pusya** naksatra
and have returned on the day of **sravana**."

Translation of above *sloka*

Fitting this data into the sequence of events of *Mahabharata*, we find these star conditions being satisfied on

- 1st November, 3067 BCE, *Pushya Nakshatra* for start of pilgrimage and
- 12th December, 3067 BCE, *Sravana Nakshatra* for the end of the pilgrimage

The elapse time between these 2 dates is a 42 day time span as indicated by the text.



Balarama pilgrimage start date - 1st November, 3067 BCE



Balarama pilgrimage completion date - 12th December, 3067 BCE

A TIGHTER CLAUSE

It is a well known fact that between *Pushya* and the following *Sravana Nakshatra*, the elapse time is 42 days. Then what fixes the 42 day span between 1st November, 3067 BCE and 12th December, 3067 BCE as the dates for Balarama's pilgrimage.

The dates of the pilgrimage have to pass through yet another stringent condition. What is it?

We will see that towards the end of the battle of Kurukshetra.

Kurukshetra Battle Start



The day of the war has finally arrived and the armies are lined up ready to fight, waiting for the signal to start the battle.



Kurukshetra battle to start

At this juncture, standing at the head of the Pandava Army, facing the war giants on the Kaurava side, Arjuna, the archer par excellence and the main warrior for the Pandava forces, is troubled by serious doubts.

He sees that in front of him, the opponents whom he has to engage in battle and kill, are his own Guru, Dronacharya, his Grand Sire Bheeshma, his own cousins, the Kaurava and other known friends.

Arjuna then questions Krishna, his friend, cousin, confidante and mentor in life, now in the role of his charioteer, of the paradoxical need to shed blood of his near and dear ones, only to establish rights over a kingdom. He asks Krishna as to why he should fight for the kingdom, if all his near and dear were to perish in the same war?

Krishna then takes on the role of a philosopher, a teacher and explains to Arjuna the meaning of life, this creation, this universe and man's role in it. Krishna dwells exhaustively on

- the concept of the soul and its relation to the body,
- the concept of the body and its relation to the acts it performs,

- the concept of these acts and their relation to their results,
- the concept of these results and their relation back to the soul
- and finally the concept of the soul and its relation to the supreme consciousness of the cosmos.

Step by step, with an answer for every question asked by Arjuna, Krishna patiently leads Arjuna into a world of deep spiritual knowledge, where Arjuna sees Krishna's cosmic form. Arjuna learns of the ways of operation of the cosmos and the cosmic consciousness, which would apply to himself and all the beings around him, irrespective of whether he decides to fight the battle or not and whether he kills his near and dear ones or not.

Krishna elevates Arjuna to the highest echelons of knowledge about the way of life in the Universe.

Arjuna was going through an exhilarating experience of God Himself explaining the nuances of the cosmic laws to him.

This was the third cosmic manifestation of Krishna, Vishwa Roopa Darshan, during His lifetime on earth, after the first for Yashoda, His foster mother and the second for the royal council during His peace keeping mission at Hastinapura.

At the end of this dialogue, Arjuna sees himself and the situation in a new light. Convinced that by fighting that war of good versus evil, a war of principles and righteousness, he was only acting as per his Dharma as well as the universal Dharma, the cosmic law, Arjuna surges forth and gets ready to charge into the enemy ranks with courage, clarity, conviction and a clear conscience.

Krishna then blows His Shankha, the conch called Panchajanya, declaring the start of the battle and the two armies lunge forward at each other.

The Kurukshetra battle begins.



THE **BHAGAVAD GITA**

The teaching of Krishna, which is applicable not only to Arjuna and the situation that he was in, but also to each one of us today, in our daily lives, so many millennia later, came to be called the *Bhagavad Gita*, the song of the Divine.



Bhagavad Gita Upadesha

Bhagavad Gita answers the many queries of one and all on this planet, both from the *Sthoola*, bodily level and from the *Sukshma*, the subtle, ethereal level.

Through the medium of this dialogue between Krishna and Arjuna, mankind, to this day, continues to enjoy and benefit from the most comprehensive guide to right living in this Universe.

Upadesha

Upa means “near” and *adesha* means “instruction”. *Upadesha* is the instruction received by a disciple, sitting close to his master.

Krishna while delivering the *Bhagavad Gita* to Arjuna says,

“I taught this to Vivasvan, who in turn passed it on to Vaivasvata Manu, from whom it was passed on to Ikshvaku, after which it was lost in the

passage of time. As this knowledge is since lost, I, Krishna, son of Vasudeva am giving it to you Arjuna, on this battlefield.”

This *Bhagavad Gita* by Krishna shows Him in the light of one of the foremost spiritual teachers of mankind. His teachings through the *Gita* have remained a universal guide to mankind across many millennia, inspiring and leading many to walk the path of duty and righteousness.

Date of the Bhagavad Gita Upadesha

Both these momentous events, the *Bhagavad Gita Upadesha* and the start of the battle, occur on the same day. Today, with the aid of the sky configurations described in the *Mahabharata* text we can assign a date in the modern calendar to the date of the battle and hence a date for this “Song of the Divine”.

Tradition calls this day when *Bhagavad Gita* was disclosed as *Gita Jayanthi* and to this day it is celebrated on *Margashira Shukla Paksha Ekadashi*, the 11th day in the bright fortnight of the month of *Margashira*.

We have seen that there was a New Moon along with a Solar Eclipse, in *Jyeshta* star on 14th October, 3067 BCE, followed by a Full Moon on 28th October, 3067 BCE. This lunar cycle marked the lunar month of *Karthika*, since the full moon occurred near *Krittika* star.

The month that follows *Karthika*, is *Margashira* and the New Moon occurred on 12th November, 3067 BCE.

Margashira Shukla Paksha Ekadashi, the 11th phase of the bright fortnight of *Margashira* would therefore have occurred on 22nd November, 3067 BCE.

This makes 22nd November, 3067 BCE, the day the battle started and the day the *Bhagavad Gita* was delivered by Krishna.

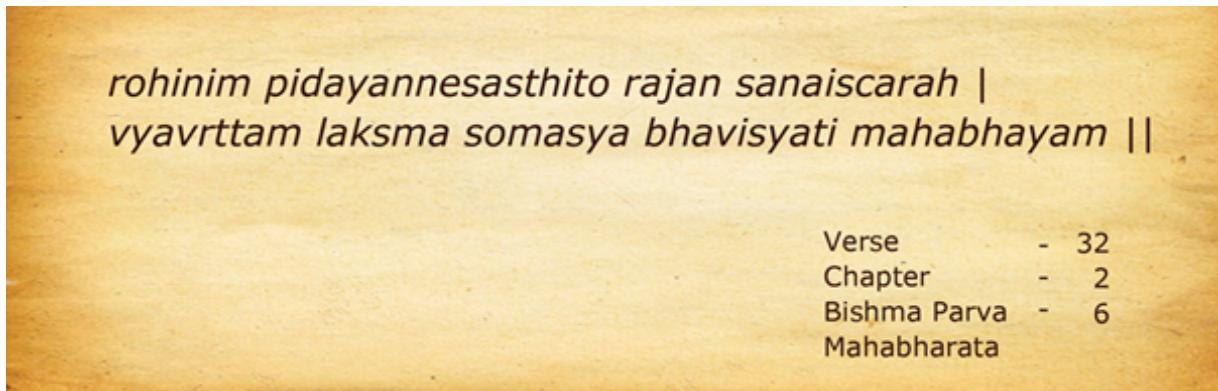
The date for the *Bhagavad Gita* based on the tradition of celebrating *Margashira Shukla Paksha Ekadashi* as *Gita Jayanthi* matches with the date for the start of the battle based on what the skies looked like that day, 5100 years ago.

DATE OF BATTLE

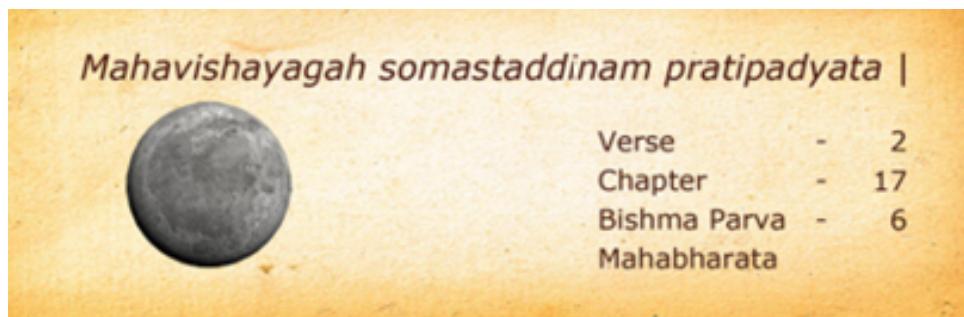
Coming to the date of these two major historical events, which took place on the same day, the key pointers are:

Position of Saturn and Moon

The position of Saturn and the Moon are mentioned specifically.



Sloka indicating the Star Configuration on the eve of the war



Sloka on the position of Moon in ***Bharani Nakshatra*** on the eve of the war

Searching for the star and moon position described in this *sloka*, we get the date for the start of the battle as 22nd November, 3067 BCE too, using the Planetarium Software.



Sky chart on the day of battle start

DAY 14

Day 14 of the war stands out not only in this war but across ancient history, as a day when all the time honoured principles of fighting a war were flouted by both the warring sides, despite being led by highly principled, brave and illustrious warriors.

On this day, the battle continued well into midnight and stopped only after the moon rose.

This was much against the then norms of war, when the battle was stopped at sundown. No one was allowed to fight after sunset and in the night.

The descriptions of day 14 of the war, give us a pointer that further seals the dates of the war.

DEATH OF JAYADRATHA ON DAY 14



Abhimanya, a valiant young warrior, was the son of Arjuna and Subhadra, the sister of Krishna. On the 13th day of the war, when Arjuna was drawn away in battle, the Kaurava forces formed a Chakra Vyuha, a circular battle formation.



Chakra Vyuha, a circular battle formation

Of the people available then on the field, in the Pandava Army, Abhimanyu was the only one who knew how to enter the Chakra Vyuha. Unfortunately he did not know how to exit it. After consultation, the Pandava camp decided that as soon as Abhimanyu entered the Chakra Vyuha,

others would follow him so that they could give him the necessary support and could jointly break the Vyuh.

So, Abhimanyu entered the Chakra Vyuh.

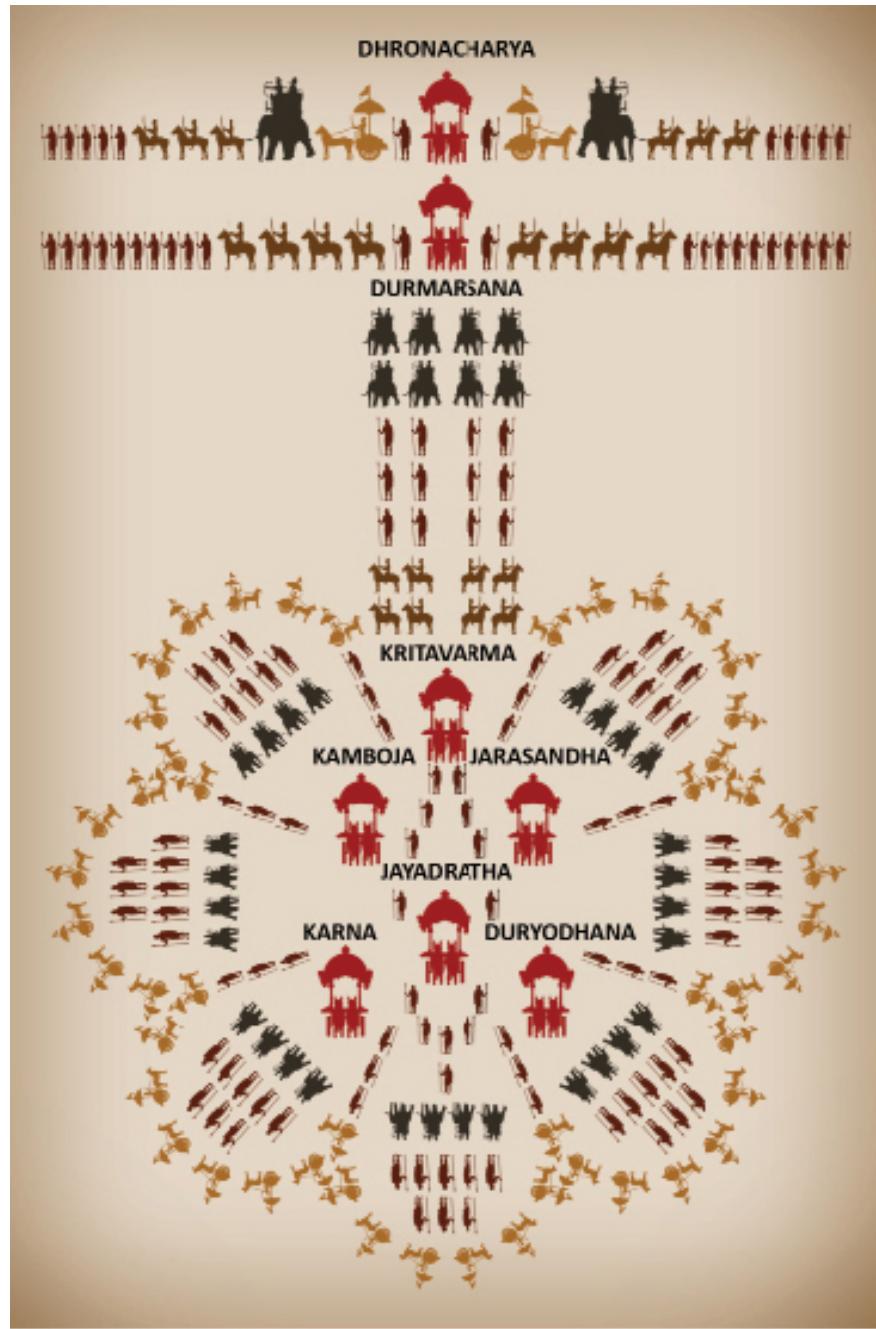
To the dismay of the Pandava however, Jayadratha, the husband of Dushala, the lone sister of the 100 Kaurava brothers, who was fighting on the Kaurava side, cut off the army following Abhimanyu into the Chakra Vyuh, thus, denying Abhimanyu the support of the Pandava Army.

Having entered the Chakra Vyuh, Abhimanyu bravely fought the Kaurava warriors but before he could exit the Vyuh, he was killed by unfair means of many opponents against one.



Abhimanyu fighting in the *Chakra Vyuh*

Arjuna, on his return, learnt of Abhimanyu's death. On enquiry he found that it was Jayadratha who had blocked the Pandava Army from entering the Chakra Vyuh. He therefore took a vow that he would kill Jayadratha before the sun could set on the next day or swallow fire himself. Learning of this vow, the Kaurava shielded Jayadratha for a major part of the next day.



Battle formation shielding Jayadratha

Closer to dusk, next day, the sun suddenly vanished from the sky. Jayadratha thinking that the sun had set, came out of his hiding in joy. He felt that since the sun had set, he was now safe from Arjuna and Arjuna instead would have to end his own life in accordance with his vow.

However, the sun had not really set. The obscured sun appeared once again just before sunset. Arjuna seized this moment and shot an arrow, felling Jayadratha's head. Thus ended the life of

Jayadratha.



Arjuna killing Jayadratha

START OF WAR ANCHORED BY DAY 14

The evening of Jayadratha's death, day 14 of the war, was witness to a freak event in the sky. The sun had set and just when everyone thought that the day was done, the sun shone once again to set after a little while.

A Solar Eclipse?

Some people have expressed their opinion that the sun was obscured because of a solar eclipse that evening.

No Solar eclipse on Day 14 of the War

From the very observation of the eclipses by Krishna Dwaipayana and Krishna, it is evident that the causes of eclipses were well known to the people at the time of *Mahabharata* and they could predict their occurrences.

So, if it was to be a solar eclipse, then the elders in the *Kaurava* Army, including Jayadratha would have been well aware of an impending solar eclipse on the evening of day 14. Hence it must have been a freak occurrence, of the sun suddenly being obscured, which they took to be a sunset.

Also, if it was a solar eclipse, there would have been a creeping shadow on the sun which would have been seen by all in the battle-field. The eclipses in different times of *Mahabharata* are unambiguously expressed. In this event, it is not expressed as an eclipse in the text.

Given this, it might be incorrect to surmise the obscuring of the sun for a few moments, as a solar eclipse.

From an astronomical perspective too we shall see that the sun could not have vanished due to a solar eclipse as opined by many.

This Jayadratha episode happened on the 14th day of war. If there was to be a solar eclipse that day, then it has to be an *Amavasya*, New Moon as solar eclipse can occur only on a New Moon. On a New Moon, the moon rises along with the sun and sets with the sun. Also it is not visible.

Since it is expressed clearly in the text that the moon rose late in the night, after midnight, it could not have been a New Moon. If it was not a New Moon that day, then it cannot be a solar eclipse that day. From the internal evidence of the text itself, there was no possibility of a solar eclipse that evening on day 14.

START OF WAR ANCHORED BY THE SUN

The Freak Sun Set

Such a freak occurrence of the sun appearing to set twice on Day 14, could have been due to one of these reasons-

1. a low cloud, behind which the sun could have passed or
2. a dust storm obscuring the sunset or
3. a mirage, an illusion.

Dr. P V Vartak in his work has tried to explain this event scientifically. Sometimes, when there is heat or dust, it can give rise to a mirage along

the horizon. If the sun is close to the horizon, it can lead to an illusion of a sunset. Such was the situation in the battle ground and everyone in the dusty battleground, including Jayadratha, may have been a party to such an illusion.

A Mirage

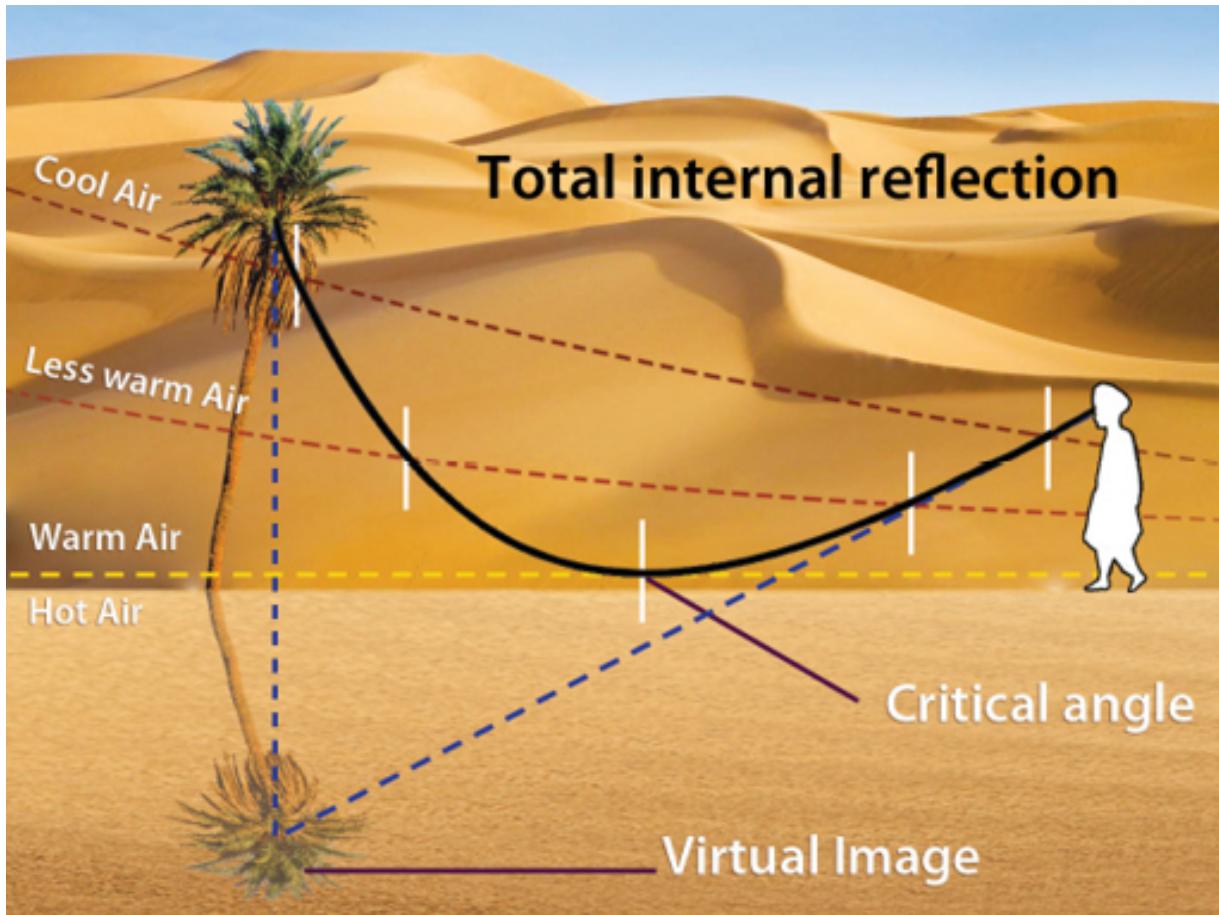
Let us see how a mirage, *mrigatrishnika* in *Samskrt*, occurs.

When light moves from a denser medium to a rarer medium or from a rarer medium to a denser medium, it changes its path, direction. This is called refraction.

On some days, there could be a vast gradient in the temperature and hence in the density of air in the atmosphere. For example, on very hot days, air near the surface of the earth is hotter and therefore rarer while the air higher up is cooler and hence denser.

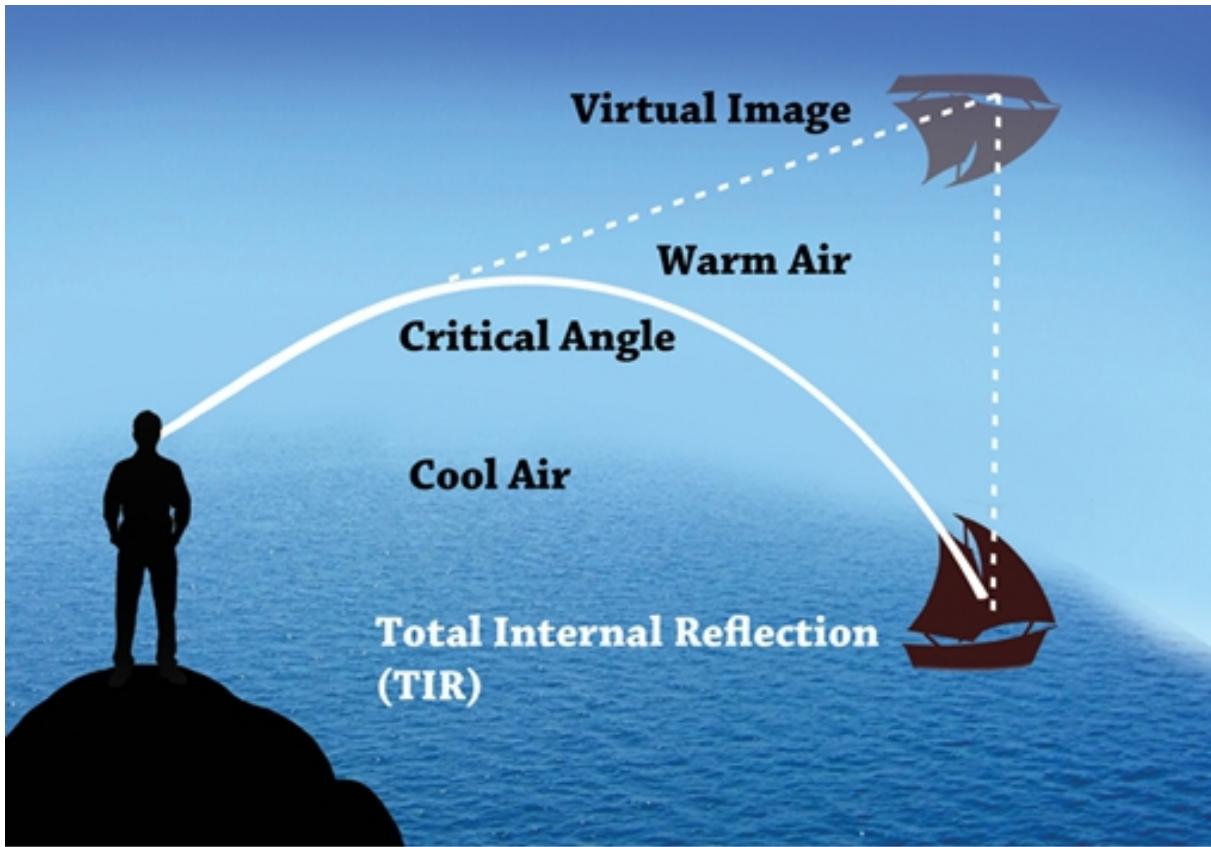
Light rays from distant objects as they travel through the layers of varying densities of air, from cooler to hotter, keep changing their path or refracting. At one point, when a critical angle is reached, the light rays undergo total internal reflection into cooler layers once again, curving as they encounter each layer of varying density.

Due to this, from a certain distance, at a certain angle, we see a virtual image of the object below the object, which appears as a reflection in water. This is what gives rise to mirages.



Mirage

An opposite of such an effect takes place when the upper areas of air are hotter and the air near the earth is cooler. In this case, the virtual image forms above the real object and appears to be hanging in the air, upside down. This effect is called looming and typically occurs in very cold areas.



Looming

Did Jayadratha see a mirage?

In the case of Day 14 on the Kurukshetra battleground,

- if the air just above the battleground was hotter due to fierce battle and
- if there was lot of dust cover due to the fierce battle going on or there was a cloud cover,

then the sun's rays as they travelled from cooler and denser regions of atmosphere to the hotter and rarer levels near the earth's surface, could have bent such that, at the cloud cover, at a critical angle, they could have undergone a total internal reflection back into the atmosphere.

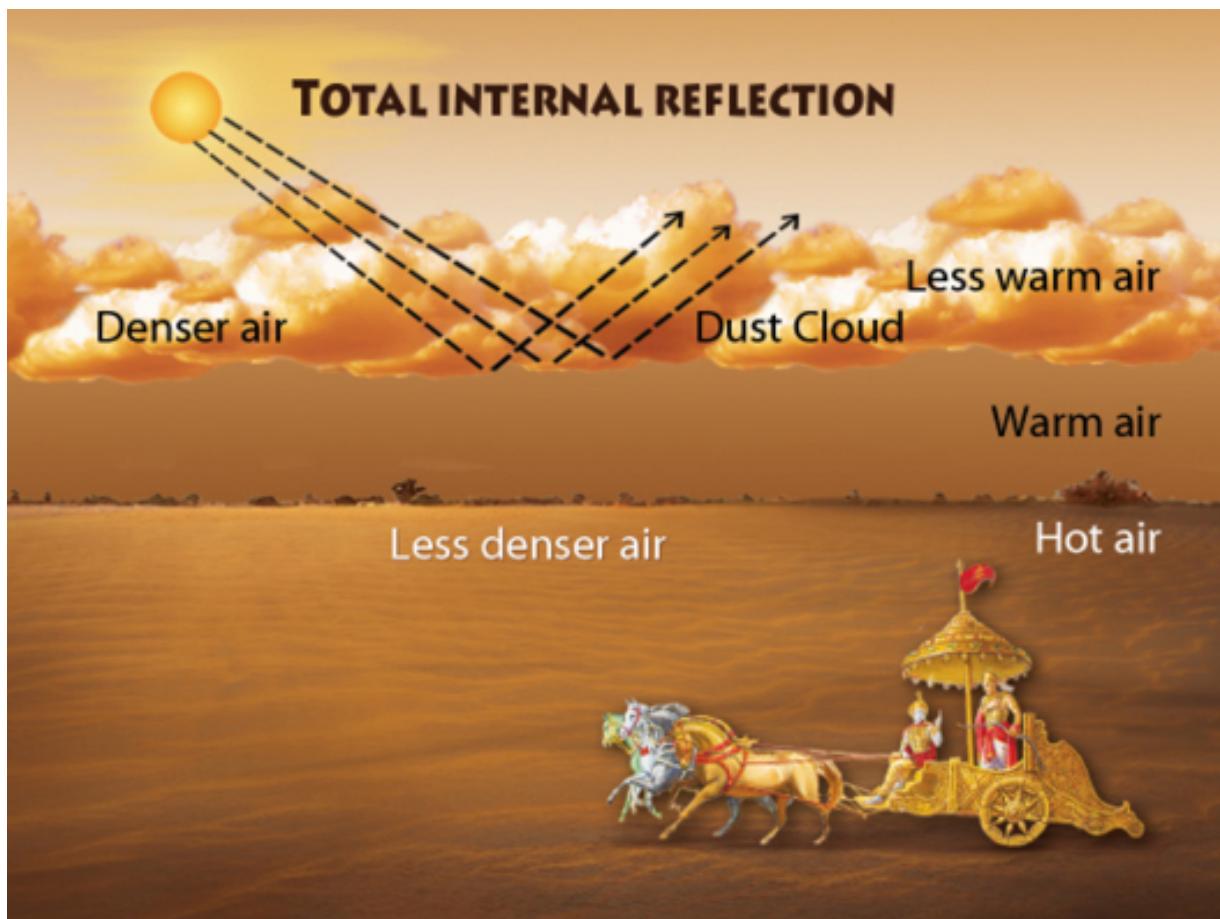
This would have made it appear as though the sun had set. But once the sun moved down in the sky and angle of the sun's rays changed, this

mirage effect could have vanished and the sun would have appeared in the sky once again.

This could have given a feeling of the sun setting and reappearing.

It is possible that when the sun vanished the first time, Jayadratha assuming it to be a sunset came out from his hiding, only to be killed by Arjuna when the sun reappeared once again and it was clear that the sun had not actually set.

The freak sun set on Day 14 could have thus happened without there being a solar eclipse that day.



Sun's rays bending

START OF WAR ANCHORED BY THE MOON

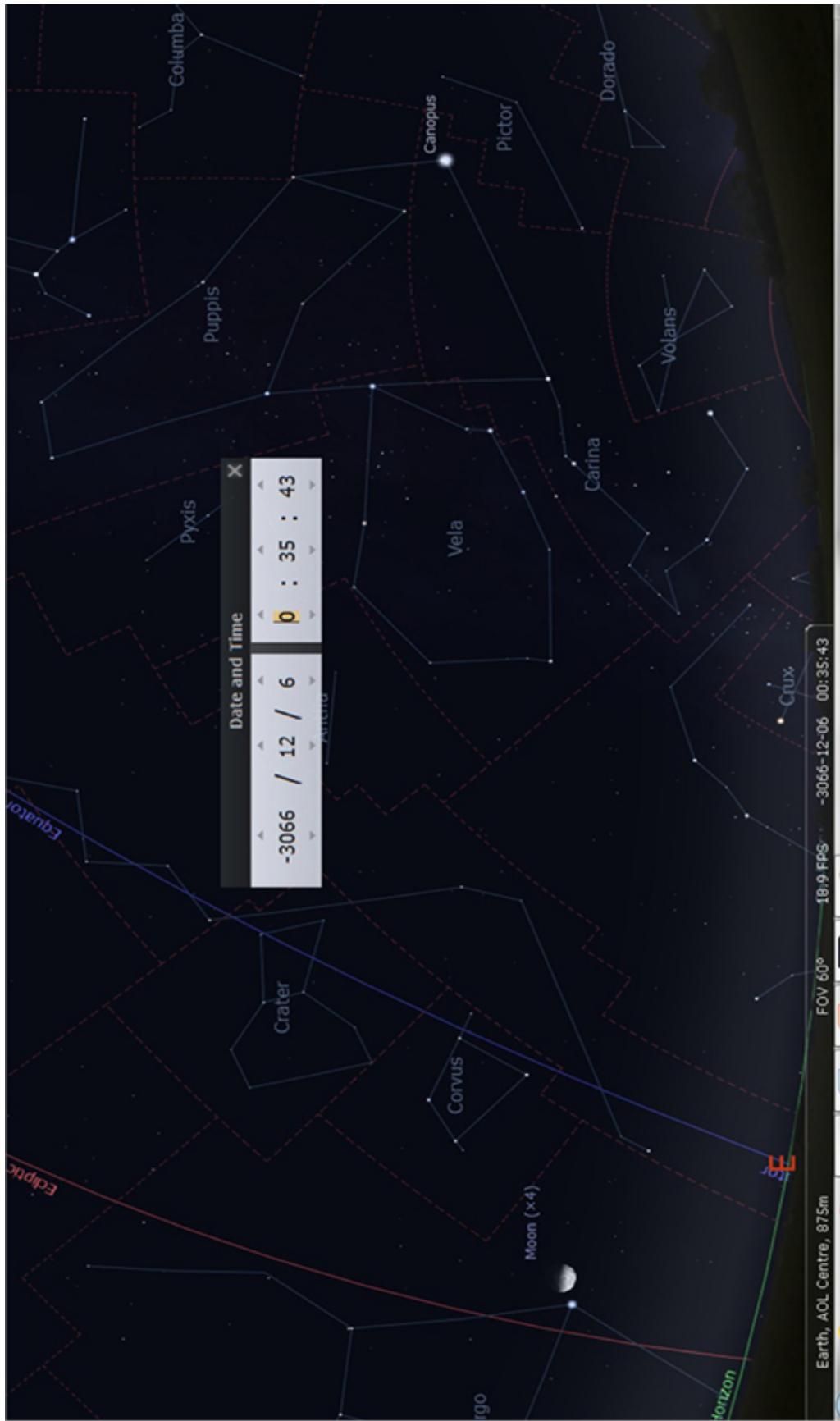
According to the text, Day 14 was a night, when the moon rose around midnight.

22nd November, 3067 BCE for the start of the war, not only satisfies the criteria that the star was *Bharani* that night, but the 14th day of war turns out to be 5th December, 3067 BCE and a phase of the moon that rises at midnight.

As the war started on *Margashira Shukla Paksha Ekadashi*, the 11th phase of a waxing moon, the 14th day from then would be a *Krishna Paksha Navami*, 9th phase of a waning moon.

This phase of the moon does indeed rise close to midnight, matching the description in the text that it was a day when the war, defying all norms, continued well into midnight, till the moon rose.

The skychart plotted for 5th December, 3067 BCE also shows that the moon did indeed rise well into midnight.



The Moon rising in the horizon at midnight, on Day 14 of the war – Night of 5th December, 3067 BC

Note – The software requires the date to be set at 3066 BCE for 3067 BCE due to the software's counting of a zero year between 1 CE and 1 BCE.

START OF WAR ANCHORED BY BALARAMA

Balarama's pilgrimage serves as another anchor for dating the start of the war. Balarama went on a 42 day long pilgrimage and ended it on a *Sravana Nakshatra* day. Even though the dates arrived at for the pilgrimage, based on the star configurations are 42 days apart, they cannot be any set of 2 days, matching the star configuration that are 42 days apart.

The dates have to be such that the 18th day, the last day of the battle, falls towards the end of the 42 day pilgrimage of Balarama.

This is because, when Balarama was on his return journey towards Dwaraka, he happened to pass through Kurukshetra and incidentally that day happened to be the last day, 18th day of the war and Balarama could witness the battle being fought between his two disciples Bhima and Duryodhana.

After witnessing the end of the battle, Balarama then proceeded down south, along the Sarasvati River back to Dwaraka and concluded his pilgrimage on the 42nd day from start.

We have seen this 42nd day to be 12th December, 3067 BCE on *Sravana Nakshatra*.

We have arrived at 22nd November, 3067 BCE as the start of the battle.

This means that the 18th day of the war would have fallen on 9th December, 3067 BCE. This date is within the 42 day period and fits in well, as part of the last leg of the pilgrimage.

Thus Balarama's pilgrimage provides another anchor for the date of the war. It gets ratified in the process too.

SEALING THE DATE OF THE WAR

22nd November, 3067 BCE can be inked in the annals of history as the day the great *Mahabharata* war started. It is corroborated by internal

consistencies within the epic text as well as principles of astronomy.

It is sealed by

1. the sky configurations mentioned in the text,
2. *Margashira Shukla Paksha Ekadashi* as *Gita Jayanthi* day,
3. account of Jayadratha's death on Day 14,
4. phase of the moon on Day 14,
5. lack of solar eclipse on Day 14 and
6. Balarama's 42 day pilgrimage.

RESOLVING A CONFLICT

Some have taken the verse of the Krishna – Karna chariot ride and inferred the New Moon on *Jyeshta*, which occurred seven days from then, to be the day the war started. We have seen how Krishna – Karna chariot ride can be dated to 8th October, 3067 BCE. Seven days thence would be 14th October, 3067 BCE.

How does one resolve this conflict in the dates?

The discussion between Krishna and Karna during the chariot ride to the Hastinapura city outskirts, which we have in the form a verse, expresses the declaration of a state of war seven days from then i.e., on the *Amavasya* on *Jyeshta*, 14th October, 3067 BCE.

This was decided by them as all other negotiations had fallen through and the next step was to declare a state of war for which they mutually chose this date during this chariot ride.

Some have interpreted this expression of announcing a state of war as the start of war instead.

There is a distinct difference between the two for, once the state of war is declared, the preparations for war take place on war footing, such as canvassing for allies, mobilizing the respective armies to the battlefield, pitching camps, food arrangements, arranging medical facilities etc.

The verse in the text only marked the start of war preparations in both the camps, 7 days after the Krishna-Karna chariot ride. It should not be taken to mean that the war itself started 7 days later.

This point of view is further clarified by the stringent astronomical conditions.

If the war had started on 14th October, 3067 BCE which was a New Moon day, then the 14th day of the war, i.e 14th phase of the moon would be close to Full Moon.

On a Full Moon, the moon is exactly opposite to the sun, with the earth in between. It therefore rises in the eastern horizon exactly at sunset itself. But according to the text, on the night of Day 14 of war, the moon rose around midnight. Hence Day 14 could not have been close to a Full Moon. This means that 14 days prior to Day 14, i.e., on the day the war started too, the moon could not have been a New Moon.

The New Moon at *Jyeshtha* on 14th October, 3067 BCE therefore is ruled out as the start of the war.

This confirms that during the chariot ride, Krishna and Karna only decided to start preparations for a war seven days from then, on 14th October, 3067 BCE, on the New Moon at *Jyeshtha* and not the actual war itself.

The actual war began only on 22nd November, 3067 BCE.

As per the *Mahabharata* text too, once the *Pandava Dhuta* visit of Krishna failed and the decision for war was announced, the *Pandava* and the *Kaurava* started meeting neighbouring kings and seeking their support in the forthcoming war. It is during this period that they go and seek the support of Krishna and Balarama too.

For a war, the scale of the Kurukshetra war, in which many kingdoms from far east, west and south of Hastinapura fought on either side, seven days would have been too short a time for the *Pandava* and *Kaurava* to forge alliances and put armies together.

One may wonder that they still had only five weeks to prepare for a war of this magnitude.

We have to bear in mind here that both sides were already mentally prepared for war and had built allies. The *Pandava Dhuta* episode was a last attempt to avoid a war and negotiate for a peaceful settlement.

When even that failed, Krishna and Karna during their chariot ride fixed a date for declaring a state of war and mobilizing their forces to Kurukshetra.

The Fall of Bheeshma



Bheeshma, the grand sire of the Kuru family, the grand uncle of the Pandava and the Kaurava, had been leading the Kaurava Army against the Pandava, much against his heart. Yet he had to, as he was duty bound to fight for the kingdom of Hastinapura.

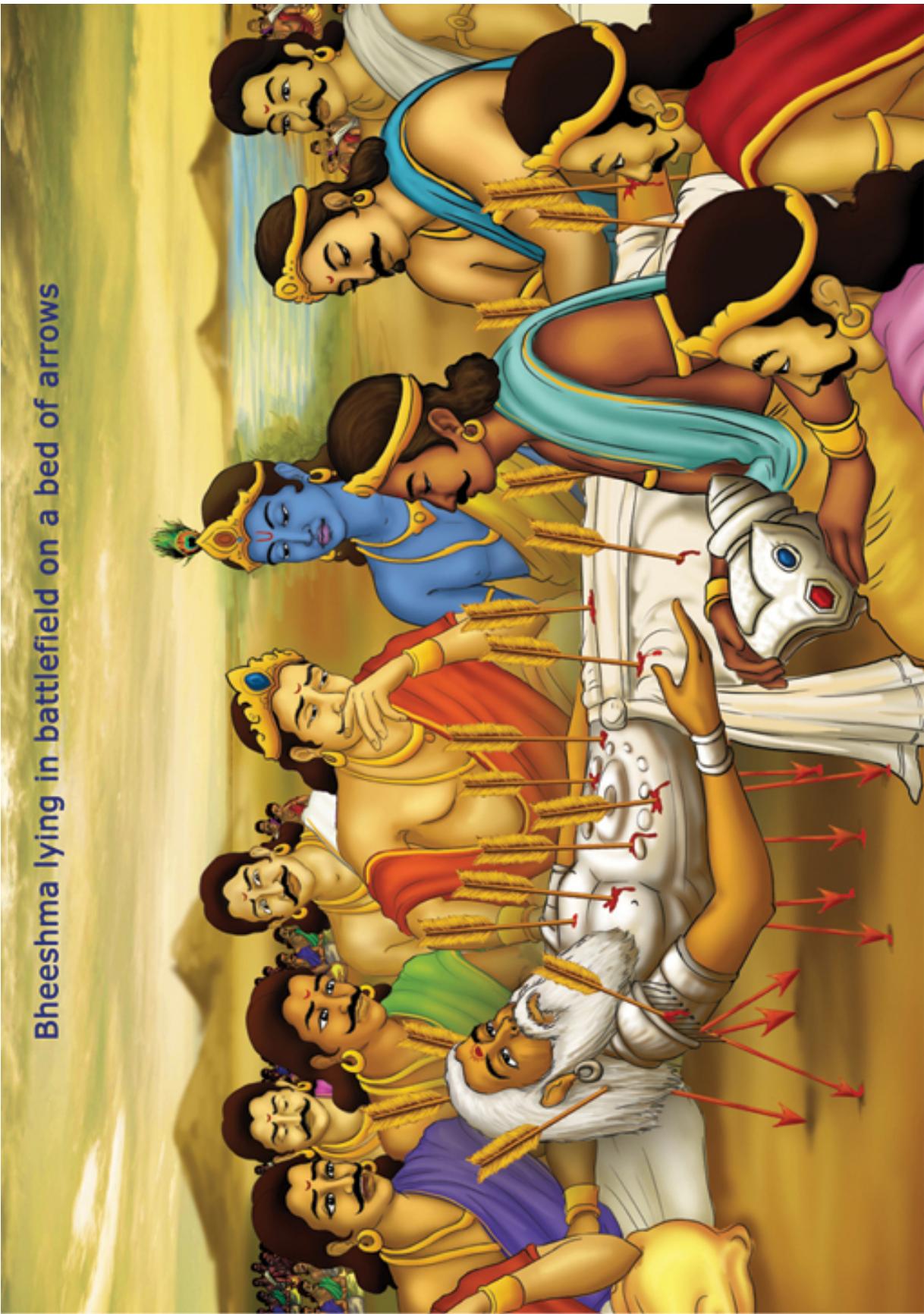
He knew that the Kaurava were wrong. Yet he had to fight for them, as he was duty bound to pay his allegiance to the ruling army and the ruler of Hastinapura, Dhritarashtra, the father of the Kaurava.

He was one of the greatest warriors of all times. Yet he had to fight hard, to the best of his abilities since Arjuna, inspired by Krishna's Bhagavad Gita Upadesha, had set aside the pangs of affection for his kith and kin and was fighting fiercely for the sake of righteousness to reign in the land.

But alas, he fell to the ground, struck by arrows in his combat with Arjuna. Yet he had a feeling of pride that he would be dying a warrior's death, on the battleground.

With Bheeshma's fall, the Pandava had scored a major victory. Yet Arjuna was struck with grief as he was going to lose his grand uncle. As a respect for the great warrior and as a grand nephew, he immediately went to his side.

At Bheeshma's request, Arjuna created a befitting bed of arrows for Bheeshma to rest and shot an arrow in the ground to create a water spring to quench Bheeshma's thirst.



Bheeshma lying in battlefield on a bed of arrows

Bheeshma then tells all those who had gathered around him that the time for him to depart from this world had not yet come. Due to the boon granted by his father, he had the power to choose the moment of his death.

As it was that time of the year when the sun was moving in the southern direction, Bheeshma announced that he would wait till the sun turned north, Uttarayana, to depart from the earth.

From the day he fell, to the day he finally breathed his last, Bheeshma lay in his bed of arrows. He was updated every day with the goings on in the battlefield. He was pleased when he heard of the victory of the Pandava, the victory of righteousness. He was also grieved at the same time over the loss of the Kaurava and many others in the battlefield.

After the battle, Yudhishtira, the eldest of the Pandava princes was crowned the king of Hastinapura. He then went with his brothers and retinue, to Bheeshma, to take his blessings and to learn from him good practices in administration as well as worldly and ethereal truths.

Finally, Bheeshma deemed the purpose of his life to have been achieved. He was relieved that he was leaving Hastinapura in the just hands of Yudhishtira. He also saw that the sun had turned northward in its journey in the sky.

Blessing everyone around him and taking blessings from Krishna, in whom he saw the cosmic divine, Bheeshma takes permission to leave the earth. He breathes his last and with that ends the saga of one of the greatest personages of the Kuru family and the Mahabharata period.



In the *Mahabharata* text, Bheeshma's expression of the knowledge of the Universe before his death has been given as much importance as the *Bhagavad Gita*.

The fall of Bheeshma has been considered by many as an important clue for the dating of the events of *Mahabharata* and from thereon, the dating of Krishna, since the text contains descriptions of the events that led to his fall and what happened thereon till he breathed his last.

Bheeshma's death has been described in detail in the text and has lived in people's memories many millennia later too, because Bheeshma had the unique distinction of having received a boon from his father that death would near him only when he wanted it to.

CAUGHT BETWEEN AN OATH AND A BOON



It was a fine day for hunting and Raja Shantanu, the head of the Kuru dynasty and king of the Hastinapura kingdom was out hunting in the forests. Hastinapura was one of the prominent, powerful kingdoms of ancient India. It was a land which abounded in elephants and hence its name Hastinapura. Hastha in Samskrta means elephant.

In the forests, by the river, he chanced to meet a fine damsel and fell instantly in love with her. He made up his mind to marry her. This damsel was Satyavati, the daughter of a boatman. She was also known as Matsyagandha as she was a fisherwoman but endowed with a pleasant, alluring fragrance. This attracted Shantanu to her. Matsya means fish and gandha means odour.

Raja Shantanu approached her father to seek her hand in marriage.

That is when everything changed for Raja Shantanu and changed the course of the destiny of the land as well.

Raja Shantanu already had a son called Devavrata who was well trained in state craft, governance and also excelled in military skills. Devavrata showed all promise of becoming an able, future king of Hastinapura.

Satyavati's father, though a simple boatman, was shrewd enough to want to secure the future of his daughter and her to be born progeny. When Raja Shantanu asked for his daughter Satyavati's hand in marriage, in return he asked Raja Shantanu to promise that the son born to Satyavati would be the future king after Shantanu and not Devavrata.

This request of the boatman troubled Raja Shantanu as he did not want to put his kingdom at stake for the sake of his love and he put off his marriage. But his love for Satyavati was eating into his health and work and did not escape the sharp eyes of Devavrata. Devavrata, after learning about the cause of his father's depression went to meet Satyavati and her father.

Hearing from the boatman, his conditions for giving Satyavati in marriage to his father, Devavrata vowed then and there, that he would not only relinquish his claim on the throne of Hastinapura, but would also remain celibate for life to rule out any competition for Hastinapura from his possible progeny either.

He vowed his complete allegiance to the kingdom of Hastinapura, come what may, till the last breath of his life. A vow that he was to regret later in life, as he had to defend Hastinapura against its own rightful claimants, the Pandava.

This severe oath taken by Devavrata earned him the name Bheeshma from all. Bheeshma comes from the root Bheesha which means fearsome. Bheeshma was the one who had taken such a fearsome, formidable oath.

The appeased boatman consequently offered to give his daughter in marriage to Raja Shantanu.

Raja Shantanu tried to dissuade Devavrata from keeping up his promise to the boatman but seeing the firmness in Devavrata, he relented to Devavrata's wishes and married Satyavati.

In appreciation of his son's sacrifice, Raja Shantanu granted Devarata the boon of being able to choose the time of his death at will.



Devavrata being anointed as Bheeshma and receiving the boon from his father

Bheeshma, true to the name bestowed on him, lived up to his formidable oath of staying celibate till his end and not only that, he did all that he could in his powers for the kingdom of Hastinapura, across generations and only breathed his last when he was convinced that Hastinapura was back on course on the path of righteousness and the future of Hastinapura lay in safe hands.

After being part of the bloody Kurukshetra war and witnessing most of his clan dead, he transitioned the knowledge of managing a kingdom to Yudhishtira, the eldest Pandava and put his father's loving boon to use and departed from this earth.

Makes one wonder whether Raja Shantanu's boon to Bheeshma was a gift or a curse for him.



BHEESHMA NIRVANA

In the dating of the *Mahabharata*, the death of Bheeshma provides vital clues.

In the chapters dealing with the war, *Bheeshma Parva*, in verses 6.114.86-100, we find Bheeshma, after being mortally wounded, saying that he would wait until *Uttarayana* to die. Again in the same *Parva*, in 6.116.13, he repeats that he is waiting for the return of the sun and the moon to breathe his last. He calls the alignment as *Sasi Surya Yoga*. *Sasi* is another name for the Moon and *Surya* means the Sun.

It is only in *Anushasana Parva*, the chapters after the war in the *Mahabharata*, that we find Bheeshma mentioning the exact number of

days as well as the particulars of the lunar month, day and phase. The relevant verse reads as,

*Parivrtto hi Bhagavan sahasransur Divakarah
Astapancasatam ratryah sayanasyadya me gatah
Saresu nisitagresu yatha varsasatam tatha. Magho'yam
samanuprapto masah saumyo yudhistira
Tribhagasesah pakso'yam suklo bhavitum arhati.*

- *Mahabharata, Anushasan
Parva, 13.153.26-28*

The translation reads as,

*The thousand-rayed maker of day, the radiant Surya has turned around on his northward course.
I have spent 58 sleepless nights.*

But it feels as though it has been a century since I have lain stretched on these sharp arrows.

O Yudhishthira, the lunar month of Magha has come. This is the lit fortnight and remainder three parts ought to be.

Bheeshma thus states that,

the Sun had turned around and *Uttarayana*, i.e northern movement of the sun had commenced

- the lunar month of *Magha* had arrived
- it was the bright fortnight – implying that it was *Shukla Paksha*.

The last part of the verse mentions “3 parts” but seems to be shrouded in ambiguity on whether 3 parts have gone by or whether 3 parts are yet to come by. Also 3 parts of what, is not very evident either. This has stirred up many a debate among scholars and one finds many interpretations of this line.

However this ambiguity is sealed by a verse in the *Shanti Parva*, which reads,

*Shukla pakshasya ashtamyam
 Maghamasasya parthiva
 prajapatye cha nakshatre
 madyam prapte divakare
 Nivrita matre tvayane
 uttare vai divkare
 samaveswhayad atmanam
 atmanyev samahitah*

- *Mahabharata, Shanti Parva 47 - 3*

“In the ashtami of shukla paksha of Magha month, in Rohini nakshatra, when the sun was at zenith, around noon, when the sun had turned Uttara already, i.e., when the Sun had turned north, Uttarayana had begun, Bheeshma’s soul joined the Supreme Divine.”

i.e., Bheeshma breathed his last on the 8th phase in bright fortnight of *Magha*, i.e., on *Magha Shukla Paksha Ashtami*, now known as *Bheeshma Ashtami*.

The *Mahabharata* text describes the night of Bheeshma's *Nirvana* further as the night when mighty Saturn had stationed itself near *Rohini* star, i.e., Aldebaran in Taurus constellation.

रोहीणीम् पीडयन्तेष स्तिथो राजन शनैश्चरः

- *Mahabharata* 6.2.32

These are very exact statements and have to fit in the sequence of dates arrived at, through any method of dating.

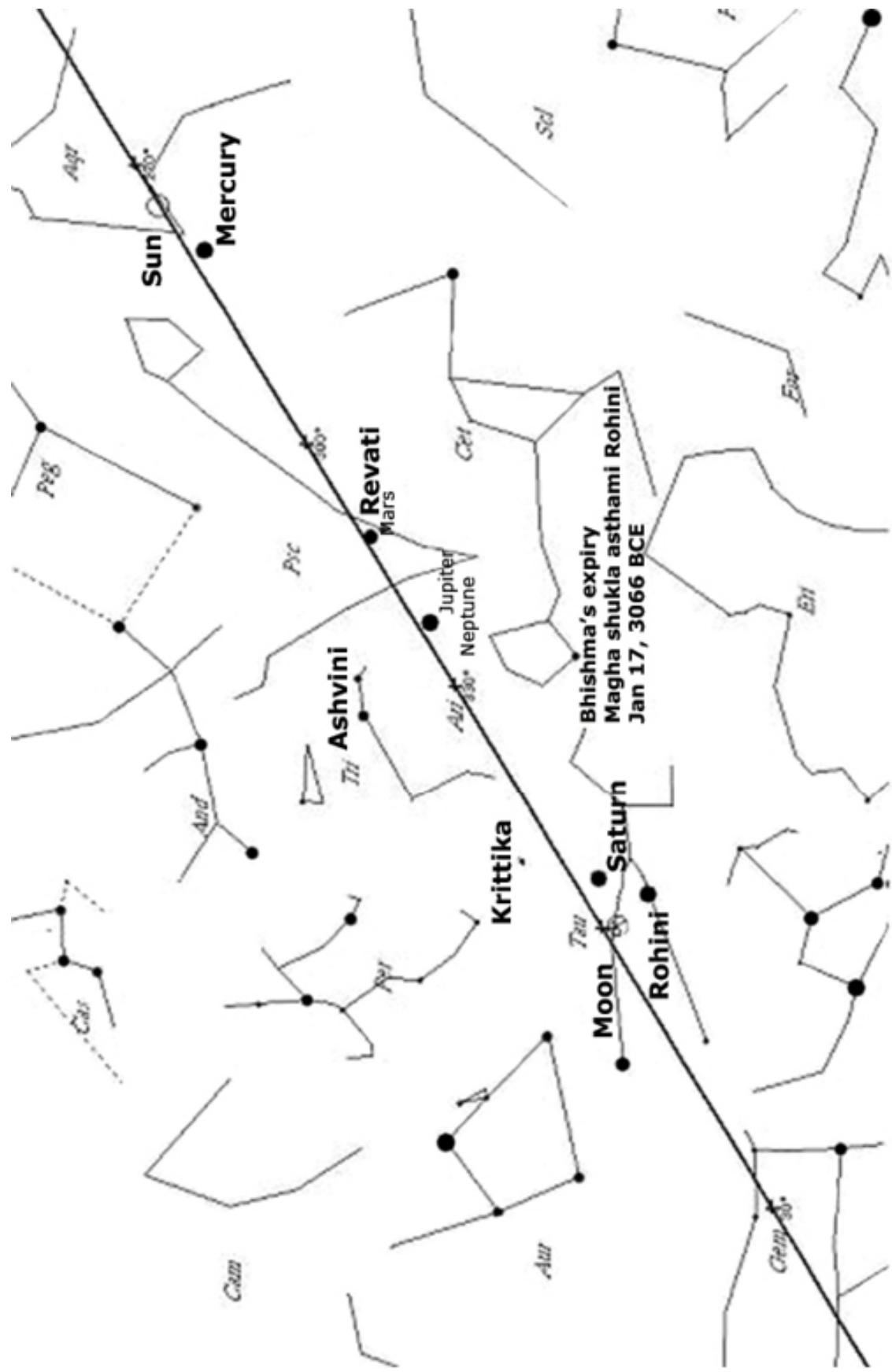
THE SKYCHART

Using the details of Bheeshma's demise, his *Nirvana*, we have to search the past for such a time window which not only meets the descriptions from the text, but also fits in with the time frame of the other events. We find that the winter solstice, *Uttarayana*, post the war, had occurred in lunar month of *Magha*, on *Shukla Paksha Sapthami*, 7th phase, brighter half, on 17th January, 3066 BCE.

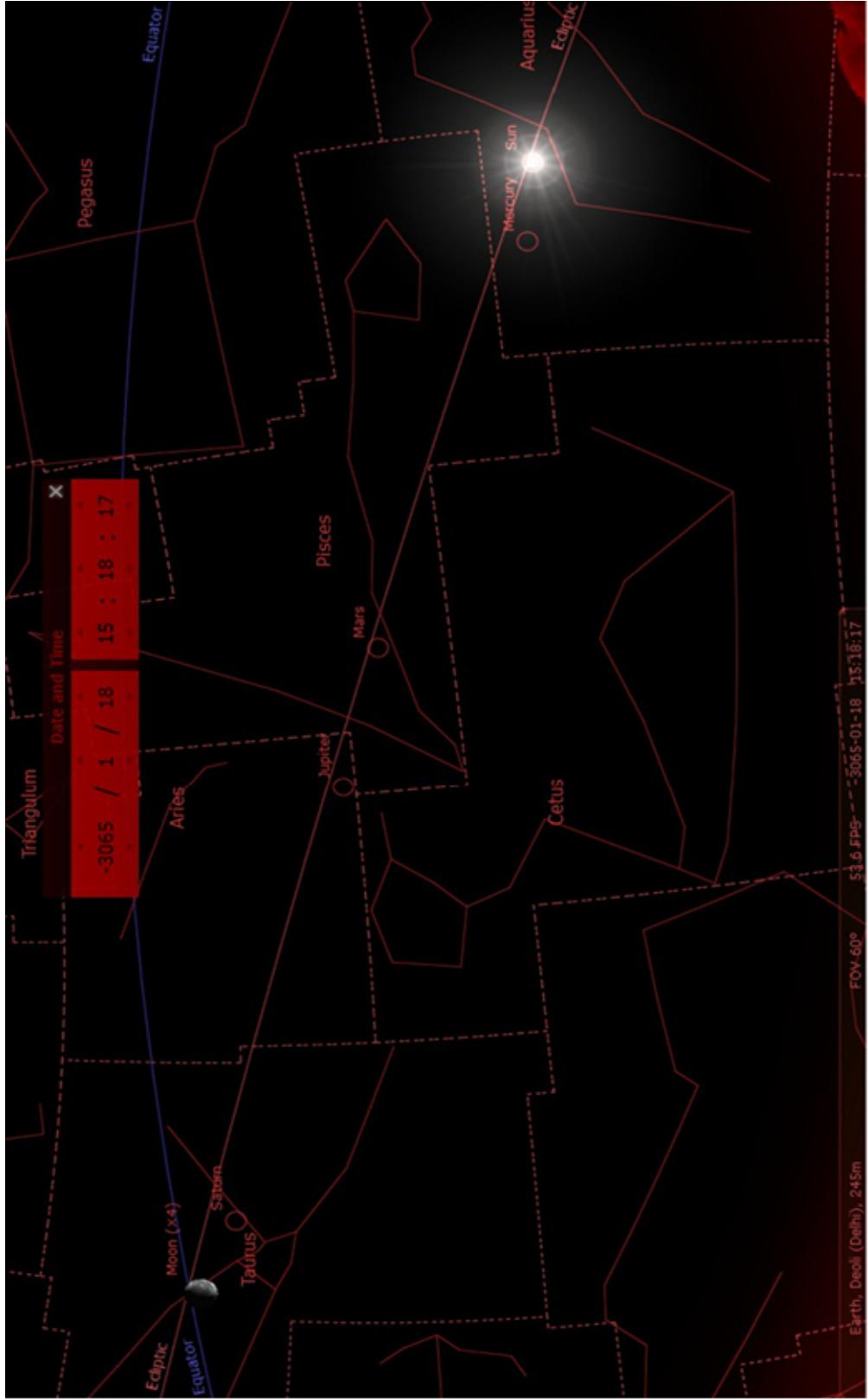
Bheeshma therefore breathed his last on the next day, *Ashtami*, 8th phase of the moon, 18th January, 3066 BCE.

On this day, we find that

- the sun had just crossed the winter solstice at Aquarius,
- Saturn was at *Rohini* star, Aldebaran in Taurus and
- moon was in Taurus too, by the side of *Rohini* as given in the *Mahabharata* text.



Skychart for Bheeshma Nirvana as provided by Dr.Achar



Sun at Aquarius with an 8th phase Moon and Saturn at Rohini on Bheeshma Ashtami

Skychart independently generated by authors using a different software – both skycharts tally
Note - The year 3065 BCE in the Planetarium software means 3066 BCE since it counts a zero year
between 1CE and 1BCE

THE 58 DAYS CHALLENGE

A stringent, expressed fact

From the verse in *Anushasan Parva*, we find Bheeshma saying that he had spent 58 sleepless nights.

The word *Astapancasatam* in this verse is the number 58. *Asta* means eight and *pancasatam* means fifty.

So, this 58 day period is an expressed statement which has also to be given its full due in fixing the dates.

Bheeshma fell on the 10th day of the battle. The total battle of Kurukshetra lasted 18 days. So, for the last 8 days of the battle, he observed it from his bed of arrows.

The battle as we have already seen, started on 22nd November, 3067 BCE.

This means Bheeshma fell on 1st December, 3067 BCE. From the sky configurations we find that he breathed his last on 18th January, 3066 BCE, after *Uttarayana*.

This date is indeed exactly 58 days from the start of the war.

The war date, the sky configuration of *Bheeshma Nirvana* and the contents of the verse from the text, tally well with the elapsed number of days as 58.

When in the verse, Bheeshma says that he had spent 58 sleepless nights, it implies that from the day the war started, for 58 days, he had been bereft of sleep due to mental and physical distress.

A GAP IN UNDERSTANDING

Few have interpreted this verse as Bheeshma saying that he had spent 58 sleepless nights after he was felled and have been looking for dates that tally with a 58 day window post his fall.

18th January, 3066 BCE as the date for *Bheeshma Nirvana*, arrived at based on *Uttarayana* and other sky conditions, is only 48 days from 1st December, 3067 BCE, the date Bheeshma fell, counting 10 days from the start of the war on 22nd November, 3067 BCE. Hence this date would appear unacceptable for these few.

If the war started on 22nd November, 3067 BCE and Bheeshma fell on 1st December, 3067 BCE, and if 58 days later he breathed his last, then *Bheeshma Nirvana* should have been on 28th January, 3066 BCE. This date is arrived at from the balance 30 days of December, 3067 BCE and 28 days in January, 3066 BCE, the next year.

For this argument of 58 days to be true, this 28th January, 3066 BCE should also have been an *Uttarayana* day.

But we find that in 3066 BCE, *Uttarayana* occurred on 17th January and that is exactly 48 days away from the fall of Bheeshma.

The data and dates emerging in our analysis, clearly bring out that with the number 58, Bheeshma was indeed alluding to sleepless nights right from the start of the war itself.

It was 10 days of sleepless nights before he fell in the battlefield and 48 days of sleepless nights on the bed of arrows in the battlefield, before he breathed his last on 18th January, 3066 BCE.

Logical ratification for this date follows.

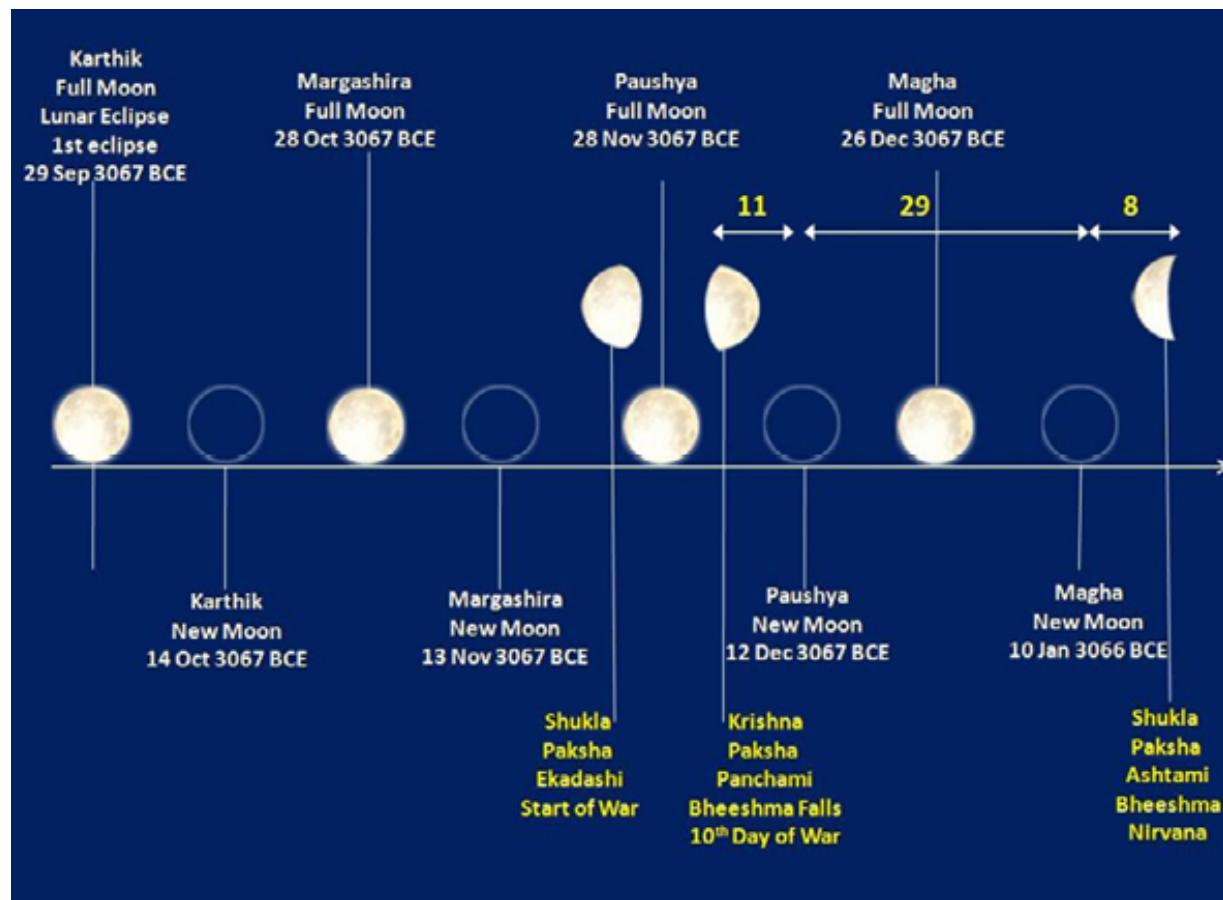
THE RATIFICATION FOR *BHEESHMA NIRVANA*

The war as we have seen, started on 22nd November, 3067 BCE, which was a *Shukla Paksha Ekadashi*. It was the month of *Margashira* then.

Bheeshma fell in the battlefield on the 10th day of the war. 10 days from a *Shukla Paksha Ekadashi* (11th day waxing / bright fortnight) works out to a *Krishna Paksha Panchami* i.e., 5th day of a waning / dark fortnight.

Bheeshma attained *Nirvana* only in *Magha Shukla Paksha Ashtami* (8th day of waxing / bright fortnight in *Magha* month).

Let us count the number of days between these dates, as per the Indian calendar.



Timeline showing sequence of events connected with Bheeshma's *Nirvana*

Start of war was on – *Margashira Shukla Paksha Ekadashi* (11th day Bright fortnight of *Margashira*).

So, 10th day of war or Bheeshma's Fall would have occurred on *Paushya Krishna Paksha Panchami* (5th day Dark fortnight of *Paushya*).

This is arrived as,

- 5 Days from *Margashira Shukla Paksha Ekadashi* (11th Bright of *Margashira*) to *Paushya Poornima* (Full Moon), Full Moon day

included

- 5 Days from *Paushya Poornima* (Full Moon) to *Paushya Krishna Paksha Panchami* (5th Dark), Full Moon day excluded
- Totalling to 10 days.

After Bheeshma's fall on *Paushya Krishna Paksha Panchami* (5th Dark of *Paushya*), we have the following count of days upto *Magha Shukla Paksha Ashtami* (8th Bright of *Magha*) i.e., *Bheeshma Ashtami*:

- In *Margashira* Month – 11 days upto and including *Paushya* New Moon
- In *Paushya* Month – 29 days upto and including *Magha* New Moon
- In *Magha* Month – 8 days upto and including the day of *Nirvana*.

These total to 48 days only.

So irrespective of any software or any other method used, simply going by the days mentioned in the *Mahabharata* text itself and counting number of days using Indian calendar, the gap between when Bheeshma fell in the battlefield and when Bheeshma attained *Nirvana*, can only be 48 days in any year.

It cannot be 58 or any other number.

The number 58 comes only with the addition of the first 10 days of the war.

Thus is overcome the challenge of fitting in the 58 day elapse time mentioned in the *Mahabharata* text. For Bheeshma though, these 58 sleepless nights from the start of the war proved to be a bigger challenge especially with the last 48 days literally on a bed of arrows, till he breathed his last

Now, let us look for the veracity of the year 3066 BCE, arrived at as the year for Bheeshma's *Nirvana*.

VERIFYING BY ELIMINATION

One may wonder, cannot a fit for 58 days as well as *Uttarayana* and *Magha Shukla Ashtami* with Saturn at *Rohini*, have occurred in some other year, other than 3066 BCE?

Let us see how the process of elimination has to be used carefully in Archaeo-Astronomy, to actually arrive at the right hit and fit.

Prof.Achar describes the painstaking efforts that he had undertaken.

"A search is made for the years in which there is a conjunction of Saturn (śani) with Aldebaran (Rohini) between 3500 BCE and 500 CE. As Saturn takes an average of 29.5 years to go around the sun once, the event also repeats with the same period. There are 137 such conjunctions during the interval specified above. A search is then made for those years from among these 137 dates when Mars (angāraka) is retrograde before reaching Antares (Jyeṣṭha). Since the retrograde motion of Mars repeats with the same period as its synodic period, a spread of two years on either side of each of the dates was considered in the search.

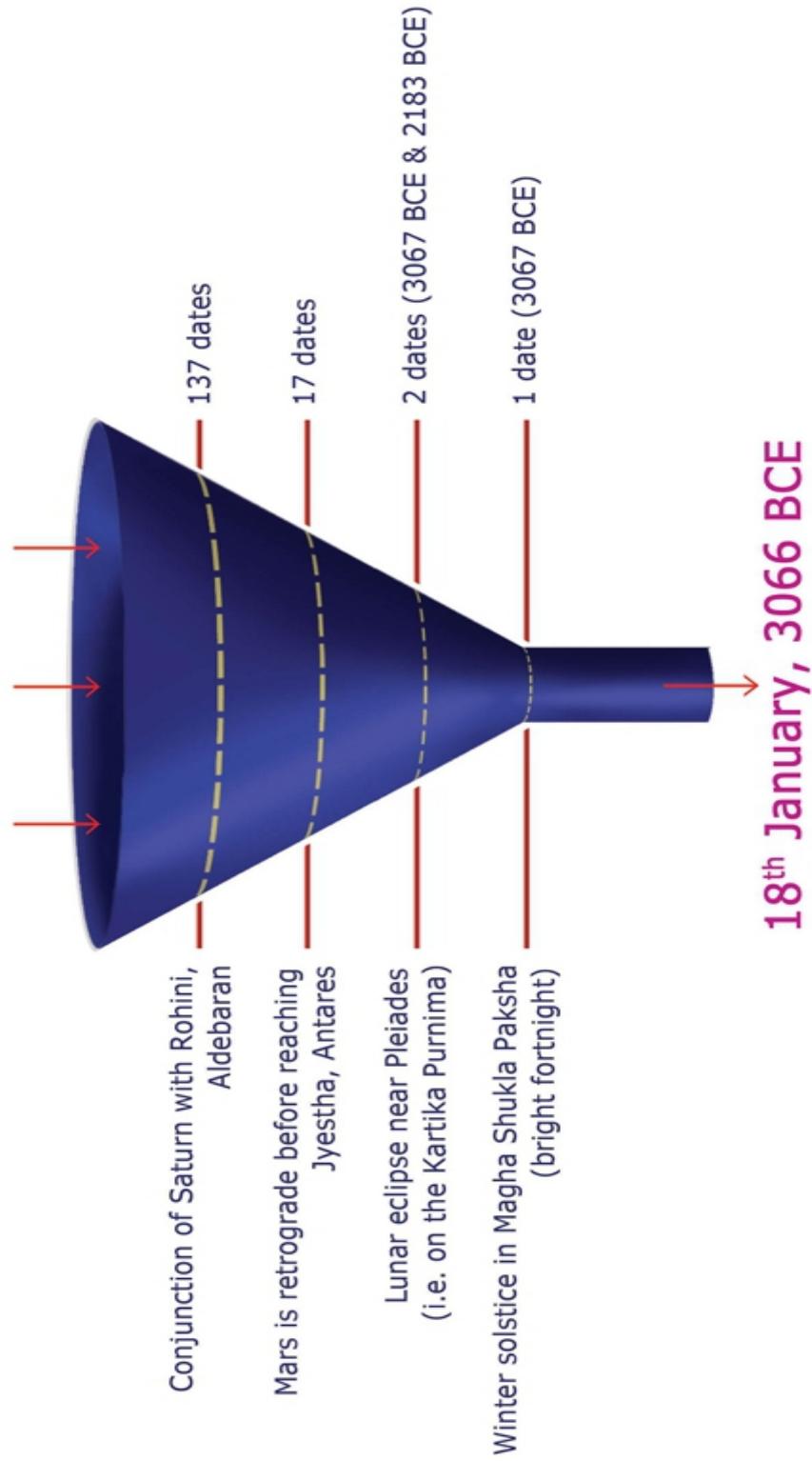
The search reduced the set to just seventeen: 3271 BCE, 3067 BCE, 2830 BCE, 2625 BCE, 2388 BCE, 2183 BCE, 1946 BCE, 1741 BCE, 1503 BCE, 1299 BCE, 1061 BCE, 857 BCE, 620 BCE, 415 BCE, 28 CE, 233 CE and 470 CE, when Saturn was near Aldebaran and Mars executed a retrograde motion before reaching Antares. A search is then made for those years in which there is a lunar eclipse near Pleiades (i.e., on the Kārtika Pūrnima). This reduces the set to just two, 3067 BCE and 2183 BCE. It turns out that in both of these years the lunar eclipse is followed by a solar eclipse at Jyeṣṭha. A sequence of 'two eclipses within a period of 13 days' also occurs in the two eclipse seasons."

But using the next stringent criterion to be satisfied, namely that Bheeshma passed away on the *Magha Shukla Ashtami*, after the occurrence of winter solstice, leaves us with only the winter solstice in January, 3066 BCE which matches the criterion. The winter solstice in 2183 BCE occurred in *Krishna Paksha*, dark fortnight, on a *Chaturthi*, 4th phase of the moon.

Thus a unique date of 18th January, 3066 BCE for Bheeshma's *Nirvana* and 22nd November, 3067 BCE for the date of the war emerges from the meticulous process of selection, elimination, deduction and confirmation.

BHEESHMA'S NIRVANA

Sky Configurations between 3500 BCE and 500 CE



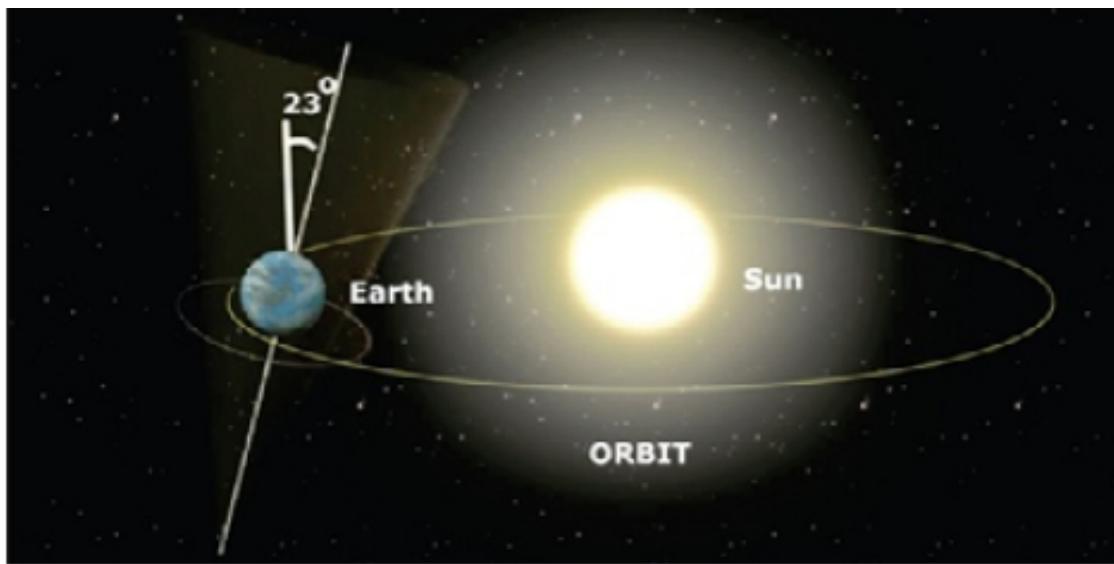
Process of Selection, Elimination, Deduction and Confirmation

PRECESSION - ANOTHER ANGLE TO VERIFY FROM



A spinning and precessing Top

As the earth orbits around the sun it spins on its own axis. But the earth's axis of spin also changes its angle of spin and wobbles or precesses like the top of a top.



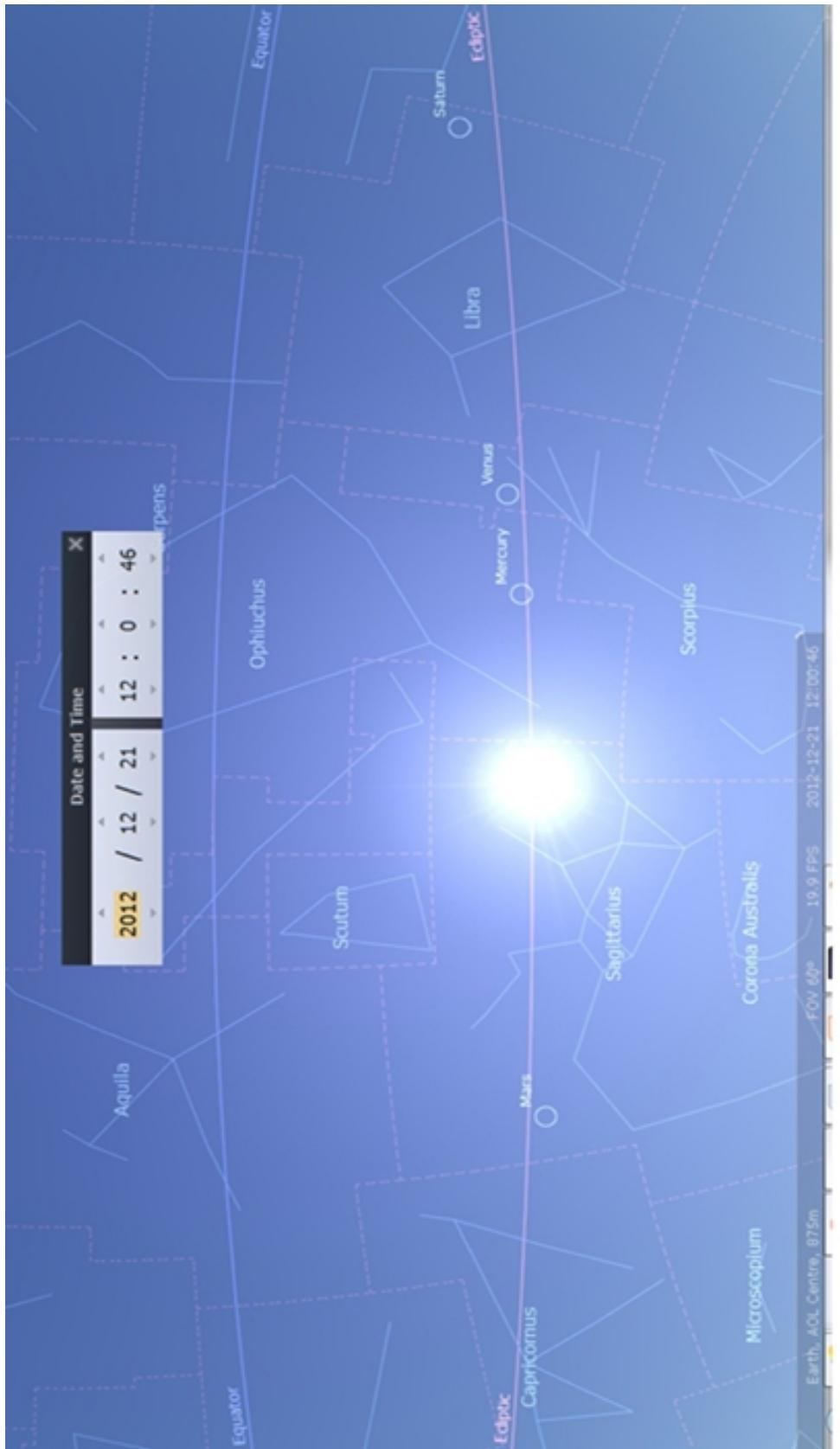
Precession of earth about its axis

Due to this, the equinox and solstices occur earlier each year. The difference is so small that it takes about 72 years for the dates to slip by 1 day. As time goes by, the solstices eventually keep occurring against a different backdrop. Meaning, the sun on a solstice will keep shifting such that after 2100 years, it will appear against the previous zodiac constellation on the same solstice day.

Another ratification of the dates of *Mahabharata* period comes from the backdrop against which the Winter Solstice of 3066 BCE occurred.

We see that in 3066 BCE, the Winter solstice occurred around January 17th and the sun then was in Aquarius.

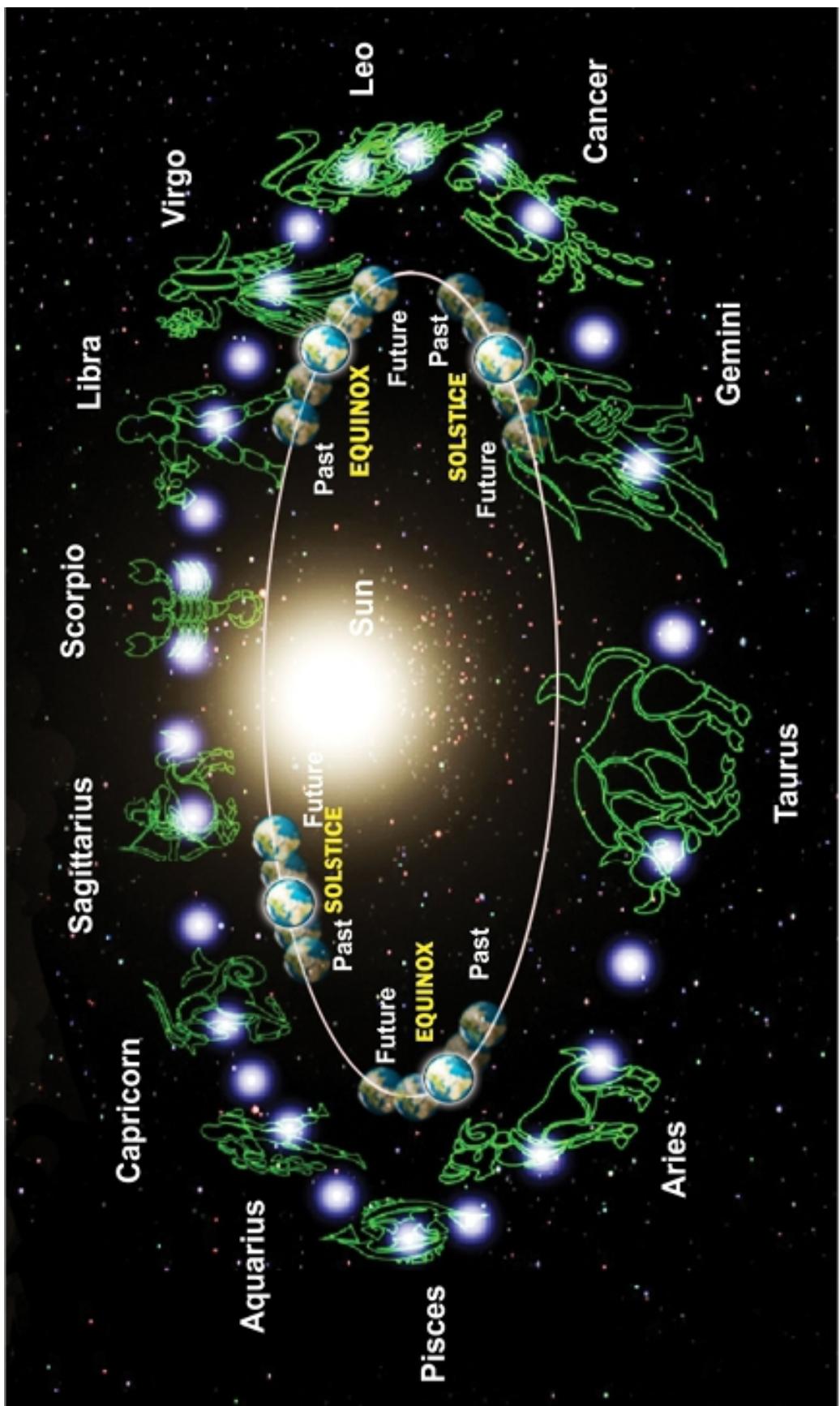
Today, 5100 years later, in 2012, the sun on a winter solstice can be found in front of Sagittarius on December 21st.



Winter Solstice in Sagittarius in 2012 CE



Winter Solstice in Sagittarius in 2012 CE



Precession of Equinoxes and Solstices

From the precession of the earth's axis, we know that it takes 2100 years for the skies to precess by 1 zodiac. Thus the solstice would have stayed in Aquarius for 2100 years, in Capricorn for the next 2100 years and say another 1000 years for its movement in Sagittarius till date.

Totalling all these, we arrive approximately, at 5100 years. The elapsed time calculated using precession of the Winter solstice from then to now, dovetails with the 5100 year passage of time since then.

This proves the veracity of the dates arrived at for the *Mahabharata* period.

RATHA SAPTHAMI – THE DAY THE SUN TURNED

The day on which the sun turned northwards to greet Bheeshma so that he could breathe his last, has aptly come down across millennia by the name “*Ratha Sapthami*”.

Sun in India is visualized as travelling across the skies in a chariot, *ratha*.



Sun depicted as a chariot

Uttarayana is the day the Sun turns northward in its journey.

The day this chariot turned northward during Bheeshma's times, according to the text, was a *Sapthami* i.e., the 7th phase of the moon.

Hence, the momentous *Uttarayana* that was awaited by Bheeshma is also known as “*Ratha Sapthami*”, the *Sapthami* of the Sun’s *Ratha*, chariot.

Ratha Sapthami – The Day Dedicated to a Great Warrior

Another perspective comes from a different angle, that of the character of Bheeshma.

This 7th day of moon, *Sapthami*, was the last day in the life of Bheeshma - an elderly, wise, righteous and brave warrior of all times, who stood by his vow of safeguarding his kingdom. To keep the memory of this compelling personage, a *Maha Ratha*, alive across generations, through the land, this

Sapthami probably came to be called *Ratha Sapthami*, the *Sapthami* of Bheeshma, a great *Ratha*, hero, warrior.

Bheeshma breathed his last on the day after *Ratha Sapthami*, which day is commemorated as *Bheeshma Ashtami*, “*Ashtami*” meaning the 8th phase of the moon.

All this shows that, from the times of the *Mahabharata*, the Indian calendar has been and continues to be luni-solar, i.e., based on both the moon and the sun.

An over 5100 year old tradition, knowledge and calendar!

The Yadava Civil war

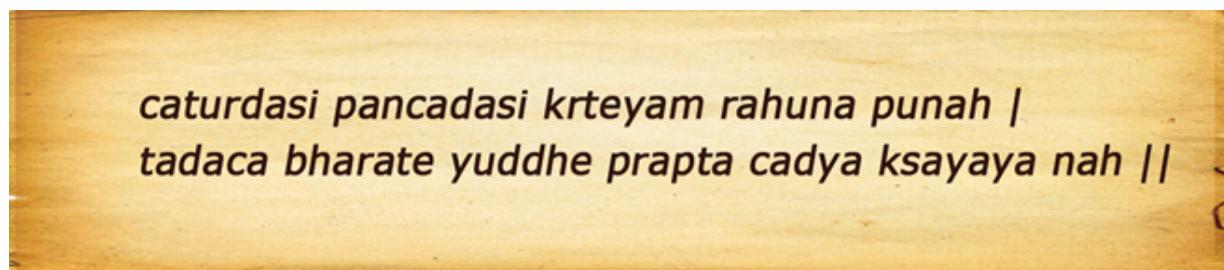
GANDHARI'S CURSE

A curse is something that is spontaneous. Gandhari, overwhelmed by grief at the death of all her 100 sons, the Kaurava, curses Krishna that like her, He too would see the end of His dynasty 36 years from then, in His very own lifetime.

TRIPLE ECLIPSE AGAIN

Just as Veda Vyasa foresaw troubled times around the period when a triple eclipse occurred and this was followed by a bloody war in 3067 BCE, Krishna saw a season of triple eclipses and forbode troubled times for Dwaraka. He asked people to move out and left Dwaraka.

The text says that 36 years after the Kurukshetra war, which would be 3067 BCE – 36 years, i.e., 3031 BCE, the *Yadava Civil War* broke out in Dwaraka after Krishna departed from there and Dwaraka also went under the sea due to a sudden deluge of water.



Eclipses are going to occur with a gap of 15 and 14 days once again as it happened at the time of the Mahabharata war.

Saros Cycle

As per the principles of astronomy, most eclipses occur in a pattern wherein similar eclipses repeat every 18 years. This is known as 'Saros Series' in astronomical terms.

We have seen one set of eclipses occurring just before the war in 3067 BCE. A mention in the text, of a similar set of triple eclipse occurring 36 years later, does conform to the Saros cycle. The year 3031 BCE was indeed found to have seen a set of three eclipses. The dates for which can be obtained using planetarium software.

Yadava Kalaha

Civil War

- **lunar eclipse**

20th October 3031 BCE

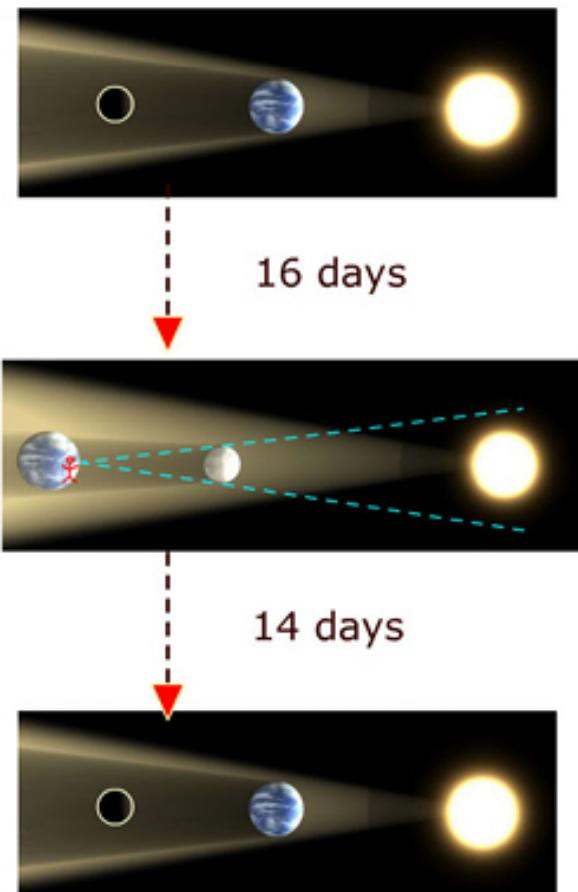
- **solar eclipse**

5th November 3031 BCE

- **lunar eclipse**

19th November 3031 BCE

3 Eclipse sequence



Triple eclipses as a phenomenon and their implications have been discussed in our book, “Triple Eclipse”, which is part of the Bharath Gyan series.

Even though Gandhari's curse is a suggestive input, this too tallies with the flow of events as can be seen here in the dates of the *Yadava* Civil War which took place 36 years after the *Mahabharata* war and Gandhari's curse.

The Most Awaited Date

We have seen till here, dates of different events of *Mahabharata* in the life of Krishna.

What we are yet to date is an important day, a day that continues to be celebrated with joy every year since the last 5 millennia - the day He was born.



Baby Krishna

Krishna's birth is celebrated every year as per Indian calendar, a day etched in people's mind as *Krishna Janmashtami*.

What is missing for present generation however is the date of His birth as per the Gregorian calendar which is used widely today. Without this facet to His birthdate, His birthday celebrations seem to hover around mythology for them.

Not only was Krishna beautiful. Beauty also lies in the elements of his birthdate available, such as the name of the year, the month, the day, the star, as known in Indian calendar.

This beauty is revealed when we understand these individual elements for what they represent and see how they lead us to the exact date of His birth in the Gregorian calendar, even after so many millennia.

Krishna's Birth

We have already seen that Krishna comes into the *Mahabharata* story only on the event of Draupadi *Swayamvara*. So details of His birth are naturally not mentioned in the *Mahabharata*. This information is available in the *Bhagavata Purana* and *Hari Vamsa*.

Through the ages many scholars have computed the date of birth of Krishna based on the description of the sky configuration at the time of His birth given in these texts. Some have even dated His birth tracing backwards from the *Kali Yuga*.

Poet Surdas too had drawn a horoscope for Krishna around 400 years ago.

Let us try and date this timeless and divine hero now, using the background laid in front of us with the dating of the *Kali Yuga* and *Mahabharata*.

BIRTH OF A DARK BOY ON A DARK NIGHT

We celebrate Krishna's birthday year on year, calling it *Janmashtami* - *Janma* meaning birth and *Ashtami* meaning eighth phase of the moon.

Krishna was born at the stroke of midnight. That night was the eighth phase of the moon. In the Indian calendar, it is known as *Ashtami Tithi*, the 8th night of the moon, in its darkening phase, *Krishna paksha*. The name *Krishna* for this *paksha*, fortnight, is because it is the dark phase. It has nothing to do with the name Krishna of our hero, who was dark too.

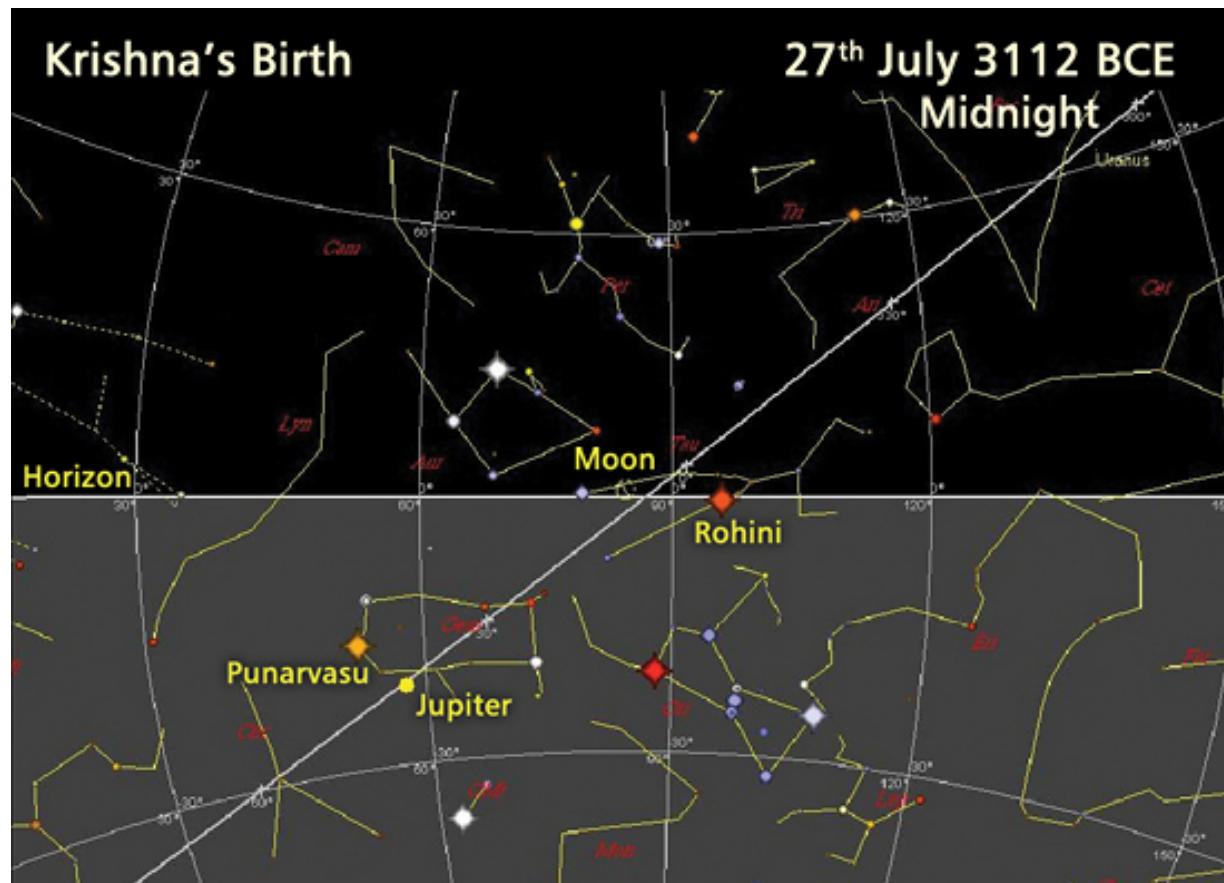
THE NIGHT SKY

The moon was near *Vrshabha*, the bull, i.e., the Taurus constellation, which houses the star *Rohini*, known as Aldebaran in modern astronomy. It was the month of *Shravan*, one among the 12 calendrical months in the Indian calendar. During this month, the sun is aligned against Cancer and the moon on the full moon day, would be aligned against the zodiac Capricorn.

The components of the night sky are clear to us from the texts. Where the stars were that night, are clearly mentioned in the *Bhagavata Purana*, *Dasama skandhe, tritiyo Adhyaye*, meaning the 10th Canto and third chapter of the *Bhagavat Purana* text. The relevant details from this *sloka*, verse are,

Shravana vada ashtami, Rohini Nakshatra, uditam Lagnam

Searching for this sky configuration using the Planetarium software, we obtain the date 27th July, 3112 BCE as per Gregorian Calendar for Krishna's birth.



Star positions during Krishna's birth - 27th July, 3112 BCE

How can one verify if this date is correct?

SRIMUKHA YEAR

The verse describing Krishna's birth, calls the year as “*Srimukha*”.

Srimukha is the name of a year in the 60 year cyclical calendar followed in India even to this day. This implies that the present 60 year, Indian calendar system was in vogue even during the days of Krishna.

60 year cycle

The first year of the sixty year cycle is called *Prabhava*, meaning “origin”, “source”, “excellence of commencement”. We start the cycle with aspirations to excel in whatever we do. Subsequently each year has a name and *Srimukha* is the 7th year in the cycle. The sixtieth year of this cycle is called *Akshaya*, meaning “*unending*”, indicating that it is not the end and that the cycles of time are unending.

At the time of writing this book in 2013, it is the *Vijaya* year, the 27th year in this cycle.

Angularity and Alignments

The 60 years of this calendar can be related to the movements of primarily Jupiter and Saturn. Since Jupiter has a revolution period of 12 years and Saturn, that of 30 years, they come in conjunction with the same Zodiac once every 60 years.

Therefore each year can be explained as an angular difference in the position of Jupiter and Saturn and the Zodiac.

Srimukha year which last went by in 1993 – 94, had Saturn in Capricorn and Jupiter in Virgo. i.e an angular gap of 3 zodiacs (Libra, Scorpio, Sagittarius) between the two. Since each Zodiac spans roughly 30 degree in the zodiac belt, 3 zodiacs denote a gap of about 90 degrees.

The same alignment with a gap of 90 degrees between Jupiter and Saturn, can be seen in the preceding *Srimukha* years at intervals of 60 years, i.e., in 1934, 1875, 1815 and so on. Tracing backward, we find that the angular gap between Jupiter and Saturn seems to be maintained at 90 degrees for every *Srimukha* year. Only that the constellations with which Jupiter and Saturn were respectively aligned, kept changing to the adjacent ones.

In 3112 BCE, the year of the birth of Krishna, besides the star configurations of the text matching that in the sky, we find Jupiter and Saturn separated exactly by the same gap of 3 zodiacs or 90 degrees. Only, Jupiter was aligned with Gemini and Saturn with Libra.

So, the year 3112 BCE was a *Srimukha* year indeed!

BEAUTY IN THE PRECISE

Using all these astronomical data to pin history and geography correctly is one aspect of Archaeo-Astronomy.

Another aspect is the sheer exhilaration when one gets to see the workings of the Universe. One cannot but wonder and be amazed at the precision one sees in the movements of the bodies in the sky.

The search in the sky, for our ancestors' footprints, draws us to the hitherto unknown depths of their minds.

It is astounding to see the ability of the ancients, to have not only understood the workings of the astral bodies, but also to have visualized a humanly intelligible yardstick by which to measure it.

There is beauty in the design of the cosmos. There is a beauty in the power of the intellect in being able to understand this design and assign a value to it.

PRECISE PATTERN IN THE SKIES

Our ancients had calibrated the skies and the movements of the earth, the moon and other celestial bodies to track the passage of the earth through space. In short, to track the passage of time.

They could do so because they were discerning enough to observe the pattern set in the sky.

They could do so, because the movements were mathematically precise.

They could do so, because their deep intellect could translate what their eyes had observed, into a calibrated scale.

They could do so, because in their inner mind, they could visualize and chart out this luminous map of the sky.

Thus were born the various classifications of time such as *Rasi* - zodiacs, the *Nakshatra* – star zones, *Masa* – month, *Paksha* – lunation of the moon, *Tithi* – day and so on, along with their distinct, scientific names.

The ancient *Rishi* were the ones who could connect with the skies and out of the knowledge of the objects in the sky and their motions, was born the knowledgebase known as *Vedanga Jyotisha*, astronomy.

MONTH FIXES THE STAR

Krishna was born in the *Shravan* month.

Shravan is that month, when the Full Moon occurs in the *Sravana Nakshatra*, which is Altair star in Aquila constellation. This *Sravana* forms part of the *Makara Rasi*, Capricorn zodiac. When Full Moon occurs in *Sravana*, the Sun has to lie exactly opposite in the sky, i.e Sun at this time, is in Cancer.

Krishna was born on the day of *Rohini Nakshatra*, on *Krishna Paksha Ashtami*, 8th phase of dark fortnight of the moon.

With the moon taking approximately 1 day to traverse from one *Nakshatra* to another, along the Zodiac belt, the moon would have travelled 8 *Nakshatra* away, in 8 nights from the full moon.

8 stars away from *Sravana*, the *Nakshatra* of the Full Moon in *Shravan* month, comes close to *Rohini*, Aldebaran star in Taurus constellation.

8 nights away from a Full Moon is *Krishna Paksha Ashtami*.

Hence, whatever be the year, *Srimukha* or otherwise, the *Krishna Paksha Ashtami* of *Shravan* month will always be around *Rohini*.

Then how can we identify the particular *Srimukha* year in which Krishna was born?

Let us look at the *Srimukha* years, besides 3112 BCE, around the start of the *Kali Yuga*, in 3102 BCE.

Since *Srimukha* year repeats every 60 years, we will examine the following years.

3112 BCE + 120 years = 2992 BCE

3112 BCE + 60 years = 3052 BCE

3112 BCE - 60 years = 3172 BCE

3112 BCE - 120 years = 3232 BCE

In all these years, using the Planetarium Software, we find that the *Srimukha* alignment did occur between Jupiter and Saturn.

Also, the *Krishna Paksha Ashtami* did occur near Rohini star.

PICKING THE RIGHT ONE

Looking at Krishna's Contemporaries

One of the ways of determining Krishna's time and age is to look at the age of His contemporaries.

The lives of the *Pandava* and Krishna are interwoven together. Krishna was of the same age as Arjuna, amongst the five *Pandava*. Arjuna was younger to Yudhishta by about 4 years.

As there are various versions of the *Mahabharata* texts available in circulation today, between 1940 and 1960, a team under the editorial leadership of Shri. Vishnu Sukhtankar, brought out a critical edition of the *Mahabharata* by comparing over 120 manuscripts of the epic and culling out the common and thus authentic portions of the epic. This was published by the Bhandarkar Oriental Research Institute, Pune.

From the flow of events described in this critical edition, one can gather that Yudhishta was around 49 years old when he went for the Kurukshetra war.

This places both Arjuna and Krishna at 45 years of age at the start of the Kurukshetra war in 3067 BCE.

Now examining the years of *Srimukha* configuration in relation with 3067 BCE, the year of the war, we find that if Krishna had been born in

3232 BCE	Krishna would have been 165 years old at the time of the war
3172 BCE	Krishna would have been 105 years old at the time of the war
3112 BCE	Krishna would have been 45 years old at the time of the war
3052 BCE	Krishna would have been born after the war
2992 BCE	Krishna would have been born after the war

This leads to the date of 27th July, 3112 BCE as the most probable date of birth for Krishna.

SRI KRISHNA JAYANTHI – FORERUNNER OF ALL JAYANTHI

Some aspects in astronomy continue to remain mysteries. Ancient Indian astronomers seem to have fixed certain nomenclature for certain configurations, besides the names of the stars.

The lunar phases occurring at certain stars seem to have been accorded special names.

For example,

-

those that occur at *Punarvasu* star are prefixed with *Jaya*. *Jaya Mahadwadasi* is the *Dwadasi*, 12th phase of moon, during *Shukla Paksha*, bright fortnight and when the moon is found at the *Punarvasu* star in Gemini constellation.

- *Vijaya* is prefixed when the moon is seen at the *Sravana* star in the Capricorn constellation. For example *Vijaya Dasami* during *Navaratri* is when the moon typically lies around *Sravana* star on the 10th day after New Moon or *Dasami*. This is because during the month when *Navaratri* is celebrated (*Aswin* month / *Puratasi* month), the Full Moon occurs in *Aswini* star. This fixes the New Moon or start of *Navaratri* near *Chitra* star and the 10th day or *Dasami* would occur near *Sravana* star.
- *Nasini* is prefixed when the moon is seen at the *Pushya* star in Cancer constellation.
- Similarly, *Jayanthi* is prefixed when the moon is at the *Rohini* star, Aldebaran in Taurus.

Hence, Krishna's birth, when the moon was at *Rohini* star, has come to be called "Sri Krishna Jayanthi". A "Jayanthi" day when Krishna was born.

Jayanthi, also meaning "celebrations", from then on would have come to stand for birthday celebrations. Over time, every birthday celebration has come to be called a *Jayanthi* and we today have,

- Buddha *Jayanthi*
- Mahaveer *Jayanthi*
- Shankara *Jayanthi*
- Shivaji *Jayanthi*
- Gandhi *Jayanthi*
-

Ambedkar *Jayanthi* and so on

-

Including *Gita Jayanthi* for the day on which *Gita* was first narrated by Krishna.

Jayanthi has become popular because of association with Krishna.

Krishna's Departure from the Earth

Krishna after having lived a purposeful life on this planet, decided to depart.

According to legends, having accomplished the purpose of His birth, Krishna was reclining under a Pipal tree when He was mistakenly shot at by a hunter, Jara, in His heel.

This incident took place near Prabhas Patan, Somnath. Krishna had retired to Prabhas Patan after advising His people to leave Dwaraka.

JARA – HUNTER OR OLD AGE?

In the legends, a hunter by name Jara, who was looking for a catch nearby, mistaking the heel of Krishna, to be the mouth of a deer, shot his poisoned arrow at Krishna's sole, thus setting stage for Krishna to leave His mortal coils.

The word “*Jara*” in the *Samskrt* language also means old age.

So, was the poet instead implying that old age, *Jara*, had hit Krishna and He therefore decided to leave His mortal coils?

We see the word “*Jara*” being used in such a context of old, in the name of the native tribes of Andaman islands in India, considered to be among the oldest tribes of the world. They are called *Jarawa*, implying the very old tribe.



Jarawa of Andaman

THE DATE KRISHNA DEPARTED

The respected *Samskrt* scholar, late Dr. K. Srinivasa Raghavan, has culled out the star position at the time when Krishna departed from this earth.

The moon was transitioning between stars *Uttara Bhadrapada* and *Revati*.

Incorporating this input, Dr.Narahari Achar has identified this significant event to have taken place on 13th February, 3031 BCE.

AGE OF KRISHNA

This date for Krishna's departure fits in well in correlation with the *Mahabharata* text and dates for other events during that time.

We have seen that the date of birth of Krishna is 27th July, 3112 BCE.

The difference between these two dates is about 81 years.

So, using Archaeo-Astronomy we see that Krishna had spent 81 years on this earth.

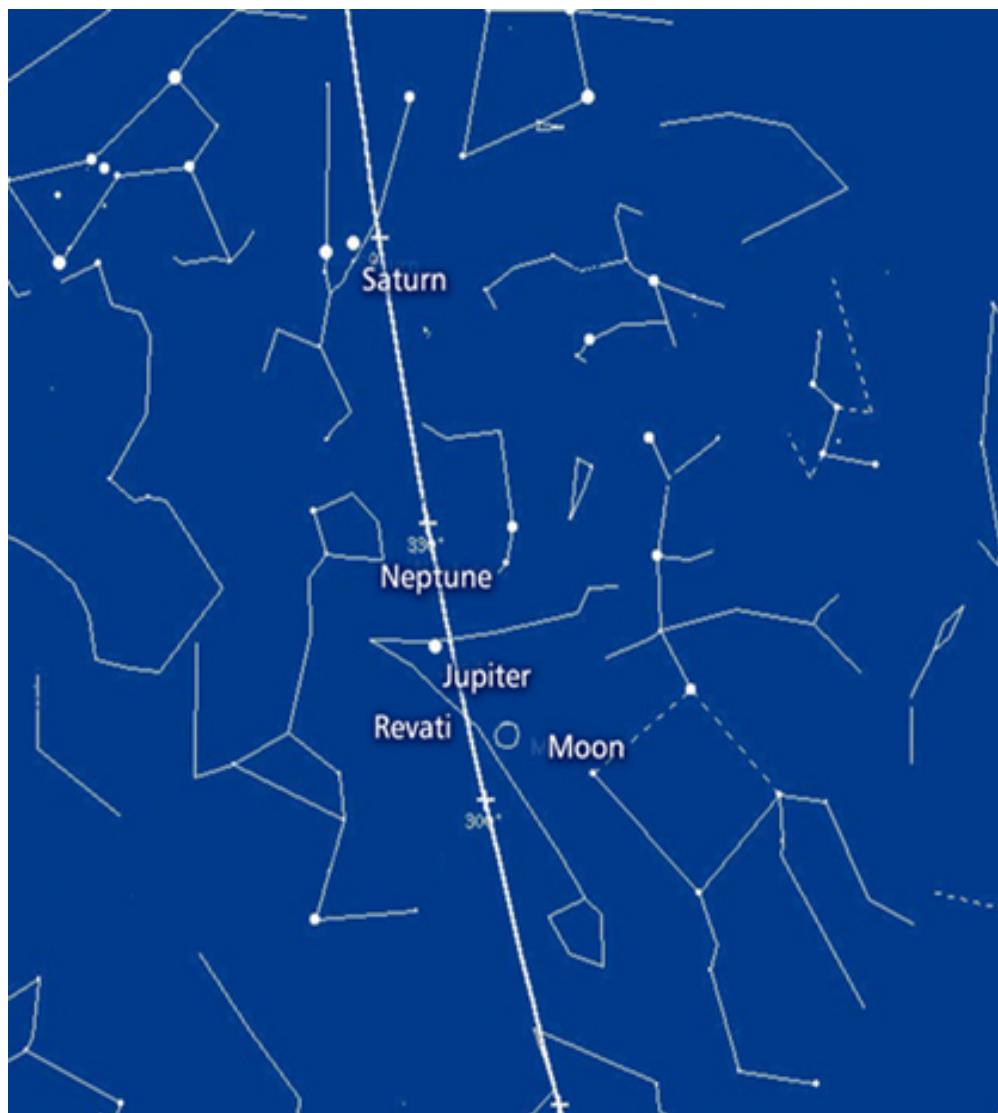
36 years later

Krishna's age at the time of the war was 45 years as we have seen earlier.

From the date of His departure, we note that Krishna was 81 years of age then.

Thus Krishna had lived for 36 years after the war as mentioned in the text.

But we have heard people say that Krishna lived for 125 years. How do we reconcile this date with this 125?



Sky chart of 13th February, 3031 BCE

KRISHNA'S LIFE SPAN - 81 OR 125 YEARS?

From where, stems the belief that Krishna lived for 125 years?

The relevant quote -

*yadu-vamśe vatīrnasya bhavatahpurusottama
śarac-chvyatamīyāya pañchavimśādhiprabhokam*

*"A century and 25 years more have elapsed Oh Lord,
since you appeared in the race of Yadu."*

- *Bhagavata Purana, 11th Skanda, 11-6-25, Gorakhpur Press*

When we analyze this statement carefully, we find that it does not state that Krishna lived for 125 years. It only states that Krishna had taken birth in the race of the *Yadu*, 125 years before this verse was composed.

We have seen the date of birth of Krishna to be 27th July, 3112 BCE.

125 years from thence would be 2987 BCE.

This could well have been the year of the compilation of that portion of the text, *Bhagavata Purana* and the authors would have mentioned it thus, which is indeed right from their time of writing.

Purana Updation

While Veda Vyasa compiled the *Purana* during his lifetime, these *Purana* were regularly kept up to date by subsequent generations who continued to incorporate events of their lifetime and passed them down as the various *Purana* and *Upa Purana*, to help us learn about the events, life and thoughts of those times.

Krishna - *Kali Yuga* Connection

We often see *Kali Yuga* being blamed for the immoral, unethical behaviour of people.

Many are wont to comment that “*all this is, but expected in Kali Yuga.*” Popular belief is that Krishna’s departure marked the start of *Kali Yuga*.

It is widely held that *Kali Yuga* started on the day Krishna departed from the earth.

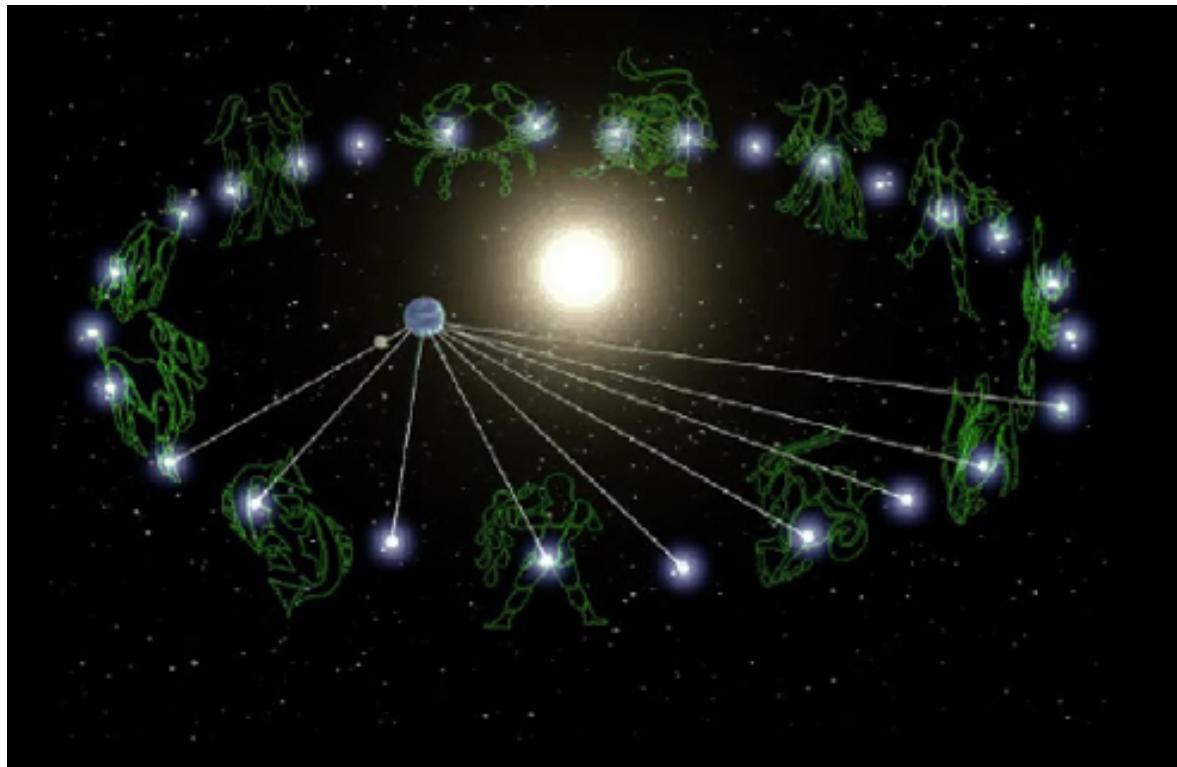
WHAT IS *KALI YUGA*?

The word *Yuga* means “to join”, “to come together in a line”.

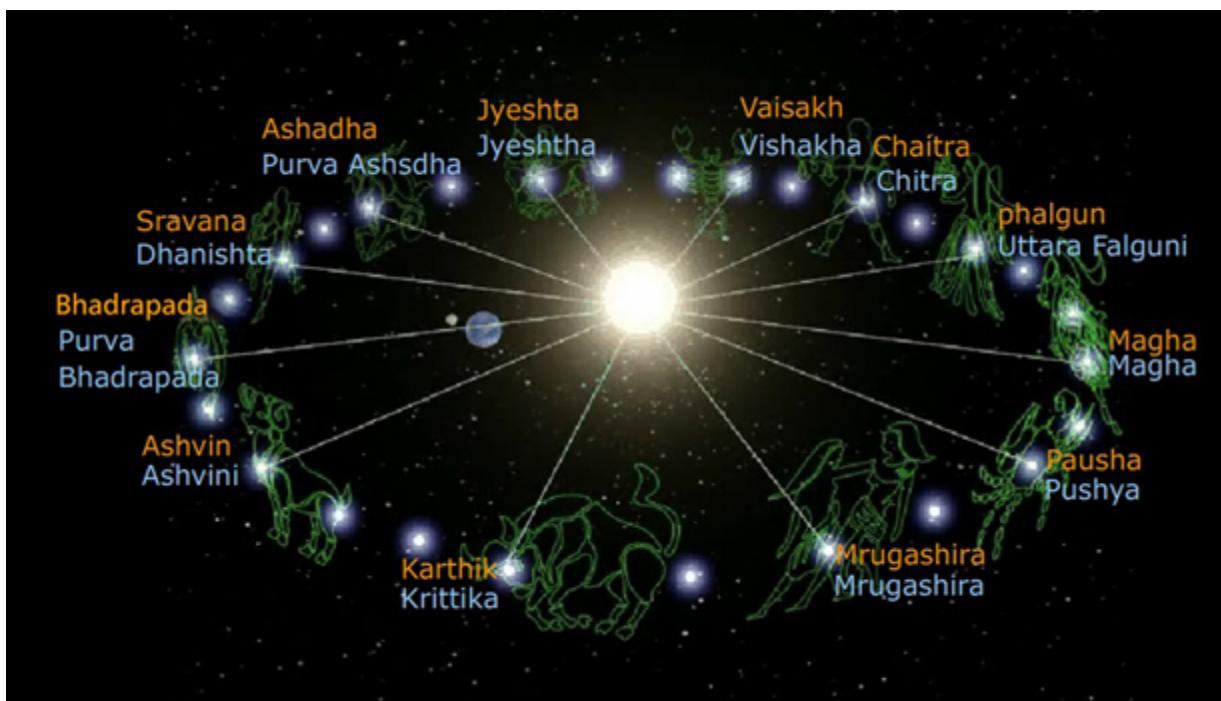
Conjunctions, *Yuga* have been used by the Indian civilization as a marker in measuring time.

The various alignments that take place regularly

- Alignment of a particular place on earth with the sun, marks a day for that place.
- Alignment of moon and earth with different stars, marks the lunar days.
- Alignment of full moon with a star, marks a lunar month.
- Alignment of sun with each Zodiac marks a solar month.



Alignment of Earth, Moon and each of the 27 stars - marking each day

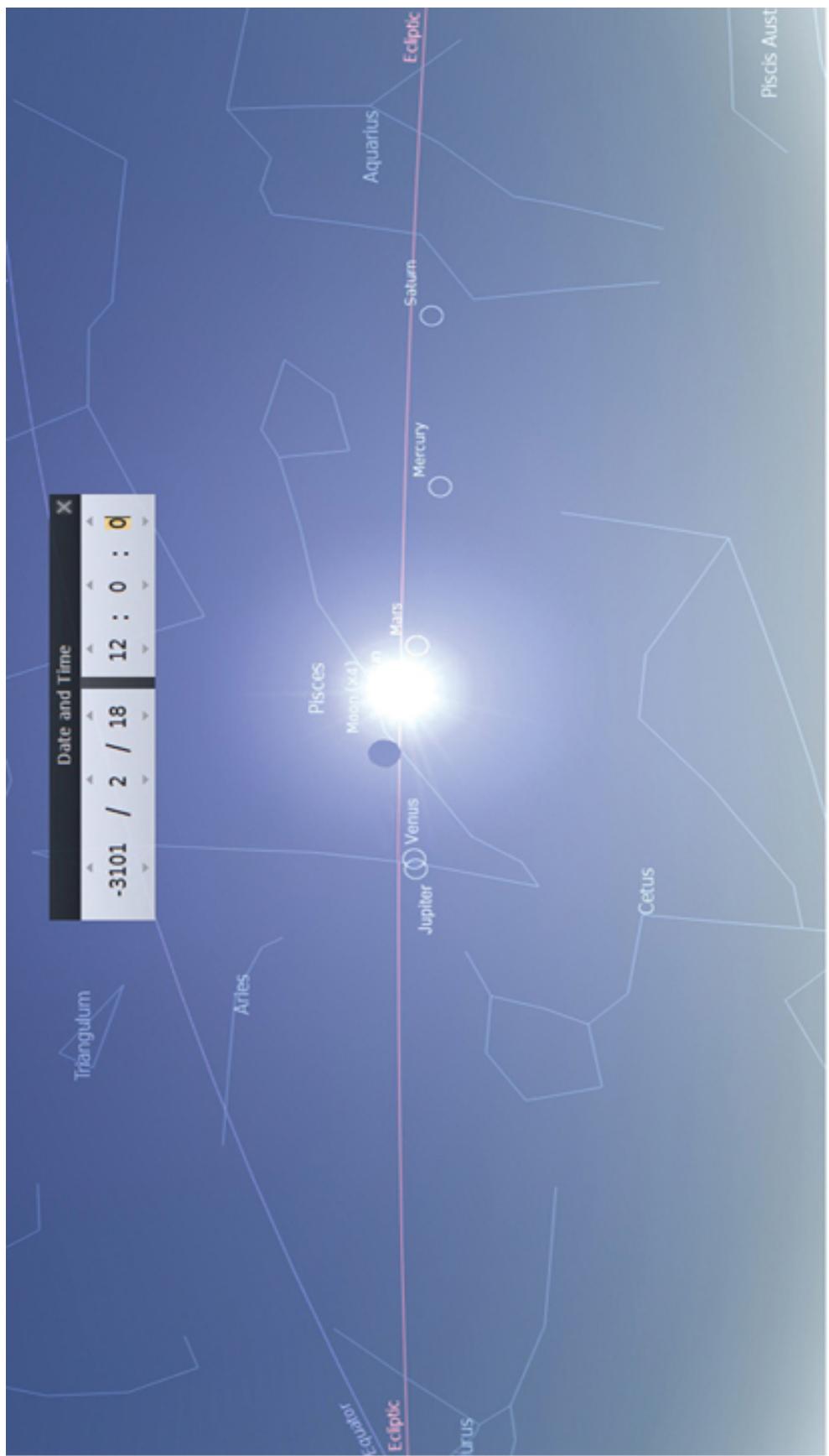


Alignment of Earth, Sun and Full Moon with a star - marking each month

Alignment of the sun with the Aries Zodiac marks a solar year. This alignment is also called a *Yuga* and is celebrated as *Yugadi*, *Ugadi*, the annual New Year festival in many parts of India.

The alignment of all the planets in the Solar System and the sun with the Aries Zodiac, marked the start of *Kali Yuga*.

Kali Yuga thus started when the appropriate time marking alignment occurred in the skies in the course of time. All the planets in the solar system at the start of *Kali Yuga*, were found near the *Revathy nakshatra*, i.e., star Zeta Pisces, in the Pisces constellation.



Sky chart of the planets together in Pisces constellation

This configuration which is an astronomical event was visible and observed then from earth. The astronomical event is verifiable today, using calculations and tools such as planetarium software.

This astronomical observation is not unique only to the region where the events of *Mahabharata* unfolded.

Nor is this observation unique to the country of India.

Wherever we had stood in the world, this conjunction would have been visible.

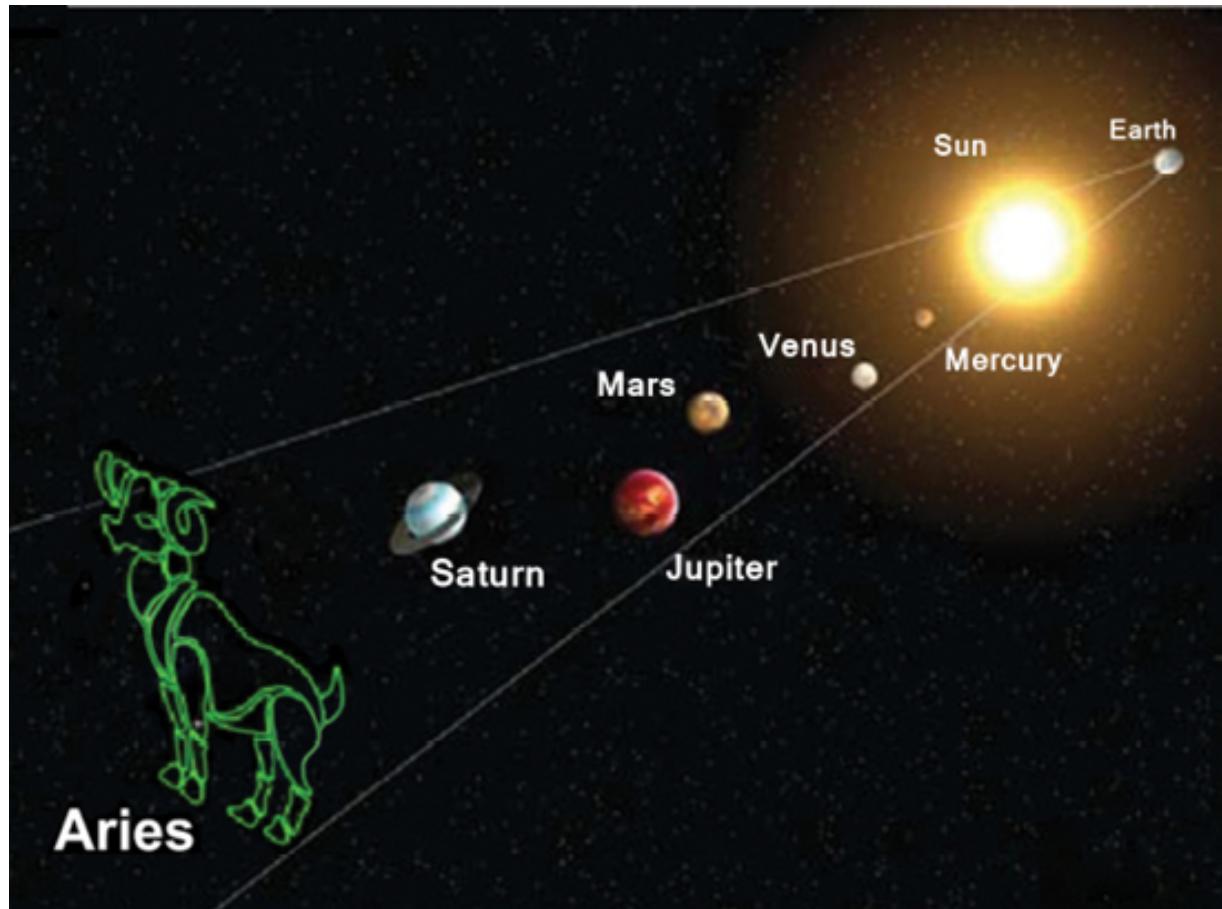
Why only this world? This conjunction was common to the whole solar system!

So whether stationed in Mars or Venus, this conjunction would have been visible and we would have been a part of this conjunction.

So this is an astral conjunction and not a religious event. It certainly is also not one that has been decreed by a king.

This astronomical event is not related to any historical person, religion, language or region. It is an astronomical event common to this world, irrespective of all the divisions we see.

It is a time marker that is applicable to the whole of this Solar System.



An artist's impression of the *Kali Yuga* alignment

We need to look at the event of Krishna's departure from the earth, coinciding with the period of the beginning of *Kali Yuga*, as a coincidence in a way. Krishna's departure from earth was not the cause for ushering in the *Kali Yuga*.

Hence it would not be right to equate the *Kali Yuga* event to the departure of Krishna or even call it Krishna calendar.

Kali Yuga and Krishna's departure are two distinct events. One is astronomical while the other historical. *Kali Yuga* did not start because Krishna left the earth. It happened in the course of planetary motions

DID KRISHNA DEPART ON *KALI YUGA* DAY?

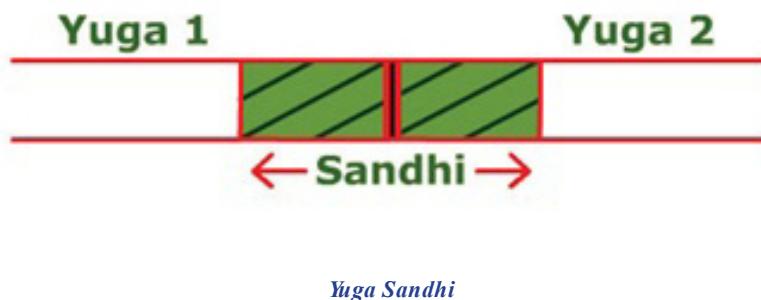
Yuga Sandhi

We have seen how a *Yuga* is a conjunction and *Kali Yuga*, a conjunction of all planets and the sun with Aries.

While the *Yuga* is a conjunction, such a conjunction does not occur only for a precise moment. The phenomenon of conjunctions is spread over a period of time depending on the speed of the planetary bodies coming into alignment.

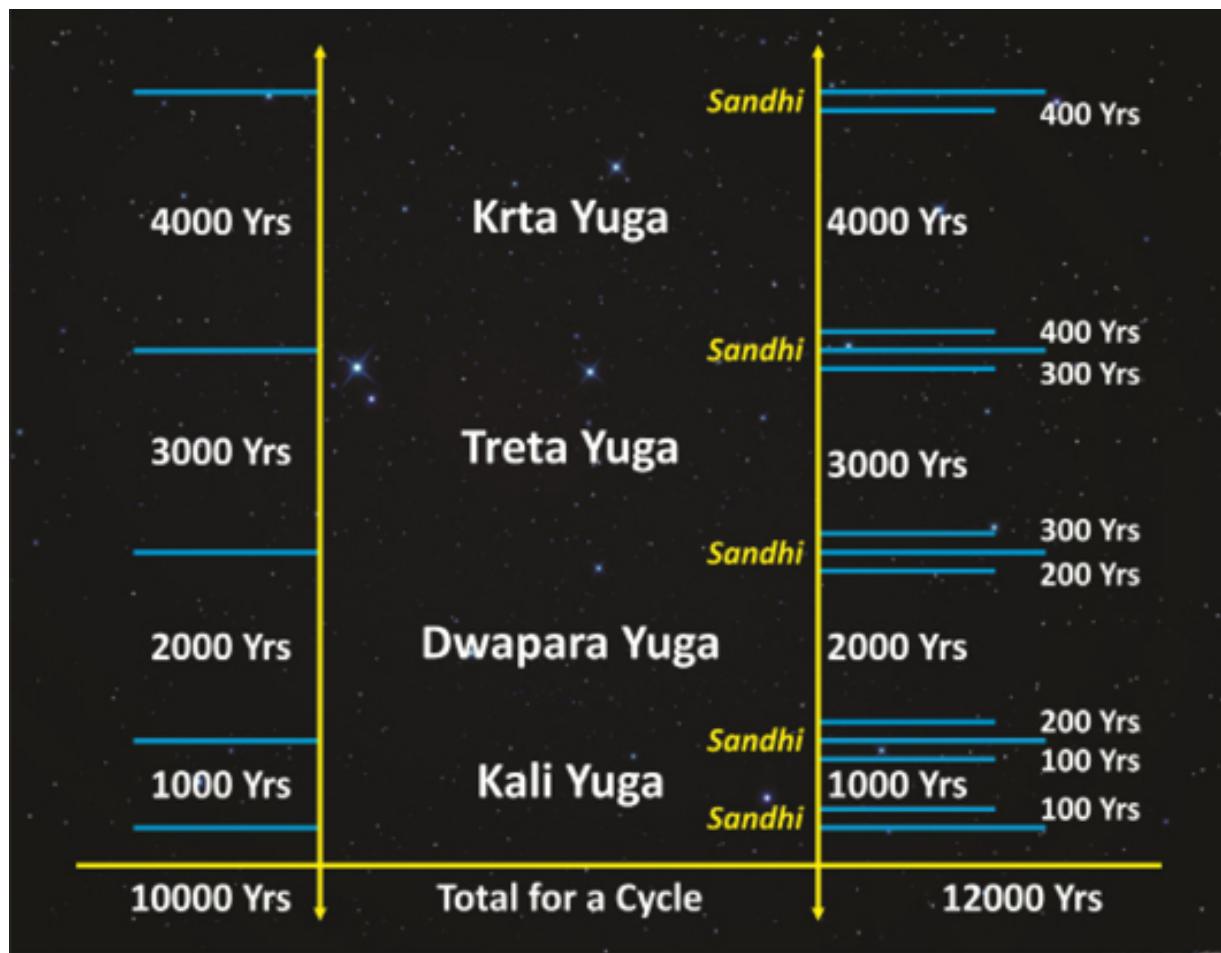
Since conjunctions were used as a marker for measuring time, Indian thought had introduced the notion of a transition window from one epoch to another.

Such transition windows are called *sandhi*. The term *sandhi* means “meeting point”.



Norms are found mentioned in the ancient Indian texts for calculating such *sandhi*.

Every *Yuga* is bound by a *sandhi* period, both before and after the *Yuga* sets in. The period of the *sandhi* is proportional to the span of each *Yuga*.



Chatur Yuga cycle as per *Vayu Purana* - 32.58 - 64

Alignments, *Yuga* cause an interplay of the gravitational and other forces exerted by the aligning bodies. *Yuga* therefore, have an influence on the objects aligning. The *sandhi* period, the transitory window between two *Yuga*, is influenced by both the *Yuga*.

Sandhi during Mahabharata Times

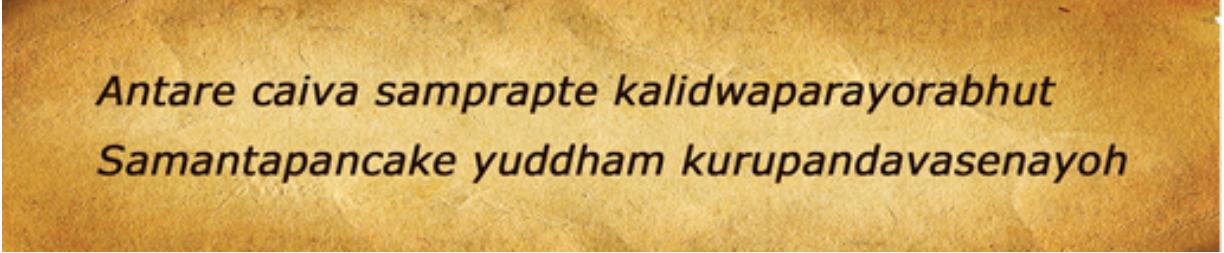
The verses in *Mahabharata* text explicitly state that the events of *Mahabharata* took place in *sandhi* period, the *antare* of two *Yuga*.

In *Mahabharata*, in the first chapter, *Adi Parva*, verse 2.13 states,

“*the war took place in the Antare of Dwapara Yuga*”.

This statement implies that the war took place in the interim, *Sandhi* period. Another verse from the same *Mahabharata*, *Adiparva*, Chapter 2,

Verse 9, reads,



*Antare caiva samprapte kalidwaparayorabhut
Samantapanake yuddham kurupandavasenayoh*

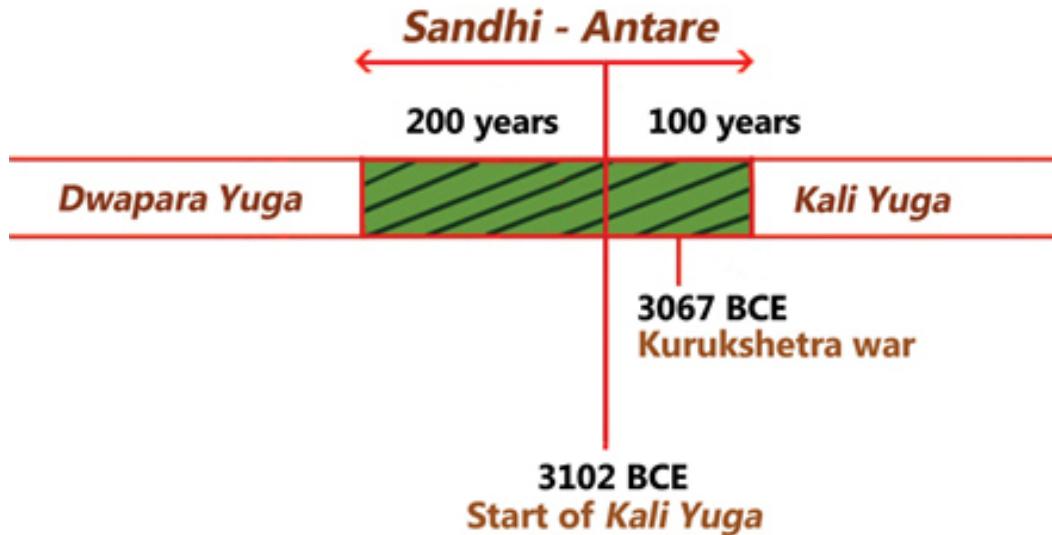
The meaning of this verse being,

“The war was fought at the junction of the Dwapara and Kali Yuga.”

From the above verses we find that the period when the war was fought has been treated as a *sandhi* period, transitional window between *Dwapara Yuga* and *Kali Yuga*.

From the definitions of *Yuga* in various texts, we can gather that this intervening *sandhi* period between *Dwapara Yuga* and *Kali Yuga* has been fixed at 300 years - the *sandhi* period at the closing phase of *Dwapara Yuga* as 200 years and that at the beginning of *Kali Yuga* as half of it, i.e., 100 years.

This 200 years on the *Dwapara Yuga* side and half of it or 100 years on the *Kali Yuga* side has been fixed because, *Dwapara Yuga* is double that of *Kali Yuga* period. Hence the *sandhi* period is also mathematically doubled for *Dwapara Yuga*.



Sandhi at the start of Kali Yuga

The date of *Kali Yuga* has been arrived at astronomically as 18 February, 3102 BCE.

Hence the *sandhi* period for this *Kali Yuga* conjunction would have been the 300 years, from 3302 BCE to 3002 BCE.

The events of *Mahabharata* and the life of Krishna unfold during this *sandhi* period, which is why we find the usage of the term *antare*, meaning “the intervening period”, “the cusp”.

Over time, however, this *sandhi*, intervening period, seems to have blurred in people’s discussions and it became fixed in the minds of people who had started eulogizing Krishna more and more, that Krishna’s departure marked the start of *Kali Yuga*.

Of course, from a society perspective, it is regarded that as long as leaders such as Krishna were around, the people had an anchor. With the departure of Krishna, morals loosened and this was ascribed to the influence of *Kali Yuga* whose effects began to be felt after Krishna’s departure.

Kali Yuga thus came to be connected with Krishna.

Arrival of Kali Yuga

During the duel between Bhima and Duryodhana on the 18th day of the war, when Bhima delivers a blow to Duryodhana, below the waist on his thigh, it angers Balarama. Krishna then pacifies Balarama saying that Bhima was only fulfilling the vow he had taken when Draupadi was ashamed in the assembly. This is described in the following verses.

*arosano hi dharmātmā satatam dharmavatsalah
bhavān prakhyāyate loke tasmāt samśāmya mā krudhah*

-9.59.20

*prāptam kaliyugam viddhi pratijñām prāndavasya ca
ānrnyam yātu vairasya pratijñāyāś ca pāndavah*

-9.59.21

The phrase “*Praptam Kaliyugam*” in this verse means “*Kali Yuga* has arrived”. *Praptam* means arrived, present, reached, got, acquired, met with etc.

On the 18th day of the war, Krishna Himself is saying here that *Kali Yuga* has already set in.

This confirms the following:

- The war occurred after the actual alignment of *Kali Yuga*. It was the 39th year of the *Kali Era*.
- Since Krishna was born on 27th July, 3112 BCE and the exact *Kali Yuga* alignment can be dated to 18th February, 3102 BCE, Krishna was already born when the *Kali Yuga* alignment occurred. He was around 10 years old then.
- Krishna departed from earth on 13th February, 3031 BCE, 71 years into *Kali Era*.

All these also tally with the verse of the *Bhagavata Purana*, which states that even though *Kali Yuga* had started, since Krishna was around, the malefic effect of *Kali Yuga* had not set in.

*yada mukundo bhagavanimam mahim jahau svatanvan shravanjya satkathah I
tadahareva pratibuddhacetasam abhadrahetuh kaliranavavartata II*

Bhagwatha Purana 1.15.36

"Because of the presence of Krishna, Kali has not had its impact."

It is the *Purana* which express that the *Kali Yuga* starts with the passing away of Krishna.

*The very day Lord (Lord Krishna) left this earth, Kali,
the promoter of unrighteousness,
came here (into this world).*

- *Bhagavatam* 1.18.6

*The very day Hari (Lord Krishna) left the Earth (that very day)
the dark-complexioned and strong (powerful)
Kali descended (on the Earth)*

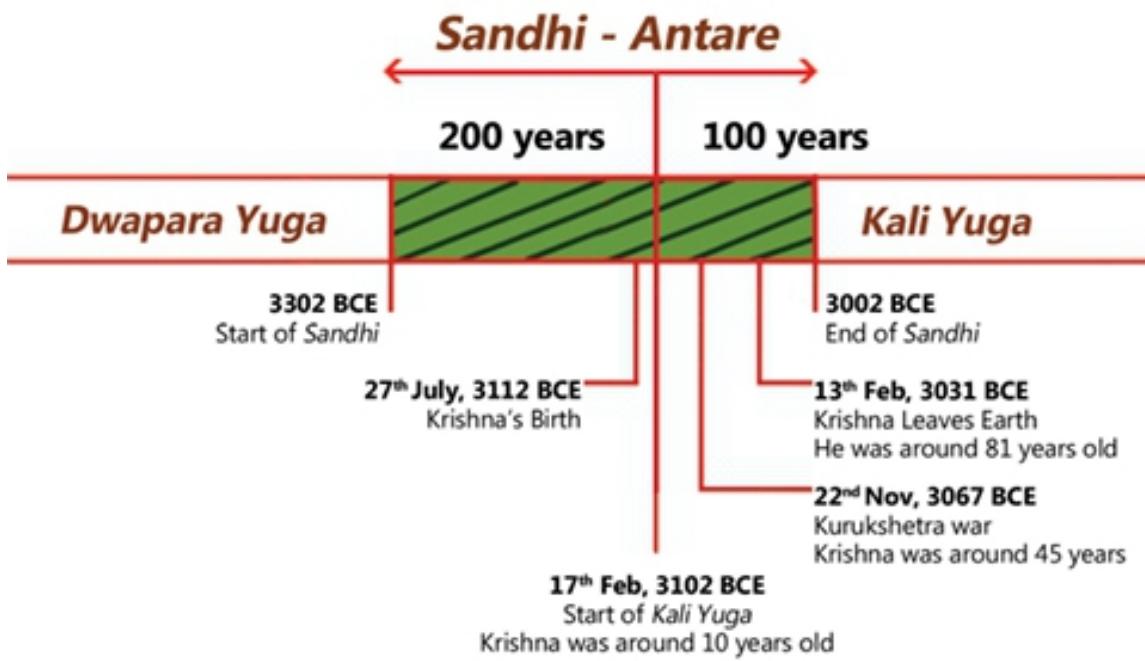
- *Vishnu Purana* 5.38.8

The purpose of the *Purana* being to deify Krishna, the focus in this literature is the central character of the *Purana* and everything else is seen using this personage as the pivot.

Here too, in the above verses, there is no clear indication whether the reference is to the actual alignment or to the onset of the effect of *Kali Yuga*. The language seems to point to the latter.

Even though the astronomical *Kali Yuga* had come to pass, since the war took place during the *sandhi* period and Krishna departed 36 years after the war during the *sandhi* period too, the *Purana* dramatically express it as *Kali Yuga* starts with the departure of Krishna.

The differentiation between an astronomical event, the *Yuga*, alignment that occurred on 18th February, 3102 BCE and the earthly event of the departure of Krishna from this world, which occurred on 13th February, 3031 BCE should lend clarity to the confusion around *Kali Yuga* date, start of the war and Krishna's departure from this earth.



Krishna's Life Time On the Earth

A CHINESE PARALLEL

An alignment of a few planets, five to be precise, was observed and recorded in China on 27th February, 1953 BCE.

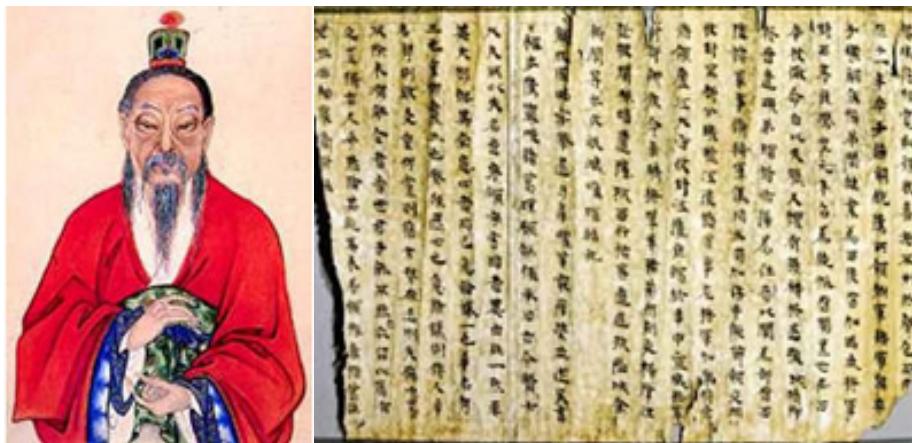
In the ancient Zhuanxu Chinese calendar,

“Before dawn began on that day, in the beginning of spring, when the sun, new moon and five planets gathered in the constellation Yingshi, (Pegasus), Mercury, Venus, Mars, Jupiter and Saturn lined up like a pearl necklace in the eastern sky, next to the Great Pegasus Square.

The planets all spanned but a few degrees. The new moon occurred shortly thereafter when the sun, moon, and five planets all lined up in Pegasus.”

This was observable till 5th March, 1953 BCE.

This has been written by Liu Xiang, an economist, bibliographer and litterateur of Western Han Dynasty, who lived from 77 BCE to 6 BCE.



Shuo Yuan compiled by Liu Xiang for the royal of the West Han Dynasty

So, minor alignments do take place and are observed and recorded.

Planets are all continuously revolving in their paths, at their own speed, whereby such alignments are but inevitable. Each civilization chose certain alignments as their time markers and devised calendars, epochs and cycles based on them.

OTHER CALENDARS

In contrast to this, there are many other calendars followed in India and other parts of the world which were instituted based on earthly events,

such as the birth of a noble person or achievements of these noble persons.

Some of the eras followed in India and other parts of the world, based on great personages include,

- Vikarama Era
- Salivahana Era
- Christian Era
- Hijra Era

NAME OF THE ERA	NUMBERS OF YEARS AS ON 01-01-2000
Chinese Era	9,60,02,500
Khatai Era	8,88,40,402
Chaldean Era	2,15,00,071
Iranian Era	1,89,979
Phoenician Era	30,081
Egyptian Era	28,751
Jewish Era	5,761
Kali Era	5,102
Vikram Era	2,057
Thiru Valluvar Era	2,034
Christian Era	2,000
Moslem Era	1,419

Different eras, a chart

These eras are linked to different individuals - divine, noble, historical. For many of them, clear, unambiguous data with respect to their birth or lifetime is not available.

In the case of *Kali Yuga*, it is an astronomical event, verifiable and provable by science. It is not based on an individual, but is common to the whole world, nay to the whole solar system, as it concerns an astronomical configuration of the solar system.

Kali Yuga thus qualifies to be a scientific bench mark to date the historicity of Krishna.

Internal Consistency of Dates

Dating events that occurred 5100 years ago, especially to specific dates in the calendar, is an onerous task.

While individually, each of these dates and skycharts match with the sky configurations mentioned in the text, what is important is that the sequence of dates that have been thrown up here should also tally with the sequence of events and their elapsed time as mentioned in various places in the text.

Here is a chart with the dates arrived at using Archaeo-Astronomy, alongside the events described in the *Mahabharata* text.

27 th July 3112 BCE	Krishna Birth
26 th September 3067 BCE	Krishna departure to Hastinapura
28 th September 3067 BCE	Krishna dhoota
8 th October 3067 BCE	Krishna - Karna chariot ride
1 st November 3067 BCE	Balarama pilgrimage start
22 nd November 3067 BCE	Kurukshetra war begins
12 th December 3067 BCE	Balarama pilgrimage concludes
13 th February 3031 BCE	Krishna's departure
November 3031 BCE	Yadava Civil war

Dates Internally Consistent, a chart

In this set of dates, we see that the sequence of events and their dates are in the right order and the elapse time between them is also as mentioned in the text.

Even if one of these dates is out of place, then the entire set of dates becomes questionable. This internal consistency of dates is of high importance while dating the events.

It lends credibility to

- the process of research
- the planetarium software
- the field of Archaeo-Astronomy
- and above all, the text.

It is a combination of all these factors collectively that make for the amazing internal consistency that we see here in this chart.

Such an internal consistency confirms that the events mentioned in the text and their sequence of occurrence along with the elapsed time are not figments of imagination of the author but actual occurrences recorded for posterity.

Archaeo-Astronomy Unique to Dating Krishna?

ARCHAEO-ASTRONOMY USAGE INTERNATIONALLY

Archaeo-Astronomy technique is now increasingly being used by many researchers world over in an attempt to solve the various mysteries and gaps in the understanding of history. Some of the pioneering efforts in this direction include:

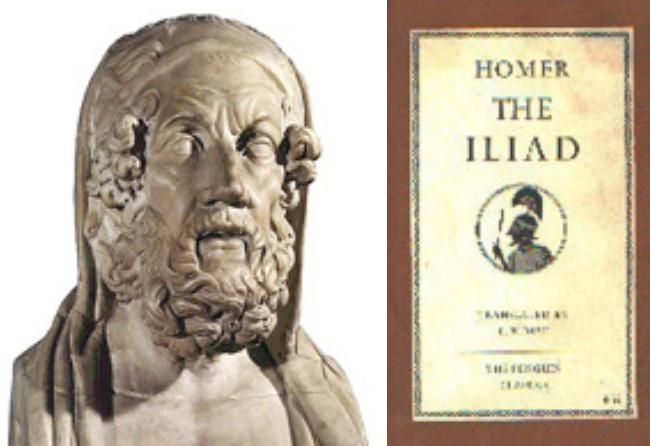
- Dating the Trojan War from Odyssey
- Decoding of the Sumerian cuneiform clay tablet
- Dating the Biblical events of Sodom and Gomorah
- Dating the birth of Jesus Christ.

DATING THE TROJAN WAR FROM ODYSSEY

“The Illiad” and “Odyssey” are regarded as two of the western world’s oldest literature. These epic poems, were composed by the blind Greek poet, Homer.

The Illiad narrates the story of the fall of Troy in a series of wars that lasted 10 years long. Odyssey narrates the travails faced by the Greek hero Odysseus, known as Ulysses in Roman literature, during his 10 year long journey back home after the fall of Troy. It describes how Odysseus returns home to find his wife Penelope being wooed by many suitors.

From evidences thrown up by Archaeology, the fall of Troy has been dated to around 1100 BCE. These epic poems were composed by Homer about 400 years after the war. Using the description of a solar eclipse available in *Odyssey*, researchers are trying to date the war exactly.



Homer and Iliad



Trojan Horse at Troy



Odysseus bids farewell to his wife Penelope

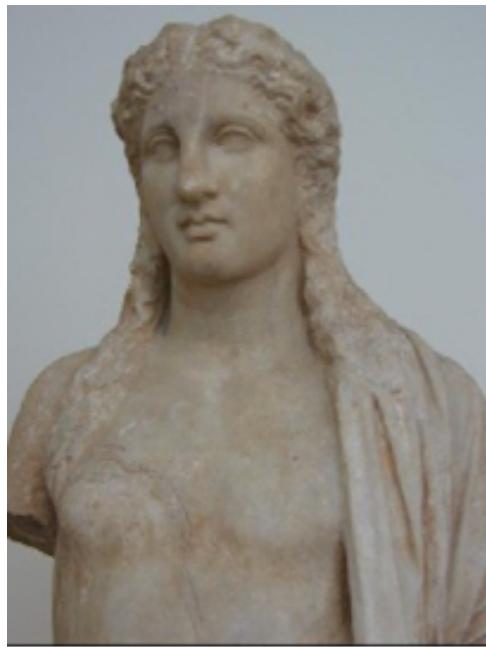
Homer on Odysseus and his wife Penelope, writes,

The king's 10 year journey home after the capture of Troy. Odysseus spent 7 of those years as a captive of the nymph Calypso, he was delayed another 3 by Poseidon, angered by the blinding of his son Cyclops.

When he finally arrived at Ithaca, he found 109 men urging his wife, Penelope, to accept that her husband was dead and marry one of them, spurred by Athena, Penelope declared an archery contest with Odysseus bow, saying she would marry the winner.

Odysseus, in disguise, won the contest, then killed all the suitors as a dozen maids had slept with them.

Observation of the Greek Seer Theoclymenus



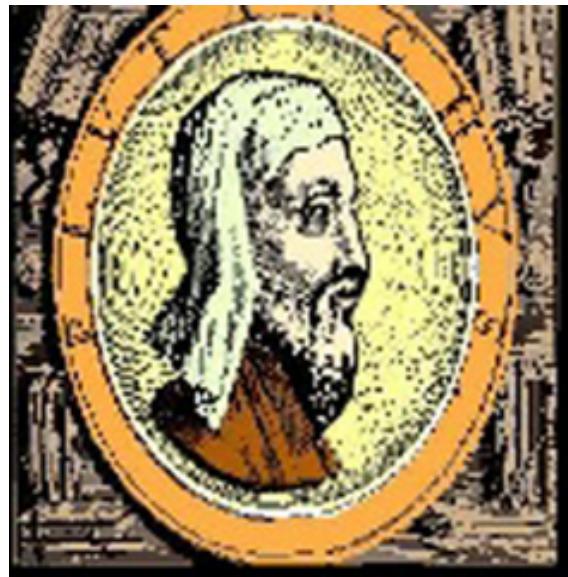
Theoclymenus

Further to this episode, the Greek seer Theoclymenus states,

“The sun has been obliterated from the sky and an unlucky darkness invades the world”.

This is the key passage available in this tale, with description of a cosmic event that is being used to date the events in the texts.

Plutarch's comment



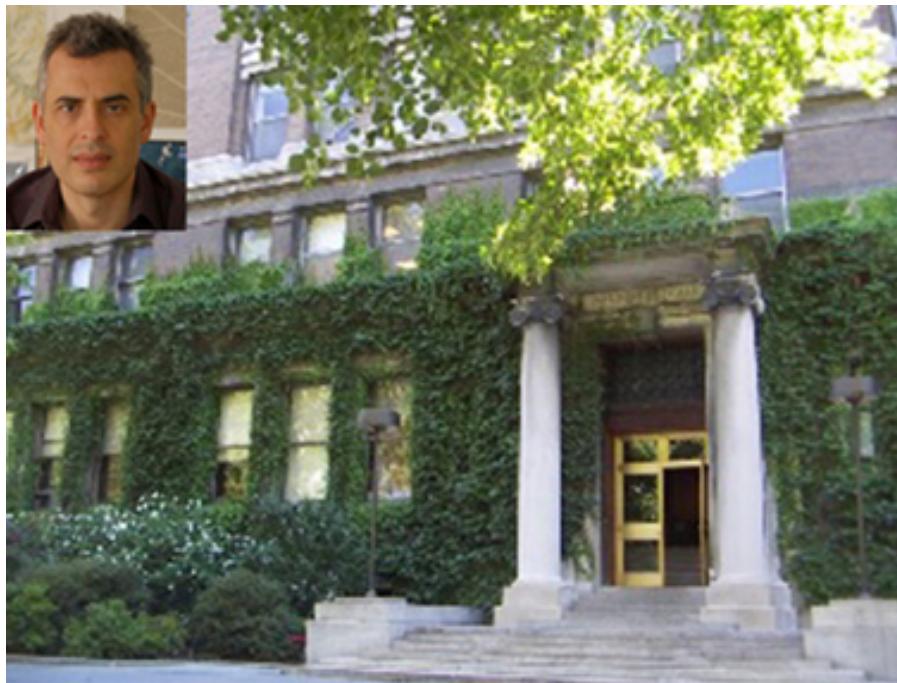
Plutarch

Plutarch, the Greek historian who lived between 46 CE and 100 CE, explained this comment of seer Theoclymenus, as

“This event signifies a total solar eclipse.”

This is not a deciphering being made by us in the 21st century but is an explanation given by Plutarch in the 1st century CE itself.

Based on these observations Dr. Marcelo O. Magnasco, Ph.D, of the Laboratory of Mathematical Physics of the Rockefeller University, USA and his colleague researcher, Dr. Constantino Baikouzis of Observatorio Astronomic de La Plata, Argentina, have jointly tried to use the planetarium software to come up with the date for this solar eclipse and thus the date for the events of the story.



Dr. Marcelo O. Magnasco,
Laboratory of Mathematical Physics, Rockefeller University, USA



Dr. Constantino Baikouzis and Observatorio Astronomico de La Plata, Argentina

Using computer analysis they searched for the sequence between 1250 BCE and 1115 BCE, roughly 75 years on either side of the computative data for the fall of Troy.

The definitive clues for the event extracted from the text were,

- ★ The day of the slaughter was a new moon, a prerequisite for a solar eclipse.
- ★ 6 days before the slaughter Venus was visible and high in the sky.
- ★ 29 days before, the constellation Pleiades and Bootes were simultaneously visible at sunset.
- ★ 33 days before the slaughter, Homer wrote that Hermes, known to the Romans as Mercury, travelled far west to deliver a message and flew back east again.

List of clues

Based on this, they identified the total solar eclipse over

the Ionian Sea to have occurred on 16th April, 1178 BCE. This date was in agreement with data suggesting the fall of Troy between 1192 BCE to 1184 BCE, arrived at, based on archaeological finds.



Solar Eclipse Over The Ionian Sea

Here we see the Greek legend tallying with Archaeology, which in turn tallies with Archaeo-Astronomy.

DECODING THE SUMERIAN CUNEIFORM CLAY TABLET



Austen Henry Layard

A cuneiform clay tablet, now known as the Sumerian cuneiform clay tablet, was discovered about 150 years ago by Austen Henry Layard, a Victorian archaeologist working in Iraq.



Cuneiform Clay Tablet of Sumeria
– Describing an Asteroid hit

It was a copy of the original tablet, made by an Assyrian scribe in 700 BCE. This tablet records events in the sky. It seems like an astronomer's notebook. The symbols in this tablet denote the trajectory of a large object travelling across the constellation of Pisces. It describes how a mile long asteroid hit the earth.

Dr. Mark Hempsell of the Department of Aerospace Engineering of Bristol University, UK and Dr. Alan Bond, Managing Director of Reaction Engines Ltd., UK, using software simulations, have cracked the cuneiform code and dated the event in the sky to 29th July, 3123 BCE.

Their conclusions have been brought out as a book, “**A Sumerian observation of the Kofels Impact Event**”.



[Mark Hempsell and his Book](#)

This clearly shows us that, night sky observations of an antiquity of 5 millennia and more, were not unique to India alone. The Sumerian civilization of equal antiquity, also had the skills for night sky observations, which were similarly recorded, written down and the information transmitted down the times till two millennia ago.

Dating the Biblical event of Sodom and Gomorrah

Mark Hempsell and Alan Bond, specialists in Aerospace engineering, have equated this asteroid impact mentioned in the cuneiform tablet to an eye witness account of the destruction of Sodom and Gomorrah as described in the Old Testament.



The Destruction of Sodom & Gomorrah, A painting by John Martin, 1852

Using various astronomical as well as geological simulations, they have proposed a model which simulates how an asteroid hit the earth in the Alps and how the plumage released by this impact rose up high into the atmosphere and with the earth's rotation and wind movements, it eventually rained fiery objects, dust and ash all the way over Sodom and Gomorrah, many thousands of kilometres away.

This is pretty much similar to how the volcanic ash from the recent Iceland volcanic explosion was carried by the atmospheric currents all the way across Europe, for many thousands of kilometres.

They show with their model, how the description of the destruction as found in the Old Testament, tallies with their simulations of what would have happened if an asteroid had fallen on the Alps. This explanation was also brought out as a film by Discovery Channel, as part of their “**Biblical Mysteries Explained**” series.



Babe dh-Dhra archaeologists find evidence of a fiery destruction

DATING THE BIRTH OF JESUS CHRIST

For many years now, astronomers have been trying to identify the star of Bethlehem, the guiding star on the day Jesus was born, in order to arrive at the date of birth of Jesus Christ.



Guiding star at the birth of Jesus

An Australian astronomer, using sky charts, has arrived at the date 17th June, in the year 2 BCE, as the date of birth of Jesus Christ.

This has been published in the magazine “**Sky and Space**”, by its news editor Dave Reneke.



Dave Reneke and Sky and Space Magazine

Based on the sky chart reading, he feels that there could have been “a beacon of light” visible across the eastern sky at dawn, as the planets Jupiter and Venus moved across the Leo constellation.

“While these two are planets, they could have been called the Star of Bethlehem” says Dave Reneke in support of his date.

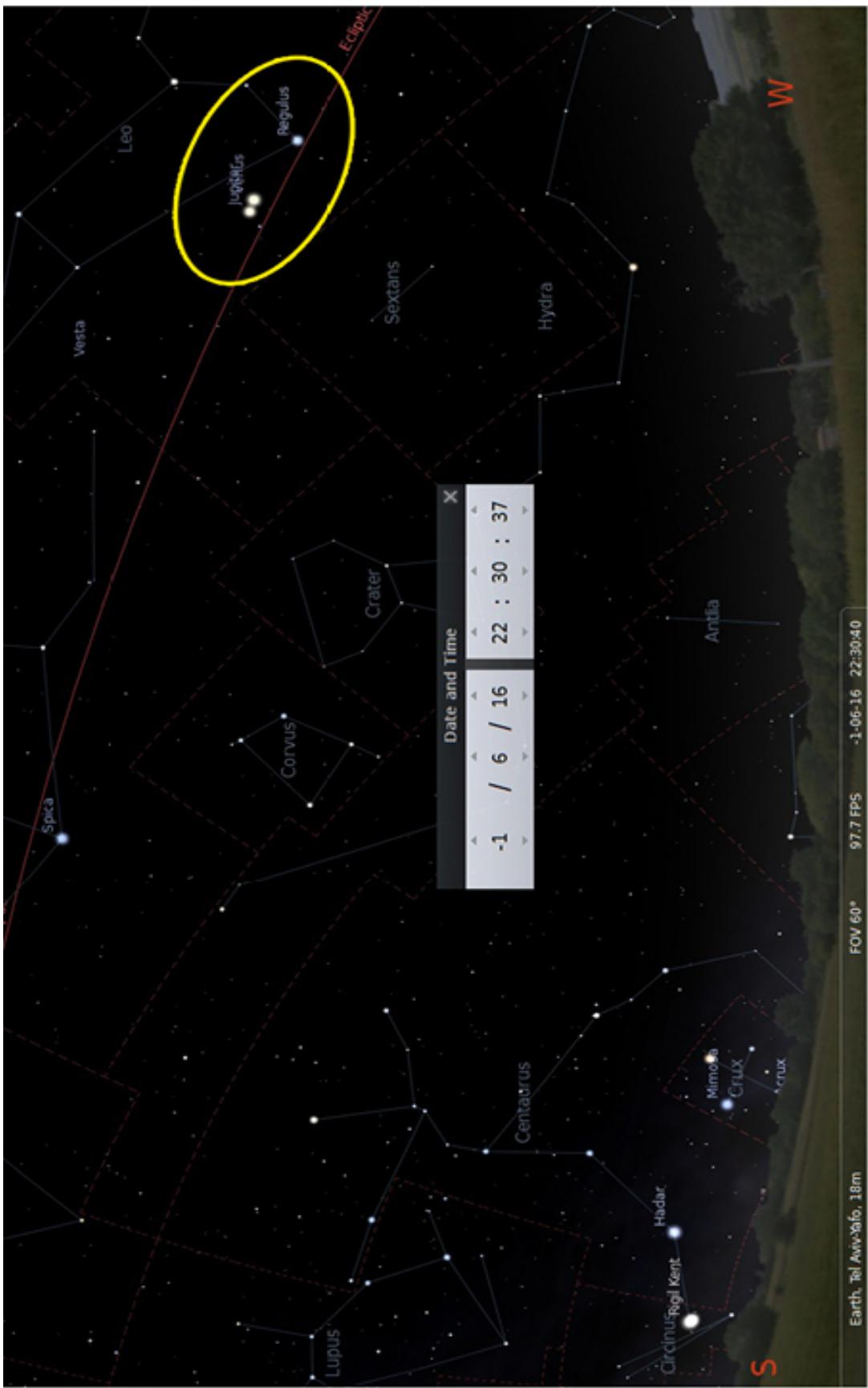
The skycharts generated independently by us, D.K.Hari and D.K.Hema Hari, authors of this book, show an interesting phenomenon that could have occurred between Jupiter and Venus along with the star Regulus of the Leo constellation, over consecutive days around 17th June, 2 BCE.

- We find that on 16th June, 2 BCE, Jupiter, Venus and Regulus were visible as 3 distinct bright objects in the sky. The 3 wise men?
- On 17th June, 2 BCE, Jupiter and Venus aligned perfectly to appear as one single object. Star of Bethlehem? So with Regulus, there were only 2 bright objects in that part of the sky that night.
- Then again, on 18th June, 2 BCE, Jupiter and Venus separated from each other to be seen as distinct objects once again.

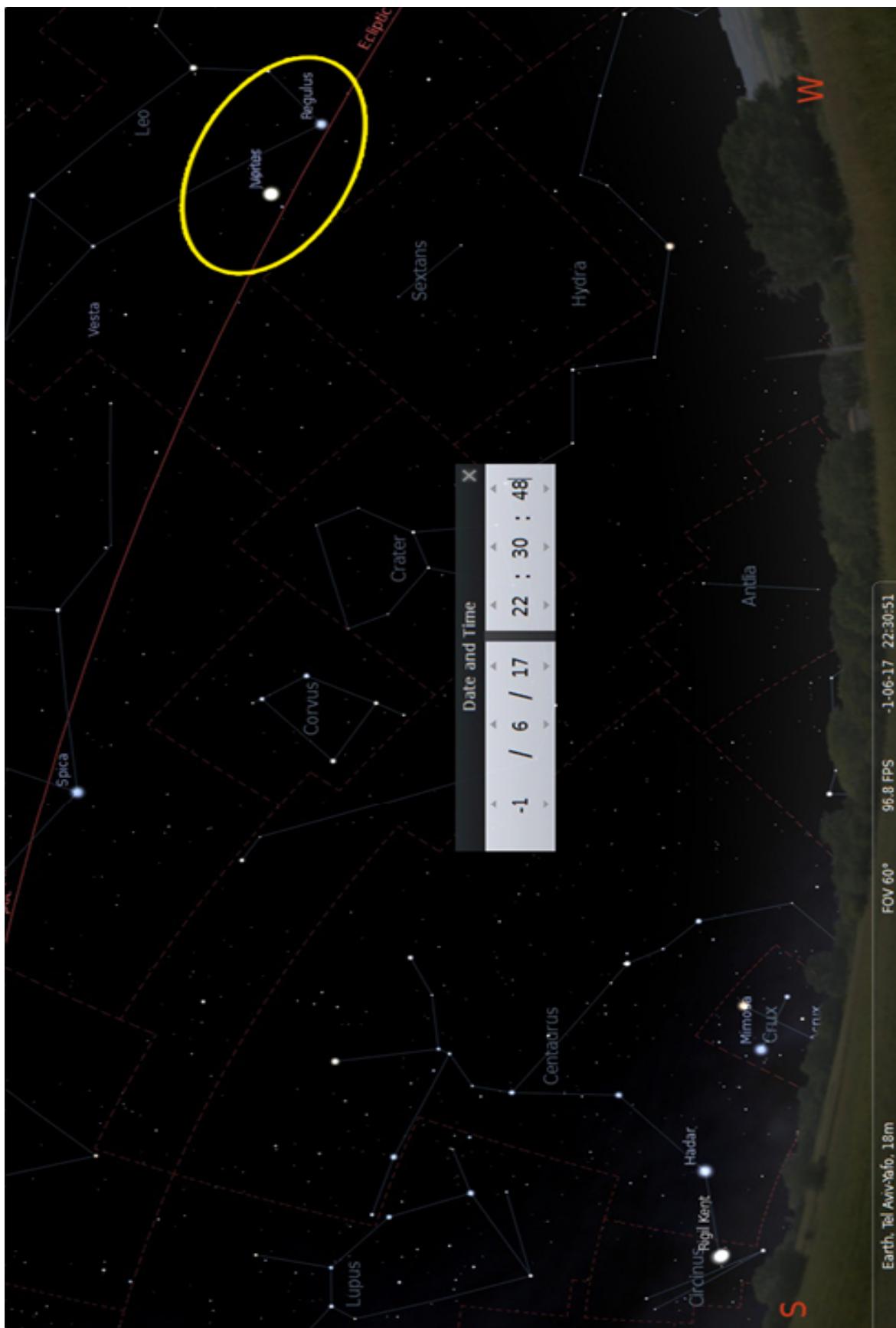
These bright objects superimposed as one very bright object could have been interpreted as the star of Bethlehem, the guiding star.

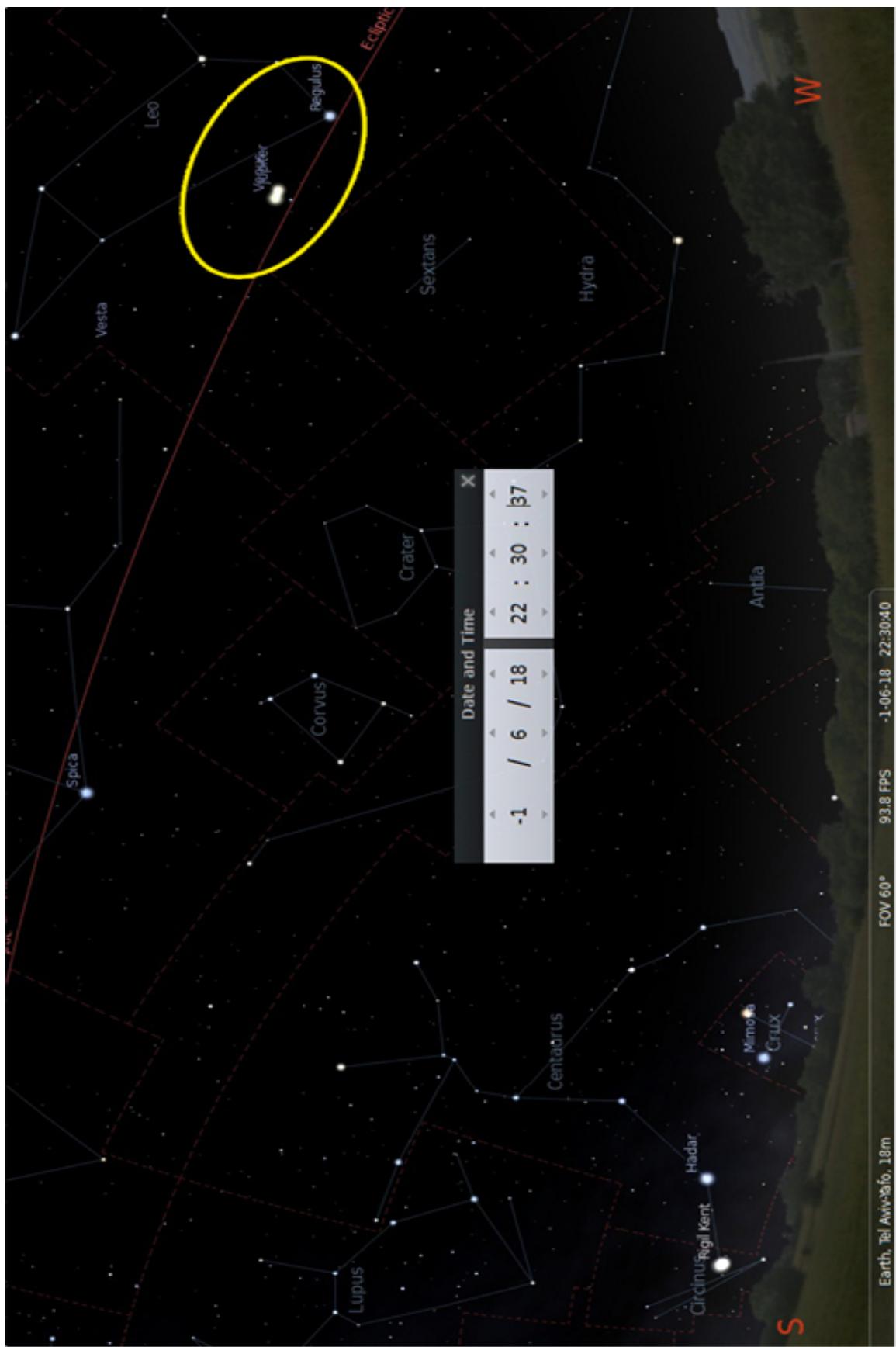
But if we note, we see this phenomenon happening at 23 hours in the western sky. This violates the Biblical description that the 3 stars were seen in the eastern sky at dawn. Also seeing Venus, the morning or evening star, at 23 hours, well into night, is rare.

This makes this date 17th June, 2 BCE for the date of birth of Jesus Christ, questionable.



img of sky chart of that night with Jupiter and Venus





In contrast we see that in India, the dates arrived at from the epic *Mahabharata* show internal consistency as well as consistency with the text and data from other disciplines.

The beauty in archaeo-astronomy lies in its lending itself to cross verification with other sources of data across various disciplines.

From all these cases, we see that the usage of archaeo-astronomy as a tool, in assigning specific dates to events of the bygone era, is being taken up scientifically in India and other parts of the world as well. All this forms part of the search for true dates and history of the world.

KINDLE TO UNDERSTAND

This book apart from trying to establish the historicity of events, is also meant to kindle in the youth, an urge to further research and understand our roots better.

Future Research

The advantage for India with a huge volume of ancient texts is that, there are many astronomical events clearly mentioned in these texts. With this method of archaeo-astronomy we can and should try to date each one of them. Coupled with finds from archaeology and other branches of science and literature, this will help us understand the history of India and the world, more precisely and correctly.

This is an effort that will be both technically rich and challenging. It will also give specific meaning to the treasure trove of data hidden in our ancient texts.

Further Veracity?

MANY SEARCHES AND MANY DATES

In the process of our research collation, we came across the research work of quite a few research scholars, who have used the astronomical data in the *Mahabharata* texts for giving dates to the events in the life of Krishna.

Some of the other prominent researchers on the dating of Krishna and the *Mahabharata* period include,

- Prof. K. Srinivasa Raghavan
- Dr.P.V. Vartak of Pune
- Dr.K.N.S. Patnaik
- Dr. P.V. Holay of Nagpur
- Dr. Balakrishna
- Dr. R. Vaidya
- Dr. R.N. Iyengar
- Shri.Arun Kumar Upadhyaya, IPS of Orissa
- Shri. Nilesh Nilkanth Oak and many more.

Some of these arrived at their dates even before the planetarium software came into popular usage.

With many dates, spanning from 9000 BCE to 1400 BCE, our heads were spinning. We had to take our own steps to ascertain for ourselves the most probable set of dates.

After going through the work of these eminent research scholars, we finally zeroed in on the dates given by Prof. Narahari Achar's research, as the most probable one. Some of the reasons why we found these dates acceptable include:

1. internal consistency of dates arrived with one another and elapsed time between events
2. taking all parameters of the verses into account
3. the dates tallying with other evidences in geography, literature, astronomy etc.
4. dates being scientifically verifiable by any researcher using the planetarium software
5. approach used to zero in on the set of years around 3067 BCE, for the sequence of events of the *Mahabharata*.

If we look at these dates, they are pretty much what Prof.Raghavan had arrived at during his work using the traditional methods of archaeo-astronomy and his interpretation of the *sloka*.

Validation Round 1

Prof.Raghavan's dates got further validated when Prof.Achar based on his interpretation of the *sloka*, the usage of planetarium software and process of elimination, which he has explained in his papers, arrived at similar dates.

Validation Round 2

We still had our further doubts and questions.

As a next generation effort, we further verified the dates using other software and from other angles. We had the benefit of leveraging from the painstaking and voluminous work done by earlier generations of seekers, their logic of selection, elimination and validation.

Our analysis too yielded results that tallied with the above dates of Prof.Raghavan and Prof.Achar.

It brought us to a considered opinion, that these dates could in all probability, be the closest to the lifetimes of Krishna and the *Mahabharata* War, until such time that more concrete evidences to the contrary, present themselves.

We have therefore ventured to present these dates and our additional corroborations, in this book and use them as a basis for our understanding

of the history of those times.

INTERPRETATIONS AND DUE DILIGENCE

The critical success factor to accurately date the event described in the text, using archaeo-astronomy, lies in the correct understanding of the content of the verses. This understanding is subject to the interpretations of the interpreters.

However, after a due diligence process of rigorous peer reviews, discussions in international conferences and putting the data up for comment on public domain, it no longer remains an interpretation or opinion of just one individual scholar, but becomes a reviewed finding from a due scientific process. Ofcourse one has to be careful in sifting through and picking up the logically correct ones from among the host of review comments that such a topic is bound to generate.

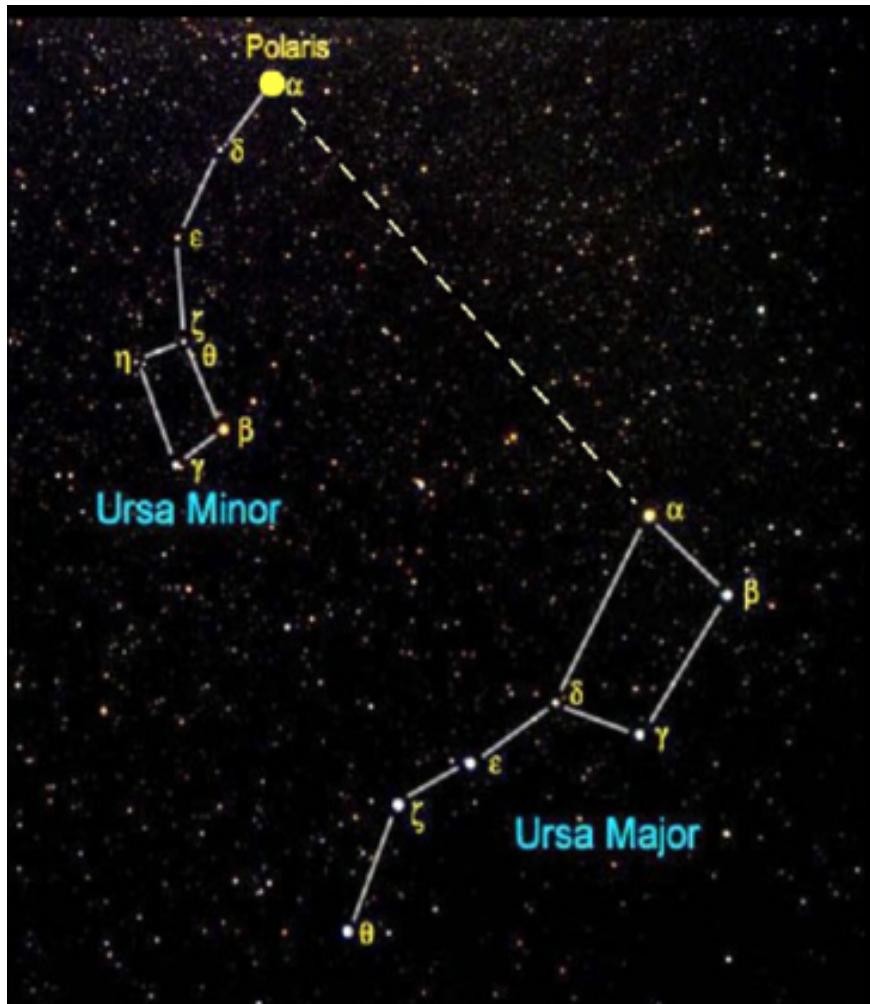
It is such a due diligence process that this subject of dating Krishna and *Mahabharata* has gone through. It is content that seems ready now to be taken out of just peer review circles, to the common man, for one and all to relish the historicity of not just Krishna alone but of the entire series of events of those times.

MORE CORROBORATIONS

Juxtaposing these dates with other commonly known facts, we find that these dates stand up to those data as well, thus getting further substantiated in turn.

The Pole Star

The star that is regarded by us as the Pole Star today, is Polaris in the Ursa Minor constellation.



Ursa Minor constellation with Pole Star

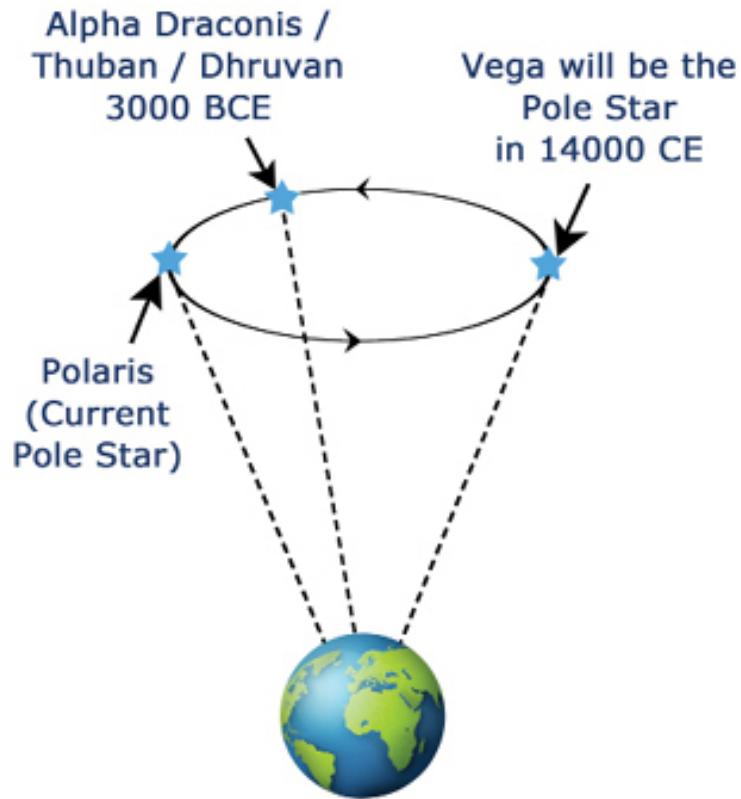
There are a few aspects that we need to understand about the Pole Star.

1. The pole star is not fixed. It also moves, contrary to common perception. It is not fixed in the firmament.
2. Approximately every 26000 years, the axis of the earth completes a cycle called Precessional cycle. During this cycle, the north pole of the axis aligns itself with different stars for a few thousand years.
3. We do not always have a Pole star. There come periods of time regularly, when there is no specific star that can be called a Pole star in the sky. Ofcourse, we now have a Pole star during our times.

5000 years ago, another star was in the place of the present Pole star. That star was Alpha-Draconis.

This star is known by the name *Dhruvan* in the ancient Indian texts.

The Egyptians have also cited having observed the pole star between the years 3000 BCE and 2800 BCE. The Egyptian called this star '*Thuban*'.



Changing Pole Star with Precession



Egyptian astronomer pointing to Thuban

It is interesting to note the similarity of the Indian name of the then Pole star '*Dhruvan*' and the Egyptian name of the then Pole Star – '*Thuban*'.

Using modern sky charts and software, we are now able to say that there was indeed a Pole star then, around 3000 BCE and it was Alpha Draconis, *Dhruvan, Thuban*.

In the Indian texts, an ancient *Rishi*, Ashvalayana mentions clearly about this Pole star *Dhruvan*.

Five generations after Janamajeya, who was a grand nephew of Krishna, we have a *Rishi* by name Ashvalayana. He mentions clearly about this Pole star *Dhruvan*. This means, he would have lived between 3000 and 2800 BCE.



King Janamejaya and *Rishi* Ashvalayana

Rishi Ashvalayana lived five generations after Janamajeya, who was a grand nephew of Krishna. So, *Rishi* Ashvalayana would have lived just after 3000 BCE.

This is one more proof that the events of the *Mahabharata* took place about a few generations before 3000 BCE, which period fits in well with our date of 3100 BCE.

Maha Shivaratri



People celebrating *Maha Shivaratri*

Maha Shivaratri is an auspicious period observed once a year for uniting oneself with the *Shiva Tattva*, the principle of Shiva in the cosmos.

A detailed understanding of why this festival of *Maha Shivaratri* is observed, is discussed in our book, “**Understanding Shiva**”, which is part of the Bharath Gyan Series.

In today's times, *Maha Shivaratri* festival is celebrated between mid February and mid March every year.



Rishi Kahola Kaushitaki

There is a text called *Kaushitaki Brahmana*, an accompanying text to the *Veda*, which has been authored by *Rishi* Kahola Kaushitaki.

Here, he mentions that he lived about 4 generations after the time of the *Mahabharata* characters. Assuming an average of 25 years for a new generation to be born, we can thus take his time period to be about 100 years after the *Mahabharata* times.

Rishi Kahola Kaushitaki should have then lived around 3000 BCE. In his text, the *Kaushitaki Brahmana*, he mentions that the *Maha Shivarathri* festival day occurred on a winter solstice day.

In present times, the winter solstice occurs on December 21st. On a winter solstice day, the sun is at the southern most point in its journey between the northern and southern hemispheres. It is the longest night of the year in the northern hemisphere.

Maha Shivaratri is observed in the lunar month of *Magha*, on the night preceding the New Moon night, *Krishna Paksha Chaturdasi*.

From the text of *Kaushitaki Brahmana* we can understand that *Maha Shivaratri*, *Magha Krishna Paksha Chaturdasi* and winter solstice occurred on the same day, that year, around 3000 BCE.

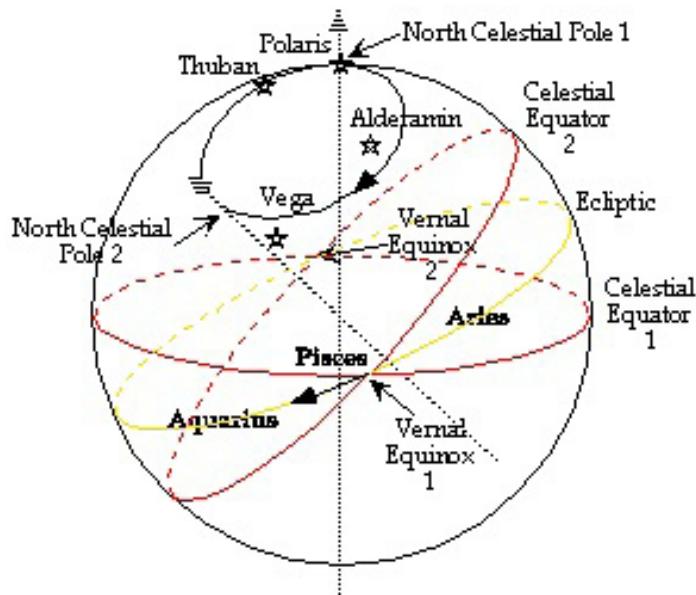
The month of *Magha* occurred around December - January in 3066 BCE as we have seen when we dated *Bheeshma's Nirvana*.

In 2013 CE, this month *Magha* falls around February – March, indicating a gap of close to 70 days.

Can we account for this gap?

Precession of Equinox

Both, the ancient Indian texts and modern astronomy, mention about the precession of equinox. This precession occurs at the rate of approximately one day over 72 years. Because of this precession of equinox, seasons keep slipping by one day in every 72 years. Over a large span of time, what was summer once would probably become autumn or even winter.



Precession of Equinox

Using this precession of equinox giving rise to the slippage of one day in every 72 years and multiplying it by 70 days, which is the difference

between the *Maha Shivaratri* day celebrated now or *Magha* month now and the *Magha* month or *Maha Shivaratri* day celebrated during the time of *Mahabharata*, we get to a figure of 5112 years.

The *Maha Shivaratri* observation of *Rishi Kahola Kaushitaki*, is thus one more, different angle, from which the historical date of *Mahabharata* and Krishna can be concluded as being around 3100 BCE.

Possibility of Backdating?

Many sceptics like to comment that some clever interpolator could have cooked up the story of *Mahabharata* and interpolated these astronomical observations into the story to make it seem realistic. Some have even gone to the extent of stating that this composition of the *Mahabharata* and the interpolation of astronomical details happened around 300 BCE.

REAL TIME OBSERVATIONS

Our wholistic study of this subject from multifarious disciplines and perspectives, gives us the confidence to state that such precise astronomical observations could not have been concocted.

If they had been concocted, they could not have tallied so correctly with such internal consistency. These observations tally not just within one text of *Mahabharata*, but also tally across other such equally ancient texts, such as the different *Purana*.

Hence, the astronomical observations in the literature have to perforce be in the nature of real time observations only.

From the descriptions in the text, the events of the *Mahabharata* are dateable to around 5000 years ago.

If *Mahabharata* events are dateable to 5000 years ago and it was authored by Krishna Dwaipayana during the times of the events of *Mahabharata* itself, then it follows that this epic was also composed 5000 years ago, around 3000 BCE and not around 300 BCE as some are wont to believe.

The sky configurations mentioned in *Mahabharata*, which Krishna Dwaipayana himself mentions have caused him concern, therefore, were also observed and recorded by him only, 5000 years ago itself.

It could not have been a case of backdating i.e., interpolating the text later on, with dates and descriptions of suitable sky configurations.

All this goes to further highlight that the ancient Indians followed a tradition of recording precise astronomical observations, well over 5000

years ago.

Today, we are able to use these 5000 year old, real time observations and recordings of the skies of those times to date those events.

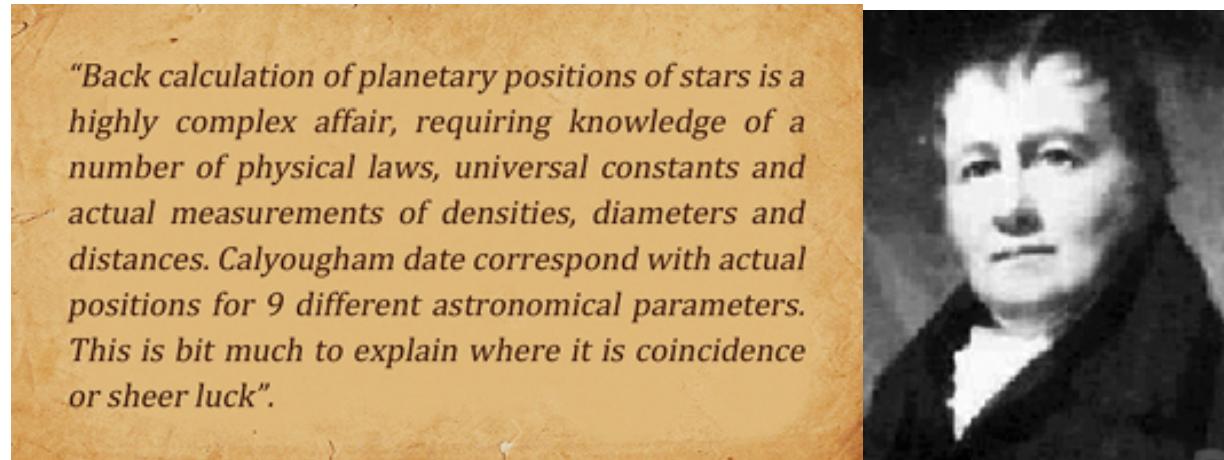
BACK DATING

The thought of later interpolation, had occurred even to prominent European scholars, who having studied these Indian astronomical observations, have categorically stated that there could be absolutely no possibility of back dating as far as these observations go.

We would like to give reference here, of three famous European astronomers who have written eloquently about the impossibility of back dating or back noting the observations.

John Playfair

John Playfair was a Scottish Mathematician. In 1790, writing about back calculation, he says



John Playfair

John Playfair in this statement is categorical that '*Calyougham*' – *Kali Yugam* dates cannot be back dated and is the product of actual observations 5100 years ago.

On a lighter note, Playfair, as his name suggests, has played it fair and so have the ancient Indian astronomers.

It is the proverbial doubting Thomases, who still keep doubting, inspite of such a wide range of authentic data staring them in their faces.

Jean-Sylvain Bailly



Jean Sylvain Bailly

John Sylvain Bailly, a French astronomer states

"Mathematical and scientific knowledge indicated to fabricate astronomical date going back 1000s of years did not exist in those days."

Bailly too expresses that back dating is improbable.

Again on a lighter note, Bailly's clear observations, should now bail out those who are still doubting, to see the facts that are there for all to see.

Count Bijornstierna

As his name suggests, he belonged to a royal family of Europe.



Count Bijornstierna

He wrote a book, “*The Theogony of the Hindus*” where, on the subject of *Kali Yuga* and back dating he writes,

*"According to the astronomical calculations of the Hindus,
the present period of the world, Kaliyuga,
commenced 3102 years before the birth of Christ,
on 20th February, at 2 hours, 27 minutes and 30 seconds --
the time thus calculated to minutes and seconds.*

*They say that the conjunction of planets that took place
and their tables show this time.*

*Bailey also stated that Jupiter and Mercury
were then in the same degrees of the ecliptic,
Mars at a distance of only eight and
Saturn of seven degrees.*

*The calculations of the Brahmins is so exactly confirmed
by our own historical takes that nothing but an actual
observation could have given to correspondent a result."*

On a further lighter note, Count Bijornstierna is amazed at how the Brahmins were adept at keeping count of planetary movements.

Tiruvallur Tables Transcend Time

THE TABLES OF TRIVELORE

The European scholars write that among others who maintained detailed astronomical tables, it was the tables of the Brahmins of Trivelore, that were most referred to.



Brahmins of Trivelore with their astronomical tables

Trivelore is the way the English in those days spelt the name of the ancient town Tiruvallur.

A Personal Obeissance

On a personal note, our maternal lineage can be traced back to the Brahmins of Tiruvallur, the very same, that these European scholars refer to. It is a matter of honour and pride for us to continue in that illustrious lineage and leverage on their effort of keeping Indian astronomy alive, to

place before all the historicity of *Kali Yuga*, *Mahabharata* and Krishna. Our obeissance to our forefathers who have maintained these systems, generation after generation, to reach us in this generation.



Tiruvallur Town with its Temple Tank – *Pushkarni*

Tiruvallur is a very ancient temple town between Chennai and Tirupati. It is close to the old town of Madras.

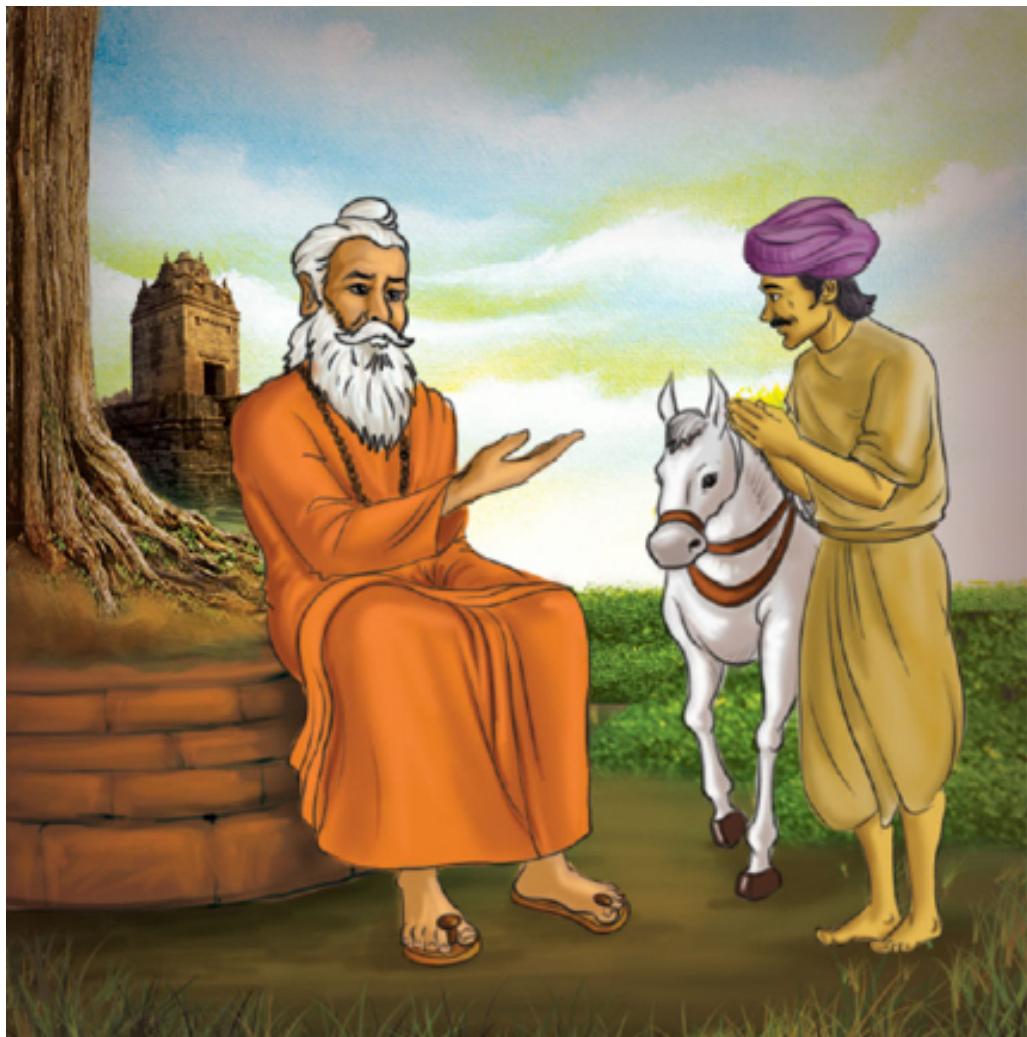
The European scholars of the colonial period for whom, the port of Madras was their first calling, would obviously have had easy access to the erudite Brahmin scholars from Tiruvallur.

On a side line, there is yet another connection between Tiruvallur and *Mahabharata*.

STABLES AND TRIVELORE

Tiruvallur is renowned for the temple of Lord Veeraraghava, a form of Rama in His bravery as He marched from Kishkindha to Lanka to rescue Sita. As the *Sthalapurana*, local legend of the temple goes, this temple was instituted by a seer, *Rishi* Salihotra. This *Rishi* was one of the propounders of *Ayurveda*, the Indian system of medicine. One of his greatest works, the *Salihotra Samhita*, is a treatise on how to breed, train, groom, treat and

care for horses, both for domestic purposes as well as for war. It comprises of 8 parts, 120 chapters and 16000 verses.



Rishi Salihotra

One of the students in the lineage of *Rishi* Salihotra, was Nakula the *Pandava* prince, who had authored the treatise *Asva Shastra*, *Asva* meaning “horse” and *Shastra* meaning “a scientific text”.

Nakula is described in the *Mahabharata* to have been an excellent horse trainer and vet.

The same *Mahabharata* text elsewhere also mentions that the *Pandava* had stayed in the ashram of *Rishi* Salihotra for 6 months, confirming that Nakula must have learnt his horse care skill from the *Salihotra* school.

AN IRONY

Incidentally another student in this lineage, called Kalhana wrote the treatise *Salihotra Sarasamuccaya*, which got translated into Arabic and was called *Salator*. This *Salator* became popular world over and today, this Arabic text *Salator* is believed to be the last word on horse care. It is ironic that today it is the English translation of *Salator* that is sought after in India, not knowing the story of its origins in *Salihotra Samhita*.

R.I.P FOR A.I.T

This piece of information should also hopefully put to rest, Rest In Peace (R.I.P), the Aryan Invasion Theory (A.I.T) which now hinges on the argument that horses came to India with the so called “Aryans” who migrated into India from Central Asia around 3000 BCE.

For, we see that it is around the same time that Nakula, the *Pandava* prince had already produced his treatise on horses. Horse care was one of the divisions in *Ayurveda* by the name *Asvayurveda*. Horse care and knowledge of horses were already prevalent in India before 3000 BCE.

This means horses existed in India before 3000 BCE and did not come with the so called “Aryans”. Every other pseudo-argument put forth in favour of the AIT has been demolished to date with scientific arguments. With this last argument also being thrown off our back just as a horse is wont to throw people off its back, the AIT can also be thrown out of our history books.

The “Aryans” never came to India from anywhere. There was no such race called “Aryan”. It was all a fabrication of the colonial minds that unfortunately caused a lot of damage to Indian history besides sparking World War II and creating a division in Indian polity. *Arya* in *Samskrta* only means anyone who is noble. It is nothing to do with a race.

This is being brought up here, for there are still a few people with colonial hangover who continue to spout that *Mahabharata* is an Aryan text and its characters are Aryans. With the R.I.P of A.I.T, it becomes apparent to one and all that the characters of the *Mahabharata* have been natives of this

land with a long illustrious lineage and not the result of an invasion or migration into this land.

THE HEALING TOUCH

Here is yet another point that will make us wonder at the continuity of traditions across millennia.

The temple at Tiruvallur and the deity there, Lord Veeraraghava, are renowned for providing relief to the ailing from their diseases. Many devotees throng this temple to this day, on certain auspicious days, with the belief that they will be cured of their sicknesses.



Veeraraghava *Swami* temple, Tiruvallur



Veeraraghava *Swami*, Tiruvallur with statue of *Rishi* Salihotra under His stretched right hand

Having seen the connection between *Rishi* Salihotra and *Ayurveda*, perhaps this tradition goes back over 5000 years ago, to the days of *Rishi* Salihotra, the Ayurvedic physician, who instituted this temple in this town. This town from those days of yore had been providing medicare to the ailing.

The Caveat

HISTORICAL TO THE LAST DAY, TO EACH STAR

Having seen the dates of the times of Krishna using archaeo-astronomy, the arguments for and against them, the doubts and their clarifications, there is one thing that stands out amidst all this analysis.

We can state clearly that,

“there is no other historical document in human history, like the Mahabharata, which has recorded historical events with such astonishing accuracy, to the last thithi - day and nakshatra -star.”

No other civilization can claim such precision in their remote history or chronology, which can be verified using modern scientific tools and also tallies from multiple angles.

QED

Once this is understood and appreciated, then we can, with a sense of satisfaction and relief say, QED - Quite Easily Done.

Ofcourse QED means something else in mathematics – *quod erat demonstrandum*, which means “which was to be demonstrated”.

But in the field of Indian history, to be able to look at the future, with the past sorted out, is a sense of QED.

A NOTE OF CAUTION

When we work across multiple calendars in this field of archaeo-astronomy, there are many aspects that we need to keep in mind.

It is not like equating the calculation of temperatures between a centigrade and Fahrenheit thermometer where every degree can be expressed and

translated from one scale to another, in an easily convertible manner.

In contrast, there are many issues while trying to map dates across calendars, especially between Indian Calendars and Gregorian Calendars.

Complexity from the Indian Calendrical System

The Indian calendrical system itself is a complex program because it is luni-solar. It is Nature based. It takes into cognizance the movement of the sun and the moon, in paths charted among the stars.

The cycle of the sun and the moon do no match precisely. When this does not happen, an *adhik masa*, an intercalary month, a month that is meant for calculation is brought into the calendar. This is done once every 3 years to tally the gap between 12×29.5 days with 365 days of a year.

While in North India, they follow Full Moon to Full Moon calendar, in Southern India, they follow New Moon to New Moon calendar. This is to take into cognizance the *Desachar*, various local customs. All this creates different set of parameters to be taken into cognizance while working across calendars in India itself.

Complexity from the Gregorian Calendar

Similarly, in the modern calendar, which is referred to as the Gregorian calendar, there are other issues. For example, there is no year called 0 (zero). So, when we transition from CE to BCE or BCE to CE, taking the cognizance of a zero year is a stumbling block in calculations.

When Pope Gregory was reframing the Julian calendar in 1582 CE, he had to account for the extra days that had crept in over centuries since the calendar was framed, due to the difference between a 365 day year and the actual time of 365.25 days taken for a year.

He therefore removed 10 days in the month of October.

After 4th October, 1582 he decreed the next day to be 15th October, 1582.

He did so to get his solar calendar in line with the movement of the sun then.

He also systematized the leap year concept as a correctional factor to marginally account for the fractions between the sun's actual movement and the date calculation.

All these too will have to be taken into account while mapping and working out dates.

Continuous Precession Adds to Complexity

Inspite of all these, inaccuracy still creeps into all calendars over time because the equinoxes and solstices are continuously moving back by 1 day every 72 years, due to precession of the earth's axis.

MAPPING CHALLENGES

We see that due to all this, be it the traditional Indian calendar or the Gregorian calendar, we cannot precisely equate a date in one calendar, to a date in another calendar, like we do with a thermometer.

The calculating system of each calendar is unique.

When we equate the dates as we have tried to do in this book as well as in our work, “**Historical Rama**”, it can only be indicative.

The Need to map

While trying to palpably feel the historicity of any personage, the mind automatically seeks a date to relate to. Today most of us are able to relate with dates only in the modern Gregorian calendar. To enable us to appreciate the historicity of great personages who have walked the Indian soil such as Rama, Krishna and their ilk, we have had to map the Indian time reckoning data available in ancient texts, in the language of those times, in the available referential context, to the modern Gregorian calendar. This comes with the unavoidable marginal risk of inaccuracies that could creep in, in the process.

The Reality

The dates are correct as per the traditional Indian calendar. The approximation creeps in when it is mapped to the Gregorian calendar, extrapolated into the past due to the differences in the premise of the

calendars, their structure and other adjustments factors that have been made over time.

What we should keep in mind is that, these dates are as close to the exact occurrence of the events as possible, given,

1. the data that we are able to cull out from the texts,
2. the planetary positions and the sky chart that these planetarium software generate, based on their technical designs and
3. the approximation of context that may have to be applied on a case to case basis.

A Timeless Wonder

The wonder is that, even after this laborious, strenuous effort of straining each observational data in the text and fixing them in the planetarium software, these generated dates offer us the sequence, as it is recorded to have happened in the text.

These generated dates indicate an internal consistency.

Epilogue

KRISHNA, A TIMELESS PERSONAGE

There have been many a great men born in different parts of this world, in different civilizations, through times at different times.

Of all these, the personage of Krishna is unique. His timing is also unique.

The story of the personage of Krishna has survived the ravages of time. He has not just been eulogized but has been an inspiration for a whole civilization, through the land, through the times.

UNCOVERING TRUE HISTORY

We have been able to arrive at dates for Krishna's lifetime using an integrated approach that looks for a convergence between sciences, tradition and history, as such a convergence points to the truth.

In this volume, we have seen that Krishna was born on 27th July, 3112 BCE and He gave the *Bhagavad Gita* on 22nd November, 3067 BCE, which means Krishna was 45 years old at the time of the war.

In **Volume 2 - Footprints of Krishna**, we will learn that the Indus Valley civilization in the North Western part of India, the *Mahabharata* civilization and the Vedic civilization were all one, dateable to around 3000 BCE and signs of Krishna can be traced amidst this civilization. We will see how the historicity of Krishna as well as the geographical places still bearing the same names, as those during Krishna's times emerges from the legends, practices and artifacts from those places.

In **Volume 3 - Facets of Krishna**, we will find how much of the mystery and controversy surrounding Krishna are a myth. We will also see the rationale in the events surrounding the life of Krishna and get a glimpse into how historicity need not preclude divinity.

New Vistas

Up until now, dating in history meant finding the time period using only archaeology or information from excavation sites.

New vistas are now being opened up as the dating of the past events, history, can now be done using archaeo-astronomy, undersea exploration, oceanography - sea level rise, information on precession - axial tilt, spin of earth and so on.

To a historian of the earlier epoch, with a set mind on how to go about history, it is all quite a spin.

But to a new age student,

- who is comfortable with technology,
 - who wants to verify, cross verify everything with current technology,
 - one who understands interdisciplinary approach,
 - who wants to know the truth,
 - one who wants to look beyond pre-set ideologies,
- these new vistas give a new meaning to history.

Interesting History

History no longer is a dull and drab subject but is something that is

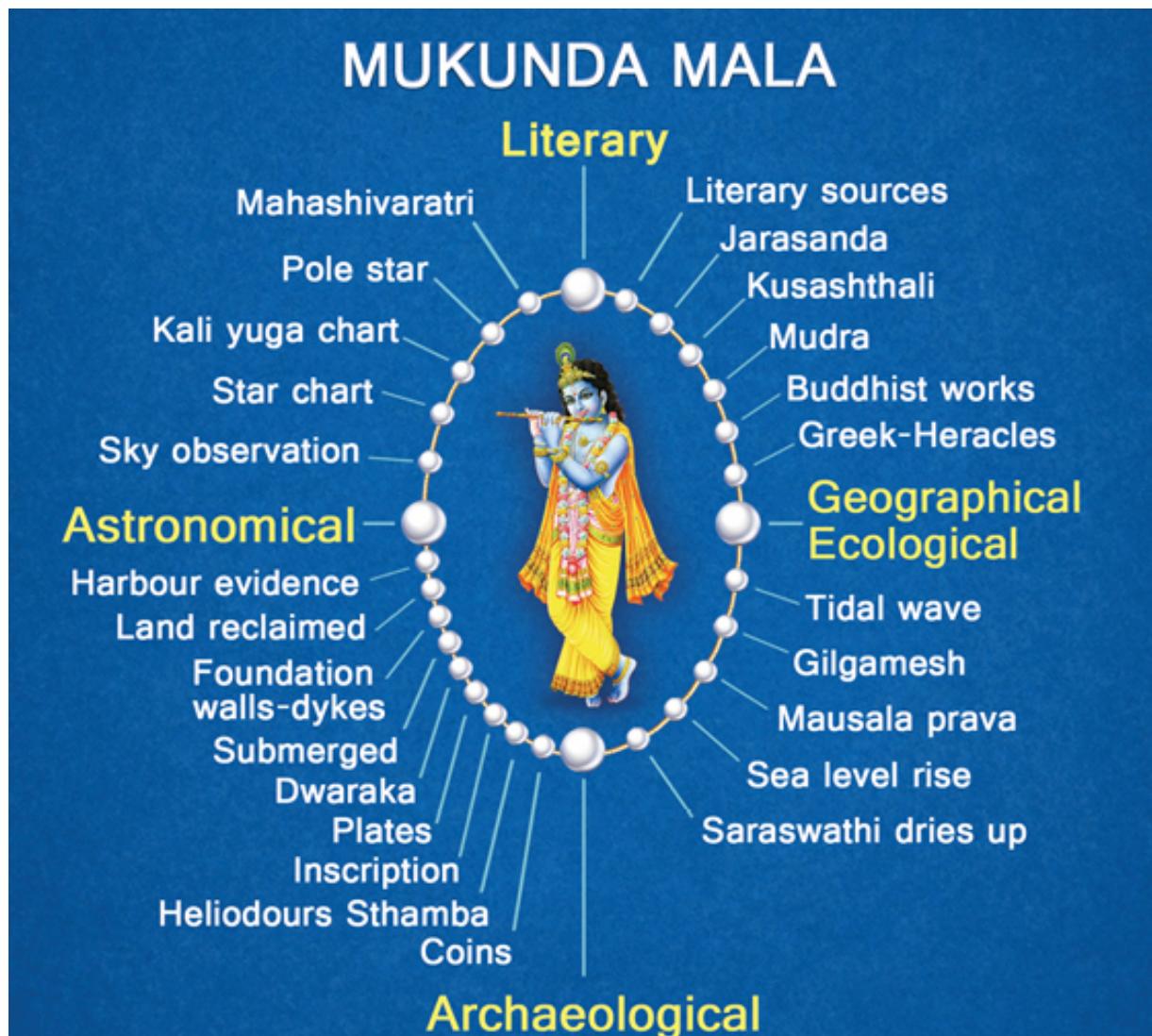
- full of life,
- full of sciences,
- full of technologies,
- full of adventure,
- full of wholistic knowledge,
- full of tradition,
- full of humanity.

Stringing History

To such an inquiring mind, separate and disparate pieces of information such as ,

- the archaeological evidences at Dwaraka,

- the geographical evidences from Braj Bhumi region,
- the natural melting of ice caps and sea level rise,
- the depth at which lay the underwater ruins at Dwaraka,
- the ecological factors seen in the geographical arc from Indian Ocean to Central Asia,
- the drying up of the Sarasvati River due to tectonic movements and
- the fact that the Archaeo-Astronomy dates tally with all the above, seem like individual pearls falling into place and stringing themselves up as a *mala*, necklace, garland. They form a *Mukunda Mala*. Mukunda is another name by which Krishna is known.



ALL IN ALL, HISTORICAL

History is a mind bender.

A historian decides how the world perceives the past and thus shapes the thoughts, ideas and actions of the man of tomorrow.

From this compilation, we get a new and true perspective on the history of India.

We see that it is not only Krishna who is historical.

- Vrindavan is historical.

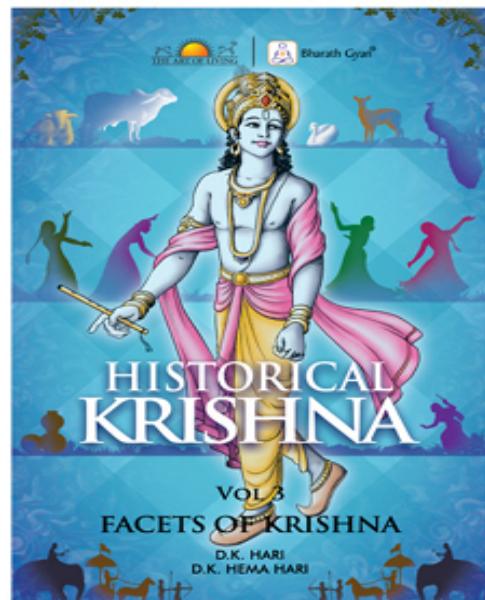
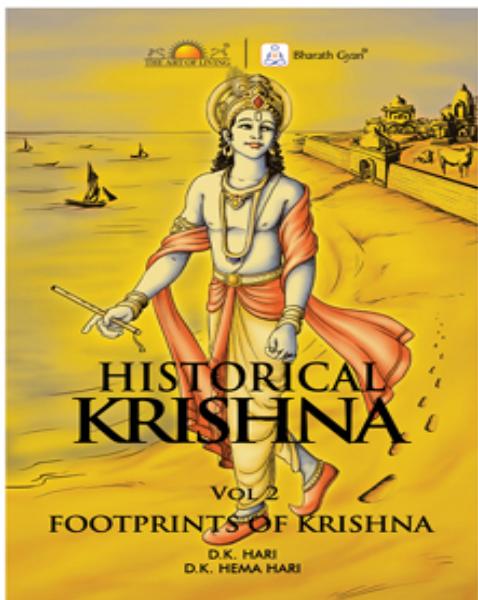
- Mathura is historical.
- Dwaraka is historical.
- Govardhan Giri hills are historical.
- Kurukshetra is historical.
- River Sarasvati is historical.
- Balarama is historical.
- Pandava Princes are historical.
- Veda Vyasa is historical.

The historicity of Krishna also establishes and brings forth the historicity of the times, the land and its people.

*When History meets Tradition and
Tradition meets Science and
Science meets Nature,
Can we advance as truly mature people.*



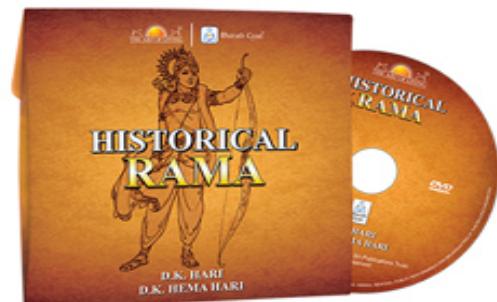
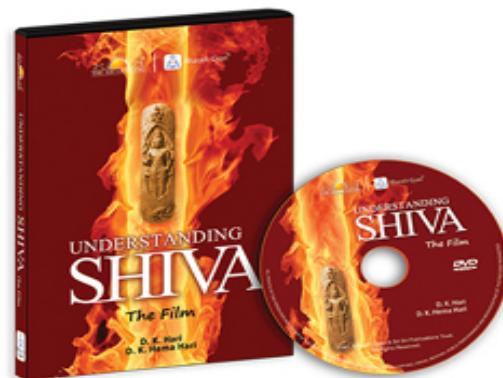
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