TheThree Editions of the Mahabharata

by
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Abstract

This paper discusses some important references in the Mahabharata and the conflicting inferences usually drawn from them.It has been shown that the references are in general clear but made unnecessarily obscure because the universal tendency even among those who know that the Mahabharata has been revised and enlarged twice with a gap of more than a thousand years, is to assume that the statements must fit into one period.

It has been shown in this paper that all the contradictions vanish when the references are divided into three groups answering to the three periods which are reflected in the Mahabharata...

The Three Editions of the Mahabharata

Sauti tells Shaunaka what Vaishampayana told Janamejaya and Vaishampayana tells Janamejaya what Vyasa told him..This is what the Mahabharata consists of.The Mahabharata itself makes it clear that Vyasa, Vaishampayana and Sauti were separated by more than a thousand years.According to the Mahabharata the Bharata war was fought between the *dvapara* and the *kali* age[1] and Vyasa was a contemporary of the principal characters in the war. Janamejaya to whom Vaishampayana reports what Vyasa told him is informed by his ministers that a thousand years of *kaliyuga* have elapsed [2]. So there is a gap of a thousand years between Vyasa and Vaishamoayana.

Sauti on the other hand makes it clear that he has not heard the Mahabharata from Vaishampayana directly. Vaishampayana narrated the Mahabharata , *"pura"* i.e in ancient times. The work was handed over by generations and Sauti learnt it from his father[3].There could be no clearer indication that the Vyasa, Vaishampayana and Sauti versions of the Mahabharata are separated by millennia.

Corresponding to the three authors there are three names of the book itself viz. Jaya, Bharata and Mahabharata[25]. and three figures indicating their size viz. 8800, 24000 and 100000 verses.[26]All these verses are attributed to Vyasa and not to Vaishampayana or Sauti because the last redactor would have us believe that the smaller books are abridgements of the bigger ones made by Vyasa himself.This is clear from the verse which talks of a Mahabharata "of 50 verses, an abridgement *even* shorter than Bharata" made by Vyasa himself[28] But any reader of the Mahabharata can see that it took its present shape in the course of thousands of years and therefore it is reasonable to attribute the Jaya of 8800 verses to Vyasa himself, the Bharata of 24000 verses to Vishamayana and the Mahabharata of 100000 verses to Sauti.The Jaya contained only an account of the war and the victory of the pandavas The Bharata along with the *upakhyanas*.i.e subsidiary stories and tracts is said to be the Mahabharata[27]..The name Bharata shows that Vaishampayana expanded the Jaya by adding to it the history of the Bharata race to which the Pandavas and Kauravas belonged..The last editor Sauti added the subsidiary stories and tracts and also massive expansions of the original.

However we do not get Vyas's Jaya by excluding everything excepting the Yuddhaparva. The present Yuddhaparva contains nearly 24000 verses.This does not mean that these 24000 verses are Vaishampayana's version called the Bharata..No version is available in its original form. All versions themselves have been expanded from time to time.The *Yuddhaparva* for example contains a reference to the *yavanas*[29]who could only be the Greeks who were not known to India before 500 B.C., and to catapults hurling rocks as big as elephant cubs[30].The catapults hurling rocks are known to have been invented by Archimedes. in the third century B.C. These references can not be attributed to Vaishampayana of 1000 *kali*

In fact no version has come down to us without additions and the additions are so intermingled with the original that they can not now be separated.

It is strange that great scholars like Vaidya and Daptari who have themselves asserted that the Mahabharata has at least three authors, and three editions widely separated in time, have tried to seek consistency in the astronomical statements by treating the Mahabharata as a unitary work. Vaidya has confessed failure[4]but Daptari persisted in claiming success[31].What sort of success he or others of his persuasion can be credited with ,will be presently discussed ..

In discussing this we must separate the astronomical statements from the astrological ones. Astrological statements are intended to describe auspiciousness or otherwise of portents of events after the events have occurred.They are thus after thoughts and not actual observations.

We further propose to confine ourselves to statements which occur naturally in noting the time of the events and could have no other purpose.

Post Buddhistic References.

(1) "Vishvamitra introduced the system in which *shravana* was the first constellation"[5]

This has been interpreted to mean that the winter solstice took place in the *shravana* constellation. This points to 500 B.C as the earliest date and. could well be post Buddhistic, because after discovering that the winter solstice takes place in the *shravana,* some time must elapse before it is commonly accepted.

(2) The following are express references to the post Buddhist period

(i.) " The whole world will be full of Buddhist temples and not of the (Vedic) gods" [6]

(ii) "This is also stated in the Brahmasutras with ascertained reasons"[7]
The Brahmasutras contain a refutation of Buddhist *darshanas*
(iii) "These people of devilish tendencies say that the world is false, locusless and Godless"[8]
This is a reference to the Buddhist *Shoonyavada*
. (3)Balarama returns from his pilgrimage to the river Sarasvati on the 18th day of the war and he says that he started on *pushya* and has come back on *shravana* [9]

Though this statement contains no clue to the year in which it was made it can not be earlier than the first millenium B.C. because the *vinashanateertha* where the Saravati submerged is mentioned . Balarama did not see a single bed of Saravcati that was live. He was everywhere told stories about what happened when the bed was live.This state of the river can be assigned only to the first millenium B.C. because in the second and earlier millennia, more than one bed of Sarasvati were live[10].

There is nothing against regarding the *balaramyatra* post Buddhistic in view of 1 &2

(4)According to Dr. Lal[11] the excavations at Hastinapur ,the hub of events in the Mahabharata, show that the city did not exist before 900 B.C The references to Hastinapur are therefore later than 900 B.C. and possibly post Buddhistic in view of 1&2

Anoher reference to the first millenium B.C. is Sahadeva's[55] question to Bheeshma about the origin of the sword in which he clearly asserts that the mace is powerless against the sword .Though bronze and cast iron swords were in use in the second millenium B.C. their superiority to the mace was not complete because they could break in dashing against the stone mace-head or even against its massive wooden handle..The steel sword would not so break. Bheeshma says that the first sword was made out of a meteor[56] One gets readymade steel in a meteor.But meteors are rare and one can not equip a whole army with swords made out of meteors.In the first millenium B.C. steel-making was mastered and steel wholly replaced bronze as a war metal..

References to 1500 to 2101 B.C.

(1) Bheeshma on the last day of his life says

" I have been lying for 58 days on this bed of arrows. Now this is *magha shukla ashtami* and the Sun has turned North"[12]

The war started on *kartika jyeshthi amavasya.*From this *magha shukla ashtami* comes on the 68th day i.e 58 days after Bheeshma was rendered *de funct* on the tenth day of the war. The winter solstice could occur on *magha shukla ashtami,* the 68th day from *kartik jyeshthi amavasya* if we take the month to be *amanta* i.e ending on *amavasya.*This is in accordance with the Vedangajyotish which was followed in the second millennium B.C.On this basis Daptari fixes the limits of the day of Bheeshma;s exit from 1525 to 2525 B.C .[13]

. (2)"Krishna commenced his journey to Hastinapur(for peace talks) in the month of *kartika* at the end of autumn in the *revati* constellation "[14]

(3) " I am *margasheersha* among the months"[15]

The autumn ended in *kartika* and *margassheersha* was the first month of *hemanta.*This was the beginning of the year of traders and warriors and thus first among the months just as Krishna was first among all beings.

We have thus far seen that there are references in the Geeta to the early second millenium B.C.as well as to the late first millenium B.C.i.e post Buddhistic. The reference to the second millenium B.C. is not the solitary one mentioning the month *Margashhesrsha.* The verse *sahasrayugaparyanyam* is quoted by Yaska whose date is generally given as 900 B.C.

There is another reference[62] which is definitely post Vyasa and is most probably of the second millenium B.C. since it occurs while continuing the topic of the verse *saharayugaparunatam* quoted by Yaska..These are verses 24 to 26 of the eighth *adhyaya* of the Geeta.These describe two periods viz. the Northern and the Southern course of the Sun.The Northern course is likened to light , day, whiteness and the bright half of the month and the Southern to smoke, blackness,night and the dark half of the month.. Death in the first course is said to lead to liberation from the cycle of birth and death while the second does not. This echoes the influence of Bheeshama's death in the Northern course because such an idea does not occur in any literature prior to Bheesma's death.Bheshma himelf does not say that he has chosen the time of his death and that time is the Northern course of the Sun because it is auspicious.In the Rgveda the Northern course is called *devayana* i.e the path of the Gods while the Southern course is called *pitruyana* or the course of the manes.In the Rgveda the word *deva*

means the heavenly luminaries. Since the areas of the Sarasvati river are very much in the Northern hemishere, the luminaries which are North of the equator are clearly seen whereas those which are to the South are either never seen or even when seen are not so bright. So the bright Northern hemisphere is called white and the comparatively darker hemisphere is called dark. The Southern hemisphere is assigned to *yama* the God of death because death is likened to darkness being the cessation ot all cognition. The Southern course is also called the course of the manes because the manes reside with Yama..Since no work definitely known to be prior to *1000 B.C.* contains these ideas it is reasonable to attribute them to the same period as that of the verse *sahasrayugaparyantam* which appears in the same context and can be placed in about 1000 B.C.

No reference more ancient *than* the second millenium B.C. is found in the Geeta. This may indicate that no portion of the Geeta figured in Vyasa's Jaya. It has even been suggested that Shrikrishna himself is a later addition to Vyasa's work. But these conclusions are hasty .

There is no doubt that Vyasa's Jaya contained a full account of the war..The present account in the *yuddhaparva* contains nearabout 24000 verses.We can prune this to 8800 verses, the lowest number attributed to Vyasa's Jaya if we drop every thing which is not directly relevant to the account of the war.But no major part of the war can be described if we drop Shreekrishna's role in it. He appears as often as Arjuna at least and nowhere is Arjuna said to have another *sarathi* It is he who saved Arjuna from Bhagadatta[19].But for him Bhheeshma Jayadratha, Drona and Karna would not have made the way clear for the victory of the *pandavas.* Finally it is because of him that the Pandavas were saved from losing everything after victory because of the habitual folly of Yudhishthira in offering the kingdom to Duryoidhana on his winning the mace fight[20]. We just can not drop Shreekrishna from any account of the war however brief. So we must accept that Shrikrishna did figure in Vyasa's original work.

The case about the Geeta is not so strong ,but the balance of probability is in favour of supposing that the essential part of the Geeta viz. the doctrine of *karmayoga* did figure in Vyas's version. Reading the *yuddhaparva* even without the Geeta one comes across Arjuna's weakness for Bheeshma , Drona and even Krpa[21].Twice did Shrikrishna admonish him for his softness in fighting Bheeshma..Arjuna was very halfhearted in executing the Shikhandi strategy for killing Bheeshma[22].Even though Drona had a hand in the killing of Abhimanyu, Arjuna used only soft weapons in dealing with him[23].He treated Kripa, the brother in law of Drrona, similarly[24].Both Bheeshma and Drona had loved him when he was taking military training.This made him forget the duties of a *kshatriya*.. It is to be expected that he quailed at the sight of Bheeshma and Drona even before the fight began. The Geeta sermon is thus a vital part of the character of Arjuna and the fratricidal nature of the Bharata war.

It may be said that both the Geeta along with its *karmayoga* portions and the statements about Arjuan's softness may be later than Vyasa. But interpolators are not known to insert corroborative insertions in different parts of the work.Vidura is said to have used Greek expressions in talking to Yudhishthira in order to give him hints about the danger awaiting him in the *lakshagrha* the house of lac[32].But in no other place a passage indicating that Vidura and Yudhishthira had taken lessons in Greek occurs in order to corroborate this insertion.

The *karmayoga* portion contains, albeit briefly, an important ethical principle which has a vital relevance to the Mahabharata holocaust. The behaviour of Duryodhana was no exception to the behaviour of the claimants to the throne with which history is replete. That by itself would not have resulted in the colossal carnage. The person who contributed most to this was Yudhistshira and his perverted ethics. Acco rding to this ethics morality consists of abiding by certain rules implicitly, whatever the consequences of such a compliance in a particular situation.This is the categorical imperative of Kant.This assumes that there could be no conflict between different rules of conduct.In the case of Yudhishthira also such conflicts arose frequently.For example according to the rules of *dyuta* ,Yudhishthira agreed to live for one year *in cognito.* But one can not live *in cognito* without telling lies. So the morality of rules is in practice impossible.But in such cases those who are enamoured by the morality of rules laud the conduct of those who choose the alternative of maximum suffering to oneself and ones kin.,because in their scheme, self denial is the cardinal virtue. .Yudhishthira did the same.He chose to tell lies in order to honour the pledges of *dyuta* rather than refusing to play the *dyuta* itself. Thus Yudhishthira is to be regarded a man of high character because he brought suffering on himself and his kin..Yudhisthira "morality" is thus the main cause of the Mahabharata tragedy.

This morality is refuted in the Geeta.According to the Geeta, *sarvabhootahita* or the welfare of all beings and *lokasangraha* or welfare of the people is the goal of morality, not self denial and following certain rules.The Geeta preaching thus touches the very core of the Mahabharata and it is reasonable to suppose that it formed part of Vyas's Jaya.

Any reader of the Mahabharata can see that a fratricidal war of gigantic proportions is the theme of the Mahabharata and no reader of any sensibility can fail to experience Arjuna's feelings.Some such influence like the teaching of *karmayoga* and the morality of the greatest good of the greatest number was vitally essential to alleviate Arjun's compunctions.What is irrelevant is not the *karmayoga* and *lokasangraha* but the propagation of Krishna's Godliness, the importance of *bhakti* the dilatation on how to practice Yoga and the criticism of the Buddhist schools of philosophy.

Why should then the redactors insert such irrelevant material?

The answer is that as several centuries passed ,the readers of the Mahabharata tended to take the Bharata war not as a fight between brothers but as a conflict of virtue and vice narrated allegorically. Thus viewed the conflict makes the discussion of paths to salvation very relevant because according to other- worldly philosophies virtue and vice can not be discussed without discussing the paths to salvation. and perdition.The redactors wanted to make the Geeta a compendium of such discussions.

It is unlikely that in Vyasa'a version Krishna was regarded as God. Even in the present Geeta Arjuna admits in the *Vishvaroopadarshana* chapter that he did not regard Shrikrishna as God[33].Again Bheeshma and Drona in Vyas's version could not have possibly regarded him as God. If they had, they would not have fought against him.We can therefore safely infer that the early portion of the second millenium B.C. is the period when Krishna was deified..

The Geeta is described as an Upanishad in its colophons.The Upanishads date back to the second millenium B.C.The Maitri Upanishad mentions the winter solstice in the middle of *shravistha*[34] This indicates 1800 B.C. to 1600 B.C.as its date. The Chandogya is quoted by the Maitri ,so it is older still.That the Geeta Upanishad also indicates this period is on expected lines. The criticism of the *Vedavada* i.e. the *meemansa* for its obsession with the heaven is in line with this period.

Daptari [16]fixes the farthest limit of the references to the month *kartika* as 1931 B.C.by taking *amavasya* ending months on the basis of the system of Vedanga Jyotish which was current at that time.

Dhrtarashtra decided to leave for his *vanaprastha* i.e. life in the forest on *kartika poornima.* He therefore started his charities 10 days before this i.e on *kartika shuddha chaturthi* .Dharmashastra opines that such charities yield best spiritual merit if given on the equinox day. It can therefore be inferred that the autumnal equinox occurred on *kartika chaturthi*[36] which is in line with the date of Krishna's commencement of his journey.

That this statement is astrological does not constitute a valid objection here because people do fix their dates on the basis of astrology,an objection to using astrological dates is.justifiable only when auspicious/ inauspicious portents are assigned to events *after* the event occurred.

(4) Bhishma in discussing whether the pandavas completed the prescribed period of their *in cognito* life, says that there are two intercalary months after every five years. This is the system laid down in the Vedanga Jyotish The Veadanga Jyotish date is fixed at 1400 B.C..The currency of this system therefore points to the second millenium B.C.[17]

(5) In addition to the above astronomical references we have an archaeological reference pointing to the second millenium B.C..

"Jayadratha hit Abhimanyu with his sword. But Abhimanyu parried the blow and Jayaddratha's sword stuck in his quiver. When Jayadratha pulled it with force it was broken to pieces." [38]

This obviously was a cast- iron sword and points to the second millenium B.C.. The Chandogya Upanishad datable to this period mentions black metal and a nail cutter made of it.[41] This also must be cast iron .Steel is never mentioned as black metal..

S.R. Rao's investigations in Dvaraka have yielded articles which have been examined by thermoluminiscence and point to 1600 B.C This must have been the date of the submergence of Dvaraka.

References to 3101 B.C.

(1) The death of Bheeshma according to the Mahabharata occurred "when the Sun in the *rohini* constellation turned North on *magha shukla ashtami"* (the eighth bright lunar mansion)[42]

From this statement we can infer the position of the Sun on *amavasya* or the new moon.[43] We thus get the date of the winter solstice which is between 3101 and 3581 B.C. in keeping with tradition.

It should be noted that this statement does not say that Bheeshma spent 68 days on the bed of arrows.Further it mentions *rohini* as the place where the solstice occurred, this gives more accuracy to the statement.Secondly we take the months ending in full moon for calculating the day of Bheeshma's exit, not months ending in *amavasya.*This must have been more common before the Vedanga Jyotish came into vogue and is indicated by the following two statements.[44]

(i)The first fortnight is dark

(ii)This is *magha* full moon and therefore only a month is left for *chaitra* to commence

That the practice of regarding the full moon as the end of the month is more ancient is indicated by its very name *poornamasee* which means that which pertains to the ending of the month..The word *ama* in *amavasya* means measureless because on that night the visible size of the moon is zero and zero neither begins nor ends any count..Counting starts from one and ends with some positive number.The *tithis* from *pratipada* to *poornima* unlike *amavasya* indicate some positive size of the moon..Amavasya was therefore regarded as coming in between the dark and bright halves of the month., not belonging to any of them.

Taittireeya Samhita 7/5/6 also indicates that *poornima* ending months were regarded more conducive to accruing of merit in rituals[45].

We get the following sequence:-

.Krishna says to Karna "Let the war start on *kartika amavasya"* This *amavasya* is the *amvasya* of months ending in *purnima. Magha shukla ashtami* therefore comes 98 days later and the winter solstice can take place in the *rohini* in this *magha.*.

The statement about the commencement of Yudhishthira's *rajasuya* corroborates the date of Bheeshma's exit.The *rajasuya* was performed on *jyeshthamula amvasya i.e amavasya* covering the two constellations *jyeshtha* and *mula:* an exact completion of *amavasya.* Fifteen years later Krishna suggested to *karna* that the war should start on the *jyestha amavasya* of *kartika.* Three lunations later came the winter solstice in *rohini* [46]

This remarkable agreement between the dates of events separated by 15 years is convincing evidence about the *kaliyuga* date of the war.

A possible objection is that the idea that death in the Southern course of the Sun is inauspicious is astrological and we have decided not to use astrological statements in ascertaining historical dates.

The answer is that it is only in the case of Bheeshma's death that we find insistence on the Northern course of the Sun as the proper period for dying. The reason again is obvious. Bheeshma was a tough old man and continued to live up to the beginning of *uttarayana* even when his whole body was made into a sieve by arrows. This gave rise to the belief of his being a man who could choose the time of his death..It is not the case that death in *uttarayana* was regarded auspicious and then attributed to Bheeshma, death in *uttarayana* was regarded as auspicious *because* a personage like Bheeshma chose it for his death.

(2) The weapons used in the Bharata war point to the *kaliyuga* date. Archaeologically the *kaliyuga* date belongs to the chalcolithic age, i.e. the age in which bronze and iron were not known. No reader of the Mahabharata can fail to notice that sword is conspicuous by its absence in the long tales of war. The main close-combat weapon was the mace, the mace-head was made of stone. .

There are two occasions on which sword is said to have been used, one is Bhoorishrava's attempt to behead Satyaki[41] and the other Drustadyumna beheading Drona[42].On both these occasions, the victim's head is caught by the hair and the so called sword operated on the neck like a saw. It is clear that the so called sword was only a copper -dagger.Copper is soft and its edge is not very sharp, only a dagger can be made out of it so that beheading with it is not possible without holding the head.

The Three Periods Correspond to the Three Editions

We have thus seen that there are references in the Mahabharata pointing to three different periods corresponding to the three editions viz those of Vyasa, Vaisham payana and Sauti. 3101 B.C is the lower limit of the Vyasa edition,2101 B.C. is the lower limit of the Vaisshampayana edition as stated in the Mahabharata itself. Copious references indicate the post Buddhist period to be the period of the Sauti edition.

This makes it clear that no arguments based on the references to the Sauti and Vaishampayana periods can invalidate the *kaliyuga* date of the war. For example Dr. Lal's finding that Hastinapur is not more ancient than 900 B.C. does not indicate that the Bharata war did not take place before 900

B.C.It can at best indicate that Hastinapur was not the capital of the Kauravas and the Pandavas, it was regarded as the capital in the days of Sauti.

Thjs is confirmed by the fact that the Shatapatha Brahmana mentions Asandivata[43] and not Hastinapur as the capital.

Attempts at Harmonizing All the References

We have discussed above the statements which imply certain millennia in which the Bharata war was possibly fought. But there are statements which do not carry us to any particular millennium on the basis of astronomy.Some of these occur in Balaram's pilgrimage to the source of the Sarasvati in the *sarasvataparva.* They mention many dates by their constellations. The *sarasvataparva* belongs to the Sauti period and therefore the dates mentioned in it do not tally with the dates mentioned in the other editions.

If Balarama's itenary is correct, the war could not have started on *kartika amavasya.*because the moon[54] then would not rise in the morning on the 14thday, and the 18 th day will not be in the *shravana* constellation..

Similarly the two different dates of the winter solstice arise because Bheeshma's 58 days on the bed of arrows is not mentioned in the second and *rohini* as the place of the winter solstice is not mentioned in the first.

Daptari performs many antics for resolving these anomalies.He says "we must change Balrama'a statement that he started on *pushya* and came back on *shravana.* What he really meant was that he started on *shravana* and came back on *pushya"*!.In other places he translates rising as setting. One of the reasons he gives for the anomalies is that the astronomical descriptions in the Mahabharata are not based on observation but on the *panchanga* of the day and that *panchanga* was wrong.In other words we are free to insert or delete anything according to our convenience.. The positions of the heavenly bodies 36 years after the war does not fit in with Daptari's theories. So he says we must take 36 years, not from the end of the war but from the day the *pandavas* went to the forest[31]

Kaveeshvar has revived an older theory which postulates holidays between the different days of the war in order to harmonize the astronomical statements.No account of any war so far available talks of holidays in the midst of the war, for the war itself, apart from those for individual solders..

Even conceding the holidays, Kaveeshvar has not been able to harmonize the astronomical statements without resorting to ungrammatical and unlexical constructions of the text. For example he translates *aparahna* i.e noon not as noon but as another day.. But the word for another day is *aparahan* and not *aparahnha*

The statement :"Shalya fought for half the day and then there was the mace fight" is translated by him as Shalya fought for half the day and on *another day* there was the mace fight.. The word *bhaaga* is translated as *muhurta* without quoting any dictionary.[44]

Vartaka [45] resolves the anomalies by saying that they have been deliberately inserted by Vyasa by using a code language using different systems and terminologies of Astronomy.! The Mahabharata thus appears to be a *chitrkavya* or a composition of linguistic feats and not a popular epic sung before the masses for generations.

Holay [55] does one better. He has several panaceas for the ills of anomalies. His pet notion is that the Sanskrit language can be made to yield any desired meaning and it is waste of time to learn the language.We can read in it whatever meaning we like.. For example "five years" can mean "19 years:" "in the beginning of *shravishtha"* can mean "before *shravishtha",* " from the bharata war" can mean "from the bharata sacrifice" etc.There is no sacrifice called the bharata sacrifice in the entire range of Sanskrit literature But why should our knowledge be confined by Sanskrit literature?If tallying the dates requires a bharata sacrifice it must be there..If the constellations appear after a gap of more than 18 days while the war lasted for 18 days only, let the poor solders enjoy as many holidays as are required for tallying the constellations .We mortals know only one Bhagavatgeeta addressed to Arjuna. But Holay does not find one *Geetajayantee* sufficient, so there must be two Geetas for having two *Geetajayantees.*

It is obvious that the statements in the revisions are based on contemporary observations , they are not reports of what the earlier writers observed.It is also clear that the statements are not based on any *panchanga* The ancients used the heavens. as their calendar and clock for noting time as well as the map for finding their way. Statements like "I started on *pushya* and came back

on *shravana"* clearly show that the speaker and listener could both understand each other without carrying a *panchanga* with them, as we understand morning evening and noon without consulting the watch.Even now the villagers talk in terms of what they see in the sky, most of them are illiterate and can not consult a *panchanga.* Further the redactors of the Mahabharata were not aware that the positions of the stars seen by them can not be assumed to be identical with what their forefathers saw.The astronomical contradictions in the Mahbharata are thus easily explicable.

We have seen that the Mahabharata was written in the three main periods viz,those around 3101B.C.,2100B.C. and 150 B.C. It seems that these three periods witnessed a brisk literary activity.

This is confirmed by the Sooryasidhanta.."Bentley gives the table of errors in the positions of the planets, as calculated for successive periods 3102 BC,,2102 B.C. 102 BC, 538 A.D.. and 1091 A.D. according to Sooryasidhanta, fixes the date as 1091 A.D.. for the work."[63]

So these five periods are historically important according to the Soorya Siddhanta.Out of these the first three belong to the B.Cs and they correspond to the three editions of the Mahabharata.3102 B.C is the Kaliyuga, and the period of the original Jaya of Vyasa, 2102 B.C.is the present day Geeta and Upanishad period and 102 B.C. is the period when the Mahabharata took its present shape.This is the period of Manusmriti and Kalidas

Evidence Confirming the *kaliyuga* Date

The Mahabharata clearly states that the Bharata war took place after the end of *dvapara* and before the commencement of the *kaliyuga.*[1] It does not state when the *kaliyugsa* started.But whichever is the beginning of *kali,* it is the date of the Bharata war according to the Mahabharata and whatever has no basis in the Mahabharata can not be attributed to the Bharata war.,since the Mahabharata is our only source of information about the Bharata war.

The Bhagavata and the Vishnupurana regard the *kaliyuga* as marking the time when Shreekrishna left his mortal coil.[47] But the estimated date of the Bhagavat is between the third century B.C. and the ninth century A.D. while that of Vishnupurana falls between the third century B.C. and the 5 th century A.D. The earliest possible dates of both these works are thousands of years later than that of the first edition of the Mahabharata.Besides these works have a clear motive in reckoning the *kaliyuga* from the demise of Shreekrishna.They are expressly written for the glorification of Shreekrishna. The statements in these works therefore can not prevail over the statements in the Mahabharata.

The earliest statement about the beginning of the *kaliyuga* is in the *Shatapatha brahmanabhashya* of Hariswamy[48] who was the *dharmadyaksha* or religious head of Vikrama of the Vikrama era fame.He says that the *bhashya* was composed in 3040 *kali.* This comes to 61 B.C.,i.e 4 years before the death of Vikrama . *kaliyuga* therefore started in 3101 B.C.

The second reference to the *kaliyuga* is by Aryabhatta who.was born in 476 A.D. Aryabhatta's *kaliyuga* also starts in 3101 B.C.[49]

Some writers say that Aryabhatta's *kaliyuga* is an astronomical concept and has nothing to do with the Bharata war. But this statement has no legs to stand on. Aryabhatta in his *dashageetika*[53] clearly refers to the Bharata war in fixing his *yugas.*

It should be further remembered that the word *kali* means war and has no astronomical signi ficance.,*kaliyuga* means an era that commemorates the war.

The most important though not the earliest reference to the *kaliyuga* is in the Aihole[51] inscription. I call this the most important because the inscription is a purely historical document, not interested in any *yugas* not concerned with human history.This also shows that the Bharata war was regarded as much a part of history as Harshavardhana and the Chalukyas. This inscription gives the dates in terms of the *shaka* as well as the *kali* era and equates *kali* 3735 with *shaka* 556 *i.e* 634 A.D.This also makes *kaliyuga* commence on 3101 B.C.

The Shatapatha Brahmana asserts that the *krittikas* [52] can be used for fixing the exact east. This points to 3000 B.C.

It is sometimes said that the Shatapatha is a brahmana of the Yjurveda,the Yajurveda contains hymns not contained in the Rgveda and therefore the whole of the Shatapatha can not be as ancient as 3000 B.C.

It should be noted that the Yajurveda of the time of Vyasa contained only the 794 hymns of the Rgveda which were of special importance for performing sacrifices.The Shatapatha of 3000 B.C. is a

Brahmana of this Yajurveda, not of the Yajurveda available to day which contains 1181 hymns not contained in he Rgveda.

Vyasa was a contemporary of Devapi who composed the rain hymn of the Rgveda and must therefore be more ancient than a B*rahmana* on the Rgveda..So at any rate the Bharata war was fought before 3000 B.C..

Megasthenis [4]who visited Chandragupta's court states that , Hiraclees worshipped by the *shourasenis* flourished 138 generations before Chandragupta Maurya. "Hiraclees worshipped by the *shourasenis"* can be no other than Hari i.e. Shrikrishna The commonly accepted date of Chandragupta's coronation is 312 B.C. Taking 20 years for a generation gives 2760 years. before 312 B.C.This brings us to 3072 B.C. most probably the date of Shrikrishna's exit.

A macehead has been found in Hissar. Copper arrowheads have been found in Hastinapura.In addition to Copper arrowheads,spearheads, celts etc have been found in Ganeshvara. also.These weapons are all pre-bronze and have been dated to belong to about 2800 B.C.[53] a date which is very near the *kaliyuga* date.Use of maces is a clear indication that the sword was not invented.This age therefore is pre Mohenjodaro where bronze images have been found. Full length swords can be made of bronze and iron, NOT of copper.

It should be noted that Hisssar is in Haryana (Rohitaranya)and Ganeshvar is in Rajasthan.(Maru) These are among the places where the Bharata war armies were encamped. Hastinapur is where both the Kauravas and Pandavas lived and one expects their weapons to be found there.

It is not claimed that the weapons found are the very weapons used in the Bharata war.But certainly this type of weapons was used.

The main argument of Western scholars against the antiquity of the original version of Vyasa is that if the above chronology of the editions of the Mahabharata is correct the Mahabharata should have taken 3000 years to assume its present form. In such a long period language changes and the Mahabharata therefore must show evidence of such pronounced changes in language.But it does nothing oft he kind. The verses indicating 3000 B.C. as their date are identically in the same language as those which were composed nearabout the Christian era.Carrying back the source of the Mahabharata to 3000 B.C. is thus an exercise in futility.

The answer is that the redactors of the Mahabharata were not mere copyists They were editors and their purpose was not to pass on a photographic copy of the ancient work to the new generations. They revised the entire work in such a way that it could become intelligible as well as interesting to their contemporaries. This required that the language must be brought in line with its contemporary form This is why the verses referring to 3000 B.C. are grammatically the same as those referring to 500 B.C.

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(The Mahabharata referred to by page numbers is the Southern recension published by V.Ramaswmy Sastrulu & Sons 292 Esplanade Road, Chennai)

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स्यमन्तपंचके युद्धं कुरुपाण्डवसेनयोः।।आदिपर्व पृष्ठ44

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बाल एवाभिज़ातोसि सर्वभूतानुकम्पनः।। आस्तीकपर्व पृष्ठ 251

(3) वेशम्पायनविप्राद्यैस्तैश्चापि कथितं पुरा।।
यदधीतं च पित्रा मे सम्यक्चैव ततो मया।आदिपर्व पृष्ठ 102

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