

Homer, Hesiod and the Mahābhārata

Introduction

In this paper I examine some legends of archaic Greek literature (texts ascribed to Homer and Hesiod) and their relationship to the Indian epic *Mahābhārata* (*MB*, hereafter). One is the parallel of Penelope's archery contest, set for her suitors (*Odyssey* 19, 171ff) and Draupadī's *svayaṃvara* 'choice of husband', which also entails an archery contest (*MB* I, 175-180)¹; the parallels of Damayanti's *svayaṃvaras* in the story of Nala (*MB* III, 50-55 and 68) will also be discussed. A second parallel will be the Peleus-Thetis marriage in the *Iliad* and subsequent sources and that of Śantanu-Gaṅgā (*MB* I, 91-3). A third parallel is the Five Races in Hesiod's *Works and Days* 109-201 and the Four Ages or Yugas in *MB* III, 148 and 186-9. Another parallel will also be examined, that of Dionysus being born out of Zeus's thigh (*GM* 1: 56) and of Aurva springing out of his mother's thigh (*MB* I, 169-71).

These parallels have been noted and discussed in the past from different viewpoints. I believe they deserve another close look which reveals two things. First, a consideration of the probable dates of composition of the Greek poems and of the Indian epic shows that these tales are independent, involving no borrowing by one culture from the other; they are therefore of common IE origin. Second, such considerations highlight the need for revision of the chronology of ancient Indian texts and the fact that the *MB* contains considerable early material; this material consists of myths current in the Vedic period but only briefly or sporadically referred to by the Vedic texts. Much, if not most, of the *MB* seems to be much older than is generally thought, even though, in its present form it was written down perhaps in the third or second century BCE – and some sections even later.

1. Penelope, Draupadī and Chronology

The term *svayaṃvara* 'self-choice', denoting the mode whereby a maiden of the *kṣatriya* (=royal or baronial) class chooses her husband from among many worthy candidates, does not occur according to the Oxford Sanskrit Dictionary (=MSD) before the epics and the *Manusmṛti* or the Dharmasūtras (Keith, 2: 373), i.e. not before the fifth century BCE (in accordance with the hitherto mainstream academic view of Indian chronology). Two instances of *svayaṃvara* appear in the *MB*: in Book I, chs 175-80 is the important incident in the main story where Arjuna wins Draupadī (who had to choose him after he had won the contest) and in BkIII, chs 50-5, where, in the well-known *upakhyāna* 'secondary tale' of Nala, princess Damayanti chooses her beloved Nala. (A third *svayaṃvara* will be mentioned below in n 2.) Damayanti's *svayaṃvara* was made difficult by the advent of four gods (Agni, Indra, Varuṇa, Yama) who also wanted her and at the ceremony all appeared in Nala's form; but Damayanti recalled certain features the gods retain even when in disguise – eg not sweating and not quite touching the ground but floating just above it – and so she was able to discern and choose the real Nala. Draupadī's *svayaṃvara* was also not a simple affair: the noble warriors had to compete in archery by stringing a very tough bow and then hitting a

¹ *MB* I, 175-180: the Roman numeral gives the Book, and the normal numerals the chapter(s). For *Odyssey* we shall have *Od*, then number of book and number of line(s) or verse(s); For *Iliad*, *Il* and the same. For Hesiod's *Works and Days*, *WD* and line(s) or verse(s). *RV*, *AV*, *Ra* and *SB* and *Br* stand for *Ṛgveda*, *Atharvaveda*, *Rāmāyaṇa*, *Śatapatha Brahmana*, and Brāhmaṇa respectively. Abbreviations IE for IndoEuropean, PIE for ProtoIndoEuropean and NE for Near Eastern. Abbreviations for books (eg *GM*) are given in the Bibliography with their full title and author.

very difficult target. Of course, Arjuna won the contest and Draupadi herself.

It has been noted (eg Arora, 157-9) that Draupadi's svayamvara resembles the situation in *Od* 19, 171-8, where Penelope divulges to Odysseus (unrecognised by her in his old-beggar disguise) her intention to set an archery contest for her suitors and then marry the winner. There are many important differences between the two situations but also important similarities. First, the obvious differences. In the Indian epic the prospective bride is a maiden, a king's daughter, who has just reached marriageable age, and the chief suitor, the protagonist, is a young prince, the mightiest of archers, noble-spirited Arjuna, who simply wants to marry the princess. In the Greek epic, the prospective bride is a married queen, believed by all to be widowed², and the suitors who vie for her are rather vile, idle and pleasure-loving princelings while the protagonist, Odysseus himself, the long-lost husband and father now returned, will use the archery contest to wreak vengeance on the suitors. The Indian narrative moves quickly to its forgone conclusion without incidents of much suspense or doubts about the outcome, while the Greek plot unfolds slowly with several moments of suspense, even though here too the outcome is predictable. In the Greek epic the gods Athena and Zeus are constantly intervening but no deity intervenes in the Indian incident. On the other hand, both narratives agree in that a lady will choose a husband, that a difficult archery contest is set, the protagonist is disguised (Arjuna as a poor brahmin and Odysseus as an aged, wandering beggar warrior), fighting ensues and the hero emerges victorious. Such close similarities indicate that the two tales are related in some way.

Many scholars have adduced, or at any rate thought they found, many additional parallels between the *Odyssey* narrative and epics in other cultures. First let us examine the Greek epic and the proposed parallels with NE texts, chiefly *Gilgamesh* (cf Burkert 1991 and 1992; West 1997, which will be West and page number hereafter). There can be little doubt that Homer and Hesiod (and subsequent Greek texts) show influences, even borrowings, from NE sources. Dietrich shows quite adequately that there was a broad common horizon in religion in the Eastern Mediterranean from Mycenaean and even Minoan times (1974: chs 1-2). But it is not known and at present cannot be determined exactly what the Greeks borrowed from their NE neighbours and exactly when. What is much more important, these scholars do not take into account three simple facts. (a) The waves of Greek immigrants or invaders might have brought their own traditional lore, preserved through oral transmission – as is easily discernible in the Mycenaean and then the archaic documents (Kazanas 2001b). (b) Some of this lore (cult, or whatever other religious practices, social customs, legendry and poetry) might just be similar to NE lore. (c) Some of the parallels between Greek myths and/or social practices and NE ones may not be borrowings at all (as scholars think) but Greek indigenous developments. Unless it is clearly determined what it was the Greeks brought with them (and this can be done only by establishing firm parallels with other IE traditions and chiefly the Vedic one) this whole matter of influences and borrowing will remain in misty speculation.

From among the many claims adduced it is easy to accept as a parallel (or even straight borrowing) Penelope's little ritual (*Od* 4, 759ff) of bathing and going to her room to pray for

² In the Nala tale, Damayantī finds herself in a similar condition when she declares a second svayamvara, as she is regarded a widow whose husband has been irretrievably lost (*MB*, III, 68). Here, there is no contest, as with Penelope, but there is a kind of chariot-driving test since very short notice is given for the svayamvara and prospective suitors (including Nala himself) must travel very fast to reach in time.

the safety of her son Telemachus, who has just left on a dangerous journey and the similar behaviour of Ninsun, Gilgamesh's mother, in similar circumstances, after Gilgamesh's departure, as pointed out by Burkert (1992: 92ff; West 421). Equally acceptable parallels or connections could be the 17-18 days' journey to Humbaba's forest (*MM* 67) and to "the lethal waters" (*MM* 105) and of Odysseus's voyage from Calypso's island to that of the Phaeacians (West, 406, 411-2), the name of Circe's island 'Aiaia' and that of the Babylonian Sungod's wife 'Aya' (p 407; the Egyptian and Hebrew 'falcon' on p 408 seems too complicated and far-fetched) and the stock line of the (rosy-fingered) dawn (*MM* 91, 100, 130 n 84). But most of West's other claims are not merely far-fetched but border on the absurd. Circe and Calypso *do not* "both correspond", as West writes (pp 405, 408, 411), "in nature and function to the divine alewife Siduri": unlike Gilgamesh, Odysseus sought neither Circe nor Calypso but was cast onto their shores, had a love-affair with both and Circe turned his companions to animals while Calypso offered him immortality, which he refused (but which Gilgamesh ardently searched for); then West shifts ground and suggests that Nausicaa also "is a Siduri figure" (p 412) only to shift again and liken her to Ishtar (p 413) because Nausicaa had the notion she might marry Odysseus (*Od* 6, 240ff) and Ishtar actually proposed to Gilgamesh (*MM* 77) – even though chaste Nausicaa in no way whatever resembles the explosive and lascivious NE goddess. It would be too laborious and tedious to discuss all West's "parallels". In fact some are no parallels at all, like the magic or intelligent, self-steering ship given to Odysseus by the Phaeacians (*Od* 8, 557ff) and Urshanabi's vessel which had some (undetermined) "things of stone" (*MM* 102, 104, 151) that helped him go safely across "the lethal waters" (West, 415). Others are obviously incidents that a Greek poet could very easily think of for himself, like Menelaus's affair with a slave-woman, or Penelope's not taking food and drink because of her distress, or Calypso offering to Odysseus food and drink that "no mortal men consume" (*Od* 5, 197), or the dogs Hephaistos fashioned on either side of the entrance to Alcinous's palace, or the effective concealment of Odysseus by the gods (*Od* 14, 357), and so on, without the heavy barrage of NE sources that West provides (pp 419, 422, 424, 428). Furthermore, to utilize all these NE sources, the redactor(s) or compiler(s) of the Homeric poems would have to know Egyptian, Akkadian (or Assyrian), Hittite, Hebrew, Phoenician, Aramaic and Persian and to consult documents written well after their own period; for if we give 550 as an absolute final date for the Homeric epics, the Behistun inscription of Darius (West, 430) cannot be earlier than 522, while the Hebrew writings of Ezekiel (West, 420, 422, 430), Hosea (West, 423) and Malachi (West, 429) belong to a later period (Gordon 1965: 300-1; Dunstan 1998: 231-3). West seems so intent on piling up all these instances of pointless erudition that he completely disregards the possibility that some of them, like the plant Hermes gives to Odysseus as protection against Circe's magic (West, 425) or the theme of just and righteous kings in *Odyssey*, 19, 109ff (West 431) or the archery contest (West 432-3), which we shall examine shortly, may be inherited motifs which the Greeks brought with them, since similar motifs are found in the Vedic tradition too (Kazanas 2001b passim).

Other scholars again find too many resemblances between the Homeric and the Indian epics. Following Dumézil, C S Littleton suspects similar themes in the *Iliad* and the *Mahābhārata* and attempts to convince us that, among other putative parallels, Hector and Paris correspond to the two younger Pāṇḍavas, the twins Nakula and Sahadeva who are projections of the Aśvins (1970: 235-6). J Baldick on his part thinks the Divine Twins (ie the Aśvins) are represented by Achilles and Patroclus (1994: 68). He finds many parallels between the *Iliad* and the *Rāmāyaṇa* (1994: ch 2) and between the *Odyssey* and the *MB* (1994: ch 3). He finds many resemblances between Odysseus and Arjuna and many incidents

in the two tales. I shall disregard all these (hypothetical) affinities because most seem insignificant, many are quite strained and others seem wholly fortuitous. As in the case of West's parallels, many of these are incidents and motifs that any good story-teller anywhere could think out for himself. For instance, Baldick thinks Hanuman (*MB* III, 146ff) corresponds to Nestor (*Od* 3) since both are outside the main plot and the first advises Bhīma how to proceed while the second tells Telemachus where to go next (1994: 103); or, he finds correspondence between the baldness of Odysseus and the hairlessness of Arjuna when the prince is disguised as an eunuch (pp 133, 167 n 49). But it is obvious that Bhīma and Telemachus have no affinities except such as are wholly circumstantial; then, the baldness is quite natural to Odysseus since he begins to age and the hairlessness is quite appropriate to Arjuna in his eunuch-disguise. Such parallels are not convincing because all other attendant circumstances, including the main features of the actors and the action, do not correspond. They are, like those of West, of little value and attempts to make something significant out of them degrade comparative studies.

Not very different is NJ Allen's brief study (1993) which, following the tripartite model of Dumézil (and expanding it by adding a fourth function), seeks to establish correspondences between Arjuna's separation from his brothers, which is in fact one year's self-exile and wandering around India (*MB* I, 200-211), and the adventurous return-journey of Odysseus. He does admit there are many differences, nevertheless he thinks that some 25 similarities are sufficient to show that the two narratives are related (1993: 41). His main parallels are the five females with whom Arjuna and Odysseus get associated in the course of their wanderings. He presents five pairs of corresponding females: Draupadī staying in Indraprastha and Penelope remaining in Ithaca; Ulūpī, the Snake-princess with some supernatural powers, and Circe; Citraṅgadā and Calypso; Vargā and her four sisters, all nymphs in crocodile-form, corresponding to the Sirens and Scylla and Charybdis; and Subhadrā and Nausicaa. Allen has to stretch these parallels considerably and juggle with the incidents since the sequence differs in the two narratives. Arjuna meets Citraṅgadā before Vargā and she has no resemblance to goddess Calypso in that she is an ordinary princess who, moreover, bears a son to Arjuna. Vargā and her sisters are in reality nymphs transformed into crocodiles by an ascetic's curse and Arjuna deliberately helps them recover their former condition; they have eaten some people but otherwise have little to do with Scylla and Charybdis and even less with the Sirens. Finally, Arjuna marries Subhadrā while Odysseus has no love-affair with Nausicaa – and so Allen drags in Urvaśī from *MB* Book III (p 41), disregarding the fact that the Poona Critical Edition of the *MB* and van Buitenen in his translation exclude Arjuna's encounter with and rejection of the celestial nymph from the main text as a later addition. Allen thinks that both narratives derive from a common IE original and that the Indian tale is more conservative (p 42), but all this is highly dubious and we shall not pursue it any further.

To return to our Penelope-Draupadī parallel, the archery contest is obviously an important element – and we shall see later that it is not isolated to the *Odyssey* in the Greek tradition nor to the *MB* in the Vedic tradition. Yet West's position on this is very curious (1998: 431-3). He quotes two Egyptian inscriptions of c 1420 that praise Amenophis II for his prowess in archery. He then mentions iconographic material that shows pharaohs Ay (c 1320) and Rameses II (c 1350) shooting with their bows at targets that “might at a casual glance be taken for double axes” and (following W Burkert and P Walcot) finds it very plausible that *misrepresentations of such scenes “may have given rise to the idea of shooting through a line of axes”* (p 432: my emphasis). All this, of course, is just as possible as so many other things in daily life are possible – misreading something, being witness to a

murder, being struck by lightning and similar accidents or coincidences – but no more. Then West, in his passion for piling up parallels even if they are irrelevant, mentions a Hittite narrative about an archery contest for which *there is no prize whatever but only the king's satisfaction in winning*. Not one of these citations has the slightest affinity with Penelope's situation – a queen thought to be a widow who is pressingly courted by a bunch of repugnant idlers and manages, with Athena's help, to think out various devices to protect herself and her young son and keep the vile suitors at a distance while hoping for her husband's return. One can't help wondering why West mentions them. One's wonderment increases when West refers to the *Rāmāyaṇa* and *Mahābhārata* and the epic of *Alpamysh*, admits the existence of parallels but states “it is something that we cannot pursue here” (p 433)!³ One can only suppose that (along with Burkert, Walcot and other scholars cited, p 432) West decided that archaic Greek literature must derive only from NE sources. Why the Greeks, a people obviously fond of fighting, piracy, pillage and conquest, who obviously used bows and axes in their fighting as well as swords and spears, could not think for themselves of archery contests and needed diverse NE sources (some misrepresented), is a mystery none of these scholars bothers to consider. In any case, as all these NE texts are too palpably irrelevant to Penelope's situation, I shall ignore them in the subsequent discussion.

Many Greek legends must have arrived with the Greeks in North-Western India and no doubt spread about, some of them finding their way into different genres of Indian literature, perhaps even the epics (Arora 1981: 177-81). T Brekke examined the possibility of the Daidalos-Ikaros story entering the Vinaya texts of the Mūlasarvāstivādins (1998). However, the Damayanti-Penelope parallel, the Four/Five-Ages legend and other motifs common to the Greek and Vedic traditions seem to be of IE descent, as Arora admits (p 177). Now, some late Greek writers like Sikeliotis, Plutarch and D Laertius, report that Greeks travelled as far as India in the eighth or sixth or other centuries before Alexander's crossing of the river Indus in 326. Such travels would have been extremely difficult if one considers the distance and the dangers involved. The same would apply to Indians travelling to Greece and back. Consequently, it is very unlikely that any significant or detailed lore got transferred from one country to the other from Mycenaean times to Alexander's thrust into Asia. Thus any similarities in the two cultures, when not fortuitous because of independent development and innovation, or when not shown to be a borrowing in the post-Alexander period after Greeks settled in Bactria and thereabout, would be due to a common origin in the PIE phase before the dispersal of the various branches. What should be ruled out is very significant direct influence, contact and exchange between Greeks and Indians up to c 320 BCE. (Possible insignificant contacts between Greeks and Indians from ancient to post-Alexander times are examined extensively by J W Sedlar; for this particular period see her study, 1980: 73-9.)

Some writers, mentioned by S Kak (2000 b), suggest that there may have been diffusion

³ The epic of *Alpamysh*, current in much of Central Asia and as far west as Turkey, was written down from its best known oral version in Uzbek Turkic only in the twentieth century; it was reduced to 8000 verses and is thought to have existed in Central Asia from about the seventh century CE (Zhirmunsky 1966). This epic has many similarities with the *Odyssey*, as it has many differences. Its basic plot of usurpation (not in the *Odyssey*) and exile of the hero resembles the main story of the *Mahābhārata*. V Zhirmunsky does not bring in the *Mahābhārata* and does not think that the *Odyssey* influenced *Alpamysh* but that both had a common source (1966: 281). This may be so, or *Alpamysh* may have been produced from a fusion of the core of the *MB* story and some translated version of the *Odyssey* current perhaps in Bactria c 300 BCE and after.

and exchange of mythological and philosophical ideas and motifs through intermediaries in the NE. This is possible, of course, but neither the Penelope-Draupadī incident nor the second nor the fourth, examined below, appear in any form in the NE cultures. So this avenue must be precluded.

Some scholars like Arora and Baldick believe that since “Iranians and Indians had translated Homer into their own languages”, it would be quite possible that “those parts of the Indian epics which most resemble Homer represent borrowings and additions” (Baldick, p 151) on the part of the Indians. Such borrowings could not, of course, have taken place much before 300, because even if Alexander himself had ordered the production of such translations, it would have taken some decades before these spread among the Indians and their literature, if at all. Nevertheless, Baldick thinks also that “a transmission of Indo-Iranian epics to the Greeks” sounds quite convincing (ibid, 150). Baldick gives no reasons for his beliefs that Homer borrowed from Indo-Iranians, say in the eighth century (the Iranians have no narrative similar to the *Odyssey*) or that the Indians borrowed from the “translated” Homer. Arora too does not explain why he thinks the Draupadī-Penelope parallel is of common PIE origin and not Indian borrowing, say, in the third century. Let us therefore examine the texts and dates involved.

Let us take it for granted that Homer’s *Odyssey* reached its present form by 550; 700 or 600 would do just as well and would make no difference in relation to the Indian epic. It is not so easy with the *Mahābhārata*, even if we take it as completed in its present form by 300 CE. Two questions arise naturally: a) when was it began? b) at what approximate dates did it acquire its various accretions?...

The second question is easier to answer. There are some very few verses that can be dated – so it is thought – with reasonable certainty. Such is *MB* III, 186, 30, which speaks of Scythians and Greeks (*śakas* and *yavanas*=Ionians) being kings in India. Here it is thought that since Greeks came c300 and Scythians in the second century BCE, this and similar verses cannot be earlier than this period. But even this is not really so certain as it looks at first sight. The Indians could have known of both peoples long before, though to foresee that they would come to India and establish their own kingdoms in the North is stretching considerably the bounds of credibility. Nonetheless, all one can say with certainty is that these ślokas were interpolated – as many others suspected by various scholars – at this period, ie second century. Apart from these instances it is impossible to say when such a story as that of Nala, for example, was inserted into the epic (Bk III) and how much of it at one or another date.

Regarding the start of the epic, J A B van Buitenen placed its origins “somewhere in the eighth or ninth century” but finds a “general agreement that the oldest portions preserved are hardly older than 400” (1980: xxiv-xxv). Now when scholars refer to “general agreement” or “concensus”, they usually imply that there is no clear decisive evidence – in this case definite historical data to fix the chronology. Indeed, these dates are wholly conjectural and will not stand even on van Buitenen’s own reasoning.

He arrives at his conclusions by considering (ibid) that king Janamejaya is mentioned in *Śatapatha Brāhmaṇa* XIII,5, 4, 1, while his father Parikṣit is lauded in *Atharvaveda* XX, 12, 7-10 and the descendants of Parikṣit are mentioned as a vanished dynasty in *Bṛhadāraṇyaka Upaniṣad* XIV, 9, 7. Van Buitenen gives c 600 for the Upaniṣad (1980/1973:XXV) while W O’ Flaherty gives 700 (1975:17) – the disparity showing that both dates are conjectural. Even if we accept van Buitenen’s date, even so the oldest portions of *MB* should be assigned to c 700 and not 400. He cites also *Āśvalāyana Gryasūtra* III, 4, *Śaṅkhāyana Śrautasūtra*

XV, 16, and Pāṇini IV, 2, 56 all of which mention a Bhārata text⁴ (ibid, XXV). Here Pāṇini is perhaps more important because his grammar puts a brake on the unchecked change of Sanskrit. Unfortunately, no certain date can be given for Pāṇini either: some eminent scholars have placed him in the eighth (Bhandarkar and Goldstücker) and others in the fourth (Renou) century (so Winternitz 3: 461-2). If for convenience we place Pāṇini and the Sūtras c 500, we can still obtain the date 700 for the oldest portions. Then, van Buitenen thinks that the brahmins wanted to preserve the records of the epic dynasties and therefore did not alter, as they could easily have done, the unique polyandrous marriage of Draupadī which must have been repugnant to them. So we can safely assume that much more original material (far less offensive) was retained – even if not with the fidelity shown to the sacred *Ṛgveda*. Some scholars believe that Draupadī’s marriage and Vāyu’s prominence (in being embodied in Bhīma) indicate “an older stage even than Vedic mythology” (Polomé 1989: 99)⁵: this implies that some material, although cast in the post-Vedic idiom, is older than the *Ṛgveda* – which implication is an ill-judged conjecture. Undoubtedly the wondering or stationary bards added to this material as years passed, and undoubtedly language changes over the centuries produced further alterations, but it is not possible to assign even approximate dates to all these changes.

Similar considerations are found in Brockington (1998). The origins of the *MB* fall somewhere between the 9th and 8th centuries but the oldest parts preserved are c400BC (p25-6). In subsequent pages are examined the opinions and methods of other scholars (p43ff). He concludes that the style of the *MB* suggests the period 1st-3rd century AD (147-8). He then rejects BB Lal’s identification of the PGW in North-Indian sites with the Aryans in the *MB* accepting A Parpola’s views, which seem to suit his own (p159ff). It is curious that he does not examine any further archaeological nor astronomical evidence.

I wonder again about the date 300 (or 400) CE given as consensus for the completion of the extant *MB*. This too is based on conjecture. In fact in the *MB* there is no overt material from after the late part of the first century BCE. The relation of the *MB* to the *Rāmāyaṇa* and the *Manusmṛti* is undetermined. The influence could run and probably did run either way. Then there is the much discussed matter of the “Pahlavas” who are generally thought to be the (Persian) Parthians who established an independent Kingdom c 250 by the Arsacides. At about 150 they conquered Bactria after the Scythians (*śakas*) and in the latter part of the first century BCE occupied regions of N-W India (Basham 1961: 57-61). This is probably very significant – but in the opposite way from that adopted by scholars who postulate a date in the 3rd or 4th century CE (see Winternitz 1: 444-6). As was mentioned earlier, *MB* III, 186, 30 speaks of the foreign Yavanas and Śakas (and others) who ruled (N-W) parts of India, but

⁴ We should note here also Pāṇini’s sūtra IV, 3, 99 *vāsudevārjunābhyām vuv* which refers to Kṛṣṇa and Arjuna and thus shows knowledge of the *Bhagavat Gītā* or of the *MB* as a whole. Pāṇini’s description of Sanskrit is closer to the Brāhmaṇas and Upaniṣads than to classical Sanskrit described later by Kātyāyana (Winternitz 3:461).

⁵ There is no convincing rationale for the notion that Vāyu’s prominence is an older stage than the *RV* – apart from the fact that Vāyu and Bhīma are certainly not more prominent in the *MB* than Arjuna (who embodies Indra). It is based on the general view of linear evolution, namely that the mythology of the *RV* has evolved from a more primitive stage and that its own polytheism is itself primitive in comparison to monism, or forms of henotheism, that evolved from it later. This widespread view ignores the simple fact that monism and polytheism are present simultaneously in all ten Maṇḍalas of the *RV* (see Werner 1989).

it does not mention the Pahlavas. A passage in *Manusmṛiti* (X,44) has a similar list (Kāambojas, Yavanas, Śakas) but also the Pahlavas. I would have thought that the epic bard would have included the Pahlavas if he were writing after their invasion as this would have lent more support to his argument/prophecy (that foreigners rule India because the world deteriorates in the Kali Yuga, the last and worst of the four Ages). The Pahlavas are mentioned in other parts of the *MB*, but Indians could have knowledge of them as a people from earlier periods, as they knew of the Ionians (through the Persians, at least, if not directly). E W Hopkins, who perhaps more than any other Western scholar studied the *MB* in a series of articles and a monumental work (1901), settled eventually for a lower limit 100 BC as “the most probable date” (1915:1). JN Farquhar too places the date sometime “after the fall of the Maurya empire” at “the time of the Śuṅgas” (1920: 83-4), ie c middle of 2nd century BCE. I don’t doubt that many verses, if not whole sections, were interpolated in subsequent centuries but I think the bulk of the *MB* was fixed c 150 BCE.

Thus even in the light of the preceding considerations the Draupadī svayamvara, which certainly belongs to the older strata of the *MB*, could without the least strain be placed in the fifth or sixth century and therefore well out of any influence from translations of Homer, that might have existed after 300 BCE.

However, the preceding discussion takes as actual the chronology adopted by van Buitenen, Brockington and the mainstream academic scholars. This chronology is of course entirely conjectural. As Aklujkar cogently observed “only *relative* chronology has been well argued for” (1996: 66). These “absolute” dates – *RV* c 1000, Brāhmaṇas c 800, Upanishads c 600 and so on – seem now utterly preposterous and based on the purest of misconceptions and prejudices. It will be noticed that in this chronological framework there is no provision for any secular literature, animal fables, fairytales, historical narratives, battle-sagas and the like. Equally important, Archaeology has not produced one shard of evidence that Aryans entered into Saptasindhu c 1500; in fact no foreign people entered prior to c 550 BCE. This being so, the conventional chronology that has tyrannised Indology for some 200 years has not a leg to stand on – other than the momentum of mechanical repetition.

There is now abundant evidence that the bulk of the *RV* was composed in pre-Harappan times, ie in the 4th millennium, if not earlier (Kazanas 1999, 2001, 2003; Levitt 2003). The dominant native tradition, albeit late, (ie Āryabhaṭa; for different ideas see Kak 2000:66), says that the Vedas were arranged on the eve of the great Bhārata war which is 35 years before onset of the Kali Yuga c 3102⁶. If the Vedas, or the bulk of them, were arranged at that time, then we can envision the completion of the Brāhmaṇas and early Upanishads in the

⁶ It is yet another curious phenomenon in Western scholarship that the most incredible late rumours about events in archaic Greece are accorded the status of “tradition” and are then discussed as though they are firmly proven facts. One such example is Porphyry writing (latter half of 3rd century CE) that Pythagoras “showed his golden thigh to Abaris the Hyperborean who thought that he [ie Pythagoras] was Apollo” (*Life of Pythagoras*, 28) and that Abaris himself travelled on air “riding on an arrow given to him by Apollo” (ibid 29): despite the obvious contradictions and absurdities in this tale, it is taken seriously by classicists (eg Kingsley 1995: 247-8, 291ff). Yet much more credible Indian traditions are dismissed without discussion even though indologists know perfectly well that the Indians had the strongest and most retentive system of oral transmission among all IE branches. I am not advocating that *everything* should be accepted as true but I *am* advocating that everything should not be rejected as untrue simply because it does not coincide with our own pet theories.

next 500 years or so and the formulation of some Sūtra-texts c 2600-2500 (eg Śulbasūtras ascribed to Āpastambha and Baudhāyana). The core of the *MB* must have appeared shortly before and it is likely that other secular literature, probably not without some didactic message, was interwoven with such narratives as the exile of the Pāṇḍavas and Arjuna's winning of the archery contest and Draupadī: there is nothing religious or cultic in these tales. There must have been many others: (grand-) parents everywhere have always told tales to their (grand-) children. Of course we don't know and, with the available evidence, cannot know exactly what that "core" and other tales were like. Most probably there were several such "cores" early on in different parts of North India: these subsequently developed into cycles of poems or longer narratives and eventually into the different versions of the epic. But all this is conjecture.

One certain fact, very relevant to our discussion, is the final desiccation of the river Sarasvatī from c 2100 to 1900 (Rao 1991: 77-9). It would be after this period, ie c 1900, that would follow the massive movement of different tribes eastward into the Gaṅgetic plain. The archaeological evidence of the 1940's cited by van Buitenen (1980: 9, n 12) is now well superceded. The accretions of the second and especially the third perimeter, as van Buitenen calls them, and the politics concerning alliances and predominance between the Kurus, Pāñcālas, Vṛṣṇis, et al (1980: xix-xxii and 10-11) may well belong to the shifts of population and the establishment of new power-balances in the Yamuna-Ganges mesopotamia at this period, ie 1900-1500. But all this is sheer conjecture. We don't know.

What is not conjecture is the evidence of Archaeoastronomy, in particular BNN Achar's finds given in a talk in Montreal in 2001. Professor in Memphis (USA), Achar has through a combination of computer programmes reconstructed the star positions in the ancient sky above North India (back to several millennia BC). He examined some astronomical references in Bks III, V and XIII of the *MB*. His sky map showed that of all calculations by Westerners and Indians only that of K S Raghavan (1969) was correct: the exact year for the great war of the Bharatas on the basis of all these data seems to be 3067. In Bk V, to take some examples, Kṛṣṇa leaves for Hastināpura on the day of the *Revatī nakṣatra* in the month *Kaumuda* (=Kātrika, ie Oct-Nov) and arrives there on the day of *Bharaṇī* (81, 6ff); on the day of *Puṣya* Duryodhana rejects all offers of peace; Kṛṣṇa departs on the day of *uttara phālguni* and says to Karṇa that the *amāvāsyā* (day of the New Moon) will come after 7 days then Karṇa describes the positions of some planets at that time (141, 7-10). All these data converge in agreement with the sky formation only in the year 3067. Whatever other data are contained in the *MB* and whatever other dates are suggested thereby, the passages with the astronomical facts for the year 3067 remain unaffected. The ancient Indian tradition of the Purāṇas and astronomers was fairly correct in placing the onset of the Kali Yuga at 3102 and the Bharata war 35 years earlier: the disparity is only 70 years. The medieval historian Kalhana (and his tradition), of course, seems to agree fully with Achar's finds, since he had set the beginnings of a new cycle at 3076 (Elst 1999: 104).. Consequently, the core of the *MB* must go back to the very early 3rd millennium. (See also last section, Conclusion, for additional astronomical data.) However, I would opt for the traditional date 3137 for the war itself. The date 3067 is not of the war but of the start of the poems and songs about the war. It is but natural that bards would start singing about that even about three generations later and would use the star-formations of their own date.

What does the internal evidence of parallels tell us? Is it likely that the Greek material from *Odyssey*, 19, onwards could have influenced the corresponding incident in Bk I of *MB*?... It is possible, of course, but most unlikely. Draupadī's marriage to the five Paṇḍava brothers is too important an element in the story – not least the Kauravas' insulting behaviour

towards her (*MB*, II, 60-3) – to be regarded as a late accretion of the third or second century BCE. As was said earlier, the brahmins would have had no reason to insert this irregular polyandrous marriage into their Fifth Veda, as the *MB* came to be known: if the marriage had no venerable historical tradition behind it, it would not have been introduced, or, if already inserted (for what reason?), it would have been extirpated. Nor can this incident be claimed to be an earlier motif than, say, the archery contest. Besides, some scholars discern many more parallels in the *Odyssey* and *MB* (Odysseus and Arjuna), as I have indicated – which implies much more borrowing. We must, further, take into account that the motif of stringing a large bow – a difficult task for the ordinary warriors – is not isolated in the Draupadi svayamvara: apart from Rāma who performs a similar task at Janaka's court breaking Śiva's mighty bow and so winning Sitā (*Ra* I, 67) the theme is found in some Buddhist *Jataka* stories (Arora 1981: 157-8). Rāma himself has to face another test in archery when Sugriva prepares on the Malaya hills a series of seven trees through which Rāma's arrow must pass (*Ra* IV, 8). Then the svayamvara itself (without the archery contest) has a repeat in the tale of Nala when Damayanti, in order to get back her lost husband, announces a (second) svayamvara (*MB* III, 68), which is in effect a test for a fast chariot-driver like Nala. Thus the Draupadi svayamvara with its archery contest can be regarded as securely indigenous to the Indian tradition. The Penelope parallel in the *Odyssey* is also not isolated. In one legend king Eurutos of Oichalia promises his daughter Iole to the man who would vanquish him in an archery contest – and although Herakles won, the king did not honour his promise (*Odyssey* 8, 223-8; *GM* 2: 158-9; Kerényi 1974: 187-9 and plate 41 with reproduction of one of several vases showing Herakles and others with bows at Oichalia). Yet another chariot-race test occurs in the legend of Marpessa: her father Euenus would give her to the winner whereas the loser(s) would forfeit their head; indeed, many lost their heads in this way but Idas, Poseidon's son, carried Marpessa away on a winged chariot given him by his father (*Iliad* 9, 555ff, *GM* 1: 246-7). Penelope's plan is also not an isolated instance in the Greek culture.

We can safely assume now that, since both Greek and Indian tales seem to be independent indigenous motifs, they have a common origin in the PIE stock of legendry.

2. Peleus - Thetis and Śantanu - Gaṅgā

In the *Iliad* we learn from different passages in different books that Achilles is the son of Nereid Thetis and of mortal King Peleus (*Il* 1, 357-420; 16, 11-6, 33-5, 138-44; 18, 35-62, 432-49; 23, 84-90; 24, 83-6). To have the myth complete, however, Homer's fragments need to be supplemented by accounts from later mythographers and writers like Pindar and Herodotus, but mainly Lycophron's *Alexandra* (or *Cassandra*, 178, with Tjetzes scholia), and Apollonius Rhodius (*Argonauts* I, 224, 558, 582; IV, 790, 816) and Apollodorus (*Bibliothēkē* III, 13, 5-7). The core of this myth is that Zeus contrived to have Thetis marry Peleus, who nonetheless had to win her by force; she bore him seven sons, Achilles being the seventh; the six were made immortal by Thetis who cast them into the fire (or boiling water); Peleus snatched Achilles from her before the rite was completed so that Achilles remained mortal and vulnerable at his ankle; angry at Peleus's interference, Thetis left him and returned to her father's home and her friends in the sea. (According to scholiast Servius on Virgil's *Aeneid* VI, 57, Thetis was making Achilles invulnerable by dipping him into the waters of the river Styx: this version is significant in that it links up better with the Indian myth.)

Very similar is the legend of the marriage of the mortal King Śantanu and rivergoddess Gaṅgā (*MB* I, 92-3). Here, Gaṅgā married king Śantanu on condition that he would not

interfere with any of her actions, even if he found them disagreeable. She bore him seven sons and threw every one into the Ganges saying “I do you a favour”. Śantanu restrained himself all seven times but when the eighth son was born, he stopped her. She acquiesced but explaining that the sons were in fact incarnations of the divine Vasus (the eighth one being Dyaus) whom she had undertaken to release from their mortal frame as soon as born, she left him and went to her divine condition; she took the baby-boy with her but some years later gave him to his father and the boy grew up to be the mighty warrior Bhīṣma (*MB I*, 94).

The affinities between the two legends are obvious. In both a goddess of the waters (sea in the Greek tale, the river Ganges in the Indian) marries a mortal king. Here we must note also that there is involved an element of transformation: in the Greek tale Thetis resists Peleus and changes into fire, water and beast, before she surrenders (Apollodorus III, 13, 5); in the Indian narrative Gaṅgā as a lovely maiden meets first king Pratīpa, Śantanu’s father, who does not take her but promises to have a son who will do so and Gaṅgā returns to the watery element and awaits Śantanu’s arrival to re-appear as a beautiful maiden (*MB I*, 91-92). They both marry, compelled more or less, within a larger frame of events that involves other deities (Zeus in the one, Brahmā and the Vasus in the other). Then each gives birth to several baby-boys (seven in the Greek, eight in the Indian) and leaves her husband when he intervenes to save, as he thinks, the last one; they both give immortality to the youngsters, but in a way that appears as murder to the father and to any ordinary mortal. Only the last one is saved in each tale, and both boys grow into very mighty warriors. The parallel here has an additional feature in that both warriors know that they are to die in the war and both more or less choose the time of their death.

Since the similarities are close, the two myths must be related somehow. Does one tradition borrow from the other? Do they both borrow from a third source? Or are they, like the Draupadī-Penelope parallel, independent and indigenous tales that have their origin in the older common PIE stock?

We must at the outset rule out any borrowing on the part of the Greeks. As was said earlier, it would have been almost impossible for the two traditions to have had significant cultural exchanges prior to Alexander’s invasion late in the 4th century. Since the Peleus-Thetis marriage and Achilles are present in the *Iliad* and this epic in its extant form cannot be later than 550, that is 250 years earlier at least, the Greeks did no borrowing. It may be argued that since Homer, Pindar and Herodotus do not mention many boys nor their baptism in fire or water, the later Greek sources may have borrowed this motif. This is possible, of course, but these sources mention fire as the means for immortality not water and this we find also in the *Hymn to Demeter* where the goddess would have made prince Demophoön “unaging and undying” (l. 242) by holding him over the fire if his mother Metaneira had not interfered. Furthermore, it is not very likely that Lycophron, writing in the middle of the 3rd century, would have heard the Śantanu-Gaṅgā tale and introduced six brothers to Achilles; for Lycophron alone mentions the seven baby-boys (Scheer 1958: vol 2, p 84). We must rule out also a third source that could have provided an origin for both because no such tale appears anywhere else in the NE and the Greek environs.

We are now left with the possibility that Indians borrowed from the Greeks from the reported translations. However, this is most unlikely for several reasons. First Homer’s epics say nothing about the number of children and their baptism in fire (or water). The Indian narrative in the *MB* is told in some 55 couplets. The Greek tale is not found in any single Greek text and it is unlikely that all would have been translated or that Indians would have been able to consult them all. We could speculate that the Greek tale reached India complete by word of mouth and the 7 boys became 8 to fit with the Vasus. But here we meet with

other difficulties. The most important consideration is that Śantanu is mentioned in *RV X*, 98, where his kingdom suffers from drought and Devāpi prays for rain; *Nirukta* II, 10-11, and Bṛhaddevatā VII, 155, state that Śantanu and Devāpi are brothers, who then appear as Pratipa's sons in the *MB I* 90, 46, where Devāpi is said to enter the forest while still a child. There are additional considerations. Unlike Thetis (and the Vasus) who must act under compulsion from higher forces, Gaṅgā assumes a woman's form and marries Śantanu out of friendship with the Vasus. Then we note that the Greek fire-ritual is changed into a plain drowning in the river whereas it would have been just as simple to retain the fire-ritual since several hymns in the *RV* state that Agni gives to man immortality (eg I, 31,7). Also the Śantanu-Gaṅgā pair is not in its essentials very different from the Purūravas-Urvaśi pair (*RV X*, 95; *ŚB XI*, 5, 1)⁷: in this tale too we have a water-nymph uniting with a mortal king; she subsequently leaves him because (in the Brāhmaṇa text) of an unkept promise and reunites with him later helping him to rise through a fire-sacrifice to the divine condition and immortality. In the Peleus-Thetis and Śantanu-Gaṅgā tales it is not the kings who become immortal but their boys. Furthermore, Bhīṣma is a very important figure, whose part in the main story spans the action from Bk I to Bk XIII, when he dies. Even if we exclude the lengthy discourses in Bks XII and XIII, Bhīṣma's role and involvement remain very considerable. While he knows and himself can determine the exact hour of his death, which can be regarded as a trait he shares with Achilles, he does not otherwise resemble the Greek hero in the slightest.

Consequently it is safe to assume that the Greek and Indian tales developed independently of each other having at a more remote past branched out from a common PIE stem.

3. Hesiod's Five Races and the Indian Four Yugas.

The legend of the Five Races in Hesiod's *Works and Days*, 109-201, and the Four Yugas (=Ages) in India (*MB III*, 14-8, 1866-9) has parallels in NE cultures and must therefore be discussed with reference to the NE sources as well.

In his edition of *Works and Days* (hereafter, *W* and page-number), M L West examines four "striking oriental parallels" – from the Zoroastrians, the Judaic Book of Daniel, the Indian tradition and the Mesopotamian culture (1978: 174-7). He concludes: "Mesopotamia is a likelier place of origin. It was well situated to disseminate ideas to the Persians, the Indians, the Jews and the Greeks ... Greece's oriental contacts in the eighth century were primarily Semitic; [this] is the most probable time for the myth to have come ... Nineveh-Karkemish-Posideion-Chalcis-Boeotia would be a plausible enough route". He rests with this plausibility (p 177).

West gives a good detailed analysis of the Hesiodic account (*WD* 109-201) but overlooks one noteworthy fact, namely that *there is no clear description of exactly how and why these races were created*. First was created the golden race by the Olympian immortals at the time of Kronos (109ff) – but we are not told who these Olympians were and how they were related to Kronos nor in what manner they created the golden race of mortals. Then the Olympians created the silver race (127ff). The third race of bronze was created not by the

⁷ The theme of the divine female, a fairy or nymph giving herself for various reasons (sometimes unexplained) to a mortal man is common to Celtic (Rees 1961: 58 and 259 ff), Teutonic (Davidson 1981: 115) and Slavic (Simonov 1997: 33 ff) as well as to Greek tradition.

Olympians but by Zeus (142ff): here we are not told why Zeus took over the creation of mortals but we are told (or so is mostly believed) that the bronze race sprang out of ashtrees *ek melian*; thus we wonder why Zeus should at this point take over and why the poet should give the origin of this race alone. Afterwards, again Zeus created the fourth race of godlike heroes (157-9). Finally came the “iron” generation (176) – but, here, also no origin or mode of creation is given, not even Zeus. The origin of the bronze race from *melia* is linked with *meliēisi* ‘race of mortals sprang from ash-trees’ in *Theogony* 563; another interpretation has “Melian nymphs” connecting this with *numphas melias* in *Theogony* 187 (W 179)⁸. Both interpretations originate in two ancient commentators, Eustathius and Proclus (White: 13, n 1; 93, n 2; 121 n 1); but also Hesychius with *melias karpos to tōn anthrōpōn genos* (*GEL* suppl). Some scholars combine the two and have ashtree-nymphs engender humans in general (*GM* 38 n 4; Kerényi 209). Others see in *ek melian* only a reference (as in Homer) to ashwood-spears (White, 13 n 1), that is an adverbial phrase qualifying *deinon* and *obrimon*: ‘a race terrible and mighty because of their ashwood-spears’.

If we look at the bare text without the interpretations of ancient and modern commentators, we see that the text narrates a succession of human generations increasingly deteriorating; this deterioration is an additional or parallel reason why at the poet’s time mankind is in a sorry state – apart from Zeus giving to them Pandora with her jar of ills. The text is not really concerned with anthropogony. If it were, it would have given details of the genesis of each race and not only of the third one – if that. In fact the archaic texts contain no anthropogonic accounts. The ad hoc creation of Pandora (*WD* 60ff) cannot be taken as such, since mankind already existed. Accounts of anthropogony come later, with Anaximander where, according to the extant fragments, men emerge from fish or similar creatures out of slime (*KRS* 140-1), the Orphics where Zeus creates mortals from the soot of the Titans he had blasted but only after Protogonos and Phanes had created their own distinct races (West 1998: 75, 98, 107, 139, 164, 212), and so on. If such accounts were current before Hesiod, as some sources say (West 1998: 39ff), then it becomes even clearer that Hesiod is not dealing here with anthropogony, otherwise he would have used them; on the other hand, they might have been current, but not known to Hesiod. Penelope’s words “Tell me your race and whence you come, for you don’t come, as said of old, out of the oak or the stone” (*Odyssey* 19, 162-3) imply that some men came out of the oak(s) or stone(s) and some from elsewhere; although here we see possible references to the legend of Deucalion and Pyrrha (stone) and *Theogony* 563 (ash-tree), a third source is implied also but left unexplained.

A further problem lies in Hesiod’s statements that the first two races were created by the Olympian immortals (not Kronos or Ouranos) and the other three by Zeus. Who were the Olympians that created the golden generation at the time of Kronos? ... According to *Theogony* 114-20 and 543ff, Zeus and the other Olympians – except Aphrodite – did not exist then, nor is there in these passages any mention of the creation of mortals. West thinks they are the Titans (which ones?) and that Hesiod is not careful in his use of *Olumpia dōmat’ echontes* ‘those who dwell on Olympus’ (W 179). This may be right but apart from the fact that the Titans did not dwell on Olympus, they (or many of them) were certainly not *athanatoi* nor were they said in any text to create other creatures. So who were these immortal Olympians?

⁸ W and number stands throughout for West 1978 and page number. West’s subsequent study *The East Face of Helicon* discusses again this subject but adduces no fresh material and seems even less convincing (1997: 312-9).

The situation is very peculiar. I can only suppose that Hesiod (or whoever) had before him several threads of legends and wove them together as best he could. Some were brought by the Greeks themselves in their IE heritage, no doubt altered by the passage of many centuries and perhaps dyed with contacts with other cultures. Others, of a newer and brighter make, came from the Near East, perhaps via the route suggested by West.

West opted, as mentioned earlier, for Mesopotamia as the original source of these legends. This is possible, of course, but not borne out by the available data, and it is a pity that West did not pursue these in greater detail. It has been fashionable since the 1960's to find affinities and contacts with, and borrowings and influences from NE cultures – just as in the early nineteenth century scholars had their mind on India and in the late nineteenth on Egypt. No doubt satiety will come, or some other event will occur, and the pendulum of interest will swing in a different direction. Hesiod's myth does not seem to derive as a whole from NE sources. It is an amalgam of disparate elements and some of these are not found in the Near East, only in the Vedic tradition. A consideration of the chronology of the texts involved would point to the same direction. West is quite wrong to list all the parallels he has collected together as of the same chronological value and not distinguish between them according to approximate dates of composition (see also West 1971: 37-46, with motifs from Indian, Judaic, Egyptian, Zoroastrian and Norse traditions; and p 218, n 2, with another collection).

We can easily first put aside the Judaic Book of Daniel. It is true that in chapter 2 of this text Daniel recaptures the dream which King Nebuchadnezzar had seen but forgotten, then relates and explains it to him. The dream is of a large image with head of gold, breast and arms of silver, belly and thighs of brass, legs of iron and feet of iron mixed with clay: the head symbolizes Nebuchadnezzar's own kingdom, and the other four parts four successive kingdoms, one inferior to the former; after the fifth one, which has no unity, God will set up a new kingdom "which shall never be destroyed" (Daniel, II, 1-44). The metals and the five kingdoms do provide a distant parallel but no more. The Book of Daniel in the Old Testament was according to West written c 166 BC (W 175); being some 500 years later than Hesiod it could hardly have influenced him and so we can discard it as a possible source.

However, the Judaic tradition has, in the earlier books that comprise the Torah, and specifically in *Genesis*, an element that is also present in the Hesiodic myth, namely the shortening of men's lifespan from the epoch before the Flood and after. In the first period the descendants of Adam live many centuries, Methuselah reaching 969 years (*Genesis*, ch 5) whereas in the second the descendants of Noah reach scarcely 400 years (ch 12) and later patriarchs like Abraham live only 175 years (ch 25). But these people do not live less because their mode of life becomes less virtuous as is the case with Hesiod's races; even in the Judaic Paradise life was not entirely free of evil since Adam and Eve disobeyed God, their Lord. This motif of shorter life may derive from Persian or Mesopotamian sources.

Although Mesopotamian literature also contains this belief in the progressive shortening of man's life, as is evidenced in their king-lists (W 176), this too cannot be regarded as a probable source. Apart from the ante- and post-deluvian periods, we find no Ages or races of men with distinctive features, diminution of virtue and metallic quality. Consequently apart from the location of Mesopotamia and the early date of the king-lists, it is difficult to see why West chooses this as the "likelier place of origin" for the Hesiodic legend⁹.

⁹ Arora cites (p 16) two secondary works saying the Mesopotamians had "a primordial paradise" and, perhaps, seven Creations, but no primary text or secondary authority mentions anything like the idea of 4-5 Ages (Jacobsen 1976; Bottero 1992; Dalley 1991).

A much more likely source is the Iranian tradition. The surviving texts here also are much later than Hesiod. In fact, the Pahlevi texts mentioned by West are from the Christian era, but since, as Boyce writes, they derive from the Zend Avesta, the Zoroastrian Scriptures (1991: 379ff), they may belong to the sixth century BC “and possibly many centuries earlier” (Dunstan 1998: 284). In these the prophet has the vision of a tree with four branches – of gold, of silver, of steel and of iron alloy; these represent the four successive ages into which the religion of Zoroaster will pass as wickedness increases, earth’s fertility diminishes and men become smaller in stature. A second version with an image of seven branches of seven metals and seven periods has nothing more of relevance to the Hesiodic legend and need not therefore concern us, nor the fact that some of these periods are identified with specific historical times. (Now the Hebrews were released from their Babylonian exile-captivity by Cyrus the Great in 537 and Judea itself became a vassal state of the Persian Empire until 332 when Alexander absorbed all Palestine; therefore, it is quite possible and likely that the dream of the five-metal statue in Daniel is an adaptation of the Zoroastrian tree.) The Zoroastrian details of increasing wickedness, loss of earth’s fertility and diminution of men, agree in large part with features in Hesiod’s description of the five generations. We can safely assume then that the Persian tradition is one source for Hesiod’s legend or, at least, for some elements in it.

However, the Iranians were IE and their early culture has many points of similarity with the Vedic one in India. To take the language alone, Avestan and Vedic are so close that often passages from the one language can be rendered into the other by sound-changes only: Indo-Iranian is generally regarded as a distinct branch of IE.¹⁰ So it should cause no surprise that a similar legend about the Ages or generations of man appears in the Vedic tradition also. However, here the legend has no metals but has the element of heroes which is present in *Works and Days* but absent from the Iranian legend.

At this point I should state that I don’t think the Greeks borrowed this legend (or much else) from India during the archaic period. I think rather that they brought some version(s) of it with them. As I argued above (section 1), there were no very significant contacts between Greeks and Indians prior to 326 BC.

I sympathise with West (and any other scholar) who writes, “One of the annoying things about Indian literature is that its chronology is so uncertain” (1971: 34). We need not go into the causes of uncertainty; suffice it to say that sanskritists and indologists in general have learnt to live with this. The doctrine of the four Ages appears in detail in the epic *Mahābhārata*, Bk III *Āraṇyaka-* or *Vana-parvan* (=Book of the Forest), chapters 148 and 186-9, (though shorter or longer references are found in other Books, eg VI and XII). The Poona critical edition of the epic and J A B van Buitenen’s translation (1981) accept these passages in the *Vanaparvan* as belonging to the mainstream narrative of the epic. This by itself does not mean very much, of course (van Buitenen gives c 400 for the oldest preserved portions, p xxv). The native Indian tradition places the great war of the *Bhāratas* which forms

¹⁰ The Irish Celts form another IE branch and affinities between them and Indo-Aryans are noted extensively by M Dillon (1975, *passim*). The four, five or six races and invasions (MacCulloch 1948: 10-11; MacCana 1996: 54ff) mentioned in some early sources (all late in the Christian Era) may conceal the idea of Four or Five Ages as well (Arora 1981: 16), but “even in the oldest documents that have survived, the Biblical Adam and Eve have already been accepted as the first parents of mankind” (Rees 1995: 95) and the innovations are so prolific that this tradition cannot provide reliable grounds for comparison.

the main theme of the epic (hence its name) c 3100, but at present this is disputed by most academics and, in any case, many of the incidents, tales and doctrines in it are certainly much later products. So the period given by West as 500-100 BC (1978: 176) is not unreasonable in the conventional chronology. The *Manusmṛti* which alludes to the four ages in ch I, stanzas 81-6, can, in the form we have it, be placed within the same period.¹¹ The *Manusmṛti* gives only the bare essentials of the doctrine of the four Ages and this implies that the knowledge of its wider aspects was current then. This knowledge was current earlier also since the four Ages are mentioned sporadically in the Upanishads and the Brāhmaṇas.

West was wrong to write that “the theory [of the 4 Ages] is absent from the Vedas and Brāhmaṇas” (W 176). The *Vedic Index* by A A Macdonell and A B Keith, upon which subsequent studies and discussions of this doctrine are based, does indeed doubt the presence of the four Ages in the Vedas and Brāhmaṇas (vol 2, pp 192-3, under *Yuga*). But the two scholars give no substantial reasons for their doubt other than their own choice of a particular interpretation of certain passages where the word *yuga* occurs. Sanskrit *yuga* means ‘team, pair, generation, race, epoch’. In the sense ‘Age’ the word occurs very frequently in the *R̥gveda* and we read of ‘former ages’ (*pūrvāṇi yugāni* VII, 70, 4), of ‘future ages’ (*uttarā yugāni* III, 33, 8) and ‘from one age to another’ (*yuge yuge* ‘in every age’: I, 139, 8), but the ‘Four Ages’ (*catvāri yugāni*) are not mentioned. In *Atharvaveda* VIII, 2, 21, which is a hymn-prayer “for exemption from the dangers of death” (Bloomfield 2000: 55), we read “A hundred years, ten thousand years, two, three, four ages allot we to thee ...”. Now this verse can be interpreted in many ways according to one’s predilections. One Indian scholar for instance translates “O man, thine is the age of a hundred years, with two intervals of day and night and three seasons of summer, winter and rains, and four stages of childhood, youth, middle age and old age ...” (Chand 1982: 341) omitting the term *ayuta* ‘ten thousand’, arbitrarily inserting the three seasons and ignoring that *dve yuge* means simply ‘two yugas/ages’ (and not ‘intervals of day and night’, which were mentioned in the previous stanza as *ahne ... rātraye*) and also that the *catvāri* ‘four’ does not of itself automatically denote the four stages of man’s life as stated. There is no real reason why the ‘four ages’ here should not refer to the Four Ages or Yugas. True, the Four Yugas are not mentioned by name, but then why should they? ... (*The Vedic Index* writes: “the inference from this [sequence] seems to be that a Yuga means more than an *ayuta*, but is not very certain”. This is very lame, because it is undoubtedly more certain that a Yuga in this sequence means more years than that it does not.) That a reference to the Four Yugas may be intended can be supported by the context: subsequent stanzas implore for immortality (eg 26: “Deathless be, immortal [...*amṛta*]...”) and this implies superceding the Four Yugas which are for this reason perhaps allotted in stanza 21. Some of the names of the Yugas occur in two Brāhmaṇas (*Vedic Index* ibid) and all four of them occur in *Aitareya*, VIII, 2, 21. Here again the *Vedic Index* doubts the meaning and cites one scholar who thought that dice-throws were meant (a quite legitimate thought) against five others who thought the Four Yugas were

¹¹ It has been argued that since in *Manusmṛti* X, 44, are mentioned Greeks, Scythians and Pahlavas, this stanza at least is of the second century C E (Büller, pp cxiv-cxvii). A similar argument is used by Farquhar (1920: 83) for the *MB*. Two points here: (a) The alien people could have been known long before their arrival (as the Greeks *yavana* certainly were). (b) The “prophecy” of foreign kings ruling NW India in the Kali Yuga (*MB* III, 186, 30) has Greeks and Scythians but not Pahlavas. If Pahlavas (=Parthians) had already been in occupation, then they most probably would have been mentioned in the relevant passage (see paragraph in the text after n 5 in section 1).

meant. For my part, I do think that the doctrine of the Four Yugas was known fully in the earlier period of the Vedas because much that is not stated (or only partly stated), not defined and not explained, in so many cases in the Vedic hymns appears more fully in later texts, even though there may be innovation or departure from the original concepts. In many hymns there are tantalizing hints, allusions, brief incidents and so on, that suggest there was current a much wider web of mythological knowledge.

Now, the preceding paragraph does not aim to show that, as was mentioned earlier, Hesiod borrowed this myth from Indian sources, but only that the doctrine was present in India as well as in Persia and Greece, and is therefore part of the inherited IE lore. Some scholars, like West (W 177) and A Arora (1981: 183-4, citing others) think that the Indian version originated in, or was influenced by, NE legends. This is totally improbable. Mesopotamia had no such legend – at least in the extant documents; if early tablets with a similar legend are unearthed, then the situation will, of course, need to be re-appraised. The Judaic legend is much too late. We are left only with the Iranian myth, which, again, is too late, since this is later than the Vedas even if these are placed by the most conservative dating c 1000-800. Apart from all such considerations, the analysis that follows of affinities and differences shows that such a borrowing by the Indians is extremely unlikely. The Indian texts nowhere allude to the metallic framework present in the Iranian and Greek legends. In the discussion that follows the Judaic legend in the Book of Daniel is excluded.

Common to the Greek, Persian and Indian traditions are the Four Ages, although the Greek one has in addition the heroic race (and Persia two more ages and metals in the later version). The diminishment of virtue, of man's lifespan and of earth's fertility is also common to all three traditions. Common also is the note of prophecy that sounds in the description of the final Age (W 198). However, the series of metals is common to Greece and Persia only. The Vedic tradition (at least in the *Mahābhārata*) gives instead a change in the colour of Viṣṇu, the god who embodies the world: white corresponds to Kṛta, the yuga of harmony and perfection; red to Tretā, the yuga of knowledge; yellow to Dvāpara, the yuga of passion, fragmentation and multitudinous ritual; black to Kali, the yuga of ignorance, selfishness and lawlessness. It is worth mentioning here that the *Manusmṛti* (I, 86) prescribes one virtue or practice as appropriate or remedial for every yuga: for Kṛta is recommended *tapas* 'austerity, inner concentration', for Tretā *jñāna* 'knowledge', for Dvāpara *yajña* 'sacrifice' and for Kali *dāna* 'generosity'. The Greek and the Indian sources present the Ages as successive periods without any visions or symbols, whereas the Iranian version gives the vision of a tree with four branches that represent the Ages. The Indian version alone sees the Four Ages within a larger cycle of universal recurrence¹², which is first mentioned in *Rgveda* X, 190, 3, whereas the Greek tale alone introduces the generation of heroes.

West thinks that the Greek poet(s) inserted the heroic generation into the NE legend with its metallic frame so as "to do justice to 'folk memory'" which harped back on the heroes of the Theban and Trojan wars (W 174). This may well be so. If we consider the subtle contradictions and difficulties of Hesiod's narrative mentioned at the beginning of this paper, we must take it that the poet had before him more than one version of the succession of

¹² The Norse *Edda* speaks of the recurrence or regeneration of the Cosmos after its destruction at Ragnarok (1996: 56), but as these texts are very late and show influences from Greece and Rome (ibid, 64-6) this motif may derive from Stoic or (Neo-)Pythagorean notions of recurrence. Crossley-Holland mentions also Christian influences (1993: 235-6) and although he concludes that the motif is preChristian, we must exercise caution.

Ages. When we add the tales of gods and demigods, titans and giants, centaurs and other monstrous creatures, we can surmise that a poet (or compiler) would not have found it easy to accommodate them all into a neat framework. As for “the general Greek idea of history” which West invokes as fitting for Hesiod’s last three generations (leaving out the golden and silver races), we don’t really know what that was before Homer’s and Hesiod’s works, but I am inclined to agree with this idea, as I show below.

I propose a different explanation, based on several indications that the basic idea of the succession of the generations was the primary element, an IE inherited one, suitably transformed with Greek innovations, and that the metallic scheme was welded onto it.

To begin with, there are some verbal and conceptual parallels between the Greek and the Vedic – which, however, I admit, may be wholly fortuitous. In Hesiod’s silver age, people fail to serve the gods (*athanatous therapeuein*) and to offer sacrifices. In the Indian version¹³ this failure occurs in the third yuga, corresponding to Hesiod’s bronze race; the Indian second yuga has as its main feature the performance of sacrifice (and Manu, as we noted above, recommends this as a remedy for the third yuga). The inconsistency between the two versions is not so important (when the time involved after the dispersal is taken into account); more significant is perhaps the actual mention of sacrifice. A second interesting correspondence is found in the last Age of both versions (Hesiod’s iron race and Indian Kali-yuga) where is stressed the enmity between fathers and sons and the failure to keep one’s vow as two of the multifarious manifestations of sinfulness; another correspondent detail is the grey hair with which in Hesiod’s description new born babies will appear and which, in the Indian version, youths will have at sixteen: these correspondences may be fortuitous.¹⁴ Then, Hesiod’s bronze people have great strength but also a hard heart while in the corresponding Indian Dvāpara yuga people are full of lusts and pursue selfish ends even in religious matters: these too may be coincidental. The bronze race are also said not to eat grain (*oude ti siton ēsthion*), while in the Indian Kali yuga the people “will live on fish and bad meat”: here some commentators of the Greek text see a turning away from vegetarianism (W 188). Another point is that as the Greek heroic race is destroyed and followed by the iron generation, so the Indian *kṣatriya* class of warriors and heroes gets annihilated in the great Bhārata war on the eve of the Kali yuga (=Hesiodic Iron Age).

Two more points need to be made. a) Hesiod’s heroic race seems in fact to be an extension of the bronze race: here West seems quite right in seeing “an unwillingness to couple” the heroic with the bronze race (W 174) – but wrong in thinking that the bronze race might be “bellicose gigantes” (ibid). The bronze race also consists of warriors, strong and hard-hearted, who love fighting and indulge in *hubries* (like the bold heroes who often challenge the gods in the epics) and who finally destroy themselves in wars (again like the

¹³ All references to the Indian version will be found in van Buitenen’s translation (1981: vol II, 504-6 and 593-8).

¹⁴ It may be argued that these correspondences may be due to Indians borrowing from Greeks since there is evidence (Arora 1981: 179-81) that some Indians in the North knew Greek. However, if the Indians knew of, and borrowed from, Hesiod, we should expect more and closer affinities and also perhaps the metallic scheme; for it seems to me most unlikely that only the bare succession of the ages and few details would reach the Indians. Besides, all Yugas were mentioned in the Brāhmaṇa and Upanishadic texts, as we saw, and the certainty with which the Indian epic speaks of the succession of the Four Yugas, the sandhi-periods and the distinctive traits of each Yuga, indicates an older, long tradition.

heroes). b) The *Mahābhārata* speaks also of a Twilight period (*sandhi/sandhyā* ‘conjunction, transition’) comprising the close of one yuga and the start of the next (Bk V, 186, 17 ff). The Bhārata war took place precisely in the sandhi-period just before the Kali yuga, which period could easily be taken as a separate era.

In the light of the preceding considerations I suggest that the immigrant Greeks brought with them some version(s) of the legend of successive Ages. Reshaped with appropriate innovations, this knowledge was mixed with similar notions from the Near East and particularly the attractive scheme of metals. Hesiod’s version in *Works and Days* gives us the one surviving fusion of these elements.

4. *The thigh-born child.*

Arora refers to some Old French poems which represent Saint Anne, Holy Virgin Mary’s mother, as born from her father Phanue’s thigh (1981: 79).

This legend probably derives from a Greek myth about the birth of Dionysus. This legend is neither in Homer nor Hesiod but merits consideration since it is very similar to an incident in the *Mahābhārata*. There are several versions of this, the father being invariably Zeus but the mother given variously as Demeter, Io, Dione or, in an Orphic fragment, Persephone (*GM1*: 56, Kerényi 1982:250-5). However, another myth says the mother was Semele. While pregnant she asked as a favour to see Zeus in all his brilliant glory and as he appeared blazing away with his lightning, Semele was burnt up. Hermes rushed and saved her six-month old baby and stitched it within the thigh of Zeus. When the normal gestation was complete, Dionysus was born out of Zeus’s thigh. The earliest attestation is in Euripides’s *Bacchai* 88 - 100 (*kata mērōi de kalupsas* ‘having covered him in the thigh’, 97); it is found also in Apollonius Rhodius (*Argonauts* IV, 1137) and Apollodorus (*Bibliothēkē* III, 4, 3). The *Bacchai* passage indicates that this myth was in circulation at least c 420; that it goes much further back cannot be doubted.

The tale of a thigh-born brahmin in the line of the Bhṛḡus is told in *MB* I, 169-71. Briefly, some kṣatriyas heard that the Bhṛḡus had wealth, attacked them and put them to the sword, even women and babes in the womb. Some brahmin-ladies fled to the mountains for safety and one of them, who shone with her own radiance, carried her child in her thigh. The warriors found her but then, miraculously, her thigh opened and the child appeared blazing like the sun and blinded the cruel warriors. The name of the child was Aurva (‘thigh-born’ *aurva* < *ūrva*). He became a great ascetic but decided in revenge for the massacre of the Bhṛḡus to destroy the worlds with the intense fire of his wrath and his asceticism. However, he was dissuaded by (the spirits of) his ancestors and, on their advice, directed his fire into the depths of the ocean where it burns in the form of a horse’s head. *Aurva* or *Ūrva* is the name of the submarine fire in many ancient Indian texts, including Buddhist. The word *ūrva* in some places in the *Ṛgveda* means ‘ocean’, into which rivers or streams flow (II, 35, 3; III, 30, 19), but also ‘sky-water’ from which lightning flashes (IV, 50, 2).

The idea of an embryo gestating in a thigh, whether that of a male or a female, is strange and therefore the two tales must be related. The observable reversal in that Zeus appears blazing in the Greek myth and the brahmin-lady being refulgent then her boy glowing blindingly in the Indian is an additional element that indicates close relationship. How then are the two related?

On the testimony of the Euripides passage, the antiquity of the myth in Greece (prior to the fifth century) precludes any borrowing on the part of the Greeks. Given that many Greek sources from Euripides to Diodorus Sikeliotis insist on Dionysus having travelled to India, it

is likely that the Indians borrowed and transformed the myth recasting it into their own moulds. Apart from giving some sort of explanation for the origin of the submarine Aurva (mare-)fire (O' Flaherty 1982: 226-7), which is prevalent in many Indian texts, Aurva's tale has no organic connection at all with the main story in the epic. Thus we can say, yes, some Indian bard weaved into the epic narrative the myth which the Greeks had brought with them once they settled in Bactria in the early third century. The fact that the Poona Critical Edition and van Buitenen's translation accept the Aurva tale as part of the genuine narrative should provide no objection to our conclusion.

There is, however, a difficulty from a different quarter: the Vedic tradition has another tale of birth from a thigh. In the *Jaiminiya Brāhmaṇa* Kutsa is born from Indra's thigh (III, 199); no details are given and no female (like Semele in the Greek myth) is involved, but Indra was, like Zeus, the storm-and-lightning god. This *Brāhmaṇa* even by conservative reckoning would belong to the seventh (or at most, sixth) century so that we can most certainly preclude any Indian borrowing. The tale adds that due to some (unspecified) fault of Kutsa's, he was punished by Indra with baldness – and one scholar links this detail with the *RV* hymn IV, 16, 10 which says that Kutsa appeared before Śacī (or *Indrāṇī*, ie Indra's consort) in Indra's shape (Bhattacharji 1988: 272-3). Indeed, the *RV* mentions Kutsa many times but gives no information about him except generally that sometimes he is a friend of Indra's and sometimes an enemy – to the extent that some scholars thought there might be two Kutsas (*Vedic Index* under 'Kutsa'). *RV* IV, 16, 10 prays for Indra's visit in order to destroy some demon but also adds that Kutsa longs to win Indra's friendship and that they are both so alike in form that the Woman (*nārī*, Indra's or Kutsa's wife?) could hardly distinguish them.

We find a further link in the *RV* and the *Brāhmaṇas* which mention Aurva in close connection with the Bhṛgu. *RV* VIII, 101, 4 mentions Aurva Bhṛgu and also firegod Agni "clothed with the ocean" – a possible reference to the submarine fire (which can connote the aerial waters or clouds, containing the lightning or the sunlight). Aurva is also said in the *Tattirīya Saṃhitā* VII, 1, 8, 1, to have received offspring from Atri. Then *Kauṣītakī Br* (XXX, 5) says that the Aurvas are the worst Bhṛgu while the *Pañcaviṃśa Br* (XXI, 10, 6) mentions two Aurvas as authorities. Thus through the Bhṛgu, the meritorious asceticism of Aurva (and the two Aurvas who are authorities), the offspring (from Atri) and the juxtaposition of Aurva Bhṛgu and Agni "clothed with the ocean", the *MB* tale of Aurva has strong links with the Veda. These are further strengthened by the mention of a *Kutsa Aurava* (=Aurva 'descendant of Uru or Ūrva') in *Pañcaviṃśa Br* XIV, 6, 8, as the line of legends about Kutsa and that about Aurva-Bhṛgu come together and indicate a very old complex myth or cluster of myths, an aspect of which finds expression in *MB* I, 167-171. In addition, the Indian-Greek parallel contains, apart from the extra-ordinary element of the 'thigh-birth', the feature of the storm-and-lightning god – Zeus in Greece and Indra in India (in the Kutsa myth).

As with the three previous parallels, here also we must conclude that both tales are independent and go back in time to the PIE period where they have a common origin. The refulgence and the preservation of the child in the thigh are obviously elements that belonged to the PIE version of the legend but I would not attempt to decide whether the blazing appearance of Zeus or that of mother and child is the original element, even though the thunder and lightning of Zeus seems more natural.

Conclusion.

With regard to the four legends there is little more to say. In all four cases we see that the Indic and Greek legends developed indigenously. There is no evidence for substantial Greek-Indian contacts from before the late 4th century that would enable borrowing or influence either way. On the contrary, distance and dangers would preclude direct contacts between Greece and India – except for the cases of Indian soldiers in the Persian armies or of the odd merchant. The NE cultures that might have served as bridges between India and Greece do not have legends similar to the four we have examined (other than the NE versions of the 4 Ages): consequently this avenue must also be precluded. We are left with contacts and exchanges after 320, when Greeks first settled in N-W India, but, as we saw, the Greek and Indic legends were fairly well fixed by that time. Consequently, we must conclude that the close parallels of the archery contest connected with Penelope and Draupadī, of the couples Peleus-Thetis and Śantanu-Gaṅgā, of the Ages or Yugas, and of the thigh-born children Dionysus and Aurva, derive from legends that were common among the IE peoples before their dispersal.

However, there is another side to this discussion, which confirms the well-known fact that at one remote time (5th, 6th millennium or earlier?) the IndoAryans and the Greeks together with the Iranians, Hittites, Slavs and the other IE nations, were very close neighbours and members of the same family, if not one united people, with a common language and culture. It is natural then that these branches have retained, apart from language similarities, also cultural affinities like the mythological motifs we have examined. Of the four cases examined only one appears in the Iranian tradition and this in very late texts (not in the *Avesta*). Curiously, moreover, the Iranians do not have a correspondence for the IE deities Dyaus/ Zeus/ Tiwaz- and Ušas/Ēōs/Eos-tre- (although they do have the noun/ *ušas-* for dawn). On the other hand, many mythological elements common to the *Avesta* and the *RV* do not appear in the Greek tradition: eg Vedic Yama, Vivasvat, Indra, the epithet ‘Vṛtra-slayer’ *vṛtrahán* and the waterdeity Apāṃ Nápāt (Iranian Yima, Vivanhant, Indra who is a demon, Vereθrağhna ‘god of Victory’ and Apām Napāt).

Noteworthy is the fact that the archaic Greek and the Iranian traditions do not commonly preserve anything from the PIE phase exclusively of the *RV*.

Noteworthy is also the fact that the four legends examined *are absent from all the other IE branches*. Then, to consider some more examples, the Vedic name of the firegod *Agni* appears only in the Slavic god *Ogon*, and Hittite *Agnis*, although cognates for fire appear in Latin *ignis*, Lithuanian *ugnis* and Lettish *uguns* – and the Iranian name *dāštāyni-*. Again, the Vedic name of the rain-and-storm-god *Parjanya* appears as Slavic *Perun*, Baltic *Perkunas* and Scandinavian *Fjörgyn* to the exclusion of the other Germanic, the Celtic, Roman, Greek, Hittite and Iranian branches.¹⁵ Although, furthermore, the Vedic stem *vas-* ‘dwelling’ has cognates in several IE branches (including Tocharian B *ost* ‘house’), the name of the Vedic *Vāstoṣ-pati* ‘housedeity’ appears only in Greek *Hestia* and Roman *Vesta* to the exclusion of all other branches. Similarly, although the Vedic stem *aśva* ‘horse’ has cognates in most IE languages (Latin *equus*, Old English and Celtic *eoh*, etc), the Vedic name of the twin horse-dieties *Aśvin-au* appears only in the Mycenaean *Iqeja* and the Celtic *Epona* and nowhere else. (Fuller discussion in Kazanas 2001c)

¹⁵ I ignore Albanian, Armenian, Phrygian and other minor IE branches that contain negligible material.

The list of cases mentioned above is by no means exhaustive but it is obvious that the *RV* retains a much greater proportion of the common IE mythological inheritance. From our examples we can safely conclude that no major motif common to two or more IE branches is not found in the *RV* also (Kazanas 2001c).

How so?

It is odd that indologists and comparativists have not bothered to elucidate this strange phenomenon. Now, it is a well-known principle – and a very reasonable one – that the language and culture of a people on the move from one place to another will suffer many more changes than one at rest in one location, *ceteris paribus*; and the further and longer the movement the greater the changes (Lockwood 1969: 43; Hock 1991: 467-9). The reverse may be equally true: where the language and culture of a people shows lesser changes, the people has, probably, moved less or not at all. Here, now, since the *RV* has preserved a vastly greater proportion of the PIE heritage we must, by the application of this principle, conclude that the Vedic people moved very little or not at all from their original homeland, whereas the other IE branches moved considerably. We can call this the “preservation principle”. And we can add to this that in conquest, the conquerors are more likely to impose (elements of) their own culture whereas the subject people are more likely to lose elements of their own one. An examination of the language supports this conclusion. T Burrow, whose *The Sanskrit Language* (rev ed 1973, Faber, London) is still the authoritative descriptive work, writes: “Vedic is a language which *in most respects* is more archaic and *less altered* from original Indo-European *than any other member* of the family” (p 34, emphasis added); he also states that root nouns, “very much in decline in the earliest recorded Indo-European languages”, are preserved better in Sanskrit (p 123) and later notes, “Chiefly owing to *its antiquity* the Sanskrit language is more readily analysable, and its roots more easily separable from accretionary elements than ... *any other* IE language” (p 289, my emphasis). Nobody has ever disagreed with this view. Here again must have operated the preservation principle.

Achar’s archaeoastronomical evidence (above, sect 1, end) adds its considerable support. Achar has published two other papers thus establishing new dates for astronomical data in ancient Indic texts (1999 and 2000). In the first, his computer simulation of the ancient sky above North India showed that the Kṛttikās/ Pleiades, being fixed in and not swerving from the east (as stated in *ŚB* II, 1, 2, 2-3), relate not to c800, that is the usual date given by mainstream opinion, but to events that could have been observed only c3000 or a little later (1999).¹⁶ In the second paper, Achar provides evidence that the date of the *Jyotiṣa Vedāṅga* (or that of the astronomical facts described therein) is not 400 BC as some Western scholars claim, nor c1200 as others would have it (identifying Dhaniṣṭha with β Delphini), but c1800 when Dhaniṣṭha, now identified as δ Capricorn, receives sun and moon together for the winter solstice (2000:177).

The last date 1800 for *Vedāṅga Jyotiṣa*, is significant also because, since the style of this *Vedāṅga* is thought to be late epic (Witzel 2001:§30), we have added confirmation that the

¹⁶ M Witzel objects (2001:§29) that since the Brāhmaṇas mention ‘iron’ they cannot be dated before 1100. This is either prevarication of the grossest kind or defective thinking, since, as is well known to Witzel, iron objects were found in the area from 2600 (Possehl & Gullapalli 1999:159-61) and no passage in these texts mentions any iron-smelting. Moreover, who can assure us that *śyāma* and *Kṛṣṇāyasa* ‘swarthy metal’ denote ‘iron’? It is well known that to harden copper, the metal is heated up (but well below melting point) and then left to cool without the use of water: this has the effect of also making the copper *black!* (Hughes & Row, 1982). In any case, *Śatapatha Br* does not mention anywhere *śyāma* or *kṛṣṇāyasa* !

MB is in fact much earlier than is usually considered by mainstream Indologists (eg Brockington 1998, *passim*). We should regard the *Mahābhārata* rather as starting with its core passages early in the 3rd millennium in the language of the Brāhmaṇas and early Upanishads, then reaching its considerable epic length and new general style 1900-1700 and having additional accretions thereafter right down to the early centuries of the Common Era. The modern myth that the IndoAryans invaded or immigrated into India from the Near East (Renfrew 1999; Sarianidi 1999) or from the Urals (Witzel 2001, *passim*) should be given no second thought. Apart from the evidence provided in this paper, Archaeology, Anthropology and Palaeontology leave no doubt, in Kenoyer's words, about the continuity of the indigenous IndoAryan culture: "There is no archaeological or biological evidence for invasions or mass migrations into the Indus Valley between the end of the Harappan phase, about 1900 BC and the beginning of the Early Historic Period around 600 BC" (1998: 174). Even M Witzel, the most fervent anti-indigenist, admits: "So far archaeology and palaeontology, based on multivariate analysis of skeletal features, have not found a new wave of immigration into the subcontinent after 4500 BCE (a separation between the Neolithic and Chalcolithic population of Mehrgarh), and up to 800 BCE" (2001:§7).¹⁷

Consequently, the dates should be as given. The *RV* was composed in the 4th millennium (some of it perhaps before), or, at any rate, the hymns were collected by c 3150. The *MB* appeared in short poems at the beginning of the 3rd millennium c 3060 and developed thereafter as I outlined earlier. It is to be hoped that more Indian sanskritists will adopt some such chronology and with patient research will place the other kinds of ancient Indic literature within this framework.

¹⁷ Witzel in the same study adduces much (irrelevant) linguistic evidence claiming that in Sanskrit there are substrata (loan-words) from Dravidian and Munda or some unknown and lost (!) tongue. First, I doubt whether we know what proto-Dravidian or, much more so, proto-Munda was like c1500. Second, even if we assume that these linguistic speculations are right, they are not even remotely decisive, since, as E Bryant shows, the Dravidians and the Mundas (or any other people) could well be the immigrants (2001:102-5).

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