

PEOPLE'S HISTORY OF INDIA

3

THE VEDIC AGE

Vijay Kumar Thakur

Irfan Habib



The Vedic Age completes the first set of monographs in the people's history of India series. It deals with the period c. 1500 to c. 700 bc, during which it sets the *Rigveda* and subsequent Vedic corpus. It explores aspects of geography migrations, technology, economy, society, religion and philosophy. It draws on these texts to reconstruct the life of the ordinary people, with special attention paid to class as well as gender. In a separate chapter, the major regional cultures as revealed by archaeological evidence are carefully described. Much space is devoted to the coming of iron, for the dawn of the Iron Age - though not the Iron Age itself-lay within the period this volume studies. There are special notes on Historical Geography, the caste system (whose beginnings lay in this period) and the question of Epic Archaeology. A special feature of this monograph is the inclusion of seven substantive extracts from sources, which should give the reader a taste of what these texts are like.

As in the first two monographs, the authors seek to present updated information with clarity of exposition and reasoned analysis. Both the general reader and the student should, therefore find here much that is interesting and thought-provoking.

A PEOPLE'S HISTORY OF INDIA

- 1 Prehistory
- 2 The Indus Civilization
- 3 The Vedic Age

A PEOPLE'S HISTORY OF INDIA 3

THE VEDIC AGE

**and the Coming of Iron
c. 1500–700 BC**

**Irfan Habib
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Preface

With this monograph, we complete the announced first set of three, devoted to the early past of India, under the People's History of India series. In the first two chapters we take the reader to the world revealed to us by the *Rigveda* and the later Vedic corpus, while in the third an attempt is made to present the archaeological profile of the subcontinent during the same period (1500–700 BC).

We have tried to maintain uniformity with the style and level of information and argument in the two previous monographs. The 'Extracts from Texts' are an innovation: we are now dealing with written sources (although at the time in question they were orally transmitted), and we hope the extracts will let the reader have a sense of what the texts are like.

A minor change had to be made in the policy towards references. While we have not encumbered our text with footnotes, we have followed the practice of Indologists in giving short references to the numbers of chapters and clauses in the texts (however these divisions and sub-divisions may be designated in the texts themselves), in all cases liberally determined, where we felt the reader might like to have the assurance of authority in more specific terms.

The need for accurate transliteration had also to be satisfied, now that we deal so much with texts. We have adopted the standard system of transliteration for Sanskrit, with the following modifications: the 'c' of that system is represented by us as 'ch' (since we feel that it would be odd for an ordinary reader to read 'cat' when the intended word is 'chat!'); 'ch' is replaced by 'chh'; 'ṛ' is read as 'ri' (as commonly pronounced), 'ś' is represented by 'sh', and 'ṣ' by 'sh'. We felt that with these slight modifications a reader will be more at ease (in not

being confronted with 'Kṛṣṇa', for example, but with the hopefully more manageable 'Kṛishṇa'). To avoid an appearance of undue pedantry, we have not tried to distinguish the 'ri' standing for 'ṛ' from ordinary 'ri' though for purposes of comparison of Vedic words with Avestan (where the syllable corresponding to 'ṛ' seems to be 'ar') such an indication would have been desirable.

The themes of the special notes have been chosen with the monograph's main subject in view. With the *Rigveda*'s River Hymn, documentation for Indian historical geography begins; so there is a note on Historical Geography. Anticipations of the caste system being found in the Vedic corpus, we offer a note on the defining features of the system as we can now see it after its long period of development. The third note deals with issues involved in the so-called 'Epic Archaeology', which has been promoted officially for quite some time now.

As editor of the series, the first co-author of this book would like to make some special acknowledgements. A grant from the Madhya Pradesh Text Book Corporation, Bhopal, enabled the Aligarh Historians Society (AHS) to undertake this project. Mr Faiz Habib (in collaboration with Mr Zahoor Ali Khan) has drawn the maps, and Mr Ghulam Mujtaba took photographs for figures in the book. The most arduous work has been the share of Mr Muneeruddin Khan, who has patiently processed the text, diacritical marks included. Mr Arshad Ali has kept our records and accounts, and Mr Idris Beg has done the constant running about. Thanks are due for much help of different kinds to Dr Ramesh Rawat, Dr Farhat Hasan and Mr Ishrat Alam.

Professor Shireen Moosvi, Secretary, AHS, has looked after the entire organizational work and prepared the bulk of the Index at short notice. Mr Rajendra Prasad and Ms Indira Chandrasekhar of Tulika have borne cheerfully with our delays and last-minute hitches.

December 2003

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VIJAY KUMAR THAKUR

1

Early Vedic Phase, c. 1500–1000 BC

1.1 The *Rigveda*

With the *Rigveda* we enter the realm of History in India. Although it is true that not only the *Rigveda*, but also the entire remaining parts of the Vedic corpus, do not constitute written records in the sense of having been written down contemporaneously, they are still fairly good evidence for the conditions of their time because of the way they have been preserved. The Vedic compositions were committed to memory by priests who then transmitted them as faithfully as they could to their successors. Such oral transmission continued generation after generation, before and after the individual hymns were gathered together and placed in some order to form individual collections. It was only very late that the sanctity attaching to oral transmission relaxed sufficiently to permit the sacred texts being written down. This event happened, according to Alberuni, as late as the tenth century AD. No manuscript of any Vedic composition exists from even that time.

The *Rigveda* is held to be the first of the four Vedas. *rig* (from *rich*) meaning praise, whence hymn, and *veda* (from *vid*, to know) meaning knowledge. The other three Vedas are the *Yajurveda*, *Sāmaveda* and *Atharvaveda*. The primary texts of these Vedas, containing collections of hymns, charms, etc., are called *saṃhitās*. Each *saṃhitā* has attached to it texts known as *Brāhmaṇas*, which mainly contain directions about ritual. Each *Brāhmaṇa*, in turn, has attached to it an *Āraṇyaka* and *Upanishad*. The *Āraṇyakas* contain 'mystic' precepts for recluses of the forest (*aranyā*), while the *Upanishads* are works of philosophical speculation.

The later components of the Vedic corpus will be dealt with in Chapter 2. Here our concern is principally with the *Rigveda*. Put first

and oldest in the universally accepted traditional arrangement of the Vedic corpus, its claims for chronological precedence are strongly supported by the archaic nature of its language and the geographical and social environment it attests. Such internal evidence also shows that not all parts of the *Rigveda* are equally old. It contains ten *maṇḍalas* (literally circles) or books, among which its 1,028 *sūktas* or hymns are distributed. Of these, *Maṇḍalas* II to VII, containing hymns of priestly families with a similar mode of arrangement (hymns to Agni, the fire-god, being followed by those to Indra) appear to form the oldest parts, together with the latter part of *Maṇḍala* I. *Maṇḍala* VIII was added later, being for quite some time held to be its final book; the first 50 hymns of *Maṇḍala* I were also incorporated about the same time. In the next stage *Maṇḍala* IX was formed, by mainly collecting together hymns in praise of *soma*, the sacred drink. In the final stage the middle part of *Maṇḍala* I and the entire *Maṇḍala* X were added. One must note, however, that what seem from the nature of the internal arrangement to be additions subsequent to an earlier stage of compilation, might still contain some hymns manifestly archaic and of an earlier time, along with more recently composed ones. The work of assigning individual hymns to different 'layers' of time is an intricate task, which by its very nature cannot be free from dispute. It may, however, be safely recognized that between the time of the earliest hymns and the final arrangement of the text a period of as many as 500 years could well have intervened. If 1500 BC is the ceiling beyond which, for reasons discussed in *Indus Civilization*, Note 2.2, it is not easy to date the earliest elements in the *Rigveda*, we can, perhaps, set 1500–1000 BC as the period during which the composition, arrangement and adhesion of its different components took place. Archaeology helps us to set the floor-date somewhat more confidently. The *Rigveda* has no demonstrable reference to iron, and we can see from the datable finds of iron (Chapter 3) that the use of this metal became widespread in northern India only after c. 1000 BC, so that one may expect the latest parts of the *Rigveda* to have been no later than that date.

The *Rigveda*'s language in relation to classical Sanskrit is so archaic that the meaning of its verses became in time increasingly obscure to its reciters and hearers. Some of these difficulties are addressed in a commentary, the *Nirukta* by Yāska, which is itself not free from

archaisms and was probably compiled before 400 BC. A comprehensive commentary written in the fourteenth century AD by Sāyaṇa is disconcertingly late, though it may not be correct to discount all of Sāyaṇa's explanations for that reason: nevertheless, caution is called for. Caution is also necessary in respect of later traditions about names of authors of individual Rigvedic hymns (listed in the much later *Anukramaṇīs*) or about Rigvedic seers such as Vishvāmitra and Vasishṭha, (related in the *Brāhmaṇas* and other later Vedic and post-Vedic texts). So far as possible, in trying to reconstruct the history of its times, it is best to restrict oneself to what evidence the *Rigveda* itself offers and not let later legends colour one's interpretation.

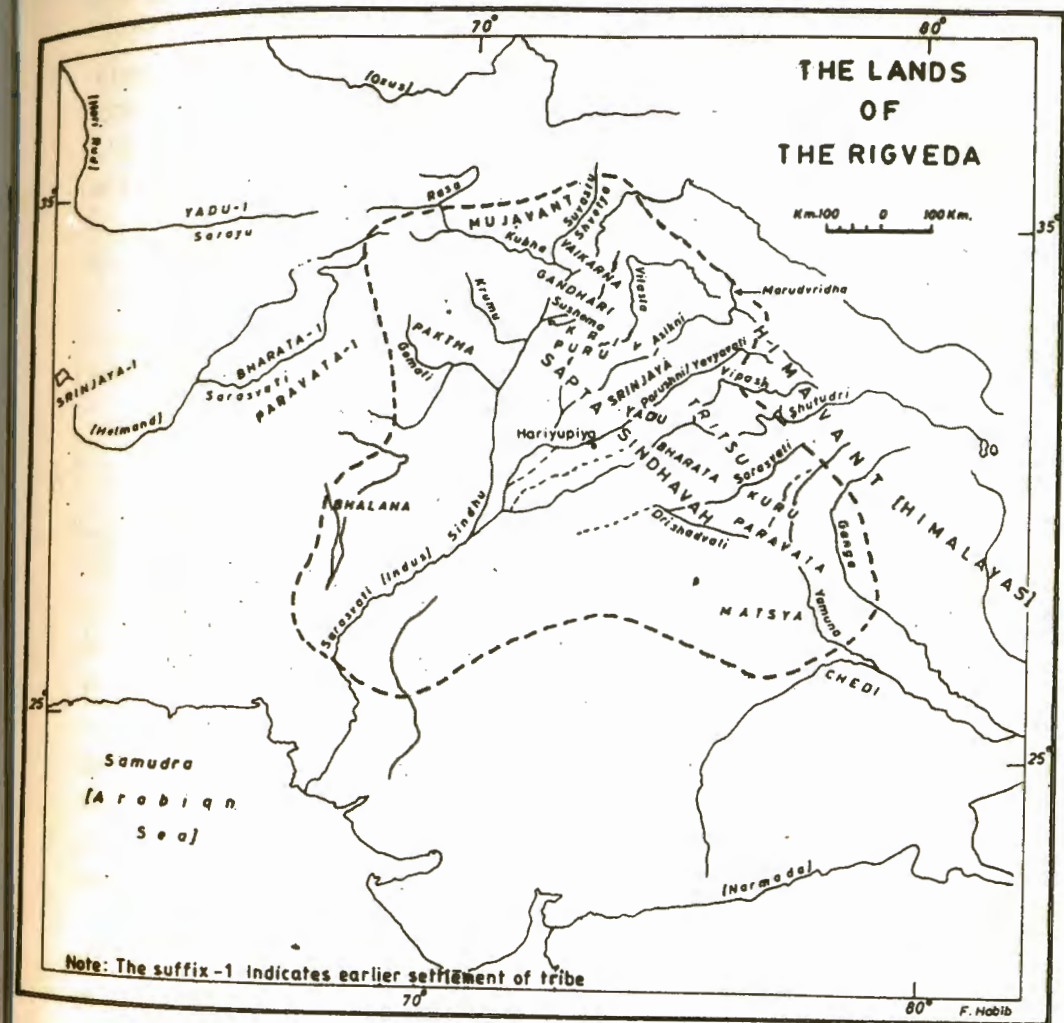
1.2 Antecedents and Region of Settlements

The language of the *Rigveda* belongs to the Indo-Aryan sub-branch of the Aryan or Indo-Iranian branch of the Indo-European family of languages. The very extensive spread of Indo-European languages in pre-modern times, from the Atlantic to the Bay of Bengal, makes it difficult to place exactly the area from where the original Indo-European language ('Proto-Indo-European') spread and threw its initial off-shoots. Genetic evidence can hardly help us here, since people of different ancestry could always learn each other's language and transmit it to others. No massive migrations and supplanting of populations need, therefore, have accompanied the spread of the Indo-European languages; and this is why human skeletal evidence dug up by archaeologists cannot be expected to be of much help here. At the moment, therefore, the 'Original Home' of the Indo-Europeans cannot be located with any confidence. But Archaeology and Linguistics are helping to guide us to at least the immediate antecedents of the speakers of the Indo-Iranian branch. The fact that the domesticated horse and the chariot drawn by it have a prominent place in the *Rigveda* and the Iranian scripture, the *Avesta*, which is very close to the *Rigveda* linguistically, makes the horse a probable marker in Archaeology for the movement and chronology of the early Indo-Iranians (Aryans). We have seen that if we follow the trail of the horse we find it in the Ghaligai Culture IV of Swat (1800–1400 BC) in NWFP, and in Pirak Ib (1600–1400) and more definitely still in Pirak III (1300–800 BC) in northeastern Baluchistan. Given their possession of the horse, these cultures are likely to

have been those of Indo-Iranian speakers (see *Indus Civilization*, 3.4 and Note 3.1). The localities are to the west of the Indus but still well within the geographical zone of the *Rigveda* (for which, see the next three paragraphs). In other words, communities that were ancestral, in terms of speech and culture, to the Rigvedic people, are likely to have arrived and spread over the Indian borderland within 1800–1400 BC. If we go by archaeological evidence further, the arrivals did not massively supplant local populations, for continuities in artefact manufacture, especially pottery, remained largely unbroken. One can visualize a considerable genetical mixture already brought about among the Aryan communities before, proving superior to others by their mastery of the horse and the chariot, they began to cross the Indus and spread over the Punjab and push on further southeastward.

The *Rigveda* represents by its geography a definable stage in this fateful expansion. The principal means of determining the area familiar to the Rigvedic seers is provided by the mentions of river names in the hymns, especially in the *nadī-sūtra*, the hymn to rivers, in *Maṇḍala X* (75). There are problems with regard to the identification of the rivers named, not only when the Rigvedic name for a river no longer survives, but also when more than one river has borne the same name. It is practically certain that there is no reference to the Oxus, but two other important rivers of Afghanistan, the Hari-Rud and Arghandab-Helmand, are probably referred to at least at one place under the names Sarayu and Sarasvatī (being respectively the 'Haroiva' and 'Harakhvaiti' of the *Avesta*, the 'h' substituted by 's'). The numerous rivers which rise in Afghanistan and the Sulaiman range in Pakistan, and whose waters ultimately find their way into the Indus, are also mentioned: the Rasā (Panjshir?), Kubhā (Kabul), Shvetya or Suvāstu (Swat), Krumu (Kurram) and Gomatī (Gomal). The Indus received the name Sindhu, the River; and '*Sapta Sindhavah*', the Seven Rivers, encompassed the basin of the Indus with its great tributaries that flow through the Punjab. The names of these tributaries are given as the Vitastā (Jhelum), Asiknī (Chenab), Parushni or Yavyāvatī (Ravi), Vipāsh (Beas) and Shutudrī (Sutlej). Sushomā (Soan) is a small river flowing into the Indus from the east and rising near Islamabad in Pakistan. The mention of the Kashmir river Marudvridhā (Maru-wardwan), tributary to the Chenab, suggests that the Kashmir valley could also have been

MAP 1.1 The Lands of the *Rigveda*



within Rigvedic territory. East of the Sutlej, Sarasvati (Sarsuti) and Drishadvati (Chautang) are rivers that arise in the Siwaliks and run dry as they flow through the Haryana-Punjab plains. Their dry beds today connect with those of the Ghaggar and Hakra, the latter disappearing in the Bahawalpur desert within Pakistan. Of the Gangetic system, the only rivers mentioned in the *Rigveda* are the Yamunā and Gaṅgā; and there is no reference at all to the Ganga's other great tributaries flowing further eastward. There is mention of the sea (*samudra*), which presumably means the Arabian Sea.

While references to the rivers are fairly numerous, and so too those to names of tribes, proper territorial names are rare. One territorial name is Gandhāra (northwestern Punjab), though Gandhāris might well have been a tribe that produced the name. In some cases rivers could have given names to territories. Though, in the *Rigveda*, *Sapta Sindhavaḥ* are still Seven Rivers, the name ('Hapta Hindu') in the *Avesta* is a territorial one, obviously standing for the Punjab.

From the geographical knowledge displayed in the *Rigveda* we can consider that the country familiar to its compilers broadly extended from the Hindukush mountains of Afghanistan to the Ganga-Yamuna doab (western U.P.), and from Kashmir to the northern borders of Sindh (see *Map 1.1*).

1.3 Economy

The material aspects of the Rigvedic culture can be reconstructed from three major sources: the text of the *Rigveda*; linguists' reconstructions of the Proto-Indo-Iranian vocabulary, which can theoretically give us a knowledge of what was known to the Indo-Aryans at the time of their separation from the Iranians; and the archaeological remains of the Rigvedic region datable to the second millennium BC. The first is obviously the richest source, though the language of the *Rigveda* is not always free from obscurity. Later vocabulary transfers sometimes undermine the value of linguists' reconstructions of the original Indo-Iranian language. Archaeological evidence is in a sense the safest, but its range of information remains limited.

There are numerous references in the *Rigveda* to agriculture. The cultivated field was *kshetra*; *krishi* referred to the act of ploughing. The plough (*lāṅgala*, *sīra*) and the ploughshare (*phāla*), the furrow (*sītā*), and even the ploughman's goad (*ashtra*) to control the draught-oxen are mentioned. (See *Extract 1.1*.) A ploughed field, datable to the eleventh century BC, has been found at Aligama (Swat valley) (*Fig. 1.1*), so that textual evidence is here remarkably confirmed by the archaeologist's spade. In the Indus Civilization, despite the wide use of wells, the tell-tale marks of pulley-lift are absent (*Indus Civilization*, 2.2). But the *Rigveda* speaks of the stone pulley wheel (*ashma chakra*), and of its use in drawing up water in strapped wooden pails (*āhāva*) out of the well (*avata*) (X, 101.7). Given the previous long history of the ox as



FIG. 1.1 Ploughed field, Aligama, Swat (Pakistan), twelfth century BC (after S. Tusa)

draught-animal (for the plough and the cart), one need not hesitate in assuming that oxen were put to use to draw the rope over the pulley-wheel in order to lift water out of the well and have it led into broad channels (*sūrmī sushirā*). This, by enabling land to be irrigated from wells, liberated cultivation from its previous confinement to flood plains and strips on river (and canal) margins, and so allowed it to expand into other land wherever the underground water level was reasonably close to the surface. In the Punjab and Haryana plains the pulley could have brought about a minor agricultural revolution.

On crops, the data derivable from the *Rigveda* are disappointingly meagre. In both the *Rigveda* and *Avesta* there is reference to putting in the grain seed (*yavam krish*; *Avesta*: *yao karesh*) and the resultant grain (*sasya*; *Avesta*: *hahya*). *Yava* had also the specific sense of barley. Wheat is nowhere mentioned in the *Rigveda*, but the Avestan word *gantuma* and the Sanskrit *godhūma* point to a common Indo-Iranian ancestor. The word has no Indo-European cognates and must have been picked up by the Indo-Iranians when they began cultivating the crop in eastern Iran or Afghanistan. As for rice, it is found to have

been cultivated by c. 1800 BC in Swat valley and northeastern Baluchistan and at Harappa (Cemetery-H culture) (see *Indus Civilization*, 3.2). There is, therefore, a remote possibility that the word *dhānya-bīja* in the *Rigveda* (V, 53.13) means rice-seed, as it would in later times, and not just grain-seed. On the other hand, despite the medieval Persian name for rice (*brinj*) looking like a cognate of the Middle Vedic *vr̥hi*, the former is probably derived from the latter, since there is no early attestation of rice cultivation in Iran and the crop is thus not likely to have been encountered by the Indo-Iranians before their split. Cotton, which was cultivated in the Indus Civilization and continued to be cultivated later (see *Indus Civilization*, Table 3.1), is nowhere mentioned in the *Rigveda*. We can suppose that this too is an accidental omission.

In many discussions of the economic environment in which the *Rigveda* was composed it has been assumed that the life of the Rigvedic people was essentially pastoral. Given what archaeology tells us about agriculture in the region of the *Rigveda*, that is, the Indus plains and the western borderlands, during the period preceding 1500 BC (*Indus Civilization*, 3.1 and 3.2), the laying of any over-emphasis on the pastoral sector would be hard to justify. It does, indeed, sometimes appear as if wealth in the eyes of the composers of the *Rigveda* consisted mainly of horses, cattle (especially cows), buffaloes, camels and sheep. Enormous numbers of beasts could be dreamt of: "sixty thousand and bulls" or "a hundred camels", for example. But foodgrains (*yava*, *dhāna*) were also sought. The *Rigveda* even includes cultivated land (*urvarā*) in such wealth; it might be seized (*urvarājī*) and held by a possessor (*urvarāpati*). With the need for oxen for ploughing, irrigation and cart-transport, cattle assumed an ever-increasing importance. Without these animals agriculture could not be undertaken, though the milk and meat they furnished were also not to be ignored. A constant need for cattle in agriculture made possession of large herds of cattle, with their pastures (*goshtha*) on the margins of cultivation, a particularly inviting form of 'capital' yielding regular income, as oxen from the herds were bartered away for grain from the peasants. Such cattle-herding need not have been nomadic at all.

It is also worth remembering that forest and bush were then great in extent; their close presence is felt again and again in the

Rigveda. There was special awe of forest fires (I, 65.4), and love for *Āraṇyānī*, goddess of forest and protectress there of man pasturing cattle or seeking fruit (X, 146).

In transport, a major development was the introduction of the spoked wheel. One hears more than once of the wheel's outer rim holding the spokes (*ārā*), or of the spokes uniting at the nave (*nabhya*). Just beyond Afghanistan, terracotta models of the spoked wheel have been found in Turkmenistan, datable to 1700–1500 BC. In India, the archaeological evidence for the arrival of the spoked wheel is rather poor: a single terracotta piece with seeming simulation of spokes "in low relief", found at Banawali, cannot outweigh the mass of evidence for solid cart-wheels in the Indus Civilization (for which, see *Indus Civilization*, 2.3). A terracotta disc showing spokes, from Atranjikhhera (U.P.), belonging to the Painted Grey Ware period, may be taken as proof that spoked wheels were in use by c. 700 BC. In the cart (*anas*), drawn by oxen (*anadvāh*) and by camels (*ushtra*), spokes would have made the draught-animal's task easier with larger but lighter wheels. Such wheels attached to the horse-drawn chariot (*ratha*) would have made for much greater speed. On the other hand, the absence of horse-collar, not introduced into India until just before modern times, must have meant that horses were yoked like oxen, a most inefficient way that must have slowed down the chariot. The camels were probably Bactrian (double-humped), and their use in the hot plains must have been limited. The buffalo (*mahisha*), often called 'wild', might not yet have been domesticated.

Of the crafts, we can catch a few glimpses. The *karmara*, the smith, went about "with birds' feathers", which were doubtless his bellows for the "enkindled flames" that he also carried with him. The "ripe and seasoned plants" were probably the fuel he used while smelting the metal (see *Extract 1.2*). The metal could have been gold, silver or copper. The last metal, especially its alloy bronze, was called *ayas*, for its colour is described as that of sun or of fire. Iron was still unknown.

The weaver (*vāya*) is spoken of as creating clothing made of wool (X, 26.6). This would not be unnatural in the Punjab with its fairly severe winters. One would have also expected at least one clear reference to cotton cloth, but the *Rigveda* has none. An incidental reference

to *sirīs* (X, 61.9) suggests that yarn was spun by women. The carpenter (*takshan*) appears (I, 105.18) as one who mended broken wooden things; his back ached from the way he bent over his work.

Not all the crafts pursued find mention in the *Rigveda*, one very noticeable being the potter's, though pots themselves are so often mentioned. Such omissions need not surprise us because, by the very nature of that text, the mentions of crafts are purely incidental.

The members of the various professions pursued them with a view to obtaining an income in a primitive kind of 'market', where a person possessing a particular skill went about seeking customers, as a famous Rigvedic hymn (*Extract 1.2*) so well brings out. Much must have been done on the basis of barter. Even Indra's favour, in one instance, is sold away or leased for ten cows! But precious metals were also sought, high value being put on gold (*hiranya*). It was obtained from river-sands; so the Indus was called "golden" (X, 75.8). It was hoarded and buried in the earth, though the same verse has been interpreted as referring to gold mines, which is unlikely. "Lumps of gold", given in gift by a chief, are appreciatively acknowledged. The word *nishka* appears in the *Rigveda* as a gold (or silver?) ornament or necklet, but it is already beginning, possibly in the form of such ornament, to serve as a unit of money or medium of exchange. A priest claims (I, 126.2) to have received a hundred *nishkas* along with a hundred horses as fees for a hundred sacrifices.

Both barter and precious-metal transactions imply the presence of persons who bought goods to sell from elsewhere for profit. The *Rigveda* has many references to *Paṇis*, a name probably derived from *pan*, barter, and applied in the hymns to a wealthy, niggardly (*Dasyu*?) people, hostile to the gods and priests and non-Aryan (or inimical) in speech, who could be subjected to slaughter and rapine. Associated with them were the *bekanāṭas*, usurers (?). For such merchants as are seen with some favour, the *Rigveda* uses the word *vaṇij* (ancestor to the modern 'banya'); and we have a reference (V, 145.6) too to a "wandering *vaṇij*" (looking so much like an ancestor to the medieval 'banjāra'). Sea navigation plays practically no part in the Rigvedic seers' imagination, but for one reference to a mythical three day-and-night voyage to the farthest shore of the ocean (*samudra*) in "a ship of a hundred oars" (I, 116.4-5). Archaeology too confirms a virtual absence around

this time of commercial contacts with West Asia; and one can hardly think of many oar-propelled ships voyaging along the Baluchistan coast and the Persian Gulf, when the *Rigveda* was composed.

Indeed, craft production does not seem to have been sufficiently concentrated, and trade correspondingly as much developed internally, to permit a growth of towns. In the Proto-Indo-Iranian language there seems to have been no word for town or city, and the Iranian text *Avesta* contains no reference to any towns. The *Rigveda* too reveals an essentially town-less environment. While the 'village' (*grāma*) is frequently mentioned, it has no word for town, and the word *nagara* (which is not an Indo-European word) does not occur in it at all. Construction with baked bricks seems to have been so rare that the *Rigveda* has no occasion to refer to them, although a word for brick apparently existed in Proto-Indo-Iranian (Avestan *ishtya*, Sanskrit *ishtakā*). The word *pur* is used to denote not a town but a fort or palisade, which moreover belongs most often to non-Aryan enemies rather than to Aryan chiefs. Finally, while the *Rigveda* has names for rivers and tribes, it gives, but for one possible exception, no place-names which could stand for names of towns. The possible exception is Hariyūpiyā, the site of a battle, thought by some scholars to represent the Indus city of Harappa. But Harappa is a modern name, not traceable beyond the eighteenth century AD; and so the shot is a long one. Some commentators (including Sāyaṇa) hold Hariyūpiyā to be a river-name.

In this respect the *Rigveda*'s evidence matches that of archaeology remarkably well. We have seen that after 2000 BC towns disappear (*Indus Civilization*, 3.1); the only claimant to the size of a township is Kodwala Ther, with an area of less than 40 hectares, in Bahawalpur, Pakistan. It belongs to early Cemetery-H culture and was probably not in existence by 1500 BC. No settlement which by size can have any urban pretensions has yet been found until much after 700 BC.

1.4 Society and Polity

The sketch of economic life we have drawn above (1.3) shows that we are not dealing here with a very primitive society, despite the absence of towns. Contrary to a widespread characterization, as we have seen, the society was not essentially pastoral. Rather, the pastoral sector was important because of the requirements of agriculture, the

large herds of cattle being a kind of 'capital' from which those who cultivated the soil drew their animal power. These herds could also serve as a means by which surplus extracted out of agriculture was stored. The classes which held the surplus in their possession were those of the rulers and the priests – the later Kshatriyas and Brahmins. Three successive verses in a Rigvedic hymn (VIII, 35, 16–18) offer the following prayers to the gods, Ashvins:

Give strength to our prayer (*brahma*) and animate our thoughts; [*Refrain* omitted]

Give strength to the ruling power (*kshatra*) and give strength to our heroes (*nririn*); [*Refrain* omitted]

Give strength to our milch cows, and give strength to the people (*vishah*); [*Refrain* omitted]

Or, again in another hymn (I, 113, 6), Dawn (*Ushas*) is said to awaken "one to high sway, another to exalted glory, another to pursue his gain, another to labour". Class-differentiation between those who ruled or pursued their gain and those who just laboured is here manifest.

Since the composers themselves are priests, the priests naturally come first here; both they and the rulers and warriors had a common interest in increasing the cattle as well as the numbers of the ordinary people, for they were the source of the surplus upon which they lived.

There was another division of society which seems to have cut across this simple class structure. This was the division into tribes, for which the word *jana*, also meaning people, was sometimes used; for example, the Pañcha Janāḥ, 'the Five Tribes', or Yadva-jana, 'the Yadu tribe'. The *Rigveda* provides us with possibly as many as thirty names of different tribes, about some of which we will have more to say presently (1.4).

On the composition of the tribe, there is much uncertainty. A common male ancestry was probably claimed, as in the case of the Bharata tribe, "the sons [descendants] of Bharata". But there is no proof of endogamy, or marriage being restricted to within the tribe. The word *vish* (from a root meaning 'to enter or settle') sometimes represented a clan or sub-division of the tribe, though in most references in the *Rigveda* it just seems to mean people or subject-people.

Within the tribe, the family was undoubtedly the most important social unit. It was centred on the head of the house (*grihapati* or *dampati*) and his wife (and co-wife, *sa-patnī*). The family was cast in a patriarchal mould, as shown by Rigvedic references to *pitrivitta* ('wealth left by male ancestors') and *pitriyāna* ('ways of the fathers'). The greatest boon of marriage was to have "ten sons" (X, 85.45). Daughters do not appear as claimants to inheritance, and such as were without brothers were thought to be unprotected (I, 124.7; IV, 5.5). There is no hint, however, of seclusion or child-brides. On the other hand, there are references to wooing, and to consummation immediately after marriage (X, 25.27–30), both suggestive of post-puberty weddings. Yet, a daughter "growing old in her parents' house" was held to be miserable and in need of aid (II, 17.7). It seems to have been usual for a widow to marry her husband's brother (X, 40.2).

As to the size of the family, we have in a Rigvedic hymn (VII, 55.5–8) the picture of a house at night, having within it a girl and her parents, the head of the house (*vishpati*), men walking about and women sleeping in the courtyard. In another, the Wedding Hymn (X, 85, esp. verse 46), the newly-wed wife moves into the father-in-law's house, and is hopefully expected to rule over her husband's family. The normal family could, therefore, have been much larger than a nuclear one. But it is still difficult to make, from such evidence, a persuasive case for a 'lineage system', where elders are supposed to exploit the younger members of the family. The social division within the tribe seems to have been along the lines of classes rather than lineages.

At the head of the tribe was the *rājan*, the king. The association of named kings with particular tribes can frequently be detected in the *Rigveda*. But already the king's domain was linked to a definite territory: "I am the royal Ruler, mine is the Kingdom (*rāshtra*)", says Varuṇa in *Rigveda*, IV, 42.1. The kings lived in many-pillared palaces, and were usually to be found bedecked in gold. Large gifts (*dakṣhiṇā*) in cattle, horses, chariots, ornaments and gold were solicited from them by the priests; so they must have been possessed of large stores of such movable wealth. In one verse (X, 97.6), at least, the allusion to "kings in a crowd of men" faintly suggests the presence of more than one *rājan* in a tribe, unless by *rājan* here the text means 'princes' rather than kings. The office of king was hereditary, as may be illustrated by the

two cases where royal genealogies can be reconstructed: among the Pūrus, the line ending with Trikṣhi, and among the Bharatas, with Sudās (see 1.4 below). There is almost no evidence for any kind of election.

We can expect the king to have been surrounded in public session by his courtiers and chiefs to tender advice and hear orders and proclamations. For such public assembly two words, *sabhā* and *saṁiti*, occur in the *Rigveda*. No certain distinction lies between *sabhā* and *saṁiti*; and neither word should be regarded as referring exclusively to the assemblage around the king. The general sense is that of a public assemblage of respectable men (*Rigveda*, X, 71.10). Gambling by dice was thus not apparently excluded from the purposes of such public meeting (*sabhā*) (X, 34.6).

The king and the chiefs who exercised authority over the people at large are given the designation of *kṣatriyas*, from *kṣatra* 'dominion or rule'. The *kṣatriya* is not yet a name for the warrior or fighter, for whom the *Rigveda* uses the word *yodha*. The chariot was the Aryans' major engine of war; and those who possessed chariots (*ratha*) and horses to draw them must have been persons of some status and wealth. Not for nothing is the horse-drawn chariot the vehicle of the gods in the *Rigveda*. Along with the chariots were the foot-soldiers fighting "with their hands" (*muṣhti-hatyā*, *muṣhti-han*): "We may repel our enemies fighting with our hands, with you assisting from the chariot", prays the seer to Indra. The main weapons were the bow and arrow (*bāṇa*, *bunda*, *sharu*), the lance (*srika*), the dagger or sword (*asī*), and possibly the axe. The need for the use of bronze in the last two weapons must have made them quite expensive.

Horse-drawn chariots and bronze weaponry are yet further evidence of an intrinsic inequality within Rīgvedic society, for only the wealthy could have been possessed of these. The association of wealth and power must, indeed, have been a very close one. The kings and chiefs, on their own or in the name of their tribes, are shown as making generous gifts of cattle, horses and gold to their priests, and this too they must have derived from some source. The source could only be their subjects, the *vish* – "may Indra make the *vish* bring *bali* (tribute) to you [the King]", the seer prays (X, 173.6). In another verse it is said of Agni that he, "with conquering strength, subduing the tribes of Nahus (or neighbouring people, by another interpretation), made them

bring their *bali*" (VII, 6.5). *Bali* was thus an imposed tribute and not voluntary offerings, as is so frequently asserted in textbooks. We do not, however, know how it was levied, and in what forms it was paid: it is likely that not just cattle, horses and gold, but also agricultural produce formed part of it.

Tribute was supplemented by booty. Of frequent occurrence in the *Rigveda* are references to *gavishṭi*, raids or fights for cattle. "Men hold in their bows . . . in this great fray, in battles for the sake of cattle", sings the poet (VI, 59.7). Elsewhere, a "hero" is visualized (in the form of Indra) as riding out in a chariot for such a raid (IX, 76.2). The risks, of course, were that one's own tribe might lose its cattle to hostile raiders, so that the verb *gup*, to protect, had already evolved by the time of the *Rigveda*, from *go-paya*, 'to guard cattle'. But if the raiding 'heroes' mainly plundered the commoners, the *vish* of alien tribes, then the long-term result would have been the further enrichment of the ruling and warrior class as a whole, at the cost of the ordinary people. Such raids might also result in captives, so that we hear of the chief Dasyave-vrika presenting to the singer a hundred *dāsas* or slaves (VIII, *Vālakhilya*, 8.3; cf. also X, 62.10), while the king Trasadasyu made to another poet a gift of fifty women (*vadhūs*) (VIII, 19.36).

1.5 Aryas and Dasyus and Dāsas:

The Emergence of Four *Varṇas*

Our description of the economy and society of the time of the *Rigveda* has not yet taken adequate account of the effect of the Aryan migration on the fate of the non-Aryan communities, designated Dasyu and Dāsa. It is clear from the numerous references to 'arya' or 'ārya' in the *Rigveda* that by this word the seers mean a people (*vishah*) who worship and sacrifice to gods of the Rīgvedic pantheon, and are of the 'colour' (*varṇa*) to which Indra gave protection. Physical appearance or complexion (*varṇa* in a literal sense) was also at least initially involved here, for the Aryas are contrasted with Dasyus who are called *anās*, that is, ugly (*an-ās*) or noseless (*a-nās*), and the non-Aryans are expressly described as of black skin (*krishṇa-tvach*). On the other hand, while crushing "Dasyus and Shimyus", Indra is said to have "won the land along with his white-complexioned friends" (I, 100.18).

Both the Dasyus and Dāsas are said at different places to be

'unintelligible' or 'hostile' in speech, so that their languages set them apart from the Aryans as well. All this strongly suggests that the Aryans, as speakers of Indo-Iranian dialects, had not much earlier moved in from cooler highlands or higher latitudes so as still to preserve a sense of distinction between their complexion and that of the older inhabitants of the tropical plains. The following verse from *Rigveda's* *Maṇḍala* VI (47.20–21) evidently evokes a time of such migration:

Gods, we have reached a country void of pasture; the land,
though spacious, was too small to hold us.
Brihaspati, provide [for us] in war for cattle; find a path,
Indra, for this faithful singer.
Day after day, from their seat he, Indra, drove them, alike,
from place to place, those dark-looking creatures.
The Hero slew the meanly-behaving Dāsas, Varchin and
Shambara, where the waters gather.

And so the result, celebrated in *Maṇḍala* X (65.11):

The very bounteous gods made the Sun mount to heaven and
spread the righteous laws of Aryas over the land.

There are some matters to be clarified with regard to the peoples whom the Aryan tribes found as their opponents. It is to be established whether there existed any significant distinction between Dasyu and Dāsa. In two verses (I, 103.3; II, 13.9), at least, they seem to be the names of the same set of enemies. The Paṇis as enemies to the Aryans are paired with the Dasyus in one verse and with the Dāsas in another. Both Dasyu and Dāsa are Indo-Iranian words, *dasyu* having an Old Iranian cognate in *dainhu* (enemy, whence enemy country, or just country, and so Persian *deh*, village), and *dāsa*, Old Iranian *dāha*, or slave (whence Persian *dāh*, woman slave). One can imagine that these general alternative designations were not those given to themselves by the non-Aryan peoples, but imposed on two different sets of non-Aryan peoples by their Rigvedic opponents. It would appear that Dasyus were hated more than the Dāsas, there being many direct calls for the slaughter of Dasyus.

There has been a long recurring suggestion that, contrary to

the above inferences, these are genuine names of the designated hostile peoples, and that these Dasyus, Dāsas and Paṇis belonged to an earlier wave of Indo-Iranian immigrants. It is claimed that the 'Daha' and 'Parnois' (in Greek transcription) found in late centuries in eastern Turkmenistan were descendants of the residue of these tribes that were left behind. This notion has been backed by a classification of 'Outer' and 'Central' Indo-Aryan languages, the former supposedly descended from the earlier wave, the latter from the Rigvedic language. This is, however, an extremely speculative hypothesis. And it would not explain how the *Rigveda* obtained its retroflexion and elements of Prakritism and Dravidian vocabulary, none of which could come from any earlier Indo-Iranian dialects. It is far more reasonable to believe that these came from the speech of the clearly alien peoples the Rigvedic seers knew of, the Dasyus and the Dāsas; and these, therefore, despite their imposed names, were genuine non-Aryan peoples.

We get only a limited amount of information about the Dasyus, Dāsas and Paṇis from the *Rigveda*. They lived in tribes, and so the word *vishah* is used for them; and two tribes, the Shimyu (probably of the Dasyu group with which it is paired) and Kikāṭa, are named. Of their chiefs, Shambara, son of Kulitara, was apparently the most powerful, allegedly possessing 90, 99 or 100 forts (*purāḥ*). Another was Varchin, called both a Dāsa and a demon, with a multitude of troops; and about five others, who are also named, were probably demonized non-Aryan chiefs. Some of the forts were of stone and possibly of unbaked brick (*ama*); some were seasonal or autumnal (*sharadi*) palisades. No towns are mentioned. The Paṇis, as we have seen (1.3), undertook some mercantile operations (which could be caravan trade); and they were therefore particularly vulnerable to hostile attacks. Though there is no certain proof, it is probable that the authors of the Cemetery-H culture of western Punjab and 'Late Harappan' culture further eastward, spanning the period c. 2000–1200 BC (*Indus Civilization*, 3.2), are to be looked for among these Dasyus, Dāsas and Paṇis. They cultivated rice and ragi millet, besides wheat and barley; and thus they could have wealth in the form of grain and cattle that might attract hostile raids. Though towns of the Indus Age had disappeared, the find of a glass-bead, c. 1700 BC, from Harappa shows that indirect commercial connections might have extended to glass-producing Mesopotamia.

It is possible to reconstruct, at least dimly, how the Aryan tribes moved into the Punjab, and what happened thereupon. The Yadu and Turvasha tribes appear on the Sarayu (Hari-Rud) in Afghanistan, where they are said to have killed two opposing Aryan chiefs (IV, 30.18). Their chief Turviti is then credited with having destroyed many (Dāsa?) castles (I, 54.6) and to have crossed the Sindhu or Indus river (II, 13.2). Another tribe, the Bharatas, under Divodāsa Atithigva, somewhere on the hill-bordered Sarasvatī, which must here mean the Harakhvaiti (Arghandab-Helmand in Afghanistan) or the Indus, fought the Aryan Pārāvatas (VI, 61, 1-14), and fought and killed the great Dāsa chief Shambara (I, 112, 14, etc.). But Atithigva himself, with two allied chiefs, seems to have been worsted by Tūrvayāṇa, possibly a Turvasha chief (II, 14, 7).

The Bharatas, perhaps, as parts of the Pūrus, belonged to a coalition of Five Tribes (VI, 61, 12) that is frequently met with in the *Rigveda* under such designations as *Pañcha Janāḥ* and *Pañcha Kṛishnā*. These seem to have comprised the tribes of Yadus, Turvashas, Druhyus, Anus and Pūrus, mentioned together in one passage (I, 108.8). The Pūrus seem to have settled in territory by the Sushomā (Sohan) river north of the Salt range, western Punjab (VIII, 53, 1, 11), and also on the Sarasvatī, which may then, here, mean the Indus. A great schism within the Five Tribes seems to have occurred with the Bharatas seceding from the alliance. An early alliance between the Pūrus under Purukutsa and the Bharatas under Sudās of the Tritsu clan (I, 63.7) seems thus to have broken down, which might or might not have had to do with the replacement of Vishvāmitra by Vasishṭha as Sudās's chief priest. Thereafter occurred Sudās's great 'battle with ten kings' (*dāsha-rājñā*) on the Parushnī (Ravi). Significantly, at least one tribe opposed to Sudās in this battle, the Shimyu, is linked in another hymn to the Dasyus, so that Sudās's opponents could well have had Dasyu allies; indeed, "his Dāsa and his Aryan enemies" are mentioned elsewhere (VII, 83.1) too. Sudās's success against the Five Tribes opened the way to the east for the Bharatas. They are shown as crossing the Vipāsh (Beas) and Shutudrī (Sutlej) in one hymn (III, 33). They ultimately occupied the Haryana plains watered by the streams of the Sarasvatī (Sarsuti), Drishadvati (Chautang) and Āpayā (?) (III, 23.4). Their territory now possibly touched the Yamuna. The Pūrus recovered their position under

Trasadasyu, a son of Purukutsa, but their home territory remained in northwestern Punjab. Their presence there might be responsible for the title of the local ruler Purus, who gave battle to Alexander on the Jhelum in 326 BC.

There is no doubt that the settlements of the Aryan peoples involved not only a conflict between the Aryan and Dāsa/Dasyu tribes but also among Aryan tribes themselves, striving for territory and resources. A hymn (X, 69.6) acclaims Agni's achievement in quelling both "the Dāsas' and Aryas' hatred" for the poet's patrons; and we have already seen how the Dasyus and Aryan foes of Sudās made an alliance to offer him battle. Such alliances resulted in a gradual acceptance of Aryan priests and customs by non-Aryan chiefs and communities. A Rigvedic seer accordingly sings of the liberality of the Dāsa Balbūtha (VII, 61.32), while another, more peevish, applauds Indra for denying to the Dasyus the appropriation of the "Aryan name" (X, 49.3). All in all, such references to the incorporation of Dasyu and Dāsa chiefs in the Aryan fold are still rare in the *Rigveda*. On the other hand, a major deed to exult over is "the slaughter of the Dasyus" (*dasyu-hatya*) by Indra (and less often, by Agni). There is no reference to such a slaughter of the Dāsas, but they are still to be deprived of their wealth: the Dāsa's might is to be demolished so that "we may with Indra's help divide the treasure he has gathered up" (VIII, 40.6). It is certain that part of the Dāsas' wealth that could be seized was their persons. We have seen that the meaning of slave was already attached to the word *dāsa/dāhu* in Indo-Iranian. Good Aryan names such as Divodāsa ('slave of heaven') or Sudās ('good slave [of gods]') bear this out; and there is direct use of the word in this sense too when *dāsas* are said to have been received in gifts from patrons (see 1.3, above). In other words, the Dāsa people were so called because they were held to be legitimate prize as slaves. Though the term *dāsī* for woman slave does not appear in the *Rigveda*, there is yet an acknowledgement of the gift of women (*vadhū*), who must then have been captives or slaves.

The long conflict with Dāsa and Dasyu peoples (and also with rival Aryan tribes) must have continuously added to the number of slaves and other semi-servile populations in the Aryan or Aryanized fold. Such subjugated elements are likely to have provided the basis for a fourth class added to the three social categories already well

established in Aryan communities, namely, rulers, priests and free commoners (see 1.3). The *Puruṣa-sūkta* ('Hymn of Man') in the *Rigveda*, *Maṇḍala* X, 90, undoubtedly presents a picture of society at this new stage. The *Rigveda*'s arrangement shows that the whole *maṇḍala* is a late addition, and there are linguistic features too which support its being assigned to a lower position in time – perhaps c. 1000 BC, according to the chronology we have adopted. Verse 12 of the hymn reads:

The Brāhmaṇa was his [Puruṣa's] mouth; the Rājanya was made out of both his arms.

His thighs turned into the Vaishya; from his feet was produced the Shūdra.

The passage is considered to be the first statement of the four-*varṇa* system, though the term *varṇa* does not occur here. The term *Brahman* for priest is already well established in the *Rigveda*, and Brāhmaṇa simply means descendant of a Brahman, or hereditary priest. Rājanya, literally, 'king's man, king's kinsman', occurs only here, though in the later Vedic literature it is more common, usually as an alternative to Kṣatriya, a member of the ruling or elite warrior class. The word *Vaishya* too, though the standard term later, does not occur anywhere else in the *Rigveda*. It is derived from *viśh*, 'commoner, subject', and must have initially meant the common mass of tribesmen other than priests and rulers. The word *Shūdra* is again unique to this hymn within the *Rigveda*, although subsequently it became the usual term for the fourth and lowest *varṇa*. Its literal sense is unknown; and it does not seem probable that it originated merely from the name of an alleged tribe named Shūdra. Whatever its origin, the term seems in the Rigvedic hymn to embrace all persons subjugated or enslaved by victorious Aryan tribes, such as the Dasyu and Dāsa peoples, who were then annexed to the Aryan social structure as the lowest elements of society, wholly or partly unfree. The distinction between Arya and Dasyu/Dāsa seems to get dimmer in the post-Rigvedic literature, where it is replaced by a new distinction between Arya and Shūdra (see Chapter 2.4).

One needs to be careful about attributing to the *Puruṣa-sūkta* more than what it says. It gives us what in its time was a conventional view of a broad social division based on a presumably

hereditary principle (thus an alleged descent from a particular part of *Puruṣa*'s body in the case of each class). But there is still no suggestion anywhere in the *Rigveda* of endogamy (marriage within the *varṇa* or the tribe), nor of any insistence on the hereditary nature of different occupations.

1.6 Religion

The *Rigveda* is essentially a religious text; and it is, therefore, a rich source for the beliefs and rituals of the society in which it was composed. A comparison with the other notable Indo-Iranian religious text, the *Avesta*, offers us an opportunity to reconstruct the outlines of the religion of the Aryan communities before the great split, between pre-Vedic Indo-Aryans and the pre-Avestan Iranians, that occurred within the large region of Afghanistan and eastern Iran.

At that stage there were held to be a nominal number of thirty-three gods, called *asura* (Avestan *ahura*) and *deva* (Avestan *daeva*). In time, there arose a distinction between the two sets of supernatural powers: the *asuras*, mainly after the *Rigveda*, began to signify demons in India, while the *daevas* acquired the sense of demons in the *Avesta*. The principal *ahura/asura* deity is called Ahura Mazda in the *Avesta*, where he becomes God; he is represented in the Rigvedic pantheon by the divine creator, Varuṇa. The Rigvedic war-god Indra, attested as an important Aryan deity, along with Varuṇa and Mitra, in the Mitanni inscriptions in northern Mesopotamia, c. 1400 BC, survives in the *Avesta* as a genius of victory under the Rigvedic epithet for him, Vritrahan (Avestan: Verethraghna), though Indra himself is reduced to a minor demon there. Mitra, a close ally of Varuṇa in the *Rigveda*, appears in the *Avesta* as Mithra, the sun-god. The Nasattiyas of the Mitanni documents are Nāsatyas in the *Rigveda*, more frequently called Ashvins; the *Avesta* turns them into a single demons Nāonhaithya. The deity presiding over the dead, Yama, son of Vivasvant, in the *Rigveda*, corresponds to Yima, son of Vivanhvant, in the *Avesta*. The prescribed order, whence the path to bliss, is represented by *rita* in the *Rigveda*, and by *asha* (*arta* in Old Persian) in the *Avesta*. To appease the gods, a system of animal sacrifices (Vedic *yajña*, Avestan *yasna*) prevailed, the presiding priest having the Vedic name *hotri* or *hotar*, corresponding to the Avestan *zaotar*. The ritual involved the consumption of a sacred

drink, *soma* (Avestan *haoma*), pressed out of a plant still not satisfactorily identified. Respect for fire was deeply rooted in the common tradition: the Vedic priest for the fire, *atharvan*, corresponded to the Avestan *āthravan*. But Agni, the Vedic fire-god, seems to have been a later creation, since there is no corresponding deity or spirit in the *Avesta*.

There is no indication of idol worship in the *Avesta*, nor in the *Rigveda* (but for one debateable reference, for which see below). The earlier Aryan religion must, therefore, have been aniconic, that is, without any symbols or images in human, animal or other form to represent the deities. As far as the attribution of forms and qualities to deities is concerned, the tendency in both the *Rigveda* and *Avesta* is to attribute to them mainly human ones rather than those of animals: the common Indo-Iranian divinities were, accordingly, overwhelmingly anthropomorphic, not zoomorphic. In contrast, the earlier Indus religion was not only iconic, but also had mainly zoomorphic deities (*Indus Civilization*, 2.6 and Note 2.2). It may also be noted that already before the *Rigveda* the deities worshipped by the Aryans not only included those like Mitra/Mithra, representing visible elements of nature (in this case, the sun), but also more abstract gods, like Varuṇa/Ahura Mazda, the guardian of the *rita/asha*, the moral law, and Indra, the lord of war. A complex mythology with an increasing role for abstractly imagined divinities must already have existed.

By the time the *Rigveda* was completed, this heritage was doubtless much enriched, enlarged and altered, though the essential elements were still preserved. The central position was still occupied by the rite of sacrifice in religious practice. This rite in the *Rigveda* is essentially an act of offering of gifts in the form of milk, curd, *ghi*, grain and bread-cakes, but especially of animals such as the goat, bull, cow, sheep and horse, slaughtered for the consumption of the god or gods from whom some aid is sought. The most frequent offering is that of *soma*, liquid extracted from the pressed *soma* plant, mixed with milk or water. It was so sacred that *soma* itself became a divinity, and Book IX of the *Rigveda* consists entirely of hymns addressed to it.

Since fire had a very important role to play in the sacrifice – the offerings to gods were put into it, and the slaughtered animals' meat roasted in it – the fire-god, Agni, had the crucial function of trans-

mission: he either conveyed the offerings to the gods or brought the gods themselves to the site of the sacrifice. It is therefore not surprising that nearly a fifth (about 200) of the hymns of the *Rigveda* are addressed to Agni. The fire kept in homes and huts also doubtless gave to Agni a familiar sanctity. But the most prominent god in the *Rigveda* is still Indra.

With about 250 hymns addressed to him alone, and 50 more to him together with other gods, Indra occupies a practically paramount position in the Rigvedic pantheon. He is described as a great hero with long arms and the thunderbolt as his weapon. He brings down rain and releases the flood waters, supposedly dammed up by the demon Vritra whom he slays. But above all, he is the god of war: he not only subdues demons, he also destroys the Aryans' enemies, the *Dasyus* and the *Dāsas*. He answers, too, the call of Aryan worshippers when they fight each other, and his patronage here shifts from one to another, depending apparently on the offerings and devotion he receives. He drinks *soma* to excess and has a taste for buffaloes; he rides on a chariot with two or a thousand horses. He symbolizes so well the divine image of a powerful king that he vividly tells us how monarchical states were emerging below.

Other gods represent other concerns. Varuṇa and Mitra are gods that control the movements of the sun and heavens, and so prescribe and protect the *rita*, the law equally of movements in the heavens and of human conduct. Closely associated with Indra is the god *Vishṇu*, but his later place in Brahmanical mythology is yet to come. The later Shiva is anticipated in the Rigvedic god Rudra, wielding a thunderbolt, who is also an archer, capable of great destruction. If *Vishṇu* is addressed in five hymns only, Rudra has just three addressed to him. Seemingly more popular than these gods are the Ashvins, who are not depicted as 'horsemen', as their name might imply, but go about in horse-drawn chariots, ready to rescue their worshippers.

Visible features of nature also attain divine status. Agni or fire comes under this category; so does *Sūrya*, the sun-god, with ten hymns addressed to him. More popular (with twenty hymns) is the beautiful *Ushas*, the goddess of Dawn, who greatly arouses the poetic instincts of the Rigvedic priest. *Sarasvati* is the great river-goddess, but not yet the goddess of knowledge or speech; and the divine *Sarasvati* has to be

distinguished from the streams actually named Sarasvatī in India or Harakhvaiti in Afghanistan. The inescapable fact of death leads to Yama, the god of the dead whom one joins upon death, to enjoy such conditions of bliss as he determines. There is no hint of transmigration of souls in the *Rigveda*.

The gods respond, as a rule, to prayers made at the performance of the sacrifice. The *Rigveda* itself does not describe the details of the ritual; but the care with which the exact words and intonations of the hymns recited at these rites have been preserved, shows that an exact and accurate recitation was considered crucial for the success of the prayer. Strictly necessary also must have been the other procedures in the performance of a sacrifice, that came to be described only later in the *Brāhmaṇas*. The rigour of the ritual and the effectiveness of the hymns made the service of the performers of the rites especially vital for the *yajamānas*, 'sacrificers', in support of whose prayers the sacrifice was performed. In the great sacrifices of rulers and tribal chiefs, priests called *purohitas* presided over the rites. If success was attained in the prayers, the credit would be that of the priest. Characteristic is the claim of Vasishṭha, the *purohita* of king Sudās, that it was his praises of Indra which persuaded that god to overthrow the hosts of the Ten Kings (*Rigveda*, VII, 33). Next to the *purohita*, the *hotri* performed the rites; but the *Rigveda* (II, 1.2) suggests that there could be as many as six other priests ministering at the sacrifices, ending with the more general category, the Brahman.

The Brahman priesthood undoubtedly drew its fees and gifts mainly out of its control over the sacrificial ritual: we have seen above (1.2) how the Rigvedic hymns refer to these gifts, mostly made in kind, in highly exaggerated terms. Unlike the priesthoods in many other cultures, such as those of West Asia and Egypt, temples played no part in the profession of the Vedic priesthood. In the *Rigveda* there is no reference to any idol or image of any god; but one verse (IV, 24.10) is sometimes quoted for a possible implied use of one:

Who will buy from me this Indra of mine for ten cows?
When he has won over his enemy (*vritras*), let the buyer
return him to me.

However, what the author of the verse has in mind is not the

image but the god himself, whose favour the seer has so much won for himself that he can apparently transfer his favour for hire to another.

If temples and images were not present, it will still be too simple to think that the rites of sacrifices, and the great gods mainly involved in them, complete the story of the Rigvedic religion. The *Rigveda* itself contains some evidence of the religion of the ordinary people in which, in the earlier stages, the priesthood might have been only marginally involved. It recognizes (IV, 57) so minor a deity as that of a cultivated field (*kshetrasya-pati*), the furrow-goddess (*sītā*) and a godling of the house (*vāstosh-pati*) (VII, 54); and even the pestle and mortar are offered worship (I, 28.5-6). There are hymns for success in ploughing (*Extract 1.1*) and for return of cattle from pasture, so that the concerns of ordinary life are not overlooked.

The last book of the *Rigveda* contains hymns meant for two important occasions, marriage (X, 85) and death (X, 14-18). In the disposal of the dead, the *Rigveda*'s preference is cremation (consumption by *agni*), but burial ('non-cremation', *an-agnidagdha*) is also allowed (X, 15.14). Obviously, social ceremonies and customs were being brought under the influence of the Brahman priesthood, and so initiating in India a long and complex process of religious assimilation.

No description of the Rigvedic religion can be complete without mentioning the elements of speculation and scepticism in the *Rigveda*, which can rightfully be held to mark the beginnings of philosophy in India. Occasionally, the formal hymns of the *Rigveda* recognize the sceptics: they ask of Indra, "Where is he? Or, verily, they say of him, he does not exist" (II, 12.5). There is, on the other hand, a tendency to exalt the god worshipped so much that he turns into the absolute God, controlling everything. Speculation on these lines ultimately led to an impersonal God (*Ka*, Who?), the Creator, the maintainer of the order of the universe, the One (*Ekah*), whom the Rigvedic hymn (X, 121) in the end rather casually identifies with the god Prajāpati ('Lord of Creatures').

Simultaneously with a trend towards monotheism, there is a contrary one, of seeing creation as a practically self-induced process. The famous *Puruṣa-sūkta* of the *Rigveda* (X, 90) visualizes the entire universe as having originated out of the corpse of *Puruṣa* (Divine Man), who was the victim at a great primeval sacrifice. Not only did

human beings (forming the four *varṇas*) come out of his body, but also the Moon and the Sun and the gods Indra and Agni.

Almost all elements of philosophical thought, pantheistic, atheistic, speculative and sceptical, are incorporated in one superb hymn of seven stanzas, devoted to Creation (*Rigveda*, X, 129: *Extract 1.3*). One imagines here a seer and his pupil reaching, in conversation, a point where all the received beliefs and rituals have been left behind, and the two are faced with the question that must now be asked: How and why did the universe (including the presumed Almighty One Himself) come into being? The profundity of the passage lies precisely in the discovery that the question is unanswerable.

1.7 Other Aspects of Culture

With the *Rigveda* as our source for other aspects of culture, besides religion, we may well begin with **literature**, which consists entirely of the Rigvedic hymns themselves.

We may remember that since writing was unknown to the Rigvedic people and there is no evidence for the use of alphabets in India before the fourth century BC, there was no practical separation of vowels and consonants, and the language was, in effect, syllabic. The syllabic basis of metre for versified hymns seems to have been an old Indo-Iranian practice: the *Avesta*, like the *Rigveda*, not only bases the metre on syllabic counts, but also shares with the latter text the *gāyatrī* stanza, which consists of three verses of eight syllables each. The Rigvedic hymns generally consist of verses, four of which usually form a stanza, each verse containing eight, eleven, or twelve, or sometimes only five syllables. There is, further, a quantitative rhythm in which there are alternately short and long syllables. The development of these metrical forms is an important index of literary progress, but owing to the proneness to repetition and use of customary formulae, it is difficult to regard many of the Rigvedic hymns as containing true poetry. On the other hand, some of the hymns in honour of Dawn (*Uṣhas*) have passages of real poetic beauty, while for pathos there is nothing to rival the Gambler's Song (X, 34: *Extract 1.4*). There are elements of both ballad and drama in the dialogue-hymns, especially where Purūravas seeks the return of the nymph Urvashī (X, 95), or Yama spurns the seductive approaches of his sister Yami (X, 10). Streaks of humour occur here and

there in the *Rigveda*, but perhaps the Frog Hymn (VII, 103), a magic charm, with its comparison of reciting Brahmans with croaking frogs at the coming of the rains, must be given the pride of place.

The knowledge of science was still very elementary. The numbers occurring in the *Rigveda* show that a decimal system was in use for larger numbers (tens, hundreds, thousands); but the recent claim in official textbooks that zero and positional value of digits were used in representing numbers of higher magnitude is absurd, more so since the art of writing (and so the representation of numbers) itself was absent. A primitive calendar is indicated by a Rigvedic riddle-hymn (I, 164.48), suggesting that a year (solar) was supposed to contain three seasons, twelve (lunar) months and 360 days. There is no evidence of how the solar year was actually adjusted to its true length, nor of how its beginning was fixed. There is nothing about the determination of solstices or equinoxes, though a knowledge of the lunar mansions is implied in the Marriage Hymn (X, 82.13); and the Great Bear ('Seven *Rikshas*') is elsewhere clearly identified (I, 24.10). The earth was seen as a wheel (X, 89.4), not as a globe, manifestly taking the horizons to form a circle.

Of **medicine**, we naturally know little. The profession of the *bhishaj*, physician, is mentioned more than once in the *Rigveda* (see *Extract 1.2*). As a "chaser of disease", he mainly treated with plants and herbs (*Rigveda*, X, 97). It is to be expected that practical experience must have resulted in the identification of several plants with medicinal values, giving relief in the case of certain symptoms or healing wounds when applied thereon. But much still needed to be left to prayers and spells. The *Rigveda* itself contains prayers for the cure of jaundice, addressed to the sun (I, 50.11, 12), and for preventing miscarriage in childbirth, addressed to the Ashvins (V, 78.7-9).

Among **pastimes**, the *Rigveda* particularly has references to chariot-racing (*agi*) and dicing (*aksha*). The horse-chariot race resulted in a prize (*dhana*, *bhara*) for the one who secured victory (*kāra*). The potentate who organized the race (*āji-krit*, *āji-pati*) was so important that Indra too could be recalled by these titles.

Dicing was the main game of the gambler (*Extract 1.4*). The dice were made of some brown nuts. But the precise way in which the game was played is obscure, as also the numbers involved (4, 15, 53 or

even 150 have been suggested in interpreting Rigvedic passages). The dice were probably thrown on lines drawn on the ground. Cheating at the game was not uncommon, to judge by at least three references to the offence in the *Rigveda*.

TABLE 1.1 Chronology: Stages in the Compilation of the *Rigveda*

	BC
Earliest hymns in the <i>Rigveda</i>	c. 1500
Collection of Books II–VII ('the Six Family Books')	c. 1400
Book I, hymns 51–191	c. 1300
The Kaṇva family hymns: Book I, hymns 1–50, and Book VIII	c. 1200
Book IX: <i>Soma</i> hymns, mainly extracted from previous collections	c. 1100
Book X	c. 1000

Note: All dates within the range of c. 1500–c. 1000 BC are hypothetical, and given only to help indicate sequence of the stages of compilation. Moreover, the earliest hymns could in parts be as early as 1700 BC, and some hymns could be of as late a date as 800 BC.

EXTRACTS FROM TEXTS

Extract 1.1

The Ploughman's Song

Rigveda, IV, 57

1. We through the Lord of the Field (*Kṣhetrasyaapati*), even as through a friend, obtain
What nourishes our cattle and horses. In such may he be good to us.
2. As the cow yields milk, pour for us freely, Lord of the Field, the wave that bears sweetness,
Fomenting mead, well-purified like butter, and let the Lords of holy Law be gracious.
3. Sweet be the plants for us, the heavens, the waters, and full of sweets for us be air's mid-region.
May the Field's Lord for us be full of sweetness, and may we follow after him uninjured.

4. Happily work our oxen, and men, may the plough furrow happily.
Happily be the traces bound; happily may he ply the goad.
5. Heavenly Plough (*Shunā*) and Ploughman (*Sīra*), may you welcome this hymn of praise; and with the milk you have made in heaven
Bedew you both this earth of ours.
6. Auspicious Heavenly Furrow (*Sītā*), come near: we venerate and worship you
That you may bless and make us prosper and bring us abundant fruit.
7. May Indra [as the Rain-god] press the furrow down; may the Sun-god guide its course aright.
May it [the furrow], as rich in milk, be drained for us through each succeeding year.
8. Happily let the plough-shares turn up the tilled land, happily go the ploughers with the oxen.
With mead and milk, Parjanya [God of Rain-clouds], make us happy.
Grant us prosperity, Heavenly Plough and Ploughman.

(R.T.H. Griffith's translation, modified.)

Extract 1.2

The Various Means of Livelihood

Rigveda, IX, 112

1. We all have various thoughts and plans, and diverse are the ways of men.
The Brahman seeks the worshipper; the carpenter (*takṣhan*) looks for the cracked [wood, to repair]; the physician (*bhishaj*), the injured [to treat].
2. The smith (*karmāra*) with ripe and seasoned plants, and with birds' feathers,
With stones and with enkindled fire, seeks one who has a store of gold.
3. I am a poet (*karu*), my father's a physician, and my mother grinds grain upon the stone (*upalā-parakṣhīnī*).
Striving for wealth, with varied plans, we follow our desires like cattle.
4. The horse likes to draw a light chariot, gay hosts invite laughter and jest.
The male desires his mate's approach, the frog is eager for the flood.

(R.T.H. Griffith's translation, modified.)

Note: Every stanza is followed by the formal refrain "Flow, Indu, flow for Indra's sake", probably a compiler's addition to justify the poem being

included in Book IX, a *maṇḍala* devoted to hymns to *soma* (= Indu), the sacred drink.

Extract 1.3

The Creation Hymn

Rigveda, X, 129

1. In the beginning there was nothing non-existent (*asa*), nor existent; there was no realm of air, nor sky above.
What covering was there, and where? What shelter? Was there water, unfathomable water?
2. Death was not there, nor anything immortal; no sign to divide day and night.
That One breathed, but without air, breathing by Its own power. There was nothing whatsoever apart from It.
3. There was darkness; and concealed in darkness All was just chaotic waters.
All that there was was just empty and formless. By the power of Warmth (*Tapas*) there was born that One.
4. Thereafter, then, rose Desire (*Kāma*) – Desire, the first seed of mind.
Sages, who searched with their heart's thought, discovered the root of the existent in the non-existent.
5. They (the Sages?) laid a line to separate (the parts of the universe): what was above it, them, and what below it.
There were begetters, there were mighty forces, free action here, and energy up yonder.
6. Who in truth know and who can here declare it, whence it was born and whence comes this creation.
The gods are later than this world's creation. Who, then, knows whence it first came into being?
7. Whether this creation was made by itself or not, He who first originated in the creation,
Whose eyes control this world from the highest space in heaven – He knows of it, or, perhaps, He knows not.

(Griffith's translation, heavily modified in the light of other commentaries)

Extract 1.4

The Gambler's Song

Rigveda, X, 34

1. Spring from tall trees on windy heights, these rollers transport me as they turn upon the ground.
Dearer to me the die that never slumbers than the deep drought of Mujavan's own Soma.
2. She never vexed me nor was angry with me, but to my friends and me was ever gracious.
For the die's sake, whose single point is final, mine own devoted wife I alienated.
3. My wife holds me aloof, her mother hates me: the wretched man finds none to give him comfort.
As of a costly horse grown old and feeble, I find not any profit of the gamester.
4. Others caress the wife of him whose riches the die has coveted, that rapid courser:
Of him speak father, mother, brothers, saying, We know him not, bind him and take him with you.
5. When I resolve to play with these no longer, my friends depart from me and leave me lonely.
When the brown dice, thrown on the board, have rattled, like a fond girl, I seek the place of meeting.
...
6. Downward they roll, and then spring quickly upwards, and, handless, force the man with hands to serve them.
Cast on the board, like lumps of magic charcoal, though cold themselves, they burn the heart to ashes.
7. The gambler's wife is left forlorn and wretched; the mother mourns the son who wanders homeless.
In constant fear, in debt, and seeking riches, he goes by night into the home of others.
8. Sad is the gambler when he sees a matron, another's wife and his well-ordered dwelling.
He yokes the brown steeds early in the morning, and when the fire is cold, sinks down an outcast.
...

(Griffith's translation, slightly modified.)

Note 1.1

Historical Geography

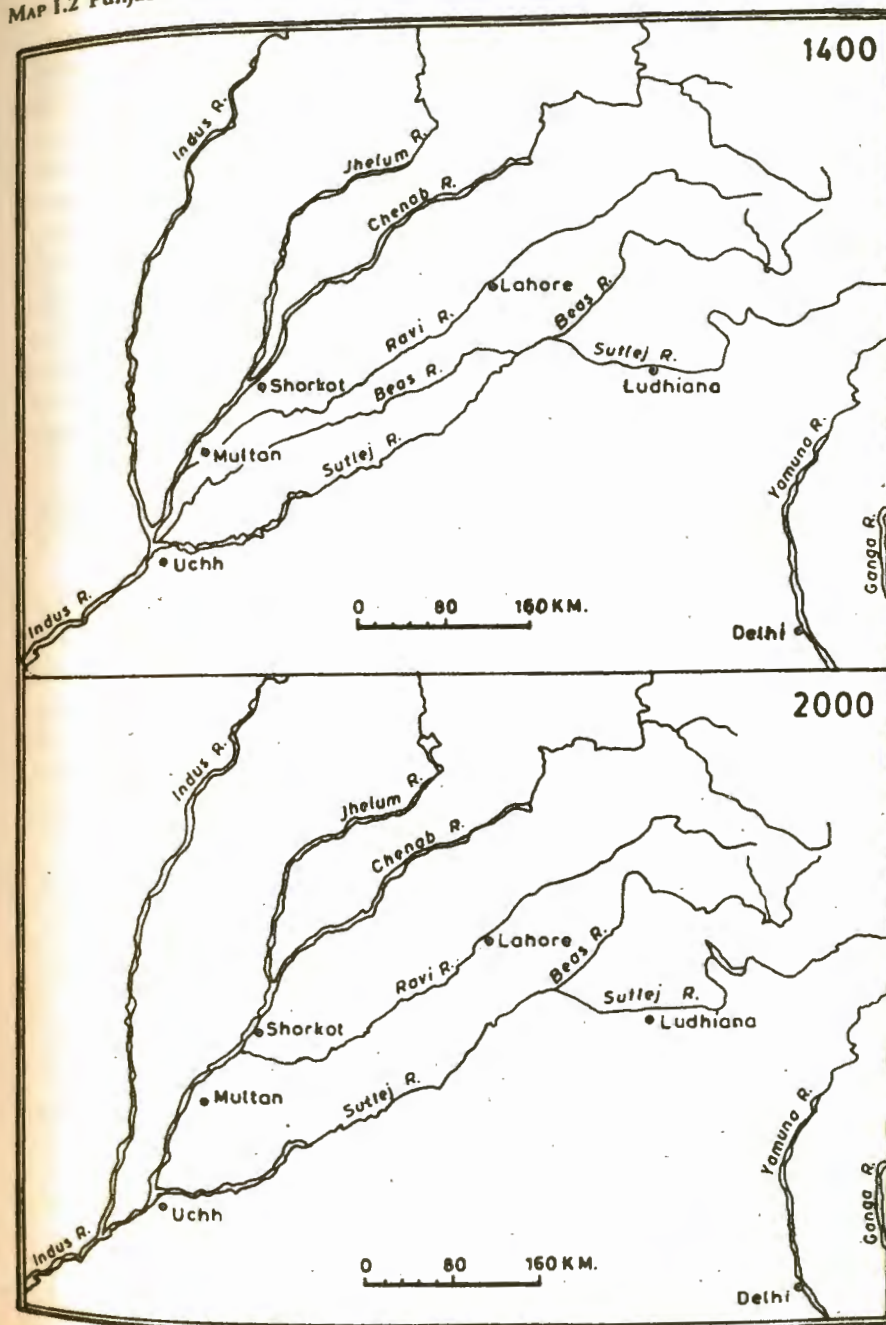
History and Geography are much more closely related to each other than might appear at first sight. History is concerned with the past of people who occupy geographical space: this space is formed by the surface of the earth and the atmosphere that rings it. Conventionally, Geography, which studies such space, is divided into two parts. The first, Physical Geography, studies the configuration of the earth's surface, the way it is occupied (water, land, vegetation, animal life) and the climate. The second, Human or Cultural Geography, has such branches as demographic geography (distribution of population over territory), political geography (distribution of territory among states) and economic geography (distribution of natural resources and production centres, land utilization, trade and transport lines, etc.). One can state it as a rule of the thumb that every aspect of human existence and endeavour that can be mapped comes under the umbrella of Human Geography.

Historical Geography spans the domains of both History and Geography. First of all, it reconstructs the geographies of the past. For our present monograph we may seek to discover what the physical and human geography was some three thousand years ago (c. 1000 BC) as against what it is today, the latter falling under the proper or ordinary domain of Geography. In other words, Historical Geography studies changes in features of physical and human geography over time. Secondly, it studies how geographical features have formed the contexts of historical events or processes. To take a simple example, the position of certain hills and passes may explain why a particular route came to be adopted for a military campaign. The study of the extent of forests, deserts, steppes and cultivated zones is often necessary for estimating populations before the time of the censuses; this kind of study could be important not only for demographic history but also for economic history in general.

By convention, Historical Geography is not supposed to concern itself with the Geological Ages; that is, it studies geographical change from the beginning of Holocene, from about 8000 BC onwards. If we interpret the word 'Historical' still more narrowly, Historical Geography can be restricted to the period covered by written history. Under such a definition the period of Historical Geography in India may be said to begin with the *Rigveda*, when, through that text, the names of rivers and mountains first become known to us.

For Historical Geography, the basic frame is provided by topographical sheets as well as precipitation and 'natural vegetation' maps. We must remember that within the short time of Holocene, the shape of mountains and hills could have changed but slightly. Changes have occurred due to erosion, earthquakes and volcanic activity, but rivers amidst mountains have hardly ever changed courses. (For this reason the current official ambition to trace in the Himalayas the source of the rivulet Sarsuti or Sarasvati, which actually rises in the Siwalik range, is an unattainable project, however much money may be spent on it!) On the other hand, rivers in the alluvial plains tended frequently to shift courses, until, in modern times, measures were adopted to

MAP 1.2 Punjab Rivers (a) 1400 (b) 2000



retain them within reinforced banks. Such shifts leave abandoned channels behind, and these can be traced on large-scale topographic maps ('sheets') as well as on maps based on digital images from satellite-borne electronic sensors (such as 'Landsat' maps). Among these dead channels only such could have carried water within the last ten thousand years as do not run against the present slope (shown by contours or ground-height lines on the maps) or cross the present drainage lines (indicated by directions of the active natural streams and rivulets). Channels that do so must belong to much earlier ages, before the present slopes were formed. Sea-coast lines have also altered; and comparisons of detailed topographic maps based on surveys of different years may indicate at what net rate the delta of a particular river has expanded at the expense of the sea. A reverse picture can be constructed from the maps where land is being lost to the sea through its undermining of the coastal barrier. Otherwise too the sea-level itself has been rising and falling, as can be seen from remains of marine and vegetal remains found on the sea-shore and under sea-water today. It has been suggested from such remains on India's western coast that, rising after the last Ice Age, the sea-level reached the present one about 5000 BC, and then, still slowly rising, could have been about 2-3 metres above it around 1000 BC. This was naturally part of a worldwide phenomenon.

Written records, once they become available, serve as a major source for reconstructing the geography of the past. Geographical accounts, like the detailed gazetteer of the Mughal empire, the *Ā'in-i Akbarī* by Abu'l Fazl (d. 1603), or travellers' narratives like that of the seventh-century Chinese pilgrim Xuan Zhuang (Yuang Chwang), have been important in enabling us to work out the political geography of the times in question. From historical texts we can see also how six hundred years ago the Punjab rivers flowed in courses that are very different from those today (Map 1.2).

Where descriptions fail us, the sources' mentions of names of geographical features can still be of help, because these may occur in fuller descriptions from another time. Thus when the *Rigveda* calls a river Asikni, a name that has not survived, it has yet been possible to identify it with the Chenab, since Alexander's historians, centuries later, describing the second river that he crossed to the east of the Indus, gave its name as Akesines.

Place-names are also used as evidence for earlier geography. Mughal-period names of places like Dhaka and Dhakka attest the earlier presence of *dhāk* jungle around the places so named. Names like Lonār suggest presence of workings of salt and nitrates. Medieval highways can be traced through place-names with suffixes like *-sarāi* (inn) and *-ghāī* (pass). The common suffixes *-kot* and *-garh* suggest the existence of forts (no longer surviving in most cases). The political geography of a bygone age may also be reflected in place-names: thus Hazara and Hajro in NWFP and west Punjab give evidence that they were under Mongol control in the thirteenth century, the detachments of the Mongol troops and their auxiliaries being called *hazāra*. Students of Onomastics (science of names) can work out layers of linguistic influences traceable in place names: *-kot* and related forms are derived from Proto-

Dravidian. The suffix *-ābād* denotes Persian (not Arabic) linguistic influence. Suffixes like *-mer* (Rajasthan), *-pat* (Haryana and Delhi), and *-maū* (U.P.) are similarly interesting for the dialect-history that lies behind each of them. Place-names, cultural history and Historical Geography thus intertwine in complex ways.

Note 1.2

Bibliographical Note

Recent shorter texts on the Early Vedic Aryans include Ram Sharan Sharma, *Advent of the Aryans in India*, Delhi, 1999; Rajesh Kochhar, *The Vedic People: Their History and Geography*, Hyderabad, 2000; and Ramendra Nath Nandi, *Aryans Revisited*, Delhi, 2001. A number of informative papers are contained in George Erdosy, *The Indo-Aryans of Ancient South Asia: Language, Material Culture and Ethnicity*, Berlin, 1995 (cheaper Indian edn, Delhi, 1997). Romila Thapar's suggestions about the Rigvedic society being a "lineage society" are contained in her *From Lineage to State*, Bombay, 1984, Chapter 2. On this question and other aspects of Rigvedic society, see Suvira Jaiswal, *Caste: Origin, Function and Dimensions of Change*, Delhi, 1998, Chapter 3.

The evidence of the *Rigveda* and the subsequent Vedic corpus is collected together and critically analysed in A.A. Macdonell and A.B. Keith, *Vedic Index of Names and Subjects*, 2 vols, London, 1912 (many Indian reprints). The *Vedic Index* omits religious aspects; this lacuna is filled by A.B. Keith in his *Religion and Philosophy of the Veda and Upanishads*, 2 vols, Cambridge (US), 1925. For the literary aspects of the *Rigveda*, see Maurice Winternitz, *A History of Indian Literature*, Vol. I (English translation of German text, extensively revised by the author), Calcutta, 1927; rpt, Delhi, 1972, pp. 52-119. Owing to their comprehensiveness and balanced treatment, all these works still retain their value.

Of the *Rigveda* itself, the English translation by Ralph T.H. Griffith, *The Hymns of the Rigveda. Translated with a Popular Commentary*, 2nd edn, London, 1896; Indian rpt, edited by J.L. Shastri, Delhi, 1973 (with a different pagination), has had no successor. Griffith's decision to translate each verse so as to have the same number of syllables as in the original text, was bound to affect the accuracy of his renderings; his archaisms are also out of fashion now and sometimes leave the meaning vague.

The main facts of the geography of the *Rigveda* are summarized in Irfan Habib and Faiz Habib, 'The Historical Geography of India, 1800-800 BC', *Proceedings of the Indian History Congress, 52nd session (New Delhi, 1991-92)*, Delhi, 1992, pp. 72-97. Our Map 1.1 is based on Map 1 published with that paper.

The study of India's Historical Geography crossed a landmark when Xuan Zhuang's account of India inspired Alexander Cunningham's pioneering effort, *The Ancient Geography of India*, London, 1871 (many reprints). The most ambitious historical mapping of India is still that of Joseph E. Schwartzberg (ed.), *A Historical Atlas of South Asia*, Chicago, 1978.

Late Vedic Society, c. 1000–700 BC

2.1. The Vedic Corpus after the *Rigveda*, *Avesta*

In the traditional view, the *Rigveda* is the earliest text (*saṃhitā*) of the orally transmitted literature that constitutes the Veda (literally, knowledge). The *Rigveda* is supplemented by three other Vedas, namely, the *Sāmaveda*, the *Yajurveda* and the *Atharvaveda*, containing, nominally, the knowledge requisite for three different kinds of priests officiating at sacrifices: respectively, the *sāman* or *udgātri* (singer), the *adhvaryu* (reciter of formulae known as *yajus*) and the *atharvan* or *aṅgira* (fire-priest).

The *Sāmaveda* has survived in three recensions (*saṃhitās*), of which that of the school of Kauthumas is now regarded as the most authentic. It consists of sacrificial singers' chants that are nearly all extracted from the *Rigveda*, with trifling alterations. By its attention to how the chants should be sung, and so to melodies and notes, the *Sāmaveda* has its importance as practically the first text in the history of Indian music; but as a historical source, it is not of much significance. The fact that it mainly draws on hymns from Books VIII and IX of the *Rigveda* shows that it began to be compiled only after the bulk of the *Rigveda* had been brought together (see Table 1.1 above), and its own compilation, therefore, is hardly likely to be much earlier than 1000 BC.

The *Yajurveda* consists of two different texts, the 'Black' (*Krishṇa*) and the 'White' (*Shukla*) *Yajurveda*. The Black *Yajurveda* exists in four different *saṃhitās* which are closely related to each other, and of which the *Taittirīya-saṃhitā* may be considered the most representative. The characteristic feature of the 'Black' texts is that, besides *mantras* or verses, these also contain explanations or discussions of the ritual as part of which the *mantras* were to be uttered. The White *Yajurveda* survives in only the *Vājasaneyi-saṃhitā*, which has two slightly

differing versions. It consists entirely of prayers and hymns, with no prose explanations. Of its forty sections, prayers in the first half correspond to those in the Black *Yajurveda*, and thus represent an older layer than the remaining sections. A reference (XVIII, 13) to iron (*shyāma*) means that even the older portion cannot be earlier than 1000 BC. The Black *Yajurveda* too, in the *Maitrāyaṇī-saṃhitā*, has a similar reference to iron.

The *Atharvaveda* is undoubtedly the most important of the later three Vedas, although there has always been a suggestion of a lower level of sanctity attaching to it. In spite of its name as the *atharvan's* text, it is, by its length (731 hymns contained in twenty books in the Shaunaka recension) and variety of themes, comparable more with the *Rigveda* than with the *Sāmaveda* or *Yajurveda*. It certainly borrows heavily from the *Rigveda*, half of the borrowings coming from the latter's latest portion, namely, Book X. This suggests that the *Atharvaveda* was compiled after the entire *Rigveda* had been assembled; moreover, it contains prose, in Books XV and XVI, that is less archaic and reminds one of the language of the *Brāhmaṇas*. Its geography too suggests an area much more to the east than that known to the *Rigveda* (see 2.2 below), so that it clearly represents, in the portion not borrowed from the *Rigveda* (six-sevenths of the whole), a further or later stage in Aryan expansion. Finally, its reference to iron (III, 3.1.7) completes the evidence for its late date (after 1000 BC), although it might still contain some material derived from much earlier times.

The Black *Yajurveda* already contained an exposition of ritual in prose, and in time there arose a separate set of texts expounding the purposes and procedures of sacrificial ritual. These texts are known as the *Brāhmaṇas*, literally, 'the utterances of a Brahman'. Each of the Vedas began to have attached to it one or more *Brāhmaṇas*, which must, therefore, be individually later than their respective Vedas. Among the oldest *Brāhmaṇas* that are entitled, by their language and contents, to be held close in time to the Vedas, are the *Aitareya* and *Kaushītaki* or *Shāṅkhāyana*, attached to the *Rigveda*; the *Jaiminīya* and *Pañchavimsha*, attached to the *Sāmaveda*; the *Taittirīya*, attached to the Black *Yajurveda*; and the *Shatapatha*, attached to the White *Yajurveda*. While their contents as religious texts will be considered in 2.5 below, it may be said that they constitute fairly rich source material for

different aspects of life of the Late Vedic period. This cannot generally be said of the *Brāhmaṇas* attached to the *Atharvaveda*, including the *Gopatha*, which are all held to be much later. Given the chronology we have adopted, the early *Brāhmaṇas* may be placed broadly within the range of 900–700 BC.

Attached to the *Brāhmaṇas* are two sets of texts which were later held to constitute *Vedānta*, 'the end of the Veda', in the sense of constituting both the final part of the Vedic corpus and the final aim of Veda as knowledge. The first set is formed by the *Āraṇyaka*s, 'forest texts', containing mysteries of spirit and ritual that could only be communicated in the seclusion of forests. The surviving *Āraṇyaka* texts are attached to the *Brāhmaṇas* of the *Rigveda*, and the Black and White *Yajurveda*. The *Āraṇyaka*s are few and are overshadowed by the texts that they lead to, the *Upanishads*. The term *Upanishad* is said to have been derived from *upa-ni-sād*, 'to sit down near someone', and to have the meaning of utterances conveyed from one to another in close confidence and so implying *rahasyam*, 'mystery' or 'secret'. The *Upanishads* contain heterogeneous material, from secret rites and charms to philosophical speculations. Out of the numerous *Upanishads*, possibly exceeding 200, only a small number belong to the Vedic Age. These include the *Aitareya*, *Kaushītaki*, *Taittirīya*, *Bṛihadāranyaka*, *Chāndogya* and *Jaiminīya* (including *Kena*) *Upanishads*. Some later *Upanishads*, which are written mostly in verse and depart more significantly from the language and style of the *Brāhmaṇas*, might still be earlier than the Buddha's time (c. 500 BC); such texts include the *Kāthaka*, *Shvetāshvatara*, *Mahā-Nārāyaṇa*, *Ishā*, *Mundaka* and *Prashna Upanishads*. But since a post-Buddhist date is also possible for them, it will be dangerous to use these later *Upanishads* as a source for the beliefs of the Late Vedic priesthood.

Subsequent to the *Brāhmaṇas* and the early *Upanishads* came texts that tradition puts in a large basket designated *Vedāṅga*, formally 'part of the Veda' but really post-Vedic. A large part of this literature comprises the *sūtra* texts, *sūtra* meaning 'thread', whence a rule stated in abbreviated form, presumably for easy memorization. The oldest of the *sūtra* texts are linked to particular *Brāhmaṇas*, and the early ones deal with *kalpa* ritual, being concerned with *śrauta* sacrifices dealt with in the *Brāhmaṇas* (hence *śrauta-sūtras*), or with

domestic (*grihya*) sacrifices (*grihya-sūtras*). From the rules for these rituals originated broader rules of law (*dharma*), leading to *dharma-sūtras*. On the other hand, within the *kalpa-sūtra* are included texts dealing with measurement (*śulva*, measuring string), for purposes of building sites of sacrifices and fire-altars (the *śulva-sūtras*). The bulk of these texts are undoubtedly later than the Buddha, or even post-400 BC; so these too cannot be used on their own as sources for the earlier period. Yet, they have undoubtedly helped to clarify many customs and practices mentioned obliquely in the *Brāhmaṇas*.

A similar role has been played in respect of the Vedic *saṃhitās* by the *sikshā-sūtras*, concerned with *sikshā* or phonetics. This science, already mentioned in the *Taittirīya Upanishad*, was concerned with the correct pronunciation of the sacred texts (*saṃhitā-pāṭha*), but it also involved word (*pada*) separation (*pada-pāṭha*) and so early glimmerings of grammar. These precede Yāska's *Nirukta*, a commentary on the meanings of words in the *Rigveda*, and are probably earlier in time to Pāṇini (fourth century BC). Finally, there were composed texts called *anukramaṇīs*, 'catalogues' or 'lists' of different items concerned with the Vedas, such as the supposed composers of individual hymns, and Vedic metres and deities. For the *Rigveda*, there is the comprehensive *Sarvānukramaṇī* of Kātyāyana. These works are ancient but have no claims to belong to the Vedic period. Many attributions, like names of composers of the Rigvedic hymns, cannot be accepted for the simple reason that there is no internal support within the *Rigveda* itself for them. What these texts do best, however, is to assure us by their detailed treatment that the *saṃhitās* even in 400 BC or so possessed the form in which we have them today. It reinforces confidence in our treatment of the Vedic corpus proper as an authentic historical record of its own times.

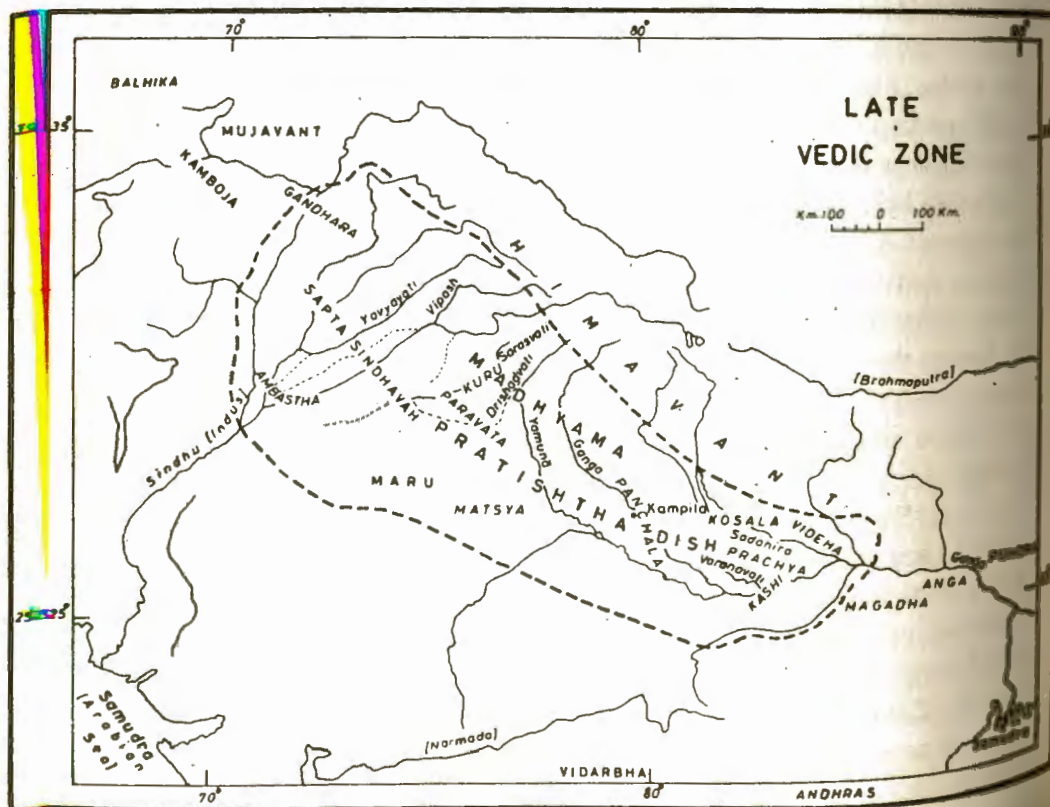
Since, as we shall see (Chapter 2.2), part of the Rigvedic region came to overlap with that of the Avestan, it may be best to give a few particulars about the *Avesta*, the old scripture of Iran. The *Avesta* is in two parts. (1) The Old *Avesta*, comprising the *Gathas*, which are ritual songs traditionally supposed to have been composed by Zarathustra (Zoroaster), and *Yasna Haptanghaiti*, rhythmic prose compositions of no known author. These compositions belong to the same Old Iranian language, its vocabulary and grammar being very close to that

of the *Rigveda*. It is now supposed to have been composed not later than 1000 BC. (2) The Young *Avesta*, consisting of miscellaneous compositions, with considerable deviations from the language of the Old *Avesta* and much linguistic variations between its own various parts. The period of the compositions of the Young *Avesta* could range from about 900 BC to 400 BC. By and large, the period of most compositions of the Old and Young *Avesta* would fall within the Late Vedic period.

2.2 Political History

When one collects geographical references in the Late Vedic literature and compares these with those in the *Rigveda*, one immediately sees that the territorial horizons of the authors have shifted significantly southeastwards. (See *Map 2.1.*) What in the *Rigveda* was situated practically on the southeastern limits of the Aryan zone was

MAP 2.1 Late Vedic Zone



now, in the *Aitareya Brāhmaṇa*, the Middle Land (*madhyamā pratiṣṭhā dish*). The tribes that are said to have inhabited this territory were the Kurus, Pañchālas, Vashas and Ushinaras. The Kurus' territory, *Kuruksheṭra*, was the district surrounding the present town of that name, its limits being defined in the *Taittirīya Āraṇyaka*. The Sarasvatī (modern Sarsuti) and Drishadvati (probably, modern Chautang) were familiar rivers to the Late Vedic seers; and the Yamuna river too occurs frequently in the texts. Ganga, curiously enough, is not mentioned in the *Atharvaveda*, but it is mentioned in the *Shatapatha Brāhmaṇa*; and the *Taittirīya Āraṇyaka* claims special honour for those who live between the Ganga and the Yamuna. That this area was now part of the sacred Middle Land is shown by the statement in one version of the *Shatapatha Brāhmaṇa*, that the river Sadānirā (best identified with the present-day Sarda-Ghaghara) separated the Kuru-Pañchāla territory from the territory of the Kosalas and Videhas.

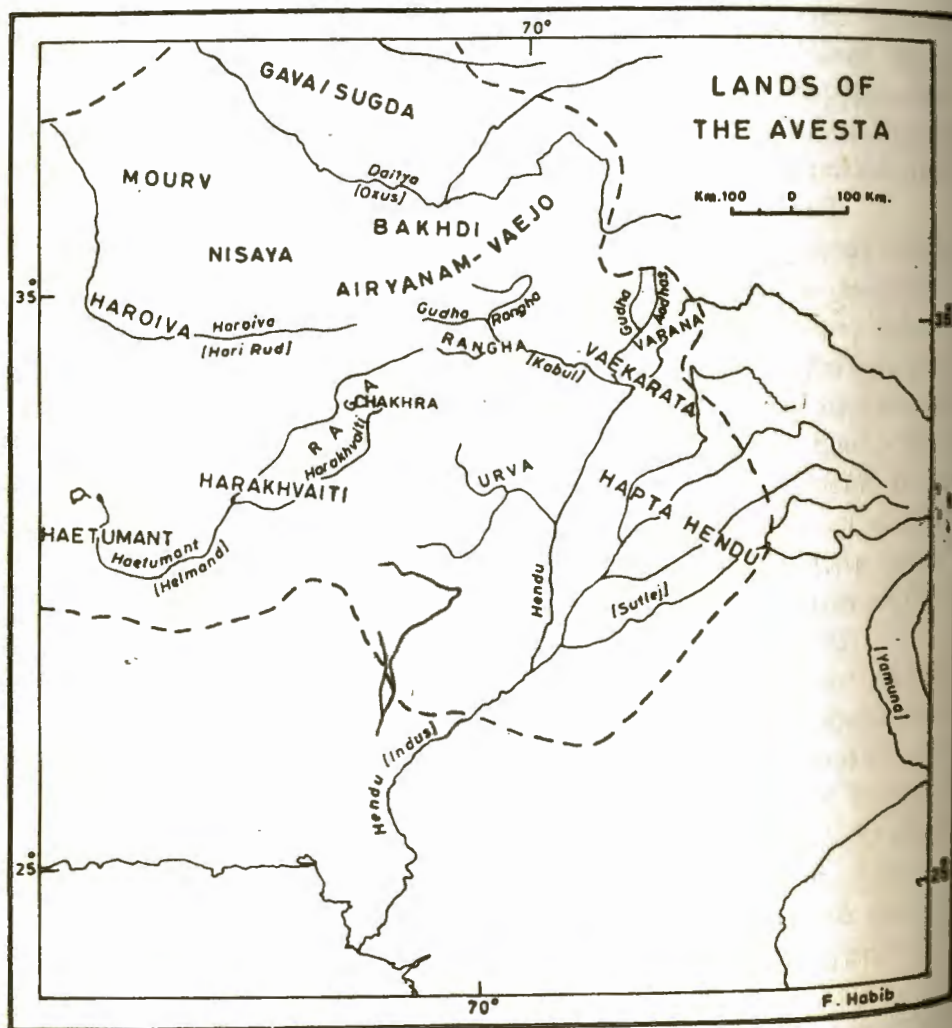
The last two tribes formed, perhaps, the easternmost segment of the 'recognized' Aryan peoples, and inhabited, to judge from later references, northeastern U.P. and northern Bihar, respectively; but if another version of the *Shatapatha Brāhmaṇa* (Extract 2.1) is true and these two tribes were also separated by the Sadānīrā river, then we may assume that in the Late Vedic times these lived on either side of the Sarda-Ghaghara river within eastern U.P. This is supported by the pairing of Kāshis (inhabitants of the district of Kāshi or Varanasi) with Videhas in the *Kaushītaki Upanishad* (IV, 1). The river Varanāvati (Varna, after which Varanasi is named) is, in fact, mentioned in the *Atharvaveda* (IV, 7.1).

In the time of the *Atharvaveda*, lands further east were inhabited by tribes such as Aṅgas (eastern Bihar) and Magadhas (central Bihar, south of the Ganga), who were viewed as enemies by the seers, since the text (V, 22.14) wishes to banish fever away to them. The inhabitants of Magadha were supposed to believe in a non-conforming Vṛātya (XV, 2.1–4). The Pundras, further east (northern Bengal), are decreed to be outcasts, along with the Andhras in the south, in the *Āitareya Brāhmaṇa* (VII, 18). These peoples, unlike the Magadhas, then, were probably still uninfluenced by Aryan language and culture.

As to the west, there are references in the *Pañchaviṃśa Brāhmaṇa* to Sudāman, a tributary of the Beas, and to Yavyāvati (Ravi).

The Ambashthas, inferable from a royal name in the *Aitareya Brāhmaṇa*, might be the 'Abastanoi' encountered by Alexander on the confluence of the Chenab and the Indus. The river Sindhu (Indus) is frequently mentioned in the *Atharvaveda* as also the Seven Rivers (*Sapta Sindhavaḥ*). But references to the Indus become very rare in later texts and then are always given 'in such a way as to suggest distance'. In the *Atharvaveda* itself (V, 22.5, 7, 9, 14), such northwestern peoples as Gandhāris (of Gandhāra, northwest Punjab), Mūjavans (of

MAP 2.2 Lands of the Avesta



the Hindukush mountains) and Balhikas (of Balkh, northern Afghanistan) are held in such hatred that, again, prayers are made for fever to be banished to them. All this is very different from the *Rigveda*, to whose composers much of Afghanistan was familiar land.

An explanation of this retreat in the northwest is perhaps provided by the Young *Avesta*. Here, in the text known as *Videvdād*, God (Ahura Mazda) is said to have created sixteen 'countries' (*dahiu*) for his favoured people. Of these one, Bakhdi (Balkh), corresponds to the *Atharvaveda*'s Balhikas, and four others are named after rivers mentioned in the *Rigveda*: Haroi (Rigvedic 'Sarayu'), Harakhvaiti ('Sarasvati'), Hapta Hendu ('Sapta Sindhavaḥ') and Rangha ('Rasā'). Still another Avestan *dahiu*, Vaekarata, could be the territory of the Vaikara tribe of the *Rigveda* (VII, 19.11). Except for Hapta Hendu (Punjab) and possibly Vaekarata, all the tracts lie to the west of the Indus. We may infer from this list that by the time the late Avestan texts were composed, all these regions, including western Punjab, were considered to be inhabited by peoples following Avestan ritual. (See Map 2.2.) The replacement of Indo-Aryan languages within this large region by the Eastern Iranian (whose eastern limits today closely approach the Indus; see *Indus Civilization*, Map 3.3) might well go back to this Avestan intrusion in Late Vedic times. Yāska, the early commentator of the *Rigveda* (about 400 BC) already recognized that the Kambojas (people of the Kabul area) spoke a language different from the other Āryas (that is, the Indo-Aryans).

It is likely that both the movements we have here traced, namely, of the Indo-Aryans into the Gangetic basin and of the Iranians into the Indian borderland and west Punjab, were accompanied by wars and conquests. The Vedic tribes' success against their non-Aryan opponents in the Gangetic basin was achieved with bows and horse-drawn chariots (*Vājasaneyi*, XXIX, 30-45); but after 800 BC it could have been assisted also by the use of iron weaponry (see 2.3). On the other hand, if iron came to be used in eastern Iran and Afghanistan earlier than in northern India, as archaeological evidence so strongly suggests (see Chapter 3), then the advantage on the score of iron might have similarly lain with the Iranians when they earlier confronted the Vedic settlers of India's northwest.

Within the expanding (and shifting) Vedic zone, stronger

military prowess apparently created the basis for more powerful monarchies and large territorial kingdoms. The king (*rājan*) begins to receive more fulsome eulogies and is allowed much greater pretensions than in the *Rigveda*. The *Atharvaveda*, XX, 122.7–10, says of Parikṣhit, a king, not only that he had given the Kurus, his subjects, “peace and rest”, but that he was, indeed, “the ruler of all peoples, a god among mortals”. Within his domain (*rāṣṭra*), the king’s rights extended to a share in village (*grāma*), horses (*ashveshu*) and cattle (*gopa*); and Indra was entreated to deny to the king’s enemies any portion of this revenue. The king himself aspired to seize his foes’ hamlets and drive them away from their territory (*Atharvaveda*, IV, 22.2, 7).

The increasing power of the king was reflected in the growth of a conventional assemblage of courtiers and officials serving the king. These came to be known as the royal jewels (*ratnins*). The *Shatapatha Brāhmaṇa*, V.3.1.1–11, lists the following ‘jewels’: (1) *senānī* (commander of the army), (2) *purohita* (chief priest), (3) the queen, (4) *sūta* (counsellor?), (5) *grāmanī* (village headman or, perhaps, collector of taxes from villages), (7) *saṁgrahūtri* (charioteer), (8) *bhāgadugha* (‘distributor’, perhaps, paymaster), (9) *akṣhāvāpa* (dice-keeper), (10) *govikartana* (‘cow-butcher’; perhaps, huntsman) and (11) *pālāgala* (courier). References to *bali*, tax or tribute, continue to occur in the texts, but details about the actual rates of tax are not forthcoming. Royalty was now surrounded by complex and rich ritual. The ruler’s accession involved a special rite of consecration, styled the *rājasūya* in the *Atharvaveda* (IV, 8.1); the *Yajurveda* texts and the *Brāhmaṇas* contain verses giving details of this ritual. There was, then, an increasing importance attached to the horse sacrifice (*ashvamedha*) as a mark of assertion of the ruler’s power over whatever ground the sacrificial horse happened to run through.

Both the *Aitareya* and *Shatapatha Brāhmaṇas* tell us of a horse sacrifice undertaken by Janamejaya, a descendant of the Kuru king Parikṣhit. The Kuru kingdom centred in Haryana seems in time to have assimilated the Krivi tribe, which had apparently migrated from the northwest. Reported to be on the Indus and Chenab in a hymn of the *Rigveda*, VIII, 20.24–25, the Krivis are said to have borne the name Pañchāla in later times, when they came to be ruled by a chief Kraivya (*Shatapatha Brāhmaṇa*, XIII, 5.4.7). The Pañchālas, whose territory in

subsequent times lay in the northwestern plains in Uttar Pradesh, are then paired with Kurus (‘Kuru–Pañchālas’) in III, 2.3.15 as well as other Late Vedic compositions.

In the different recensions of the *Yajurveda*, the Kuru–Pañchālas, in turn, appear as an alternative to the Bharatas, the larger tribe from the time of the *Rigveda*. The *Aitareya Brāhmaṇa* describes the consecrations of two Bharata rulers, Bharata Dauḥṣhanti and Shatānika; and the *Shatapatha Brāhmaṇa* represents them as having offered horse sacrifices (*ashvamedha*) on the Yamuna and Ganga. Shatānika is also referred to in the *Atharvaveda*; and the *Shatapatha Brāhmaṇa* adds that he defeated Dhritarāṣṭra, the ruler of Kāshi. We thus see a large Bharata kingdom being formed, extending from Haryana to the lower limits of the Ganga–Yamuna doab.

Three other kingdoms are mentioned, those of Kāshi, Videha and Kosala. Apart from Dhritarāṣṭra, another ruler of Kāshi is known to us from the *Bṛihadāranyaka* and *Kaushītaki Upanishads*, namely, Ajātashatru. Three kings of Videha are named: Māthava, the founder, in the *Shatapatha Brāhmaṇa* (Extract 2.1); Namī Sāpya, in the *Pañchaviṁsha Brāhmaṇa*; and Janaka, in the *Bṛihadāranyaka Upanishad*. In the *Kaushītaki Upanishad* the Videhas being joined to the Kāshis, the two tribes might at some stage have come under one kingdom. Kosala, also in eastern U.P., is mentioned in the *Shatapatha Brāhmaṇa*, which names a ruler of it, Para Ātṇāra, who performed the horse sacrifice.

The information that we get from the Vedic literature for reconstructing the political history of the period c. 1000–700 BC is so fragmentary that we can build only a hazy picture of it. But it is better to be hazy than to try to fill the picture with details drawn from later traditions contained in the Epics (the *Rāmāyaṇa* and the *Mahābhārata*) and the various *Purāṇas*. For one thing, not only are the later narratives coloured by altered circumstances, but they are so often the products of creative genius or of a mere effort to embellish and enlarge the received tradition that the historical kernel, if any, cannot simply be recovered. It will be noticed that there is nothing in the main Vedic corpus about any invasion of Sri Lanka or any great conflagration like the Mahābhārata War; and such events cannot, therefore, be imposed on the evidence derived from the Vedic texts themselves.

Almost a similar position prevails with regard to the *Avesta*.

Later tradition supposes that Zoroaster, the prophet and composer of the Avestan *Gathas*, had a royal patron in Vishtāsp, who, while supporting the Prophet, also created an empire. But the Vishtāsp in the Avestan *Gathas* is only a 'kavi', a special kind of priest (Vedic *kavi*, poet-priest), and not a ruler at all. Since there is very little political material in the *Avesta* otherwise, we cannot derive from it even a fragmentary political history of the lowlands and the Indus basin. Yet, the list of the sixteen *dahius* or regions in the *Videvdād* may be of value as suggesting that many of these had now assumed identities as territorial states, very much in the way that most of the sixteen *Mahājanapadas* (Great Regions) of the Buddha's time (c. 500 BC) were to do. That both lists should use the same total number (sixteen) is a curious coincidence.

2.3 Economy

The shift of the Vedic zone from the Indus basin to the Gangetic, which we have described above (2.2), implies that the upper Gangetic basin was also being simultaneously settled by Aryan tribes. This process must have involved forest clearance, since with the plains obtaining above 75 cm of rainfall in the year (and at that time, perhaps, still more, owing to larger tree-cover), the ground must have been covered by fairly dense forest. Its clearance through use of fire is described in a striking passage in the *Shatapatha Brāhmaṇa* (Extract 2.1). Here, stressing the magical effect of a certain formula in the *Rigveda*, it is related how Agni was made to flash forth and burn up the entire land between the rivers Sarasvatī and Sadānīrā (Sarda-Ghaghara?). All land to the east of the river remained "very uncultivated, very marshy", and so Brahmins passing over to the east later on had to invoke Agni again to burn up the land, thereby making the land "very cultivated". The chief of the Videghas (Vidēhas) followed Agni all the way, and so the Videghas settled to the east of the Sadānīrā, opposite the Kosalas.

There was, of course, more to it than a Rigvedic verse to ignite an eastward movement of forest-burning fires followed by peasants in pursuit of tillage in the Uttar Pradesh plains. One factor behind the movement could well have been the limited availability of water for irrigation in the streams flowing between the Sutlej and the Yamuna. The *Atharvaveda*, III, 13, has a prayer for the occasion when a cut is

made to draw river water into a channel, and the *Pañchavimśa Brāhmaṇa*, XXV, reveals to us the result of such practice on seasonal streams: the Sarasvatī disappeared at Vinashana and the Drishadvati at Triplaksha (places not located), so that they could not carry their waters into the Ghaggar-Hakra river, which too, as the declining number of settlements on its lower banks show (Chapter 3.1), was running dry.

Such a situation would naturally generate peasant migrations across the Yamuna into the Gangetic basin, where, with bountiful rains, the need for a direct reliance on river water could be dispensed with. Such a movement undoubtedly necessitated the use of fire to clear forests; but fire must have been long available as a device for forest removal to peasant communities, including those settled in the Gangetic basin, well before 1500 BC (*Indus Civilization*, 3.3). One needs to see whether the Aryans now possessed new techniques and tools that helped them to attain far greater success than their precursors in reclaiming the land for tillage.

The iron axe, for one, could have been an important aid in clearing trees and stumps subsequent to burning. The White *Yajurveda* (*Vājasaneyi*, V, 43) celebrates the axe that cuts a tree with a hundred branches. A socketless and, therefore, rather inefficient iron axe has been found at Atranjikhhera (doab) of a date no earlier than 700 BC; but a shafted axe at Noh near Mathura is dated within the range 800–400 BC. If a socketed axe had indeed come into use within the Late Vedic period, it could have been of great aid in tree-felling. But Archaeology is still to attest the presence of any agricultural implements of iron, such as sickle or iron blade for the ploughshare, attributable to the period.

It is very likely that the significance of iron for agricultural expansion mainly belongs to the period after 700 BC. Earlier the ox-plough probably played a much greater role in reclaiming the land. It is true that the use of the ox as draught-animal for both plough and cart had a long previous history in the Indus basin (*Indus Civilization*, 1.3); but, though cattle domestication is attested from southern and eastern India before 1500 BC, the use of cart and plough is not. Instead, the digging stick and hoe must have been hitherto employed there. The Rigvedic evidence for the use of the plough has already been discussed (Chapter 1.2). The *Atharvaveda*, III, 17, repeats much of the 'Ploughman's Song' of the *Rigveda* (Extract 1.1); in *Atharvaveda*, VI, 30, Indra

is "Lord of the Plough", the divine Maruts are his ploughmen; and in VIII, 9, a plough (*sīra*) with six oxen (and in VI, 91.1, even eight oxen) is imagined, with similar statements occurring in some of the *Brāhmaṇas*. The *saṁhitās* of the Black *Yajurveda* take the number of oxen yoked to a plough to twelve. Presumably, the ploughs, weighed down with large stone blades, necessary to remove pieces of stumps and roots still in the ground after reclamation from the jungle, had to be drawn by large teams of oxen. There is the probability too that the use of the pulley, already known in the *Rigveda*, gave the Aryan peasants a further advantage in that they could, in the drier months, resort to well irrigation with the use of draught-oxen (see Chapter 1.3).

The *Vājasaneyi-saṁhitā* (White *Yajurveda*) (Extract 2.2) provides us with a list of a dozen crops. We have here (1) rice, (2) barley, (3) 'urd'-pulse (*Phaseolus mungo*), (4) sesame, (5) 'mung'-pulse (*Phaseolus radiatus*), (6) 'kulthi' or horse gram, (7) Italian millet, (8) 'cheena' or common millet (*Panicum milliaceum*), (9) 'sanwa' or poor man's millet (*Panicum frumentaceum*), (10) wild rice, (11) wheat and (12) 'masur' (lentil). Some of these, like rice, barley, urd and sesame, are also mentioned in the *Atharvaveda*; and a hymn of the latter (I, 34) makes it clear that (13) sugarcane (*ikshu*) was now a cultivated plant. Excluding wild rice, nine of the twelve crops identified above are already archaeologically attested for the period before 1500 BC (*Indus Civilization*, 3.1). Of the three new crops not previously reported, sugarcane is clearly the most important.

Since we cannot expect the religious texts to give us a full list of the crops raised, it should not be a matter of surprise if three major millets, namely, bajra, jowar and ragi, cultivated before 1500 BC, are not mentioned here; perhaps, where the texts were being composed, deep in the Gangetic basin, these were not among the common crops. The lack of all reference to cotton is, however, hard to explain. (A reference to cotton traced in the *Āshvalāyana Shrautasūtra* does not help, because that is quite a late text.)

Agriculture, as part of Aryan life, now so much overshadowed pastoralism and hunting, that those among whom agriculture or commerce was not practised were described by the *Pañchaviṁśa Brāhmaṇa* as *vrātyas*, aliens or outcasts. But, for cultivation and transport the rearing of cattle was an essential pursuit, inasmuch as the ox

drew the plough as well as the cart, and probably also made well irrigation possible by helping to draw out water. Thus comes the pronouncement in the *Shatapatha Brāhmaṇa*, III, 1.2.21, that "the cow and the ox doubtless support everything here on earth". This is stated as the reason for the injunction, hardly to be thought of in purely pastoral communities fully dependent on meat and milk, that the flesh of "the cow and the ox" should not be eaten. (That not all agreed with this dictum is shown by the same passage which quotes, in the end, Yājñavalkya's declaration: "I, for one, eat it, provided it is tender.")

It was natural in these circumstances that the concept of wealth continued to be in terms of the numbers of cattle that one possessed. In the *Atharvaveda*, XX, 127.6, after recalling how, upon the singing of 6,090 hymns, the priests received 20 camels with their females, 100 gold necklets, 300 horses and 10,000 cows, the seer exclaims:

O Singer, bring you forth, the hymn that finds cattle, finds wealth,

Even as an archer aims his shaft, address this prayer unto the gods!

As more forest land was cleared in the Gangetic basin, encounters with the elephant should have multiplied. Already mentioned twice in the *Rigveda*, it is referred to more frequently in the *Atharvaveda*. The *Yajurveda* (*Vājasaneyi*, XXX, 11) refers to the *hastipa*, 'elephant-keeper', which shows that by its time elephants had begun to be tamed. This event would have considerable consequences later, because of the animal's capabilities of conveyance over difficult terrain and its great usefulness in battle.

The domestication of the buffalo would have been economically more significant still, that this had begun to happen is likely, but the textual references to the beast offer no definite proof of this.

Passing on to tool-making, we may consider the information we have on metallurgy. The *Vājasaneyi-saṁhitā* (Extract 2.2) lists six metals: gold, bronze, iron, copper, lead and tin. The *Atharvaveda*, XI, 3.7-8, too mentions iron, copper, tin and gold, as well as lead (XII, 2.1, 19). Silver is referred to in other texts. All the metals known in the Indus Civilization were thus in use, with the notable addition of iron, called *shyāma*, 'black'. It is reasonable to assume that iron could only

have been recognized as a metal at par with the other metals when, like them, it too could be isolated and shaped into usable items, that is, when it was not just a piece of meteoric iron or an accidental byproduct of the smelting of copper from iron-mixed ores. In other words, the practice of reduction of iron ore into a semi-solid state with hammering and manipulation, so as to yield at least 'soft iron', must by now have been learnt. As we shall see in Chapter 3, there is little proof, from archaeological evidence, that such a stage had arrived before 1000 BC in the Indus and Gangetic basins. Moreover, for iron to be used to produce tools and weapons that could substitute for those made of bronze (alloy of copper and tin), a still more complicated process, involving annealing and quench-hardening (called 'steeling'), was required. Until this process was learnt, iron-smelting could only have had limited use. In the *Vājasaneyi-saṁhitā*, XXX, 14, the only metal-smelter mentioned in its whole list of various kinds of human beings, is the bronze or copper-smelter (*ayastāpa*). We know from archaeological evidence that the process of steeling discovered in West Asia began to diffuse eastwards only from the tenth century BC and could barely have arrived in northern India before eighth century BC, whereafter, as at the site of Atranjikhara, western U.P., iron artefacts suddenly multiply.

Wood, the major medium for tools, made the professions of the carpenter and the chariot-maker well-respected, since the *Puruṣa-medha* hymn takes the former to stand for "firmness" and the latter for "dexterity" (*Vājasaneyi*, XXX, 6). Metal-use must have reduced the extent of use of stone tools; but there is no textual evidence to show how far it was still common. The stone tools most mentioned are the *upara* and *drishad*, pestle and mortar.

The potter's craft must have been common, and the *kulāla* appears in a short list of craftsmen in a hymn to Rudra (*Vājasaneyi*, XVI, 27).

On textile crafts, we can assemble more information. Rather irritatingly, there appear to be no explicit references to cotton as the fibre, though the woollen thread (*ūrṇā-sūtra*) is repeatedly mentioned. Spinning seems mostly to have been done by women. "Wool and thread is women's work", says the *Shatapatha Brāhmaṇa*, XII, 7.2.10. Elsewhere (III, 1.2.19), it refers to cloth having to be beaten if it was "spun or woven" by an unclean woman. In weaving, the shuttle (*tasara*) was

thrown across the loom (*vemaṇ*) (*Vājasaneyi*, XIX, 83); and the *Atharvaveda* (X, 7.42, 43) tells us of how two maids (night and day) prepare the web (*tantra*), laying out alternately the warp and woof, whereafter man (*puruṣha*) weaves the cloth and divides it. Women played a significant role in the later stages of production as well: the *Puruṣa-medha* hymn refers to the woman embroiderer (*peshaskārī*) and dyer (*rajayitrī*). There was also, then, the washerwoman (*pulpūlī*) (*Vājasaneyi*, XXX, 9, 12).

Generally speaking, there seems to have been a considerable multiplication of specialized occupations, many of which are mentioned in the *Puruṣa-medha* hymn. Here (*Vājasaneyi*, XXX), apart from those already noticed, we have such occupations as those of the bow-maker, rope-maker, bowstring-maker and arrow-maker; hide-dresser; woman splitting cane, woman working in thorns; woman ointment-maker; woman sheath-maker; stone-breaker (?); horse-keeper; wood-carrier; fire-kindler; cowherd; hunter; fisherman; smith, goldsmith; merchant; physician and astrologer.

The multiplicity of occupations and, therefore, the necessity of exchanges of services and products must have made necessary a larger use of precious metals as media of exchange. The *nishka*, originally a gold or silver ornament, had begun to acquire the form in which gifts of value might be given. Very much like his Rigvedic precursor, a seer in the *Atharvaveda*, XX, 127.3, speaks of the receipt of a gift of 100 *nishkas* and 300 horses. But when, in the *Shatapatha Brāhmaṇa*, XI, 4.1.1, we read of a *nishka*, as a gold piece, being offered by a priest as a prize to invite challengers in a disputation, the transformation of the *nishka* into a money token (not yet a coin, since it was not issued by a ruler) seems complete. Probably, some weight was being assigned to each piece, for in the same text (XIII, 2.3.2), a priest's fee is said to be in "gold weighing 100 (grains?)".

There is still no sign of towns. The term *pur*, wherever used, represents little more than a fortified settlement with a stockade or wall around and perhaps no more than one gate, as is suggested by a passage in the *Shatapatha Brāhmaṇa* (XI, 1.1.2, 3). The later word for town, *nagara*, occurs in no text earlier than the *Taittirīya Āraṇyaka*; and in the Late Vedic corpus proper, there are no descriptions of any towns with streets, shops, fairs or inhabited areas. Even the names of towns are

hard to find. There is the tribe of Kāshis, for example, but no town of Kāshi (Varanasi) as yet. The economy had thus not developed sufficiently to sustain towns. As we shall see in Chapter 3, this is also what archaeology tells us.

2.4 Society

We saw in Chapter 1.4 how society, by the final phase of the period of the *Rigveda*, came to be divided into four recognized classes (later to be known as *varṇas*): Brāhmaṇas, Rājanyas, Vaishyas and Shūdras. The four-fold division appears only in a single hymn of the *Rigveda*. Yet that hymn, the *Puruṣa-sūkta*, is reproduced in both the *Atharvaveda* (XIX, 6) and the White *Yajurveda* (*Vājasaneyi*, XXXI), with some alterations but with the substantive passage on the origin of the four classes intact, so that it is fair to regard the hymn as much more than a chance composition.

The Brahmins were essentially defined by their descent (*brāhmaṇya*), whence the alternative name for them, Brāhmaṇa ('descendant of Brahman'): presumably only descent in the father's line was kept in view. The *Shatapatha Brāhmaṇa*, XI, 5.7.1, while insisting on such descent, prescribes teaching and study (of the Veda) as the Brahman's occupation, whereby "day by day he acquires wealth". The Brahman, in return for his performance of Vedic sacrifices and ritual, could expect to become a 'recipient of gifts' (*ādāyī*) and 'consumer of the offering' (*āpāyī*) (*Aitareya Brāhmaṇa*, VII, 29.2).

Indeed, the Brahmins' demands for gifts and fees for their priestly functions were fairly exorbitant most of the time, though the gifts they claim to have received in their own compositions belonged often to the realm of imagination. However, even if discounted, they must have been substantial enough for the whole class. Other claims were also laid on society. The Brahmins' wives and cows must be held sacrosanct (*Atharvaveda*, V, 17 and 18). All land, except such as was already held by Brahmins, could be given by the ruler to Brahmins in sacrificial fee (*Shatapatha Brāhmaṇa*, XIII, 6.2.18, 7, 1.13). Favoured by the gods, they deserved to be worshipped (*Atharvaveda*, V, 3; VI, 13, 3). The *Aitareya Brāhmaṇa* claimed for them the privilege of moving from place to place at will, that is, presumably without any restraint placed on them by anyone.

But the reality still was that "when the king chooses he may oppress (despoil) the Brāhmaṇa", although it was hoped that such an oppressor would "fare the worst for it" (*Shatapatha Brāhmaṇa*, XIII, 1.5.4).

The name Rājanya for the ruling class occurs frequently in the *Atharvaveda*, along with Kṣatriya. An original distinction is sometimes suggested between Rājanyas as persons belonging to the family of the ruler (*rājan*), and Kṣatriyas as warriors or potentates, from *kshatra* (strength, power); but this does not seem to be borne out by the texts. A direct relationship between the Rājanya and *kshatra* is implied in the *Atharvaveda* (XII, 5.8) and the White *Yajurveda* (*Vājasaneyi*, XXX, 5), so that both Rājanya and Kṣatriya would seem from very early times to be alternative names. The statement in the *Shatapatha Brāhmaṇa*, XII, 7.3.8, that *kshatra* was produced out of the *vish*, the commonalty, may lead one to suppose that those who attained power, of whatever origin, could count as Kṣatriya; and thus warriors expert in archery and able to fight on chariots, as the Rājanyas are expected to be in the *Shatapatha Brāhmaṇa*, XIII, 1.9.2, were ideal members of the class.

'Vaishya' is nearly as rare of occurrence in the *Atharvaveda* as in the *Rigveda*; and this possibly suggests that the term was simply coined out of the word *vish*, meaning the common people. As such, according to the *Aitareya Brāhmaṇa*, VII, 29, they were subject to payment of *bali*, tax or tribute, to 'another' (*anyasya*); they could be forced to sustain 'another'; and they could be 'oppressed at will' (*yathākāmaj-yeyah*). They were a heterogeneous mass, taxed but not servile, and, as far as we can judge, included a large part of the peasantry, whose occupation still carried respect. An assignment of specific professions to the Vaishya, distinct from those to the Shūdra *varṇa*, had not, however, yet taken place, to judge from the way the occupations followed by men and women are mentioned for the purpose of the 'human sacrifice' in the White *Yajurveda* (*Vājasaneyi*, XXX). The Vaishya's status was thus definable negatively: he was not a Brahman or Rājanya, with whom he yet shared the privilege to offer a sacrifice and enter the sacrificial enclosure (*Shatapatha Brāhmaṇa*, III, 1.1.9-10). For, though lower in status to the first two classes, he was yet an Ārya – that is, he was not a Shūdra.

The word 'Ārya' by now was losing its earlier rough ethnic and linguistic connotation (see Chapter 1.4). It is characteristic of the *Atharvaveda* that it still carries the older Rigvedic memories of the conflict with the Dasyus and Dāsas, celebrating their slaughter and defeat, and so continues to refer to the major distinction between the Ārya and Dāsa (IV, 32.1; XX, 126.19). Even the expression *dāsam varṇam* ('Dāsa-colour') occurs (XX, 34.4). But the shift to the new major contrast is well on its way: in IV, 20.4 and 8, the contrast is between Shūdra and Ārya. In the White *Yajurveda*, mentions of Dasyu and Dāsa become rare, and are replaced by references to the Ārya and Shūdra (*Vājasaneyi*, XIV, 30; XX, 17; XVI, 2). It is thus clear that while the Brahmans, Rājanyas and Vaishyas constituted the Ārya segment of society, the Shūdras were held to form the non-Ārya component. The distinction was no longer one of language or territory, as with the Dasyu and Dāsa, but of place in the social order. The Shūdra was not placed outside of society, as the Dasyu was; indeed, the gods could still be prayed to for giving "lustre" to the Shūdras along with the three Ārya classes (*Vājasaneyi*, XVIII, 48), and the Shūdra could be addressed in a salutary speech at a sacrifice with the same company (XXVI, 2). This could never have been thought of in respect of the Dāsa or Dasyu.

The Shūdra, though thus accepted as part of Aryan society, was however assigned practically no rights. According to the *Aitareya Brāhmaṇa*, VII, 29.4, he was a servant of another (*anyasya preshyā*), and liable to be expelled at will (*kāmotthāpya*) and killed at will (*yathā-kāmapadhyā*). His status as servant, says the *Pañchaviṃśa Brāhmaṇa*, VI, 1.11, could not be altered even if he possessed 'many cows'. His life represented 'penance' (*Vājasaneyi*, XXX, 5), and he (with a pejorative) is included among those whom fever should strike instead of the seer's own people (*Atharvaveda*, V, 22.7).

It is with the Shūdras that another element of the later caste system already appears: the concept of ritual pollution. According to the *Shatapatha Brāhmaṇa*, III, 1.19.10, not only was a Shūdra barred from sacrificing, but the consecrated person at the site could not even speak directly to him. A holy teacher was not only to avoid "contact with Shūdras and leavings of food", but he should not even look at a woman, a Shūdra, etc. (XIV, 1.31.)

The Shūdra so neatly replaces the Dasyu and the Dāsa as the antithesis of Ārya in our texts, that it is reasonable to assume that the Shūdras arose out of the Dasyu, Dāsa and other tribes who, having been subjugated by their Aryan foes, were now placed in varying degrees of servitude (see Chapter 1.4). Such servitude could include individual slavery; and when the *Aitareya Brāhmaṇa* speaks of a Shūdra being "the servant of another", it might have precisely such a slave in mind. Male slaves (*dāsas*) are mentioned in the *Rigveda*; and *dāsīs*, women slaves, appear in the *Atharvaveda* under that name. The *dāsī* was expected to work with pestle and mortar (*Atharvaveda*, XII, 3.13) and to gather cow-dung (XII, 4.9); and fever was invited to strike her, or a Shūdra woman, rather than "us" (V, 22.6-7). Women slaves were valuable enough, however, to be sought in gifts. The *Shatapatha Brāhmaṇa*, XIII, 5.4.27, claims for a sacrificial gift "four women, with a maiden as the fifth, and four hundred female attendants"!

There could also be whole communities that might be subjugated and, in return for tribute and other claims over them, accorded a Shūdra status by the dominant Aryan tribe. Since agriculture had already been established in the Gangetic plains by 1500 BC (see *Indus Civilization*, 3.3), many of the previous inhabitants must have been peasants (even if hoe-using), and they could therefore regularly yield an agreeable amount of surplus for the consumption of the rulers and their priests.

More primitive, possibly 'gathering', communities (hunters, fishing folk and the like), probably received a harsher treatment. But though the White *Yajurveda*'s 'Human Sacrifice' hymn mentions the *Nishādas* and *Chandālas*, in later texts to be grouped with the untouchable castes, we do not yet get any actual information about the way they were dealt with.

Two of the major institutions of the later caste system, namely, exogamy or marriage outside the kin group, called *gotra*, and endogamy or marriage only within the caste (*jāti* and *varṇa*), do not seem as yet to have been widely established. The word *gotra* means only the cow-pen or cattle-herd, and is nowhere used for any human group in any text before the *Upanishads*. In the *Shatapatha Brāhmaṇa*, I, 8.3.6, unions among kindred (*jātyāḥ*) in the fourth or third degree on either parent's side are considered legal, so that restrictions on marriage

presumably applied only to closer degrees. Even the limited restriction implied here could be a recent one, since the *Shatapatha Brāhmaṇa* is not one of the early *Brāhmaṇas*.

As for endogamy, how alien it was still to the Late Vedic social mores is shown by these remarkable lines from the *Atharvaveda* (V, 17.8-9):

Even if ten former husbands – none a Brahman – had
espoused a woman
And then a Brahman took her hand, he is her husband, only
he.
Not Vaishya, not Rājanya, no; the Brahman is, indeed, her
lord.

One need not infer either polyandry or divorce from such rhetoric. But the inference that there were women who could individually have either a Brahman or a Rājanya or a Vaishya for a husband is inescapable, for otherwise there would be no sense in the claim of priority made on behalf of the Brahman husband. It is possible, however, that here we have a reflection of the later doctrine of hypergamy, whereby a man can marry a woman of the same or lower caste or *varṇa*, but not of a higher one. Yet, even such a presumption is put in question by the rather casual way in which the White *Yajurveda* (*Vājasaneyi*, XXIII, 30-31) treats both the seduction of a Shūdra's wife by a rich Ārya and an Ārya's wife by a Shūdra, not as gross violations of the law but merely as matters of loss to the husbands.

The perceived low stature of women is shown by how, not Shūdra or *dāsa* men, but Shūdra women and *dāsīs* are picked out in the *Atharvaveda*, V, 22.6, 7, as expendible targets for fever to strike, and such pejorative words as 'lascivious' and 'wanton' are tagged on to them. In the *Shatapatha Brāhmaṇa*, XV, 1.1.31, women in general are classed with "Shūdra, dog and blackbird" as embodying "untruth". Women could also be ritually impure: the same text (III, 1.2.19) enjoins special care to be taken with cloth whose threads may have been spun or woven by "an unclean woman".

The repression of women, marked by the contempt in which they were thus held, was also reflected in the hard work assigned to them. For once the designation *kṣhetra-patnī*, 'mistress of the field'

(*Atharvaveda*, II, 12.1), may suggest some respect, but it also plausibly implies that women too worked in the field, alongside men. As we have seen, slave women were put to work with mortar and pestle and gathered cow-dung. In the *Vājasaneyi*'s 'Human Sacrifice' hymn, we find women who had as their occupations the splitting of cane, working in thorns, embroidering, washing clothes, dyeing, making of ointments and sheath-making. Such participation in production was no passport to equal status: on the contrary, women's work was obviously regarded with scorn. Women who split canes and worked in thorns were seen as suitable offerings for goblins and demons, and the woman dyer as an offering for sensuality, though the female ointment-maker was generously assigned to virtue. One can imagine from such scorn that the women's recompense for their labour must have been exceptionally low.

The same hymn shows how women's status was also fixed by their performance as begetters of children. Those who were barren or had borne twins are consigned to Yama, the god of death. From an incantation in the *Atharvaveda*, I, 14, one deduces that the worst fate one could think of for a woman one disliked was that of a spinster forced to lead her life in her parents' or brother's house. In such conditions the offer of a dowry to secure a girl's marriage could become a normal custom. It was, indeed, already in vogue: another hymn in the *Atharvaveda*, V, 17.12, speaks of the "lovely wife who brings her dower in hundreds (of undescribed things)" for the groom.

Child marriages are not attested in the main Vedic corpus; the first references to them belong to the *sūtras*, i.e. to post-700 BC texts. On the other hand, polygamy seems to have been recognized as the prerogative of the powerful and the wealthy. While referring to the conventional four wives of the king, the *Shatapatha Brāhmaṇa*, XIII, 2.6.7, pronounces the wisdom that "(many) wives are a form of prosperity (or social eminence)". In the *Atharvaveda*, IX, 5.27-28, there is a reference to a second husband of a woman, and to their desire to remain together in the next world. Apparently, the implication is that widows could lawfully remarry.

One of the major means of sexual exploitation of women makes its appearance in the White *Yajurveda* (*Vājasaneyi*, XXX, 5), where the profession of the prostitute, designed to serve lust (*kāma*), is

given a kind of formal recognition. The story of Jabālā in the *Chāndogya Upanishad*, IV, 4.1–4, shows how servant-women moving about could be subjected to sexual abuse.

2.5 Religion

In formal terms, the religion of the Late Vedic age was a continuation of the set of beliefs and rituals found in the *Rigveda*, which in time came to be regarded as a kind of primary scripture. Yet, in reality, much changed and much was added.

Whether such change is already visible in any substantial degree in the *Atharvaveda*, is disputable. The large number of incantations and magic formulae this text contains has suggested to many that it embodies a popular, even partly non-Aryan, influx into the older Rigvedic religion. But the more likely explanation is that, since the *Rigveda* was a collection mainly of sacrifice hymns, centred on Agni and *soma*, it was bound to exclude many compositions of the sort that were admitted to the *Atharvaveda*, which is looser in its attachment to the purposes of ritual sacrifice. If so, the popular addiction to spells and charms might have been just as great in the time of the *Rigveda* as in that of the *Atharvaveda*.

In the *Brāhmaṇas*, with their narrow concern with the purely ritualistic side of religion, Rigvedic formulae are quoted with special reverence. But one begins to see here an attitude towards deities that marks a change from the *Rigveda*. Not only do gods appear as being bound by the effects of sacrifice in a mechanical manner, but they begin to be depicted as quite amoral, acting from selfish motives and resorting to guile and even deceit. The god Viṣṇu had his head cut off by the work of ants set against him by the other conspiring gods, the head becoming the sun – so in *Shatapatha Brāhmaṇa*, XIV, 1.1.1–14. Rudra, in the *Vājaṣaneyi-saṃhitā*, XVI, 20, is called “the lord of thieves, the roaming robber”.

These two gods, Viṣṇu and Rudra, at the same time had so distinctly risen in the priests' estimation from their rather moderate status in the *Rigveda*, that by the time of the *Brāhmaṇas*, they had become the two most prominent deities in the pantheon. We recognize the second god more easily today by the name Shiva, which earlier on was an epithet (“auspicious”) for Rudra. There is yet no direct state-

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ment of Viṣṇu's incarnations, or of Shiva's association with any phallic cult.

It has been often suggested, with a strong endorsement from D.D. Kosambi, that the changing depictions of deities derived considerably from cults brought in by subjugated non-Aryan populations. This is certainly likely, but we are hampered by our lack of knowledge of the previous beliefs of the non-Aryan communities. It may, however, be presumed that Rudra (Shiva) had already begun to incorporate certain local deities, and therewith to annex to himself myths and powers attributed to them. The *Shatapatha Brāhmaṇa*, 1, 7.3.8, tells us that not only were Rudra and Agni the same, but that the god was also named “Sharva, as the eastern people call him; Bhava, as the Bāhikas (?) (call him); [and] Pashūnāmpati (lord of cattle)”. Here, two names at least are expressly recognized as those of local deities with whom Rudra was identified. There is a possibility too that the concept of pollution in ritual (see 2.4 above) had non-Aryan origins, for a Proto-Dravidian word **pul* has been inferred as denoting it.

Already, in the *Rigveda*'s Creation Hymn (*Extract 1.3*), we have an early example of bold speculation of a philosophical kind. In the *Brāhmaṇas*, concerned closely with the performance of sacrifices, larger questions of the spirit and even morality appear to be set aside in the anxiety to secure a strict observance of rites that went on being prescribed in greater and greater detail. There was a tendency to see all happenings in the world as a result of one ritual sacrifice or another – a model for which was set by the *Rigveda*'s own *Puruṣa-sūkta* (where creation itself is seen as the result of a gigantic sacrifice, that of *Puruṣa*). Much of the mythology developed in the *Brāhmaṇas* was woven around one sacrifice or another. Significantly, no ritual involves the worship of an image of any deity.

The change comes with the *Āraṇyakas*, as texts professedly concerned with priests who had retired to forests and were not obliged to conduct the sacrifices. The *Āraṇyakas* smoothen the passage to the *Upanishads*: sacrifices and rituals are now not rejected but are suddenly transcended; meditation (*dhī*, *dhyāna*) becomes the major object of endeavour, not the rite of sacrifice. Gates are thereupon thrown open to philosophical speculation.

The *Upanishads*

The *Taittirīya Āraṇyaka* recognizes not only perception but also tradition and a seer's communication as sources of knowledge (*vidya*). In the *Upanishads*, therefore, gods and seers frequently appear in narratives and dialogues as oracles or authoritative exponents of doctrines. A large number of assertions are made *ex cathedra* or refuted in a similar fashion. Yet, all such deficiencies and obscurities tend to be overlooked when one looks at the bold propositions with which these texts deal.

For the period we are concerned with, it is best to concentrate on the early set of *Upanishads* (see 2.1 above). Already, in these early texts, a new terminology has been developed, centred on the concepts of 'Brahman' and the *ātman*. From its earlier meaning of 'prayer', whence 'efficacious prayer' and so 'the Vedas', the word 'Brahman' came to mean, first, the entire divine order itself whose knowledge the Vedas contained, and then, the cause of all existence. *Ātman* meant 'self'; the *Upanishads* convert it into 'soul' by isolating it from the body, and thereby open a new realm for speculation.

The first vital step in this pursuit was to expand the sense of 'Brahman' from the cause of existence to Existence itself. For example, the *Chāndogya Upanishad* (III, 14.1), while exhorting the hearer to meditate on the beginning, end and existence, proclaims: "All this is Brahman." In the same *Upanishad*, VI, 11.3, the *ātman*, self, is taken to be the soul, for when the body dies "the living *ātman* has left it, the living *ātman* dies not." But *ātman* is not just an individual's soul; it has immense capacities once its nature is understood. It is here that the *Upanishads* introduce yet another category: 'conduct' or 'deeds' (*karman*) that the soul produces. Yājñavalkya tells his wife Maitreyī that if one loves *ātman*, one loves everyone and everything (*Bṛihadāranyaka Upanishad*, II, 4.5). And when asked by Ārtaabhāga what happens after death when the *ātman* departs, Yājñavalkya took him aside, "and it was *karman* of which they spoke; it was *karman* which they praised" (III, 2.13–14). In other words, correct understanding of the *ātman* is the necessary source of good works. When so understood, the *ātman* achieves its highest stature; it merges with Brahman: "Having shaken off the body, I obtain, self made and satisfied, the world of Brahman, yea, I obtain it" (*Chāndogya*, VIII, 13). The ultimate unity of the Universe, the Creator and the Soul ("You are It/He", *tat tvam asi*: VI, 16.2) is now accomplished.

Much would be built on these pantheistic ideas in the later development of the philosophy of Vedānta, though one must be careful not to read into the early *Upanishads* the roots of the full-scale structure of later Vedānta, with the special place that *māyā* (or illusion) came to occupy in it.

Another (and, perhaps, in its practical implications, a more significant) doctrine that makes its appearance for the first time in the *Upanishads* is that of transmigration of souls. This, put in the most simplified form, holds that all living beings after death are, through their souls, born again in this world, their status on rebirth being determined by their conduct or 'works' (*karman*) in the previous life. An endless cycle of births and rebirths is thus established, with souls taking one living form after another. No divine intervention affects the working of this mechanism, so that the theory is independent of belief in Brahman, though not of that in soul (*ātman*). Its first assertion is made in the *Bṛihadāranyaka Upanishad*, VI, 2.13–15, and the *Chāndogya Upanishad*, V, 3–10 (see *Extract 2.3*), in both of which the sense of its being a novel discovery is made manifest: its absence in earlier Brahmanical tradition is attributed to its having been so far kept a secret, preserved among the Kshatriyas alone.

The transmigration theory is obviously a response to the immobilities of a caste (*varṇa*) society, where birth matters most. One's position in the hereditary caste order can now, by the theory of *karman*, be justified on the basis of one's own merits or faults in the previous life. With such power to sustain faith in the existing order, it is not surprising that the doctrine became the principal ideological pillar of the caste system. The later Sāṃkhya system, with its refusal to link the transmigrating soul with the Absolute, thus has its roots in the *Upanishads* as much as has the pantheistic Vedānta.

The *Upanishads* repeatedly accept the entire Brahmanical ritual; and good *karman* obviously consists in faithfully undertaking the ritual. But, there is a shift of emphasis. The god Prajāpati, in *Bṛihadāranyaka Upanishad*, V, 2, is said to have laid down three 'da-s' as the main principles of ethics: self-restraint (*dāmyata*), generosity (*datta*) and mercy (*dayadhvam*). These are not qualities, especially the first and the third, that find a prominent place in earlier ethics. Even more, abstract principles like truth could now over-ride the strictest demands

of formal law. Satyakāma, son of a servant-woman with father unknown, goes to a teacher and wishes to enrol with him as *Brahmachārin*, or student. The teacher accepts him as a Brahman, not because he was born one but because he did not deign to hide the truth about his illegitimate birth (*Chāndogya*, IV, 4).

There is also an element of scepticism in the *Upanishads*, which often appears in the admission that certain things cannot be known. Called upon to define the Brahman, or *ātman* in the Absolute state, Yājñavalkya repeatedly gave his famous definition of two negatives (*neti neti*, 'not so, not so'), in the *Bṛihadāranyaka Upanishad*, IV, 2.4; 4.22; 5.15. There are attractions, too, for many of us, in the propositions that are presented and then rejected, like the epicurean perception of life that the *asuras* ('demons') learnt from Prajāpati (*Chāndogya*, VIII, 8.4–5).

The *Upanishads* undoubtedly constitute an important landmark in the development of philosophical thought in India. Their worldwide acclaim, however, is recent. Their first translation in any language occurred when 52 of the texts were rendered into Persian, with the greatest care, by the Mughal prince Dara Shukoh (assisted by pundits) in 1657, and issued under the title *Sirr-i Akbar* (the Great Secret). From this a Latin translation, *Oupnek'hat* (*Upanishad*), was made by Anquetil Duperron and published in 1801–02. Early appreciations of the *Upanishads* in Europe, particularly by the German philosopher A. Schopenhauer (1788–1860), stemmed from a reading of this translation.

The composition of the *Brāhmaṇas* and the *Upanishads* was contemporaneous with the spread of Zoroastrianism in eastern Iran. Zoroaster might have lived before 1000 BC; yet, the details of his religious reform are provided not only by the *Gathas* attributed to him but also by the Young *Avesta* compiled some centuries later. Ahura Mazda was proclaimed by him as the great good God, who needs no animal sacrifices for Him to support the pious. Angra Mainyu heads the evil forces, as Satan does in Christianity and Islam. Zoroaster as the prophet is aided by Ahura Mazda to fight all evil. But each man is the master of his own fate, and the bridge leading to heaven is wide or narrow according to his deeds. In the Young *Avesta*, the society consists of three classes: priests, warriors and peasants (curiously analogous to

the Indian 'Ārya' classes: Brahmins, Rājanyas and Vaishyas). The nomads are despised.

Notwithstanding the affinities of language, there is little common ground that can be discerned between Zoroaster's teachings and the evolving religious ideas in India. This is despite the fact that the *Chāndogya Upanishad*, VI, 14.1–2, shows a sense of familiarity with Gandhāra, a territory well within the Avestan 'Hepta Hindu'. We can only infer that all intercourse between the Vedic and Avestan priests had long been lost.

2.6 Other Aspects of Culture

There remains little to be said on literature after our discussions of the contents of the Late Vedic corpus in 2.1 and 2.5 above. We must remind ourselves that the individual authors of these texts remain unknown to us because these texts developed within different schools of priests (with individual teachers and their pupils), each being added to or altered in the course of transmission and, then, freezing at a particular point of time, when the compilation was deemed to have obtained its final form. From then onward, the transmission was fairly faithful.

Being priestly texts, religion and ritual were their chief concerns, and while verse and metre remained important because of the aid these rendered in chanting and memorization, they could not by themselves produce true poetry. The 'Ode to the Earth' (*Prithvī*) in *Atharvaveda*, XII, 1, is one of the rare compositions in that collection where poetic power can still be found. In the stanza of this hymn quoted below, one can, perhaps, detect the anxieties of the times:

Drive us not from the west or east, drive us not from the north or south.

Be gracious unto us, O Earth: let not the robbers find us, keep the deadly weapon far away.

Another device for keeping interest in belief and ritual was the resort to riddles, such as appear in the *Vājasaneyi-saṃhitā*, XXIII. Here too the level of ingenuity is not high. "What lake is equal to the sea?" Answer: "Heaven!" (verses 46–47).

The *Brāhmaṇas*, and later the *Upanishads*, introduce what

may be called quasi-historical narratives, to justify or glorify a particular procedure, or lend authority to a particular ritual or theological or philosophical assertion. Some such narrations have undoubtedly a historical kernel, as the passage in our *Extract 2.1*; others are purely mythological. Some traditions were in time developed by various schools to promote their own seers. Even here, one can never tell if the bold Yājñavalkya, whom we have quoted more than once, was at all a historical person or simply an imaginative creation of certain *Brāhmaṇa* and *Upaniṣhad* composers. It was from such traditions that *itihāsa*, or mythic history, originated. The term is found, along with *purāṇa* ('tale of olden times'), in the *Atharvaveda*, XV, 6; and the *Shatapatha Brāhmaṇa*, XIII, 4.3.12 and 13, equates a knowledge of them with "the Veda". No mythological text proper, however, survives from the period.

A true science, whose rudiments the deep interest in preserving the sacred compositions and pronouncing them well led to, was **grammar**. The *Chāndogya Upaniṣhad*, II, 22.3–5, classified sounds into vowels (*savara*), sibilants (*ūshman*) and consonants (*sparsha*), advising that the consonants should be "pronounced slowly". The *Brāhmaṇas* already show an appreciation of the distinction of case forms and numbers. There is a tendency to explain ritual terms on the basis of etymologies, though these may often be far-fetched. Advances were thus made, on which as foundations Pāṇini was later (fourth century BC) to frame his celebrated principles of Sanskrit grammar – the first of its kind in the history of the world.

In **physical sciences**, despite claims so often made now, the progress was fairly limited. There is little to show that an exact solar calendar had been attained, and the lunar months, in whose terms the days for sacrificial rites tended to be fixed, were not properly adjusted with the solar year. References to there being twelve or thirteen months in a year in the *Shatapatha Brāhmaṇa*, II, 2.3.27, possibly indicate the induction of an additional ('intercalary') month after the passage of three years, but this is unproven. In astronomy, the major concern appears to have been with the movement of the moon and hence with 'the lunar mansions', or sets of stars, called *nakṣatras*, in relation to which the stages of the movement can be set: twenty-eight such *nakṣatras* are named in the Black *Yajurveda*. In the *Vājasaneyi-*

samhitā (XXX, 10, 20) the '*nakṣatra*-gazer' and the *gaṇaka* ('astrologer') represent a recognized profession, either because they helped to fix the date of the ritual properly or because already there were some claims of foretelling involved in their art. *Nakṣatra* ('ruler of night') had earlier meant a star, but not much knowledge of the stars is vouchsafed to us from our texts. The reason for solar and lunar eclipses not being understood, the demon Rāhu was supposed to be the cause of them (*Chāndogya Upaniṣhad*, VIII, 13).

In the realm of **medicine**, the study of anatomy is of some interest. The *Atharvaveda*, X, 2.1–15, describes the various parts of the human body, and so also the *Vājasaneyi*, XIX, 85–93. The *Shatapatha Brāhmaṇa*, XII, 2.4.13–14, gives particulars that yield the true number of human vertebrae (twenty-six). The texts also describe a number of diseases, but it is difficult to identify several of them. It is not possible to determine, for example, whether *balāsa* is a form of tuberculosis; some fevers described might refer to malaria, but small-pox appears to have been absent. The *bhishaj*, or physician, appears in the *Vājasaneyi*, XXX, 10, 14, as does a female ointment-maker (*anjanikārī*). Plants and herbs were used in treatment, but magic charms were not overlooked.

Of performing **arts** we know little. The *Vājasaneyi*, XXX, has singers, dancers and players of instruments of various kinds among the human 'victims' for sacrifice. The *Sāmaveda* gives us texts of stanzas to which were assigned specific melodies. No textual notation is provided for these melodies, which must have been rendered orally, since the *Sāmaveda* itself was transmitted by such means.

TABLE 2.1 Chronology

Final compilation of the <i>Sāmaveda</i> , Black <i>Yajurvedā</i> recensions, and the <i>Atharvaveda</i> , before	c. 900 BC
The White <i>Yajurveda</i> (<i>Vājasaneyi</i> recension) and the early <i>Brāhmaṇas</i>	c. 800 BC
The <i>Shatapatha Brāhmaṇa</i> and the early <i>Upaniṣhads</i>	c. 700 BC
The middle group of <i>Upaniṣhads</i>	c. 600 BC

Note: As in the case of Table 1.1, all dates are approximate and designed principally to show sequence rather than firm absolute chronology. A margin of error of 100 years can be easily conceded.

EXTRACTS FROM TEXTS

Extract 2.1

How Agni leads Māthava Videgha to the East

Shatapatha Brāhmaṇa, I, 4.1.10-17

10. Now Māthava, the (king of) Videgha, carried Agni Vaishvānara in his mouth. The Rishi Gotama Rāhūgaṇa was his family priest. When addressed (by the latter), he made no answer to him, fearing lest Agni might fall from his mouth.
11. He (the priest) began to invoke the latter (Agni) with verses of the *Rigveda*.
12. ...
13. Still he (the King) did not answer. (The priest continued:) "Thee, O butter-sprinkled one, we invoke" (*Rigveda*, V, 26.2); so much he uttered, when at the very mentioning of butter, Agni Vaishvānara flashed forth from the King's mouth ... and fell down on this earth.
14. Māthava, the Videgha, was at that time on the (river) Sarasvatī. He (Agni) thence went burning along this earth towards the east; and Gotama Rāhūgaṇa and the Videgha Māthava followed after him as he was burning along. He burnt over (dried up) all these rivers. Now that (river) which is called 'Sadānīrā' flows from the Northern (Himalaya) mountain; that one he did not burn over. That one the Brahmans did not cross in former times, thinking, 'it has not been burnt over by Agni Vaishvānara'.
15. Nowadays, however, there are many Brahmans to the east of it. At that time it (the land east of the Sadānīrā) was very uncultivated, very marshy, because it had not been tasted by Agni Vaishvānara.
16. Nowadays, however, it is very cultivated, for the Brahmans have caused (Agni) to taste it through sacrifices. Even in late summer that (river), as it were, rages along; so cold is it, not having been burnt over by Agni Vaishvānara.
17. Māthava, the Videgha, then said (to Agni), "Where am I to live?" "Let to the east of this (river) be your home!" said he. Even now this (river) forms the boundary of the Kosalas and Videhas; for these are the Māthavas (or descendants of Mathava).

(Translation by Julius Eggeling, modified.)

Extract 2.2

May My Possessions and Produce Prosper

White Yajurveda: Vājasaneyi-saṃhitā, XVIII, 10-14

10. May my wealth and my property, and my prosperity and my growth, and my pervading power and my lordship, and my abundance and greater abundance, and my bad harvest and my unwasted crop, and my food and my satiety prosper by sacrifice.
11. ...
12. May my rice (*vrihi*) and my barley (*yava*), and my 'urd'-pulse (*māsha*) and my sesame (*tila*), and my 'mung'-pulse (*mudga*) and my horse gram (*khalva*), and my 'kaun' millet (*priyāṅga*) and my 'cheena' millet (*aṇu*), and my sanwa millet (*shyāmāka*) and my wild rice (*nīvāra*), and my wheat (*godhūma*) and my lentil (*masūra*) prosper by sacrifice.
13. May my stone and my clay, and my hills and my mountains, and my pebbles and my trees, and my gold (*hiranya*) and my bronze (*ayas*), and my iron (*shyāma*) and my copper (*loha*), and my lead (*sisa*) and my tin (*trapu*) prosper by sacrifice.
14. May my fire and my water, and my creepers and my plants, and my plants with culture-ripened fruit (*kriṣhta pachya*) and my plants with fruit ripened without culture (*akriṣhtapachya*), and my domestic animals and my wild animals, and my substance and my future substance, and my belongings and my power prosper by sacrifice.

(R.T.H. Griffith's translation, modified).

Extract 2.3

Transmigration of Souls

Chāndogya Upaniṣhad, V, 3.7 and 10.3-7

[What King Pravāhaṇa Jaivali taught Gautama (Āruṇi Uddālaka), Brahman priest.]

V, 3

7. The king said: "... Gautama, this knowledge [I am now imparting to you] did not go to any Brāhmaṇa before you, and this teaching belonged in all the worlds to the Kṣatriya class alone." Then he began:

V, 10

3. But they who living in a village practise (a life of) sacrifices, works of public utility and alms, they [upon death] go to the smoke, from smoke to night, from night to the dark half of the moon, from the dark half of

the moon to the six months when the sun goes to the south. But they do not reach the year.

4. From the months they go to the world of the fathers, from the world of the fathers to the ether, from the ether to the moon. That is Soma, the king. Here they are loved (eaten) by the Devas (gods), yes, the Devas love (eat) them.
5. Having dwelt there, till their (good) works (*karman*) are consumed, they return again that way as they came, to the ether, from the ether to the air. Then the sacrificer having become air, becomes smoke; having become smoke, he becomes mist.
6. Having become mist, he becomes a cloud; having become a cloud, he rains down. Then he is born as rice and grain, herbs and trees, sesamum and beans. From thence the escape is beset with most difficulties. For whoever the persons may be that eat the food, and beget offspring, he henceforth becomes like them.
7. Those whose conduct has been good, will quickly attain some good birth, the birth of a Brāhmaṇa or a Kṣatriya or a Vaiśya. But those whose conduct has been evil, will quickly attain an evil birth, the birth of a dog or a hog or a Cāṇḍāla.

(Translation by F. Max Muller, slightly edited.)

Note 2.1

The Caste System

The English word 'caste' is derived from the Spanish and Portuguese *casta* (race, lineage, breed), going back to the Latin *castus* (pure and unpolluted), the original form of the English word 'chaste'. When the Portuguese established their power directly on the Indian coasts in the sixteenth century, they found Indian society divided into groups whose members married only among themselves ('endogamy'). 'Casta' was, therefore, a proper name for such a community, and by 1613 the word passed into English as 'cast', later to be spelt 'caste', possibly on the analogy of 'chaste'.

The Hindu social groups designated 'caste', in the first instance, were *jāti*s, so called in Sanskrit (and in most Indian languages, with variants such as *jāt* in Hindustani). Since the bulk of these *jāti*s had specific hereditary occupations assigned to them, the fixed nature of their occupations along with endogamy came to be recognized as the two defining aspects of caste. These two features can be traced back to the Greek envoy Megasthenes (c. 300 BC) who found Indian society divided, so he said, among seven occupational endogamous classes.

One has also to consider the institution of the four *varṇas*, which goes back, as we have seen, to the time of the *Rigveda*, while the term *jāti* for a caste does

not occur in the Vedic corpus. In the seventeenth century, foreigners applied the term *casta*/caste to the *varṇas* as well; Indians too, since ancient times, have on occasion used the term *jāti* loosely as a substitute for *varṇa* and *vice versa*. Each of the *varṇas* constitutes a large category in which (except for the Brahman *varṇa*) various *jāti*s are placed, though it has been perfectly possible for a *jāti* to place itself in one *varṇa* while others placed it in another. In some British-Indian official writing, the term 'caste' came to be applied to the *varṇa*, and 'sub-caste' to the *jāti*, but this distinction has not been maintained with any rigour.

The *varṇas* are arranged, since their very first emergence, in a set hierarchical order, viz., Brahman, Kṣatriya, Vaiśya and Shūdra, each of a successively lower status. Outside of these four *varṇas* stand such *jāti*s as do not come within the *varṇa* fold, and are thus held to be of a still meaner status. Collective designations of them have been in use, like '*chāṇḍāl(a)*' in Sanskrit and derived languages, '*kāmīn*' in Urdu and Punjabi, 'untouchables' or 'outcasts' in English, recently coined words like 'Harijan' ('God's children') and 'Dalits' (depressed classes), or the legal 'scheduled castes'.

The social classification of castes is thus based on an order of hierarchy. There appear to be two basic principles which determine the status of a *jāti* in this order, namely, (1) concepts of ritual purity and pollution, and (2) observance of prescribed social customs.

The concept of varying degrees of 'purity' runs deep in the prescriptions and practices of the caste system, in relation to things as well as to persons. The Vedas are so pure that they cannot be heard or recited by a Shūdra (*Manusmṛiti*, IV, 99; X, 127); access to them is the preserve of the first three *varṇas*, whose members, accordingly, are "twice-born" (X, 4). The plough is impure, so that members of the higher *varṇas* should not touch it (X, 84). Food offered or cooked by Shūdras is not to be eaten by a Brahman (IV, 211, etc.); and 'inter-dining' by men of different castes is to be avoided. Most impure are the persons belonging to the 'untouchable' (*chāṇḍāla*) castes. They must live outside villages and towns, wear old garments, bear marks for identification, and have no social intercourse with their betters (X, 51-56). These prescriptions have been followed in practice only too well.

Different social customs distinguish the upper from the lower castes. Among the latter, the customs of widow remarriage (especially levirate, or the widow's union with her deceased husband's brother) may be practised; and the women, not being secluded, may go out of the house for work. The dead might be disposed of by burial, not cremation. Conversely, the upper castes must maintain strictly the prohibition of widow remarriage (*Manusmṛiti*, V, 161-65, etc.), the enforcement of women's seclusion and the rites of cremation. 'Hypergamy' (marriage of a man of a higher *varṇa* with a woman of a lower one), allowed in the law books (*Manusmṛiti*, III, 12-17), provided another index of ranking; since women of higher castes could not be given in marriage to men of lower castes. This was also one way of defining levels of status among Rajput clans.

The caste system was not born with all these features attached to it from the beginning, nor have all such been followed in practice with equal rigour all the time. We can see, for example, that while under modern conditions the relationship of *jātis* with particular occupations has greatly weakened, endogamy has persisted to a remarkable degree. Practices of 'untouchability', retreating from the public sphere, largely survive within the range of private life. On the other hand, in the Vedic times the emphasis was on male descent rather than endogamy, and occupational castes in the form of *jātis* were yet to form.

It is, therefore, difficult to mark out any single feature of the caste system which could be identified as its basic principle. Louis Dumont has indeed seen it essentially as a hierarchy based on the concept of ritual purity and pollution. The theory, though not without many insights, is clearly one-sided in ignoring altogether the economic factor. Both the fixed occupations of *jātis* and the virtual exclusion of the 'untouchables' from all property-holding (which converted them into a repressed semi-servile proletariat), were sources of great benefit to the dominant and exploitative classes – even to the Sultans and the British rulers who themselves stood outside the *varṇa* system. Caste rules are also a means of repression of women, exhibited in their enforced seclusion, in the ill-treatment of widows and in the low status assigned to women generally. The monstrous extent to which the dowry system has grown in India today is yet another proof that there is a gender aspect to the caste system, which too cannot be ignored.

The long history of the caste system, its coexistence with communities that did not conform to it and its persistence in changing economic conditions attests to its capacity for adjustment. M.N. Srinivas noted a universal way in which castes or sections of castes whose economic circumstances altered for the better could move up in the caste order. This mode, to which he gave the name 'Sanskritization', involves the giving up of the social customs of the lower castes, such as widow remarriage, women's outdoor work and burial of the dead, and adoption of the customs of the upper castes. A change from the caste's older occupation may also take place. If the change concerned a part only of the *jāti*, marriages with the rest of the old *jāti* would be abandoned by the 'Sanskritizers' so as to form a new endogamous group. In time, the group, as a transformed *jāti*, would move up in the *varṇa* scale and acquire a higher status. Thus both mobility and a modification of hierarchy have been possible within the caste system. Such flexibility has possibly given it a particular source of strength.

The association of the caste system with orthodox Hinduism needs no underscoring. The *Dharmasāstra* texts incorporated and relegislated the rules of castes that probably often developed initially independent of priestly injunctions, in the society at large. In other religious communities, such as those of Buddhists in Sri Lanka and Muslims, Christians and Sikhs in India, influences of the caste system are visible but are much weaker, partly because religious sanction for caste rules are lacking and partly because these communities cannot be fitted into the *varṇa* order.

Caste influences are mainly reflected in the preference for endogamy and hereditary additions to certain occupations.

There is, finally, the distinction between caste and tribe to be considered. By its dictionary meaning, the tribe is "a social group comprising numerous families, clans and generations, together with slaves, dependants, or adopted strangers". The caste may, therefore, be regarded as a special kind of tribe. But in practice, caste has so many specific features to it that the two categories are best kept separate, as these are in official Indian usage ('scheduled castes' and 'scheduled tribes'). Since tribes vary greatly in composition and customs, the points of distinction also vary. A number of tribes, as among the Afghans and the Baluch and in India's northeast, not only have membership by descent but are also territorial, in that they regard particular territories as their own. There are many tribes which have different religious faiths (for example, Buddhism or some form of animism), and so customs that are different from those of caste, such as absence of insistence on endogamy or the custom of admitting strangers to the tribe. Such tribes are more or less easily distinguishable from castes. More difficult are cases where the tribes have accepted Hinduism and caste values and are thus actually *jātis* in all but name, or were on their way to attaining such a status at the time of being legally classified as 'tribe'. The assimilation of tribes into the caste system has been a long continuing process; so such transitional cases need not surprise us.

Note 2.2

Bibliographical Note

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On the caste system, the most frequently quoted textbook of law is still *Manusmṛiti*: see G. Buhler (tr.), *The Laws of Manu*, Oxford, 1886. For a short description of how the caste system functioned mainly in the earlier part of the twentieth century, see J.H. Hutton, *Caste in India*, 4th edn, 1963. Louis Dumont, *Homo Hierarchicus: The Caste System and its Implications*, revised English edn, Delhi, 1998, is wide-ranging in its analysis, given the author's own theory of its 'ideology'. M.N. Srinivas, *Caste in Modern India and Other Essays*, Bombay, 1962, sets out his fruitful hypothesis of change by 'Sanskritization'.

3

India, 1500–700 BC:

The Archaeological Evidence

3.1 Archaeological Cultures of the Aryan Zone

Somewhere around 1500 BC, the recorded history of India begins with the first compositions of the *Rigveda*. The Vedic texts give us information that enables us to reconstruct the main features of the material life and culture of the Indo-Aryan peoples for some eight hundred years (c. 1500–700 BC). Yet, when we say 'recorded history', we obviously are guilty of an inaccuracy. Writing was not used; the texts were memorized and orally transmitted. This being so, one cannot expect to find inscriptions of any kind in the archaeological remains, though these are usually the crucial means by which the archaeology of historical times is keyed to history proper. We therefore have to deal here with a very rare problem in history, though we share it partly with Iran, where too in the same period we have the *Avesta* (initially transmitted orally), but often no written word in physical form.

The absence of any reference to temples or images in the Vedic corpus where religious worship centres around sacrifices (see Chapters 1.6 and 2.5) complicates our task, for there are no icons or symbols that could help us to identify an archaeological site as that of an Aryan settlement. Even sacrificial altars appear to have been temporary structures presumably built away from inhabited areas, and so not easy for us to find.

In such a situation it is, therefore, difficult to match our historical cultures with archaeological "cultures". While archaeological finds need theoretically to be grouped on the basis of similar "assemblages of artefacts" (Gordon Childe), the common practice is to choose particular types of pottery as the marks for individual "cultures". This method is of some help in fixing sequence and chronology, but it will

always be open to question whether a particular pottery style or technique could not be shared by two cultures (with different assemblages of artefacts), or whether a single culture (that is, single at the level of language, religion or political system) might not in different areas have different ways of making and shaping pottery. It may be vain to think, for example, that the early Indo-Aryans were linked to a single pottery style, like Painted Grey Ware, as had once been seriously proposed.

Where archaeology nevertheless helps us inestimably is in setting chronological markers for our undated texts. We have seen that, given the geography of the texts (established from their own evidence, see Chapters 1.2 and 2.2 above), the appearance of iron in our archaeological record (discussed in 3.3 below) can set the upper time-limit for texts that mention iron. There are broad confirmations too that archaeology may offer. The Vedic corpus gives us a picture of a non-urban, scriptless society; when such is found to be the case with all the archaeological cultures in the Early and Late Vedic times, our textual evidence stands corroborated.

Given this basic confirmation, we may now turn to the actual archaeological evidence, as conventionally arranged, and see how far this adds to or modifies the information we have assembled from our textual sources. It may be helpful to the reader to remember that the archaeological evidence from the various regions for the period before 1500 BC has already been discussed in *Indus Civilization*, Chapter 3.1–3, and the details given there need not be repeated here.

We noted in Chapter 1.2 above, that the *Rigveda* shows considerable knowledge of the northwestern borderlands and, by its river and tribal names, preserves traditions of earlier settlements in Afghanistan. There is the river-name Sarasvatī, identical with the Avestan river Harakhvaiti, modern Arghandab-Helmand, and the Rigvedic tribe Srinjaya which recalls the Achaemenid name 'Zranke' (Persian: Zaranj, Zarang) for Seistan. The archaeological profile of this region during the millennium and a half after the collapse of the Helmand Civilization around 2100 BC (for which, see *Indus Civilization*, 1.2) is hard to reconstruct. We know, however, that both Shahr-i Sokhta and Mundigak rapidly contracted in size and then fell to ruin; Mundigak, though abandoned, had small fresh settlements later, in which excavators have recognized two phases, Mundigak VI and VII, both unluckily not dated.

Apparently, a long period of 'ruralization' ensued after the decline of the two earlier cities. Although iron objects begin to occur in Mundigak VI, a recovery is only marked by the appearance, soon after 1000 BC, of a large Iron Age settlement, perhaps even urban in character, at Nad Ali in Afghan Seistan, containing a "massive monument". Gudar-i Shah in the same district is an Iron Age site; the very early date assigned to it (1800 BC), purely on stylistic grounds, perhaps, needs revision.

The *Rigveda* mentions in its River Hymn, the river Shvetyā (elsewhere mentioned as Suvāstu), among streams flowing on the western side of the Indus. This is identifiable with the Swat river, whose valley had a culture during 1800–1400 BC ('Ghaligai IV') which gave firm evidence of horse domestication. The people could, therefore, have had connections with Indo-Iranian (Aryan) peoples. Ghaligai Culture IV was followed by other phases which had been held earlier to belong to a 'Gandhara Grave culture'. This culture became known, first of all, from the graves exhumed and the grave-goods found there. In fact, the early classification of its phases, deemed to be three, was made to accord with the varying nature of the graves, but there is no unanimity on the classification. While there are burials, including fractional burials, the interment of cremated bones is most common. At Katelai there are two separate horse burials, a curious intrusion of a practice of the Eurasian steppes. This, as well as the cremation of the dead, are significant in view of possible cultural links with the Rigvedic people. Copper is present in all phases, and the date of appearance of iron may be quite early, even c. 1200 BC. Carbon dates generally suggest that the culture had its initial point at around 1400 BC and continued till about 400 BC, without much material change except for the sporadic intrusions of iron.

The Swat valley people cultivated three types of barley, wheat, rice and lentil (whose seeds are most plentiful), as well as grapes. A furrowed field at Aligrama, datable to the eleventh century BC (Fig. 1.1), shows that the plough was in use. Animal bones indicate wide use of humped cattle, and the presence of horse and camel (Bactrian?). Houses are made of walls of pebble stones. Pottery continued to be refined as it began to be made on faster wheels, so that grey-black wares changed into grey ware. But the grave-goods do not indicate much social differentiation, and there are no towns or large structures.

The declining quantity of imported materials for artefacts suggests increasing economic isolation. One wonders whether the move of the Vedic zone towards the more distant Gangetic basin (Chapter 2.2 above) had something to do with this development.

While similarities with the Gandhara Grave culture have been found at Hathial near Taxila, another 'grave culture' named after the Gomati ('Gomati' of the *Rigveda*) further south has also been identified, its major sites being Hathala and Gumla on that river. Here, a special method of cremation was followed in the earlier phases of the culture: the grave was so dug that a fire could be lit in it later to consume the corpse. Apparently, simpler burials followed when iron began to be used. No firm dates seem available.

Below the Bolan Pass, where a Rigvedic tribe, Bhalānas, is located on rather weak grounds, there developed an agriculturally rich culture at Pirak, from where numerous carbon dates allow us to assign the culture (Pirak II) to roughly 1700–1200 BC. At Pirak and Sibri nearby, rice and other crops were cultivated, and the horse and Bactrian camels were known c. 1500 BC. The second phase (Pirak III) has all the elements of the previous copper-and-bronze phase, but has a large quantity of iron. If one disregards an earlier carbon date, the iron phase should span 1000–700 BC.

On Sindh proper, little can be said: the Jhukar culture, shortly following upon the Indus Civilization, was followed after a break by a still more shadowy Jhankar culture. This has its main reported site at Chanhudaro. The culture could be as late as the second or first century BC, since no dates are available. Sindh, then, has practically nothing to tell us, unless one assumes from the absence of evidence that there were no large settlements here during the period to attract notice. If the Rigvedic seers' *samudra* was the Arabian Sea, some traffic must have passed between the sea-coast and the inland Vedic zone through Sindh. On the other hand, there is no Rigvedic reference (except for the general one to Sindhu or Indus) to any tribe or place that can be located in Sindh.

As we had noted, if the identification of the Rigvedic stream Maruvridhā with the present river Maru-wardwan is valid, it will be difficult to believe that Kashmir was not known to the Rigvedic people. In Kashmir the Northern Neolithic continued until about 1500 BC, if we

ignore an anomalous ¹⁴C-date bringing it down to 600 BC. The subsequent phase, in which the same pottery types continue, a megalithic cult was apparently introduced, for menhirs (large rough stones placed upright) have been found there, though without association with any grave. Rice and ragi millet were cultivated, and, along with copper, iron began to be employed. No carbon dates being available, one can only hazard a guess that the megalithic phase began late in our period, say, 1000 BC or later.

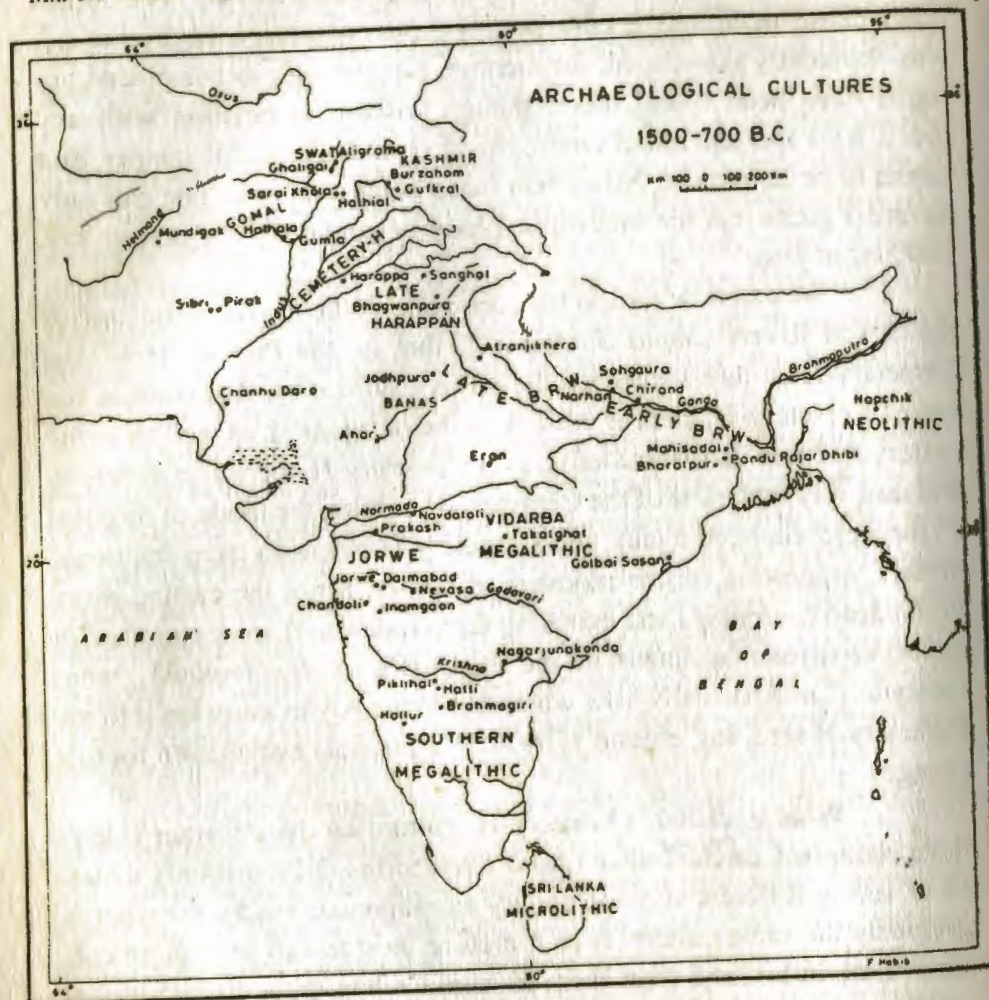
We can now turn to the core-zone of the *Rigveda*, the land of the Seven Rivers (*Sapta Sindhavah*), that is, the Punjab. Here, the Cemetery-H culture succeeded the Indus Civilization. At Harappa, the site of Cemetery-H, there is a break in the occupation, as well as in the pottery tradition. Burial customs, as at Cemetery-H, were also different. But mid-way in the life of the Cemetery-H culture, the mode of disposal of the dead changed again; and Cemetery-H began to have fractional burials, suggesting earlier exposure of bodies. Since the casting away of the dead (*paroptāh*) and exposing them (*uddhitāh*) are recognized in the *Atharvaveda* as forms of the *Rigveda*'s *an-agnidagdḥāh*, 'non-cremation', one naturally asks whether a Vedic Aryan intrusion into the Cemetery-H area, say, around 1500 BC, is a possible explanation for this change.

What is called 'Cemetery-H' culture on the Pakistan side is 'Late Harappan' on the Indian (*Indus Civilization*, 3.2): it is only a matter of taking different sorts of pottery as diagnostic marks for what is obviously the same culture. It is, therefore, best to call both these cultures 'Late Indus' and treat them as one. Carbon dates from Sanghol and Banawali and thermoluminescence (TL) dates from Bhagwanpura suggest that the culture continued until about 1000 BC, whereafter at Bhagwanpura an overlap with Painted Grey Ware culture occurs which lasted till c. 700 BC.

The combined area of this Late Indus culture embraced all parts of the Punjab (except the northwestern), Haryana and the upper portion of the Ganga-Yamuna doab. In the southeastern direction, therefore, its limits accord with those of the Rigvedic zone fairly well (see *Map 1.1* and *Map 3.1*).

The density of Late Indus settlements in the lower Hakra-Ghaggar basin is far less than of the Indus Civilization settlements. In

MAP 3.1 Archaeological Cultures, 1500–700 BC



Bahawalpur district (Pakistan), there have been counted 174 Mature Indus settlements, but only 50 sites of the Late Indus and just 14 of the succeeding Painted Grey Ware (PGW) culture. On the other hand, in Haryana there were 120 Indus sites, 618 Late Indus and 615 PGW sites. Clearly, the population expanded in the upper basins of the streams of the Sutlej–Yamuna divide, while it declined in the downstream tracts. One can imagine that as agriculture drew off river water in the upper tracts, it failed to reach the lower channels of the main drainage rivers, the Chautang and the Ghaggar, that fed the Hakra. On this happening, settlements in the lower basins began steadily to be abandoned.

Contemporaneously with the Late Indus culture, there took place a significant intrusion of agricultural communities into the Gangetic basin in several pockets on the basis of a proper double-harvest cycle, which we had described in *Indus Civilization* 3.1 and 3.3. An example can be offered from the Narhan culture, Narhan itself being situated on the Ghaghara (the Sadānirā of the *Shatapatha Brāhmaṇa*?), with two other sites, Khairadih and Sohgauna, nearby. Carbon dates help to set the period of the culture at c. 1300–700 BC. Its diagnostic pottery is Black and Red Ware (BRW), of which more presently. Living in wattle-and-daub houses, the peasants here cultivated barley (hulled and six-row), wheat (club, bread and dwarf) and rice; pulses, including pea, mung, gram and khesari; and mustard oilseeds and linseeds. Bones of humped cattle abound; but the identification of the horse is not certain. There is no evidence of cart-wheels, and so no proof that the ox was being used as a draught-animal, whether for cart or plough. Further eastward, earlier chalcolithic sites, like Chirand in Bihar and Mahisadal in West Bengal, with evidence of agriculture, have already been mentioned in *Indus Civilization*, 3.3. They now seemed to share the same common pottery, the BRW. Table 3.1 gives the various carbon dates (calibrated) of this ware at different sites.

TABLE 3.1 Black and Red Ware Chronology (in BC)

<i>West Bengal:</i>		
Bharatpur	1770–795	
<i>Bihar:</i>		
Chirand	885–750	
<i>U.P. (from east to west):</i>		
Khairadih	1350–810	
Sohgauna	1670–1225	
Narhan	1500–1270	
Sringaverpur	895–595	
Atranjikhhera	815–410	Preceding PGW
Bateshwar	795–420	Overlap with PGW
<i>Rajasthan:</i>		
Jodhpura	425–180	Overlap with PGW

Note: All excessively anomalous dates ignored.

The table is interesting as showing that Black and Red Ware spread into central and western U.P. and eastern Rajasthan much later than its main period further east. It is possible that this happened as Aryan (or Aryanized) communities, moving into the Gangetic basin after 1000 BC, encountered the makers of this pottery and took it over from them, whereafter it spread westward to their earlier settlements. This westward spread of the BRW is important for proving that there was no particular 'Aryan' pottery, a position for which the Painted Grey Ware (PGW) has often been put forward as a candidate.

The PGW within the Late Indus zone overlaps Late Indus pottery at Bhagwanpura (Haryana) and at two sites in Jalandhar district (Punjab). Outside the Late Indus zone, it either follows BRW or overlaps it (see Table 3.1). In the region of western U.P. and eastern Rajasthan, then, the PGW can hardly be earlier than 800 BC, given the dates for the BRW phase here. It happens that carbon dates for the PGW from sites in this region, considered strictly on merit, also yield a period of 700–400 BC. It is indeed a full-blooded Iron Age culture here, and can hardly be wholly assigned to the Late Vedic period, from whose texts it is obvious that copper was still king though iron was known (see above, 2.3).

3.2 Peninsular India

The Jorwe culture succeeded the Malwa culture (for which, see *Indus Civilization*, 3.3) in Maharashtra around 1400 BC and flourished till around 1000 BC, whereafter decay set in. More than 200 sites of this culture have been discovered all over Maharashtra, though none in Vidarbha and the coastal belt. The settlement density is highest in the Tapi basin in the north.

The Jorwe culture marked a significant expansion in agriculture and population. Part of this may be due to the use of the plough, for which no actual evidence is available but which may be legitimately inferred from the use of the humped oxen (*zebu*) for draught, as attested by the incised sketch of a bullock cart (Fig. 3.1). The principal cereal grown was barley, but wheat was also grown. Rice was an important new arrival. Among millets, 'jowar' and 'ragi' seeds have been found, and (doubtfully) those of 'bajra'. Pulses grown included horse gram, hyacinth bean, lentil, pea, grass-pea and green gram ('urd'). There is

The Archaeological Evidence

evidence for cotton (see below). Among domesticated animals, oxen and sheep-and-goat are prominent, and their meat was part of the diet. The presence of the horse is attested for the first time in the Deccan at Inamgaon in the Jorwe period.

A black-on-red painted pottery is characteristic of the culture. It was made on the fast wheel, and shows certain distinct forms like carinated jar, spouted jar and high-necked globular vase. The level of copper-smelting was still primitive, and there is no sign of iron. Stone tools were therefore employed in considerable quantity; a "stone-axe factory" has been found at Nevasa.

At Nevasa were also found a thread of (wild?) silk and a cotton nap, and at Chandoli a thread of flax. It is probable that all these fibres were used for weaving cloth.

The bullock cart incised on a jar from Inamgaon (Fig. 3.1) is firm evidence that the cart had come into use. If the Daimabad bronzes

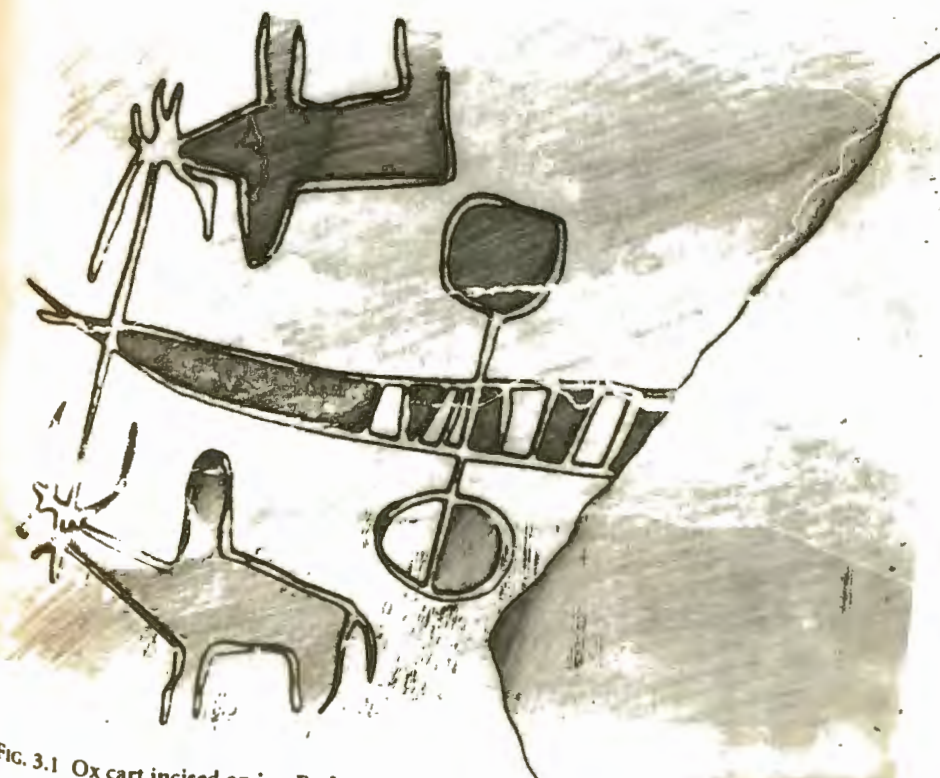


FIG. 3.1 Ox cart incised on jar, Early Jorwe period, from Inamgaon (after M.K. Dhavalikar)

had really come from the Indus Civilization, as seems to be the case (*Indus Civilization*, 2.8 and Fig. 2.25), then it was the Indus influence that was responsible (ultimately) for bringing the cart to the Deccan. Incidentally, there is no indication of spokes either on the jar-drawing or the terracotta toy-wheels found at Jorwe sites. Carts must have greatly increased the volume of local trade. There is also the likelihood of some inter-regional trade, copper coming from the Aravallis and gold from Karnataka.

These developments led to some settlements attaining a size larger than that of a hamlet. Daimabad, occupying about 30 hectares and therefore containing a population of at least 6000, is the largest known settlement in India of its time. It was still a small township by Indus standards; yet it can be said to foreshadow things to come. Prakash and Inamgaon, however, were only 5 hectares each in area.

People lived in rectangular houses, each with low mud walls, carrying wattle-and-daub superstructures. There were courtyards in which cattle were tethered, and often open fire-pits for roasting meat were placed there.

A many-roomed structure at Inamgaon has been identified as the "chief's house", and a mud-walled structure nearby as the "granary", where possibly the chief's tax-grain was stored. But beyond these elementary inferences, it is difficult to go.

The dead were ordinarily buried under the house-floor in an extended position; children were buried in urns. The feet of dead adults were usually cut off below the ankles – to prevent them from leaving the family house or from turning into wandering ghosts? Clay figurines suggest the worship of two goddesses, one with head, the other headless. Male figurines are practically absent.

The major Jorwe settlements tended to go into ruin about 1000 BC, and only a degenerate Late Jorwe culture continued in the Bhima valley (c. 1000–700 BC). A sudden onset of aridity has been offered as a cause; the difficulty in accepting this is that there seems no persuasive reason why the universal aridity attributed to the time should have struck Maharashtra alone with such disastrous effect, and not other regions.

Jorwe culture in its classical period (1500–1000 BC) was in fairly close contact with the long-lived south Indian neolithic

complex, and we see many signs of Jorwe's influence in the latter: a larger use of copper, with many copper artefacts recalling Jorwe shapes; a wheel-thrown unburnished painted pottery; and such customs as the urn burial of children. At Hallur (Karnataka), horse bones are dated to 1300 BC, and we are reminded of the Inamgaon horse. At Hallur and the neighbouring site of Komaranahalli, carbon and TL dates suggest that iron had arrived there by 1000 BC. We have mentioned above the possible export of gold to the Jorwe culture region: the working of a gold-mine is attested at Hatti, assignable to 900–740 BC by a carbon date. But the most visible feature of the south Indian complex was its megaliths.

Before we discuss the **megalithic** remains, it must be clarified that this word (literally, 'large stone') is not used in the same sense as 'palaeolithic', 'microlithic', 'neolithic', or 'chalcolithic', all of which refer to classes of tools, whereas 'megalithic' refers to the ritual use of blocks of stone as stationary symbols or guardians of a site. In



FIG. 3.2 Megalithic burial (cist) from Brahmagiri (after Mortimer Wheeler)
This kind of burial is later than the period dealt with in this volume, but illustrates well what megalithic remains may be like.

south India the stones were exclusively associated with burials, of which as many as half a dozen principal forms have been distinguished. One common form ('cist', burial chamber) is illustrated in *Fig. 3.2*, the cist at Brahmagiri having been excavated by Mortimer Wheeler: large roughly dressed stone blocks here make a circle, while thinner rectangular stones form walls of the cist in which lie the remains of the buried person and a certain amount of grave-goods.

The megalithic burials have certain economic implications. Bringing, dressing and setting up the granite blocks took labour, and thus the number and size of individual blocks tell us of the status, wealth or power of the person interred; so, the existence of a fairly well differentiated society is implied. The relationship with iron (iron objects are found among grave-goods at most megalithic sites) is due partly to the fact that tools of that metal made stone-cutting easier (and so cheaper); but iron was not a necessary prerequisite for megaliths. Stone could be broken by fire-heating and cut by copper tools.

The Iron Age megaliths occupy a long span of time, and we are concerned only with the earliest phase (pre-700 BC), which is represented by burials at Hallur and Piklihal and the burial pits (not cists) at Brahmagiri. These burials contain a black and red ware and a matt-painted buff and red ware (akin to Jorwe). Iron artefacts are present, but stone tools, especially axes, continue in use. Two textile impressions on pottery are of some interest, but the fibre remains unidentified.

From south India, the megalithic cult crossed over to Sri Lanka, where even the neolithic had not yet taken root (though stray ground stone axes have been reported) and the microlithic industry had continued from over 30,000 years ago (*Prehistory*, 2.4). Within India, the Vidarbha megalithic culture (range: 800–400 BC), with carbon-dated sites at Naikund and Takalghat, probably arose under south Indian influence. There are clear similarities in pottery and iron tool-types with the south Indian complex, so that the megalithic cult must have reached Vidarbha through Andhra. In spite of its interesting horse burials and ornaments, one must, however, take leave of the Vidarbha culture here, because these features belong to a period manifestly subsequent to 700 BC.

To return to south India, it is worth considering whether the

rapid spread of the megalithic cult was not an indication of the establishment of Dravidian dialects over the region, which made such transmission of belief and custom possible. Should this be true, one should expect the **Proto-Dravidian** language, reconstructed out of the Dravidian languages of later times, to reflect the culture of this period. Bhadriraju Krishnamurti's reconstruction of such a Proto-Dravidian culture by means of a rigorous linguistic analysis is summarized below.

The culture belonged to at least the Early Iron Age, since iron (**cir-umpu*) was known. Proto-Dravidian had words for yoked plough and furrow, but not for cart or (cart-?)wheel. There were words for cow, buffalo, pig, goat and sheep, but the reconstructed word for horse is deemed doubtful. Rice and millets were cultivated, and so also cotton and sugarcane. Areca-nut, black pepper and cardamom were "native to the Dravidian". There were words for gold and silver and for barter, but not for money. Significantly, the same words meant 'king' and 'god'. Kings lived in palaces, received taxes and tribute, and had armies; so battles were fought. Believing in gods (not individually specified), people slaughtered animals to secure their wishes. "Pollution" (**pul*) was observed on certain occasions, including women's menstruation. There appears to be no word signifying priesthood.

By and large, the picture is not one that is radically different from what archaeology has given us, and it may help us to fill in gaps in our archaeological evidence. But we must remember that negatives in linguistic reconstructions cannot be held to imply non-existence of the phenomena in question, since words for the most familiar objects may sometimes change or be adopted from other languages.

3.3 The Coming of Iron

Iron is an abundant element in the universe, found not only on the earth, but also in many stars, the sun and meteors. By weight it constitutes 5 per cent of the earth's crust. Except in meteorites (which are meteors that survive their fiery descent into earth), iron is rarely found uncombined in nature. Yet iron ores are extensively distributed over the earth's surface. When isolated, the metal is ductile and malleable. But its melting point is high (1535°C), and, in its most common form (ferrite), it remains stable below 770°C. The difficulties in smelting it were obviously responsible for the delay that occurred in the use

of iron; copper and bronze (copper alloyed with tin) preceded it in human use in most areas of the world.

Since meteoric iron is the only form of iron available in a tolerably isolated form, and meteorites could be found buried all over the earth's land surface, it is not surprising that the earliest iron artefacts were made by heating and hammering pieces of meteoric iron, which can be identified today by their high nickel content. Early pieces of iron objects, found even before 3000 BC in Egypt and Iraq, were thus often derived from meteorites.

As metallic smelting began, iron was isolated accidentally when it formed a high component of gold or copper ore. As the latter metals were smelted and drawn out, workable pieces of iron would sometimes remain in the residue along with iron slag. Such reduced iron is probably responsible for the stray finds of small iron objects at the Indus sites of Allahdino and Lothal, and the Kashmir neolithic site of Gufkral. But such iron was so scarce as to be a precious metal of high value. In nineteenth century BC, iron is said to have been worth forty times the value of silver in West Asia; and it could only have had decorative, not industrial uses. As late as 1350 BC, the amulet, dagger and sixteen small chisels put in the tomb of Tutankhamen (Egypt) were made of meteoric iron.

True smelting, when furnace-heat could reach the high point required for iron, was also attained on occasion. Iron pieces so made have been recovered fairly early. From Mundigak IV (Afghanistan), datable to around 2300 BC, come two "smelted iron decorative buttons". Iron was not fusible and had to be put into shape by a laborious process of heating and hammering. But even after this had been done, the cutting edge could not be retained for long. Such 'soft iron' could not compete in either cost or efficiency with bronze.

What was needed was a 'steeling' of the iron surface, by impregnating it with carbon ('carburization'). To do so, the blast from the bellows had to be so controlled as only to affect the surface of the iron bar within the furnace; the insertion of freshly-cut wood into the charcoal furnace could also hasten carburization. The original discoveries might have come from chance and long experience; but the technique was still so complex that, unlike the simple reduction of iron, it is difficult to conceive of the discovery being made independently of each

other in different cultures. Diffusion from one source has, therefore, great probability on its side.

Once 'steeling' became possible, iron suddenly became an industrial metal, and iron artefacts multiplied. The 'coming of iron' had significance for the economy only when, in comparison to copper or bronze, the number of iron artefacts became much greater. Undoubtedly, though, there had to be an interval between the time that the existence of iron as a metal became common knowledge, and the time it became the usual material for cutting tools and weapons.

With these points in mind, we can turn to the archaeological evidence again. When the Mitanni ruler of northern Mesopotamia, Tusratta (Dasaratha) (c. 1400 BC), had an inscribed iron-bladed dagger made for the Egyptian pharaoh (now found at Ras Sharma, north Syria), the iron was still of meteoric origin (nickel, 3.25 per cent), but, with 0.41 per cent carbon, it was possibly deliberately carburized. In the twelfth century BC, a pickaxe, found at Mt Adir in north Palestine, offers still more definite evidence, the iron of the pick being indisputably carburized.

From now on we find iron artefacts becoming common in West Asia. Hasanlu, in northwestern Iran, from its levels of the period 1100–800, is reported to have yielded "several thousand weapons" of iron. In Afghanistan, Nad Ali in Seistan is an Iron Age site datable to a period shortly subsequent to 1000 BC. There is better evidence from Tilla Tepe, northern Afghanistan, where carbon dates put its 'early iron age' at 1300–800 BC, so that iron had arrived here well before 800 BC; and c. 1000 BC could be an easily acceptable date.

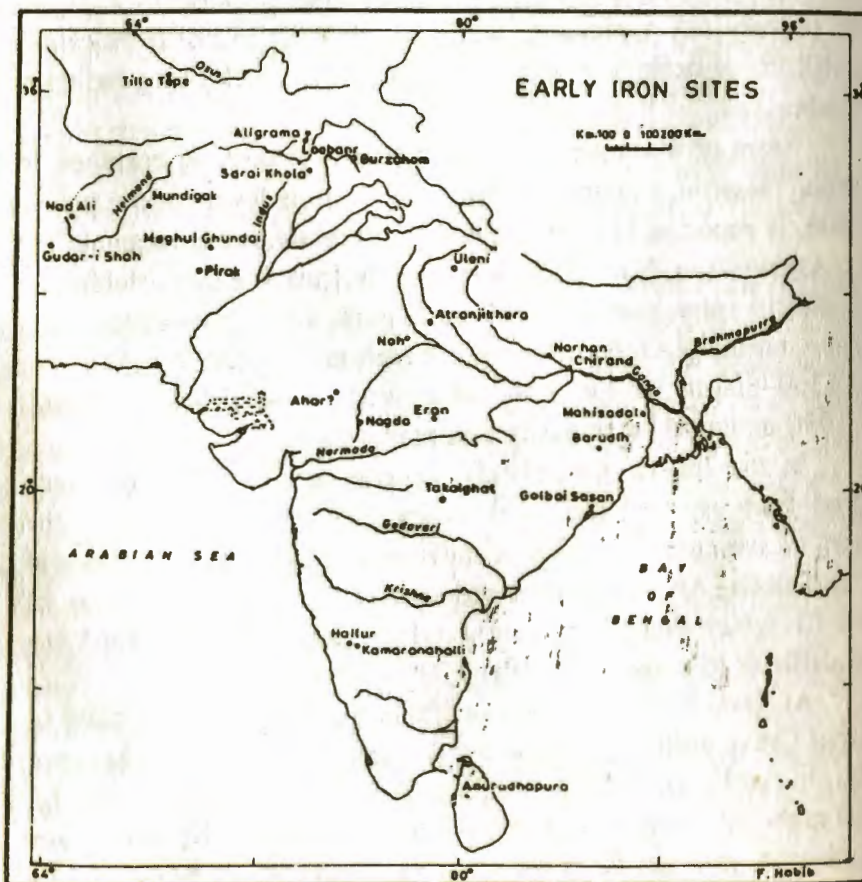
In the Indian borderlands, several iron objects have been recovered from sites of the Swat valley (NWFP), belonging to the Gandhara Grave culture, such as a spearhead, a ladle, a check-piece in bridle and nails. An iron arrowhead comes from the latest layer of Loebanr III, which this period's carbon dates (terminal point: 1365 BC) make it difficult to place much after 1200 BC.

At Sarai Khola near Taxila (Punjab), iron has been found in the Gomal Grave culture deposits, but the date is uncertain. In Moghul Ghundai, in northeastern Baluchistan, a period of 1100–800 BC can be assigned to the arrival of iron. To the south, at Pirak near the Bolan Pass in Baluchistan, iron has been found in its Period III, carbon-dated to

915–770 BC, although there is an earlier but anomalous date in the range of 1410–1025 BC.

We have practically no early evidence of iron from eastern Punjab and Haryana; it has not been found in the Late Indus–PGW overlap (1000–700 BC) at Bhagwanpura. Moving into Uttar Pradesh, Atranjikhhera has an early date, 1265–100 BC, for its iron-bearing PGW period, but this is hardly acceptable, since the other dates for PGW from the site give the range 640–400 BC, and there are good grounds for dating the PGW period here to not much earlier than 700 BC (see above, 3.1). At Noh, another PGW site, the ‘early iron age’ carbon dates have a range of 885–390 BC. We can therefore hardly date the substantive arrival of iron in the upper Gangetic basin to earlier than 800 BC (since

MAP 3.2 Early Iron Sites



it is surely wrong to take the earliest possible date within the ¹⁴C test's margin of error as the date we want!).

Atranjikhhera is important for illustrating the difference between the scanty occurrence of iron in the earlier cultures and its abundance when its use for making tools became possible. In the three phases into which the PGW deposits at Atranjikhhera were classified, the relative distribution of copper and iron objects was as follows:

Phase	Early	Middle	Late	Total
Copper	3	6	13	22
Iron	8	46	81	135

Iron objects thus exceeded copper objects in number in every phase. We can confidently say that a shift from copper to iron as the main material for tools had begun to take place in the upper Gangetic basin around or before 700 BC.

Relevant for the use of iron in the plains is the evidence for iron-mining at Uleni in the mountains of Uttaranchal, within the time-range 1022–826 BC. The iron mined here could have been transported to the plains below, though the dates seem rather early.

Further eastward in the plains at Narhan (east U.P.) two iron pieces were found, in its BRW phase, c. 900–800 BC (fixed ‘tentatively’, but based on carbon dates for the earlier phase), so that iron-use might have begun in this area in the ninth century BC. Other dates for early iron from eastern India are consistent with this: Chirand (Bihar), 885–770 BC; Mahisadal (West Bengal), 820–690 BC; and Barudih (Jharkhand), 875–415 BC (leaving out an anomalous earlier date).

A claim for the occurrence of iron at Ahar (Rajasthan) as early as the fourteenth century BC, has sometimes been accepted. It was not, however, advanced by the excavators themselves, and, as Erdosy points out, by the same token, inscribed seal impressions of the third–second centuries BC as also cast copper coins would also have to be put a millennium earlier at Ahar. In Madhya Pradesh, Nagda has iron dated to a period of 750–500 BC (but fixed on the basis of stylistic affinities), while Eran has a date of the range 795–595 BC for its iron-bearing Period II.

The Vidarbha Megalithic culture used iron in some profusion; and carbon dates from Naikund and Takalghat range from 800–400 BC;

these, again, are consistent with iron-use spreading within two or three centuries after 1000 BC. Iron is apparently not reported at all from other parts of Maharashtra during our period.

Quite remarkably, in Karnataka iron-use seems to have begun earlier than in most parts of India, except perhaps the borderlands. For its Period II, where iron objects first occur, Hallur, on the Tungabhadra, has carbon dates yielding a range of 1385–825 BC. The neighbouring site of Komaranahalli has TL dates for its iron-using megalithic period that range from 1440 to 930 BC. A floor date for the beginning of iron-use around 1000 BC or even earlier, therefore, is not unreasonable. Such an early date rules out transmission from northern India. On the face of it, a direct transmission from West Asia to south India is also unlikely, since no other commercial or cultural contacts are evident. Yet, it cannot also be ruled out. Copper-smelting itself was a weak industry in the south Indian neolithic, so that an indigenous development of the complex process of iron-smelting and carburization in south India seems even more improbable. What is certain is that, once understood, iron-smelting spread fairly fast in the peninsula, accompanying the spread of the megalithic cult.

Iron-use (together with megaliths) crossed over to Sri Lanka. At Anuradhapura, carbon dates suggest that the Iron Age there could go back to as early as 800 BC.

TABLE 3.2 Chronology

A. Select Cultures		BC
<i>The Borderlands:</i>		
Gandhara Grave culture		1400–400
Pirak Bronze culture		1800–1200
Pirak Iron Age		1000–700
<i>Sutlej–Yamuna Divide and Upper Gangetic Basin</i>		
'Late Harappan' (Late Indus)		2000–1000
Late Harappan–Painted Grey Ware overlap (Haryana)		1000–700
Black and Red Ware phase, west U.P.		900–700
Painted Grey Ware, west U.P. and Rajasthan		800–400
<i>Central and Eastern Gangetic Basin</i>		
Narhan culture		1300–700
Chirand chalcolithic		1800–1100
West Bengal Black and Red Ware		1700–800
<i>The Peninsula</i>		
Jorwe culture		1400–1000
Late Jorwe culture		1000–700
Vidarbha Megalithic		800–400
Southern Megalithic and Iron Age: beginning, before		1000
B. Spread of Iron		
Approximate dates of beginning of extensive iron-use:		BC
Borderlands		1100
Gangetic basin		750
Central India		700
Vidarbha		700
South India		1000
Sri Lanka		800

Note: These dates are tentative; even with a margin of error of ± 100 .

Note 3.1

Epic Archaeology

It proved to be a dramatic moment in the history of Archaeology when, in 1871, Heinrich Schliemann began to dig at Troy (Turkey), the city of the Trojan War, sung of in Homer's great Greek epic *Iliad*. Schliemann's success in discovering foundations of buildings and fortifications in some eight levels of the city was not dimmed by the fact that, not Level III or II, as he successively thought, but Level VI contained the city that Homer sang of; or that the Homeric city was not destroyed by a victorious army but by a catastrophic earthquake. After Schliemann's *coup*, ambition was ignited among many archaeologists to prove, or at least test the validity of, ancient epic traditions by digging at places named in those epics. India has been no exception to this.

We have a rich epic literature, with the *Mahābhārata* and *Rāmāyaṇa* in Sanskrit enjoying deservedly high repute. The *Mahābhārata* narrates the story of a great war of the Bhāratas, but includes much other philosophical, didactic and mythological material. Internal evidence and external references show that it was compiled in stages after the fourth century BC and was essentially completed by the fourth century AD. Some time afterwards, the *kaliyuga* era, with its epoch in 3102 BC, came into vogue, based on the belief that the *kaliyuga* age, whose years it counts, began soon after the Mahābhārata War. The *Purāṇas*, the texts of mythic history, provide reign-periods which fill in the time-span required by this era. The era itself was originally set up by astronomers mainly to have a past calculated astronomical event as its epoch.

Much effort has gone into extracting any possible historical element in the traditions of the *Mahābhārata*, *Rāmāyaṇa* and the *Purāṇas*. F.E. Pargiter laid out the Purāṇic evidence in his *Dynasties of the Kali Age*, and sought to reduce the time between event and source by dispensing with the Purāṇic reign-periods and recalculating the mythological chronology on the basis of the law of average reign-periods in real life. He fixed 950 BC as the approximate date of the Mahābhārata War.

Soon after independence, B.B. Lal, a promising official of the Archaeological Survey of India, found his Troy and began digging at it. This was Hastināpura (Hastināpur), on the Ganga in western U.P., the capital city of the Kurus in the *Mahābhārata*. No fort or palace was found, but after excavations during 1950–52, B.B. Lal announced, in effect, that he had obtained proof of the historicity of the *Mahābhārata* through the following discoveries:

(1) The major places mentioned in the *Mahābhārata*, such as Hastināpura, Ahichhatra, Mathurā and Kurukṣhetra, had all yielded funds of Painted Grey Ware (PGW) and therefore must have all flourished at the same time, the period of the PGW. It was "gratifying" that some places not even mentioned in the *Mahābhārata*, but with local claims to be associated with it, were also found to contain PGW. The period of the PGW, therefore, represents the period whose events are narrated by the *Mahābhārata*.

(2) While the PGW period generally was equated by Lal with 1500–600 BC, the PGW phase at Hastināpura was dated by him to c. 1100–800 BC on the basis of accumulations of deposits below the historical Northern Black Polished ware (NBP). The early date was reinforced by the fact that the main PGW phase was said to be pre-iron, with only lumps of iron slag at "the uppermost levels": it was only in the NBP phase that "regular use of iron was observed for the first time". The dates for PGW so obtained were thought to prove the historicity of the *Mahābhārata*, for it could not be just "mere chance" that Pargiter's date for the great battle (950 BC) fell within the PGW period at Hastināpura that Lal himself determined.

(3) Although no royal structures had been found, there were signs of a flood at Hastināpura; and this could be the flood that led to the abandonment of Hastināpura, as held by later tradition.

While introducing Lal's report in the Archaeological Survey of India's official publication, *Ancient India* (1954–55), A. Ghosh, the head of the Survey at the time, distanced himself strongly from Lal's conclusions. He cautioned against any impression that "the Hastināpura excavation has yielded archaeological evidence about the truth of the story of the *Mahābhārata*". Ghosh's words proved prophetic and Lal's conclusions were soon brought into question.

Archaeologists like Mortimer Wheeler and D.H. Gordon immediately doubted Lal's estimations of time based on accumulations of deposits: Wheeler would not place PGW beyond 800 BC, and Gordon, beyond 600 BC. These views were proved justified by the ¹⁴C tests when these became available. As many as eight samples from Hastināpura PGW levels were submitted, and all of them gave consistently low dates, placing the PGW levels, with all allowance for margins of error, between 785 BC and 15 AD! (We have seen in 3.1 above that the carbon dates from sites in western U.P. and eastern Rajasthan generally suggest a PGW period of 700–400 BC.)

Confronted by this evidence, which blew up any possibility of associating the PGW with the supposed date of the Mahābhārata War, Lal and his supporters have resorted to questioning the ¹⁴C dates themselves on various grounds (polluted samples, self-contradictory nature, etc.), and pointed to a single stray date from Atranjikhhera, of 1265–1000 BC, while forgetting, of course, a date of AD 240–575 for the same phase from the same site! The early date at Atranjikhhera for PGW is obviously dubious, since here the PGW phase was preceded by Black and Red Ware (BRW), for which the carbon dates give only a range of 815–410 BC.

Carbon dates were altogether abandoned by the Archaeological Survey in its excavations at Bhagwanpura, and only TL (thermoluminescence) was resorted to; but the results were no better. For PGW pottery, these gave either the impossible dates of 1836 and 1852 BC, and 1667 AD, or just 732 and 671 BC! How the excavator, J.P. Joshi (one of Lal's successors as head of the Survey), carved out a period of "1450 BC to 1000 BC or a little earlier" for the PGW (in its overlap with 'Late Harappan') from these dates, is an insoluble mystery. It almost appears that whatever the evidence, a preconceived notion must still prevail. Joshi even follows Lal in establishing the same

"flood" connections with tradition: there are signs of two floods at Bhagwanpura, so these must be the two floods mentioned in the *Shatapatha Brāhmaṇa*!

There was also the matter of iron. With the excavations at Atranjikhhera, yielding a profusion of iron objects at PGW levels, it became clear that PGW in western U.P. was an Iron Age culture, and not a pre-iron one. Why iron was missed entirely at Hastināpura in its PGW levels, which otherwise had similar artefacts, is therefore a question worth asking. Yet, now that early dates for iron are being indicated (see 3.3 above), Hastināpura is often quite wrongly cited as giving evidence of iron at PGW levels; and the unreasonably early dates claimed for PGW are, in turn, used to advance, equally unreasonably, claims for a still greater antiquity for iron in India. It is difficult to see in such attempts any light of reason or logic.

Undaunted by the difficulties raised in his attempt to construct a Mahābhārata archaeology, B.B. Lal turned his attention in the 1970s to the other great epic, the *Rāmāyaṇa*. Since the *Mahābhārata* contains within it a narration of the *Rāmāyaṇa* story, the events of the legend have to be placed earlier in time than the Mahābhārata War, for which, as we have seen, Lal had adopted the date of 950 BC.

Lal dug at Ayodhya, but he did not even find the Black and Red ware at the site, despite digging trenches at various places. The earliest pottery recovered was Northern Black Polished ware (NBP), a kind of ware not datable to beyond 400 BC. As many as ten carbon dates were obtained, but they all fall within a range of 625 BC to 225 AD; no date for NBP going beyond the upper limit of 390 BC. Clearly, Ayodhya had no remains to offer beyond the time of Gautama Buddha, what to speak of the time fixed for the Mahābhārata War. No basis, therefore, could be found here for a *Rāmāyaṇa* period preceding the supposed one of the *Mahābhārata*.

The story of the misadventures of 'Epic Archaeology' is important for us as showing how risky it is to go on building unsupportable hypotheses and then holding on to them despite all contrary evidence. This warning applies equally to History and Archaeology.

Note 3.2

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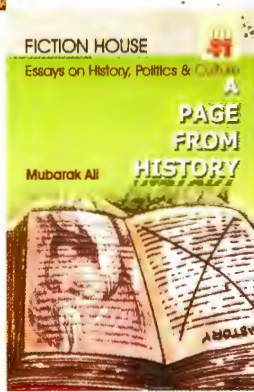
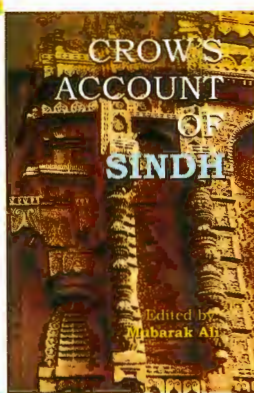
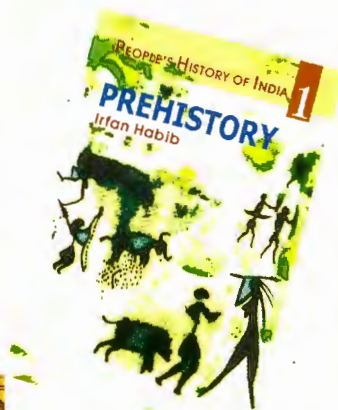
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