2
Landscapes and Peoples

Time and Space

Speaking metaphorically, time and space are said to be the warp and woof of history. In India the perception of time includes abstract concepts, such as cyclic time as a component of cosmology, and linear time which is born of human action. Cyclic time is a part of cosmology in various texts, such as the epic the *Mahabharata,* the *Dharma-shastra* of Manu and the *Vishnu Purana,* and the elaboration of this cosmology probably dated to the early Christian era. The last of these texts also has a section on genealogies and dynasties, providing indications of linear time, but this was overlooked in modern studies of time concepts and Indian civilization was said to be familiar only with cyclic time.

The imaginative vastness of cycles of time, where the great cycle – the *mahayuga* – extends to 4,320,000 years, provides a cosmological frame. The immensity of the span was required for calculations in astronomy. It encapsulates four lesser cycles, each smaller than the previous and declining in an orderly, arithmetical progression. The four cycles or ages are the Krita or Satya – the Age of Truth – the Treta or the third, the Dvapara or the second, and the Kali. We are now in the Kali Age, the start of which has been calculated as equivalent to 3102 BC and which is to last for 432,000 years. Apart from the decline in the number of years, the quality of life also diminishes in each cycle. It is said to be like a bull that initially stands on four legs, but with each age loses a leg and now stands on one! With the exception of the first, the names of the cycles follow the throws of dice introducing an element of chance into the concept of time, and the Kali Age has therefore been appropriately translated as the age of the losing throw.

Linear time is circumscribed by what is viewed as the beginning and the end of time in human history. It can take the form of the shallow or deep descent of the genealogy of a clan or a dynasty: the human lifespan of a biography; or the innumerable chronicles written to assert the authority of kings and dynasties, with the multiple eras they established from the first millennium AD. Unlike the Judaeo-Christian tradition, where there is a precise beginning and a definite termination in the Day of Judgement, the Indian form has a weaker eschatology. Nevertheless, the concept of linearity as the basic approach to recording the past is unmistakable. Linear time is the immediate context for heroes and kings, and for the chronicles of institutions and states. It would seem that cyclic and linear time had variant functions and the exploration of their interface as reflected in Indian texts is still in its initial stages.

Regions enclosing space are active players in historical events when seen from a historical and geographical perspective. Regions are not uniform nor do they emerge simultaneously. They surface in an uneven pattern, the differences being determined both by a pre-existing landscape and environment and by the shape given to it through human action. This would incorporate conditions of

physical geography and be modulated by climate, soil, water resources, crops, drought and flood, as well as the impact of those technologies that alter environment and landscape.

There are also spaces pertaining to how a geographical entity is viewed historically. Geologically the subcontinent was formed through the shifting land mass of Gondwanaland, as it has been called, and the filling in of the seas which have now become the northern plains. Once the subcontinent was formed geographically, it remained an entity for millennia. But its historical identity is dated to relatively recent times. Even within this recent identity, the names used for the historical identity referred to different concepts of space that moved from the narrower to the broader. These were, for example, the *heptahindu* used in the *Avesta* and the equivalent of the Rigvedic *sapta sindhu* (the Sindhu/Indus and its tributaries); *hi[n]dush* in Iranian Achaemenid inscriptions (referring to north-western India, the name being taken from Sindhu); the *aryavarta,* essentially the Ganges Plain and its fringes (although sometimes expanded to include more of northern India); *hndstn,* read as Hindustan, although it did not refer to the subcontinent but only to the north-west (in a Middle Persian Sasanian inscription of Shahpur I in the third century AD); and, in Arab sources, *al-Hind* (the land beyond the Indus).

Cosmology describes the earth as flat and circular, with Mount Meru in its centre. Surrounding Mount Meru were the four continents or *dvipas,* literally islands, separated by oceans. The southern continent was *Jambudvipa* (literally, the island of the rose-apple tree, and also referred to by the Mauryan Emperor Ashoka in his inscriptions), and within this, in the area to the south of the Himalaya, was *Bharatavarsha,* named after the ruler Bharata. Permutations on this scheme included projections incorporating several continents and oceans.

Consciousness of space is also implicit in the listing of places of pilgrimage and the gradual expansion of these lists. The formulaic mention of conquered lands in the claims of those who took the title of *digvijayin,* conqueror of the four quarters, in the post-Gupta period also invoked space. The relationship between regions and larger entities changed as the peripheral and the unknown gradually became part of the mainstream. The latter was subject to still wider pulls: from central Asia in the north; from west Asia along the western coastal areas; and towards south-east Asia from various directions. To see the subcontinent only in terms of regions oriented to the cardinal directions may therefore not be historically apposite, however convenient this view is for handling its history.

As part of the interest in the land-man relationship, regions are said to be either areas of attraction where human activity is evident in attempts to shape the landscape, or areas of isolation where human settlements tend to be remote and the landscape unchanging. This dichotomy should not be taken too literally. There are also areas of relative isolation that over time are incorporated into the territory of kingdoms. Forests and deserts, for example, would be areas of isolation, although forests provided many resources used by neighbouring states, such as timber, elephants, and semi-precious stones; and the use of routes across deserts led to quicker communication between surrounding regions. Access was often obtained through negotiation with those who dwelt in each region.

The Northern Mountains

Geographically, the subcontinent has been divided into three major regions: the northern mountains, the Indo-Gangetic Plain and the peninsula. The northern mountains have been described in the past as a barrier to communication that isolates northern India from Asia. But in effect they were rarely

barriers and the north-west of the subcontinent was in continuous communication with peoples and places in western and central Asia. It was almost as if such communication focused on the passes in the north-western mountains and intensified cross-cultural activities.

The northern plain is bounded by the Hindu Kush and the Sulaiman and Kirthar Mountains to the north-west, and by the Himalaya to the north and north-east. The Hindu Kush is also a watershed, an elevated area that provides the geographical interface between the Oxus and the Indus Valleys. When seen from this perspective it ceases to be the barrier cutting off access to central Asia which it was once thought to be.

The passes in the north-west mountains, although arid, were less snowbound than those of the higher Himalaya and therefore more frequently used. These included the Bolan, Gomal and Khyber passes. The fertile Swat Valley formed another route, as did the Hunza and Upper Indus Valley. The Khyber played an important role in the British attempt to control Afghanistan and contain the Russian presence in the nineteenth century, and has therefore been much romanticized in literature, becoming the focus of historical attention. But the Bolan may have been the more important route in the earliest period. It led to the Seistan area and the Helmand valley in Afghanistan, which in turn gave access to north-eastern Iran and central Asia. The Swat Valley attracted attention in modern histories because of its connections with the route of Alexander of Macedon.

Pastoralists arriving from and returning to Afghanistan, or even central Asia, travelled regularly through the passes and the valleys. They continued to do so until a few years ago, as did immigrants coming from central Asia, Iran or Afghanistan, or large groups of Indians trading and settling in these distant places. Missionaries from Persia, caravans of merchants and, from time to time, invading armies used the same routes. Settlements at both ends point to the importance of controlling the passes. In early times the towns of Taxila and Begram controlled the Khyber Pass and, later, Peshawar and Kabul. The junction of the pass with the plain forms an area particularly sensitive to the politics and trade of the local regions. These passes were used so frequently that it is incorrect to project the north-western mountains as barriers. They were corridors of communication. Contact with what are now referred to as central Asia, Iran and Afghanistan goes back to the third millennium BC, the period of the Indus cities, and the passes are likely to have been used by people in even earlier times. There was a historical continuity of peoples entering northern India, such as with the migrations of the Indo-Aryan speakers, sporadically with the armies of Alexander of Macedon and more consistently with the Indo-Greeks, Parthians, Shakas, Kushanas, Hunas and Turks. The most regular movements were those of herders and of trading caravans.

The Himalaya mountains to the north are somewhat different and although not a barrier had less communication with the world beyond. The plateau of Tibet was itself somewhat distanced from central Asia and China. The passes here are high and inhospitable in winter, generally snow-covered. Nevertheless, they have seen traffic and trade. The directly northern route to central Asia lay in the recently discovered Karakorum Highway via Gilgit, Chitral and Hunza, which tied into what came to be called the central Asian Silk Route. In the last couple of centuries these areas caught public attention as part of the backdrop to ‘the Great Game’, the British attempt to open up central Asia and Tibet.

Further to the east, contact with Tibet was linked to the transhumance of pastoral groups moving to summer pastures through the passes. Still further east, the mountains of what is today referred to as north-eastern India were difficult to cross, given the direction of the ranges that made a west-to-east access less usable. The frequency of migrations and trade, and the role of these in history, varied therefore from region to region.

Differences in the terrain of the mountain systems, and of the cultures beyond them encouraged a cultural divide between the north-east and the north-west. This was emphasized in the interaction between the plains and the mountains, with the north-west mountains that constituted the Himalayan region of the north being very different from those of the north-east. Whereas in the north-west there was a continual influx of peoples, patterns of living and languages, the northern Himalayan valleys tended to be more sequestered. This was despite the link between the *doab* and the middle Ganges Plain lying along the *uttarapatha,* the northern route which followed the foothills of the Himalaya, known as the *terai*. With eastward extensions from the watershed into the Ganges Plain in the first millennium BC, it was probably easier to cut a route through the more elevated and less densely forested foothills than through the heavy monsoon forests of the Ganges Plain. In the first millennium AD, adventurers seeking to establish kingdoms in the northern valleys started arriving from the plains. This led to greater interaction between the kingdoms of the plains and areas further in the mountains. The north-east had areas of relative isolation and some in which political power drew on those from across the mountains.

The Indo-Gangetic Plain

A perennial supply of water to the rivers of the north comes from glaciers, which have also changed the landscape of the northern mountains by creating deeper ravines or reducing elevations, opening up meadows at high altitudes. Geologically, the northern plains have resulted from the filling in of earlier seas, and rivers have played their part in this. These rivers are partially a blessing to cultivators where they spread a cover of fertile silt, but some such as the Sutlej, Kosi, Tista and Brahmaputra frequently change course or flood on a large scale, bringing disaster. The elevation of the northern plains is not uniform as there is a gentle gradient from the west to the east, starting from the Punjab Plain and the watershed before descending along the Ganges Plain to its eastern section and the Brahmaputra Plain.

The northern plain is bifurcated into the river systems of the Indus and the Ganges. The Indus rises beyond the Himalaya, flows north through a furrow in the mountains and then turns towards the south-west when it enters the plains. The middle Indus is essentially the area of the confluence of the Indus and its major tributaries that flow from the northern Himalaya through the Punjab plains: the Jhelum, Chenab, Ravi, Sutlej and Beas, of which the Sutlej has frequently changed course. The lower Indus culminates in the Delta, which because of the silting up of its channels tended to cut short the life of its ports. To the west is the inhospitable Makran coast, the traversing of which became a nightmare for Alexander's army returning to Babylon.

Another river whose history was linked to the Indus Plain was the Hakra. It is thought to have once been a significant river flowing almost parallel with the present-day courses of the Sutlej and the lower Indus, with its estuary in the Rann of Kutch. However, the waters of its upper reaches, sometimes called the Ghaggar, were diverted through natural hydraulic changes. Rivers originally flowing into the Hakra were converted to the Sutlej, becoming a tributary of the Indus and linked to the Beas and the Yamuna, flowing to join the Ganges. This was accompanied by the gradual drying up of the Hakra, of which virtually all that remains are the disjointed streams of the present-day Ghaggar. That there were settlements on the dry river-bed of the Hakra by about the late-second millennium BC would date the desiccation to this period, so it is clear the hydraulic changes would have occurred

earlier and these are generally dated to the early second millennium.

The identification of the Ghaggar with the Sarasvati, mentioned in the *Rig-Veda,* is controversial. Furthermore, the early references to Sarasvati could be to the Haraxvati Plain in Afghanistan. The identification is also problematic as the Sarasvati is said to cut its way through high mountains and this is not the landscape of the Ghaggar. Although the Sarasvati is described in the *Rig-Veda* in glowing terms, the Sutlej and the Yamuna were already separate rivers and not flowing into the Ghaggar. This would indicate that the hymns were composed subsequent to the changes affecting the Hakra/Ghaggar. Once the river had been mythologized through invoking the memory of the earlier river, its name – Sarasvati – could be applied to many rivers, which is what happened in various parts of the subcontinent.

The elevated area of the Indo-Gangetic watershed separates the Indus system in the west from that of the Ganges in the east. The separation is further emphasized by the Aravalli Hills that separate the arid lands of Rajasthan from the western Ganges Plain. The Indo-Gangetic watershed also acts as a frontier to the Ganges Plain in the face of intrusions from the north-west. The Ganges, rising in the Himalaya, flows south and then towards the east, with tributaries providing a viable network used until recently as routes for river transportation. The Yamuna flows approximately parallel to the Ganges, but then joins it, and the area between the two is known as the *doab*-literally, between two rivers. Further east the important tributaries of the Ganges are the Gomati, Sarayu, Ghaghra and Gandak, flowing southwards from the Himalaya. The Son, Betwa and Chambal (the ravines of which have been famous as dacoit country) flow northwards from the Vindhyan Plateau. Still further east are the dual streams of the Ganges – the Bhagirathi flows south and is known to change its course, attested to by geology and reflected in mythology, while the Padma flows towards the south-east.

At its eastern extremity the Ganges Plain merges into the plains of the Brahmaputra River. Rising beyond the Himalaya, the Brahmaputra flows west to east across Tibet, as the Tsang-po, for an immense distance, then does a U-turn and continues through the plains of north-eastern India in an approximately east-west direction. In the plains it is a vast but slow-moving river with scattered islands. Both the Indus and the Brahmaputra rise from proximate sources but flow in different directions over immense distances. The lake, Manasarovara, and the nearby mountain of Kailasa have come to be regarded as sacred. In the east, the Brahmaputra meets the Padma, as does the Meghna further along. This creates an immense expanse of water during the monsoon, and the boatmen of this area have a prominent cultural place in the folk literature of the region.

River valleys or the plains created by a river and its tributaries are often optimal areas for the rise of urban centres, particularly at or near nodal points such as the confluence of rivers. The urban civilization of the Indus system dates to the third millennium BC, that of the Ganges system to the first millennium BC. Urban centres developed somewhat later in the plains of the Brahmaputra. Possibly the ecological and technological conditions did not encourage an early clearance and settlement of land. This is not altogether unassociated with the mountains of north-eastern India supporting many groups of ‘tribal societies’, as they have been called, since they remained an area of relative isolation for a long period. Land to the east of the Ganges Delta was also cleared, with settlements gradually being established in the first millennium AD. The Indus Plain appears to have been less densely forested than the Ganges Plain, although the Harappan seals depict tigers and rhinoceroses which are generally associated with tropical forest. It is hard to believe that in earlier times the Ganges Plain was covered with monsoon forests, so effectively have these been cleared. The fertility of these plains, particularly the flood plains of the rivers, attracted agriculture despite the virtually annual damage caused by floods.

The northern plains however were not uniformly fertile. The Thar desert of Rajasthan and the semi-arid regions encircling it did not allow for much cultivation. But as is characteristic of deserts, these became areas conducive to routes which were used extensively by traders whose goods were carried by camel caravans. Small centres of exchange or staging points gradually emerged, and a few grew to be towns. With attention to irrigation, some of these areas also became agriculturally viable.

The Peninsula

The third major region is that of the peninsula. Lying to the south of the Vindhya Mountains, the Satpura Ranges and the Narmada River, it is largely a plateau region but with hilly terrain in the Western and Eastern Ghats. The plateau in the northern half of the peninsula is known as the Deccan, a name given to the area by northerners and derived from *dakshina,* meaning the south. A major route going south in historical times, the *dakshinapatha* – literally, the southern route – is frequently mentioned in texts. The plateau consists of volcanic rock, very different from the northern mountains. Such rock is somewhat easier to cut into, hence the frequency of rock-cut monasteries and temples in the Deccan.

The Western Ghats rise sharply close to the western coast, tapering eastwards into the plateau of the peninsula. They are cut by a series of passes similar to those at junnar, Kanheri, Karle and Karad, which linked the trade routes traversing the plateau with the ports along the west coast. The passes were points where Buddhist rock-cut monasteries were clustered. At the southern end, the Palghat Gap was the pass that allowed access from the west coast to the Kaveri Valley and was important to Indo-Roman trade.

The Ghats on the east merge more gradually into the plateau and the coastal plain. The major rivers are approximately parallel, apart from the Mahanadi at the eastern end of the peninsula. Whereas the more northern ones – the Narmada and the Tapti – run east to west, those further south such as the Godavari, Krishna, Tungabhadra and Kaveri flow the other way, west to east. Rivers are generally regarded as sacred and some, such as the Ganges, more sacred than others. Places of pilgrimage are often located on river banks. Pilgrimage on the Narmada involved starting at the source and walking along one bank, then crossing over to the other bank and walking back to the source, a pattern less common for other rivers.

The peninsula is broken up by the topography of rivers and elevations, making expansive agrarian states similar to those of the northern plains a less common occurrence. Urbanization in the peninsula dates to the late Mauryan period and the start of the first millennium AD, but there is considerable and impressive pre-urban activity in many areas. The Deccan, as the more northern part of the peninsula, inevitably became the bridge area linking the north and the south, as is reflected in language and architectural styles.

The mountains and plateaux of central India, with their dense forests, tended to get bypassed by migrants and settlers for many centuries. The major settlements were along the more frequented routes from the northern plain southwards to the Deccan. These settlements made only a marginal impact on the forest dwellers until later centuries when encroachments into the forests for timber and elephants, as well as cultivable land, became more common. Central India was regarded as the major habitat of ‘tribal societies’ and forest peoples, even though such societies were scattered throughout the subcontinent. Pockets of these continue to the present. The population size of such ‘tribal societies’ or

forest-people varies today from about a hundred for a society such as the Onge in the Andaman Islands, to over a million among the Munda, Oraon, Bhil, Gond, Santhal and Mina. Living patterns range from hunting-gathering, shifting cultivation and horticulture to fanning. A distinction between these societies and the neighbouring peasant societies had been the centrality of plough agriculture and tenancies among the latter, although this has entered the lives of the former in recent times. Ecological regions were not sharply demarcated and there were symbiotic relations of interdependence between adjoining regions. Forests and savannas were much more extensive in the past than they are now. This in part accounted for densities of forest populations in certain areas, and only gradually were peasant villages settled among such populations. Early texts refer to traversing forests as part of travelling from town to town. Brigands, who also treated the forest as their habitat, added to the apprehensions about undertaking a long journey.

Coastal Areas

The peninsula, with its extensive western and eastern coasts, inevitably has a history of maritime activities. These have not been given their due recognition, largely because the historical perspective of the subcontinent has been land-locked. The monsoon was a dominant feature since the monsoon winds, when used at the appropriate time and with the correct technology, powered sailing ships. Long-distance routes were mid-ocean routes requiring knowledge of winds and currents. Coastal routes were networks that remained reasonably constant. The coasts in each case constitute regions of their own through sea links. The geomorphology of the coastline and the technology of navigation and shipping often led to the continuity of ports and harbours over many centuries. A striking example is the port of Muziris in Kerala which, if identified as it generally is with Kodangallur/Cranganore, would have remained active from the turn of the Christian era to the coming of the Portuguese, fifteen centuries later.

Equally active for much of history were the pirates all along the western coast from Gujarat to Kerala. There are frequent references to the threat of pirates, with memorials to heroes who had resisted them. Piracy is in part a gauge of exchange and a form of redistribution of wealth from plunder. The threat from piracy was that if it remained uncontrolled it could lead to the termination of the trade. Piracy on the sea had a parallel in the brigands on the land. Early societies tried to curb both, but often had to live with them.

The Indian Ocean is divided by the Indian peninsula into two arcs: the Arabian Sea and the western coast of India; and the Bay of Bengal and the eastern coast. The western coast can best be viewed historically as having various foci or core areas: the Indus Delta, Gujarat and Saurashtra, Thana (in the vicinity of Mumbai), the Konkan (south of this) and Malabar (in Kerala). The foci on the eastern coast were: the Ganges Delta, Kalinga (in Orissa), the Deltas of the Godavari and Krishna, and the Coromandel coast with a concentration in the Kaveri Delta (in Tamil Nadu). These core areas were often the nuclei of kingdoms that also had maritime ambitions and economies.

Over many centuries the rise or fall in sea level has also introduced changes along the coasts. A rise in sea level meant that an area such as the Rann of Kutch in western India was once a shallow sea, open to small ships. A fall in sea level would leave some ports high and dry, although the emergence of new land was useful to human and animal populations. These changes particularly affected low-lying coastal areas, such as the Sundarbans in the Ganges Delta, and estuaries in

Bangladesh where some parts of the land could either be submerged or silted up, with land forms constantly changing.

The east coast provides evidence of the movement of Buddhism from eastern India, following the coast to south India and Sri Lanka, from approximately the late-first millennium BC. East-coast traders also took the initiative in establishing trade with south-east Asia and southern China. Maritime contacts between the western coast and west Asia go back to the third millennium BC, with seafaring between the Indus cities and Mesopotamia. The south Asian presence in the Gulf has been almost continuous. In later times, beginning in the first century BC, the trade with the eastern Mediterranean provinces of the Roman Empire through the ports of the Red Sea was highly profitable. It was doubtless the success of this trade that took the links further to the eastern coast of Africa in the first millennium AD. The western coast has been home to a number of trading communities, including Christians, Parsis, Arabs and Jews. Another geographical formation, not altogether historically irrelevant as it was once thought, is the cluster of coral islands off the coast of Kerala and Sri Lanka – Lakshadvipa, Minicoy and the Maldives. They broke the fury of the incoming monsoon, and could be used as outposts for traders sailing in both directions.

Far to the east are the Andaman and Nicobar islands, closer to south-east Asia than India. They could have been staging points along the Indian Ocean routes, but seem not to have been used as such. Perhaps the people living there were not so welcoming. In the last couple of centuries the people of the islands have been studied by colonial anthropologists, attempting to define the 'primitive'.

Frontiers

Geographical features are sometimes said to serve as boundaries between states. The concept of the boundary of a kingdom was different in early times from what it is today. In the absence of maps, there was also an absence of a clearly drawn cartographic line marking a boundary. Features of the landscape, such as a mountain range, forest, river, coast or desert, could act as frontier zones rather than boundary lines. Frontier zones were areas of interaction between those who lived within a jurisdiction and those outside it. A frontier was probably more often recognized through changes in language and custom. This flexibility allowed for diplomatic leeway. It also facilitated the crossing of frontiers as a normal part of travelling. Both merchants and traders travelled extensively, while metalsmiths and pastoralists had their own circuits. After the mid-first millennium AD, brahmans also became increasingly mobile, travelling from court to court in search of employment. Pilgrims journeying to sacred places probably had greater immunity to frontiers, since the purpose of their travel was regarded as uplifting or fulfilling a vow.

Frontiers also relate to the curious phenomenon of how some languages spread, while others remain in one place. Indo-Aryan, as Sanskrit, initially had a limited elite status. The use of Sanskrit became more widespread across north India when various dynasties gave it preference over the popularly used Prakrit as their official language. It became part of the demarcation between cultures, the *marga,* or Sanskrit-using mainstream, and the *deshi,* using the regional language. Sanskrit became the language of the court, of classical literature and philosophical works, in short of the subcontinental elite. It was edged out of the court when the administration of an area used Persian or the regional languages. Regional languages, some derived from a Dravidian source and some from Indo-Aryan, remained within approximate regional boundaries even when a few became court

languages. The change of language was not a matter of linguistics alone, but had to do with where the writ of authority ran and the identity of that authority.

Geography and landscape come into focus in the area of religious belief. Places of pilgrimage – *tirthas* and *ziarats* – are scattered all over the subcontinent. Pilgrimage crosses frontiers and carries cultural idioms from one place to another. Some sites are specific to a religion and retain their prominence as long as they can count on the patronage of that religion. But many more places acquire an association with the sacred and this brings about a cluster of religious connections, sometimes in succession and at other times simultaneously. Somanatha and its vicinity in Gujarat were home to places of worship revered by Vaishnavas, Buddhists, Shaivas, Jainas and Muslims. Patterns such as this cannot be explained by simply maintaining that there was religious tolerance, as there were expressions of intolerance at some places. Evidently there were other concerns that made such places attractive. Sacred sites could also be taken over by a winning religion – thus a megalithic site was appropriated for the building of a Buddhist *stupa* at Amaravati, a Buddhist *chaitya* was converted into a Hindu temple at Chezarla, a Hindu temple was converted into a Muslim mosque at Ajmer, and there are many more examples. Possibly some sites were thought to be intrinsically sacred and therefore attracted new religions, or perhaps taking over a sacred site was a demonstration of power. Sacred groves and trees, mountains, caves in hillsides, springs and pools are part of popular worship where landscape and belief come together. When they are appropriated by the powerful and the wealthy, then the landscape has to host monuments.

Transportation

Both human porterage and animals were used to transport goods on land. The animal changed according to environment. The most widely used were pack-oxen, mules and asses, as well as some locally bred horses, such as those bred in later periods in western India. For specific terrain, the animal changed to elephants in forests, camels – the dromedary – in arid lands, and sheep, goats, yak and dzo in the mountains. Animal caravans moved along tracks, but ox-carts required a minimal road. Rivers could be forded with ferries and boat bridges. From the ninth century AD stone bridges with corbelled arches were introduced. The Emperor Ashoka, as early as the third century DC, took pride in building rest-houses, digging wells and planting shady trees along the highways. The transportation of goods was possible for most of the year, but was difficult during the three-month period of the monsoon rains.

Until the nineteenth century it would seem that water transport was preferred for bulk items wherever possible and most rivers were navigable, particularly in their lower reaches. River ports were therefore important as nodal points. The confluence of the Ganges and the Yamuna, for instance, was the point at which the Ganges became a waterway of significance. The major city of Kaushambi may have been closer to the confluence in the mid-first millennium BC. For short distances or river crossings the most commonly used forms of transportation were floats, rafts, coracles, dugouts, basket boats and suchlike. For heavier duty, boats built of timber were used more regularly, the local timber being not only river-worthy but, as in the case of teak, eminently suitable even for ships sailing the seas. The size of such craft varied, as did the space and accommodation on the boat and the nature of the sails. Coastal craft were sometimes elaborate dug-outs or else large logs tied together, as in the famous *kattamaram,* or planks sewn together. Mid-ocean ships were larger and built at special

shipyards. The navigation of these required a good knowledge of winds and currents – particularly if the south-west monsoon was being used – of coastal landmarks and, inevitably, of astronomy based on observing the stars. The knowledge of astronomy tended to advance during times of considerable maritime trade.

Climate and Agriculture

Agriculture and climatic conditions are dominated by the monsoon – the seasonal rain. The south-west monsoon moves across the Arabian Sea and over the subcontinent from June to September, and the lesser north-east monsoon blows briefly in the opposite direction from December to February, affecting mainly the north-east and the peninsula. This leads to high humidity in the north-eastern area and in Bengal, Orissa and Kerala, with heavier rains and a dense growth of plants and trees. In contrast, parts of the Deccan Plateau and Rajasthan are semi-arid regions for most of the year. The variation in climate and rainfall also contributes to regional differentiation. The high Himalaya acts as a barrier against the cold winds from central Asia, and also stops the monsoon from crossing the initial Himalayan barrier.

It is likely that some changes in climate affected agricultural production, but mapping such changes is not always possible or even precise, given the paucity of evidence for early periods. Analyses of plant remains and soil from excavations have suggested increasing aridity in north-western India in the post-Harappan period. A change in climate has also been suggested for the mid-first millennium AD.

Climatic conditions, together with ecological and environmental variations, account for the range of settlement patterns and domestic architecture that also influenced other architectural forms. One type of village is nucleated, with a concentration of houses surrounded by fields, and grazing grounds for livestock further away. This tends to be the pattern in some of the areas that have a generally dry or arid environment. In areas that are wetter and given to rice cultivation, such as eastern and southern India, the pattern of linear homesteads is often preferred. Houses could be constructed using bamboo beams and woven stalks and matting, or wooden posts and a mud plaster over small branches of trees, the simplest huts being round, square or rectangular. Timber infrastructures gradually replaced these in urban centres, where mud-brick was also used by the better off, while the relatively affluent used kiln-fired brick. House-plans were often rooms around a courtyard, and this remained the standard architectural form in the plains until recent times. Buildings intended to last for a long period, such as palaces and temples, were built more often in stone. Roofs also changed according to the climate of the region, from flat roofs to sloping roofs with thatch or tiles. Vaulted timber ceilings, sometimes imitated in stone, gave way to flat ceilings. Those with a higher elevation, as in temples, took the form of a corbelled construction.

The same preconditions of regional difference made the subcontinent one of the richest areas in floral diversity. This included a range of forests from pine and fir to tropical deciduous forests and, in some wetter places, extensive rain forests. The dry, deciduous forests of the Indus Plain were different from the dense forests of the Ganges Plain. Timber from the teak tree became famous for its durability, ebony for its colour and sandalwood for its fragrance. Drier regions hosted savannas, bush growth and coarse grasses. If there are alpine meadows in the lower Himalaya, there are sand dunes in the desert of Rajasthan and majestic rock formations in the central plateau. Many estuaries had

mangrove swamps, among them those of the Indus, the Ganges and the Mahanadi, as well as the coasts of the Andaman Islands.

Climatic conditions relate closely to agricultural production, which in turn is frequently governed by knowing the best time for sowing and harvesting: a connection which the local brahman often calculated on the basis of a lunar-solar calendar. The agricultural and lunar calendar also served for calculating the dates of festivals. The determining of time was initially connected to the twenty-seven stellar constellations, and the phases of the moon provided clues to temporal points in the lunar month. To this were later added calculations based on solar reckoning, such as the equinoxes and the solstices. Such linking of information was important to the cultivator and partially explains his dependence on those who made the calendar, quite apart from his dependence on the quality of the soil, the seed and irrigation.

Soil quality is judged by its natural nutrients, its ability to retain water and the degree to which it facilitates ploughing. Soils vary enormously from region to region, with alluvial and black-cotton soils as well as red soils and laterite. Generalizations on agrarian history have to consider these variations. It has been rightly said that durable boots are essential to the equipment of an agrarian historian required to walk in the countryside! In many areas, better soils are closer to rivers that tend to silt over their flood plains. These are often the preferred though hazardous locations of farming communities. The more established settlements move to elevated areas. Where the richer soil tends to be found below the topsoil, or is heavy, deep ploughing is called for. This has occasioned a debate among historians as to when the iron ploughshare was first used, how extensively and with what historical consequences. The use of wooden ploughshares in many parts of the subcontinent, particularly the peninsula, makes an interesting counterpoint to this discussion.

Given the common practice of rain-fed agriculture in the north-west, wheat and barley were the preferred food crops. In drier regions, as in parts of the peninsula, a variety of millets were cultivated. Wet-rice cultivation provided the staple in larger areas of the middle Ganges Plain and eastern India, the broader valleys of the peninsula and in coastal areas. Wet-rice cultivation yields a considerably higher surplus than other cereal crops and perhaps is thus able to sustain complex societies with large numbers of people not engaged in cultivation for longer periods. The drier areas were home to cattle-breeding, with the buffalo taking precedence in wetter areas. Cultivation processes range from shifting cultivation/slash-and-burn/ swidden, known locally as *jhooming,* and hoe cultivation, to the use of the plough. In limited areas *jhooming* has destroyed primary forests and all that remain are secondary forests, growing in areas now fallow. Shifting cultivation produces enough to live on but no more. It does not always imply a shifting settlement as the shift may only be in the land under cultivation. Nevertheless, the settlements tended to be temporary, as is still the case with some shifting cultivation of north-eastern India. Clearing forests to provide permanent cultivable land and extend agriculture has been an ongoing process in the history of the subcontinent. But the *Arthashastra* of Kautilya, a text on political economy dating to the Mauryan and post-Mauryan period, advises rigorous state control over this activity, doubtless to keep a check on the revenue brought in by extending agriculture and possibly to prevent over-exploitation of the land. While the population was small the extent of damage was limited, but in recent centuries regular and intensive clearing has depleted the forest cover.

Methods of irrigating fields were not uniform, being dependent on natural conditions and the control of irrigation works. Extensive farming was tied to a regular supply of water. Irrigation systems ranged from the simple to the complicated: water taken from rivers and diverted into channels for irrigation; water-lifts working on wells and rivers; wheels fitted with pots and attached

to wells; Persian wheels with a gearing mechanism; small hillside channels bringing water to terraced fields; tanks; embankments with weirs to hold water in reservoirs; enclosures at catchment areas; canals and anicuts; underground conduits; and small dams. The system adopted was specific to particular environments, the acreage of land under cultivation and the person or institution that took the initiative in setting up irrigation works. The theory that the hydraulic machinery was controlled by the bureaucracy of the state, with the peasant dependent on it being subjected to the despotism of the ruler, has been quoted as characteristic of agriculture and politics in pre-modern India. Studies of agrarian history have proved this theory to be erroneous. State-controlled irrigation works, such as large reservoirs, dams or anicuts, were few and far between. The more common forms were established either through private initiatives by wealthy farmers and landowners, or through the co-operation of the community of villagers. A failed monsoon may have brought a drought, and there is mention of famines. But the constant flooding of rivers and changes in river courses were as catastrophic as earthquakes and famines. Small-scale irrigation was the attempt of the cultivator to bypass disaster.

Population

In the relation of human activity to the landscape, the question of the number of human beings involved remains enigmatic for the Indian past. The immense variation in environment, climate and crop patterns presents problems in projecting figures. The numbers would certainly have been much smaller than those for later times and therefore susceptible to frequent change because of epidemics, campaigns and natural catastrophes. Some surveys linking habitation to humans on the basis of excavations have been attempted but these inevitably remain tentative. Despite some approximate estimates of population in the Harappan cities, based on the size of each city, there is no consensus on the figures. The lower town at Mohenjo-daro, more densely populated than the citadel, is thought to have had a population of about 42,000, but this is regarded by some as too low a figure.

An estimate of 181 million as the population of the subcontinent had been suggested for the late fourth century BC but this figure was obviously far too high. It had been calculated on the size of the Mauryan army, based on figures from Greek sources. These are almost certainly exaggerated since the intention was to project a formidable military strength to oppose Alexander should be have campaigned in the Ganges plain. More recent attempts, calculated on the archaeology of two districts, one in the western Ganges Plain and one in north-western Maharashtra, suggest considerably smaller numbers. These have been further calculated for the mid-first millennium BC as around 20 million. The population for the city of Kaushambi during this period has been estimated at 36,000, which makes an interesting comparison with that of Mohenjo-daro.

Variation in population numbers would have been affected by catastrophes, some of which have been mentioned above. What has not been investigated for n history is the occurrence of disease and epidemics. It has been suggested that one of the causes for a large number of deaths at Mohenjo-daro was the prevalence of severe anaemia. The frequency of floods may well have been followed by epidemics of malaria or similar diseases. It is now being argued that the stalling of animals together with humans in the same hut, as often happens in agrarian societies, would be conducive to the spread of viruses. Urban congestion, which characterized some of the smaller towns in the declining period of the Indus civilization, is a well known cause of a variety of devastating diseases.

Estimates for the early seventeenth century hover around nearly 150 million for the Mughal Empire. The first census of the British Indian administration, carried out in 1881, put the population at a little over 253 million. The argument that there was a stasis between *c.* 500 BC and AD 1500 would therefore not be supported by these recent views. Population growth would be closely associated with human activity and the earliest forms of this would have involved small populations, gradually increasing in number as the activities became more complex and food more readily available.

Categories of Societies

The Indian subcontinent has been the habitat of many societies, ranging from those with a relatively simple organization to others with more complex organizations, the range disallowing easy generalizations. Complex societies were obviously the more dominant and elbowed their way into history. Others were forced to be more reticent but they did not disappear. It is often in the interface of such differing societies that the patterns of Indian culture were forged. As the 'living prehistory' of India, their survival – albeit even in forms that have changed somewhat over time – and their presence in history has to be recognized.

The understanding of early societies has been helped by anthropologists studying pre-modern societies and by those analysing pre-capitalist systems. These studies have not only attempted to explain the difference between early societies and those of the present, but have encouraged historians to ask more incisive questions about the nature of past societies. The attempt here is to understand and differentiate between some of the categories that have been focused on, as a prelude to the historical delineation of Indian society from the early past. These societies still exist in various parts of India, some quite marginally, and are part of what has been called a cultural survival. It would therefore be possible to speak of them in the present tense. But since it is their role in history under discussion here, it is more appropriate to use the past tense.

For convenience, the categories of societies may be listed as hunter-gatherers, pastoralists, peasants and townsmen. In setting out these categories the intention is not to suggest that they were demarcated and separate throughout history. These were predominant categories in different ecological regions, but there were overlaps and changes alongside the historical change that the region underwent. Nor is it intended to set these out in a strictly evolutionary order, each experiencing the previous stage and evolving into the next. Nevertheless, hunter-gatherers had a minimal organization, whereas urban societies were far more complex. Their activities and their relationships with each other need explanation when they surface both in the historical sources and as part of historical events. It was not characteristic of these societies to be invariably self-contained and isolated, for there were overlaps as, for example, in systems of kinship or in the interdependence of some. Even the normative texts that present a homogeneous society have to concede variations in occupation, patriarchy, matriliny, marriage forms and inheritance rules. The importance of these categories is underlined by the fact that until recent centuries such communities could be found juxtaposed in many parts of the subcontinent, although particular categories were predominant in each area. Now that they have been recognized, their contribution to the making of Indian culture is also beginning to receive attention.

Hunter-gatherers

As the term implies, hunter-gatherers lived by hunting animals for food and other requirements, and by foraging for edible plants. Breeding animals or growing crops were not part of their activity, so they were distinct from pastoralists and peasants. They were organized in small bands, sometimes constituted of a few families, and were unfamiliar with maners of status distinction or social organization beyond the family or a larger group linked through kinship. They used the forest and the scrublands as their resource. Hunting grounds may have been nominally demarcated, but such territories were large enough to accommodate more than one group. Such groups could therefore have lived in isolation, provided there were no demands on the territory within which they hunted. When such demands occurred, as when the cultivators from nearby villages or the neighbouring state began to clear forests and start cultivating the cleared land, the existing hunter-gatherers understandably resorted to a ferocious defence of their territory. It is possible that descriptions of those outside the pale of caste society – such as the Shabaras or even the demonic figures said to inhabit the forest, against whom the heroes of the epics had to fight – could be exaggerated accounts of such forest-dwellers resisting intruders. The *rakshasas* of the texts were projected as supernatural beings, and, as part of the unknown wilderness, some were also demonized forest-dwellers.

One of the most graphic descriptions of clearing a forest to establish a settlement occurs in the *Mahabharata,* where the burning of the Khandava Forest to clear land for the settlement of Indraprastha led to large numbers of animals, as well as human and demonic inhabitants, being burnt to death. The presentation of forest-dwellers as demonic would have emphasized their being alien to caste society. The Shabaras, Pulindas, Nishadas and so on, frequently mentioned in early texts, would have been the prototype. The conventional description is that they were stocky in build, dark in complexion, with bloodshot eyes and speaking a strange language. Banabhatta, writing in the seventh century AD, described such groups in his *Harshacharita,* but some among them had been acculturated and their activities were similar to those of neighbouring peasant societies.

As this description indicates, forest-dwellers were not confined to being hunter-gatherers. Some were shifting cultivators, or were horticulturalists, and some practised sedentary cultivation. Their societies were organized in clans and the larger unit was the tribe; this organization distinguished them from peasant cultivators and caste society. Social hierarchy received little attention and generally the differentiation was only between the chief, who had the highest status, and the other clansmen. Status and bonding based on kinship relations were more common. They had a preference for living in forests and used a limited technology, their religion was largely animistic, their rituals and beliefs created by shamans, and their isolation permitted them to use their own language.

Awareness of such groups is apparent from early sources, and they were not entirely excluded from the dichotomy underlying much of the thinking about the environment and human activity. The demarcation between what was called the *grama,* village, and the *aranya,* forest or wilderness, and later the *kshetra,* literally field, and the *vana,* forest, reflects a perceived opposition between the two systems. In actual practice the dichotomy was not so sharp and the one faded into the other, but the divide was maintained in theory. The forest was the unknown, the wild, the unpredictable, whereas the settlement was predictable and subject to known laws. Fantasies about the people of the forest, be they *apsaras,* celestial maidens, or *rakshasas,* demons, occur more frequently in the earlier literature.

But there was a perceptible shift in attitudes towards forest-dwellers from earlier to later times.

Initially, the forest was the habitat of those regarded as outside the social pale. Subsequently, the establishing of hermitages in the forests and the preference of ascetics for forest retreats led to some romanticizing of the forest. But, parallel to this, the state and the rulers treated forest-people with some suspicion. The *Arthashastra* of Kautilya advised the king not to trust forest-chiefs and verged on regarding them with hostility. From the mid-first millennium AD onwards there were references to the uprooting of forest-dwellers, or to their conquest or assimilation becoming necessary to the foundation of new kingdoms. Encroachments were doubtless intensified from this period, what with clearing forests for cultivation or cutting routes through them. The persistence of such societies to the present time, and in appreciable number, is an indication of their having been resilient as a population and distinctive in culture.

In recent times there has been a debate on whether or not they should be regarded as the *adivasis,* the earliest indigenous inhabitants of India. The game of 'who was there first' played by those claiming to speak on behalf of Aryans, or Dravidians or Austro-Asiatics, or whatever, is historically not viable. Not only are the claims to these identities as being historical and having an immense antiquity untenable, but the paucity of the required evidence to prove this makes it impossible to give answers with any certainty. *Adivasi* societies are not fossilized societies. The historical legitimacy of groups such as forest tribes lies in recognizing their way of life and in analysing the significance of their contribution to the creation of Indian culture since early times. Given that the precise meaning of the term 'tribe' remains controversial and is not uniformly defined, it becomes even more difficult to deduce an authentic history. Confrontations between forest-dwellers and migrating peasants, or with the armies of a kingdom, would result – if the former were overcome by the latter – in the conversion of the former to caste society.

Pastoralists

Another category, more frequently met with in Indian history than historians admit, is that of the pastoralists. Some pastoralists were nomadic, their circuits varying in distance, while others were semi-sedentary, occasionally practising a minimal agriculture as well. Most pastoralists were part of a system of exchange that brought them into contact with cultivators and others. Hence the preference for the term agro-pastoralism, which registers the presence of agriculture even in predominantly pastoral societies. Some acted as carriers of goods and this widened their range of contacts. Pastoral circuits encouraged possibilities of migration and the exploration of new grazing grounds, and therefore involved the history of the movements of peoples.

Pastoral societies generally had a fairly conventional organization, with marginal variations. The family formed the core and patrilineal descent was often traced from a common ancestor. Kinship, whether actual or fictive, was essential to identity and to loyalty, with a premium on the latter. This ensured the coherence of the larger unit, the clan, which because of constant movement would otherwise tend to get dispersed. Charisma grew out of defending the clan when attacked. The clan was relatively egalitarian with a sharing of the produce, although a better and bigger share was collected by the chief. Where herds were acquired through raids, as described in the *Rig-Veda,* the clan chief had to be a successful raider to retain his status. A group of clans constituted what have been called tribes, although this word can cover diverse forms of social groups. Among pastoralists, membership of a tribe generally included those claiming common grazing grounds and descent from a

common ancestor, with a common language and customs, as well as rituals. The creation of a tribe could be occasioned by political needs when searching for new pastures or attacking sedentary societies. The tribe can be viewed as segmentary, moving away from the family as the nucleus to larger entities such as lineages which were identified by a common, mythical ancestor. Where descent was unilineal the emphasis was on kinship, whether actual or fictive.

Pastoralists from central Asia intervened from time to time in the history of India, often because of disturbances in central Asia that resulted in migrations and incursions or invasions further south. Such disturbances are thought to have led indirectly to the arrival of the Indo-Aryan speakers and to the Parthians, Shakas, Kushanas, Hunas and Turks. But other pastoral groups within the subcontinent were also important, such as the cattle-keepers in the peninsula. As a component of agriculture and exchange, these filled in the spaces between peasant societies. Cattle-keepers, apart from providing dairy produce, also acted as carriers of commodities for exchange. The *banjaras* continued to perform this role until quite recently. The frequency of memorials to local heroes defending cattle herds in western India and the peninsula is a pointer to the importance of pastoralism.

In the upper reaches of the mountains where agriculture was scarce, transhumance became a practice regulated by the change of season, as it is in many parts of the world. The animals were taken up to pastures at higher elevations in the summer and then brought back in the autumn. This regular movement encouraged incipient trade, as, for example, in the exchange of rice from the Indian side in the Himalayan region for tea from Tibet, an exchange that has elsewhere been called ‘a vertical economy’.

Transhumance provided the additional pasturage that at lower altitudes came from cultivating fodder crops or from an arrangement with farmers. There was considerable interaction between pastoralists and peasants, unlike the societies of hunter-gatherers and others, between whom such links were lacking. Pastoralists generally had (and continue to have) a symbiotic relationship with agriculturalists. When the crop was harvested a herd of sheep, goats or cattle was brought by herders to feed on the stubble. The animal droppings manured the land. As a by-product some exchange of essential items also took place. The effectiveness of this system required that the annual circuit of the pastoralists and its timing remained relatively unchanged, so that it was coordinated with harvesting activities. The relationship between the herder and the farmer was almost contractual. Such symbiotic relations of agro-pastoralism could have a considerable antiquity.

Societies with a strong clan organization or those determined by lineage identity were frequently chiefdoms; these could be small and simple or could be larger confederacies. The emphasis was on relationships based on kinship bonds. The determining of marriage circles, namely the regulations regarding the taking and giving of women in marriage, were worked out in terms of relationships between various clans. Rules of inheritance could also mark the status of the clan. More complex systems would exclude those who were not members of the clan, but who nonetheless had other connections with the clan. These could be religious functionaries, such as shamans and priests, or could be those who provided labour. The former defined the belief systems and rituals of the clan. The latter were sometimes enslaved persons who had been captured after a raid or those who were not members of the clan. The change from a chiefdom to a kingdom, or the emergence of a state, with its attendant characteristics of the concentration of political power, rudimentary administration, revenue and other such changes, was usually accompanied by a greater reliance on peasant agriculture.

Peasants

The predominant category was that of peasant society. Historians have underlined the role of peasants as producers of food and providers of revenue. The revenue was a stipulated amount of agricultural produce claimed by the ruling group. The change from the categories of hunter-gatherers to pastoralism to agriculture involved using a decreasing area of land, but an increasingly more intensive use of the land. Whereas in the earlier two categories the landscape remained substantially unchanged, agriculture required clearing and cultivation. If the clearing was on a part of the grazing grounds or forested areas there could be confrontations between the societies living in each. It is generally thought that agriculture resulted in an increase of the population, the relative predictability of agricultural produce supporting larger numbers. Surplus food feeds non-producers and therefore elites, priests, soldiers and traders become viable. Unlike pastoral produce that cannot be stored for too long, grain was more easily stored and could therefore be used over a longer period. It has also been argued that density of population and a constant proximity to animals can result in the more rapid spread of disease, so that the increase in population could be offset to some extent by vulnerability to disease.

Peasants, unlike the earlier categories, were sedentary and permanent occupants of the land they cultivated, and the cultivation was not dispersed. This perhaps made them less autonomous than pastoralists. Up to a point this also assisted in holding them down and peasants have generally had a subordinate status in social hierarchies. Peasant discontent was expressed most commonly in India through migrating to new lands, and only in the early second millennium AD is there evidence for what some have interpreted as revolts. In this, the situation is different from that of the Chinese peasant, given the frequency of peasant revolts in early Chinese history. Peasants were much more dependent on the land, a dependence that was also expressed in the worship of deities, generally goddesses, symbolizing what mattered most to the peasant – the earth and fertility.

Peasants were more frequently identified by castes, which were distinct from clans as they were generally not kin-related, nor did they necessarily own resources in common. Peasant society was of various kinds, with differentiation of status based on ownership or arrangements regarding tenure with either superior owners or the state. At the simplest level, those who cultivated their own land paid a tax to the state, and those who cultivated land owned by landowners paid them a rent. Historical analyses involve assessments of the extraction of revenue from their labour and the degrees of unfreedom to which they were subjected. Peasant agriculture was also a necessary precondition of the formation of states and the evolution of cities, since it could produce the agricultural surplus to maintain populations that were not tied to producing their food.

Peasant societies were closely linked to the emergent state. This could have been a primary state, newly formed in an area, or else a secondary state where it had earlier been part of a larger state system and then become an independent state for the first time. Apart from claiming a demarcated territory, the state had legal authority over the population and over resources, was sovereign in governing and exercised power through a hierarchy of administration. The institutions of the state such as the treasury, the administrative structure, the focus of power encapsulated in the army or in systems of coercion, were concentrated in the capital which was generally the most important town.

Townsmen

The genesis of towns varied: some began as administrative centres, with a focus on the location of the treasury where the tribute was brought; some as centres of craft production more specialized than in villages; some as pilgrimage centres; and some as centres of exchange. An area could have a hierarchical network of villages and small towns culminating in a central city. The physical plan of a town focused on a defence circuit and the central location of those in authority, and reflected economic linkages of production and exchange. The consumption of wealth was also thought of as characteristic of some cities. The concentrations of people were generally those involved in the production of specialized items and their exchange: they were artisans and merchants. But a number of them retained links with rural areas, and towns also housed groups that were transitional between village and city. Townspeople depended on the countryside for much of their food. This encouraged rural-urban relationships that varied and were not uniform.

There was a more marked division in the specializations characteristic of towns as compared to villages. As the loci of craft production and of exchange there was a premium on quantity, since production catered to more than a single village; and, given the concentration of specialists and the more extensive distribution of products, there was also an emphasis on quality. Both these demands frequently led to some organization or association of craftsmen and artisans where occupational requirements had priority. This was extended to associations of merchants whose occupation was to transport and distribute the items produced for exchange. Such associations, similar to guilds, became central to urban life. The bond began as an occupational one, but came to include marriage circles if the association became sufficiently large. Its identity was further established when it began to receive investments and property. Such associations also became patrons of religious sects and, where there was wealth, donations from them were recorded at sacred centres.

Exchange relations varied according to the products involved. Barter, or the direct exchange of item for item, was negotiated in terms of the value of each item. It tended to be a localized exchange with a limited choice of items. Exchange centres as incipient markets conducted trade in a large variety of goods, including those of high value, and the choice could in theory have been more entrepreneurial. Sometimes the underpinnings were determined more by social considerations than economic. Thus, goods of high value were also a mark of status and were often exchanged outside the commercial circuit as gifts among families of high status or as objects of patronage. Trade converted the item into a commodity that could be transported to distant places. Sale generally involved a money transaction. Coined metallic money radically changed the nature of exchange. Commodities were valued in terms of a common medium – money. Issued by an institution such as a guild or a state, it could be of varying value depending on the metal and the weight, and could be easily carried, thus facilitating long-distance exchange. This encouraged the accumulation of wealth and forward speculation. Complex exchange furthered the growth of markets.

The heterogeneity of urban life distinguished it from the village. Towns were closely packed settlements with populations larger than in a village. Norms of social behaviour tended to be more flexible, and heterodox ideas were often developed in urban centres or in places associated with these. Early brahmanical normative texts tend to disapprove of the town, although in later works this view changes. Sophisticated Sanskritic culture came to be city-based and the man-about-town was the central figure in many writings, an implicit contrast to the simple country yokel.

The Creation of Castes

Reference to these categories of societies ties into a process of social organization that is fundamental to understanding Indian society. This was, and is, the prevalence of group identities referred to as castes. The word as used in modern European languages comes from a root meaning 'pure' and reflects the application of what is termed as *varna,* a concept now often translated as ritual status. In a hierarchy of status the highest and purest was that of the brahmans. Interestingly, an account of Indian society written by the Greek, Megasthenes, in the fourth century BC, merely refers to seven broad divisions without any association of degrees of purity. He says that the philosophers are the most respected, but includes in this group the brahmans as well as those members of heterodox sects – the *shramanas* – who did not regard the brahmans as being of the highest status. Elements of caste have been noticed in some other societies but the pattern they take in Indian society is different.

As a construction around ritual status the ranking of the brahman had to be the highest, as ritually the brahman represented the purest category. The evolution of this idea can be seen from the Vedic corpus, and since this constitutes the earliest literary source, it came to be seen as the origin of caste society. This body of texts reflected the brahmanical view of caste, and maintained that the *varnas* were created on a particular occasion and have remained virtually unchanged. Control over ritual not only gave authority to the brahman *varna,* but the assertion of purity set it apart. In the *varna* ordering of society notions of purity and pollution were central and activities were worked out in this context. *Varna* is formulaic and orderly, dividing society into four groups arranged in a hierarchy – the brahman (priest), *kshatriya* (warrior aristocrat), *vaishya* (cultivator and trader) and *shudra* (who labours for the others), the fifth being the untouchable and therefore beyond the pale.

However, there have been other ways of looking at the origins and functioning of caste society. A concept used equally frequently for caste is *jati.* It is derived from a root meaning 'birth', and the numbers of *jatis* are listed by name and are too numerous to be easily counted. The hierarchical ordering of *jatis* is neither consistent nor uniform, although hierarchy cannot be denied. The two concepts of *jati* and *varna* overlap in part but are also different. The question therefore is, how did caste society evolve and which one of the two preceded the other? According to some scholars, the earliest and basic division was *varna* and the *jatis* were subdivisions of the *varna,* since the earliest literary source, the Vedic corpus, mentions *varnas.* But it can also be argued that the two were distinct in origin and had different functions, and that the enveloping of *jati* by *varna,* as in the case of Hindu castes, was a historical process.

The origin of *varna* is reasonably clear from the references in the Vedic corpus. The origin myth describes the primeval sacrifice and the emergence of four groups – brahman, *kshatriya, vaishya* and *shudra* – which were subsequently called the four *varnas. Jatis* are not mentioned until the later sections of the corpus, and then rather cursorily, which is not surprising since the corpus is essentially a collection of ritual texts. Yet it is possible that the formation of *jatis* may even have been the earlier process. The genesis of the *jati* may have been the clan, prior to its becoming a caste.

For a society to become a caste-based society there have to be three preconditions: the society must register social disparities; there has to be unequal access of various groups within that society to economic resources; inequalities should be legitimized through a theoretically irreversible hierarchy and the imposition of the hierarchy claim to be based on a supernatural authority. The latter takes the form of a ritual demarcation dependent on degrees of assumed purity or pollution determined by those

controlling the religious ideology. The first two features would be present in a minimal way in many societies. These would be essential characteristics of a *jati* and might even occur in a lesser form in some clan organizations. The ideological factor derives from *varna* and is characteristic of Hindu society. The insistence on the absolute purity of one group requires the counter-weight of the absolute impurity of another – in this case the untouchable.

There are close parallels between the clan as a form of social organization and the *jati*. *Jati* derives its meaning from 'birth' which determines membership of a group and the status within it; it also determines rules relating to the circles within which marriage could or could not take place and rules relating to the inheritance of property. These would strengthen separate identities among *jatis,* a separation reinforced by variance in ritual and worship as well as the acceptance of a hierarchy among *jatis*. Therefore, these are entities which gradually evolve their own cultural identities, with differentiations of language, custom and religious practice. A significant difference between clans and *jatis* is that occupation becomes an indicator of status, since *jatis* emerge in conditions of a wider range of occupations than clan-based societies. The differentiations would be influenced by contact with other societies.

Systems of social organization take a while to evolve. The nature of pre-Vedic societies has not been investigated in sufficient detail since the evidence is archaeological and therefore not easily readable for this purpose. Inevitably explanations remain hypothetical as is the one being suggested here. Chalcolithic societies are sometimes said to be chiefships and this would assume a clan organization of some kind. The urban Harappan cultures indicate more complex systems, probably with a clear differentiation between those in authority controlling the production of the cities and those who laboured for them. The theory that might have legitimized this is not easily discernible from the excavated data, but the social hierarchies are evident. Peasant cultivators and pastoralists fed the cities, labour of various kinds was involved in their construction and maintenance, artisans were the producers of goods for exchange and there was the overall authority controlling distribution and asserting governmental powers. Such a society may well have been based on a hierarchy of *jatis* and the differentiation between those who produced and those who controlled was doubtless legitimized through an ideology, probably religious. Social hierarchy requires an ideological legitimation. When the urban system collapsed the legitimation might well have disappeared, although the basic social organization of some clans and some potential or actual *jatis* may have continued in various forms.

Segmentation and hierarchy made it easier to control such a society, but the continuance of both required an ideological explanation. Occupations also had to be brought into the hierarchy to assist control over the system. Labour, for instance, had to be placed at the lowest level to ensure its availability and continuity. It is possible therefore that in the post-Harappan period, with the emergence of Vedic culture, the ideological legitimation was encapsulated in *varna* which underlined hierarchy, occupation and purity. The ideology of *varna* was then imposed on societies that may have been familiar with the notions of *jati*. The idea of purity and pollution, derived from religious sanction and knitted into the *jati* structure, made it difficult to change the system.

The clue to the formation of at least some early *jatis* may lie in tracing back the relationship between settled societies and others. For example, a differentiation between forest-dwellers and *jati* society is that the former do not conform to caste rules. An interface between them was created through historical pressures, such as hermitages or kingdoms encroaching into the forest, routes cutting through the forest or demands for forest resources from local administrations. According to caste rules, the forest-dwellers were regarded as *mlechchha* – those outside the social pale of caste

society. If they were given a caste status, either when they were convened into peasants or into craftsmen, then they would become part of an acceptable hierarchy. Such a status would be conferred upon them where there was need for closely controlled labour to produce the requirements of a society that functioned as a state.

Hypothetically, a forest-clan would generally be a group of people sharing defined space, kinship relations, material culture, a near egalitarian status, custom and ritual. Where such a group begins to concede that there can be unequal access to resources among its members, and treats this differentiation as a hierarchical status inherited at birth, the elements of *jati* begin to surface. The change would be encouraged through new attitudes to resources and authority or through close and continued contact with a society differentiated by caste. *Varna* status would follow, with such groups performing rituals and observing, at least in theory, a hierarchy according to certain prescribed rules of the *Dharma-shastras,* as well as accepting notions of purity and pollution among the castes. The families of chiefs would aspire to *kshatriya* or aristocratic status, while others would fill the range of lower *shudra jatis.* Where Hinduism had to incorporate a local cult, the priest of the cult could be inducted into brahman status or a lesser status could be given to priests of less important cults.

The conversion from tribe or clan to caste, or from *jana* to *jati* as it is sometimes called, was one of the basic mutations of Indian social history and, whether it was the result of persuasion or confrontation, would have varied with individual situations. For those being converted it would have affected all aspects of their life. Certain foods, such as beef and alcohol, would become taboo to such members of the tribe who were inducted into higher-caste status, and eating together – which had been a form of bonding among clans – would be disapproved of; the assertion of women as equal members of society would be curtailed, forcing them to accept the subordinate part; religious rituals were new and strange as were some of the deities to be worshipped – although in this matter substantial concessions might have been necessary, with the Puranic aspects of the Hindu religion incorporating the deities and rituals of such new castes; the introduction of ownership of land and revenue collection could have resulted in the oppressive experience of debt bondage for some; and the notion of hierarchy in caste was opposed to the more egalitarian ethos of the clan. New activities encouraged the breaking apart of some earlier clans.

The conversion of clan to *jati* was not the only avenue to creating castes. Since caste identities were also determined by occupations, various professional associations, particularly urban artisans, gradually coalesced into *jatis,* beginning to observe *jati* rules by accepting a social hierarchy that defined marriage circles and inheritance laws, by adhering to common custom and by identifying with a location. Yet another type of *jati* was the one that grew out of a religious sect that may have included various *jatis* to begin with, but started functioning so successfully as a unit that eventually it too became a caste. A striking example of this is the history of the Lingayat caste in the peninsula.

This process of *jati* formation was primarily a change in social identity and ways of social functioning. Subsequent to this change, a *jati* was also inducted into a religious identity. Where the religious identity was of Vedic Brahmanism or, later, of Puranic Hinduism, there was a shuffling of *jatis* into hierarchies and the *varna* hierarchy was imposed. Ritual status meant observing rules of purity and pollution, where the brahman was regarded as the purest and the others in descending order down to the most impure, who was untouchable. The process became apparent when members of the same group, for example, the Abhiras, were given different *varna* statuses – brahman or *shudra.*

It was not that an existing *varna* was invariably subdivided into *jatis,* but that *jatis* were often allotted *varna* statuses. This might also explain why *jatis* are universally recognized in India as

functional social units even if their names vary from region to region, but *varna* statuses are not uniformly observed, barring the brahman and the untouchable. Intermediate castes have a varying hierarchy. Thus, in some historical periods the trading caste of *khatris* in the Punjab and the landowning *velalas* in Tamil Nadu were dominant groups. *Jati* identities therefore often provide more incisive information on social reality than do *varna* identities. Nevertheless, references to *varnas* as a shorthand in the texts act as pointers to social disparities. Since the status of the higher *varna* was protected, the maximum recruitment of new *jatis* would have been into the *shudra* status. This would accommodate varieties of professions. Therefore some existing practices would also be accommodated in the new *varna* identity of *shudras*.

The creation of *jatis* as the primary step in the making of caste society also meant that *jatis* could be converted to religions other than the Hindu. An interesting characteristic of caste society in relation to religion is that, apart from hunter-gatherers, shifting cultivators and forest-dwellers (who were regarded as beyond the pale of caste), many religious communities other than Hindus have also observed rules similar to caste. *Jati* identities were frequently continued even on conversion to religions that theoretically rejected caste, such as Islam or Christianity. This was particularly so when an entire *jati* or a substantial part of one, in a village or town, was converted. The continuities among such groups pertained to regulations of kinship and inheritance, and to the observance of marriage circles, and less to ritual. This was largely because there was continuity in social custom even after conversion.

This also raises the issue of religious conversion. It would seem that the conversion of an individual to Hinduism would present difficulties and it would be easier to convert the larger group – the clan or the *jati* – and allot it a *varna* status. Other religions such as Buddhism, Jainism, Christianity and Islam were more flexible in encouraging individual conversion. This is not to suggest that the conversion of the individual was not possible, but it was more problematic for Hinduism because of the intermeshing of caste and religious sect.

The categories of societies described here do not exhaust the permutations inherent in social forms. Variations of these coexisted in a region in the same historical period. With some of these categories being transmuted into castes, a new dimension is added to social history. However, at particular times and in particular regions, some among them could be dominant and the need to explain the structure of social relationships sharpens the historical image of place and time. Although the historical reconstruction of a region or a period focuses on the predominant forms, the roles of the lesser ones require integration. Societies in India evolved and changed. Understanding these processes involves understanding situations of assimilation and confrontation, of tolerance and intolerance, of social incorporation and contestation, all of which become essential to historical analyses. These call for not just a familiarity with the evidence from the past, but also an explanation and understanding of this evidence. Data on the earliest forms of societies are more easily observed in the archaeological record.