UNIT 5  IRON AGE CULTURES

Structure
5.0 Objectives
5.1 Introduction
5.2 The Archaeological Evidence for the Iron Age in North India
5.3 The Introduction of Iron and its Implications
5.4 Social Structure
5.5 The Archaeological Evidence for the Iron Age in Peninsular India
5.6 Social Structure
5.7 Summary
5.8 Glossary
5.9 Exercises

5.0 OBJECTIVES

Following features will be seen in this Unit:

• the focus will be on a period that sees the emergence and use of a new material, iron. Our emphasis will be to analyse the kind of impact this new material could have had on society, economy and polity.

• you must be aware that from this period (1000 B.C onwards), literary records are now available. Their availability does not mean that we have a complete picture of the past, due to the nature and authorship of the texts. So we will have to depend on multiple sources, literary and archaeological, as well as anthropological theories about evolution of social systems.

• this is a period of marked changes: increasing social stratification; ushering in of what is termed as the ‘second urbanisation’; integration at various levels and degrees of vast areas of the subcontinent under the Mauryan Empire through the active hand of the state and private trading groups. These linkages in the subcontinent largely stay in place, even after the disintegration of the Mauryan Empire.

5.1 INTRODUCTION

In this Unit, we will be dealing with the Iron Age Cultures in the subcontinent. In the earlier Units, we have talked about stone and bronze ages, where the major cutting tools were of stone, copper and bronze. A new metal comes into the picture in the Iron Age that eventually replaces the earlier materials to make implements for major productive activities. Stone, copper and bronze do continue but their use is now more restricted.

There is some debate over the chronological span of the Iron Age in the northern part of the subcontinent. According to T.N. Roy, the Iron Age can be divided into two phases, an Early (800 to 400-300 BC) and a Late Phase (400-300 TO 100 BC). In a later publication, he refined his division of the Iron Age into three phases, by dividing his Early Phase into two, now calling them Early and Middle Phases. D.K. Chakrabarti and A. Ghosh differ in preferring to leave out the Early Historic period in the ambit of the Iron Age. Thus, they adopt a date range of perhaps as early as 1300 BC to 700 BC. Georgy Erdosy divides the Iron Age into two phases, the
Early Phase from 1000-600 BC and the second between 550 and 100 BC. In peninsular India, the Iron Age roughly covers the period from 600 BC-100 AD, though evidence may be available for a larger time bracket covering 1000 BC-1000 AD.

Thus, archaeologically we are dealing with a period from 1000 BC to 100 AD. This is also a period for which textual evidence is available. Hence, scholars differ in their approach by working only with the archaeological evidence or incorporating the available textual evidence. The Iron Age in North India is archaeologically represented by assemblages that mainly contain particular pottery types such as Painted Grey Ware (PGW) and Northern Black Polished Ware (NBPW). In peninsular India, it is essentially the megaliths, sometimes associated with habitation sites that comprise the Iron Age in the region. Iron is also found from Central India (Malwa, with sites like Nagda and Eran and Ahar in Southeastern Rajasthan) roughly dated between 750-500 BC and from the Middle and Lower Ganga Valley in post-chalcolithic pre-NBPW levels (Pandu Rajar Dhibi, Mahisdal, Chirand, Sonpur) (see Figure 1) dated to around 750-700 BC. However, in this Unit, we will only deal with the PGW and NBPW assemblages in North India and with the megaliths in South India.

5.2 THE ARCHAEOLOGICAL EVIDENCE FOR THE IRON AGE IN NORTH INDIA

The earliest occupations of the Iron Age, associated with the PGW, are found from the Ghaggar/Hakra River in eastern Pakistan and northern Rajasthan to the Ganga-Yamuna Divide (Figure 1). There may have been PGW levels of occupation with no iron, particularly those overlapping with Late Harappan occupations at sites like Bhagwanpura. Broadly, PGW sites have been dated between 800-400 BC, though there is a possibility that at some sites PGW levels may go back to 1100/1300 BC.

In the material assemblage, various ceramics have been identified, such as Black Slipped Ware, black-and-red ware and red ware, the last that is most commonly found. Associated with these ceramics is PGW that is the most distinct. It, however, comprises just 10% of the total pottery assemblage. It appears to have been a deluxe pottery made of very fine clay, its grey colour resulting from firing in reducing (in absence of oxygen) conditions, and is painted in black. Iron objects appear to have been largely used as weapons or for defence/offence (hunting) purposes, while agricultural tools and household implements are far fewer in number. On the whole, iron appears to be limited in usage. Copper continues to be used, for tools, weapons and ornamental purposes. Apart from iron, a new material, glass, comes into focus in this period, and is used for making bangles and beads.

On the basis of the material assemblage and the fact that this found from a compact geographical area and period of time, we may consider PGW sites as representing a common archaeological culture that is often termed as the PGW culture. However, as we noted in Unit 3 of Block I, finding a few shreds of PGW at isolated sites would not imply those sites belonged to the same culture.

Essentially the PGW represents Early Iron Age rural settlements. Structures mainly comprise houses of mud, mud-brick and wattle and daub. Very few crafts seem to have been arrested and the range of materials utilized appears to be largely local, such as clay, bone, stone and a little shell and ivory. Subsistence practices involved a combination of agriculture, herding and hunting. Rice is evident among the plant remains while bones of horse, cattle, buffalo, sheep, pig and deer are found.

The late Phase of the Iron Age largely coincides with what is known as the Early Historic period (600 BC-300 AD). This phase of the Iron Age is represented in north India by the NBPW along with other elements of architecture and material culture.
Chronologically, the NBPW is found between 600 and 100 BC. Elements of material culture appearing at various stages could be terracotta ring-wells, soak-pits, baked brick structures, fortifications (Figure 2), coinage, arecanut-shaped terracotta beads and etched beads of agate and carnelian. The NBPW is a pottery distinctive due to its surface treatment of a glossy luster. Scholars point out the similarities between NBPW and PGW in clay preparation, firing techniques and typology, and in their probable function as deluxe or table wares.

Ring-wells are also characteristic of the Late Phase of the Iron Age (Figure 3). Three types have been identified, one that consists of shafts dug down into the soil, lined up to a point with earthenware (terracotta) rings; the second that are lined throughout with terracotta rings; and the third that consists of large soakage jars placed one above the other with their bases perforated. The exact function of such ring-wells is not quite clear, as some may have been used as sewage pits or draw-wells. Drains of burnt bricks or consisting of pottery pipes have also been found.

Iron objects increase in quantity and diversity through this phase, with ultimately iron being used for specialized purposes. An increasing and varied use of glass is also attested. The use of moulds for forming terracotta figurines gradually comes into use, enabling a certain degree of mass production.

The Late Phase of the Iron Age is also a period of urbanism and state societies. Unlike the Bronze Age that required elite procurement networks, iron metallurgy could be more local with little necessity for state intervention in procurement of raw material or production. Therefore, iron could truly replace stone for the major implements, something that bronze of copper could never do.

The technology of iron metallurgy is different from copper/bronze metallurgy. Iron is a metal that can melt only a very high temperatures: 1540°C whereas copper melts at 1083°C. Smelting (breaking down the ore to attain the pure metal) temperatures of copper and iron are 400° and 800° respectively. Iron, moreover, has a strong attraction to oxygen that corrodes it. Thus, the smelting of iron, unlike copper, is very different as increasing the temperatures in the furnace (usually by drafts of air) would be counter-productive due to this attraction for oxygen. Thus the furnace design has to be such as to maintain a temperature between 1200° and 1300°C, as temperatures exceeding 1300° would oxidize the iron. Iron, then, can only be smelted by completely covering the ore with large quantities of fuel and by closing the vents in the furnace, thus creating a concentration of carbon monoxide, and a reducing atmosphere in the furnace. Also, since iron cannot ideally be melted with pre-industrial techniques, ironworkers would not sue the casting technique, one that was popular with bronze.

The implications of iron technology would hence rest on the introduction of the reducing furnace as well as the capacity to construct high-temperature kilns. This development would have been a necessary pre-condition for the production of potteries such as PGW, black slipped wares and NBPW, all made in reducing conditions. At the same time, the introduction of the craft of glass working was also significant as it largely depended on iron tools, as well as a high temperature kiln.

The full advantages of iron do not appear to have been recognized immediately, primarily because social conditions did not favour more specialized use of the metal. Early use of iron appears to have been limited to basic subsistence purposes, for hunting and agricultural tools and for implements of defence. It is only in urban situations that iron in more specialized forms would begin to be used for varied crafts.

The implications of iron metallurgy in the development of urbanism and state structures have been debated on. It is R.S. Sharma’s contention that the introduction of iron enabled large-scale clearance of forests and the use of the iron ploughshare that
would have impacted on the extension and intensification of agriculture. This in turn would have created a greater surplus ushering in state structures.

Sharma’s position was contested by N.R. Ray, who pointed out that clearance of land could have been done by burning the vegetation. Wooden shares could have been used instead of iron. Hence, iron was not necessary for either land clearance or plough agriculture. Moreover, he showed that early iron tools were mainly hoes and spades that could not have been used in extensive agricultural operations and hence no urbanization was possible. For A. Ghosh and D.K. Chakrabarti, other social institutions, instead of iron, would have brought about urbanization. Ghosh very validly points out that the availability of a surplus cannot bring about urbanization, that surplus is a ‘social product’, requiring administrative mechanisms and coercion for its collection. Thus, it is only the state that can extract a surplus; iron technology by itself is not going to create a social surplus. For Makkal Lal, there was no fundamental changes in iron tools between the PGW and NBPW periods. New tools types come into use only in the Late Phases of the NBPW. Moreover, on the basis of his survey in the Kanpur district, Lal finds that bigger settlements locate along the Ganges River where open land was in any case available. Thus, large-scale clearance of forests would not be required. Hence, other factors need to be considered for the rise of urbanism.

To conclude, unlike the Bronze Age where we have seen an inextricable link between bronze and a state society, no such link is necessary in the Iron Age. Thus, the introduction of iron metallurgy did not necessitate the involvement of a state. From this we can also point out that when a state did develop in the Early Historic period, its structure was very different from the Bronze Age state. Where the latter depended on distant links for the procurement of copper and tin, long-distance trading links in the Iron Age were for different reasons and with different areas. With commodification evident in the later phase of the Iron Age (particularly with the introduction of coinage), it would have been specialized merchant guilds/groups, rather than the state, what would not be responsible for much of the trade. Also with varied requirements, such as forest (gums, wood, resins, honey) and animal products (leather, wool), different parts of the subcontinent would not be opened up. Unlike the Bronze Age where there was a westward orientation (due to the need for copper and tin), in the Iron Age, the development of trade routes now connect most regions of the subcontinent. Many urban centres now emerge as nodes along these trade routes. Interestingly, these trade routes remain in place from now on and many urban centres preserve, unlike in the Bronze Age.

5.4 SOCIAL STRUCTURE

Archaeological data can only inform us upto a certain point on social structures, as you may know by now. It has been mentioned earlier that literary evidence is available for this period. Yet it may be pointed out that the nature of the literary evidence (the Rigveda, the Later Vedic literature [including the other three Vedas, the Yajur, Sama and Atharva, and the Brahmanas, Aranyakas and the Upanisadas], the two Epics, the Sutra literature, Panini’s Astadhyayi, the Buddhist literature and the Arthasastra) is selective and cannot be used to reconstruct every aspect of socio-political structures. Hence historians of early India have also used anthropological theory to reconstruct past social institutions.

The Later Vedic literature has been correlated by some scholars with the PGW culture. This correlation (between the Later Vedic literature or separate lineages with the PGW) has been done on the basis of the geographical area covered by the PGW sites. According to Romila Thapar, the Later Vedic period was characterized by a combination of a lineage society and a householding economy. The term lineage society has been preferred over tribal society due to problems with the latter term,
which has been used in multiple contexts, such as for hunting-gathering as well as peasant societies. Lineages are central to such a society particularly in relation to power and access to resources. Her contention of social stratification between senior (rajanya) and junior (vis) lineages that begins in the Early Vedic period (as represented by the Rigveda) would obviously continue into this period. A householding economy (a term borrowed from Karl Polanyi) is used for a context where the household functions as a unit using family labour as well as the labour of others for various productive tasks. For R.S. Sharma, on the other hand, this period represents a chiefship along with elements of an incipient state. Archaeologically, George Erdosy suggests the presence of chiefdoms in the PGW phase of the Iron Age. This was suggested on the basis of a survey in Allahabad district that revealed a two-tier hierarchy of settlements, the latter indicating differences between the settlements.

The two lineages from the Early Vedic period undergo a change in the Later Vedic period. The rigvedic rajanyas give way to the ksatriyas of the Later Vedic period, where the focus appears to be on power through control of people and territory; the brahmans emerge as ritual specialists; the sudras and the dasas emerge as a category performing labour services for the vis. There appears to be both ritual and social exclusion of the vis, making them clearly socially subordinate. The vis is now expected to offer tribute and prestations (bali, bhaga, sulka) to the ksatriya – that is in turn given as dana and daksina to the brahmans. This can be considered as a case of redistributive economy with exploitative undertones. The demands of the ksatriyas for the produce of the vis imply increased production necessitating a requirement of labour outside the family. This then explains the emergence of the sudras and dasas. This increasingly socially stratified society was being arranged in this period into a framework of varna.

To understand the developments in the next phase of the Iron Age (c.6th century BC-100 BC), we can rely on the Buddhist literature as well as the archaeological evidence of NBPW sites that indicate the Middle Ganga Valley as the focus. However, the archaeological evidence is wholly inadequate to understand socio-political developments because of the kinds of excavations so far undertaken coupled with the fact that many Early Historic sites continue to be inhabited even today (many as cities), thus limiting the chances of excavation. Hence, for this discussion, we will have to rely on historical interpretations in particular Romila Thapar’s.

Essentially, in this period, there are two kinds of polities, the ganasanghas or chiefships and monarchies. The ganasanghas (Sakyas, Vrijjis, Kolias, Mallas) seem to have been confined to the terai or the foothills while the monarchies (Kosala, Magadha, Kasi, Kausambi) prefer the river valleys. The ganasanghas, while essentially a lineage/tribal society, differed from the lineage society of the preceding period. Unlike the latter where there were two lineages (senior and junior), now there appeared to be only a single lineage, that of the ksatriyas. Also, unlike the earlier situation where ksatriya control rested on cattle raids and prestations, now ksatriyas also owned land (though not individually but through the lineage). There is now a very clear distinction between the ksatriya lineage that owned land and others (non-kin) who worked the land or provided the labour. There is also evidence for cross-cousin marriage (for example among the Sakyas), a means of controlling wealth. Interestingly, the organization of social status within the framework of varna appears to have been absent in the ganasanghas. There is also no householding system – social relations are structured around kin relations and lineages. Fissioning of ksatriya lineages provided an avenue for the settling of new lands. Fissioning is also a characteristic of chiefship polities, making for its inherent instability.

The element of control over non-kin and the clear difference between the ruler and the ruled marks the monarchical form of polity. Scholars have identified four essential attributes of a state: authority within a territorial limit, delegation of power and duties, a regular income obtained through coercion that is used for basic maintenance and
the integration of diverse socio-economic groups. The last is accomplished through the *varna* framework, that is used to arrange and maintain a social hierarchy. Integration and the creation of social order can also take place through laws and rules. Many of the laws pertain to the maintenance of the *varna* system and are eventually systematized in the *Dharmasutras*. Yet at the same time, the incorporation of customary laws in these texts indicates attempts to prevent fissioning of society. We now find clearly three distinct groups in the upper levels of society – the *kшtitya* (ksatriya), the *Brahma* and the *gahapati* (grihapati or the vaisy). At the lower levels are *sudra* and *slaves* (few in number and primarily limited to the household). Finally at the bottom of the hierarchy were *candelas* or untouchables.

Much of the social and economic changes taking place in this period can be linked to urbanism. It is the city that provides the background for the movement of *gahapatis* into trade. Earlier these were essentially householders, but the wealthier among them transferred their resources to trading initiatives. It is this social group that in fact provides the main support to the newly emerging religions of Buddhism and Jainism, in themselves urban faiths. In the orthodox Brahmanical fold, the economic wealth of the *gahapatis* was obviously not commensurate with their social position in the *varna* framework. Patronising these new religions would provide an avenue for upward social mobility. Moreover, urban features such as usury (that only later would enter the rural sphere), prostitution, common eating-houses, and so forth would have been strongly disapproved of by the orthodox. Institutions such as the *sreni* (merchant and artisan guilds), systems of commodification such as coinage would now find their place. Thus, it is clear that the city ushers in new social structures, institutions and adjustments.

The expansion of trading networks and movement of commodities may perhaps explain finds of luxury wares such as NBPW from various parts of the subcontinent. This feature can be attributed to c.4th – 1st century BC. This period largely coincides with that of the Mauryan Empire (321-180 BC).

This brings us to the Mauryan Empire and its impact on social structure. As Romila Thapar worked out, the Mauryan Empire can perhaps be conceived as comprising of three component units: a) Magadha or the metropolitan state, b) the core areas (such as Gandhara or Bharuch or Ujjain) that were either states themselves or centres of exchange and c) the peripheral areas (including primarily hunting-gathering societies or tribal societies), areas that may not have known a state system. The Mauryan Empire may have been primarily concerned with extracting resources and not with restructuring the existing framework, except in Magadha.

Two important points must be taken note of. One is that there would have been obviously diverse societies existing contemporaneously – band level, tribal societies, chiefships and states, including the Mauryan, a complex state. Thus, any discussion of social structures would need to take into account their basic heterogeneity. This would also have been a situation prevailing in the Harappan Bronze Age and would continue to be a feature in later state societies as well.

The other important point is that the lack of basic social restructuring in the core and peripheral areas would mean that the disintegration of the Mauryan empire would not essentially affect these areas. Perhaps the most immediate impact may have been felt in Magadha. Yet, we find that in the post-Mauryan period when control shifted to the Sunga dynasty, there do not seem to have been marked disruptions in Magadha. This last point may lead us to understand the difference between the Bronze Age
state and the Early Historic situation. In the case of the Harappan, most aspects of production were under state control and the break-up of the state, and the lack of successor state, would have led to a disruption as noted in an earlier Unit. In the case of the Early Historic state, most productive activities were largely in the hands of other institutions such as the guilds and perhaps even monastic establishments. The break-up of the Mauryan Empire would not have had so drastic an impact with the more immediate and direct control over Magadha passing on to a succeeding authority.

5.5 THE ARCHAEOLOGICAL EVIDENCE FOR THE IRON AGE IN PENINSULAR INDIA

Megaliths, according to *The Encyclopaedia of Indian Archaeology*, include a variety of sepulchral and commemorative monuments that are either built of large stones, rude or chiseled or else associated with a somewhat homogenous group of black-and-red ware and an equally homogenous group of iron tools and weapons. Largely these represent collective burials of remains (bones) that have been first exposed to the elements. This class of funerary monuments may sometimes not be associated with large stones or with black-and-red ware or iron implements or human remains. Thus, one may not find all these traits together in every case. Finding a single trait has provided justification to some scholars to term these as megalithic complexes.

These burials are generally located in forests or wastelands. These range from a single interment to small clusters and occasionally extend over large areas (for example at Adichanallur where the complex extends over 46 hectares with several thousands of burials. As far as distribution is concerned, megaliths are found in most parts of the subcontinent, except for the Punjab plains, the Indo-Ganga divide, the Ganga Valley, Rajasthan desert and the North Gujarat plain. However, their main concentration is in peninsular India (Figure 1).

On the basis of radiocarbon dates and stratigraphic record, megaliths can be largely dated between 600 BC and 100 AD, though individual sites may give every early or late dates (for example Hallur with a date of 1000 BC and Pykara with a date of 1000 AD). Largely megalithic sites are burial sites with habitations and habitation-cum-burials in a minority. We have some sizes for burial-cum-habitation sites in Vidarbha region. Takalghat covers 2.25 ha, Naikund 10 ha, Bhagimahari 8.2 ha and Khairwada 10.7 ha (Figure 1).

Megalith burials cover a wide diversity of types. Let us look at the major types of burials (Figures 4a, 4b and 5). The types that are variously called as a cist, dolmenoid-cist and dolmen essentially consist of a chamber made of upright stone slabs, called orthostats, that enclose a space that may be square, rectangular, oblong or trapezoidal on plan. Horizontally covering the upright slabs is a covering slab called a capstone. This whole structure may be either completely below ground or partially below ground or completely above ground in which cases it would be called a cist, dolmenoid-cist and dolmen respectively, the dolmen meaning a stone table. These structures may sometimes be surrounded by a circle of stones. Very often, if the structure is a cist, the surface evidence would just comprise the stone circle. These three types of structures also called as chambered tombs, are usually reinforced from the outer side by rubble packing. These types of megaliths are commonly found from North Karnataka where there is an ample supply of building material.

In certain other cases (found from all the four southern Indian states) one of the stone uprights or orthostats, more usually the eastern one, has in it a hole, termed as a port-hole. This port-hole ranges in size from 10-50 cm in diameter and may have provided some sort of access to the inner part of the tomb. Sometimes port-hole
cists are approached through a slabbed antechamber and are hence called transepted cists, very common in the Pudukottai district of Tamil Nadu.

Pit burials comprise burials in ovaloid, oblong or cylindrical pits dug into the ground that contain the usual skeletons, pottery and iron objects. Pit burials associated with stone circles but without any rubble packing are also found. One may in certain areas find pit burials with a single upright stone. These standing upright stones are called menhirs (a word meaning long/tall stone).

Urn burials are another type of megalithic monument, often not associated with large stones. These consist of burials kept in pyriform jars buried underground. This is a type of burial very commonly represented in the Madurai-Tirunelveli area of Tamil Nadu. Sometimes the urn is covered with a stone slab.

In Kerala some unusual megalithic burial types were recovered. One of these is called topical or umbrella/hat stone. Made of local laterite, the umbrella stone comprises a low cone with a wide circular flat base resting on four slabs joining up into a square below the balanced cone. Hoodstone resemble the topical but are not supported – they rest directly on the ground. These resemble a handleless umbrella popular in Kerala and may conceal an urn burial.

In Kerala (and also parts of South Kanara) are found rock-cut caves, a type of megalith that is suited to the local rock conditions. The soft laterite can be easily hollowed out into a stepped rectangular pit that opens out towards the eastern side of the pit, the entrance being from the ground surface. The floor may be roughly circular, semicircular or oblong.

In peninsular India are also found megalith types comprising of a terracotta sarcophagus. Boat-shaped terracotta troughs sometimes with legs (that could number from 4 to 12) and with a separate covering lid of pottery have been found.

Finally, one also find alignments of stones or menhirs that are usually huge boulders (more rarely slabs) that are aligned in parallel lines in a particular pattern. Hence upright stones are from 1-3 m in height. These stone alignments may be erected over a few funerary pots containing bones or sometimes can enclose within them stone circles.

Thus, there is a wide diversity of megalithic burial types. Certain types are confined to a particular region while in other areas, one may find more than a single type. The region of Vidarbha, that has the majority of megalithic sites in Maharashtra, has only one type, the stone circle with a cairn filling. No cists are found perhaps because slabs cannot be cut from the local rock formation is the Deccan Trap. That reminds us that some megalithic types may be localized because of certain ecological factors. Thus, chamber tombs and cists are common in Andhra and Karnataka where there is plenty of quartzitic sandstone whereas rock cut caves tend to be found in Kerala where the laterite allows for easy excavation.

From the above description of the various types of megaliths, it is clear that not only is there a regional diversity, the mode of disposal may differ within the same cemetery. As we have seen, these burials do not always occur in contexts with large stones, hence the use of the term megalith is not entirely appropriate. For this reason, L.S. Leshnik proposed the term ‘Pandukal complex’ (Pandu in Tamil means ‘old man’ and kal means stones, thus implying the traditional name given to burials). Given the wide spatial distribution of these burials, it is open to question whether these belonged to one culture complex or several. Much more work needs to be done on the megaliths.
Pottery comprises a major component of the grave goods. The pottery termed as black-and-red ware with a crackled appearance (probably due to salt-glazing), is found in many of the megaliths of peninsular India. There may be other associated ware, red ware, black ware, russet-coated painted ware, and other potteries that are clearly regional in nature. Iron objects range from celts or axes with crossed iron bands, flanged spades, arrowheads, tridents, swords, lances, spearheads, spikes, wedges, billhooks, sickle, hoes, chisels, horse-bits, knives/daggers, blades, lamps and so forth.

Copper/bronze also was used for making vessels, elaborate lids with sculpted figures of birds and animals, bells, horse furniture and so on. Whole shells and shell objects decorated with patterns are sometimes found. Gold is also found from South Indian megaliths, from sites like Maski, Nagarjunakonda, Brahmagiri, Janampet and Adichanallur. Largely these are beads, bangles, leaf and diadems. Semi-precious stone beads, including etched beads of carnelian, are also found. Terracotta object such as cones, figurines, spindle-whorls are found, as well as querns and pestles of stone.

Evidence for plant remains from habitation sites consists of common pea, black gram, wheat lentil, jujube, barley, kulthi (a kind of gram), green gram, ragi and rice. Wheat is largely found in the Vidarbha region in the northern part of peninsular India, whereas from more southern sites, ragi and rice have been recovered. Regarding animal remains from habitation sites in Vidarbha region, cattle bones predominate followed by goat, sheep, buffalo and pig. Horse bones are very few but their significance will be discussed later. Bones of wild species such as fowl, sambar and pig suggest hunting and fishing may have been practiced, as suggested by the find of fishbooks.

From the plant and animal remains and the types of agricultural tools (in particular the absence of the ploughshare), as also the paucity of habitation sites, it may be suggested that agro-pastoralism, involving a combination of herding and hoe cultivation, may have been the basic subsistence strategy. Hunting and fishing as pointed out may have supplemented this practice. Such a subsistence strategy may have involved mobility and that may also explain why more habitation sites have not been identified. If sites are short-lived, then they tend to accumulate little cultural material and hence it becomes difficult to identify such sites in the landscape. The role of the horse is an enigma and needs further research and investigation.

5.6 SOCIAL STRUCTURE

The evidence of the ‘megalithic’ burials indicates a change from the preceding chalcolithic burial practices where the dead were disposed of within the settlement area and more specifically under house floors. Now there are separate cemeteries. This shift is obviously intriguing as are the diverse modes of disposal within the same cemetery. These may be all related to social practices but little work has been done on these issues. Hence not much can be spelled out.

In the same context, could the fact that ‘megalithic’ burials are largely collective have something to do with extended families or descent groups? These two levels of social structures are inherent components of tribal societies. This suggestion may be plausible as it is unlikely for unrelated individuals to be interred together. Thus, indications of reuse may be the provision of portholes and linking passages along with surface markings to point out locations of burials.

Largely, burials contain pottery vessels and iron implements and weapons suggesting interment of personal possessions and perhaps a belief in life after death. Some burials seem to contain more distinctive objects that could be made from materials such as gold, copper/bronze, semi-precious stones, shell and so forth. It is the form
that many of these objects take that makes them distinctive – bronze lids with sculpted figures of birds and animals, etched carnelian beads, and other such objects. Similarly, at Takalghat-Khapa in Vidarbha, one burial alone revealed horse bones, horse-bits and horse-ornaments. This was also the largest burial circle. At Mahurjhari, 4 out of 12 burials revealed horse remains. The burial of horses and horse furniture may thus indicate that the animal may have been a status-marker. The excavations at Brahmagiri in Karnataka have given some evidence of a diversity of grave goods. Thus, burials could range from those with no iron objects and only a few pots to those with numerous iron objects and pottery. A single burial at Brahmagiri, clearly the richest, had 33 gold and 2 stone beads, 4 copper bangles and 1 conch shell. Differential finds of special artifacts may suggest that they were status goods.

Keeping in mind that little contextual or comparative analysis has been done on ‘megalithic’ grave goods, one cannot say much about the social organization we are dealing with. Yet, it is tempting to consider that these may have been tribal/chiefship societies.

5.7 SUMMARY

As we have seen in this Unit, multiple sources, archaeological and literary, as well as anthropological theories, can be used to understand the Iron Age. Materially, the Iron Age manifests in various ways in different parts of the subcontinent. Thus, in the North, one finds occupations with PGW and NBPW pottery while in peninsular India we find burials associated with black-and-red ware. A common element is the presence of iron used now for major tools of production and for weapons. Increasing socio-economic stratification is suggested by the literary texts, eventually crystallizing in the varna system. Correspondingly, this period in North India is associated with urbanization that in turn would have impacted on social structure. We will see in subsequent Units this particular impact, especially regarding the emergence of new religions such as Buddhism and Jainism, as well as new urban and agrarian classes. From the 4th century BC, we see the linkages between different parts of the subcontinent, brought about by trade as well as the Mauryan polity. Materially, the distribution of NBPW in this phase well illustrates the widening links that are discernible.

5.8 GLOSSARY

**Urbanism** : Phenomenon of urban centres i.e. towns as distinct from village settlements emerging.

**Contextual Analysis** : in archaeology analysis made by keeping the surrounding or context in focus.

5.9 EXERCISES

1) Discuss the implications of iron metallurgy in the development of urbanism and state structures.

2) The Units studied so far have indicated varied methods of disposal of the dead. What are the social implications for this diversity?