
UNIT 3 CHALCOLITHIC CULTURES

Contents

- 3.1 Introduction
 - 3.2 Ahar Culture
 - 3.3 Kayatha Culture
 - 3.4 Malwa Culture
 - 3.5 Jorwe Culture
 - 3.6 Ochre Colored Pottery (OCP) Culture
 - 3.7 Painted Gray Ware (PWG) Culture
 - 3.8 Summary
- Suggested Reading
- Sample Questions

Learning Objectives



Once you have studied this unit, you should be able to:

- understand the regional diversity of Chalcolithic cultures in western and central India;
- understand the significance of the chronology of these cultures;
- understand how the Ochre Colored Pottery (OCP) culture and the Painted Gray ware (PWG) culture are distinctively different; and
- grasp the problem of how the entire cultural landscape in north, western and central India remained devoid of full-fledged urbanism for almost thousand years following the Harappan decline.

3.1 INTRODUCTION

In post-independent period an interest developed among the scholars for the systematic study of social organisations and political and economic institutions. This was apparent in writings of scholars like D.D. Kosambi. A similar interest influenced the archaeological work during this time when, spearheaded by scholars like H.D. Sankalia, there appeared an effort to reconstruct the past ways of life in different regions. Detailed exploration of Chalcolithic sites followed, particularly in central and western India, with excavations at a few chosen sites. Multi-disciplinary studies at sites like Inamgaon in Maharashtra threw substantial light on past subsistence, religious practices and social organisation. The Chalcolithic culture of a region was defined according to certain salient features seen in ceramics and other cultural equipments like copper artifacts, beads of semi-precious stones, stone tools and terracotta figurines. Migration and diffusion of population groups were often cited as causes for the origin of these cultures, as seen for example, in the idea of an Aryan ‘people’ being the bearers. Often linkages of archaeological sites were sought with names of places mentioned in the Puranas and epics which were believed to have been located in the same geographical region. Many of these ideas have been critiqued in recent years, e.g. defining a culture on the basis of pottery types and explaining change by factors of diffusion and migration (Panja 2002).

On the other hand the Ochre Coloured Pottery, commonly known as OCP, seen at over one hundred sites in Rajasthan, Punjab, Haryana and western Uttar Pradesh, presents a different problem. Opinions are still divided about the authorship of OCP 'cultures'. The dates assigned are diverse, ranging from 2800 BC to 900 BC. The PGW phase, marked by the deluxe ware of the same name has evoked many queries regarding its status. Its association with iron at some sites has been the subject of much scholarly discussion.

The Chalcolithic cultures such as Ahar, Kayatha, Malwa, Jorwe, Ochre colored Pottery and Painted Gray are discussed in this unit.

3.2 AHAR CULTURE

The Ahar culture –also known as the Banas culture, the latter term derived from the name of the valley in which most of the sites of this culture are located—is among the earliest Chalcolithic cultures of India. This is seen from the calibrated radio-carbon dates available from many of the sites. The culture has been named after the type site Ahar, in District Udaipur, Rajasthan which was excavated in 1961-62 by H.D. Sankalia of Deccan College, Pune. South eastern Rajasthan, where the Ahar culture sites are found, is known as Mewar. Within this region, the sites are located in the eastern plain and the southeastern plateau, two of the terrains that mark the physiographic condition of Rajasthan. This region is rich in mineral deposits, and archaeologists postulate from available evidence that this region also supplied copper to the Harappan sites.

More than sixty sites of the Ahar culture have been discovered so far, of which the most extensively excavated sites are Ahar and Balathal. The sites of Gilund, Bagor and Ojiyana have also been excavated, while section scraping at Marmi and Tarawat was undertaken to ascertain the culture sequence and chronology. Excavations at Ahar revealed a two-fold sequence of cultures of which the first period (Period I) is Chalcolithic and the second (Period II) is early Historic. Available radio-carbon dates (calibrated) suggest a time bracket of 2025 BC—1270 BC for the Chalcolithic phase. The ancient mound of Balathal is located on the eastern fringe of the village Balathal in Udaipur district, on the west bank of a river locally known as Kataranadi. The excavations were conducted at the site from 1994-2000 by Deccan College, Pune, in collaboration with Institute of Rajasthan Studies, Rajasthan University, under V.N. Misra. This site also revealed habitational deposits belonging to cultural periods like Ahar. A series of radio carbon dates place the Chalcolithic culture at Balathal between the beginning of 3rd millennium BC and 1500 BC.

Balathal is perhaps the most-extensively researched site of this culture, the ceramics having been subjected to detailed studies. Based on the material culture of Balathal, and a comparative study with that of the other sites (Misra, 2002-03), has divided the Ahar culture into four phases like Early Ahar/Balathal phase, Transitional Phase, Mature Ahar phase and Late Ahar phase.

The Early Ahar phase has so far been noticed only at Balathal. It is marked by mud and mud brick houses with hearths in some. The material culture is characterised by eight types of wares, the potters having already invented the inverted firing technique of black and red ware and that of reserved slip ware. In the inverted technique at the time of firing the pots are placed in an inverted

manner, so that the parts, which did not get any oxygen became black, while the portion which had access to oxygen became red. A Sturdy Red ware and Red Slipped ware and painted Buff ware are noticed. Beads of steatite and terracotta have been obtained in good numbers. A few stone implements are also found. The faunal and floral remains indicate a mixed economy. This phase is placed at the end of fourth millennium BC.

The second phase, also identified at Balathal is a transitional one which did not have a long time span. In the upper layers the Mature Aharian gradually became prominent. This is evident in the ceramic types.

The Mature phase witnessed a large number of settlements and the emergence of a few key sites and many satellite sites. A uniform settlement pattern is seen at all sites with certain additional features at some sites like a fortified enclosure at Balathal. Houses were now made of stone, mud and mud brick. At Balathal the fortified enclosure is centrally located and surrounded by the residential complex. The reasons for such a plan remain unknown till today. Features associated with the houses are hearths, storage pits, saddle querns and small storage jars. Industrial activities were marked in mass production of ceramics, metal works, and development of bead industries. Beads are made in shell, bone, ivory, semi-precious stones, steatite and terracotta. The diagnostic wares of this period are the black and red wares, red and grey wares. Refinement of technology is seen at this stage with the invention of fast wheel. Hallmark of this stage are the techniques of slipping, polishing or burnishing and embellishing the vessels with many types of decorations. A large number of new shapes and forms emerged during this period. Sankalia and his team had discovered several copper ore quarrying sites within the radius of 32 km of Ahar. For this reason, this region is considered as the source of copper supply to the Harappans.

The evidence of rice has been noticed at Ahar in the form of impressions on potsherds. The other crops cultivated during this period were wheat, barley, millet-bajra and jawar. Faunal remains of domesticated species like cattle, buffalo, goat, sheep, pig, dog and fowl have been recovered from excavations. The wild animals hunted were sambhar, nilgai, chital, blackbuck and wild boar. The evidence suggests mixed economy of cultivation and hunting gathering.

As for social organisation one cannot rule out the presence of specialised classes of craftsmen. But, on the basis of the limited nature of evidence it is not known whether it was a chiefdom society. The evidence of fortification at Balathal implies that there may have been internecine conflicts. A large number of bull figurines appearing in large number from the end of the mature Ahar phase has been ascribed with ideological meaning, but nothing concrete can be said.

An inhospitable climate experienced during the end of the second millennium BC led to the termination of the farming culture in southeastern Rajasthan. Features of decline are evident in the Late Ahar phase.

Regarding the authorship of this culture opinions are sharply divided. Sankalia had seen a West Asian link which was disputed by later scholars. Recent research highlights the affinity between the Ahar culture and a chalcolithic culture in Gujarat.

3.3 KAYATHA CULTURE

This Chalcolithic culture was named after the type site Kayatha, in Ujjain dist., Madhya Pradesh. The excavation was due to the joint collaboration of Deccan College, Pune and Department of Ancient Indian History, Culture and Archaeology, Vikram University, Ujjain. Kayatha has been identified with the ancient Kapitthaka, birth place of the celebrated astronomer-astrologer Varaha. Excavations revealed a five-fold sequence of cultures:

- i) Kayatha culture (Ca. 2450-2000 BC.)
- ii) Ahar culture (Ca. 1950-1700 BC)
- iii) Malwa culture (Ca. 1700-1400 BC)
- iv) Early Historic (Ca. 600 BC-200 BC)
- v) Sunga-Kusana-Gupta (Ca. 200 BC-600 BC)

Over forty settlements of the Kayatha culture have been so far discovered in the Malwa region of Madhya Pradesh, most of them being located on the tributaries of the Chambal River.

The characteristic forms of ceramics include: the chocolate slipped ware also known as Kayatha ware. The types are bowls, high and short-necked storage jars with globular profile and basins. Similarities are evident with the sturdy painted pottery found at some pre-Harappan sites. A red painted buff ware, a concave necked pot with a bulging body, with or without carination, a dish or shallow bowl and a basin, most probably constituted table ware. Some bowls, basins and globular pots represented combed ware. The bulk of the total yield, about 60%, including forms like handis, basins and storage jars were coarse handmade red/grey ware. Use of both copper and stone tools was found. A cache of copper has been found, as well as two exquisitely made copper axes, cast in moulds. A specialised blade industry existed as seen from evidence of mass production of chalcedony blades in the crested guiding ridge technique. Ornaments like two bead necklaces have been found. Beads were manufactured from semi-precious stones. Most of these artifacts were found inside a house, which could not be fully excavated.

People lived in small huts with well-rammed floors and wattle and daub walls supporting a thatched roof. A mixed economy was practiced as seen from evidence on subsistence farming, stock raising and hunting-fishing. Barley and wheat were grown. Domesticated animals included cattle and sheep/goat. Interestingly, horse remains have been found from the Chalcolithic level at Kayatha.

As no antecedent stages of this culture are found in the Malwa region, Dhavalikar (1997) is of the opinion that the Kayatha culture—the earliest chalcolithic culture in the Malwa region— had developed elsewhere. Following which people migrated with the culture to this region. The sudden end of this culture is ascribed to an earthquake. The presence of a sterile layer between the levels of the Kayatha and the succeeding Ahar culture points to a hiatus between the two.

3.4 MALWA CULTURE

The Malwa culture is the most predominant chalcolithic culture of central India, with a wide distribution of sites almost all over Malwa region. It was first

identified in the excavations at Maheshwar, on river Narmada. Maheshwar was identified with the ancient Mahishmati of the Puranas. Navdatoli on the opposite bank also revealed great potential and was subsequently excavated. Other excavated sites of this culture are Nagda, Kayatha, Eran etc. On the basis of calibrated dates the Malwa culture is placed in the bracket of 1900-1400 BC.

Malwa region lying to the east of the Banas valley and Aravalli hills forms a distinct geographical unit, forming a link between the Indo-Gangetic plain and the peninsular region. Two great river systems, the Chambal and the Narmada traverse the region. A very heavy concentration of Malwa settlements is found in the central Narmada basin, which is considered to be a very fertile land.

Sites are mostly found on the banks of the tributaries. They were not affected by flood, unlike those on the main river. A sort of two level settlement pattern existed, consisting of a large number of small villages and a few large villages. Among the latter one may include Navdatoli, Nagda and Eran, Navdatoli being perhaps the largest. There were two parts of occupation at Navdatoli, enclosed by a fortification wall. Perhaps in historical times the centre shifted to Maheshwar. At Nagda, a mud rampart has been recorded- a feature also seen at Eran.

At Nagda, the houses seem to have been laid out in rows along the road and by-lanes. The use of mud-bricks and fired bricks at Nagda is significant as they are absent at other Malwa sites. The houses were multi-roomed with a *chulah* (Hearth/oven) bearing four arms. The floors were rammed hard, and there were several floor levels indicating periodic repair and re-laying. There were pebble platforms as well. Two rooms enclosing squarish pits have also been found, the function of which remains unclear. At Navdatoli, a number of structures were laid bare belonging to four different phases of chalcolithic culture. Both round huts and rectangular houses were found together in each phase. Pit-dwellings were noticed in the first phase. Usually round huts were found in clusters of two, three or four. Dhavalikar (1997) suggests each cluster represented a household, of which one had a hearth while others served different functions. Rectangular structures were quite spacious with thick mud walls and wooden posts supporting the thatched roof. The floor was rammed hard. A circular structure in one of the houses was possibly meant to be a storage bin. An extensive burnt floor has been found, possibly used as a threshing floor.

There were a number of postholes which did not follow any sensible plan; possibly they were stakes where domestic animals were tethered at night. A burnt house belonging to the latest stage of the Chalcolithic phase has been recorded from Navdatoli. Storage jars and squarish pots have been found inside this house. Multi-roomed structures at Navdatoli are particularly evident from a house in phase II which is marked by rows of postholes of which a double set of postholes forms the back wall. The total extent of the settlement at Navdatoli was about 7 ha. At Navdatoli a large burnt red floor was found. It had a squarish pit in the middle. In the four corners of the pit were found charred wooden posts which probably supported a canopy above. Inside the pit were burnt wooden splinters. Two high-necked pots were also found there. The function of this structure is unknown. This pit was part of a one room house as seen from a hearth in the northern part and a circular pot rest in the west.

The Malwa culture spread into Maharashtra by 1700 BC and some of the Malwa sites like Prakash in the Tapi valley, Daimabad in the Godavari valley and Inamgaon in the Bhima valley were quite extensive. At Daimabad, the excavator has identified craftsmen's houses and structures with religious affiliation. The most important structures of the Malwa period at Daimabad were House nos. 32, 33 and 54 which formed one complex, located in an enclosure wall. Large fire pits were found in house no. 54, identified as sacrificial altars; two-armed *chulahs* were also identified. At Inamgaon 20 houses of the Malwa period have been identified, they were large rectangular structures with a low partition wall in the middle. Inside the room were low mudwalls with large fire pits and pit silos meant for storage. Circular pit dwellings also existed at Inamgaon.

The subsistence practices and diet can be reconstructed from remains of carbonized grains of wheat, barley, jawar, rice, legumes, oilseeds and fruits. These are found at different sites due to ecological species types varied from site to site. Animal flesh also formed a part of the Chalcolithic diet.

The material culture constituted chiefly of ceramic types, the Malwa ware forming the principal type. It was essentially buff or cream slipped with painted patterns in dark brown. A pottery kiln belonging to the Malwa period has been uncovered at Inamgaon. Other ceramic wares were white painted black-and-red ware of the Ahar culture, a cream slipped ware, a coarse red/grey ware and handmade storage jars. Dhavalikar drew parallels of some forms of Malwa ware from Navdatoli with forms found in West Asian sites. Other components of the material assemblage were blade tools, copper artefacts and beads of semi-precious stones. Stone rubbers, muellers, querns, grinding stones, hammer stones, sling stones and mace heads have been found pointing to mixed subsistence practices.

Religious beliefs are reconstructed from fragmentary evidence. Terracotta female figurines of indistinct types have been found while a few examples of more definite forms exist. Representations of male figures in painted forms are seen in some wares. Terracotta bull figurines were either mere toys or associated with religious beliefs. Presence of a specific structure has been interpreted as fire alter, evidence of fire worship.

The decline of the Malwa culture has been placed in around 1400 BC which coincided with that of Ahar culture as well. Dhavalikar suggests climatic deterioration for the end of these cultures.

3.5 JORWE CULTURE

The Jorwe culture is the most important and characteristic chalcolithic culture of Maharashtra, extending almost all over the present state, excepting the coastal strip on the west and Vidarbha in the north east. The culture is named after the type site of Jorwe in Ahmadnagar district, Gujrat. The culture was discovered in 1950. In regions, such as, Prakash in the Tapi valley, Daimabad in the Pravara-Godavari valley and Inamgaon in the Bhima valley large centres of this culture were found. This is a notable feature of Jorwe culture.

Although over 200 sites of this culture have been documented so far, only a few sites have been subjected to large scale excavations. Inamgaon and Daimabad are two excavated sites. In understanding the settlement pattern of the Jorwe

sites, ecological differences between different regions have been highlighted (Dhavalikar, 1997). The high concentration of sites in the Tapi valley has been put down to the occurrence of tracts of highly fertile black cotton soil in the region. The sparse settlement pattern of the Bhima valley, on the other hand, is explained by the fact that the whole basin is practically a dry area. Following regional approaches in archaeology, environment was taken as a prime determinant, and attempts were made to characterise different kinds of sites in functional terms. On the basis of the limited data Dhavalikar classifies all the Jorwe sites as regional centres, namely, villages, hamlets, farmsteads and camps (Dhavalikar 1997).

The regional centres of Prakash, Daimabad and Inamgaon are extensive in area, with a very rich material culture. The work in Inamgaon (Dhavalikar et al 1988) was a breakthrough in Chalcolithic studies. Interdisciplinary in nature it incorporated many disciplines which resulted in a systematic study of the past. Several structures were laid bare at the site of which the granary and the diversion channels may be taken as examples of public architecture. Dhavalikar unearthed over one hundred and thirty houses belonging to both Early and Late Jorwe phases. The Early Jorwe houses were rectangular in plan while the Late Jorwe ones were circular. Dhavalikar ascribes the change in house plan to deteriorating economic condition of the people in the Late Jorwe period when the climate became more dry and arid. He also associated the two contrasting house plans to different ways of life, the Early Jorwe rectangular houses to a sedentary pattern, and the Late Jorwe circular houses to a semi-nomadic existence. To arrive at this conclusion he relied on ethnographic observations on dwellings of present-day communities in and around Inamgaon. This use of ethnographic analogy was critiqued by later scholars (Panja, 2002). These houses revealed features like a fire pit or *chulah* and storage bins.

A large number of Jorwe sites can be classified as villages, most of them being about 2 ha in extent. A few of these were excavated. They are Songaon, Chandoli, Apegaon and Walki (Dhavalikar, 1997). A small number of sites, not over a hectare in extent, possibly consisting of a few households are considered as hamlets. Sites located within 2-3 km of the major sites, and situated close to the fields to facilitate the conduct of agricultural operations, have been defined as farmsteads. Walki in Pune district, lying mid-way between Pune and Inamgaon, is an important example. Threshing floors were identified at this site. Transitory camps are not easy to identify but Dhavalikar identified one of these at Pachad, at the foot of Raigad fort near Mahad on the western coast in Maharashtra.

Based on an analysis of organic remains the subsistence base was reconstructed. It was based on dry-farming with stock-raising and hunting-fishing as ancillary activities. A variety of crops were grown, and the Jorwe farmers have also been credited for practicing crop rotation. The principal crops were barley, wheat, jowar, rice, ragi, green pea, grass pea, lentil, and green and black gram. Our knowledge of the early subsistence patterns is mostly formed on the work at Inamgaon. For the first time site-catchment analysis was carried out to understand the link between Inamgaon and its immediate surroundings. The Late Jorwe phase, however, marks the decline of agriculture. A fresh analysis of bones recovered from the Inamgaon excavations (Pawankar, 1996) revealed that the number of bones of wild animals increased drastically in the later levels. From this evidence it was deduced that environmental degradation led to a change in subsistence strategies from agriculture to hunting in the Late Jorwe period.

At Inamgaon the stone blade/flake industry is substantially represented, occurring at all levels. Considerable progress in ceramic technology is seen. The painted pottery was wheel-made and well-fired. Four pottery kilns have so far come to light through excavations. The Jorwe black-on-red painted pottery is characterised by some forms of which the most important are the spouted jar and the carinated bowl. Other forms include storage jars, basins, cups and an occasional channel spouted bowl. The other important ceramic types are a coarse red/grey ware, a handmade ware, and a handmade red ware, the latter occurring in negligible quantities. Metal technology of the Chalcolithic people was in a rudimentary stage. Lime making was a flourishing industry. Like in other aspects of material culture there was a marked decline in ceramics too in the Late Jorwe period.

A noteworthy feature of the Jorwe culture is the mode of disposal of the dead. A substantial number of burials were exposed in Inamgaon and Daimabad. Many child burials were found in urns laid in pits. In case of adults, the portion below the ankles was chopped off. Among the Inamgaon burials the most important and unique is a four legged urn burial with an adult skeleton inside. Religious beliefs were reconstructed from the presence of terracotta figurines.

By analysing these different aspects of material culture Davalikal talked of a chiefdom society which has been critiqued (Panja, 2002).

The antecedents of this culture are seen in the preceding Malwa cultural elements. A large number of the settlements were deserted at the end of second millennium BC for climatic deterioration.

3.6 OCHRE COLORED POTTERY (OCP) CULTURE

The OCP or the Ochre Coloured Pottery culture is named after a ceramic type which is extremely rolled and fragile. It has a wash of red ochre which is easily washed off and hence its name. It was first recognised by B.B. Lal in 1951 in a small excavation at Bisauli and Rajpur Parsu, the two sites in Uttar Pradesh where Copper hoards were found earlier. Lal also found similar pottery in his excavations at Hastinapura in the levels below those yielding the Painted Grey ware (PGW). Later exploration and selected excavation brought to light several OCP sites in Rajasthan, Punjab, Haryana and western Uttar Pradesh. At a majority of sites the OCP is found in small bits, but some sites in the upper Ganga-Yamuna doab, namely, Bahadarabad, Manpur, Bhatpura, Ambkheri and Bargaon have yielded larger fragments which have enabled one to study the representative forms. It appears from the better preserved specimens from sites like Ahichchhatra that the pottery was treated with a thick slip and sometimes was also ornamented with painted patterns in black. Incised decorations as well. At Atranjikhhera there is a variety of OCP which is decorated with incised patterns, while Lal Qila has provided evidence of a developed OCP. Jodhpura is the only site where the habitational deposit of the OCP had been found in the form of well made floors, mud huts, hearth, terracotta human male figurines and bull figurines. This shows that the OCP people led a sedentary existence, similar to many early farming communities of this period. Remains of domesticated animals like cattle, and evidence of cultivated crops like rice and barley further provide information on their subsistence practices.

The association of OCP with Copper Hoards found from different parts of northern and eastern India is one of the knottiest problems of Indian archaeology. The Copper Hoards consist of implements of different kinds, such as, celts, rings, harpoons, anthropomorphs, double axes, antennae etc. On the basis of their occurrence at different sites the culture is grouped into different zones. Their origin is shrouded in mystery. The presence of OCP and copper objects together at many sites like Ganeswar, Saipai, Bisauli, Rajpur, Parsu, Bahadarabad, Nasirpur and Baharia has been taken as evidence of their association. There are diametrically opposite views regarding this. Other treat them as two completely separate entities. Some assign the OCP either to pre-Harappans, Harappans, or Late Harappans, while others assign this to the Aryans, still others see a tribal association. The chronological span ranges from 2600 to 900 BC.

Although the picture is still very confusing regarding the origin, development and authorship of copper hoards and OCP and their relationship with other cultures, Dhavalikar tries to suggest a framework for the development of the OCP, on the basis of the available evidence. The beginning of OCP is put down to 2800 BC, the evidence coming from Ganeshwar-Jodhpura in Rajasthan. The presence of hundreds of copper objects here has led Dhavalikar to argue that it was a centre for supplying copper artefacts to the Harappans. A close examination of the OCP from the upper Ganga basin shows that it has striking similarities with the pre-Harappan or Early Harappan artifacts from Indus as well as sites in the Yamuna valley. The second stage in the development of OCP is marked at Alamgirpur where OCP shapes are represented at the cultural levels and at Ambkheri and Bargaon where the Harappan influence is distinctly seen in pottery forms. Dhavalikar explains this as a development of 'symbiotic relationship.' The third stage begins from the beginning of the second millennium, marked by a drastic change in climate with the onset of aridity. The people of this culture were forced to move to the upper Ganga basin, and later to middle Ganga valley under the adverse circumstances. Possibly they buried their copper objects at these sites when they could not survive. In the final stage they reached the middle Ganga valley where they could not survive for long as well. Incidentally, the OCP has not so far been reported from Bihar, Bengal, Orissa and Madhya Pradesh (except at Gungeria) where copper hoards have been found.

3.7 PAINTED GRAY WARE (PGW) CULTURE

Painted Grey Ware (PGW) is a very fine, smooth, and even-coloured grey pottery, with a thin fabric. It was made out of well-worked, very high quality clay. Designs, mostly simple geometric patterns were painted on the pots in black. The uniform colour and texture of the pots indicates very sophisticated firing techniques. PGW seems to have been a deluxe ware, forming a very small percentage of the total pottery assemblage at the levels at which these were found. It occurs along with other pottery types such as plain grey ware, Black and Red Ware (BRW) and black slipped ware, which were perhaps used in everyday life. The dates of the PGW culture range from 1100-500/400 BCE and the sites show a wide geographical distribution, stretching from the Himalayan foothills to the Malwa plateau in central India, and from the Bahawalpur region of Pakistan to Kaushambi near Allahabad in Uttar Pradesh. Apart from the plains it has been found in the hilly regions of Kumaon and Garhwal. Sporadic potsherds were found at a few places like Vaishali in Bihar, Lakhiyopur in Sind and Ujjain in Madhya Pradesh.

The main concentration of the sites is however, in the Indo-Gangetic divide, Sutlej basin, and upper Ganga plains. There are regional variations of this culture both in the pottery as well in associated remains. In the archaeological sequence of the Ganga valley the PGW phase is followed by the Northern Black Polished Ware (NBPW). PGW was first identified at Ahichchhatra in the 1940's but its full significance was understood only after excavations at Hastinapur in 1954-55. Since then important evidence of the PGW material culture is available from excavated sites like Alamgirpur, Mathura, Bhagwanpura, Kaushambi, Sravasti and others. It occurs in four kinds of stratigraphic contexts. At some sites it is preceded by a late Harappan level, with an intervening break in occupation. At other sites there is an overlap between the PGW and the Late Harappan phase. At some sites it is preceded by the OCP culture, with a break in between. And at other sites the PGW phase is preceded by a BRW phase, with a break in between. At the upper end PGW overlaps with the NBP culture. Recent excavations at Abhaipur, Pilibhit district, Uttar Pradesh, have thrown interesting light on this culture (Mishra 2010). It is a multi-cultural site with OCP forming the earliest deposit, followed by the Black-and-Red Ware (BRW) phase, which is succeeded by the PGW phase, the final phase of occupation at the site being that of NBPW. At Abhaipur, human burials have been found, the first such occurrence at any PGW site. However, human skeletons were also discovered in the Late Harappa-PGW interlocking stage at Bhagwanpura.

Structural remains at PGW levels consist mainly of wattle-and-daub and mud huts. Unbaked bricks and one baked brick were found at Hastinapura. Jakhera represents a fairly-evolved proto-urban stage of this culture.

The PGW sites indicate a subsistence base that included cultivation of rice, wheat and barley. Double cropping was possibly practiced. There is no actual evidence of irrigation facilities, but a few deep circular pits outside the habitation area at Atranjikhera are indicative of *kachcha* wells. Animal husbandry was also practiced.

The association of iron with PGW has drawn the attention of archaeologists for long. There have been a series of debates on the impact of iron technology at the beginnings of urbanism in the Ganga valley known as second urbanization. Regarding PGW phase, it is seen that iron is not associated with this cultural level at all the sites. It is not present at the sites in Ghaggar-Hakra area or in the Bikaner region. At sites like Jakhera and Kaushami iron has been found at pre-PGW BRW levels. But in the Ganga-Yamuna doab the earliest iron objects are usually associated with PGW. Most of the iron artefacts seem to be connected with war or hunting, like arrowheads, spearhead, blades, daggers etc. However, clamps, sockets, rods, rings etc. which could have been connected with carpentry have also been found. The mature PGW phase at Jakhera has also given important evidence of iron implements used in agriculture like a sickle, ploughshare and hoe.

Detailed studies of settlement patterns associated with PGW phase have been carried out. Here one could mention Makkhan Lal's study of the Kanpur district and Erdosy's study of the PGW settlements in Allahabad district.

3.8 SUMMARY

To sum up, the scenario in north, west and central India in the period spanning from beginning of the 3rd millennium – 800 BCE speaks of a great deal of diversity. At many times it is difficult to put the material assemblage in neatly defined categories. A lot of overlapping of cultural traditions is noticed which speaks of considerable vibrancy and mobility in the cultural landscape. The regional diversity is all the more highlighted when one surveys chalcolithic cultures in northern and eastern India, which however, fall outside the purview of this unit.

Suggested Reading

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Sample Questions

- 1) Discuss the different types of Protohistoric regional variants.
- 2) What do you understand by Chalcolithic culture? Describe one very important Chalcolithic culture.

Write a notes on the following

- i) Jorwe Culture, ii) Malwa Culture, iii) Kayatha culture, iv) OCP and PGW Cultures