Prehistoric Background of Rajasthani Culture

V. N. Misra

University of Poona.

Every Indian knows something of the heroism, chivalry and sacrifice of the Rajputs during the Medieval period of Indian history, and feels rightly proud of them. Educated and historically or artistically conscious people also know something of Rajasthan's rich and varied heritage of architecture, sculpture and painting. Historians, among whom the name of Shri Agar Chandji Nahata deserves special mention, have utilized the evidence from inscriptions, coins, manuscripts and other historical documents to illumine the rich historical past of Rajasthan. All these evidences, rich as they no doubt are, do not take our knowledge of Rajasthan's past beyond two or three centuries before Christ. Few people so far know that the history of Rajasthan (using the word history in its comprehensive sense as the story of man's past, both written and unwritten) goes back to a very remote past, at least a thousand years from now and probably more.

The great variety and complexity characterizing the Indian ethnic and cultural landscape is an oft-repeated statement, and it holds true for Rajasthan as much as for other parts of our country, Less adequately recognized and understood are the diversities in economic, technological and material culture patterns. Any one who is seriously interested in understanding the factors and processes which have created this diversity must look beyond the confines of the brief historical period. Archaeological discoveries show that many elements of our material culture are centuries or even millennia older than the recorded historical period. Basic items of our technology, economic patterns, many of the vessels used in our homes, our food habits and even our counting and measuring systems (before the change over to metric system) can be traced to prehistoric times. Thus a knowledge of prehistory (i. e. history before written documents of any kind came into existence) is essential for understanding not only our remote past but even our living present.

Stray discoveries of prehistoric objects and sites had been made in Rajasthan in the second half of the last century and the first half of the present century. But it is the systematic exploration and excavation in the last two decades that alone have substantially contributed to our knowledge of Rajasthan's prehistoric past. The institutions which have been responsible for this research are the Arch-

aeological Survey of India, the Department of Archaeology and Museums, Rajasthan and the Deccan College Research Institute and the University of Poona. The wo k done so farhas, however, covered only a part of the State; large areas remain completely unexplored. And planned and systematic excavation which alone can throw light on the many aspects of past cultures has been done on only a few sites. Indeed it is only a beginning and much more work is needed before we can write a true prehistory for the entire State. Yet with the work done so far it is possible to see a clear outline of the cultural history of Rajasthan from the beginning of Stone Age to the time when historical records begin to be available. This essay is an attempt to put before the scholars the results of the work done so far in this field.

For the convenience of treatment we can divide the period of Rajasthan's prehistory into the following sub-periods :

1. Earliest hunter-gatherers: The Lower Palaeolithic.
2. Advanced hunter-gatherers : The Middle Palaeolithic.
3. Final hunter-gatherers : The Mesolithic.
4. Beginnings of settled village life : The Chalcolithic.
5. Beginnings of urban life : The Indus Civilization.
6. Expansion of settled village life : ushering in of Iron Age.

Betore treating these periods individually it will be useful to briefly summarise the geographical setting of Rajasthan. A culture is an expression of man's adaptation to his environment and so can be understood only in the context of that environment. Though prehistoric environments were not always the same as the present one yet they were conditioned by the existing geographical features, and so the knowledge of present-day geographical conditions is useful to that end. The dominating feature of Rajasthan's geographical setting is the Aravalli range which divides the State into two unequal but distinct halves. The western part or Marwar is mainly a flat alluvial plain marked here and there by isolated hills and in the western and northern parts by numerous sand dunes. There are no large flowing rivers in the region. In the southern part there is a network of small streams with Luni as the principal river. All of them rise in the Aravallis and carry flowing water only for a few days during the monsoon. Their beds are largely choked with sand, with pools of stagnant water here and there. Yet there is plenty of geological evidence that during the remote past when stone-age man inhabited this region the rivers were regularly flowing, and the climate must have been different. In the desert to the north and west there are a number of saline lakes which too several millennia ago were fresh-water lakes. In the northernmost part of the State is the dried-up bed of the Ghaggar (ancient Saraswati) which as late as the Vedic period was a mighty flowing river.

The climate over most of the area is arid. Rainfall is generally well below 40 cm per annum and is very uncertain. There are frequent failures of rain and consequent famines. In these conditions agriculture is always pre-

carious and pastoralism has been an important element in the economy. The soil however, is fertile and given adequate water can be made to yield rich harvest. This has been amply demonstrated in the Ghaggar bed in Sri Ganganagar District.

The eastern part or Mewar is mainly an undulating rocky plain. But it receives more rainfall and is consequently greener and fertile. The Chambal is the main river. It is perennial and has a large network of tributaries and sub-tributaries which carry water during at least half of the year. The southwestern portion of Mewar is hilly and thickly forested. At its eastern end it opens on to the fertile Malwa plain. In the north the cover of alluvium over the rocky plain increases and the country merges into the Indo-Gangetic plain.

Much of the population is dependent on agriculture. The Brahmins, the Rajputs, the Gujars, the Jats and the Dangis are the principal agricultural communities. The Garis and the Rewaris are pastoral. The former rear sheep while the latter keep herds of camels and cattle. The hilly and forested country of the Aravallis is inhabited principally by the Bhils, the Minas and the Garasias. Bhils and Minas are also found in other parts of the State where they have settled down in peasnat villages and become integrated in the peasant society. Those in the hilly areas still retain their distinctive culture. With the decline in the forest cover and wild life their dependence on hunting has declined, but Bhils still remain expert archers and exploit the resources of the forest for their living. They are inheritors of a distinct cultural tradition which can be traced to prehistoric times.

1. Earliest hunter-gatherers : The Lower Palaeolithic

Archaeological vestiges of this period constitute what prehistorians call the Acheulian culture. They consist only of stone tools. There is no doubt that the makers and users of these tools also used other materials like wood, animal hide, bone etc. for making their tools but the passage of time and the action of natural agencies must have destroyed them completely. Of their way of life we can have some idea only on the basis of comparative study with other areas. No living sites where their tools and the food-remains could have been preserved have been discovered. Their stone tools which have survived in plenty testify to a flourishing and large Acheulian population in Rajasthan. The principal tool types are handaxes, cleavers, choppers, chopping tools, scrapers and flakes besides the cores from which these flakes were removed. They are made mostly of quartzite and occasionally of sondstone or quartz by flaking or chipping from rounded river pebbles picked up from the river bed. These tools are found in thick bouldery and pebbly deposits which overlie either the basal bedrock or a white clayey deposit which is a product of the decomposition of the bedr ock and the fluvial action. These deposits indicate a relatively dry climate which produced plenty of rock debris in the hills. The climate must have, however, been marked by heavy rains during a part of the year so that the streams could transport heavy loads of boulders into the river beds where they were deposited. The countryside must, however, have had sufficient vegetation cover to support wild life which these people hunted.

Early man must have lived along the river banks. He utilized the pebbles from the river bed for making his tools. These tools he used for hunting and butchering animals, for skinning them and cutting their meat, and also for digging roots and tubers from the soil. He must no doubt have exploited wild fruits, seeds etc. for his food. Whether he used fire we do not know. But comparative evidence from other parts of the world would suggest that they knew the use of fire. They discarded their tools at their living and butchering sites from where in course of time they were washed down by rainwater and streams and deposited in the river beds. Only the discovery and excavation of their living camps can throw light on their living patterns. These people must have lived at least a hundred thousand years ago from now and probably earlier.

The remains of Acheulian culture have been found widely in Rajasthan but the area of their greatest concentration lies around Chitor. Here Acheulian tools have been found in large numbers in the beds of the rivers Gambhiri and Berach near Chitor itself, in the Wagan near Hajiakheri, in the Kadmali near Nimbahera, in the Berach near Chitor, Bichore and Bigod, in the Banas near Sarupganj and all the way up to Tonk and in the Chambal near Kota, Rawatbhata, etc. It appears that the Acheulian man avoided the thickly forested country of tbe Aravallis and the foothills for in spite of our intensive search only isolated tools of this culture have been found west of the Wagan river and none beyond Dabok in District Udaipur. In the north an Acheulian site is reported on the Sanwan Nadi, a tributary of the Banganga near Bangarh in District Alwar. The Lower Palaeolithie man also does not seem to have crossed the Aravallis except infrequently and did not venture into the interior ot the Marwar plain. The only pure Acheulian site known from west of the Aravallis—and it is not a rich site—is Govindgarh on the river Sagarmati some 15 km. west of Ajmer. Further exploration, especially in the Chambal basin, will no doubt bring many more Acheulian culture sites to light.

2. Advanced hunter-gatherers : The Middle Palaeolithic

The Acheulian culture was succeeded by a new culture which we call the Middle Palaeolithic. Before this transition took place, the rivers in Rajasthan had been active, and depositing new sediments in their beds. The older thick bouldery deposits had been covered by a white clayey deposit, and over it came fine sandy gravels. In eastern Rajasthan it is in these gravels that we find the tools of the Middle Palaeolithic. In western Rajasthan in the beds of the Luni and its tributaries there is no evidence of the older coarser gravels and the Lower Palaeolithic tools. Here the oldest deposit in the river beds is a white clay. Over this lie highly cemented fine sandy gravels, and it is in these gravels that the remains of the Middle Palaeolithic tools are found. These tools are made of finer rocks like chert and flint. They are also smaller in size than the Acheulian tools. There,

however, does not seem to have been a break in culture for some of the older tool forms like the handaxe continued to be used alongside the new tool forms.

The tools of this new culture were made mainly out of small and thin flakes and only occasionally out of complete stone pebbles or blocks. The Levallois technique of removing flakes which was already in use in the Acheulian culture was now more frequently used for producing flakes. In this technique, named after a suburb of Paris where the flakes displaying it were first discovered, the outline of the final flake is determined on the core (or the parent body of the stone) beforehand by convergent flaking, and then the blake removed by a carefully struck blow. The flakes so obtained are thin and sharp-edged and of oval, pointed or circular shape. As their edges are already sharp all round they can be put to use for cutting etc. without much secondary retouch. The principal tool types of this period are a variety of scrapers (side, end and hollow type), points and borers. Blades or thin parallel-sade flakes also came to be more frequently produced in this age. The scrapers are beliicued to have been used mainly for working wood (preparing spears, etc.) skinning game and cutting meat and the borers for making holes in wood and animal hide. They indicate a greater reliance on wood for weapons and tools. The handaxes are now smaller and better made and many of them are indeed objects of beauty. Even in the Acheulian times some of the handaxes and cleavers had been very well made. Their even thickness and perfect symmetry of outline called for skilful work which went far beyond the necessity of producing an efficient tool or weapon. It only shows that from very early times man had been aware of the aesthetic quality of his creations even where the end product was of a purely utilitarian nature. In western Rajasthan the Middle Palaeolithic culture presents a more evolved picture. The Levallois technique here was more commonly in use. Backed knives and Bifacial points are also distinctive elements of the culture in this region.

The man of this period did not rely entirely on river pebbles for making his tools. He went to look for the raw material in geological formations where finer rocks occurred. Since he manufacured his tools there we find large quantities of his tools and their debris on rock outcrops. The richest of these factory sites are to be found in the limestone outcrops near Sojat in Pali District.

In eastern Rajasthan Middle Palaeolithic tools are found at several localities in the river Wagan near Hajiakheri in Chitor District, in river Kadmali at Nimbahera in Chitorgarh District and in the Chambal at Kota. But the Luni basin is richer in the relics of this culture. Here at some twenty sites in the Luni and its tributaries these tools have been found. The Middle Palaeolithic culture of the Luni valley is a mixture of evolved Acheulian elements and the typical tools of the Middle Palaeolithic of other regions. It includes beautifully made handaxes and cleavers as well as the small flake scrapers, points etc.

In Western Europe and West Asia the Middle Palaeolithic culture was

followed by the Upper Palaeolithic. This period is characterized by elegant blade tools and burins (chisel-edged blade or core tools). During this period also appear for the first time men who are anatomically identical to the living human races, i.e. the *Homo sapiens*. Upper Palaeolithic type tools have been found at a few sites in south India. But by and large evidence for this period is lacking in India. And this observation applies to Rajasthan as well. Blades were produced in this region right from the Acheulian times and they are more common in the Middle Palaeolithic culture both in Eastern and Western Rajasthan. In the factory sites near Sojat slender blades are found together with Middle Palaeolithic and other tools. There is a strong possibility that further exploration in this region should yield the evidence of an independent Upper Palaeolithic culture. Upper Palaeolithic like blades are also present in the Middle Palaeolithic industries of the eastern region, and further investigation is needed in this area as well.

3. The Final Hunter-gatherers : The Mesolithic

Throughout the stone age while the tools have been becoming more efficient, there has also been a distinct tendency for them to get smaller and lighter. This tendency reached its climax during the Mesolithic age which began around 12,000 years ago, and persisted from a few centuries to several millennia in different parts of the world. The tools of this period are made on narrow blades or, more correctly, bladelets by steeply retouching or blunting one or more of their sides. Known as microlithis (meaning small tools) they are often of geometric shapes like crescents, triangles, trapezes, rhombs, etc. A number of such pieces were fitted in a slotted bone or wood to make tips and barbs of arrows, knives, sickles, etc. The presence of these tools at a site is almost certain proof of the use of bow and arrow and by implication of a more effiicient method of hunting. These composite tools were superior to the tools of the earlier stone ages in one more way : if a part of the tool was broken it could be easily replaced to make the tool serviceable again whereas the older single piece tools had to be discarded if their tip or edge was broken.

Rajasthan has produced unusually rich evidence of the Mesolithic age in India. Microliths had been found since 1955 in many places, especially in Mewar. They were usually found on rock elevations where necessary raw material for making them were easily available. But at these sites the material consisted mostly of cores and waste flakes and only occasionally of blades and finished tools. It was clear that these sites were essentially factory sites where prehistoric hunters, taking advantage of the easily available raw material, had manufactured their tools and taken them to their living camps for use, leaving the waste material behind. But until we found these camps we could have no idea of the way of life of the makers of these tools, nor of their antiquity. Circumstantial evidence, however, indicated that the tools were older than 2,000 B.C. In other parts of India microliths had also been used by earliest agri-

culturalists who appeared late in the third millennium B.C. or early in the second millennium B.C. But in Mewar excavation at early village sites showed that their occupants had not used microliths. Thus the microliths found at the surface sites referred to earlier could only have belonged to an older and perhaps hunting-culture. And as the first agricultural settlements were known to date from the beginning of the second millennium B. C, the microliths must be older than this date.

Our search for the living camps of these microlith-using people was rewarded in the winter of 1966-67 when we discovered two such sites—Bagor in Mewar and Tilwara in Marwar. Excavation at these sites has thrown a flood of light on the way of life of the microlith-users.

Bagor is a large village on the bank of the Kothari river, a tributary of the Banas, some 25 kilometers west of the Bhilwara town. A large sand dune overlooking the river near the village had been occupied by stone-using communities for nearly five millennia from c. 4,500 B.C. onwards. The people lived on the dune over floors which were made stable by paving them with pebbles picked up from the river bed and rock slabs quarried from the schist outcrops on the opposite bank of the river. The people appear to have erected circular huts and windbreaks of wattle to protect themselves from the elements. They produced beautiful little microliths in thousands for use in their hunting and cutting tools. These microliths are made of quartz and chert or chalcedony. The microliths and their debris lie littered on the stone floors together with animal bones and the numerous stone hammers which were used to manufacture the microliths and break the bones. The fairly uniform distribution of stone tools over the entire living area shows that every family must have been producing its own requirements of stone tools.

The economy of early Bagoreans was a combination of hunting, catching, stock-raising and collecting of wild plant food. Among the animals whose bones have been found at the site are cattle, sheep/goats, deer, antelopes, swines, canines, canines, turtle and fish. The bones are usually charred suggesting that meat was roasted on open fires. They were regularly broken and split open for the extraction of marrow. The inhabitants buried their dead within the settlement by putting the body in an extended position with its head to the west. Apparently these people had no material possessions other than their hunting and cutting tools, their humble houses, and flocks of their sheep/goats and probably cattle. Yet they were the first people in Rajasthan to have achieved a level of economic stability which enabled them to live a settled life. Thier settlement occupied an area of about 6,000 square meters. This suggests a fairly large population for a community that did not yet cultivate any food plants. These are probably also the people from whose culture should be derived the hunting and pastoral traditions still surviving in Rajasthan. Three radio-carbon dates suggest a period of about two thousand years from c. 4,500 B.C. to 2,800 B.C.

The site of Tilwara is located on the river Luni some 16 km, west of the town of Balotra in District Barmer. The settlment lies about two kilometers south-west of Tilwara village on a sand dune in the old bed of the Luni river. But the Tilwara settlement was smaller and of shorter duration than that of Bagor, and the people here lived at a much later date. There must no doubt be older Mesolithic settlements in the region but these have not yet been discovered. The Tilwara people also made small stone tools or microliths but their tools do not always display the same high degree of excellence in craftsmanship as do those of Bagor. Besides quartz and chert these people also used for making their tools rhyolite, a locally available rock which was very hard and resistant to weathering. These people too lived in circular huts which were lined on the outer periphery with stone pebbles or kankar nodules. Outside these huts have been found several hearths with ash and charred bones inside them.

Their economy was also a combination of hunting, stock-raising and collecting. They kept sheep/goats and cattle and hunted deer, pigs, etc. These people also had the domesticated dog to help in their chase. At a later stage in the life of their settlement they were also acquainted with pottery and stone and glass beads. The Tilwara settlement is likely to date between 500 B. C. and a couple of centuries beyond the Christian era. What is the explanation for the survival of the hunting-pastoral culture to such a late date in this region ? The explanation seems to lie in the geographical condition of the region. Barmer region is very arid and unfavorable for successful agricultural way of life. The present climatic conditions seem to have already been established more than two thousand years ago It was therefore unattractive for pioneering agriculturists. They did not move into this area until they had colonised more favourable areas. The stnne age hunter-gatherers and herders therefore continued their life undisturbed from the impact of culture contact with agriculturists until the early centuries of the Christian era. As in Mewar the present day surviving hunters and pastoralists are likely to be in the direct line of descent from their prehistoric forerunners.

4. The Beginnings of Settled Village Life : The Chalcolithic

Two areas where we have at present the earliest beginnings of full-fledged agriculture and settled village life are Mewar and the Ghaggar basin in north Rajasthan. From these regions this new pattern of economic and social organisation seems to have spread to other areas.

In this context Bagor again occupies an important place. The middle levels of the archaeological deposit at this site reveal the introduction of new material traits into the economy. These include copper/bronze tools, pottery, perforated circular stones or mace heads and plentiful use of stone beads for ornaments. There was also a change in the burial practice. The dead were now buried in a flexed position and the orientation of the body was east-west. The graves were also richly furnished with offerings. Metal tools and pottery indicate greater prosperity of

economy and increased stability of the settlement. Ring stones or mace heads hint at the beginning of a primitive type of agriculture. Pottery is handmade and inadequately fired. But the shapes are sophisticated and suggest an earlier period of evolution elsewhere. The pottery is completely devoid of painted decoration and bears only incised designs. To that extent it belongs to a tradition entirely different from that of the other chalcolithic cultures. Some of the shapes do show similarities with the pottery of Ahar in Mewar and Kayatha in Malwa but it is not possible to connect the pottery securely with any known site. Metal tools include concave-based and barbed arrow-heads with tell-tale similarities with the arrow-heads of the Harappa culture. The highly developed nature of pottery and metal tools rules out the possibility that these items of material culture were the invention of Bagoreans. They were certainly derived through culture contact with some other communities. Thus while Bagor itself was not a full-fledged agricultural setttlement, its early date hints at the possibility, indeed certainty, of the existence of well-developed village settlements somewhere in the region. Two radio-carbon dates from this phase of Bagor settlement are c. 2800 B.C. and 2100 B.C. Nowhere else in Rajasthan or in its immediate neighbourhood has so far any village settlement of this early date been found. Future exploration should, however, certainly bring to light settlements of this or even earlier date.

The earliest known full-fledged village settlements in the Mewar region date to about 2,000 B.C. Some fifty village settlements displaying a fairly uniform material culture have so far been discovered in the valleys of the river Banas and its tributaries in Udaipur, Chitorgarh, Bhilwara, Tonk and Ajmer Districts. But only two sites have been excavated. These are : Ahar near Udaipur and Gilund, on the river Banas in Chitorgarh District, some thirty kilometers south of Bagor. As Ahar was the first site to be discovered and as it alone has ben fairly excavated and fully published, the culture revealed at these sites has been named after this site. The Aharians were among the earliest people in India to cultivate rice. They almost certainly cultivated many other cereal and food plants. But direct evidence of agriculture in the archaeological record is always rare. Their material culture is, however, ample proof of their settled, agricultural economy. They also kept cattle and goat/sheep and to a small extent also relied on hunting. They lived in substantial houses made of mud, mud-brick and stone. At Gilund there is evidence even of the kiln-baked bricks and of monumental architecture. Their villages were of fairly large size, occupying an area of several acres. They were conversant with the art of smelting copper ores and casting metal tools. Remains of a smelting furnace and copper slag were found at Ahar. Indeed it is notable that unlike other contemporary chalcolithic peoples the Aharians made little or no use of stone tools. Their copper technology was therefore sufficiently advanced to enable the population to dispense with the use of stone tools. For this reason Ahar has been described as Copper Age culture and not as Chalcolithic (stone and

copper using). They also knew the art of spinning, probably of both cotton and wool and by implication of weaving. Their terra cotta spindle whorls are decorated with a variety of incised designs and suggest affinity with the prehistoric cultures of north Iran and Turkey. Their ornaments include a variety of stone-beads and their art consists of terra-cotta figurines of a variety of animals, some of them displaying a remarkable degree of realism.

The pottery of Aharian peasants was both well-made and varied in fabric, shape and decoration. The three main fabrics are : Red ware, Black-and-Red ware, and Grey ware. Red ware vessels are made of both coarse and fine clay, are generally treated with a bright red slip and are very well burnished. The vessel forms include large narrow-necked vessels with corrugated necks and shoulders, squat wide-mouthed vessels, narrow lota-like vessels, large flat platters, dishes (including some with a pedestal stand) and bowls. The decoration consists primarily of a variety af applique, incised and cut designs. Some vessels, especially in the late phase, are also decorated with painted designs in black pigment. Some vessels in red ware show clear affinities with the Harappa culture in fabric and shape.

The black-and-red ware pottery is almost entirely of table use. It includes a large variety of bowls of many sizes, small lota-like vessels and dishes (including some with a stand). The vessels are slipped in bright red, well burnished and fired by the inverted firing technique which turns the entire inner surface and the upper part of the outer surface black and the rest red. They are painted on the interior as well as the upper part of the exterior surfaces with a variety of dotted and linear designs in white pigment. Grey ware imitates the red ware in shapes and designs but the repertoire of both forms and decorative patterns in this ware is limited. For instance, there are no large narrow-necked vessels with corrugated necks in this ware. On the other hand, some vessels of this ware are decorated with painted designs in white pigment.

Radio-carbon dates suggest a period of 2,000 B.C. to 1,200 B.C, for this culture. Further investigation in the region should throw light on the origins of this culture, its relationship with the Bagor culture as well as with the later iron using cultures.

The other area in Rajasthan were early agricultural settlements first appeared is the Ghaggar valley in the extreme north of the State. Such settlements are known all along the Ghaggar bed in Sri Ganganagar District and even extend westward into Pakistan where the river is known as Hakra. Our knowledge of this early culture is derived mainly from Kalibangan, a site located midway between Suratgarh and Hanumangarh which has been extensively excavated. There are two mounds at Kalibangan, one larger lying on the eastern side and the other smaller on the western side. While both mounds were occupied by the Harappans, the smaller mound below the Harappan remains has also revealed traces of an older culture which has so far simply been called pre-Harappan culture, but Kalibangan

people seem to have been more prosperous than the Aharians. They had built a mud-brick wall around their settlement for protection against floods or enemies or both. Two phases of the construction of this wall are known. Its width initially was 1.80 m. but was later increased to 3.70 m. The wall has so far been traced only in parts but on one side it extends far well over 100 meters. The houses were made of mud-bricks and were sometimes separated from each other by lanes. Houses were provided with ovens of both overground and underground varieties. Both types were made of mud walls and periodically plastered.

The pre-Harappan Kalibangan people used long chert blades as cutting tools but they were also familiar with metal and used celts and other tools of copper and possibly bronze. Their ornaments comprised bangles of copper, terra-cotta and shell, and beads of steatite, shell, carnelian and terra-cotta. They used bullock carts for transport. Terra-cotta objects found at the site include bull figurines, and toy carts. Evidence of furrow marks at the site has provided tell-tale evidence of agriculture though it is not known what plants they cultivated. As with other agricultural communities their economy was a combination of plant cultivation and animal husbandry.

The pottery of these people is varied in fabric and shape. Some six fabrics have been distinguished and numbered A to F, Pots in Fabric A are light and thin as opposed to thick and heavy pots of the Harappa culture. They are without a slip and red to pinkish in colour. Vessel forms include vases with out-turned rim, bowls with tapering concave sides, and vases with pedestalled base They are painted in black pigment, sometimes coupled with white, with a variety of geometric and naturalistic designs. Vessels in Fabric B are better made and comprise globular jars. Their bottoms are rusticated by an application of sand and clay. The painted designs comprise animals, insects, birds and flowers. Fabric C is of finer clay. The vessels comprise globular and ovoid vases with disc base, lids, straight-sided bowls and offering stands. Decoration is in black and includes geometric and naturalistic designs, among them the scale pattern so characteristic of the Harappa culture. Fabric D vessels are thick and sturdy and include heavy jars, bowls, basins and troughs. Some of these are decorated with deep incisions and wavy lines on the inner surface. Fabric E and F are relatively less common. The former is characterized by cream slip and decoration in black with geometric and naturalistic designs, and the latter is of grey colour with decoration in black.

Some of the forms and designs of Kalibangan pottery bear similarities with the pre-Harappan pottery of Kot Di ji, Amri and Harappa and several pre-Harappan sites in Baluchistan. The early peasant colonisation of the Ghaggar valley seems to be part of the extension of the peasant communities from the Baluchi hills into the plains of the Indus below. A number of radio-carbon dates from Kalibangan show that the first occupation at the site took place around 2,300 B.C. and this pre-Har-

appan culture endured till about 2,100 B. C, when it was overwhelmed by the superior Harappan culture. At the moment we have no idea whether these pre-Harappan people had also spread outtide the Ghaggar valley, and only future exploration will reveal it.

5. Beginnings of Urban Life : The Indus Civilization

At Kalibangan the pre-Harappan settlement was followed by a full-fledged Harappan settlement. The Harappans came from the outside for there is no evidence of the new culture having grown of the local culture. The Harappans, however, did not drive out the existing occupants of the site for elements of both cultures are seen to flourish for some time. But with the passage of time the Harappan dominance obliterated the identity of the pre-Harappan culture. As at other urban centres of the Harappa culture, like Mohenjodaro and Harappa, the Harappan settlement at Kalibangan consisted of two occupational units : a citadel and a lower town. The citadel was formed by enclosing the southern part of the pre-Harappan occupation within massive walls. Inside the fortification huge mud-brick platforms were constructed on which the buildings were raised. The citadel was roughly rhomb-shaped. The length of its individual walls varies between a hundred and 125 meters. The walls were reinforced with rectangular salients and the corners were provided with massive square towers. Two phases of construction are seen in the citadel, with the size of the bricks becoming smaller in the second phase. There is also evidence that the fortification became ineffective in the final stages of the settlement. There were entrances on the northern and southern side to the citadel.

Considerable brick-robbing at the site has obliterated the details of the structures raised over the mud-brick platforms. But these probably included, in the excavators, a building meant for ritualistic purposes. The presence of an elaborate drainage at successive levels is one of the grounds of this surmise. Within the enclosure of a room were found rectangular fire-places aligned in a row. These were later cut through by a drain. A well was also found on the citadel.

The larger eastern mound contains the remains of a lower town. It has revealed the typical Indus chess-board plan with oblong blocks of houses sub-divided by lanes and thoroughfares. The main arterial thorough-fares ran in a north-south direction. The width of the streets and thorough-fares ranged between 1. 80 m. and 7. 20 m. The thorough-fares were generally unmetalled except in the last phase when the metalling material was terra-cotta nodules and bricks laid on edge. Throughout the occupation the streets and thoroughfares were rigorously maintained without any alteration and the only encroachment on them was of rectangular troughs and bazar platforms.

Houses were made of mud-bricks arranged in regular courses of headers and stretchers; the use of burnt brick was restricted to drains and wells. Their

alignment was different from that of the pre-Harappan houses. Each house possessed one courtyard, five to seven rooms aligned on three sides, a curious fire altar and sometimes a well. In the grid plan cach house faced at least two streets if not three. The floors were made of rammed clay and paved with terra-cotta nodules and charcoal. This practice survives in the region to this day. Paved platforms were also made on the front side of some of the houses. The roof of the houses was possibly made of mud laid over a cushioning of reeds supported over wooden rafters the remains of which have survived embedded in mud. The discovery of a well-preserved stair-case with four treads intact in one house suggests the possibility of houses with two storeys. Houses were generally provided with covered burnt brick drains. In one house the drain was of wood, a log of wood scooped into a U shape. The streets were generally not provided with drains and the house drains discharged into soakage jars buried in the streets Each house had, in one of the rooms, one or more fire-places. These were shallow oval or rectangular pits in which fire was made and in the centre a cylindrical (sun-baked or pre-fired) or rectangular (baked brick) block was fixed. Terra-cotta cakes have also been found in these pits. Apparently, the fire-places were part of some elaborate ritual.

The pottery found at the site is typical of the Harappa culture. It is sturdy in fabric, has a red-slipped outer surface and is decorated with geometric and naturalistic designs in black pigment. The most common designs are intersecting circles, scales, pipal leaves and rosettes, The vessel forms are typical of the Harappa culture and include goblet with pointed base, perforated cylindrical jar, dish-on-stand, cylindrical beaker, tall jar with S shaped profile, etc.

Agriculture was no doubt the mainstay of the economy of such a prosperous society though at present we have no evidence of the food grains they cultivated. Stock-raising was an important part of the economy and hunting also played some role. Among the animals of which the bones have been found at the site are : zebu or Indian domestic humped cattle, Indian buffalo, pig, goat, sheep, elephant, domestic ass, barasingha, Indian rhinoceros, chital, turtle and among birds, fowl.

The material culture of the Harappans was quite varied. Objects recovered from the excavation include chert blades and cores, personal ornaments like beads of semi-precious stones, gold, faience, steatite, and terra-cotta, bangles of shell, copper and terra cotta, chert cubical weights, household tools or copper and bronze, terra cotta figurines of humans, animals and birds, and typical Harappan seals and sealings. Some of the animal figurines show a very vigorous and naturalistic rendering of the body. Some of the seals bear reed impressions on one face suggesting the type of packages they were employed to seal. Also noteworthy is the finding of a cylinder seal from the site. The evidence for textiles is provided by the impressions of a woven cloth on a copper object. There are a variety of terra-cotta cakes, triangular and circular, including ill-shaped nodules. These are

incised on both faces with some elusive figures, one of which is horned. Miscellaneous terra-cotta objects include a feeding bowl and gamesmen.

A cemetery found just 300 m. west of the citadel mound has thrown light on the burial practices of the Kalibangan Harappans. Three types of burials are revealed : 1. extended inhumation; 2. pot burial and 3, rectangular burial. The second and third types have not yielded skeletal remains yet from the cirumstantial evidence they appear to have been some kind of burials only. In the first type of burial the grave consists of an oblong pit in which the skeleton was laid in an extended position with the head to the north. Pots were arranged near the head as well as the feet. In one case as many as seventy pots were kept with the skeleton. Other grave goods associated with different burials include a bronze or copper mirror, one shell ring 6.5 cm in diameter and found near the left ear and beads of gold, jasper, agate, carnelian and steatite. Pot burials have been found for the first time at a Harappan site. In this type the urn was placed in a circular or oval pit and around the urn were placed pots varying from 4 to 29 in number. Other associated objects include shell bangles, beads and steatite objects. The third type of burial consists of rectangular or oval grave with its longer axis oriented north-south. These graves too were devoid of any skeletal material. The grave goods consisted of pottery and in one instance of a fragmentary shell bangle, a string of steatite disc beads, besides one of carnelian.

Kalibangan was not a solitary Harappan settlement in the Saraswati valley. Some 25 settlements are known in the Saraswati and the Drishadvati valleys. Most of the latter are small mounds, representing tiny peasnat settlements. The total picture is thus similar to that revealed in Sind or Saurashtra, namely, of a large town surrounded with numerous ancillary villages. Mr. B. B. Lal has suggested that if Mohenjodaro and Harappa were two metropolitan capitals of the Indus Empire, Kalibangan might have been a provincial capital guarding the Saraswati valley.

A large number of C-14 dates from Kalibangan give a time spread of roughly between 2,100 B. C. and 1,800 B. C. for the Harappan settlement. It is not clear how and why the Harappan culture in this area came to an end. One theory is that the changes in the river courses led to a sharp decline in the volume of water in the Saraswati and thereby forced the people to move to other areas.

Far to the east of Kalibangan the site of Noh, about six kilometers west of Bharatpur on the Agra road might give some answer to this problem. Limited excavation at this site which was occupied over a long period has revealed at the base of the deposit a layer containing what has come to be known as Ochre Coloured Pottery. No complete shapes are available, but the ware is similar to that found at Atranjikhera in western Uttar Pradesh and other sites. Ochre Coloured Pottery was first found in early fifties at Hastinapura in Meerut District of Uttar Pradesh below the Painted Grey ware levels. Since then the pottery has been found at a number of sites in western U. P., Haryana and Punjab. At Atranjikhera and

Noh the pottery occurs below a deposit that contains Black-and-Red ware which in turn lies below the Painted Grey ware. Unfortunately, so far at nearly all the sites where the Ochre Coloured Pottery has been found, it occurs in silty layers which appear to have been formed by river floods. Thus very little is known of the original nature of the pottery and the other items of material culture associated with it. But scholars who have considerable experience of handling Harappan pottery are inclined to believe that the Ochre Coloured Pottery is a degenerated version of Harappan pottery which has lost its original colour and sturdiness due to its long stay in the waterlogged Gangetic silt. The site of Noh located midway between the Harappan sites of the Saraswati valley and the O. C. P. sites in the Jumna valley would fit in well with this theory, and suggest that the Harappans from the Saraswati valley as also those from west Punjab moved towards the east in their decadent days. More field work in north Rajasthan is needed to throw light on this interesting problem.

6. The Spread of Settled Village Life : The Beginnings of Iron Age

While, as we have already seen, large areas of Rajasthan were colonised by peasant farmers during the Chalcolithic period, the universal extension of agricultural way of life had to wait for the introduction of irom tools. Iron was more plentifully available and cheap, and so only with its discovery could common man afford metal tools. With the universal availability of metal tools it became possible for peasant farmers to clear newer lands for agriculture and establish new settlements there. This event in north India is believed to have taken place around the beginning of the first millennium B. C. or soon thereafter for the first reliable evidence of iron in this area is associated with the Painted Grey ware. This ceramic, first found at Ahichchhatra in northern Uttar Pradesh in the early forties, has since been discovered at numerous sites in the Sutlej and Ganga basins. Many of these sites are closely linked with the story of the great epic, Mahabharata. In Rajasthan the Painted Grey ware is now known from many sites in two areas : The Saraswati valley in the west, and north-eastern region in the east. While in the Saraswati valley there is a clear break between the Harappan occupation and the Painted Grey ware, in the evidence from Noh, limited though it is, reveals a continuity from the O. C. P. to Painted Grey ware. At this site these two cultural phases are intervened by a deposit yielding black-and-red pottery. This pottery is said to be unpainted unlike that from Ahar and other sites. Nothing more is known about this pottery and its associations. But eastern Rajasthan is an important area for resolving the question of the relationship between the black-and-red ware and the Painted Grey ware.

In eastern Rajasthan Painted Grey ware is known from a number of sites in Bharatpur, Jaipur and Ajmer districts. Excavations have been done only on two sites, namely, Noh near Bharatpur and Bairat in District Jaipur. These are, however, so far of a limited nature and do not throw much light on the way of life of the

users of this ware. Besides the fine Painted Grey ware they used black-and-red ware. They were fully acquainted with iron tools. Axes, spear-heads and arrow-heads of this metal have been found. Other finds are stone-beads, cotta discs of indeterminate use, bone styluses and copper objects. Charred rice has also been found at Noh.

The dating of the Painted Grey ware has been a matter of controversy. Radio-carbon dates from Noh and other sites indicate a date of around 800 B. C. for the beginning of this ware.

The Painted Grey ware was followed by the appearance of a very high quality ceramic known as the Northern Black Polished ware in about 500 B. C. With this ceramic also come to light for the first time coins and many other items of material culture. The first urban settlements after the Chalcolithic Harappan cities came into existence, and civic life spread widely in north India. Historically identifiable dynasties now come to light, and from here onwards we enter the historical period the study of which is outside the scope of this paper. At Noh northern Black Polished ware deposits overlie the Painted Grey ware deposits and are succeeded by layers of Sunga-Kushana remains. In south Rajasthan the capital city of Madhyamika (present day Nagari near Chitor) came into existence soon after. In the Saraswati valley there was a revival of settlements in the Kushana period perhaps due to new changes in the river courses. By the beginning of the Christian era settled village life based on agriculture, animal husbandry and iron technology had been established over most of Rajasthan. But this consummation was the result of a long drawn out struggle that prehistoric man had waged against his environment. The kingdoms, empires, and all the great achievements of historical times—in architecture, sculpture, painting, literature, and so on—could be possible only on the firm foundations of settled life and a secure economic basis which had been laid by our prehistoric ancestors. It has been said that prehistory underlies all civilization, and this statement most suitably applies in the case of Rajasthan.

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Prehistoric Background of Rajasthani Culture

Description of Illustrations

Fig. 1. Map of Rajasthan showing Early Stone Age sites.
Fig. 2. Map of Rajasthan showing Middle Stone Age sites.
Fig. 3. Map of Rajasthan showing microlithic sites.
Fig. 4. Map of Rajasthan showing Proto-historic sites.

Plates

Pl. I. Pleistocene deposits of the river Gambhiri near Chitorgarh. Man in the picture is pointing to a stone implement in the gravel with his left hand.

Pl. II Pleistocene deposits of the river Banas near Sarupganj. The figure at the bottom stands against the gravel deposit bearing Acheulian tools.

Pl. III. Lower Palaeolithic tools, choppers and chopping tools.

Pl, IV. Lower Palaeolithic tools : Abbevillian and Early Acheulian hand-axes.

Pl. V. Lower Palaeolithic tools : Advanced Acheulian hand-axes.

Pl. VI. Lower Palaeolithic tools : cleavers, Levallois flakes and blades.

Pl. VII. Middle Palaeolithic tools : Wagan and Kadamali rivers.

Pl. VIII. Middle Palaeolithic tools . Wagan and Kadamali rivers.

Pl. IX. Middle Palaeolithic tools : handaxes and cleavers. Luni river.

Pl. X. Middle Palaeolithic tools : Luni river.

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Pl. XII. Middle Palaeolithic tools : Luni river.

Pl. XIII. Stone Floor. Bagor.

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Pl. XV. Pottery Phase II, Bagor.

Pl. XVI. Copper tools, Phase II. Bagor.

Pl. XVII. Chalcolithic Structures. Ahar.

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Pl. XIX. Kitchen floor. Ahar.