Mandoli: A Late Harappan Settlement in Delhi

B.S.R. Babu

Mandoli is a small village (28° 42'N 2° 19'E) located on the left bank of the river Yamuna near Nand Nagari, 16 km from Delhi Railway Station on Delhi-Ghaziabad highway. The ancient mound lies to the south-west of Mandoli and to south of Saboli villages. The site has been occupied by the modern village except for the north and north-east portion.

Explorations carried out some time ago by the Department of Archaeology, Government of the National Capital Territory of Delhi revealed that the site has been in occupation right from the Late Harappan times upto the Late Historical times. On the basis of surface finds excavations were conducted at the site for two consecutive seasons i.e., 1987–88 and 1988–89 under the supervision of the present author with the following objectives:

(i) to investigate the nature and extent of Late Harappan element;
(ii) to find out the horizon of the Painted Grey Ware in this region; and
(iii) to establish the cultural sequence of the site.

On the basis of the material remains, the deposits have been assigned to five cultural periods, viz.,

Period I	Late Harappan,
Period II	Painted Grey Ware,
Period III	Distinguished by a black slipped ware,
Period IV	Sunga-Kushana, and
Period V	Gupta times.

The relevant characteristics of each period are as under:

Period I

Late Harappan settlement was found at the earliest and lowest level. The occupation appears to be small in size as no structural vestiges by way of house-

Excerpted from C. Margabandhu and K.S. Ramachandran (eds.), *Spectrum of Indian Culture*, Agam Kala Prakashan, Delhi, 1996, pp. 98–101.

complex etc. have been noticed. Yet yellow coloured rammed earth floor with post-holes in circular and arc fashion traced in couple of trenches give an idea of the Late Harappan residential pattern here. It is interesting to note that on this mud floor is found *in situ* a burnt terracotta object, coarse in fabric along with traces of ash, perhaps the remains of a hearth.

Shapes of pottery reconstructed from sherds in this level include jars with splayed out or beaded rim, vase with disc base, etc. All the shreds showed evidence of wear due to water-logging caused by flood activity during this period. This inference is supported by the evidence of thick deposit of 30 to 35 cm of waterborne silt and sand immediately overlying the Late Harappan settlement. Pottery was all fast wheel-thrown with regular striation marks. The ceramics have been turned out of well-levigated clay and of fine and sturdy fabric, kiln-fired and occasionally coated with dull red slip.

Antiquities of this period include a biconical bead and a circular terracotta cake.

Period II

After a little gap, the site was inhabited once again by the people using Painted Grey Ware. The fabric of this pottery is very fine; the colour ranges from ashy to dark grey. Most of the pots are wheel-turned. Common forms are bowls and dishes with straight or convex sides. Simple designs like dots, dashes, loops, concentric circles, wavy lines, strokes etc., were painted usually with a black pigment. In some cases, reddish brown colour with a group of black wavy lines both internally and externally and a dark ashy well-baked sherd of a bowl of fine fabric with a dull red coloured thick horizontal rim band were noteworthy. It is associated with a fine thin grey ware and red ware. Such pottery types of PGW have been reported earlier from Hastinapur, Mathura, Atranjikhera and Kausambi. Residential vestiges comprised of rammed-mud floor and post-holes. Among other important antiquities discovered were terracotta animal figurines, *ghata*-shaped beads, discs decorated with designs at the edges, pyramid-shaped hollow ivory piece, ivory button, beads of banded agate including etched carnelian bead, antimony rod and nail parer made of copper, besides some iron slags.

Period III

This period is represented by the people using black slipped ware associated with plain red ware and black-and-red ware. Bowls, vases, jars, dishes, basins are some of the types in the ceramics. Mud floors of the previous period continued.

Terracotta animal and human figurines, beads, discs, shell bangles, ear-studs etc. are some of the antiquities found from this period.

Period IV

This period can be sub-divided into two phases viz., IV A Sunga and IV B Kushana.

Period IV A

This is characterised by simple hand-made and wheel-turned potteries of red ware, of medium to coarse fabric, featureless rim, with stamped and incised designs recalling the Ahichchhatra type.

Terracotta animal figurines, gamesman, shell objects, ear studs, fishing net weights are some of the antiquities found from this level.

House-complex with mud lumps was noticed in one of the trenches. Overlying this structure was Kushana burnt brick structure indicative of the succeeding sub-period.

Period IV B

The Kushana period is indicated by well-constructed houses of burnt bricks. A house-complex was exposed and the bricks measured 33 × 22 × 6; 31 × 22 × 5; 32 × 21 × 6 cm. Two successive floors of mud and lime were noticed associated with an oven in one of the rooms. It is also interesting to observe that mud-bricks were seen underneath the burnt brick structure in one of the trenches. Mandoli appears to have been a prosperous town during this period.

Excavation brought to light a good number of antiquities. Notable among them include the artistically executed voluptuous female figurines copper coins belonging to Vasudeva II, and a rim portion of a vase inscribed in Kushana Brahmi characters. Besides terracotta human and animal figurines, other antiquities found include beads of semi-precious stones, shell objects, terracotta plumb-bob, dabbers, copper rings, iron objects like arrow-head, sickle, spear, etc.

The ceramics include carinated *bandis*, spouted vessels, spouts and miniature vessels.

Period V

The mound was finally occupied by the Guptas as evidenced by the typical Red Polished Ware and other artifacts of contemporary affiliations. Noteworthy find

is a well-baked terracotta sealing with a few lines in Gupta Brahmi characters decorated with a conch at the top. Ceramics include red slipped moulded spouts, incurved bowls with flaring sides, etc.

Importance of the Site

Mandoli is an important protohistoric site in Delhi area which has yielded vestiges of both Painted Grey Ware (PGW) and Late Harappan cultures. Some of the important PGW sites and Late Harappan sites in and around Delhi are indicated in maps.

Occurrence of PGW from the stratified layers in Delhi for the first time is noteworthy. This evidence shows that the people of ancient Delhi were in contact with neighbouring settlements like Hastinapur, Sonepat, Panipat, Indrapat, Tilpat, Mathura, etc. On the basis of similarities of the ceramics of this period with other sites, period II of Mandoli can be assigned to a time bracket of 1100 and 600 BC.

Similarly, the discovery of Late Harappan pottery from the stratified layers here again, for the first time, is also significant. From a study of the distribution pattern of Late Harappan sites it is clear that there was a large-scale migration of these people from the west towards east resulting in a considerable increase in the number of sites in Haryana and Western UP. There are about 120 sites in UP alone spread over Saharanpur, Muzaffarnagar, Meerut and Bulandshehr districts on the river Yamuna and its tributaries. Hence it can be safely assumed that Mandoli might be one of the settlements that came up during the process of migration from the west. Though there is a large scale expansion of Late Harappan settlements in Ganga-Yamuna *Doab*, it may be noticed that most of the Harappan cultural traits disappeared in this phase. The uniformity in the Harappan culture has been diversified in the later stage giving place to a few regional traits. Hence there is a gradual transformation which may be noticed in the settlement pattern and pot-forms during the Late Harappan culture. This aspect can be very well noticed if we study some of the sites like Kaseri, Ambkheri, Alamgirpur, Hulas, Atranjikhera, Bahadrabad, etc. and Mandoli should not be taken in isolation, but as one of the centres established during the migratory process.

The date of Late Harappan period at Mandoli may tentatively be fixed somewhere between 1500 to 1200 BC based on the pottery types of similar period of Late Harappan sites around Delhi and elsewhere.

Excavations at Bhorgarh

B.S.R. Babu

Bhorgarh (Lat 28°5' N and Long 77°5' E) is located at a distance of 30 km. from Delhi railway station towards north of Delhi. The mound is situated 500 m. west of Bhorgarh village and 2 km. north-west of Narela railway station. Bhorgarh is well connected with Delhi by road also.

Originally, the mound was spread over several acres of land but villagers converted almost all the mound into an agriculture land after levelling the area, thus leaving a very small portion of mound intact. The eastern side of the mound houses a modern graveyard. Presently the mound is surrounded by cultivated field. The mound which remains intact measures 130 m. from east to west and 100 m. from north to south. The total occupational deposit of the mound is about 180 cm. Once upon a time, the river Yamuna used to flow near this mound but now it has changed its course and shifted about 10 km. towards south. Traces of the ancient mound may also be seen on the eastern side of the village behind the Government School near the bus stop which proves that part of the village is settled on the ancient site itself.

The Department of Archaeology, Government of Delhi, under the direction of Dr B.S.R. Babu had taken up excavation at this ancient site for two successive seasons during the years 1992–3 and 1993–4. Excavations yielded a four-fold cultural sequence from the Late Harappan period upto medieval time, covering a span of about 2500 years. The following cultural periods have been identified at Bhorgarh.

Period I:	Late Harappan (Second millennium BC)
Period II:	Painted Grey Ware Culture (First millennium BC)
Period III:	Kushan (Second and Third centuries AD)
Period IV:	Medieval (Sixteenth and Seventeenth Centuries AD)

Excerpted from *Puratattva*, No. 25 (1994–5), pp. 88–90.

Period I

Lowest level at Bhorgarh yielded Late Harappan material particularly the thick red ware pots. Though the habitational area of this period couldn't be traced, the discovery of graves of this period suggests that the habitational area must have been well within the periphery of the mound which might have been damaged by the cultivators or it might be still buried. Two graves were exposed. Grave pits were dug out in the alluvium of river Yamuna and later filled by the same soil and as such, while exposing the graves it became difficult to identify the pit-line.

Grave No. 1: It is an extended burial. The body was buried in almost north-south orientation. Three pots were placed behind the head as burial goods. Out of them one is a small bowl while other two are small globular vases of two different sizes. The skeleton has a long stretcher with calculated length of 176 cm. Both hands were folded from elbow and seem to have been placed on shoulders. The epithysis of the long bones are damaged. Bones of the leg portion (tarsel, metatarsel, phalanges) remained inside the section.

Grave No. 2: This is also an extended burial with almost north-south orientation and almost parallel to grave No. 1. Interestingly, this grave does not contain any burial goods. Left hand of this skeleton was kept straight parallel to the vertebral column. The skeleton was in very fragile condition.

Period II

Painted Grey Ware culture succeeded the Late Harappan at Bhorgarh. It has a rich deposit, measuring 45 cm. on average. Occurrence of PGW pottery in abundance at this site proves that this culture dominated Bhorgarh settlement once upon a time. The post-holes identified in one of the trenches suggest that people used to live in circular huts supported by wooden posts. In another trench, a hearth made of lump of clay was exposed.

As already pointed out, a huge quantity of PGW pottery was unearthed from the excavation at Bhorgarh. Important shapes are straight-sided bowls with flat base, deep bowls with sagger base and a miniature *hāndī*. Basin and vases of associated red ware fabric have also been noticed. PGW sherds were painted with black pigment either on inner or outer surface and sometimes on both sides. All designs were painted with free hand.

Circles, concentric circles, semicircles, flowers with three or nine petals, dotted designs, dots inside two parallel lines, strokes, wavy lines, intersecting loops, balloon design, hook design are only some of the common designs that decorated the earthenware. Most of the designs are similar to those designs found on the pottery of this period from Hastinapur, Ahichchatra, Attranijikheda.

Beads made of carnelian, clay beads of *ghata*-shape, terracotta animal figurines, hop scotches and fragments of iron implements are some of the other important antiquities of this period.

Period III

This site was reinhabited during the Kushan period. Structural activity has been noticed in two phases. The first one used mud bricks. In one of the trenches deeply excavated, it clearly shows the presence of mud bricks and two occupational layers as evidenced by mud floors. The second phase of activity is witnessed by burnt brick structures.

STR-1: This seems to be part of a house complex. Western part of the structure was destroyed and levelled by the farmers for cultivation purpose. There are seven courses of bricks.

STR-2: Three courses of bricks of the same size as used in STR 1 forming into a wall seems to be part of a house complex. Against this wall, a mud floor has been noticed. The floor was rammed with small pot sherds, stone nodules, etc. However, at a later stage, huge pits were dug out for dumping garbage.

In one of the trenches, an oven of this period was beautifully exposed.

Terracotta animal figures, one female, probably of Mother-Goddess(?), copper coins, terracotta beads, iron implements and two terracotta sealings with the legend 'SU PA KA SA' in Brahmi letters are some of the important antiquities discovered at the site.

A variety of pottery has been collected from the deposits of this period. The main shapes include typical incurved bowls, dishes, basins, sprinklers, *handis*, lids (with knobs and ink-pot type), lamps and different sizes of vases. Pots were decorated sometime with black pigment and rarely with white pigment. Geometrical designs were made near the neck portion. A few stamped designs were also noticed of which Sun motif is quite important.

Period IV

The main concentration of the medieval period is noticed on the eastern side of the mound. Unfortunately, the entire portion was destroyed by the farmers. Hence considerable evidence of that period could not be gathered. A small wall made of *lakhori* bricks in four courses has been exposed. Many lakhori brick structures erected during this period may be noticed within 2 km area which includes a huge tank constructured at Narela dating back to the Mughal period.

Sherds of porcelain and celadon ware have been collected along with Hukka chelam made of red ware from this level at Bhorgarh.

Bhorgarh and Mandoli

B.R. Mani

THE ANCIENT MOUNDS AT BHORGARH (LAT. 28°49′ 45″ N, LONG. 77°5′ 15″ E) IN north Delhi near Narela were discovered about twenty-five years back and explored thoroughly by the teams of Archaeological Survey of India in 1973–5 and 1991–2. Among the three mounds, one is fully inhabited while another has been levelled and further dug for taking soil for brick manufacture and the third is gradually being sliced from all the sides for making more space for agricultural fields all around and partly occupied by a modern graveyard. This mound measures about 100 m in north-south and 57 m in east-west direction. During the first exploration it was 130 m in east-west orientation and thus at present more than half of the mound has been levelled to the ground.

During the first exploratory survey, two brick structures of Kushan period having 7–8 courses of bricks measuring 18 × 24 × 7 cm were located in the eastern side of the mound. Similar brick structure with 8 courses of burnt bricks was again encountered in the western section of the mound during the explorations conducted in September 1991 under the direction of the author and C.L. Suri of Archaeological Survey of India when the joint exploration team of Delhi Circle and Excavation Branch-II of the Archaeological Survey of India visited the site. Pieces of roof tiles were also collected. A Kushan copper coin and red ware of Kushan period, occasionally with stamped motifs like *Srivatsa* confirmed the Kushan occupation of the site in the beginning of the Christian era. During the same exploratory survey, Painted Grey Ware, black slipped ware, black-and-red ware, Northern Black Polished Ware sherds in fairly large quantity suggested the early occupation of the site at least in the second half of the second millennium BC or in the beginning of the first millennium BC. Similarly, the broken sandstone sculptural fragment and glazed ware sherds collected from the site suggested the occupation of the site in the early and late medieval periods.

Excerpted from B.R. Mani, *Delhi: Threshold of the Orient (Studies in Archaeological Investigations)*, Aryan Books International, New Delhi, 1977, pp. 17–21, 23–5.

Similar results were already obtained during the first exploratory survey when Painted Grey Ware comprising bowls with incurved sides having flat or rounded base, dishes, basins and miniature vase were found. Their designs included slashes, dots, wavy lines, intersecting lines and thick bands on both the inner and outer surfaces of bowls and dishes. A dull red ware was also found associated in the ceramic assemblage of the early period. Amongst antiquities collected from the site, terracotta animal figurines, beads, balls and hop-scotches besides a fragmentary discular ear ornament are important. Amongst three circular copper coins found during first exploratory survey, two of them were uninscribed cast coins, one of which contained a tree in railing motif on obverse and bull on reverse, while a tree was identified on obverse of another of which the reverse symbol could not be identified. The third one was badly mutilated.

The Department of Archaeology, Government of Delhi excavated the site for two successive seasons during 1992–93 and 1993–94 under the direction of B.S.R. Babu who has established that total occupational deposit of the mound is about 1.80 m which was considered to be more during earlier explorations. However, a careful examination of the exposed sections at the site still shows that the complete habitational deposit at the site is more than 4 m in thickness. The MSL of the surrounding ground level is about 214 m and the highest point of the mound is 219.5. Excavations at Bhorgarh have yielded a four-fold cultural sequence from Late Harappan to medieval period covering a span of about 2,500 years as proposed by the excavator—

Period I:	Late Harappan (second millennium BC)
Period II:	Painted Grey Ware Culture (first millennium BC)
Period III:	Kushan (second and third centuries AD)
Period IV:	Medieval (sixteenth and seventeenth centuries AD).

There may be difference of opinion in accepting the cultural sequence, particularly the last two cultural periods as the site has yielded during earlier explorations evidence of Northern Black Polished Ware, black slipped ware and associated red ware along with uninscribed copper cast coins which must have predated Period III. The excavator B.S.R. Babu himself has mentioned two phases of structural activities of Period III—the first one showing the presence of mud bricks and two occupational layers as evidenced by mud floor and the second one showing burnt brick structures—although he has not distinctly described associated pottery and artefacts from both the phases. The thickness of deposit of post-PGW period and the availability of material belonging to the pre-Kushan period suggest that the site was definitely inhabited during Maurya-Sunga period. The first phase of the so-called Period III may represent the same phase or period. Similarly, the site has yielded evidence of sculptural fragments and such red ware and glazed potsherds which suggest that the site was occupied during early medieval times.

The importance of the site is due to the discovery of two parallel extended burials of Late Harappan period in the lowest levels at the site which has been classified in Period I by the excavator. The burials in almost north-south orientation were dug out in the alluvium of river Yamuna and later filled by the same soil. In the first burial three pots—a small bowl and two small globular vases—were placed behind the head as burial goods. Calculated length of the skeleton was 1.76 m whose hands were folded from elbow and placed on shoulder. No pot was found in the second burial in which the left hand of the skeleton was kept straight and parallel to the vertebral column. Habitational remains of the Late Harappan period were not found and it has been suggested by the excavator that it may be traced in the vicinity.

Average thickness of the succeeding period represented by Painted Grey Ware was found to be 45 cm. Post-holes were noticed suggesting wattle-and-daub structures, circular on plan. A hearth made of lump of clay was also exposed. Painted Grey Ware shapes include straight-sided bowls with flat base, deep bowls with sagger base and miniature *handi* decorated with painted designs with black pigment forming circles, concentric circles, semicircles, flowers with three or nine petals, dotted designs, dots inside two parallel lines, strokes, wavy lines, intersecting loops, balloon design, hook design etc. which are common designs of the pottery of the class. Carnelian and terracotta beads of *ghata*-shape, terracotta animal figurines, hopscotches and fragments of iron implements were also found from the levels of Period II.

In the levels of Period III, the first phase contained mud brick structures. From the levels of second phase two structures of burnt bricks belonging to two house complexes were noticed. Mud floors and an oven were also exposed. Among important antiquities mention may be made of two terracotta sealings with the legend *Supakasa* in *Brāhmī* characters, terracotta beads and iron implements. Kushan incurved bowls, dishes, basins, sprinklers, *handis*, lids (with knobs and inkpot type), lamps and vases in red ware formed the ceramic assemblage. Painted and stamped pottery was also found.

From the eastern side of the mound, remains of Period IV were found in much disturbed state. Part of a *lakhauri* brick wall with four courses was noticed. Sherds of porcelain and celadon ware along with *hukka-chilam* of red ware were found from the levels of Period IV suggesting their association with Mughal period.

Mandoli

Another ancient mound located south-west of village Mandoli and south of Saboli has provided evidence of Late Harappan and Painted Grey Ware (PGW) cultures. The site is located with (lat. 28° 42' 10" N and long. 77° 18' 30" E) at a distance of about 18 km from Delhi Railway Station towards east and towards south of Loni, another ancient mound.

Excavations at Mandoli were carried out for two consecutive seasons from 1987–8 to 1988–9 by the Department of Archaeology, Government of Delhi under B.S.R. Babu with the objective to investigate the nature and extent of Late Harappan element and to find out the horizon of the Painted Grey Ware in Delhi which was not very clear about ten years back and of course with the objective of establishing the cultural sequence of the site. According to the excavator, B.S.R. Babu, the cultural sequence of the site represents following cultural periods—

Period I:	Late Harappan
Period II:	Painted Grey Ware
Period III:	Distinguished by a black slipped ware
Period IV:	Sunga-Kushana, and
Period V:	Gupta times.

The earliest levels at Mandoli have yielded red ware sherds of jars with splayed out or beaded rim, vase with disc base etc. showing wear due to waterlogging, supported by the fact that immediately overlying these levels is a thick deposit of 30 to 35 cm water-borne silt and sand. Pottery made out of well-levigated clay and of fine and sturdy fabric is occasionally coated with dull red slip and has been identified by the excavator as Late Harappan pottery. A biconical bead and a circular terracotta cake have also been found from the earliest levels. Yellow coloured rammed earth floor with post-holes in circular and arc fashions and a hearth suggest that the earliest settlers lived in houses made of wattle-and-daub.

In our opinion, perhaps it is too early to call the earliest levels at Bhorgarh and Mandoli as Late Harappan for want of more material. More research and data may solve this problem in future. At present we may assign these levels to the pre-PGW period only. The excavator has also pointed out that during the migratory process of the Late Harappans, most of the Harappan cultural traits disappeared and the earliest levels of Mandoli represent the same which can be dated between 1500 and 1200 BC.

After a little gap, the site was occupied by the people using fine Painted Grey Ware. Bowls and dishes with straight or convex sides and having designs like dots, dashes, loops, concentric circles, wavy lines, strokes etc. have been found painted usually with black pigment. Fine thin grey ware and red ware are associated pottery. Rammed mud floor with post-holes gives an idea of settlement pattern. Associated antiquities comprise terracotta animal figurines, *ghata*-shaped beads, terracotta discs decorated with designs at edges, pyramid-

shaped hollow ivory piece, ivory button, leads of agate and etched carnelian, copper, antimony rod and nail parer besides pieces of iron slags. A time bracket of *c.* 1100 to 600 BC has been assigned to the assemblage.

Period III is represented by black slipped ware associated with plain red ware and black-and-red ware bowls, vases, jars, dishes, and basins. Settlement pattern followed the previous pattern. Associated antiquities include terracotta human and animal figurines, beads, discs, shell bangles and earstuds.

Period IV has been divided into two phases—

Phase A—Sunga

Phase B—Kushan.

Phase A is represented by red ware of medium to coarse fabric, featureless rim with stamped and incised designs. Terracotta animal figurines, gamesman, shell objects, earstuds and fishing-net weights were found from this level besides evidence of mud lumps for making structures. In the succeeding Phase B, structures of burnt bricks measuring 33 × 22 × 6 and 31 × 22 × 5 and 32 × 21 × 6 cm were found. Two successive floors of mud and lime were noticed associated with an oven in one of the rooms. Terracotta female figurines, copper coins belonging to Vasudeva II and rim portion of a vase inscribed in Kushan *Brāhmī* characters are important finds of the levels of this phase. Other objects include terracotta human and animal figurines, beads of semi-precious stones, shell objects, terracotta plumb-bob, dabbers, copper rings, iron objects like arrow-head, sickle and spear. Red ware carinated *handis*, spouted vessels, spouts and miniature vessels were also found.

The last Period, i.e. Period IV at the site is represented by typical red polished ware of Gupta period. A terracotta sealing with a few lines in Gupta *Brāhmī* characters decorated with a conch at the top is a notable find. Ceramics have also sometimes red slip on moulded spouts and incurved bowls with flaring sides.