Chapter 2

The Site of Balathal and the Excavations

2.1 The Site and its Location

The site of Balathal (24° 43' N: 73° 59' E) lies in the Vallabhnagar Tehsil of the Udaipur District of Rajasthan (Fig. 7), about 15 km from Dabok town on the Udaipur - Chittaurgarh highway and seven kilometres from the Tehsil headquarters of Vallabhnagar. The site is connected from Udaipur by a metalled road except for the last two-kilometre stretch. The road leads directly to the site.

2.1.1 The Mound

The mound itself lies where the road forks for Balathal and its sister settlement Vadliya. The centre of the mound was intact prior to the excavations. This portion of the mound is panchayat land. The rest of the mound has been brought under cultivation by the local villagers, on the eastern, western and northern sides (Fig. 8).

The entire mound covers an area of two hectares and potsherds are seen scattered for a further 100 - 200 m on the northern, western and eastern sides. A sizeable portion of the southern side of the mound has also been levelled for cultivation by one of the villagers, Ram Singh. This
Fig. 8. Contour plan of the habitation mound at Balathal and a season-wise demarcation of trenches.
is a fairly recent activity. A cactus hedge fences in the intact portion of the mound.

The well-preserved central portion of the mound and stands about 7.5 m from the present ground surface level.

A large number of bushes and clumps of Babul and Ker originally covered the site. They were cleared up as the excavation progressed. A large Ker tree stands on the western edge of the cactus hedge.

The Vallabhnagar-Balathal road skirts the southern edge of the mound before carrying on to the village square at Balathal.

The village of Balathal consists of four settlements. The largest one is known as Balathal and it stands on the western side of the mound. Mainly Rajputs, Jats and Telis inhabit it. The second is called Vadliya and lies about 500 m to the southeast of the mound. Mainly the Dangis and Meghwals populate it. The third is located west-northwest of the mound and is known as Kabra Talai. It is populated predominantly by the Gadris, who are semi-sedentary sheep/goat pastoralists. The fourth settlement is located to the northwest of the mound some distance from the village of Balathal. It is called Chhipi Kheda. It is populated entirely by the Gametis, people who were once tribal hunter-gatherers and have since settled into an agrarian landscape.
2.1.2 Water Sources

There is no natural perennial water source in the immediate vicinity of the site. The villagers rely on sub-terranean wells dug deep into the surrounding bedrock. These are used for irrigation and domestic consumption. Two domestic hand pumps have been installed by the government, one each in Balathal and Vadliya. Even these are not foolproof and have failed in excessively dry summers.

To the south of the site lies a large shallow depression, almost a kilometre long and wide. This has been bunded along its eastern periphery, forming a shallow seasonal lake holding monsoon runoff. The waters are released after the monsoon and the soil exposed thus is used for cultivation. This depression may have originally been deeper and may have held water for greater lengths of time. It is likely that shallow wells were dug by the inhabitants of the site for water, into the 'lake' bed, so as to facilitate water retention. The site extends all the way to the edge of the depression and there is no evidence pointing to the contrary whilst the site was occupied. This is the most plausible source of water for the site as no other alternatives are visible.

2.1.3 Subsistence

Present day resources point mainly to an agro-pastoral lifestyle. The people of Balathal and its satellite settlements and surrounding villages are mainly farmers and cattle keepers. The Dangis, Rajputs and Jats are the main landowners. The Meghwals and Gametis provide farm labour and also often cultivate small parcels of land. There is almost no form of
industrial production whatsoever with the exception of a sawmill in the
neighbouring village of Puriya Khedi. The other non-agrarian elements in
the village are carpenters (Sutars), oil pressers (Telis) and a skinner
(Chamar). The Gadris and Gurjars (cattle pastoralists) make up the
pastoral element. They too practise some degree of agriculture. Slowly
the Gadris are shifting from sheep breeding to cultivation.

This area falls within the semi-arid zone. The staple crop in the area
today is maize. This is a monsoon crop and is dependent on the vagaries of
nature. Maize is a modern option and until recently the principal crop was
barley. This has almost disappeared today. The maize is of two varieties,
*viz.* yellow and white. Other major crops include wheat, gram, peas,
mustard, cotton and sugarcane. Almost all the villagers practise animal
husbandry of one sort or the other. The Badris were originally semi-
nomadic pastoralists and depended heavily, as even today, for their
livelihood on the large herds of sheep. Today these people are mainly
semi-sedentary in nature and have permanent houses. Most of their
foraging is in the vicinity of the village and it is only during very dry
summers that they leave the immediate locality in search of fodder and
grazing for their animals.

Amongst the natural resources available for exploitation are trees like
the 'ber', Ker and 'neem'. Some locals also exploit small game birds like
quails and partridges, and hunt hare, jackal, fox and porcupine. Wolves
and hyenas, though present, are rarely seen. Most of the fields have fruit
bearing trees planted along their borders. The most common ones are Ber
and Mango.
2.2 Archaeological History of Balathal

Balathal, along with several other Chalcolithic culture sites in Udaipur, Chittaurgarh and Bhilwara districts, was first discovered by V.N. Misra (1967) during his survey of the Berach Basin in 1963-64. He noted the size and height of the mound and also reported sherds of pottery similar to those found by Sankalia et al. (1969) from the excavations at Ahar. Balathal was thus reported as an Ahar Culture site of the Chalcolithic period and was comparatively dated to the second millennium B.C.

Balathal was subsequently visited by R. Hooja (1988) in the early years of the 1980s in the course of intensive surveys of the Berach and Banas basins, conducted as part of research towards her doctoral thesis. She, too, noted the dimensions of the site and the presence of Ahar culture ceramics.

Balathal was visited again by a joint team from the Deccan College, Pune, and the Institute of Rajasthan Studies (IRS), Udaipur, during their explorations in this area in 1992-93. The purpose of this exploration was to locate and identify a site of the Ahar culture for excavation.

2.3 Reasons for the Excavation of the Site

After careful deliberations the site of Balathal was chosen for excavations by the joint team of the Deccan College and the IRS. The reasons for this were twofold.
a) Misra had noticed similarities between the ceramics at Balathal and those of Ahar and Gilund and the ceramics of the Harappans. The nearest known Harappan sites were in northern Rajasthan or in Gujarat. Thus there was a need to examine the possible contacts between the Harappans and the Aharians to understand the broader picture in Rajasthan during the Chalcolithic period.

b) The Institute of Rajasthan Studies, Udaipur, had recently started a department of Archaeology with a view to initiating archaeological activity in Rajasthan. The Institute sought the help of the Deccan College in this matter and it was agreed that the best way to develop archaeology was to conduct a joint excavation.

The site of Balathal was chosen due to the more or less intact nature of the mound and its relative closeness to the city of Udaipur. A joint team under the direction of Prof. V.N. Misra (DCPRI, Pune), with Dr. L. Pandey as joint director (IRS, Udaipur), Dr. V. S. Shinde, Field Director, and Drs. R.K. Mohanty (DCPRI), and J.S. Kharakwal (IRS) along with staff and students of the DCPRI, Pune began excavation at Balathal in January 1994.

2.4 Excavations at Balathal

The site was subjected to horizontal excavations for seven seasons (Fig. 8). A summary of the excavations is given below.
2.4.1 The First Season - 1993-94

The first season of excavations began in January 1994 and along with those mentioned above, doctoral research students of Deccan College, Ms R. Nanji, Mr. K. Dalal, Mr. S. Kadgaonkar and Mr. A. Mishra participated.

Extensive surface surveys led to the following preliminary conclusions.

a. The pioneering settlers occupied the site during the Chalcolithic period.

b. It was subsequently inhabited by Iron Age dwellers in the Early Historic Period, approximately datable from 300 BC to 300 AD.

c. The Early Medieval Period also showed evidence of occupation although at a limited level. This was dated between the 11th century AD and the 13th century A.D.

More in-depth work later confirmed conclusions a, and b: however, it was found that there was no regular occupation during the Medieval period.

The entire mound was systematically surveyed and a contour map was made. The entire site was then divided into trenches. These trenches were formed by gridding the entire site at an interval of five meters, thus forming 5 X 5 m squares each of which formed a trench (Fig. 8). For excavation each trench was further divided into four quadrants of 2.5 x 2.5 m. The first trench selected for excavation was labelled Tr. A (Fig. 8), the trench to its north was labelled Tr. B and so on. The trenches to the east of alphabetically numbered trenches were added numbers. Therefore the trench to the east of Tr. A was Tr. A1 followed by Tr. A2 and so on. The trenches to the west of those named A, B, C etc, mirrored
the labelling system with an X in-between the alphabet and the number. For example the trench to the west of Tr. A was labelled Tr. AX1, the trench to its west Tr. AX2 and so on. The trenches to the south followed a similar system. The trench to the south of Tr. A was labelled Tr. OA and the one to its south Tr. OB etc. The trenches carried the same label with an added number as in the case of the others as they moved away to the east. For example, the trench to the east of Tr. OA was labelled Tr. OA1 the one to its east Tr. OA2, etc. The trenches to the south of Tr. AX1 mirrored the same system only in place of an X they bore a Y. For example, the trench to the south of trench AX1 was labelled Tr. AY1, the one to its south Tr. BY1 and so on. The numbers increased as the trenches moved westwards.

Excavations commenced with the laying of two trial trenches, F4 and HX2, which were later joined by a third, OD, for purposes of vertical excavation. Trenches A, A1, B, B1, B2, C, C1, C2, D, and D1 were taken up for horizontal excavation. (Fig. 8)

Tr. F4 was the index trench taken on the highest point of the mound (Fig. 8). The Early Historic and the Chalcolithic period were well represented in this trench. The Early Historic is visible in layers 1-5 and the Chalcolithic is seen in layers 14 to 22. Layers 23 and 24 were virgin soil and murrum/bedrock respectively. Layers 6 and 13 seemed sterile in nature. Layer 7 consisted of a huge deposit of vitrified cow dung. Layers 8 - 11 were visible only in one small corner of the trench. The entire northern face of the trench from layers 2 to 12 was made up of a wall of dressed and semi-dressed stones. This wall has an extant height of 3.5 m. Between 25 and 30 courses of stones are visible. At the base of this wall
was noticed, what appeared to be, a large foundation trench cutting through layers 12 to 15. This wall appeared to be the inner face of some kind of fortified wall/structure.

Trench HX2 was taken on the western slope of the mound (Fig. 8) so as to ascertain the nature and extent of the deposit at the site. Layers 1 to 4 were disturbed and a lot of intermingling of layers was seen. Layer 4 of F4 seemed to be missing here. The layers are loose and had mainly Early Historic pottery and antiquities mixed with Chalcolithic ceramics. Layer 5 of F4 too seemed absent. In HX2 it was brownish and 20-30 cm thick. Layer 6 was disturbed by rodent and insect activities. Layer 7 showed signs of burning and a large presence of charcoal. Layer 8 is a sealing layer for a number of large pits. Layers 7, 8 and 9 contain a high frequency of Chalcolithic ceramics. Layers 9 to 14 could be securely called Chalcolithic as almost no Early Historic material whatsoever was found in them.

Trench OD, on the southern slope of the mound against the section exposed during the illegal levelling operations of the locals, was the last trial trench taken (Fig. 8). Here we hoped to ascertain the nature and extent of the deposit rather quickly as a local farmer had already removed about one metre of the historical deposit from the surface of the mound. From a depth of 0.9 m from the original surface were encountered Chalcolithic ceramics only and at 1.7 m a well-made stone structure extending north into the unexcavated portion of the mound was found. Its construction method seems to be very similar to the large stone fortification wall in the northern section of F4. It was as yet
difficult to ascertain without doubt the cultural affiliation of this structure.

The main excavation area chosen for horizontal excavation comprised trenches A, A1, B, B1, B2, C, C1, C2, D and D1 on the southern slope of the mound (Fig. 8). Trenches A and A1 were soon abandoned as they were on a slope and the material highly disturbed. Some stone alignments, probably part of two walls, were noticed. They had, between them, a well-made floor and the remains of two complete pots. Evidences of burning led us to surmise that the structure had been destroyed by fire.

Structure 1 was exposed in trenches B, B1, C and C1 (Fig. 9). Its eastern and western walls have survived. The northern and southern walls appear to have been completely destroyed. Only the basal courses of the foundation have survived. The structure is roughly rectangular on plan. The walls are made of flattish stones (av. 45 x 25 cm). Inside were found a number of full pots, the top of a rotary quern and a saddle quern with three surfaces used, with a muller by its side. A tortoise shaped terracotta vessel was also found in this structure. It is hollow, with its opening, a round aperture, on its upper surface. Along the outer side of the western wall was found a small circular furnace (25 cm. in diameter) with 3.5 cm thick walls made of clay coils. It rests on layer 2 and is sealed by layer 1. This furnace and Structure 1 belong to the Early Historic period.

A number of furnaces were unearthed at the site. Two furnace bases were found in the southern half of Tr. D (Fig. 10). Both are circular on plan and only the bases survive. On these bases a couple of clay coils
burnt brick red have survived. These are part of the clay coil walls of the furnaces. Some slag is seen around the bases. The larger furnace is designated Furnace 1 and to the south of this, one metre away, lies Furnace 2 of which also only the base survives. Layer 4, in which these furnaces exist, consists almost entirely of a fine ash, most probably the
result of metal working activities in these furnaces. This layer also belongs to the Early Historic period on the basis of ceramic continuity.

During the course of the excavations a number of iron objects were recovered in this area and outside it. These include spearheads, arrowheads, parts of axes/ picks, knives, adzes (cobbler's knife), hooks and sickles.

Furnace 4 was found in the NE portion of Tr. B. It lies alongside the base of another broken furnace, which has been designated Furnace 3. Furnace 4 appears contemporary to furnaces 1 and 2. It is almost complete and is
well preserved. It is roughly circular on plan and has a circumference of 1.03 m and a diameter of 0.30 m. It projects conically upwards from the base making a cone of burnt clay with two holes at the apex. The top looks more oval than round. One more hole is present on the eastern side. It is vertical and parallel to the walls of the cone. These holes are in all probability air ducts. An area of 1 m around this furnace is burnt brick red in colour. Much ash is also present in the vicinity. Close to furnaces 3 and 4 were found, what seemed to be, the remains of earlier furnaces. The entire area appears to have been a centre of intense industrial activity. Furnace 5 was found 10 cm to the NE of Furnace 4. It was quite damaged and only its base and a small portion of its clay walls have survived. The furnace had a roughly circular base and a minimum diameter of 32 cm. It appears pyramidal and has survived to a height of 15 cm. Functionally, it seems identical to furnace 4. The absence of large amounts of slag and such waste products seems to point towards a secondary working of iron, probably brought to the site in the form of ingots and/or bars for reworking, purifying and/or fabrication and manufacture of iron implements.

Important antiquities include the aforementioned iron objects, beads of terra cotta, amethyst, carnelian, glass, agate, and discs, spindle whorls, sticks, cylindrical objects, and figurines of terracotta. The most numerous type of antiquity is the glass bangle fragment, predominantly of black colour.

Two cast copper coins were recovered from Tr. Cl (layer 3) - one round and one square. The round coin bears, on the obverse, a 'three arched hill and moon' sign, and on its reverse, an elephant facing to left. The square
coin was badly corroded and bore a faint device that seemed to look like an Ujjain symbol on one face. Also seen are a few copper objects including a finger ring and wire fragments.

Stone objects are represented by mullers, hammerstones, sling balls, bird shot, saddle querns and the aforementioned rotary quern.

Interesting surface finds include three copper coins: i. Ghiyasuddin Khalji dated 1482/3AD, ii. Nusrat Shah 1395/99 AD, iii. Cast copper coin (round), similar to the one found in the excavation - elephant with rider facing left on the obverse, three arched hill with moon symbol on the reverse- dated to the 4th to 2nd Century B.C.

It was due to the presence of the first two coins that an Early Medieval occupation was conjectured. This was subsequently proved to be false as no data pertaining to this period was found in the excavation.

Ring well -In the course of tracing the plan of St. 4 a number of sondages were made. In one of these, falling on the baulk of Tr. F6/G6, was found a ring well (Fig. 11, Plate 1) made of seven terracotta rings, each roughly 68 cm in dia. and 20 cm high. The lower six rings were placed vertically with their rims towards the top. The last or topmost one is placed rim-to-rim with the next. The total height of the ring well is 1.42 m. The rings were made by the coiling technique and their thickness varies from 3 to 3.5 cm. This well functioned basically as a soak pit and can be dated to the Early Historic from similar examples seen from Ahar (Sankalia et al. 1969) and Nevasa (Sankalia et al. 1960) and many other sites in north India (B.M. Pande 1966).
Tr. HX2 yielded a small cloth fragment found in a deep pit located in the SW quadrant and sealed by layer 8 (for a detailed description see Chapter 3.3.10).

2.4.2 The Second Season - 1994-95

The second season of excavations commenced from mid-November 1994 and continued till mid-March 1995

Structure 4 was further exposed. Its southwestern corner yielded a rectangular bastion, in trenches A, AX1, AY1.
It is imperative to be noted that at this time the excavators were under the mistaken view that Structure 4 (the fortified Structure) was Early Historic in nature.

To further trace and better understand this structure excavations were commenced in Tr. D2. Layers 1 to 4 were exposed. No structural features were noticed here. Excavations were continued in Tr. B, B1 and B2 so as to expose the outer edge of the southern wall of St. 4. These excavations were limited to the six southern quadrants of the above mentioned trenches. Interesting finds included a number of semi-precious stone beads, one each of lapis lazuli (unfinished, broken), jasper (globular with three engraved intersecting circles), and carnelian (globular with etched white dots).

Tr. OC was taken up for excavation with a view to better understanding and tracing the structures found in the excavation of Tr. OD in the previous season. The first three layers, 1 - 3, yielded Early Historic pottery and antiquities, notable among them, a female figurine of terracotta, handmade, bare except for a girdle. Its left arm and breast were missing.

The southern part of the mound, destroyed by a local farmer, was chosen for excavation primarily as the large Early Historic deposit was absent here and one could directly expose the Chalcolithic occupational layers in a large area. The other reason was to trace the structure seen proceeding south from Tr. OD.
Excavation commenced in trenches OE, OE1, DY1, DY2, EY1, EY2 AND CY1 (Fig. 8). Almost immediately the structural plans of the Chalcolithic period became obvious. These structures were made of mud-brick and brickbat walls built on stone foundations and they seemed to be multi-roomed. Excavation was also continued in the Chalcolithic layers of Tr. F4.

Baulks were removed in the main excavation area (trenches B, B1, B2, C, C1, C2, D, D1, and D2) for exposing the structures without interruptions. In the NW quadrant of Tr. B was found yet another furnace, different from those excavated in the last season. This was designated Furnace 6. This furnace, a large portion of which lies in the western section of Tr. B (NW), is made of stone slabs and bricks. Some of the bricks are placed vertically and are supported by others placed horizontally. The northern portion of the furnace is made up of vertical stone slabs. The furnace flares at the bottom where the inner diameter is 44 cm. The inner diameter at the centre is 39 cm. Its extant height is 53 cm. Inside it were found layers of ash, charcoal fragments and burnt clay lumps.

Excavations were extended into trenches D1 and D2 to find out the working levels of Structure 4. In Tr. D2, NE, layer 5, was noticed a circular silo (diameter- 1.49 m), 13 cm deep and lined with decomposed grass. This silo was sealed by layer 3.

Excavation in the southern area (Trenches OD, OC, OD1, OE, OE1, OF, OG, EY1, EY2, FY1, CY1 & DY1) (Fig. 8) yielded a number of structures of four structural levels. The remains of fireplaces and a large number of potsherds and antiquities of Chalcolithic culture were found.
Excavations were resumed from layer 13 in Tr. HX2 and continued down to layer 21, which was identified as virgin soil.

A number of sondages were taken to ascertain the plan of Structure 4 and the inner faces of the western and northern walls were traced. The eastern wall was exposed to considerable length but it did not seem to run in a straight line as the other three walls and its width was also comparatively less.

2.4.3 The Third Season - 1995-96

The third season of excavation commenced around the end of November 1995 and ended in early March 1996.

New trenches OD2, OC1 and OC2 were taken up for excavation (Fig. 8). Immediately under the surface of OC2, in its eastern half was encountered the western half of a circular stone structure made up of one layer of flat stones. The structure, designated Structure 12, appears to have had a small outer wall made of vertical stone slabs (Fig. 12). Its N-S diameter is 4.4 m. Though the plan of this structure is similar to that of a silo/silo base, the artefacts found in it, namely glass bangle fragments, beads of semi-precious stones, an iron nail and an iron arrowhead point towards this structure being a dwelling place. Also, the size of the structure itself does not permit us to assume its nature being other than that of a dwelling. Seventy centimetres to the west of Structure 12 were found a wall made of burnt bricks and brickbats. This wall runs 5 m N-S and lies almost in the centre of Tr. OC2. The surviving bricks measure 41 X 17.5 X 8 cm. They are laid in a header and stretcher
Fig. 12. Structure 12.
fashion. The exact correlation between this wall and Structure 12 is not understood.

Layers 1 and 2 were excavated in trenches OC1, OC2 and OD2, and a large number of iron artefacts were uncovered. A very important find, consisting of a terracotta sealing of a bullock-cart and three symbols—the three-arched hill with moon sign, the hollow cross, and the proto-swastika, was made in Tr. OD2 (NW). A small copper coin was found alongside this sealing. It is very difficult to distinguish between layers 1, 2 and 3 in Tr. OD2 as it lies on the slope and the layers have merged into one another.

The, as yet, unexposed eastern portion of Structure 12 running under Tr. OC3 (NW and SW) was exposed. The E-W diameter, now available, is 4.2 m. Along its northern periphery is visible a 40 cm thick stone wall, 15 cm high, made up of vertical stone slabs. A very large number of Early Historic potsherds were noticed.

Trench H4 was taken up for excavation with a view to exposing the outer face of the northern wall of Structure 4 (Fig. 8) and to ascertain the stratigraphic sequence on the northern side of the mound. Layers 1 and 2 had been partially excavated during the laying of the sondages in the previous season. Layers 3 and 4 were excavated. Here, from layer 4 downwards mainly Chalcolithic pottery was found and Early Historic material was rare. An interesting Early Historic artefact recovered from here, is a bone/ivory bangle fragment heavily decorated with an incised design filled with a pink coloured material, portions of which are still intact.
Excavations were continued within the fortified structure (Structure 4) in Tr. D2 and in trenches OC1, OC2 and OD2.

They were also continued in the southern area and in trenches A, B, OA, OB, which were excavated to connect and correlate with each other the central and southern areas of the mound. Trenches OC (NW), OB1 (NW-SW) and CV1 (NW-NE) were opened to trace Structure 10. In the southern area trenches HY2, HY3, HY1 (NW-NE), and OH (NW-NE-SE) were opened to determine the extent of the Chalcolithic habitation. (Fig. 8)

Trench AX1 (NE-SE) was opened with a view to tracing the terracotta drainpipe seen along the western section of Tr. A (Fig. 8). After complete exposure of layer 1 a roughly rectangular stone alignment was noticed. The drain belongs to this alignment/structure. Only the southern and eastern walls of this structure have survived. In the southeastern corner of this structure were placed a number of flat stones suggesting intentional paving, probably that of a bathroom, as the pipe is associated with this feature. The structure is heavily disturbed due to its proximity to the surface. The drain emanates from the southeast corner and runs northeast-southwest. It is composed of pipes 56 cm long and 23 cm wide. They have a ridge at one end and a corresponding groove at the other and fit one into the other. Three such pipes have survived and a part of the channel is seen continuing beyond the eastern wall of the structure, probably into a soak pit. An identical terracotta drainpipe was found in the levels subsequent to the first and roughly 1.5 m. to its south. It emanates from the northeast corner of Tr. AV1 and runs along the trench line in a N-S direction. It is exposed to a length of 1.4 m and it appears
that a large portion of it lies under the deposits of tr. AX1 (SE). This pipe lies in layer 3 and is sealed by layer 2. The exposed southern end of this drain is attached to a large circular pit visible in the section. These pipes have a diameter of 15 cm and an extant length of 65 cm. The deposit associated with this drain seen in the section comprises mainly burnt wattle and daub fragments. It appears that the house was destroyed by a fire and was subsequently rebuilt, once again with a drain.

Excavations were taken up in Tr. A3 (NW) with a view to tracing the N-S extension of Structure 4. Layers 1 and 2 were dug and are identical those found elsewhere in the central area. At the base of layer 2 were found burnt clods of mud, some with reed impressions, suggesting burnt wattle and daub. Also found here were two circular silos and part of what seems to be an earthen storage bin. All three features were located inside what appears to be a burnt dwelling structure. Earlier evidences from layer 3 make the same conclusions on the basis of near identical data. This is further corroborated in Tr. A3 (NW) by the presence of glass bangle fragments a terracotta lamp and a fireplace found in the southeastern corner of the trench. The fireplace is circular on plan with a maximum diameter of 65 cm. It is covered in ash and has, at its centre, a number of cobbles which may have been intentionally placed so as to maintain steady heating.

Excavation in the southern area revealed a number of Chalcolithic structures and related artefactual data. However, excavation in the central area did not prove as fruitful as there is yet no data pertaining to the purpose of Structure 4.
Excavations in trenches HX2 and H4 yielded an absolutely different stratigraphy.

The total thickness of the Early Historic deposit and the extent of occupation at the site now became clear. The Early Historic activities were confined mainly to the central and southern parts of the mound where the maximum deposit is 1.38 m.

2.4.4 The Fourth Season - 1996-97

The main aims of the fourth season of excavation were-
a) To trace, if possible, Structure 10 completely.
b) To expose the area between the southern complex and the central area.
c) To study the social organisation of the Chalcolithic community at Balathal.

Trenches A (NW-SW), AX1 (NE-SE), A1, OA1, OB1 and Ob2 (SW-SE) were taken up with a view to widening the corridor between the southern and central areas (Fig. 8). Excavation was also continued in Tr. OB (NW-SW) and AV1 (SE-SW). All the quadrants of A1, OA1 and OB1 were opened. Layers 1 and 2 were exposed with no major new observations. In trenches A and A1, at the base of layer 2, were found burnt clods of soil with reed impressions which almost certainly are remnants of burnt houses.

Structure 19, of the Early Historic, was uncovered at the base of layer 2 in Tr. A1. It extends into the eastern half of Tr. AX1. The eastern and
southern peripheries are exposed. The eastern periphery measures 5.15 m and is aligned due N-S. The southern periphery is exposed to a length of 5 m. The average width of the periphery is 42 cm. Two pits are located adjacent to this structure and from their construction technique, appear to have been silos. In its centre were found a number of pots of various sizes, broken, in situ, due to the collapsed debris of the walls and roof of the burnt structure. The most important find from Structure 19 however, is that of a head scratcher (see reference to head scratcher in chapter 4) identical to one found at Ujjain (IAR 56-57:20-28). It is shaped like a mango kernel cut lengthwise into half and is hollow with a perforation at its apex. This perforation is surrounded by three incised concentric circles and it bears twin wavy lines incised (probably by holding a rope/string to it when it was yet unbaked) along its edge. Structure 19 lies in layer 3.

In Tr. OA1 (NE), were found the remains of yet another Early Historic structure, numbered Structure 20 which is also burnt. It is squarish on plan measuring 2.6 m (N-S) and 2.55 m (E-W). It is relatively better preserved when compared with Structure 19. The lower portions of the western wall of Structure 20 are relatively intact with a thickness of approximately 55 cm. A semi-circular pit was noticed along its northern periphery containing a large amount of pottery. The pit also contained a broken lamp similar to other 'Indo-Roman' examples. The lamp is circular with a double carination on its body with a small channel for the wick and a small mouth for filling purposes at the top. The pit also contained three small terracotta lamps.
In Tr. OAl, (SE), were the remains of yet another burnt wattle and daub structure, Structure 21. It has only partly survived and only the southwestern corner of the structure was properly exposed. It is slightly at a lower level than Structure 20 but was definitely contemporary, as it too seems to have burned down in the same conflagration that consumed Structures 19 and 20. The average width of the southern wall is 60 cm and that of the western wall is 40 cm. In the southwestern corner of Structure 21 was an oval pit, probably a silo, 1 m in diameter. It has a clay rim and its sides are plastered with clay and cow dung (?). The pit is shallow and contained four pots, two globular grey ware pots, one red ware lid and a lamp (?). These objects appear to have been deliberately placed here with their mouths facing upwards.

In Tr. A1, (NE, NW, SW) was located yet another burnt structure, Structure 22. It has a well made floor, made with a bedding of small pebbles. Only a small portion of the structure has survived, mainly in Tr. A1 (NW). The periphery has survived only in a small area. It was therefore not possible to ascertain the extent of the structure. A small pit containing the charred remains of mustard (?) and black gram (?) was found in its northwestern corner. In its southwestern corner are the remains of a domestic hearth made of clay, circular, with a diameter of 45 cm. The structure has a very well made floor of which, the extant dimensions are 2.39x2.9 m. A number of circular pits were seen on the eastern side of Structure 22. These were probably in the courtyard. The remains of charred grains of rice (?), wheat, mustard and black gram were found in individual pits, which have survived due to the destruction of Structure 22 by the aforementioned conflagration. In the eastern part of Structure 22 was noticed a large storage jar 1.25 m to the east.
of the structure. This pot probably broke due to collapsing debris from the burnt houses. Two other jars were found at the same level. All three yielded remains of charred grains, thus suggesting their purpose being that of storing grains.

In Tr. A1 (SW), was noticed an entire burnt wall of wattle and daub, probably earlier than Structure 22 as it extended below the level of Structure 22. This wall runs N-S for an extant length of 2.35 m. Its mean thickness is 15 cm. Both the sides are made of clay 5 cm thick. The inner 5 cm portion was made of woven reeds, the impressions of which were present. A number of posts were erected within the wall to support this structure, the charred remains of which were still in situ. The other sides of this structure were probably destroyed during excavation through the surrounding soil, which is very thick with burnt lumps of wattle and daub. The wall too has been burned. It was completely exposed and has survived to a height of 88 cm.

These burnt structures are to the south of the iron smelting area exposed in the former seasons and were in all probability the houses of the community occupied in iron working. The Early Historic structures (Structures 19, 20, 21, 22) excavated this season have yielded a large number of well preserved antiquities, intact and in situ due to the sudden nature of the destruction of these structures. The antiquities include nails, knives, hoes, adzes, clamps, etc. of iron and earthen pots of various sizes. One of the interesting finds of the Early Historic period is that of a bell found in Tr. A (NW), layer 4. It is made of copper with an outer sheeting of iron. The inner surface, including the loop for the clapper, is made of copper, as is the loop at its apex. The outer surface is covered
with a thin sheet of iron. The bell was intact at the time of discovery but quickly fell to pieces upon being removed from the surrounding soil.

Trenches BY1 (SW), BY2 (SW-SE), and BY3 (SE) were taken up for excavation with a view to exposing the kiln found in trenches CY1, CY2, CY3, DY1, DY2 and DY3 (Fig. 8). These trenches are on the slope with a surface that is heavily weathered and disturbed by rain gullies. According to the locals the Balaji shrine (Fig. 8) seen today to the southwest of the mound was originally here, albeit in a smaller form. This too has probably played its part in disturbing the upper horizons. Layer 1 was very thin and was represented basically by the humus. Layer 2 is entirely absent. Layer 3 is present only in some patches. Layer 4 is absent. Layer 13/5 is absent in Tr. BY3 (SE).

The northern half of Tr. H4 that was as yet unexcavated was taken up for excavation with a view to studying the outer face of Structure 4. The Early Historic occupation was confined only to layers 1 and 2, which measure 45 cm.

Excavation in the southern and central areas and the connecting corridor was continued up to and through the Chalcolithic layers. A number of structures were encountered and exposed.

Excavation in Tr. HX2 continued down to bedrock and yielded very important evidence pointing probably to the earliest Chalcolithic phase at this site. These include mainly, finished tools (microliths) of chert, and potsherds of the Reserved Slip ware (RSW) representing stands, hollow stands, shallow bowls and dishes.

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Though the author was present throughout the first four seasons of excavation, he was unable to be so from the 5th season. Therefore the following data was culled only from the Balathal excavation log books for 1997-1998, 1998-1999, 1999-2000.

2.4.5 The Fifth Season - 1997-98

The fifth season of excavation at Balathal commenced from mid-November 1997 and ended in late February.

The main aims of the 5th season of excavation were:

a) To uncover the plan of Structure 4 and to determine its purpose.

b) To correlate the data from Structure 4 with the remainder of the Chalcolithic excavation.

• For these purposes to be fulfilled and since the plan of Structure 4 was incomplete on the eastern side, trenches A3, B3, C3, D3, E3 and F3 were selected for excavation.

• To better understand the deposits of the eastern portion of the mound, especially what seemed to be an outer wall encircling the site (seen in the adjoining field) the northern half of trenches D7, D8, D9, D10, D11 and a portion of Tr. D12 were selected for excavation. Trenches A1 (SW, NW, SE), A4, A5 (NE), A6 (SW, SE, NW), A13, OA13 (NE, SE) and OB13 (NW, SE) were also excavated.

• Due to difficulties encountered during photography Tr. A2 was taken up for excavation. (BTL log book 97/98: 299)

• To completely uncover the southwestern bastion of Structure 4, Tr. BX1 (SE) was excavated.
Excavation commenced with trenches A3, B3, C3, D3, E3 and F3 (Fig. 8). Layer 1 was exposed in all these trenches with no really major discoveries with the exception of a pit in Tr. C3 (SW). Its maximum diameter was 1.45m and it was sealed by the surface. It appears to have been a silo that later fell into disuse. In Tr. C3 (NE) was noticed a small platform lying on layer 2. It is made of two (surviving) courses of stones set in mud mortar. It is 1.2 m N-S, 1 m E-W, and is roughly circular in shape. A platform of identical size and shape was found in Tr. F3 (NE). Both fall in a straight line 80 cm apart. In Tr. B3 (SE) was noticed a cluster of stones probably belonging to another platform, squarish in shape.

Excavations were undertaken in Tr. A3 (SW, SE, NE). Its NW quadrant had already been excavated in the previous season. Layers 1 and 2 were excavated with no noteworthy features found. In layer 3 were noticed a number of burnt clods of wattle and daub similar to those found elsewhere in layer 3. It was later noticed that the entire trench was lying on a structure. This was designated Structure 26. A circular clay bin (diameter 78 cm) was noticed along the northern section, 15cm to the east of which were found the remains of a globular pot and two intact wide-mouthed cups and three mullers. In the southern half of Structure 26 was seen a partition wall, 2.5 m long (N-S) and 45 cm broad (E-W), made of mud bricks. On the western side of the structure was seen a circular fireplace around which were found charred remains of wheat, rice, moong and mustard. Within this structure were also found a variety of artefacts, including arecanut shaped terracotta beads, an amethyst bead and a variety of iron objects.

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In Tr. E3 (SE) at the base of layer 2 was noticed an irregular stone feature. Its southern side is semi-circular, made of vertical stone slabs, four of which have survived. The northern side is straight and is also made of stones. The feature is 1.15 m long and is 45 cm wide and may be part of a stone platform. In Tr. E3 (NE) was noticed a circular pit with a diameter of 1.15 m and 55 cm deep. It has a concave base and smoothly plastered sides. It is located 3.80 m to the n-e of the aforementioned platform. Four and a half metres to the north of this pit was found a circular stone platform. The diameter of the platform is 1.07 m and its extant height is 25 cm. It was originally coated with a thick layer of mud plaster, portions of which are still visible. Both these features lie in layer 3. In this area a number of artefacts have been found including a four legged quern, lamps, lids, beads of carnelian, agate, amethyst and terracotta, glass bangle fragments and a large number of iron objects like hoes and spear/arrow heads.

Close to the stone platform in Tr. F3 (NE), 91.3 m to its southeast, was found a large saddle quern (70x45 cm) with a small grinding surface (40x20 cm).

Within layer 3 in Tr. C3 (NW) was found yet another platform made of mud and lined with stones along its periphery. It is the largest exposed so far (barring Structure 12) with a diameter of 2.3 m. To its west at a distance of 1.55 m was found a roughly circular pit with a diameter of 1.05 m and 37 cm deep.

Excavation in layer 4 in Tr. A3 and B3 revealed a structure made up of a very well made floor exposed in an area 6.1 m n-s and 3.1 m e-w which
extends further east into the undug section. Six postholes were seen in the floor. This structure was designated Structure 27. In its northeast corner was a silo (diameter 1.3 m, depth 24 cm) and a small storage pit was in the southern portion. A small circular fire pit (diameter 74 cm) was found in the eastern portion of the trench which is outside the structure and may have been the domestic hearth belonging to the structure. At the base of layer 3 in Tr. A (NE) was found a roughly circular feature made of stones and mud mortar. It appears to be yet another platform. It has a maximum diameter of 85 cm and only its periphery is lined with stones and burnt brick pieces. There appears to be a fireplace 30 cm to the east of this platform which is 70 cm long and 45 cm broad. Two flat stones were found at its periphery, which were probably pot rests. Its base of the fireplace is heavily burnt, indicating prolonged use.

Excavations were undertaken in trenches D7, D8, D9, D10 D11 and D12 (Fig. 8) in their northern halves to trace a possible correlation between Structure 4 and a stone wall noticed along the periphery of the mound. These trenches were selected as a portion of the eastern wall of Structure 4 was already exposed in a sondage laid in Tr. D6. Layers 1 and 2 were present till the end of Tr. D9. They are absent in Tr. D10 where even layer 3 is represented only by a very thin deposit. The stratigraphy of Tr. D11 and Tr. D12 begins with layer 6, which is completely different from the same layer in the rest of the mound. While digging through layer 3 in trenches D8 and D9 portions of two structures of the Early Historic period were noticed. These structures lie under a large number of burnt clods of wattle and daub. The first, in Tr. D8 (NE) and D9 (NW), measures 2.5 m e-w and 2.1 m n-s. A posthole (diameter 23 cm) was noticed in this structure. A major portion of this structure lies in the
undug southern portion of these two quadrants. The second structure was 90 cm to the east of the first one. It occupies the entire northeastern quadrant of Tr. D9. A roughly circular platform (diameter- 1.4 m) demarcated by a single line of stones along its periphery was noticed in the northwestern corner of this structure. Another circular feature/platform with a diameter of 90 cm was seen located 40 cm to the south of the first. Half of this feature lies under the southern undug portion of D9. Two small fire pits were seen in the southern part of tr. D9 (NW) where a few burnt grains were also found. The diameter of the first fire pit is 1.1 m. It was lined with stones along its periphery. The other has a diameter of 20 cm and is located 20 cm to the east of the first one. The first pit contained charred wheat seeds, the second pit had charred mustard seeds. In the same structure were also found two intact red ware pots with elongated bodies and externally thickened undercut rims.

Layers 4 and 5 in trenches D7, D8, D9, and D10 were sterile and different from those seen elsewhere at the site. The Chalcolithic deposit began from layer 6 onwards.

Excavations were commenced in Tr. BX1 (SE) (Fig. 8) to understand the plan and expose the southwestern bastion of Structure 4. At the base of layer 1 was found the northern extension of Structure 17, which had been partially excavated in the previous season in Tr. AX1. A part of the northern wall of the structure (2.5 m x 35 cm) and the northwestern portion of the bathroom, which contained three storage bins, were exposed. The biggest was 20 cm deep with a diameter of 50 cm. The pit was lined with a thin, 3 cm, coating of plaster and then smoothened. It
was full of charred mustard seeds and at its base was found an intact iron rod. Immediately to its east was a smaller bin similarly treated with plaster (diameter 25 cm). The third bin, located 30 cm to the west of the first one, was identical to the second one in size, shape and treatment. It contained the remains of a globular vessel of red ware. In the southeastern portion of Tr. BX1 (SW) were found the remains of a bathroom. These consisted of a wall made up of a single course of stones. Along its inner northern periphery was noticed a large stone slab, 82 x 30 cm, which was probably a part of the drainage of the bathroom.

Trenches A13, OA13 and OB13 were opened in order to trace the hypothesized outer wall. It was found immediately under the humus. The Chalcolithic occupation seems restricted to its inner side. No Early Historic deposit is present here.

Trenches H6 (SW, SE, and NE), G6 (SW, NW), G7 (SW, NW), F7 (NW), and H7 (SW) were selected to expose, on plan, the northeastern bastion of Structure 4 (Fig. 8). The Early Historic deposit here was extremely thin (8 cm) and was confined to layer 1.

Trenches G (SE, NE), G1, and part of F1 were selected to expose the northwestern bastion of Structure 4, on plan. The stratigraphy is the same as that seen above the northeastern bastion of Structure 4. Layers 2 and 3 were absent and layer 4 immediately underlies layer 1, and disappears in H1. There appear to have been a number of Early Historic pits in this area. In one of these was found a large jar containing a mass of fused iron objects.
Trenches A4, A5 and A6 were excavated to expose the inner and outer faces of the southern wall of Structure 4. Layer 1 was present. Layers 2 and 3 were missing in Tr. A6. Both these layers are present in Tr. A4 and thin down towards the east until they completely disappear. Layers 4 and 5 are present and have risen here.

Trenches A7, A8 (SW, NW) and OA8 (NW) were opened up to trace the southeastern corner of Structure 4 (Fig. 8). The Early Historic deposit was absent here.

Excavations were undertaken in Tr. A2 (Fig. 8) as it was proving to be a hindrance during photography (BTL log book 97-98: 299). Excavation proceeded to a depth of 95 cm and layers 1, 2 and 3 were exposed. These layers are identical to those found in the main area of the mound. Layer 3 yielded evidence of hectic activity in the Early Historic period. Remains of burnt wattle and daub were noticed here. A number of pits and pots found here yielded charred remains of grains of wheat, barley, black gram and mustard. Iron artefacts were also recovered in large numbers including a complete axe, nails, scrapers, adzes, etc. Numerous beads and bangle fragments were also found.

The total area occupied during the Early Historic period is now quite obvious from the excavated trenches and sondages. The Early Historic deposit seems to rest on layer 4 and covers an area, roughly 60x60 m. It is confined to the centre and the southern slope of the mound. The total area occupied in this period has been calculated to 3018.75sq. m.
Excavation continued in all trenches to the Chalcolithic occupational layers and almost all the goals for this season were met with the exception of determining the purpose of Structure 4. This still eludes us.

2.4.6 The Sixth Season - 1998-99

The main aims of the sixth season of excavation were:

a) To study the functional aspects of the fortified structure (Structure 4).

b) To excavate in full - Structure complex 10 (A-K).

c) To trace the outer fortification wall.

In order to achieve the first objective trenches E (NW, NE), E1 and E2, F (SE), F1 (SE, SW), and F2 were selected for excavation. Trenches A2, B2 (SW, SE), OA1 and OB2 (NW, NE) were taken up to fulfil the second objective. Trenches J9, J10, L10, L11, K10 and K11 were chosen in order to achieve the third aim. (Fig. 8)

Excavation commenced in Tr. E1 and 5 cm below the surface was encountered an alignment of three roughly rectangular stones. To the north of this alignment was found a crushed pot, a small grey-ware cup, and an animal figurine which seems to be one of a pig. At the junction of trenches E and E1 was found another disturbed stone alignment, probably a wall. Due to their proximity to the surface both these features are heavily disturbed. They may have been part of a single structure. In Tr. E (NE) was discovered a roughly circular pit located along the western section of the trench. Only half the pit is visible as the remainder lies in the section. It had an approximate depth of between 35-50 cm and
contained potsherds, bones and decomposed organic debris. The pit is located 1.9 m to the west of the disturbed structure mentioned above. Both these features are sealed by layer 1. At the junction of quadrants NE and NW in Tr. E, was found a large fireplace, roughly rectangular on plan. It is 1.6 m E-W, and 2.1 m N-S. Along its western margin was a small circular depression with charcoal fragments in situ. The northern half is made of clay while the southern edges are made of flatish stones. There are traces of long intensive use. To the east of this fireplace, at a distance of 1.85 m, in Tr. E1, was yet another fireplace (diameter 80 cm). Large chunks of charcoal were present here. In the western half of Tr. E at the base of layer 1 were found three perfectly circular pits. Pit 1 is in the southwest corner of tr. E (SW). Its diameter is 80 cm and it is 70 cm deep. 15 cm north of Pit 1 was Pit 2, with a similar diameter and 30 cm deep. Pit 3 was located 50 cm north of Pit 2. It was the largest amongst the pits with a diameter of 1.75 m and a depth of 90 cm. These pits form a straight line aligned due N-S. All three were lined with lime plaster and were probably silos. Subsequently they were used for garbage disposal as is suggested by the presence of a large number of potsherds and bones inside. These pits were associated with a compact and well plastered floor to their west. The largest of the three pits, Pit 3, was found intentionally filled with clay. Since only a small portion of the floor has been excavated, the plan was not clear. In Tr. E (NW) in the northwestern corner was found yet another pit. This pit is partly unexposed as a portion of it lies under the unexcavated part of the section. It is lined with stones and has a firm base. It is roughly circular on plan with a diameter of 1.6 m and a depth of 45 cm. It contained a number of medium sized cobbles, large potsherds and bones and in its northern portion were found remains of a globular pot of grey-ware, a circular pot of red-ware and a
lid with circular knob finial in SW. Alongside the GW pot were found the long bones of an ungulate.

In Tr. F2 (SE) at the base of layer 1 were found a storage pit and a fireplace. The pit is 20 cm to the north of the southern section. It was circular on plan with a globular/concave base (diameter 1.2 m, depth 65 cm) with lime plastered sides and base, traces of which have survived. An oblong fire pit, 55 cm long (E-W) and 35 cm wide (N-S) was found 80 cm to the west of this pit. The fire pit is burnt bright red suggesting prolonged use. A second storage pit was noticed on the southern side of the former at a distance of 50 cm. The second pit is 80 cm deep with a globular/concave base.

Trenches OA2, A2, B2 and OB2 (NW-NE) (Fig. 8) were taken up for excavation to completely expose Structure complex 10 and the southern face of Structure 4. In trenches A2 and B2 the upper Early Historic layers 1 - 4 had been excavated earlier. Thus excavation continued from layer 5 onwards. Layers 1 and 2 were exposed in Tr. OB2 (NW-NE) and in Tr. OA2. These layers were heavily disturbed and no features were therefore visible. On top of layer 3 were found the remains of a burnt mud/wattle and daub structure similar to other such structures found in the adjoining areas in previous seasons of excavation. The structure is roughly squarish on plan measuring 3.15 x 3.15 m. The walls of this structure have been badly damaged. Only a small portion (1.9 m long) of the northern wall of the structure has survived to some extent. In the southwestern corner of the structure was noticed a hard patch of thick greenish clay, possibly a platform for a silo basket. Outside the structure on its eastern side is an alignment of large squarish/rectangular stone

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blocks aligned N-S. One of the stones at the southern end of the alignment has been placed vertically. The excavators feel that this was probably an ironsmith's anvil (BTL log book 98/99: 3).

Along the eastern section of Tr. OB2 (NE) was found a circular pit located within a burnt wattle and daub structure. This is Structure 29. Its remains are spread over an area of 2.1 x 2.1 m. The pit (a grain silo) was burnt along with the house and in it were found the charred remains of rice (?). Structure 29 is sealed by layer 2. The major portion of the structure lies under the eastern undug section. Structure 29 yielded hammerstones, a variety of iron objects including a hoe, fragments of a four-legged quern, and beads of amethyst, quartz and paste. The structure can thus be identified as a dwelling.

Trenches BX1 (NE), CX1 (NE -SE), DX1 (SE) (Fig. 8) were selected with a view to exposing the remainder of the smelting area. Burnt wattle and daub was noticed right from the base of layer 1.

Trenches J9 (SW -NE), K9 (SE -NE), K10, L10 (SW) and L11 (SE -NE) (Fig. 8) were taken up for excavation with a view to determining the northern extent of Chalcolithic occupation and detecting the outer fortification wall. The Early Historic material is confined to the upper portions of layer 1 and is represented by potsherds and bones.

All the aims of this season's excavation seem to have been fulfilled except that of establishing the purpose of Structure 4 and pinpointing the entrance into this structure.
Excavation in the northern areas (Trenches Jn, Kn, and Ln) threw more light on the spatial settlement patterns. Excavation in the Chalcolithic area began to shed some light on plausible uses of Structure 4 and its purpose. Its dimensions are also more or less clear.

2.4.7 The Seventh Season - 1999-2000

This was the seventh season at Balathal. This year excavations were begun quite late, in the first week of January 2000 and continued till the end of March.

The excavations began on the 12th of January 2000. Trenches B4, C4, D4 and E4 were opened (Fig. 8). The excavations of the upper levels of these trenches yielded evidences similar to that from those exposed in the central part of the mound in earlier seasons. All the three layers i.e. layers 1, 2 and 3 were present in all the trenches. The findings from this area were similar to those of the earlier excavations except that a large number of terracotta bull figurines were found. It was observed that Layer 3, which had the remains of burnt houses, grains, plastered walls, was not found to be as thick as was seen earlier. The other antiquities include beads of semiprecious stones in different shapes, especially faceted beads of quartz and carnelian, and beads of terracotta, glass and steatite in good numbers. As usual layer 3 yielded large numbers of iron objects along with terracotta, glass and shell bangle pieces. Other antiquities include terracotta weights, lamps, wheels, discs, etc.

Layer 1 is about 15-18 cm thick in trenches E4, D4, C4 and B4. The layer gradually slopes from north to south, along the contour of the mound. It
Layer 2 is compact and light gray in colour and is 25-30 cm thick in all the trenches mentioned above and it gradually tapers towards south, from Tr. E4 onwards. The preservation of this layer is quite similar to layer 1 as the roots, rootlets, insect nests, rat holes can be clearly seen.

Layer 3 is about 20-30 cm thick in all the trenches mentioned above. It is comparatively loose and light gray, with a lot evidence of burning activity. Several semi-burnt ashy patches are encountered. Remains of burnt walls are found sporadically, not as much as was observed in the region around the trenches A, A1, A2, B, B1, B2, OA1, OA2 etc. in the central part of the excavated area. Above the fortified enclosure the thickness of this layer is considerably greater. It has yielded large numbers of iron objects, charred grains and a fragment of NBPW in Tr. D4 (SW), Lot No. 707.

Layer 4 is a compact ashy layer about 20-22 cm thick, found only in Tr. E4 extending to Tr. D4 (NE, NW). However, the deposit in these quadrants of Tr. D4 is only about 2 to 5 cm thick and is completely absent in the other quadrants of Tr. D4. In Tr. C4 layer 3 is directly followed by layer 6.

Layer 5 is dark, loose and is about 20 cm thick on the northern side of Tr. E4 and subsequently thins down towards the centre of Tr. D4 where it completely disappears. At the base of layer 5 large numbers of stones, were found in Tr. E4 and D4.
A large pit was encountered in the western portion of Tr. E4. It is 1.10 m south of the northern edge of the trench. It is circular in shape and has a diameter of 1.70 m. It is sealed by layer 1 and it has cut through layers 2 to 7. Half of this pit falls in Tr. E3, which was excavated in the previous seasons.

A hearth, consisting of three stones, which served as stumps, between which was found a lot of ash was encountered in Tr. D4 (SW), layer 2, at a depth of 0.23 m. No antiquity was found in the ash, besides broken pieces of potsherds and tiny pieces of bone. The hearth was situated in the eastern corner of Tr. D4 (SW), 25 cm south of the northwestern quadrant of the same trench. It covered an area of 60 cm. This find suggests that this area was probably used for residential purposes. However, no remains of any structural activity have been preserved to substantiate this claim.

Trenches C4 and B4 (NE, SW) were dug during the earlier seasons to trace the southern side of Structure 4. Further excavation in these trenches was taken up with a view to locating the entrance of Structure 4, which seemed to lie here. Only a thin deposit (60 to 70 cm) of the Early Historic period was seen here. Excavations were commenced to obtain a clear picture of the deposit and the formation processes within Structure 4. Thus a series of trenches from A4 to F4 were taken to provide a transverse section of the entire structure (Fig. 8).

A large circular pit was exposed in Tr. B4 (SE) sealed by layer (2). The southern half of this pit was exposed in the 1997-98 season. It is
partially unexposed as it extends into the unexcavated Tr. B5. The diameter (northern half) of this pit measured 2.16 m (E-W) and 1.64 m (N-S). It was one metre deep and yielded Red, and Grey ware potsherds of the Early Historical period and bones. Apart from the pottery a few large stones measuring 50 x 25 cm, 20 x 18 cm, 6 x 8 cm were also found in this pit. It cuts through layers 3, 4 and 5 and its base rests in layer 6.

A large, perfectly circular pit was found in Tr. D4 (SE, SW) and C4 (NE, NW). It has a diameter of 1.55m. The pit was dug in layer 5 and is below the stone platform. Inside it was a thick deposit of burnt earth, about 10 cm thick, over an area 1 m in diameter. The earth was burnt to a dull ochre colour and there were a few bones and a blue glass bangle fragment over the burnt earth. Around the burnt area there were 14 stone pieces, embedded in the burnt earth at different places. The stones each measure 14 x 10 cm and 20 cm approximately. To the east of the burnt patch there is a fragment of a small carinated pot of Grey ware. On the southwestern part of the burnt patch were found two Red ware sherds, one with a 6 cm broad, white painted band. There is also a small fragment of a Red ware in the northern part of the pit.

In the eastern side where the so-called outer fortification wall was exposed on its outer face, trenches OB12, OA12 and OA13 were taken up for excavation (Fig. 8). This was to done to trace the inner face of the outer fortification wall and to understand and trace several structural phases overlying it.

Trenches A13 and B13 (SW, SE) were opened next (Fig. 8). These trenches were opened with a view to getting enough space for working in
the area as well as tracing the outer fortification wall which was visible on the western side of the trenches and which projected out of the water channel in Tr. B12.

Excavation on the northern side of the mound (i.e. Nathu Krishna's field, of Balathal) was undertaken. This area was not available for excavation earlier as it was under cultivation. This area was excavated to see the nature of deposits, structures, and periods of occupation in the peripheral areas of the mound. Parts of trenches R14 and Q14 were excavated (Fig. 8) and they revealed the mature phase of the Chalcolithic occupation at the site.

To test the contents of the deposit on the eastern side of the mound, which had revealed a deposit of the Early Historic period, a small excavation was undertaken in Tr. OI11 (NW) (Fig. 8). This trench yielded a total deposit of 1.22 m. Though the area was under cultivation, after removing 15-20 cm of the surface soil it was seen that the underlying deposit was not disturbed at all and belonged essentially to the Early Historic period. There was no Chalcolithic deposit below this. Along with regular Early Historic antiquities, pottery and bones, this area has yielded a beautiful hexagonally faceted prism bead of garnet.

2.5 Stratigraphy of the Early Historic Layers of Balathal: With a Special Note on Layer 5/13

The Early Historic stratigraphy at Balathal conforms almost exactly to the Early Historic stratigraphy recorded in the index Tr. (F4) (Fig. 13).
Fig. 13 Stratigraphy of the Early Historic deposit.
In Tr. F4 layers 1-5 had Early Historic pottery and artefacts. The same is seen all over the site in the areas occupied during the Early Historic phase.

Layers 1, 2 and 3 are normal habitational layers, brown in colour, with the expected associated material. Layer 4 is an absolutely white layer composed of ash with high phosphorus content. This indicates some sort of large scale burning (Kshirsagar 1996:113). This layer was artefactually quite poor. However, at the base of this layer, in Tr. D, were found the bases of two furnaces. In all probability this thin layer, 5-20 cm thick, is the residue of vast quantities of fuel used in these furnaces. Layer 5 varies in thickness from 25 cm to 1 m. It is almost black in colour (a very dark brown) and only its upper portion contains any artefactual, ceramic or structural remains.

The total area covered by layers 2, 3, 4 and 5 lies within a large square whose corners may be demarcated by trenches F, F6, CY1, and OE3 (Fig. 8). The habitation may have extended further south and east. But since the Early Historic deposit in the southern area has been destroyed, it is impossible to verify this. In the eastern area these layers are present up to trenches D6 and D7, though constricted. The entire eastern periphery of the mound is covered with Early Historic ceramic remains but due to limited excavation in this area the picture is not absolutely clear. Within the boundaries of Structure 4, excavations were unsuccessful in positively determining the cultural affiliations of layers 6-12. Layer 13 was dark and sterile. The Chalcolithic deposit seemed to begin from layer 14. Thus during excavation in the south area the first Chalcolithic layer was demarcated as layer 14 and the dark blackish layer above it, layer 13.
Thus layers 5 and 13 were deemed to be different though in reality they were one. This was shown by the continuous stratigraphy when the southern area was joined to the central area by the excavation of the corridor. Thus layer 13 anywhere, except within the confines of Structure 4, is actually layer 5. This layer, as mentioned earlier, is a very dark brown (almost black) layer, homogenous in composition and made of fine sandy clay, not very different from the soil found in the large depression (seasonal bunded lake) to the south-southeast of the mound. It is almost devoid of any artefacts, ceramics and other habitational features and only its uppermost and lowermost portions have a few sherds of pottery, Early Historic and Chalcolithic respectively, which are intrusive in nature. Thus layer 5 is not a habitational layer caused by the processes active during the occupation of a site. It is the layer, both, demarcating and separating the Early Historic and Chalcolithic cultural periods. Early Historic artefacts are thus restricted to the first four layers, 1-4 and the uppermost portions of layer 5. Layers 3 to 5 are present only in the central and southern portions of the mound and are absent to the west, east and north of the mound. This leads us to postulate that during the Early Historic period the occupation was mainly confined to the central, southern and southeastern parts of the mound.

Layer 3 is the richest layer of the Early Historic period. No known excavations, so far, in the Indian context, have yielded as many artefacts (especially of iron) in an area of similar dimensions. This is mainly due to the fact that wattle and daub houses at the site were burned in an enormous conflagration and thus the artefacts were preserved in situ. The artefacts found are not lost, misplaced, discarded, hidden or broken, but are in a primary context. This is a unique instance where almost an
entire settlement is preserved, caught in time. Though the last statement seems to be based on the 'Pompeii premise', in this case it is true and holds good. In section and on plan this layer shows signs of heavy burning and large amounts of burnt wattle and daub fragments were recovered. This in turn makes excavation and exposure rather difficult, as features are seldom clearly visible unless arrived upon very slowly. Numerous artefacts and complete ceramic utensils have been found intact and in situ. The storage bins and ceramic storage jars often also contain charred remains of grain burned in situ during the conflagration. One of the possible causes of the conflagration may have been the numerous furnaces found in the layer.

2.6 Medieval Occupation/Artefacts at Balathal

During the early days of the first season of excavation it was presumed that Balathal had a Medieval occupational phase on the basis of two Early Medieval coins found on the surface during intensive explorations prior to excavation. This is now known to be untrue as there are only three artefacts that can be attributed to this phase— the two coins mentioned earlier found in the first season (Plate 2) and a single sherd of Muslim Glazed Ware (Plate 3) found in the fifth season of work. Thus, occupation, if any, was of an extremely short duration. These artefacts were most probably lost during some overnight/temporary camp made on the high ground made available by the mound which, rises 7.5 m above the present surrounding landscape. According to the local inhabitants local rulers often camped here in the afternoon during 'shikar' or hunting expeditions, in the pre-Independence period. The Early Medieval
occupation may have been during such an excursion as it was of an absolutely non-intrusive nature. No other structural or ceramic vestiges of this occupation are available.