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NALAGARH 1951

INTERIM REPORT ON THE EXCAVATIONS CARRIED OUT AT

DHER MAJRA

BY

OLAF PRÜFER



Dedicated

to

Lieutenant-Colonel

SURINDER SINGH

RAJA

of

NALAGARH STATE

1100

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PREFACE.

The excavations carried out at Dher Majra during the summer of 1951 were part of an expedition to Nalagarh State and the adjacent districts of the Punjab (1). The aim of this expedition was to elucidate certain obscure points regarding the exact nature and extent of certain calcolithic settlements of the Indus cultures reported in this region. On the other hand its purpose was systematically to comb the area for ancient sites in order to obtain as clear a picture as possible of the antique remains of this archaeologically somewhat neglected part of India.

This work was carried out on behalf of the Jamia Millia Islamia, Delhi, to the Vice-Chancellor of which I herewith wish to express my gratitude for enabling me to undertake this expedition.

I also wish to thank for their collaboration the Raja of Nalagarh, Mr. K. M. Heinz of Delhi and above all Mr. Tore Hakansson of UNESCO who took part in the expedition and who by the generous help of his Fundamental Education Centre made this publication possible.

OLAF PRÜFER.

1st January 1952.

GENERAL DESCRIPTION	The ancient site of Dher Majra is situated on the border of Nalagarh State and Ambala District about seven miles due north of the subdi- visional town of Rupar on the main road between this place and Nalagarh. It lies on the banks of a dry arm of the Kanahan Nadi, a seasonal river which together with the Sirsa river joins the Sutlej about three miles west-north-west of Dher Majra.
	A few words will have to be said here regarding the geographical distribution of ancient sites in this region. The net of minor rivers and riverlets which run from the Himalayan ranges towards the Sutlej have since the most remote days of the Stone Age attracted human settlers. The land was fertile and well watered, and at the same time sufficiently remote from the politically troubled centers of civilization along the two great river systems of the Indus and the Ganges. In addition to this it may safely be assumed that the valley of the Sirsa was used as a trading road into the lower Himalayas.
	Therefore, a large number of small settlements ranging from the palaeolithic age down to comparatively modern times have left their traces in this area. The wars and similar disasters which so violently shook other parts of Northern India and Pakistan touched it but fleetingly.
RUPAR	The largest site of the region is Rupar, which has been under more or less continuous occupation since the days of the Indus cultures. This site occupies a key position at the spot where the Sutlej leaves the mountains and bends towards the plains.
KOTLA NIHANG	Hardly one and a half mile to the east of Rupar lies the Harappa site Kotla Nihang.
DUGRI	Four miles north-east of Rupar, near the main road to Anandpur, is situated the somewhat mysterious ancient settlement of Dugri, which, apart from Painted Grey Ware, yields some as yet unidentified ceramics of very primitive appearence.
GHANAULI	Ghanauli, a railway station on the Nangal Dam extension line, is a noteworthy Painted Grey Ware site, which unfortunately has almost entirely been dug away, because of the diligent Public Works Department building a canal nearby.
CHANDPUR	Further two miles bring us to Dher Majra, one and a half miles to the north-east of which is located the double mound of Chandpur consisting of a regular Painted Grey Ware tell and a mysterious pottery-strewn area similar to that of Dugri.
MAJHOLI	Another mound is reported at Majholi, less than one mile from
MUNDIARPUR	On top of the cliffs across the Kanahan Naddi, about four miles from Dher Majra, lies Mundiarpur, a site which has not yet been inspected. Along the north-eastern bank of the Sirsa, which was followed up for some 15 miles, as many as eleven ancient sites were discovered. These include two palæolithic open stations and two Harappa mounds. The above enumeration of ancient sites in the neighbourhood of Dher Majra will give the reader an idea of the density of ancient habitation in the area.

(2)

The mound of Dher Majra covers an area of about 350 by 300 feet. At present its maximum height does not exceed fourteen feet but originally it may have been somewhat higher, for consistant cultivation has reduced the surface of the mound from its original shape into a mere flat field on top of a river bank. A very small elevation immediately to the south-east of the main mound, and separated from the same by a narrow depression, appears to have been an ancient kiln. The soil is here frequently burned such as could be expected in an area covered by ovens. Pottery is sparse and, apart from types similar to those from the main mound, consists of certain grey wares which will be discussed below.

SCOPE OF WORK

TRENCH "A"

It was decided to lay out four trenches on prominent parts of the mound. They were called Trenches A, B, C, and D. Trench D was extended and this extension was named Trench DE.

Trench A, measuring 10 by 10 feet, was laid out on the northern slope of the mound, roughly two feet below its present surface. This spot was chosen because, being located on the riverside of the mound, it appeared to have been a point which had not been washed away by the floods. If any spot at all, this one was suspected to yield traces of a fortification or a dike.

This trench at first yielded a fairly modern pit, below which two layers came to light. Both belonged to the same period, being separated from each other only by a flooring. The ceramics of these two layers are identical in the essentials but they do not essentially belong to the true Harappa classes, as had been expected. Below layer two appeared a mud accumulation containing here and there stray sherds of a more or less nondescript character. After having dug through this conglomerate for about three feet, I came to the conclusion that we were facing here a mud rampart or possibly a dike against the recurring floods of the river.

It was therefore assumed that the two layers built on top of the earlier rampart belonged to a period later than the main occupation of the settlement.

Trench B, measuring 10 by 10 feet, was laid out on the same side of the mound, not, however, on the slopes but on its very top, i.e. inside the fortifications. Layers one and two, similar to the evidence of trench A, yielded, inter alia, types of pottery certainly not belonging to the Harappa period. The bottom of layer one is a flooring with a burnt brick platform, apparently the spot of a hearth. Layer two shows evidence of ' burials, both ordinary and crematory. These two layers were particularly rich in painted wares.

Layer three contained essentially true Harappa types. Occasionally, however, the above mentioned wares intrude.

Layer four, again, overlies a flooring with a burnt brick-platform. The ceramics, with the exception of minor typological variations, are true Harappa. Animal bones occur sporadically.

In layer five a lessening of sherds is noticeable. Layer six is an artificial platform above the natural river pebbles, which are given in the section as layer seven. As this platform is absent in trench C, it appears to have been erected in order to fill up a local depression in the

TRENCH "B"

TRENCH "C"

THE ABOVE

natural building surface or perhaps to smoothen out the pebbly soil for some specific purpose. It contains stray sherds of Harappa type.

Trench C was laid out to corroborate the evidence of trench B. The site of this dig is about a hundred feet distant from the previous one, further towards the interior of the mound. It measures 15 by 15 feet.

The evidence of trench C is similar to that trench B with the exception of two points. Layer two shows no appreciable remains of bones to indicate the presence of a funeral place. The lowest layer, the sixth of the previous trench, is absent.

TRENCH "D" & "DE"

Trench D, measuring 10 by 10 feet, was laid out with the intention of carrying it down to the first two layers only, in order to gather some more sherds of the non-Harappan variety. This trench was later on extended by another one of similar dimensions; both are situated near trench B.

The evidence here agrees with that of the three other pits, though again no definite funerary remains were discovered.

Three things are apparent from the evidence of the trenches. There CONCLUSIONS OF are at Dher Majra two main occupations, one being more or less identical with the Indus culture of Harappan type, the other belonging to some later period yet to be identified. The second point worthy of note is the apparent absence of brick buildings. Some later excavator may possibly come across an isolated brick wall or flooring, for occasional brickbats are not wanting, but on the whole the inhabitants did not make use of bricks; at any rate in none of the trenches dug so far did there come to light a single complete brick in situ.

> Thirdly it was established that, at least on its northern slope, the site was, during its main period of occupation, guarded by a mud fortification or dike.

> The occasional complete bricks encountered in the trenches have the following measurements:

Above layer three: 12'' by $7\frac{1}{2}''$ by 2'' (one specimen). Below layer two: 11'' by $5\frac{1}{2}''$ by $2\frac{1}{2}''$ (two specimens).

The latter two bricks are of a size common at Harappa and Mohenjo-Daro. The former is of unusual and yet unidentified dimensions. Its body contains a fair admixture of straw and grains. It may be associated with the late occupation of the mound.

The ceramics from Dher Majra form six distinct types, of which two can be identified. In describing them we shall begin by discussing the carliest types, which belong to the true Harappa culture. These wares are somewhat coarse bodied. The colour of the body varies between salmon and light red-brown. Painted designs are boldly executed in black, occasionally in dark brown. Typologically unusual amongst the painted wares are the very common and delicately executed criss-cross patterns as well as the horizontal rows of wavy lines which sometimes run perfectly parallel and sometimes in countermovement, thus forming rows of rounded-off diamond patterns.

Typically Harappan designs are the fishes, pipal tree patterns, etc. which are fairly common.

BRICKS

CERAMICS

The conventional Harappa shapes, with one exception, are all to be met with. Offering stands and fragments thereof occur frequently. Conspicuous by their absence are pointed-bottom jars, not a single specimen of which was recovered. A small sherd which might have been the bottom of one such jar is too slender an evidence to prove the presence of this type.

Layer three (B), the evidence of which is essentially Harappa mixed with occasional sherds of the upper layers, yielded a peculiar small painted sherd. This specimen is made of extremely thin red clay, bearing on the outer side a shiny, blackish-brown, polish-like slip, together with a painted black design. This design bears no resemblence to anything else found at Dher Majra or, for that matter, at any other chalcolithic Indian mound. Unfortunately the painted pattern only occupies a small part of the sherd. It appears to be, however, a continuous design of triangles, the edges of which are lined with dots. The one visible point of a triangle is adorned with a kidney shaped figure. If the sherd is reminiscent of anything at all, its design might be somewhat related to certain patterns from Painted Grey Ware sherds. This ware was named DM J-A. (Fig. II, 89).

With layer three begin to appear certain types of pottery which are identical with those recovered from Cemetery H at Harappa. The body of these wares is less coarse than that of the Harappa types; the colour of the clay varies between pink and red and the surface of the vessels frequently bears traces of a bright red wash or slip. Entirely new shapes appear and certain types that were rare in the previous layers become more frequent. The most striking difference between the earlier types lies, however, in the designs. Painted patterns change from boldly and somewhat carelessly executed naturalistic designs to carefully worked apparently symbolistic ones. Offering stands prevail. Noteworthy is the appearence of fingertip and fingergroove designs. These occur sometimes combined with painted patterns of Cemetery H and also in connection with the painted patterns yet to be discussed. Absent, however, is the "distinct preference for animal shapes" noted by Vats (pp 246). Only one such sherd, bearing a continuous pattern of mythological birds was recovered.

Layer two proved to be the main stratum of occupation of the Cemetery H people. With respect to this, two things ought to be noted. Cemetery H ceramics, so far believed to have been mainly funerary, are household wares as well. This was proved by the fact, that only in one trench anything resembling a burial or incineration came to light. Additional proof is the frequency of grinding stones, querns etc. that occur in the upper two strata. The second factor of importance to be noted is that true painted Harappa wares can be traced up to layer two (incl.), though they are considerably less in evidence than before.

Alongside the Cemetery H wares occur certain painted and incised red ceramics which belong neither to the class of the true Harappa potteries nor to the Cemetery H types. The painted wares, roughly speaking, present the picture of Cemetery H and Harappa fabrics and shapes, adorned with patterns only very vaguely related to the designs of the former. These painted designs are related to Cemetery H only

CURIOUS STRAY

SHERD [DMJ-A]

CEMETERY H WARES [DMJ-B]

OTHER RED WARES [DMJ-C] inasmuch as they belong also to a class of symbolistic and not naruralistic patterns. The technique of application is similar to that of the Cemetery H wares. This type of pottery is as yet unknown at any other site of Harappan or post Harappan type.

Together with this ware occurs a variety of thick, bright-reddish, coarse, ceramics bearing incised patterns. These patterns fall into two main groups, those with wavy line designs and those with criss-cross incisions of grooves. Combinations of both are rare but do occur occasionally. These wares were named DMJ-C.

From the surface of the smaller mound at Dher Majra comes a class of grey wares represented at the main mound by only a few sherds from the upper layers. All the sherds collected are fairly thick but well levigated. Their colour is a uniform light grey with a slightly green tinge. A shiny slip covers the outside of each specimen. This slip has partly been destroyed by the chemical components of the soil, but it is nevertheless easily traceable.

I was unable to find any parallel to this remarkable type of ceramics, which was named DMJ-D.

From the true Harappa layers were recovered four small hand made toy pots. Such pots are familiar at Harappa and Mohen-jo-Daro as well.

Layer three of trench B yielded an interesting, large, painted ring stand which came to light just above the hearth at the bottom of this layer. In shape it is slightly bulging out towards the bottom, whilst the top rim gently opens outwards. It appears to have served as a stand for a large flat dish.

A second, quite plain ringstand was recovered from layer two, trench B.

A massive, medium-sized handle, roughly square in section and shape, came to light in trench B, layer two. All its surfaces are covered with a closely knit, painted, criss-cross pattern applied in the Cemetery H technique. The handle's massivenes suggests that it was part of a fairly large jar.





HANDLE

TOY POTS

RINGSTANDS

INCISED TYPES

GREY WARES

(6)

CONCLUSIONS DRAWN FROM CERAMICS

In conclusion it can be said that apart from true Harappa wares the site of Dher Majra yielded five varieties of ceramics of positively post-Harappa periods. Of these five varieties only the Cemetery H class was hitherto known. I would not entirely exclude the possibility of an underlying Kulli influence in the case of some of the painted sherds. On stratigraphical grounds it can be assumed that the sequence of potteries from the viewpoint of dating looks as follows:

Layer	Types			Per ten sherds
Ğ	no true deposits: Pla	atfrom.	•••	
5	Harappa	•••	•••	IO
	Harappa		•••	IO
4 3	Harappa	•••	•••	7
1 - 1 2	Thin polished ware		•••	I
	Cemetery H	•••	•••	I
	Other red painted	•••	•••	I
2	Harappa	•••	•••	2
	Cemetery H	•••	•••	4
	Other red painted	•••	•••	3
	Incised		•••	I
I	Cemetery H		•••	2
	Other red painted			4
	Incised	•••	•••	2
	Grey types	•••	•••	I
	Indifferent types		•••	I

The above classification is naturally not hundred per cent conclusive. It is merely the evidence of the present excavations, which were by no means sufficiently large enough to establish anything definite.

Dating according to this chart of ceramics is a difficult and ungrateful task. Besides that, it is bound to be inaccurate. I therefore merely wish to say that according to the above evidence the various periods must have superseded each other rapidly, for otherwise the element of survival could not be so strongly pronounced as it is. Possibly some of the periods were actually concurrent.

OTHER FINDS

BRONZE & COPPER OBJECTS Apart from a number of more or less unidentifiable fragments of either bronze or copper, the trenches as well as the surface of Dher Majra

Apart from ceramics, Dher Majra was also fairly rich in small finds.

main mound yielded certain interesting objects made of these metals. Trench A, layer one yielded a simple narrow fragment of a bronze bangle with an elevated ridge in the centre. From the same layer, of trench B, however, was recovered a magnificent, though unfortunately fragmentary, open bronze bracelet.

These are discussed below.

Its upper and lower rims are slightly turned outwards and are decorated with a continuous row



Fig. 2.

(7)

of bead-like boucles. A similar row, though not continuous, runs around the bracelet in the centre, thus dividing it into two parts which in their turn are decorated with various elaborate incised patterns.

Typologically nothing similar to this bracelet is known from any other chalcolithic Indian site.

Layer three of trench C yielded a copper toothpick with a hole through its blunt side for stringing it around the neck. Copper rods are common in all layers, though they occur more frequently in the upper two strata.

FAIENCE OBJECTS

Faience objects, are extremely common at Dher Majra. They remain typologically the same through the five layers of the site.

Most common are faience bangles. They are either made of green, blueish or even reddish faience. Specimens recovered from the surface are usually somewhat faded, whilst those from the trenches invariably show traces of a metallic shine which has a tendency to disappear soon after exposure to the air. Most of the bangles bear incised decorations such as herring-bone patterns etc. They are usually circular or oval in section, but triangular ones are not wanting. Whilst the thick specimens seem to be common round bangles, the thinner ones invariably show a curious feature, hitherto unknown. Instead of closing the circle completely, both ends that ought to meet, bend outwards thus:—



Though roughly 1000 faience bangle fragments were recovered from the present excavations, not a single one was sufficiently complete to allow an entirely reliable reconstruction. The above drawing is the nearest approach obtained after careful study of all available fragments. Apart from bangles, faience finger rings—also fragmentary

Fig. 3. —were common. One of them is rectangular in section. Other faience objects include fragments of small pots mostly bearing incised decorations, as well as a faience knob and a decorated faience ball.

Peculiar is a small fragment of almost yellow faience which appears to be the head of a tiny toy animal.

Clay objects other than beads consist of toy cart wheels cut out in various sizes from pot sherds, rough gamesmen, clay marbles and a small terracotta wheel, one side of which is bulging out in the center. Similar types are wellknown from other Indus sites.

Only two bone objects came to light during the excavations. Both are stylos, one large and one small.

Trench B yielded two terracotta figurines one more or less complete, the other fragmentary. The former is a primitive human figurine. As far as appearence is concerned it is somewhat in keeping with the known types from other chalcolithic sites. Its head is barely recognisable, the mouth being the only organ represented—and even that merely by a horizontal incision. There are no arms nor legs and even originally there never seem to have been any. The breasts—whether female or male is not clear—are indicated by two incised dots.

The second figurine seems to have been part of an animal representation. Unfortunately it is so fragmentary that its true nature can not be ascertained.

CLAY OBJECTS

BONE OBJECTS

TERRACOTTA FIGURINES

Both figurines were recovered from layer two, and are made of dark red clay which compares unfavourably with the true Harappa fabrics.

Layer one of trench B yielded two peculiar glazed terracotta tripods. These odd objects are $1\frac{1}{2}$ inches high, and consist of a flat base composed of a three rayed star out of the centre of which a fourth, longer extremety points vertically upwards. Both specimens are covered with a dark green glaze partly damaged. The purpose of these tripods is not clear.

Though Dher Majra did not yield any of the well known squarish chert weights so typical of the Indus sites, it was nevertheless rich in a more crude variety of stone weights. These occur in the form of large and small granite balls. They are fairly well finished and invariably made of the same material. A list of the comparative weights is given below:

No.	Layer.	Weight.
I	BI	15.25 oz.
2	SF	5.20 oz.
3	B ₃	3.5 oz.
4	AI	3.5 oz.
5	Dī	2.125 oz.
6	SF	1.083 oz.

QUERNS, PESTLES, ETC.

Saddle querns and pestles are common in all layers. Of the former, two types could be distinguished, namely a long narrow one and a short broad one. With the exception of one specimen all the others—six in number—were broken. Pestles also are of two varieties. The more common one is usually a well shaped oval or round river pebble. Such specimens invariably show traces of usage. The second type is represented at Dher Majra by one specimen only. It is made of Alabaster in the shape of a medium sized well polished sphere, a part of which was cut off, thus forming a flat rubbing base.

One of the most important features of Dher Majra are the beads recovered in large numbers from the trenches as well as from the surface. The total yield exceeded 1,200 beads which fall into two main categories, stone beads and faience or paste beads. The latter type predominates.

Before entering into a detailed discussion on the beads of Dher Majra I should like to point out that a fair number of beads, both stone and faience, are in an unfinished state. This points to the conclusion that beads were actually manufactured at this site.

It should also be noted that it is unusual for so small a site to yield such vast numbers of beads. I was told by the villagers that every year after the rainy season beggars from the neighbouring areas visit the mound to collect these beads, which are being washed out by the rain. This shows that Dher Majra was by no means untouched, but that it is locally wellknown for its beads, the magnificence and variety of which is amazing.

As almost all the stones used for bead making at Dher Majra are varieties of agate, which occur in the Himalayas and in Tibet, I feel justified in assuming that the raw stones were carried either through the

WEIGHTS

GLAZED TERRA-

COTTA TRIPODS

BEADS

Sirsa valley, which is lined with small chalcolithic sites, or through the valley of the Sutlej as yet unexplored, to this centre of manufacture.

In the following discussion of the beads recovered in this season we begin with those made of stone. The materials used are with few exceptions all agate, ranging from common carnelian to wine red, opaque, and beautifully banded black and white agates.

Other materials used are steatite, emerald, copper, jade, crystal and lapislazuli. One or two specimens are made of ordinary quartzite. The stone beads of Dher Majra are remarkable for their excellent finish. Almost every piece is extremely well polished, well perforated and beautifully shaped. Only faultless stones were used and those, if they splintered off in the course of drilling or cutting were left unfinished and rejected. There are several examples showing how skillfully the beadmakers of Dher Majra worked stones with minor defects, so as to create the effect of a deliberate pattern or design. Spots in the stone for instance are frequently placed in the centre of circular or oblong beads, thus giving the impression of eyes. There are a few examples to show the extreme skill of the drillers who managed to perforate perfectly circular cylindrical beads with a diameter of one millimetre.

Drilling was done in the usual way by first perforating one side of the bead and then boring another hole from the opposite side until the two met. Here again, it is noteworthy that in the majority of cases the perforation meets perfectly in a line. Only very occasionally a bead occurs where this is not the case. There are three predominant types of stone beads, namely cylindrical ones, barrel shaped ones and squars ellipsoid ones. The latter variety is common at Harappa and other Indus sites as well.

Only two etched carnelian beads came to light, neither of them of particular interest.

The majority of unfinished beads are stone beads. They are either beads which are not at all, or only partially perforated, or others, the manufacture of which was abandonned before the shaping was completed. One carnelian specimen is particularly interesting because it was intended for etching, but in the course of drilling the stone cracked and therefore it was left unetched.

The paste, steatite and faience beads largely consist of the typical discoid white beads so common on all chalcolithic mounds. They occur in all sizes from microscopically small ones to the seize of average trouser buttons.

Less common are cylindrical faience beads, which occur in all shades of green, blue, red-brown and black. Multi-coloured pieces are not infrequent. Also of mulicoloured faience are a number of globular beads recovered from layer one. Fluted and incised faience and paste beads are common. The same applies to a class of small globular white paste beads which occurs throughout the five layers of the mound.

Segmented faience beads are not infrequent either. These have the advantage of enabling us to date the layer they are coming from. It has been established beyond doubt that this type came into use during the last period of Harappa, in 1,600 B.C. or nearabouts. Since two of our specimens came from layer two, this gives us a datum line for this deposit.

Other beads of interest are a number of eye beads made of paste, certain cylindrical white paste beads bearing somewhat faded brown decorations, such as dots or dots within circles and a type of flat diagonally double perforated faience beads also found at certain chalcolithic sites in Bikaner State.

A most interesting specimen is a small white paste spacer with a rounded lower part and a flat surface on which are incised two pairs of concentric circles. Furthermore to be noted are two glazed pastebeads, both from trench A, layer one. The glaze of both specimens is similar to that of the tripods described above. Unfinished paste beads are rare, but they do occur occasionally. They are invariably unperforated.

It should be noted, that both chert blades and triangular or circular cakes, so common at typical Harappa sites, did not occur at Dher Majra.

The excavations at Dher Majra, however small, in combination with the general survey of the surrounding country have shown us a number of archaeologically most important facts. First and foremost it has become evident that as far north-east as Rupar and Kalka there are a number of sites which not only yield remnants of the Harappa Culturefor this was known previously-but also remains of a number of post phases entirely unsuspected in this Harappan region. It also appears that if at all we seriously intend to bridge the gap between the alledged downfall of the Harappans and the rise of Chandragupta Maurya's Empire, we shall have to make investigations in this region. Apart from such small mounds as Dher Majra, the subject matter of this report, there is Rupar, a most important site which yields both Painted Grey Ware and, lower down, Harappa wares. This is a unique feature which, together with the evidence from such mounds as Dher Majra will, I am firmly convinced, give us the solution to the problem of the missing link. The broad outline is given, the rest is routine work and money.

It would be most interesting to find out how far north and east the chalcolithic cultures stretched. Therefore it would be advisable to carry out large scale exploration up and down the Sutlej from Rupar, and along the upper Ghaggar, which flows near Kalka rather less than 15 miles from Mehranwalla, the easternmost Harappa site known so far.

I should like to take the opportunity to inform scientists and the public at large of another site, Sosan, near Dagru on the Ludhiana-Ferozepore railway line, which yields Painted Grey Ware and remains of a chalcolithic settlement. This site gives us a link between the sites discussed in this paper and others now in Pakistan, which form the core of pre-historic India.

CHERT BLADES AND CAKES GENERAL CONCLUSIONS

POTTERY ANALYSIS.

The following analysis of the ceramics of Dher Majra deals only with the pieces illustrated below. The serial numbers refer to those of the scale drawings.

The terms "wash" and "slip" denote types of surface finish of the sherds. A "wash" is a dull, rather dusty colouring of the sherd's surface whilst a "slip" is shiny and at times polish like. Both were applied artificially.

The types here discussed represent the minimum of essential shapes and designs recovered from the excavations. The list does not claim to be complete. It is the authors intention to publish in the near future a complete account of the ceramics of Dher Majra. Until then this has to suffice.

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Pottery Analysis.

(SF stands for Surface.)

	1		/ /	1					
No.	Layer	Trench	Manufacture	Core	Slip or Wash	Decorations	Туре	Class	Remarks
1	1	A	Wheel made	Red-brown	Red slip	Painted black bands around body.	Bow1	DMJ—C	***
2	3	В	"	Salmon	•••		Bowl with round bottom	Harappa	
· 3	3	В	"	Salmon	•••		Jar or vase	Harappa	Double rim
4	3	с	"	Salmon	Salmon wash	Painted black bands around body.	Bowl	Harappa	Thinned out rim
5	1	A	**	Salmon	Salmon wash	*****	Water pot	Uncertain	•••
6	2	С	. ,,	Red	Red wash		Dish with flat bottom	Harappa (?)	
7 & 7a	2	В	"	Salmon	Salmon slip	Painted black symbolistic designs inside.	Dish with rounded bottom	DMJ—C	
8	3	с	"	Grey	Grey shiny slip	•••••	Bowl	DMJ—D	•••
9	2	В	33	Salmon	Salmon slip		Offering stand	Harappa	
10	2	B	,,	Red	Red wash		Dish with rounded bottom	Cemetery H (?)	
11	3	В	"	Salmon	Red wash	•••••	Dish with flat bottom	(Uncertain), Presumably Harappa	Rimless
12	4	В	"	Salmon	Red slip	•••••	Water pot (?)	Harappa	•••
13	1	A	••	Red	Red slip		Bowl or lid	Cemetery H	Rimless
14	2	В	33	Salmon	Red slip	Painted black bands around rim and loops around body.	Jar .	DMJ—C (?)	
15	SF	SF		Red	Polish-like slip	Painted black design of strokes between parallel lines on rim.	Dish or bowl	DMJ—C	
18	4	С	"	Salmon	•••		Offering stand	Нагарра	314
17	8	В	**	Salmon	•••		Offering stand	Harappa	502

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No.	Layer	Trench	Manufacture	Core	Wash or Slip	Decorations	Туре	Class	Remarks
18	1	А	Red	Wheel made	Shiny red slip	Painted black groups of strokes on rim and wavy lines alternating with parallel ones around body.	Offering stand	Cemetery H	
19	2	В	Salmon	,,	•••	Incised lines around inside body.	Ring stand	Uncertain	
20	3	В	Salmon	"	Red slip	Painted black bands around rim and body.	Ring stand	Harappa	From above hearth
21	SF	SF	Salmon	"			Offering stand	Uncertain	•••
22	2	В	Salmon	"	Shiny bright red slip		Offering stand	DMJ—C (?)	•••
23 & 2 9	2	D	Red \	"	Bright red slip	Painted black design of alter- nating patterns between paral- lel bands (symbolistic). Neck covered with bands.	Flask	DMJC	•••
24 & 24a	1	В	Salmon	"	Traces of red slip	Ibid, but different patterns.	Flask	Cemetery H	•••
25	SF	SF	Salmon	•1			Flask	Uncertain	•••
26	3	В	Salmon		Salmon wash	Groups of parallel strokes in brown paint on rim.	Lid	Harappa (?)	
27	3	C	Salmon		Salmon slip	Painted black bands around rim and body; loops.	Jar	Harappa	•••
28	2	В	Salmon	"	Salmon wash	Painted black bands around rim and body.	Water pot	Harappa	
29	SF	SF	Reddish		Reddish wash	Painted black interlacing loops on rim and black band around body.	Water pot	Uncertain	•••
30	3	С	Red	"	Red wash	Painted black bands around rim and body.	Water pot or jar	Harappa	
31	SF	SF	Red	"	Red slip	Painted black interlacing loops on rim and around body. Also parallel bands.	Water pot	Uncertain	
32	2	DE	Salmon	"			Lid (?)	Cemetery H (?)	
33	1	В	Salmon	"	Salmon wash		Bowl with round bottom	DMJ—C (?)	
34	1	В	Greyish- salmon	,,			Flask	DMJ—C	Rimless

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No.	Layer	Trench	Manufacture	Core	Wash or Slip	Decorations	Туре	Class	Remarks
35	3	В	Wheel made	Red			Vase or tumbler.	Harappa	Also occurs in post- Harappa context.
36	2	DE	"	Salmon	Traces of salmon wash.	Delicately painted black criss cross squares around body.	Flask	DMJ—С	
37	2	D	"	Salmon	Salmon slip	Painted black design.	Fragment of large jar	Harappa	
38	3	В	• 7	Red	Red wash	Painted blark design above parallel bands.	11	Harappa	
39	2	A	,,,	Reddish	Red slip	Alternating groups of parallel bands and wavy lines in Black paint,	Jar	DMJ—C	Rimless
40	2	В	Hand made	Ash grey/ red			Oil lamp	DMJ—C or Cemetery H	Very rough surface.
41	1	В	Wheel made	Grey	Traces of grey shiny slip.		Water pot	DMJ—D	
42	SF	SF	"	Salmon	Salmon wash	Incised wavy lines and paral- lel lines.	Jar (?)	DMJ—Ca	·
43	2	В	,,	Salmon	Salmon wash	Painted black zig-zag band standing vertically on paral- parallel bands.	?	Cemetery H	
44	1	В	••	Red		Finger grooved.	?	Cemetery H	•••
45	3	В		Red	Dark red slip	Painted black groups of fairly thin parallel bonds.	Water pot	Cemetery H	*
46	1	С	**	Salmon	Red slip	Painted black parallel band around inside body.	Dish or offering stand.	Cemetery H	
47	SF	SF	,,	Salmon	Salmon wash	Painted black bands and groups of vertical strokes on inside rim.	Dish or offering stand.	Uncertain	
48	1	C	.,	Reddish	Salmon wash	Painted black bands and ver- tical strokes on inside rim.	Dish or offering stand.	Cemetery H (?)	•••
49	2	В	21	Red	•••	Finger tipped.	?	Cemetery H	
50	2	В	,,	Salmon	Salmon wash	Incised parallel lines and horizontal wavy band.	?	DMJCa	Traces of fingertip o lower half.
51	SF	SF	,,	Grey	Shiny grey slip		Water pot or jar.	DMJ—D	From kiln mound.

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No	Layer	Trench	Manufacture	Core	Wash or Slip	Decorations	Ture		
					a a contration and the second provide		Туре	Class	Remarks
52	SF	SF	Wheel Made	Grey	Shiny grey slip]ar	DMJ—D	From kiln mound.
53	1	В	"	Red	Traces of red wash	Parallel incised lines with superimposed grooved strokes.	7	DMJ—Ca	Trace of firing, cooking vessel.
54 & 54a	3	В	33	Salmon	Salmon wash		Spouted (?) vessel	Нагарра	"•••
55	2	D	39	Red	Red-brown slip	Painted black pattern above parallel bands.	?	DMJ—С	
56	1	D	33	Red	Dark, bright red slip	Rows of mythological birda below parallel bands in black paint.	7	Cemetery H	
57	3	В	33	Red	Dark, red-brown wash	Painted black group of short wavy lines above parallel bands.	?	Cemetery H (?)	•••
58	1	В	"	Reddist	Reddish wash	Parallel incised lines with a superimposed grooved wavy band.	?	DMJ—C	Traces of finger tip on lower half
59	2	D		Red	Dark red wash	Painted black pattern.	?	DMJ—C	
. 60	1	В	••	Salmon	Red slip	Incised horizontal wavy lines.	?	DMJ—Ca	
61	3	В	>>	Red		Perforated.	Sieve	Harappa	Inside calcinated
62	2	с	3 - 33	Salmon	'	•••••	Gobelet or vase	DMJ—C	
. 63	1	DE	"	Salmon	Salmon wash	Painted black quasi triangle between wavy and parallel bands.	- ?	DMJ—C	
64	2	В	,,	Red	Red slip	Painted black wavy lines in counter movement between parallel bands.	?	DMJ—C	Extremely common throughout upper layers
65 66	} SF	SF	"	Salmov	Salmon wash	Painted black criss-cross pat- tern outside triangle. Dots between each triangle.	?	Uncertain	
67	3	В	"	Red			Toy pot	Harappa	140

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No.	Layer	Trench	Manufacture	Core	Wash or Slip	Decorations	Туре	Class	Remarks
68	5	В	Hand made	Red			Toy pot	Harappa	
69	3	В	"	Red			Toy pot	Harappa	•••
70	3	В	Wheel made	Red			Toy pot	Нагаррь	
71	2	с	"	Red	Deep red shiny slip	Painted black herring bone pattern.	?	Harappa (??)	
72	3	В	n	Salmon	Red slip	Painted black pattern.	?	Harappa (?)	
73	SF	SF	,,	Red	Red wash	Painted black pattern com- posed of vertical strokes, criss- cross designs and parallel bands.	?	Uncertain	
74	1	DE	υ.	Red	Bright red slip	Painted black pattern of paral- lel bands superimposed by groups of three vertical strokes.	?	DMJ—С	Common in upper layers
75	2	D	53	Salmon	Shiny salmon slip	Painted black pattern.	?	Harappa	•••
76	2	ע,	"	Salmon	Salmon wash	Painted black patterns of circles on criss-cross back- ground. Inside each circle two parallel strokes bands.	Ž.	Harappa	
77	2	D	"	Red	Dark bright red slip	Painted black pattern of three fishes between parallel bands.	?	Cemetery H (?)	
78	SF	SF	17	Salmon	Salmon slip ,	Painted black pattern between parallel bands,	?	Uncertain	
79	2	В	13	Red	Red slip	Painted black symbolistic pattern between parallel bands. One of the figures may represent a plant.	Flask (?)	DMJ—C	•••
50	2	В	,,	Red	Red slip	Painted black symbolistic star and parallel bands.	?	Cemetery H	
81	2	DE	,1	Red	Shiny red slip	Painted black pattern of a row of dots between parallel bands.	?	DMJ—C	
82	SF	SF	,,	Red	Shiny red slip	Painted black pattern.	?	Uncertain	
83	1	А	,,	Red	Bright red slip	Painted black pattern (Tree?)	, ?	DMJ—C (?)	

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No.	Layer	French	Manufacture	Core	Wash or Slip	Decorations	Туре	Class	Remarks
84	3	в	Wheel made	Salmon	Salmon wash	Painted black pattern of criss- cross triangles between bands.	?	Нагарра	
85	2	D		Red	Red wash	Painted black pattern (Fish?)	?	DMJC	
86	5	В		Salmon	Salmon wash	Painted black pattern.	?	Harappa	
87	SF	SF	.,	Red	Dark red slip	Painted black pattern.	?	Uncertain	·
88	1	DE	,,	Red	Bright red shiny slip	Painted black pattern of hori- zontal wavy lines in counter- movement with dots in be- tween parallel bands.	?	DMJ—C	
89	3	В		Red	Blackish metaslic slip or polish	/ Painted black pattern.	?	DMJ—A	
90	1	DE	,,	Red	Red slip	Painted black pattern of groups of triangles put against each other between parallel bands.	Cooking vessel	DMJ—C	See text.
91	2	с	,,	Red	Red slip	Painted black pattern basi- cally similar to that of No. 90.	7	DMJ_C	Traces of firi
92	SF	SF	"	Red	Dark red slip	Painted black pattern.	?	Uncertain	
93	SF	SF		Salmon	Salmon slip	Painted black vertical wavy lines.	7	Uncertain	
94	4	с		Salmon	Salmon wash	Painted black tree pattern below wavy lines and paral- lel bands.	?	Harappa	
95	2	D	"	Red	Dark red-brown shiny slip	Painted black pattern.	?	DMJ—C	
96	2	В		Salmon	Red polish-like slip	Painted black pattern.	?	Harappa (?)	

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CERAMICS.



Fig. 4.

(19)



Fig. 5.

(20)





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Fig. 10.

(23)



Fig. 11.

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VIEW OF DHER MAJRA FROM NORTH.



BRONZE BRACELETS, TOOTHPICK, TERRACOTTA FIGURINE, FAIENCE OBJECTS AND TRIPOD.

Plate 11.





TERRACOTTA WHEELS AND BEADS, FAIENCE BANGLES, FINGER RING AND BONE STYLO.



SADDLE QUERN, ALABASTER PESTLE AND STONE WEIGHTS.



ANALYSIS OF BEADS.

(The serial numbers refer to those of the scale drawings).

- 1. Long barrel, eliptic; wine-red agate. From trench C, layer three.
- 2. Roughly circular, roughly tabloid; etched carnelian. Poor workmanship. From SF.
- 3. Standard cylindrical, circular; lapis lazuli. From trench A, layer one.
- 4. Long barrel, circular; white banded, brown agate. From trench A, layer two.
- 5. Short barrel, circular; white banded, light brown agate. From SF.
- 6. Roughly globular; carnelian. From trench B, layer four.
- 7. Truncated, short barrel, semi eliptic; brown agate. A flaw in the stone has been used to create the effect of a design. From trench B, layer one.
- 8. Truncated, short barrel, bicone, circular; hollowed aut perforations; carnelian. From SF.
- 9. Truncated, short barrel, bicone, circular; crystal. From trench D, layer two.
- 10. Standard cylindrical, circular; green steatite. From trench B, layer one.
- 11. Long cylindrical, circular; banded black and white agate. From trench A, layer one.
- 12. Long cylindrical, circular; banded black and white agate. From trench DE, layer two.
- 13. Non-descript; yellowed ivory. From trenchB, layer two.
- 14. Butterfly-shaped; yellowish agate. The effect of two dark dots on each side of the butterfly's wings has cleverly been worked out from a flaw in the stone. From trench A, layer one.
- 15. Short barrel, ellipsoid; white banded black agate. From SF.

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- Roughly circular, irregular semi-elipsoid; shell. Assymetrical perforations. From trench C, layer two.
- 17. Short barrel, elipsoid (quasi tabloid); banded white-brown agate. From SF.
- 18. Short barrel, elipsoid (quasi tabloid); banded white-brown agate. From tench D, layer two.
- 19. Short barrel, cornered octagonal; etched carnelian. From trench B, layer four.
- 20. Truncated, short barrel, circular; pink jade From trench B, layer two.
- 21. Short barrel elipsoid (quasi tabloid); green jade. From trench B, layer two.
- 22. Long barrel, circular; banded red-brown agate. From trench DE layer one.
- 23. Long cylindrical, circular; brown agate. From trench DE, layer one.
- 24. Short barrel truncated, bicone, circular; brown agate. From SF.
- 25. Truncated, long barrel, bicone, circular; steatite. From trench C, layer four.
- 26. Tabloid, circular; shell. From trench C, layer three.
- 27. One-sided, long barrel, circular; banded black and white agate. From SF.
- 28. Long barrel, circular; white paste with olive brown paint. From trench C, layer three.
- 29. Roughly circular, tabloid; carnelian; was intended for etching. From trench B, layer three.
- 30. Truncated, one-sided, standard barrel, circular; black banded, white agate. From SF.
- 31. Long barrel, circular; banded white and yellow agate. From trench B, layer two.
- 32. Truncated, long barrel, elipsoid; white banded, greyish agate. From trench B, layer two.
- 33. Short barrel, semi-eliptic; white paste with painted black pattern. From trench A, layer two.
- 34. Long barrel, circular; banded brownish agate; From SF.
- 35. Short barrel, bicone, fluted; white paste. From SF.

- 36. Vertically rectangular, semi-elipsoid; spacer; white paste. On the flat upper face of this specimen are incised two pairs of concentric circles. From trench D, layer two.
- 37. Roughly globular; white paste (faience?). Vertical painted bands in green and brown. From trench B, layer three.
- 38. Long cylindrical, circular; light green faience; painted decorations of alternating dark green and light green vertical bands. From trench C, layer two.
- 39. Roughly globular; white paste. From trench D, layer two.
- 40. Circular, discoid; steatite. From trench C, layer three.
- 41. Circular, discoid; steatite. From trench B, layer four.
- 42. Standard cylindrical, circular; incised green faience. From trench A, layer one.
- 43. Long segmented, circular; green faience. From trench B, layer two.
- 44. Short cylindrical, circular; incised white paste. From trench C, layer two.
- 45. Truncated, short barrel, bicone, circular; white paste. From SF.
- 46. Circular, tabloid; green faience; perforated on both surfaces. From SF.
- 47. Long cylindrical, circular; white paste; painted brown dots on body. From trench DE, layer one.
- 48. Long cylindrical, circular; white paste; painted brown concentric circles on body. From SF.
- 49. Segmented, circular; white paste; From trench D, layer one.

ABSTRACT.

Barrel shaped and cylindrical stone beads are common throughout all layers, though the emphasis in frequency relies on the upper three strata.

The following numbers are unique regarding their shapes and decorations: Nos. 7, 12, 13, 14, 15, 16, 19, 25, 27, 30, 33, 35, 36, 42.

The following numbers are unique regarding the materials they are made of: Nos. 3, 9, 13.

The following numbers are extremely common throughout all layers: Nos. 39, 40, 41.

The following numbers are common in layers one and two only: Nos. 37, 38, 43, 44, 47, 48, 49.

Of the following numbers no more than three specimens were recovered: Nos. 8, 10, 26, 29, 46.

No. 37 occurs also in other colour combinations. Ibid, No. 38. Alternating colours are black-brown and yellow instead of green.

No. 43 exists in green, yellow-green, and dark green faience and also in white paste. Nos. 2 and 19 are the only etched carnelian specimens recovered.

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BEADS.

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(29)





(2) DARK BROWN COMPACT EARTH WITH SHERDS.

30)

DHER MAJRA Section-Trench "B"



(0) SURFACE HUMUS WITH SHERDS AND (3) MEDIUM BROWN COMPACT EARTH

BRICKBATS.

- (1) LIGHT BROWN LOOSE EARTH AND (4) BROWN LOOSE CLAY WITH SHERDS GRAVEL WITH SHERDS AND BRICKBATS.
- (2) DARK BROWN COMPACT EARTH WITH ASHY STREAKS, BONES AND BRICKBATS.
- WITH MUDDY BANDS.
- AND BONES.
- (5) DARK BROWN COMPACT EARTH WITH SHERDS.
- (6) COMPACT CLAY WITH STRAY SHERDS (PLATFORM).
- (7) PEBBLES.