STRATIGRAPHY AND STRUCTURES JAGAT PATI JOSHI

7

1. SITUATION

LB-3 is a small mound lying to the Last of KLB-2 at a distance of approximately 50 m. From the surrounding area the mound slowly rises to a maximum height of 2.50 m. It covers an area of 50 m (east-west) x 70 m (northsouth). The mound has considerably eroded on all the sides. The central portion has maximum cultural deposit. Surface has been strewn with Harappan pottery and terracotta cakes. A few Early Harappan sherds has also been found.

2. PROBLEM

As the mound KLB-3 lies in alignment with KLB-1 and KLB-2 and its position to the east of City complex, it was thought worthwhile to dig this mound and find out the complex, if any.

3. LAYOUT

The layout of the trenches has been done in alignment with KLB-2 but having a separate grid for the mound. The pegs are between C and F on the mound where trenches have been taken up for excavation.

4. EXCAVATION

Excavation has been carried out in trenches D-5, E-5, D-6, E-6, D-7 and E-7. Natural soil has been touched in D-5, D-6, E-6 and F-6.

5. STRATIGRAPHY, Figs. 7.1 and 7.2

In trenches D-5 and D-6 in Qd 2 and Qd 4 respectively in the south-eastern corner reveals the following stratigraphy which holds good for the entire mound:-

Layer (1) is a universal layer running in both the exposed section having an average 32 cm. thick deposit consisting of loose earth, ash, pottery and terracotta cakes. The colour of layer is slightly brownish.

Layer (2) is also a universal layer having clayey chunks and slightly compact material. The pottery from the layer becomes scarce. This layer lies below layer. (1).

Layer (3) is natural soil consisting of loose sand.

Digging has been done to a depth of 2 m and natural soil has been exposed for 1.30 m.

A study of the stratigraphy of the area reveals that when the Harappan settlers came to this mound, it was already a small natural higher elevated area than the surrounding area.

6. STRUCTURES, Fig. 7.3

In trenches D-5 and D-6, the following complex has been brought to light:-

KALIBANGAN: 1960-69 DISTRICT HANUMANGARH, RAJASTHAN





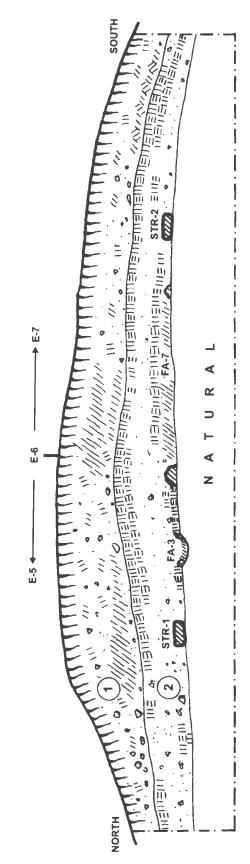


Fig. 7.1



Fig. 7.2 KLB 3 A view of a section



Fig. 7.3 KLB 3 A view of fire altars and walls

1. TRENCH NOS. D-5, D-6, E-5 AND E-6

- 1. Location KLB-3 Square No. D-5, D-6, E-5 and E-6 Quadrants
- 2. Type of structure: Wall
- 3. Stratigraphic position: Built over natural, layer (2) is contemporary to it and layer (1) seals.
- 4. Period and structural phase : Harappan, Phases I & II
- 5. Measurement of structure: (a) 4.90 x 3.40 m outer (b) 3.45 x 2.90 m inner
- 6. Number of courses: One to Two
- 7. Masonry and bond: Single brick masonry east-west, double north-south
- 8. Composition of mortar: Earth and grit
- 9. Composition of plaster: No plaster is available
- 10. Orientation of longer axis: North-south
- 11. Nature of bricks used: Mud bricks
- 12. Dimension of bricks: (a) length 40 cm (b) width 30 cm (c) thickness 10 cm
- 13. State of preservation: Fairly good
- 14. Shape and other distinguishing features: There is an enclosed area within three walls of one to two courses of mud bricks measuring 30 x 15 x 7.5 cm and $2.90 \text{ m} \times 3.45 \text{ m}$ (inner area). The complete outline of the structure could not be recovered. One big and five small fire altars have been found with considerable ashy ground area measuring 2.90 x 2.40 m. The area has yielded triangular terracotta cakes and pottery. The fire altar no. 1 is round in shape (diameter 50 cm) and has burnt reddish loose earth. The fire altar no. 2 which is round in shape (diameter 40

- cm), has a broken terracotta stele. a triangular cake, ash and burnt earth. The fire altar no. 3, which is round in shape (diameter 30 cm), has ash and loose brownish material. The fire altar no. 4 is rectangular (0.65 x 0.53 m) and has one 25 cm high containing triangular terracotta cakes, burnt earth and ash. The fire altar no. 5 is oval in shape, having two stelè in it. Near fire altar no. 4 and 5, a large number of terracotta triangular cakes, broken cakes and pottery have been found. In the adjacent trenches a wall having two courses has been found running northsouth. The wall is 12 m in length and 1.65 m in width. The distance between the fire altar complex and the wall is 4.65 m.
- **STR-1** It is a one brick wall running north-south having a length of 2.50 m, width 30 cm and joining STR-3.
- **STR-2** It is a single brick wall running east-west and joining STR-3. It has a length of 3.15 m and width of 30 cm.
- **STR-3** It is a wall primarily made of two bricks running north-south and having a length of 5 m and width 60 cm.
- **STR-3A** It is a wall extending towards north made of two bricks and joins STR-3.
- **STR-4** It is an approach, the floor is paved with two bricks running east-west in a slightly oblique position and has a length of 2.40 m and width of 60 cm.

STR-5 It is a long wall having a length of 10 m running north-south. It has a width of 1.40 m. It has two courses of bricks. The distance between fire altars complex and the outer thick wall is 4.65 m.

7. ANTIQUITIES

Amongst the antiquities recovered from the dig fragments of two terracotta rams are worth mention besides some other small finds.

The area has yielded a large amount of terracotta triangular cakes. Both broken and unbroken terracotta cakes have also been found.

8. POTTERY

Besides Harappan pottery Early Harappan pottery has also been found from the area. A field study of the early Harappan pottery from the area revealed that it consisted of 15% early Harappan element in the entire pottery assemblage.

Pottery from the area consisted of typical Harappan, red ware and buff ware. The shapes have been, dishes, dishes-on-stand, miniature jars, one of the miniature jars has been found painted. Fabric F in early Harappan and Grey ware in Harappan pottery is absent.

9. BONES

A field study of the bones recovered from the dig revealed the fragments of bones of the following animals and birds. Some of the bones have cut marks.

(1) Fish (2) Zebu (3) Goat or Sheep (4) Gallus (5) Deer

10. GENERAL OBSERVATIONS AND CHRONOLOGICAL HORIZON

At the conclusion of the excavation of KLB-3, the following points may be enumerated:-

- (i) When the Harappans occupied the mound, it was already a higher natural mound.
- (ii) 15% Early Harappan pottery indicated its occupation during the mid-levels (KLB-2 sequence) of Harappan occupation.
- (iii) It was exclusively a religious mound used for ritualistic purpose as no other habitational building is available in the mound.
- (iv) The location of structures in the eastern side of KLB-2 mound is also characteristic. In KLB-1 where a series of fire altars are available. The devotee has to face east while ritual offerings are made in the altars.
 - A separate mound with fire altars of different types adds to its importance and throws important light on the ritualistic life of the Harappans at Kalibangan. This complex although has fire altars but do not contain any bath platforms as in the southern rhomb of KLB-1 where there are both platforms and wells and a sacrificial altar. It appears that this is a stage when the early Harappans as indicated by their pottery and the Harappans living together had only fire altars and animal sacrifice and no bathing platforms in contrast to KLB-1. (See Chart Showing Incidence

of Early Harappan and Harappan Pottery from KLB-3.) This mound has vestiges of ritualistic activity where in bathing is not connected with fire worship or animal offering. The ritual consisted of individual offerings in round and a 'U' shaped fire altar and a central pit with ash. There is an accumulation of triangular terracotta

cakes and in the adjacent area bones with cut marks were available. The association of triangular cakes with the fire altars and the depiction of horned man on one side who is carrying an animal on the back side possibly for sacrifice found in KLB-1 indicates the ritual of animal sacrifices.

CHART SHOWING INCIDENCE OF EARLY HARAPPAN AND HARAPPAN POTTERY FROM KLB-3

Trench	Quadrant	Layer	Early	Early Harappan		Harappan	
					Buff ware	Red ware	Grey ware
9-Q	KLB-3/Qd-4	(1)	Fabric A	6 sherds	19 sherds	20 sherds	Nil
					l dish	2 jars	
					3 vases		
(7 1070 0171	9	4 · · ·		-		
0-n-e	KLB-3/194-4	<u> </u>	ғарпс А	9 sherds, 2 vases, one ring base of vase or bowl	Z1 sherds	21 sherds	
					2 bowls	2 dishes	
					2 vases	1 stem of dish-on-stand	
						1 bowl	
						2 basins	
						3 vases	
						l flat base	
9-Q	KLB-3/Qd 3	(1)	Fabric A	6 sherds, 1 vase	24 sherds	26 sherds	
			Fabric C	l sherd, l vase	2 vases	1 stem of dish-on-stand	70
			Fabric E	1 sherd	l ridged handi or jar	l base of dish-on-stand	
						2 dishes	
						1 miniature vase	
						l basin	
	- 1						
E-5	KLB-3/Qd-1	(1)		1	7 sherds	15 sherds	
						l dish	
						l storage jar	
						l vase	
						l elongated vase	
						1 flat base	

Trench	Quadrant	Layer	Early	Early Harappan		Harappan	
					Buff ware	Red ware	Grey ware
E-5	KLB-3/Qd-1	(2)	Fabric A	1 sherd, no type	87 sheds	52 sherds	
					2 dishes	2 storage jar	
					2 bowls	3 basin	
					5 vases	1 vase	
					2 vases	1 pointed base	
E-5	KLB-3/Qd-1	(2)	Fabric A	1 sherd, no type	30 sherds	49 sherds	
			Fabric D	1 sherd, 1 bowl	l vase	2 vases	
					1 storage jar	2 dishes	
						I dish of dish-on-stand	
						l storage jar	
						1 basin	
						l discular base	
E-5	KLB-3/Qd-2	(1)	Fabric B	6 sherds, no type	40 sherds	6 sherds	
					1 bowl	1 trough	
					1 dish	I vase with flat base	
					2 dish-on-		
					stand bases		
					1 vase flat base		
					1 vase ring base	نم	
E-5	KLB-3/Qd-2	(1)	Fabric A	7 sherds, 1 vase	7 sherds	12 sherds	
			Fabric E	1 sherd	l storage jar	l vase	
						1 base of dish-on-stand	
E-5	KLB-3/Qd-2	(1)	Fabric E	l sherd, l vase	22 sherds	34 sherds	
					No type available	1 base of dish-on-stand	p

Trench	Trench Quadrant	Layer	Early	Early Harappan		Harappan	
					Buff ware	Red ware	Grey ware
E-5	KLB-3/Qd-2	(1)	Fabric A	5 sherds, no type 107 sherds	107 sherds	70 sherds	
			Fabric D	2 sherds, 1 bowl			
				or basin, 1 ring			
				base of trough			
					9 vases	6 storage jars	
					3 dishes	1 dish	
					3 bowls	2 dish-on-stand bases	
					1 jar	1 vase	
					5 foot bases	4 basins	
					3 vases with	2 disc bases	
					flat base		

The analysis of pottery suggests that:

- In Early Harappan Pottery Fabric F is missing and Grey ware is missing in Harappan Pottery. 1. 2. 6. 4.
- In Harappan Pottery there are nine dishes-on-stand besides jars, vases, bowls, basins and one trough.
 - No perforated ware is available.
- No beaker and pointed bottom goblets have been found.



THE POTTERY

CHAPIER

MADHU BALA

1. INTRODUCTORY

Harappan pottery recovered from the various layers of Period II at Kalibangan (Fig. 8a) is comparable with similar pottery from other Harappan sites in fabric, texture and typology.

2. CHEMICAL EXAMINATION

The chemical examination of the Harappan pottery from Kalibangan shows that the body of the pots is prepared fairly uniform in thickness. It has a slightly higher porosity than the Harappan pottery from other sites. The clay has more silica content and the rate of shrinkage and cracks in the pottery is lesser. While the early Harappan pottery is fired between 400-600 C° the Harappan pottery from Kalibangan is fired at a high temperature i.e. 930 C° in a vertical type of kiln. 1

3. TECHNIQUE OF MANUFACTURE

In all the cases the striation marks are mostly uniform and in close set indicating that the pottery is thrown on a fast wheel which could be a foot wheel which is even now used in Punjab and Sind. The movement is regulated by the foot wheel by an axle joined with the turn

table. Some of the types have luted portions involving hand-work of the potter.2 Luting has been done very carefully and the joint is hardly visible. The well levigated clay and high temperature of firing give a metallic ring to the pottery. Burnishing is also seen on some pots and beakers. This could have been done by terracotta beads or stone fluted cores. Some blades appear to be used by potters and these are having a tang for holding. A few hand-made thatis are available which have a high ridge all around. These have considerable husk in the clay, are thick, fired in low temperature and are without any slip or decoration.

4.SURFACE TREATMENT AND PAINTINGS

Generally, the pottery has a light to deep red slip on the outer surface of the pot. The brush has been moved with considerable clarity of thought and action by the potter. The art appears to be quite disciplined and perfect. There are some pots having self-slip also.

The pottery from Kalibangan shows a rich variety of paintings (Fig. 8.1 to 8.3) in black or brown on red slipped surfaces mostly on jars and dish-on-stand consist

¹ B.N.Tandon, 'Scientific Analysis of early Harappan Pottery from Kalibangan' in B.B.Lal *et al.*, *Excavations at Kalibangan the early Harappans (1961-1969)*, New Delhi, 2003, pp. 247-264.

Valentine Roux, Emergence of wheel throwing technique in the Indus during the third millennium B.C. (Preliminary Report), Paris, Sept 1992.

A.C.Pal, 'Foot wheel and the Harappan Pottery', Indian Museum Bulletin, Vol. XI, No. 1, 1976, p.52.

E.Mackay, 'Painted pottery in Modern Sind: A Survival of Ancient Industry', Journal of Royal Anthropological Institute of Great Britain and Ireland, Vol. LX, 1930, p. 127 ff.



Fig. 8(a) A view of pottery yard

of geometric and naturalistic designs. The geometric paintings consist of circles, concentric circles, intersecting circles, dots, horizontal lines, arches, triangles and lozenges, etc. Naturalistic designs comprise of flowers, leaves, banana leaves, petals, peepal leaves, fish scale, sun design, wavy lines, fronds, festoons, hills, fishes, long fishes with peepal leaves, peacocks, stags, etc. either singly or in combination.(Figs, 8.77 to 8.87). A unique find has been a peepal leaf sticking to the surface of a red ware potsherd indicating a sacred angle to the pot itself and shows it had some religious purpose (Fig. 8.73,. In another potsherd, fragment of a jar, there is a beautiful depiction of swimming fishes in water along with peepal leaves. The entire depiction appears to be sacred (Fig. 8.6, No.1)). Some of the designs in pottery have 'The imperial style' of the Indus sites and others have 'regional variations' also.3 There rendering of beautiful natural environment in the scenes e.g. goat, peacock with fish and snakes in the mouth and crocodile with a fish in the mouth. As usual the incised/impressed designs consist of concentric circles, bands, fingernail and rope impressions. These were perhaps done when the pot was on the slow motion on the wheel and these are confined to dishes

5. THE TYPOLOGY

The typology of the pots and pans includes a few platters and spouted vessels, etc. A wide range of vessels are available in perforated types e.g. when the pot was leather hard perforation were made from outside as indicated by the thickness of paste around the inner hole. Jars, vases, cylindrical vases, bowls, dishes-on-stand, cups, beakers and ring stands are found. Painted pots are very

few in the burials. The drooping dish-onstand of the Harappan sites of Haryana and Punjab is altogether missing. The usual 'S' shaped jar, beakers, dish-onstand, variety of perforated jars and goblets, big jars and vases are available.(Figs. 8.4 to 8.72)

6. MINIATURE TOY POTS

The site has yielded miniature toypots having replicas of bigger types in pottery which could be used as play-thing by children or for keeping kohl, scent or rare medicines. (Figs. 8.65 to 8.71 and 8.76)

7. CUT WARE

A cut ware is also found having few flat and curved pieces. The ware has cuts with a sharp tool making cut outs of geometrical designs of running triangles, rectangles, grooves, etc. These are devoid of any slip. Such cut has been reported Mohenjodaro and Chanhudaro also but very few examples are there. Its exact use remains elusive. Marshall, Mackay and Alcock had described these variously. Dales had said the cut ware 'suggests a basically decorative, rather than functional purpose'.4 (Figs. 8.74 and 8.75).

8. GRAFFITI

More than two hundred sherds have graffiti marks both pre-firing, post-firing also post-firing and painted which show a kind of literacy level of the potters and its users during the Harappan times at Kalibangan. One graffiti consisting of the figure of a fish is also inscribed on one of the pots. (Fig. 8.13)

S.R. Rao, *Lothal. A Harappan Port Town (1955-62)*, MASI No. 78, Archaeological Survey of India, New Delhi 1985, pp.345-346. Jagat Pati Joshi, 'Harappan Art' in The Cultural Heritage of India, Vol. VII, Pl. I, (Ed. Kapila Vatsyayana, Rama Krishna Institute of Culture, Kolkata, 2006, 9.323 ff.)

⁴ George F. Dales and J.M. Kenoyer, *Excavations at Mohenjo Daro, Pakistan: The Pottery*, The University Museum, University of Pennsylvania, 1986, p. 229, fig. 93.

Fig. 8.1 DESIGN REPERTOIRE

- 1. Groups of floral design having dots within circles in between.
- 2. Groups of floral design with dots within circles below horizontal bands having chain design.
- 3. Groups of floral design having dots within ovoids in between.
- 4. Groups of floral design having four stylized leaves in between having dots below groups of horizontal bands.
- 5. Row of single *peepal* leaves within circles with in groups of horizontal bands and snakes moving in three sides.
- 6. Running row of floral design within circles in between bands in the upper register and the lower register has semi circles and diamond design below.
- 7. Triple row of stylized criss-cross filled leaves.
- 8. Double row of stylized leaves under row of circles within band.
- 9. Double row of stylized leaves.
- 10. Vertically checker panels in between leaves.

- 11. Stylized leaves on both sides of a branch.
- 12. Sun-like design surrounded by leaves on the right and a tree-like design on the left.
- 13. Below horizontal bands cut by vertical lines and leaves on both sides of the branch.
- 14. Horizontal lines in two registers with running black dots within groups of horizontal bands.
- 15. Branches of a tree showing leaves on branches on both side below running wavy lines.
- 16. Dots within squares on filled in checker design below a wavy line and group of horizontal bands.
- 17. Vertical panels showing plants, dots within circles, leaves and other type of leaves within group of horizontal bands.
- 18. Chess-board design on alternate squares, in between criss-cross fillers with dots within rectangles.
- 19. Fish scale design below horizontal band.



Fig. 8.2 DESIGN REPERTOIRE

The design repertoire consist of the following:

- 1. A set of alternate oblique parallel lines filled with criss-cross design in a perspective having horizontal bands on the top.
- 2. A thick checker pattern within horizontal lines and a dot below the panel
- 3. Horizontal bands and an irregular wavy line in between and an regular line of leaves filled in checker design below the bands.
- 4. Horizontal bands and arch with crisscross checker design in-between.
- 5. Fish-scale design on horizontal bands and wavy lines below.
- 6. A panel of vertical lines between two horizontal bands and a panel of checker design and a big dot below the vertical lines.
- 7. Fronds-like design with horizontal lines.
- 8. A very thick band and a wavy line below.
- 9. A thick band and group of wavy lines below the band and triple lines below the wavy lines probably making semi-
- 10. A panel of criss-cross design within bands and a few dots on inner and outer side of the panel.
- 11. A fish-scale design below the horizontal bands and sun-like design above the bands.
- 12. Horizontal bands and continuous semi-circles with big dots below.
- 13. Two horizontal lines and row of small vertical lines in between, having dot within the circle below the lines.

- 14. Group of horizontal bands cut by vertical small lines in between.
- 15. Some plants shown horizontally and vertically and on the side perhaps standing goat eating plant and on the bottom showing opposite triangles each having dots.
- 16. A panel of criss-cross design on sun-like design on a band.
- 17. Fish-scale design on thick and thin bands.
- 18. Leaf-like design and dots within circles.
- 19. Palm frond type in three circles.
- 20. Double rows of cranes in a line within wavy lines probably standing on water (wavy lines symbolizing water) and sun-like design shown below each bird, and on the bottom horizontal bands and a panel of criss-corss design in between the horizontal bands.
- 21. A panel of palm fronds-like design on both the sides and crane with dots in-between probably shown swimming under water, and short vertical lines and two bands on the bottom.
- 22. Sun-like design in a panel within two bands
- 23. Leaves on different branches with fish on the side.
- 24. Various types of leaves on branches and a sun-like design between two horizontal bands below the leaves.
- 25. Different types of leaves and a panel of sigmas in between horizontal bands.
- 26. Eight thick and thin bands and wavy lines below the bands.
- 27. Thick band and leaves and dots on the branches below the thick band.

- 28. Various types of leaves scattered 31. on the branches around double semi- circles with dots.
- 29. Panel of sun-like design within circles on both ends and panel showing vertical lines in between.
- 30. Various leaves on different 33. branches and dots within circles.
- 31. Different types of leaves on branches and *peepal*.
- 32. Chess-like design on one side and different leaves and *peepal* leaves on different branches on the other side, a row of sun-like design below the leaves.
- 33. Beautiful *peepal* leaves on both sides of the branches.



Fig. 8.2

Fig. 8.3 DESIGN REPERTOIRE

- 1. Peepal leaves floating in water depicted by dots.
- 2. Running sun design within lozenges within circle over a band.
- 3. Aquatic vegetation over two horizontal bands.
- 4. Festoons with floating dot with a line within opposite semi-circles.
- 5. Semicircular strokes and below sigmas within horizontal bands.
- 6. Aquatic plant on a horizontal band.
- 7. Leaning branches of a tree over a horizontal band.
- 8. Running leaves within horizontal bands.
- 9. Three dots making triangular design hanging from two lines.
- 10. Criss-cross design under a group of horizontal bands.

- 11. Small bird sitting on a leaf of a branch of a tree over a horizontal band.
- 12. A dancing peacock and a leaf.
- 13. Running semi-circles filled with horizontal bands.
- 14. A deer/stag surmounted by a bird and leaves on branch below a sun flower design on the right and left having a circular design with leaves over horizontal bands.
- 15. Double semi-circles and net design as filler within horizontal bands.
- 16. Row of triangles with criss-cross design inside within horizontal bands.
- 17. Group of oblique lines within horizontal bands making alternate triangles.

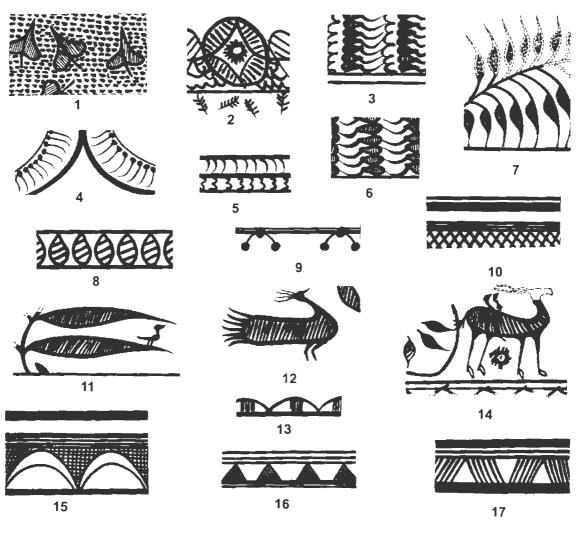


Fig. 8.3

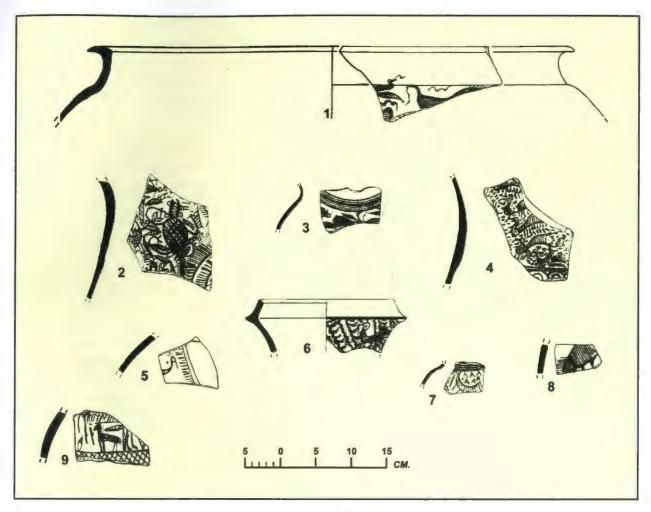


Fig. 8.4

- 1. Big jar of red ware with out-turned beaked rim and oblique shoulders, painted in black showing a design of two peacocks sitting opposite to each having snakes in the mouth and a fish and snakes; of fine fabric treated with dark brown slip. From a mid level of Period II.
- 2. Middle part of a stem of dish-onstand, painted in black on red ware, showing a crocodile with a group of stylized fishes and leaves; of fine fabric, showing an oxidized core, treated with dark red slip. From mid level of Period II.
- Fragmentary vase of red ware, with broken rim and slightly globular body, decorated with black making a design of groups of horizontal lines on the top by a group of six horizontal bands, and various leaves and small bull; of fine fabric showing an oxidized core, treated with dark red slip. From mid level of Period II.
- 4. Stem portion of a dish-on-stand of red ware, decorated with black showing five peacocks below each other and leaves used as fillers on a border of two horizontal bands having groups of circles below; of fine

- fabric showing an oxidized core, treated with dark red slip. From middle level of Period II.
- 5. Fragmentary jar of red ware, decorated with black painting on belly part showing front portion of a peacock with a leaf; of medium fabric showing incomplete oxidized greyish core, treated with self wash. From an upper level of Period II.
- 6. Fragment of a jar of red ware with carinated rim and concave neck, decorated with black showing a peacock within various stylized leaves; of fine fabric, showing an oxidized core, treated with bright red slip. From an early level of Period II.
- 7. Fragment of small jar of red ware painted with black making design

- of horizontal lines on the top of five horizontal lines and a peacock and leaves as fillers; of coarse fabric showing oxidized core, treated with red slip. From an upper level of Period II.
- 8. Fragmentary jar of red ware with oblique sides painted with black showing probably a hind portion of stylized peacock; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
 - 9. Stem part of a dish-on-stand of red ware, decorated with black showing a goat surrounded by branches and leaves based on a border of criss-cross design: of fine fabric showing an oxidized core, treated with red slip. From an upper level of Period II.

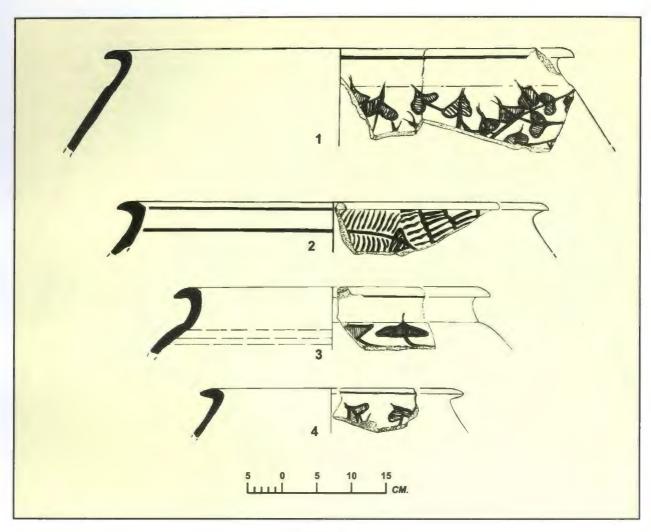


Fig. 8.5

- 1. Big jar of red ware with an out-turned 3. beaked rim and oblique shoulders, painted with black showing ten peepal leaves on branches and black band on the rim; of fine fabric showing an oxidized core, treated with bright red slip. From an upper level of Period II.
- 2. Big jar of red ware with an out-curved featureless rim and oblique shoulder painted with black showing a *peepal* leaf with various branches and leaves; of fine fabric, showing an oxidized core, treated with bright red slip. From an upper level of Period II.
- Big jar of red ware with beaked rim concave neck and globular body, painted with black showing two peepal leaves and a band on the rim; of medium fabric, showing an oxidized core, treated with dark red slip. From a late level of Period II.
- 4. Jar of red ware with a splayed out rim and oblique shoulder, painted with black showing two peepal leaves and a thin band on the rim; of medium fabric showing an incomplete oxidized greyish core, devoid of any surface treatment. From an early level of Period II.

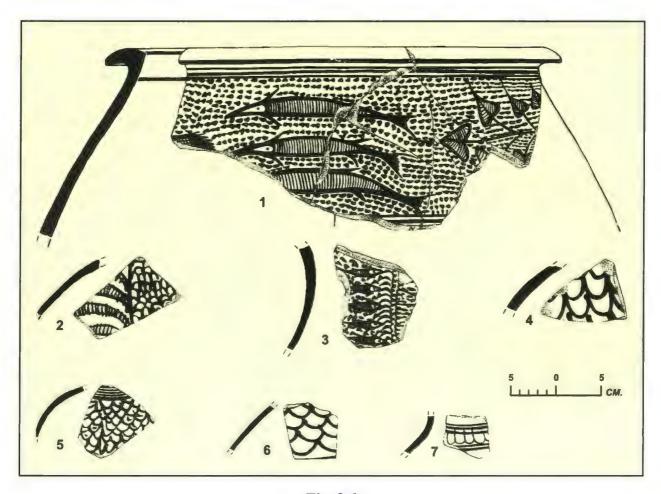


Fig. 8.6

- 1. Big jar of red ware with an out-turned beaked rim and oblique shoulder, painted with black showing a panel of swimming fishes and *peepal* leaves with dots all over as fillers showing bubbles of water in the background with about six *peepal* leaves on a branch in the water; of fine fabric, showing an oxidized core, treated with bright red slip. From an upper level of Period II.
- 2. Middle portion of a fragmentary jar, painted with black showing four leaves and fish-scale design opposite to each other; of fine fabric showing an oxidized core, treated with red slip. From an upper level of Period II.
- 3. Middle portion of stem of dish-onstand of red ware, painted with black showing five fishes with dots, probably showing water in the back- ground; of fine fabric showing oxidized core, treated with bright red slip. From a mid level of Period II.
- 4. Fragment of a jar of red ware, with oblique sides painted with black showing fish-scale design; of medium fabric showing an oxidized core, probably treated with self-wash. From a mid level of Period II.
- Middle part of vase of red ware painted with black showing a group of five horizontal bands and fish-

- scale design below the bands; of medium fabric showing an oxidized core, treated with red slip. From an upper level of Period II.
- 6. Fragment of a jar with oblique sides, of red ware painted with black showing fish-scale design; of fine fabric showing an oxidized core, devoid of any surface treatment.
- From an early level of Period II.
- 7. Fragmentary pot of red ware, painted with black showing a ubiquitous design and horizontal bands, group of three and two; of medium fabric showing an oxidized core, devoid of any surface treatment. From a late level of Period II

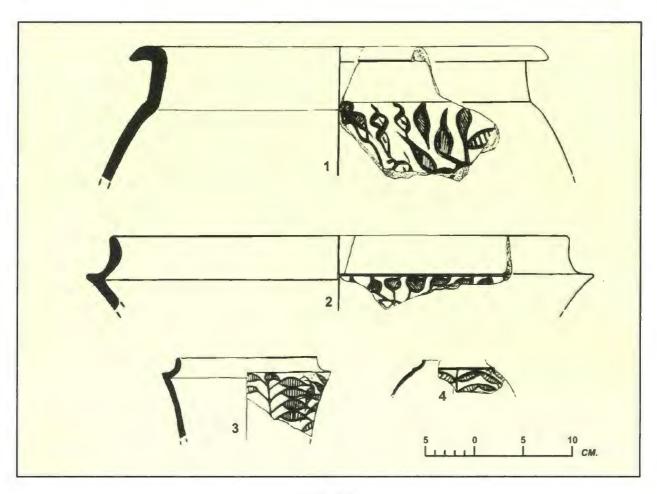


Fig. 8.7

- 1. Big jar of red ware with out-turned flanged rim, oblique shoulder, vertical neck, painted with black showing various types of leaves on branches; of fine fabric showing an oxidized thick core, treated with red slip. From a late level of Period II.
- 2. Big jar of red ware with a slightly thickened featureless rim with prominent carination below, painted with black showing six peepal leaves on a branch; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 3. Jar of red ware with featureless rim and straight sides, carinated neck, painted with black showing many leaves on branches; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary small vase of red ware with featureless rim, spherical body having applique band on the neck, painted with black showing leaves on both sides of a branch below a horizontal band; of medium fabric showing an oxidized thin core, treated with red slip. From a mid level of Period II.

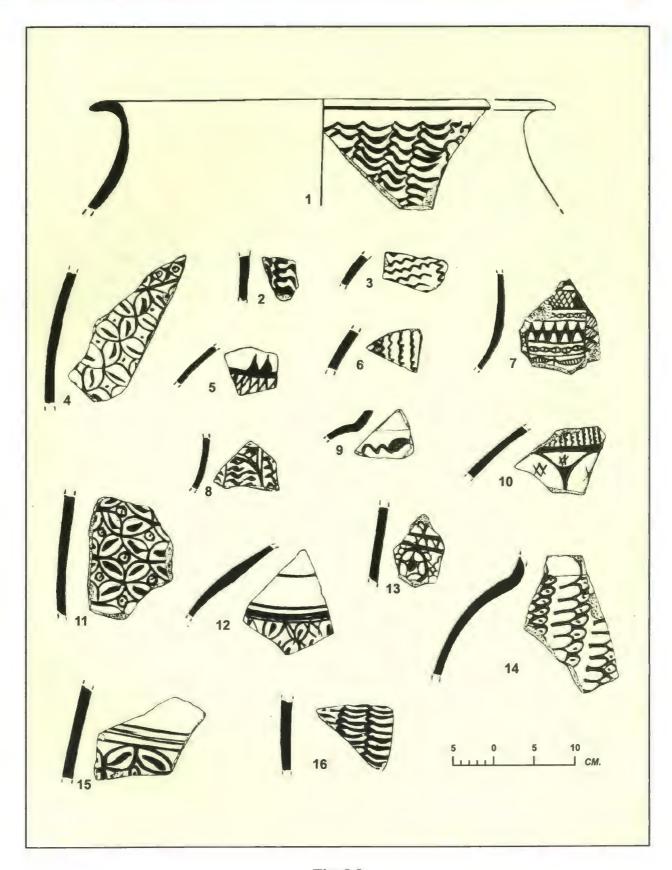


Fig. 8.8

FIG. 8.8

- 1. Big jar of red ware with a flanged rim, concave neck and oblique shoulders, painted with black showing a horizontal band on the rim and an aquatic plant, of coarse fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 2. Fragmentary jar of red ware with broken rim and straight sides, painted in black showing floral motif, of medium fabric showing an oxidized core, treated with red slip. From mid level of Period II.
- 3. Fragmentary jar of red ware with broken rim and oblique shoulder, painted in black showing four wavy lines, of medium fabric showing an oxidized core, treated with red slip. From a mid level of Period II.
- 4. Fragmentary jar of red ware with broken rim and globular body, painted in black showing intersecting circle making floral motif with dots and small leaves as fillers, of medium fabric showing an oxidized core, treated with red slip. From mid level of Period II.
- 5. Fragmentary jar of red ware with broken rim, oblique shoulder, painted in black showing two leaves and diamond design in-between a horizontal band, of medium fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.

- 6. Fragmentary jar of red ware with broken rim and oblique shoulder painted in black showing three hanging creepers and leaves, of fine fabric showing an oxidized core treated with bright red slip. From a late level of Period II.
- 7. Fragmentary jar of red ware with broken rim and convex sides painted in black showing a checker design with in two horizontal bands, a chain with dots below, opposite triangles within horizontal bands, a chain with dots below and leaves below of medium fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 8. Fragmentary jar of red ware with broken rim painted with black showing leaves and branches of a tree, of fine fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.
- 9. Fragmentary jar of red ware with broken rim and a slightly oblique shoulder, painted in black showing a snake like design, of medium fabric showing an oxidized core, treated with bright red slip. From a mid level of Period II.
- 10. Fragmentary jar of red ware with broken rim and oblique sides painted in black showing nine vertical creepers on a band, and star design in-between semi-circles, of fine fabric showing an oxidized core, treated with self wash. From an early level of Period II.

- 11. Fragmentary jar of red ware with broken rim and straight sides, painted with black showing intersecting circles making leaves and dots within circles, of medium fabric showing an oxidized core, treated with bright red slip. From a mid level of Period II.
- 12. Fragmentary jar of red ware with broken rim and oblique shoulder, painted with black showing five horizontal bands and intersecting circle with dots making floral design, of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 13. Fragmentary jar of red ware with broken rim and straight sides, painted with black, showing a circle in a net and two horizontal bands, of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.

- 14. Fragmentary big vase of red ware with a broken rim and a globular body, painted in black stylized leaves shown horizontally in three rows, of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 15. Fragmentary jar of red ware with broken rim and straight sides, painted in black showing four horizontal bands and two leaves below the bands, of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 16. Fragmentary jar of red ware with broken rim and straight sides, painted with black showing some aquatic plant, of fine fabric, showing an oxidized core, treated with bright red slip. From an early level of Period II.

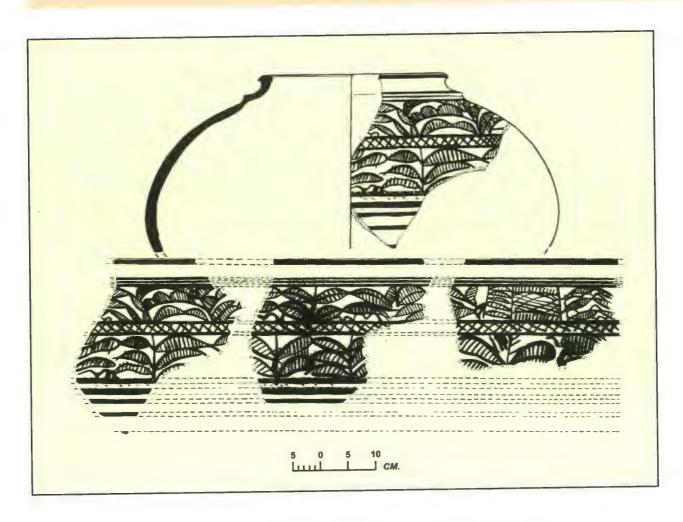


Fig. 8.9

1. Fragment of a big jar of red ware with a slightly out-turned thickened beaded rim, concave neck with appliqué design and globular profile having beautiful design painted in black on red surface. The design consists of double branching stylized leaves in two registers enclosed

within three thin horizontal lines on the top and three thick horizontal bands below. The registers are separated by criss-cross designs within two horizontal bands. The design is further characterized by three types of leaves and probably a bird; of fine fabric with fully oxidized core treated with a red slip. From a late level of Period II

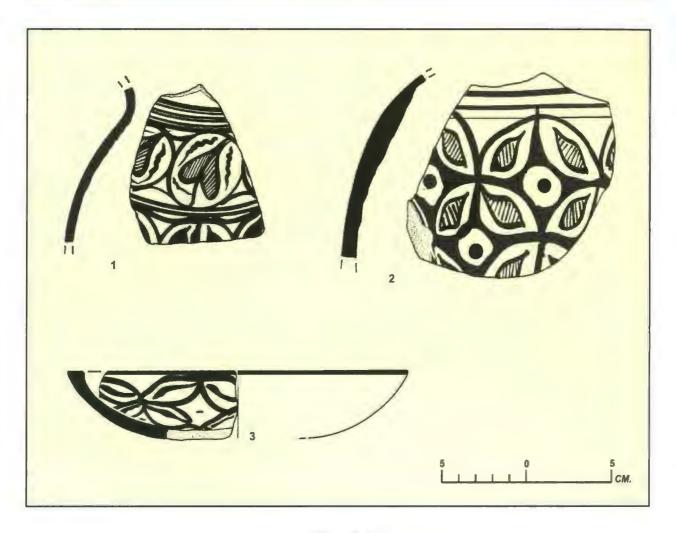


Fig. 8.10

- 1. Fragment of a jar of red ware with broken rim, concave neck and spherical body, painted in black showing row of *peepal* leaves encircled by three snakes within group of horizontal bands; of fine fabric showing oxidized core, treated with red slip. From a late level of Period II.
- 2. Fragmentary jar of red ware with broken rim, spherical body, painted in black making a continuous

- intersecting circles, hatched leaves and floral design having a central dot; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- Fragmentary bowl of red ware with incurved thickened rim, shallow base internally, painted in black making continuous floral design having four petals each; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

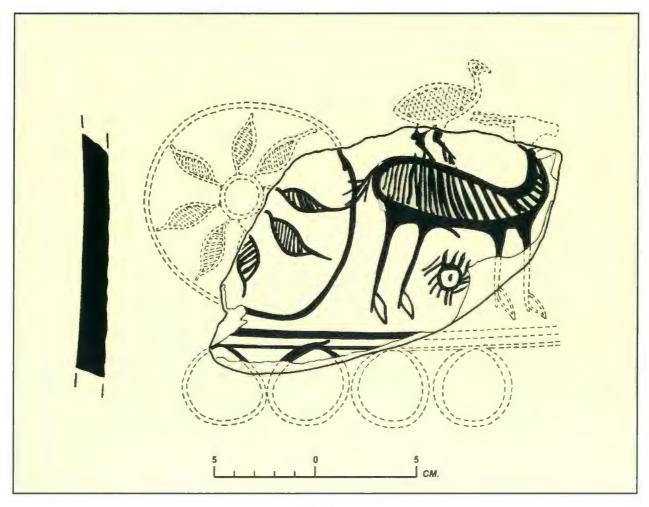


Fig. 8.11

1. Fragmentary middle portion of a jar of red ware with straight sides, painted in black showing floral design with petals within circles on the left and on the

right a deer surmounted by a bird sitting on the back of a deer. Row of circles below the double bands; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

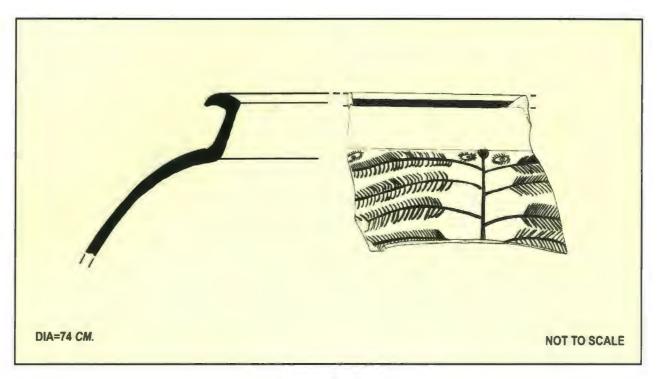


Fig. 8.12

1. Fragmentary big jar of red ware with out-turned flanged rim, concave neck and globular body,

painted in black showing a plant with long branches; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

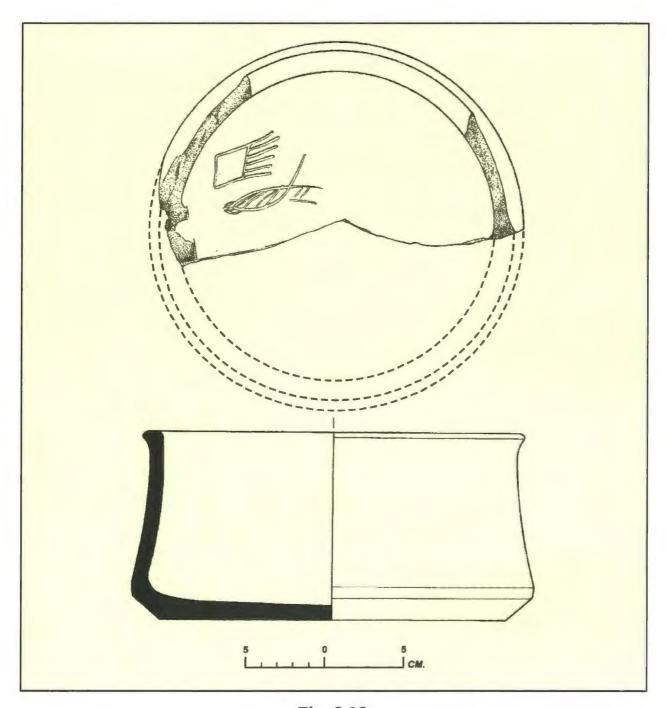


Fig. 8.13

1. Fragmentary basin of red ware, slightly out-turned, thickened rim, straight sides, flat base

internally and externally with two letters of graffiti, of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

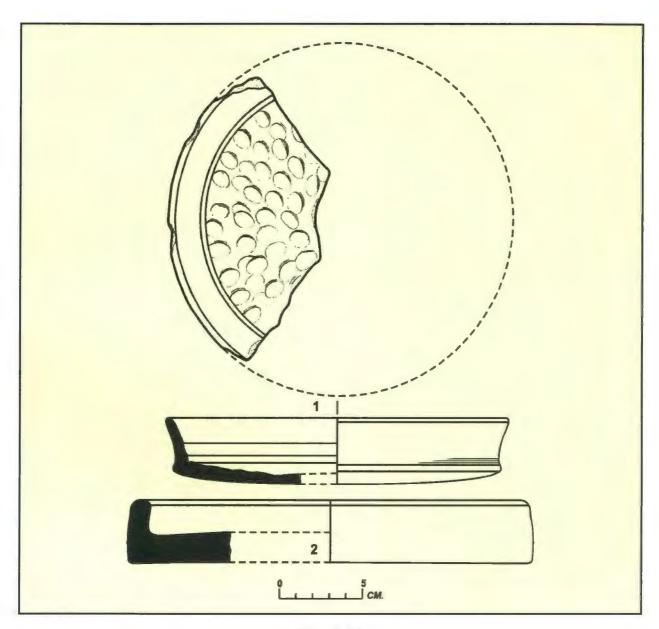


Fig. 8.14

- 1. Fragmentary hand-made platter of red ware having nail design; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Fragmentary hand-made basin of red ware with straight sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II

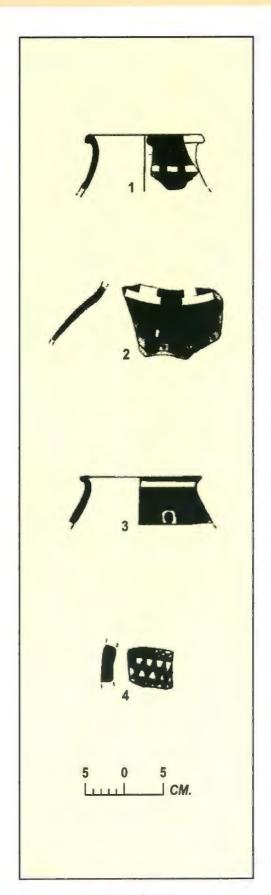


Fig. 8.15

- 1. Vase of red ware with slightly outturned thickened featureless rim,
 concave neck and oblique shoulder,
 painted with black showing two thick
 bands on the top and rows of
 horizontal thin lines of seven and
 four each within four thick dots and
 checker design; of medium fabric
 showing an incomplete oxidized
 greyish core, treated with red slip.
 From a late level of Period II.
- 2. Shoulder part of a jar of red ware with oblique profile painted with black with a group of four horizontal lines and checkers with dots and a row of fronds in between of hooks; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of period II.
- 3. Jar of red ware with a slightly outturned featureless rim and oblique
 shoulder, painted in black showing
 four horizontal and two bands on the
 rim, two wavy line and a checker
 design below the bands in-between
 having big dot; of coarse fabric,
 showing an oxidized core, devoid of
 any surface treatment. From a late
 level of period II.
- 4. Fragmentary jar of red ware with broken rim painted with black showing checker design in-between; of fine fabric, showing an oxidized core, treated with dark red slip. From a late level of period II.

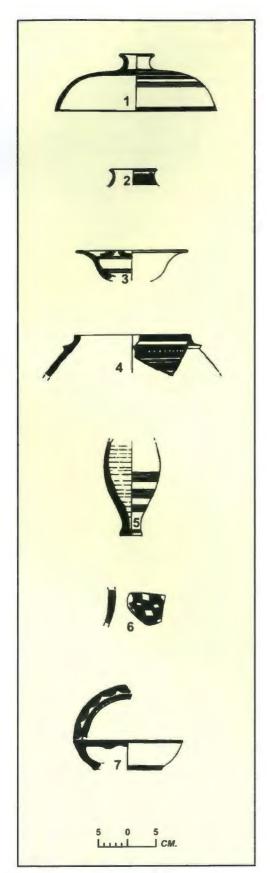


Fig. 8.16

- 1. Lid of red ware with a prominent knob having slightly out-turned rim and spherical body, painted with black on exterior making three groups of horizontal bands of four each and a thick band on the base of the lid; of fine fabric showing an oxidized core, treated with dark red slip. From an early level of Period II.
- 2. Small vase of red ware with a slightly out-turned featureless rim, concave neck painted with black making chain design within five horizontal bands below the chain; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Bowl of red ware with splayed out rim, convex body and sagger base, internally painted with black showing a kind of leaf design and two bands on inner side; of coarse fabric showing an oxidized core, treated with self wash. From a late level of Period II.
- 4. Big jar of red ware with a slightly thickened featureless and ledged rim with appliqué design on the neck, and oblique shoulder, painted with black showing a row of dots within thick and thin bands on the exterior; of medium fabric showing an incomplete oxidized greyish core, treated with red slip. From an early level of Period II.
- 5. Big broken goblet of red ware with globular profile and footed base, painted with black showing groups of eight, six and four horizontal bands, one band on the base; of medium fabric, showing an oxidized core, treated with self wash. From a late level of Period II.

- 6. Fragment of a jar of red ware with 7. broken rim, slightly concave neck, painted on exterior with black making chess-pattern; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- flattened rim and convex sides, painted with black on the rim showing checker pattern within semi-circles as fillers all over the rim and also row of dots within bands making border with a band on the base; of medium fabric showing an oxidized core, treated with self wash. From a late level of period II.

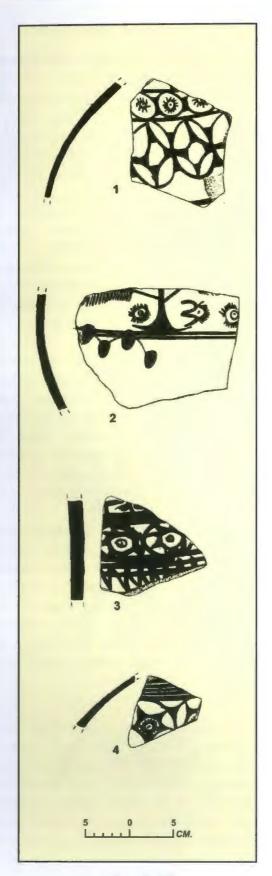


Fig. 8.17

- 1. Fragment of a jar of red ware with oblique profile, painted with black showing a geometrical pattern making circles, also showing three sun-like designs in the circles in between two horizontal bands showing floral design; of medium fabric showing incomplete oxidized greyish core, treated with red slip. From mid level of period II.
- 2. Fragmentary jar of red ware with convex sides, painted with black showing a tree with leaves having a flaring bottom, a panel of two sunlike designs with a sigma above two horizontal bands and four ovoid designs; of fine fabric showing an oxidized core, upper portion treated with bright red slip. From an early level of period II.
- 3. Fragmentary jar of red ware with straight sides, painted with black showing two sun-like designs within circles in between two horizontal bands and continuous wavy lines below the panel; of fine fabric showing an oxidized core treated with bright red slip. From an early level of Period II.
- 4. Fragment of a jar of red ware with oblique shoulder, painted with black making five horizontal bands and a sun-like design and floral design of medium fabric showing an oxidized core, treated with self wash. From a late level of Period II.



Fig. 8.18

- 1. Broken jar of red ware, with oblique profile painted with black showing opposite triangles within horizontal bands and sun-like design above; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 2. Stem portion of dish-on-stand, of red ware with oblique sides, painted with black showing a sunlike design within circle; of coarse fabric showing an oxidized core, devoid of any surface treatment. From a late level of Period II.
- 3. Fragmentary jar of red ware with broken rim and straight sides, painted with black showing dots within a circle and a checker design on the other side; of medium fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 4. Fragmentary jar of red ware with broken rim slightly concave sides painted with black showing six horizontal bands and intersecting circles with leaves below the bands; of medium fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 5. Fragmentary jar of red ware with broken rim and straight sides, painted with black showing sun-like design within orbits and above two leaves; of medium fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.

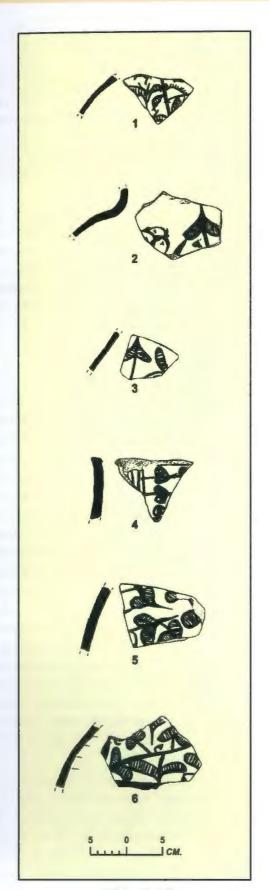


Fig. 8.19

- 1. Fragmentary jar of red ware with broken rim and oblique shoulders, painted with black showing leaves with branches; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 2. Fragment of a jar of red ware with broken rim concave neck and oblique shoulder painted with black showing a *peepal* leaf and probably a bird on the other side; of medium fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 3. Fragmentary jar of red ware with broken rim oblique shoulder, painted with black showing *peepal* leaf and banana leaf; of medium fabric showing an oxidized core, treated with red wash. From an early level of Period II.
- 4. Fragmentary jar of red ware with broken rim and straight sides painted with black showing four *peepal* leaves; of medium fabric showing incomplete oxidized greyish core, treated with self wash. From an early level of Period II.
- 5. Fragmentary jar of red ware with broken rim and oblique shoulder painted with black showing peepal leaves on branches; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 6. Fragmentary jar of red ware with broken rim oblique shoulder painted with black showing five stylized *peepal* and banana leaves of different sizes on branches; of fine fabric showing an oxidized core treated with red slip. From a middle level of Period II.

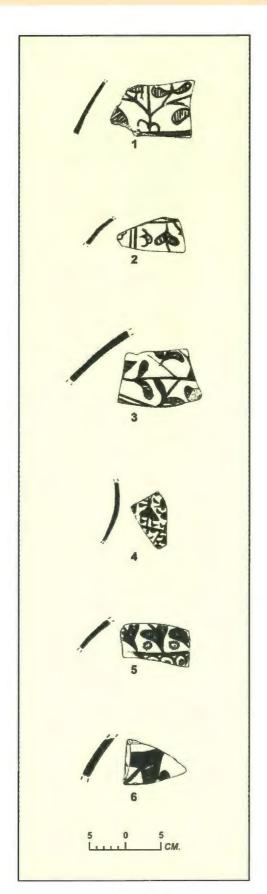


Fig. 8.20

- 1. Fragmentary jar of red ware with broken rim, oblique shoulders painted in black showing stylized leaves with branches; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 2. Fragmentary jar of red ware with broken rim, oblique shoulder painted with black showing a *peepal* leaf with two vertical lines and sigma with dot within circle, of fine fabric showing an oxidized core; treated with red slip. From an early level of Period II.
- 3. Fragmentary jar of red ware with broken rim, oblique shoulder, painted with black showing various stylized *peepal* leaves on branches; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary stem of dish-on-stand red ware with convex sides, painted with black showing a complete *peepal* leaf alongwith other leaves with branches; of fine fabric showing an oxidized core, treated with red slip. From middle level of Period II.
- 5. Fragmentary jar of red ware with broken rim having oblique sides, painted in black showing *peepal* leaves and two sun-like designs with two horizontal bands below probably suns within circles; of medium fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.
- 6. Fragmentary jar of red ware with broken rim, oblique sides painted with black showing a beautiful complete *peepal* leaf; of medium fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.

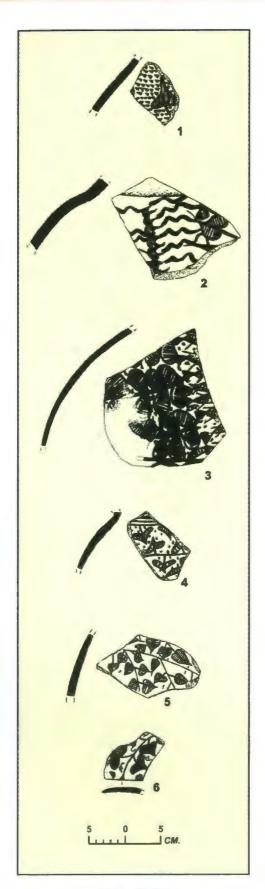


Fig. 8.21

- 1. Fragmentary jar of red ware, with broken rim, oblique shoulder painted in black showing a *peepal* leaf and dots probably showing water; of medium fabric showing an oxidized core treated with red slip. From a late level of period II.
- Fragmentary big jar of red ware with broken rim, oblique shoulder, painted in black showing branches, leaves and peepal leaves; of medium fabric showing an oxidized core treated with red slip. From a late level of Period II.
- 3. Fragmentary big jar of red ware with broken rim, oblique shoulder and globular body painted in black showing various leaves in a row of three in each branch and probably stylized fishes with few dots; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Fragmentary jar of red ware with broken rim, oblique shoulder painted in black showing complete *peepal* leaves with fifteen dots in-between and three horizontal bands above the leaves; of medium fabric, showing an oxidized core treated with red slip. From a late level of Period II.
- 5. Fragmentary jar of red ware with broken rim, oblique shoulder painted in black showing fifteen beautiful peepal leaves with big and small branches; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 6. Fragmentary dish of red ware, painted in black showing three complete *peepal* leaves on branches and stylized birds in-between; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.

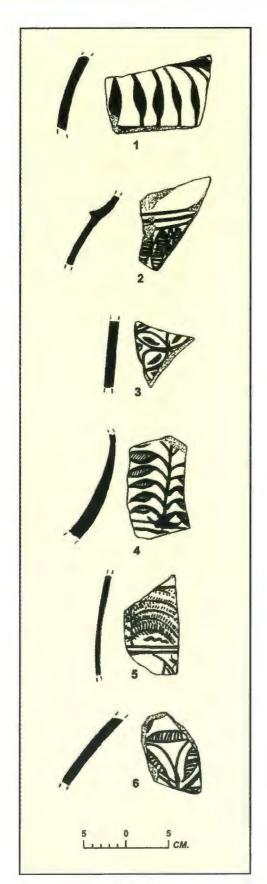


Fig. 8.22

- 1. Fragmentary jar of red ware with broken rim, slightly oblique sides painted in black showing five leaves; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 2. Fragmentary jar of red ware with broken rim, and aplique sides with ledge, painted with black showing leaves and three horizontal bands above the leaves; of fine fabric showing an oxidized core, treated with bright red slip. From a middle level of Period II.
- 3. Fragmentary jar of red ware with broken rim, straight sides, painted with black showing intersecting circles making floral design; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary jar of red ware with broken rim and concave shoulder painted in black showing ten leaves on both sides of a branch; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Fragmentary jar of red ware with broken rim and straight sides, painted in black showing a tree with beautiful small leaves on branches on both sides of the tree in-between horizontal bands and a snake-like design; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 6. Fragmentary jar of red ware with broken rim, oblique sides, painted with black showing three leaves on branches; of medium fabric showing incomplete oxidized greyish core, treated with bright red slip. From a late level of Period II.

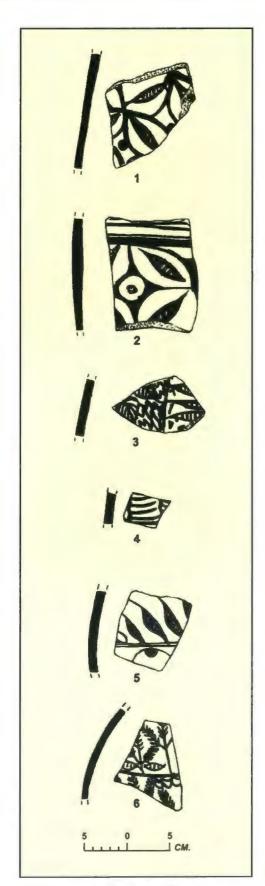


Fig. 8.23

- 1. Fragmentary jar of red ware with broken rim, having straight sides, painted with black showing various leaves on branches; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Fragmentary jar of red ware with broken rim, straight sides, painted with black showing horizontal thick and thin bands on the top and dot surrounded by leaves box; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 3. Fragmentary jar of red ware with broken rim, straight sides, painted in black showing various types of leaves on branches; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary jar of red ware, with broken rim and straight sides, painted with black showing an aquatic plant; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 5. Fragmentary jar of red ware, broken rim painted with black showing five leaves on a branch with a big dot; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Fragmentary jar of red ware with broken rim, oblique shoulder painted in black showing beautiful small leaves on nine branches and a horizontal band and two wavy lines; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

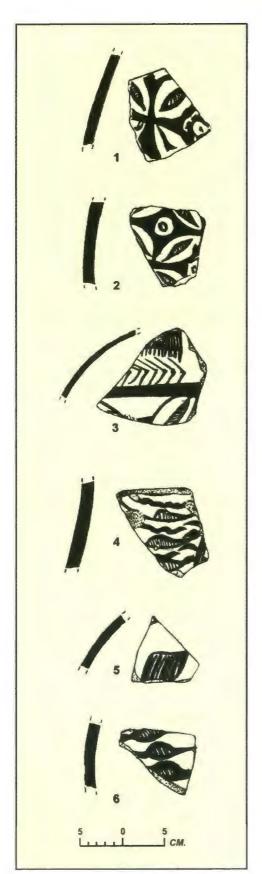


Fig. 8.24

- 1. Fragmentary jar of red ware with broken rim, oblique sides painted with black showing a tree with branches and leaves with a dot within circle; of medium fabric showing incomplete oxidized greyish core, treated with red slip. From a late level of Period II
- 2. Fragmentary jar of red ware with broken rim, straight sides painted with black showing a dot within five leaves on a branch with a big dot; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragmentary jar of red ware with broken rim oblique shoulder, painted with black showing a comb-like design, stylistic birds on a thick horizontal band and a leaf within circle below the band and broad herring-bone design; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary jar of red ware with broken rim, concave sides painted with black showing leaves and wavy lines alternatively besides three small stylized leaves on the side; of fine fabric showing an oxidized core, treated with bright red slip. From a middle level of Period II.
- 5. Fragmentary jar of red ware with broken rim, oblique shoulder, painted with black showing comblike design; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 6. Fragmentary jar of red ware, with broken rim painted with black showing three stylized leaves; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

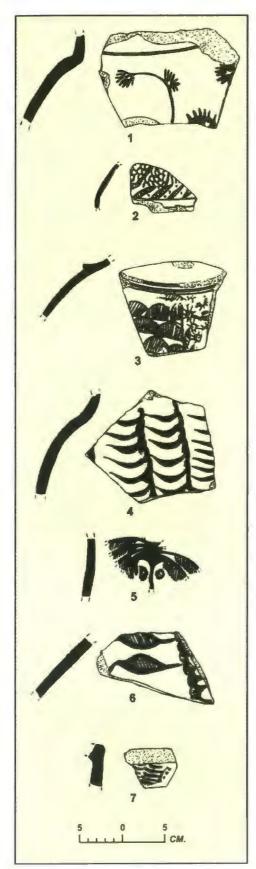


Fig. 8.25

- 1. Fragmentary jar of red ware with broken rim having concave neck and oblique shoulder, painted with black showing a horizontal line on the top and branches with flowers; of medium fabric showing an oxidized core, treated with self-wash. From a middle level of Period II.
- 2. Fragmentary jar of red ware with broken rim, an oblique shoulder, painted with black showing leaves and dots and fish-scale design, with fishes; of fine-fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragmentary jar of red ware with broken rim an oblique shoulder having ledge, painted with black showing three horizontal bands on the top and eight stylized leaves on the branch and various sun-like design fish on the sides; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragmentary jar of red ware with broken rim, bulbous body, painted with black showing probably an aquatic plant; of fine fabric showing an oxidized core, treated with selfwash. From an early level of Period II.
- 5. Fragmentary jar of red ware, with broken rim, straight sides painted with black probably a banana tree with six leaves on the branches with two sunlike designs; of fine fabric showing an oxidized core, treated with bright red slip. From a middle level of Period II.
- 6. Jar of red ware with broken rim an oblique shoulder, painted with black showing two leaves and on one side leaves in a row; of medium fabric showing an oxidized core, treated with red wash. From a late level of Period II.
- 7. Fragmentary jar of red ware with broken rim, straight sides, painted with black showing an aquatic design and dots; of medium fabric showing an oxidized core, treated exactly with bright red slip. From a late level of Period II.



Fig. 8.26

- 1. Fragmentary jar of red ware with broken rim, straight oblique sides painted in black showing different types of leaves and naturalistic design; in-between two horizontal bands; of medium fabric having an oxidized core, treated with bright red slip. From a middle level of Period II.
- 2. Fragmentary jar of red ware with broken rim, oblique sides painted in black showing circles within circles dots and also showing within two rows of running lozenges with a circle and a dot, a panel of criss-cross design and double circles with dots in-between in the squares, making criss-cross designs alternatively; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragment of a jar of red ware, with broken rim, oblique sides painted in black showing aquatic plant and dots within circles; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Fragment of a jar of red ware with broken rim, an oblique shoulder painted in black showing some plant within circles; of fine fabric showing an oxidized core, treated with dark red slip. From a middle level of Period II.
- 5. Fragment of a jar of red ware, with broken rim, convex sides painted in black showing some naturalistic design, fish-scale motif within circle and also snake-like design; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 6. Miniature jar of red ware, with broken rim painted in black showing horizontal bands and dots within circles; of medium fabric showing an oxidized core, treated with red slip. From middle level of Period II.

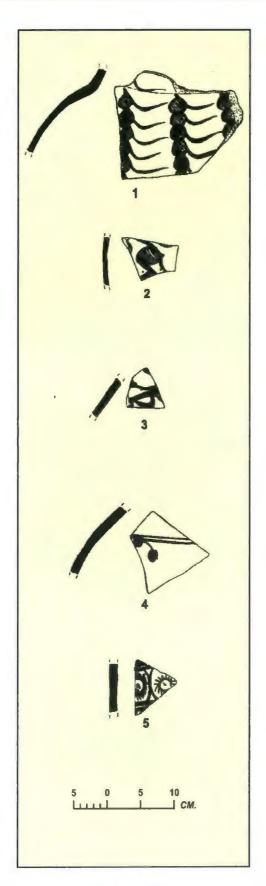


Fig. 8.27

- 1. Big fragment of jar of red ware with broken rim, oblique sides painted in black showing rows of acquatic plants; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 2. Fragmentary jar of red ware with broken rim, convex sides painted in black showing a stylized leaf; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragment of a jar of red ware with broken rim, an oblique shoulder, painted in black making some naturalistic design; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 4. Fragmentary jar of red ware with broken rim, an oblique shoulder, painted in black showing two horizontal lines and balloon-like design; of coarse fabric showing an oxidized core, treated with partly cream and red slip. From a late level of Period II.
- 5. Fragmentary jar of red ware with broken rim, straight sides, painted in black showing a panel of two sunlike design within circles; of fine fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.

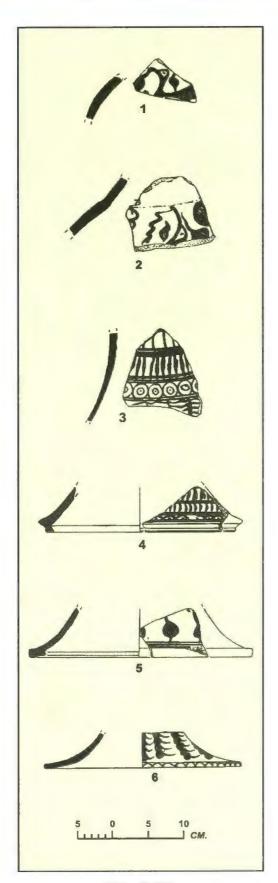


Fig. 8.28

- 1. Fragmentary jar of red ware with broken rim, oblique sides painted in black showing a peacock and a leaf in the mouth; of fine fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.
- 2. Fragment of a jar of red ware with broken rim, oblique sides painted in black showing symbolical birds, snake-like motif and leaf; of coarse fabric showing an oxidized core, treated with red slip. From middle level of Period II.
- 3. Stem of dish-on-stand of red ware, with a slightly oblique shoulder, painted in black showing four vertical lines, ten stylized leaves within a panel of four and three horizontal bands, dots within double circles and showing an acquatic plant below the circle; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 4. Base of dish-on-stand of red ware, with thickened flaring base painted in black showing three panels of stylistic leaves and a panel of dots within semi-circles; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 5. Base of dish-on-stand of red ware with thickened flaring base painted in black showing stylistic *peepal* leaves; of medium fabric showing an oxidized core, treated with red slip. From middle level of Period II.
- 6. Base of dish-on-stand of red ware with flaring base painted in black showing rows of acquatic plant and panel of wavy lines within horizontal bands below; of medium fabric showing on oxidized core, treated with red slip. From a middle level of Period II.

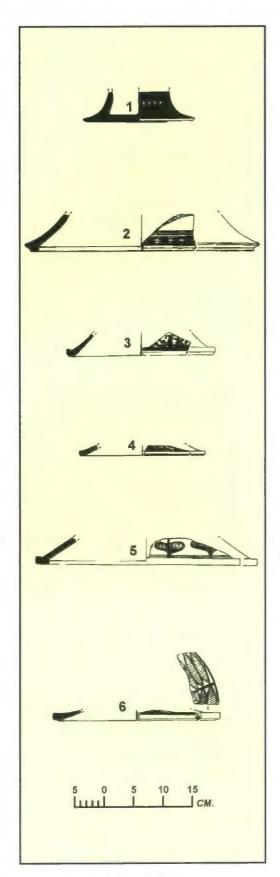


Fig. 8.29

- 1. Base of dish-on-stand of red ware with wide base, painted with black showing dots within circles, making a border within six bands and a thick horizontal band; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Base of dish-on-stand of red ware with wide thickened base, painted in black showing five thin horizontal bands and a thick band on the base in-between showing opposite triangles; of fine fabric with an oxidized core, treated with red slip. From a late level of period II.
- 3. Base of dish-on-stand of red ware with tapering sides and thickened base decorated with black showing a peacock, leaves as fillers and thick border; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Base of dish-on-stand of red ware painted in black showing border of running lozenges with dots in the centre; of fine fabric showing an oxidized core, treated with red slip. From a late level of period II.
- 5. Base of dish-on-stand of red ware with tapering sides and thickened base, painted with black showing two peepal leaves on two horizontal wavy lines; of medium fabric showing an oxidized core, treated with self wash. From an early level of Period II.
- 6. Base of dish-on-stand of red ware with slightly thickened base, painted with black showing a band and leaves; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

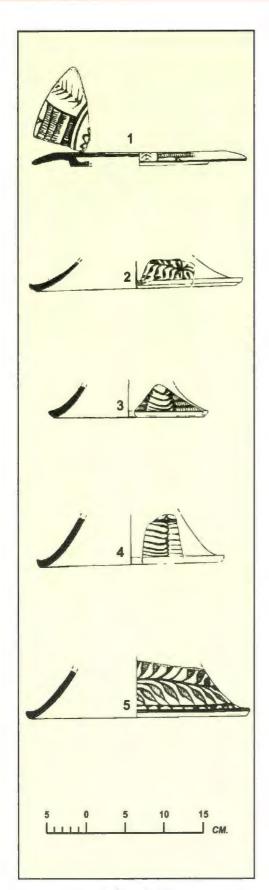


Fig. 8.30

- 1. Fragmentary dish of red ware with flaring rim and flat base, painted with black showing a row of flying birds and banana leaves; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 2. Base of dish-on-stand of red ware, with a flaring base, painted with black showing branch with leaves on both sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Base of dish-on-stand of red ware with flaring base, painted with black showing groups of leaves; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Base of dish-on-stand of red ware with thickened flaring base, painted with black showing leaves on branches; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Base of dish-on-stand of red ware, with thickened base, painted with black showing beautiful leaves on both sides of a branch on horizontal bands; of fine fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.

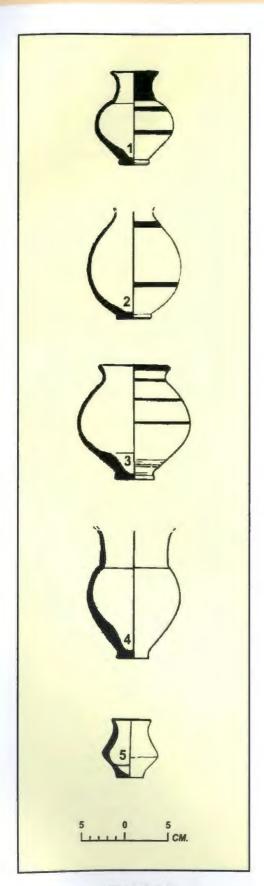


Fig. 8.31

- 1. Vase of red ware with featureless rim concave neck and globular body with disc base, painted black having thick and thin bands; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 2. Pot of red ware with broken rim spherical body and disc base, painted with black bands on the neck and body; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Pot of red ware, with slightly outturned rim, concave neck and globular body and button base, painted with black bands; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Vase of red ware with broken rim slightly concave neck and globular body with disc base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Small vase of red ware with featureless rim, carinated profile and flat base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

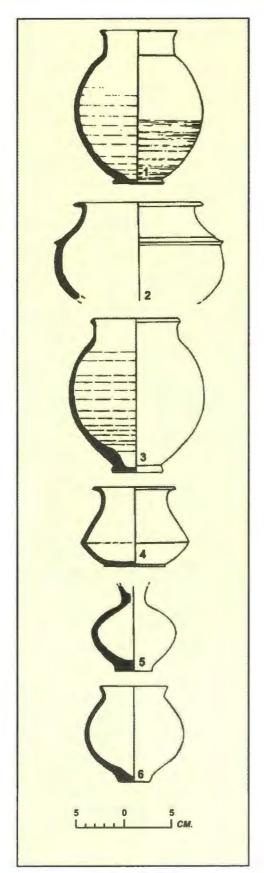


Fig. 8.32

- Pot of red ware with featureless rim, concave neck and globular body with a disc base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 2. Fragmentary jar of red ware with an out-turned featureless rim, spherical body having a ledge on the body; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Pot of red ware with featureless rim and globular body with disc base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 4. Complete pot of red ware with a slightly out-turned rim and concave neck and shoulder with slight carination on the lower portion and disc base; of fine fabric showing an oxidized core, treated with self wash. From an early level of Period II.
- 5. Miniature pot of red ware (having shape of inkpot) with featureless rim, narrow mouth, straight neck and bulbous body with disc base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 6. Small vase of red ware with featureless rim and bulbous body with disc base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

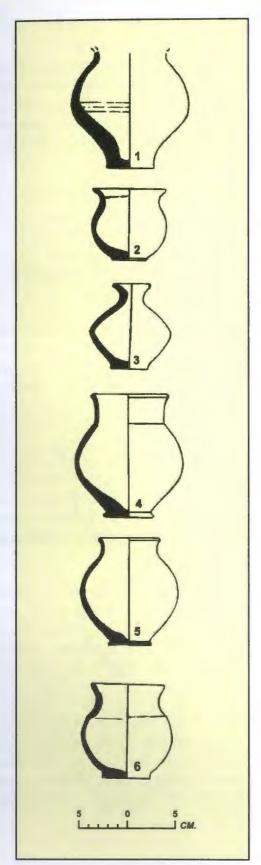


Fig. 8.33

- 1. Pot of red ware with a broken rim and globular body with narrow footed base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 2. Small pot of red ware with slightly out-turned featureless luted rim (this pot is good example of luted rim), a slightly bulbous body and disc base; of medium fabric showing an oxidized core, treated with self wash. From an early level of Period II.
- 3. Miniature pot of red ware (having shape of inkpot) with featureless rim, narrow mouth and bulbous body with disc base; of medium fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 4. Pot of red ware with featureless rim and bulbous body with footed base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 5. Small pot of red ware with featureless rim and bulbous body with footed base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 6. Small pot of red ware with featureless rim, concave neck, spherical body and footed base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

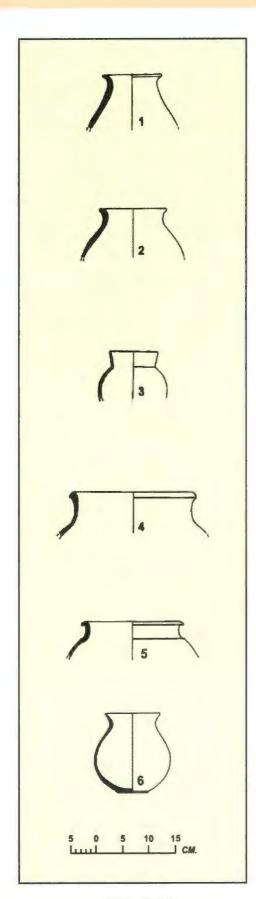


Fig. 8.34

- 1. Vase of red ware with slightly outturned rim, concave neck, and oblique sides; of fine fabric showing an oxidized core, treated with self wash. From a middle level of Period II.
- 2. Vase of red ware with slightly outturned featureless rim, concave neck and globular body; of medium fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 3. A very thin vase of red ware with featureless rim, straight neck and globular body; of fine fabric showing an oxidized core, treated with self wash. From a middle level of Period II.
- 4. Jar of red ware with slightly thickened rim, concave neck and oblique sides; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 5. Jar of red ware with an out-turned flanged rim, concave neck, and spherical body; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 6. Vase of red ware with featureless rim, concave neck and globular body, with flat base; of medium fabric showing an oxidized core, treated with red slip. From a late early level of Period II.

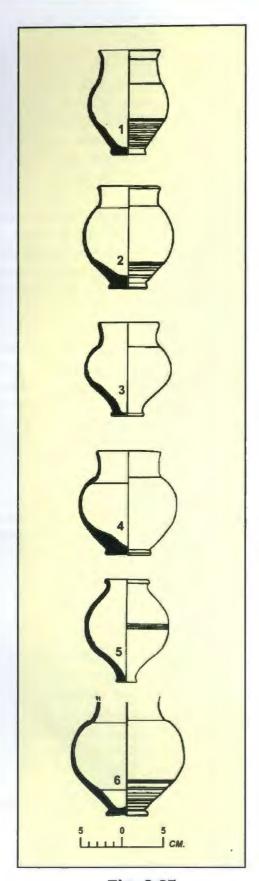


Fig. 8.35

- 1. Pot of red ware with featureless rim, concave neck, globular body and disc base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Pot of red ware with featureless rim, concave neck, spherical body and footed base; of fine fabric showing an oxidized core, upper portion treated with red slip. From an early level of Period II.
- 3. Pot of red ware with featureless luted rim, slightly concave neck, spherical body and disc base; of fine fabric showing an oxidized core, treated with self-slip. From a middle level of Period II.
- 4. Pot of red ware with featureless wide luted rim, slightly concave neck and spherical body with disc base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Goblet of red ware with slightly thickened featureless rim, concave neck, globular body having three incisions and pointed buttoned base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 6. Pot of red ware with broken rim concave neck and globular body with disc base; of medium fabric showing an incomplete oxidized core, treated with self wash. From an early level of Period II.

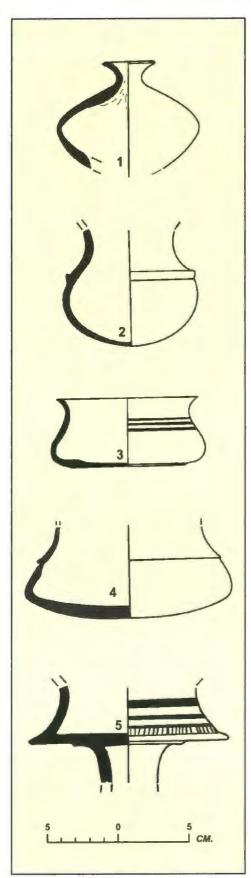


Fig. 8.36

- 1. Miniature pot of red ware with featureless rim, narrow mouth, concave neck and spherical body; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 2. Pot of red ware with broken rim, spherical body having a ledge on profile and flat base; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Pot of red ware with wide mouth and featureless rim, concave neck, and flat base, painted with black showing three horizontal bands; of fine fabric showing a complete oxidized core, treated with red slip. From a late level of Period II.
- 4. Pot of red ware with broken rim, wide mouth oblique sides with ledged profile and sager base; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Bowl-on-stand of red ware with broken rim and slightly concave profile with carinated base, painted with black showing horizontal bands, having broken stem; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

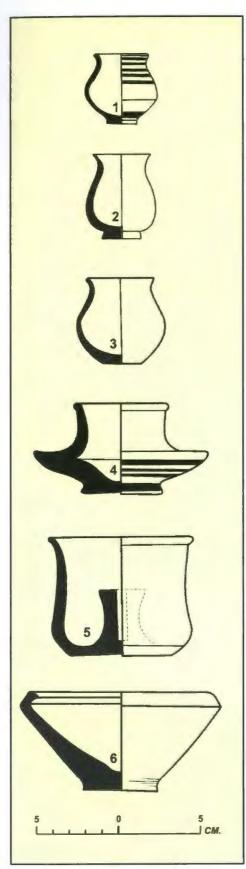


Fig. 8.37

- 1. Miniature thin pot of red ware with featureless rim, slightly concave neck and spherical body with footed base; of medium fabric showing an incomplete oxidized core, treated with self-slip. From an early level of Period II.
- 2. Long miniature pot of red ware with featureless rim, concave neck, spherical body and footed base; of coarse fabric showing incomplete oxidized core, treated with red slip. From a late level of Period II.
- 3. Miniature pot of red ware with featureless rim, concave neck and globular body with flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Lid of red ware with wide deep mouth on the top, having carinated sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Deep lid of red ware almost straight sides having a prominent knob with a hole internally and flat base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Wide-mouthed bowl of red ware with incurved rim, tapering sides and disc base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.

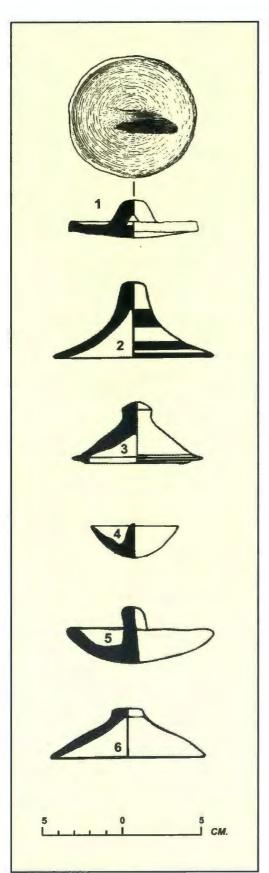


Fig. 8.38

- Lid of red ware with flat base, handmade, with a semi-circular loop handle; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Lid of red ware with a prominent knob, painted in black showing groups of horizontal nine lines; of medium fabric showing an oxidized core, treated with red slip. From middle level of Period II.
- 3. Lid of red ware with a small knob, wide base having three bands; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Lid of red ware with prominent knob, featureless rim; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Deep lid of red ware with prominent knob and bulging sides, hand-made; of medium fabric showing an oxidized core. From an early level of Period II.
- 6. Lid of red ware with a small knob and wide base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

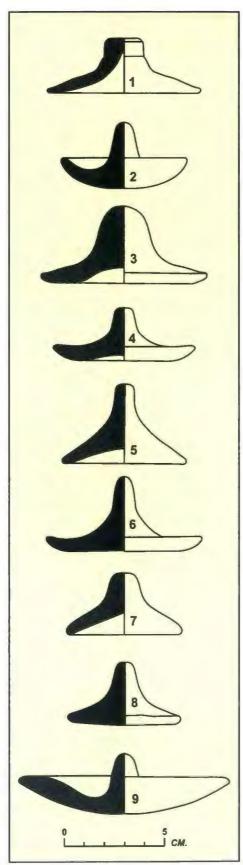


Fig. 8.39

- 1. Fragmentary lid of greyish colour, with prominent buttoned knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- Fragmentary lid of red ware with a prominent knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragmentary lid of red ware with thick prominent knob; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Fragmentary lid of red ware with small knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Fragmentary lid of red ware with prominent knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Lid of red ware with prominent knob; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 7. Lid of red ware with small knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 8. Fragmentary lid of red ware with prominent thick knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 9. Fragmentary lid of red ware with prominent knob; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

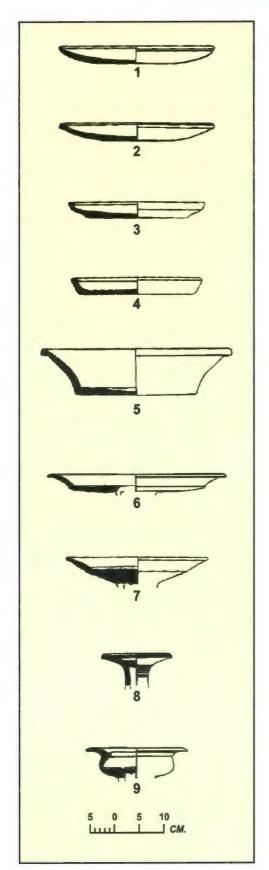


Fig. 8.40

- 1. Wide platter of red ware with thickened folded rim, with shallow base internally and flat contiguous externally; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 2. Wide dish of red ware with thickened folded rim with shallow base internally and flat base externally; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Wide dish of red ware with slightly raised folded rim, and flat base; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 4. Wide dish of red ware with featureless thickened folded rim and tapering sides, flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Wide dish of red ware with very large diameter, splayed-out rim, concave sides and flat base internally and externally; of medium fabric showing an oxidized core treated with red slip. From a late level of Period II.
- 6. Wide dish of dish-on-stand of red ware with splayed-out rim having flat base internally; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 7. Dish of dish-on-stand of red ware with featureless rim, having flat base internally; of fine fabric

- showing an oxidized core, treated with red slip. From a late level of Period II.
- 8. Shallow dish of small dish-on-stand of red ware with featureless rim having broken stem, painted with black showing circles on the top; of fine fabric showing an oxidized core,
- treated with red slip. From an early level of Period II.
- 9. Bowl-on-stand of red ware with externally splayed-out rim, deep base internally grooves on the top; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

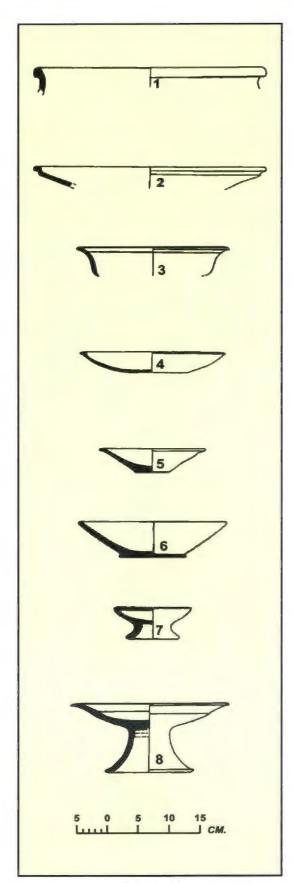


Fig. 8.41

- 1. Big jar of red ware with out-turned thickened rim having straight neck; of medium fabric showing incomplete oxidized greyish core, treated with red slip. From a late level of Period II.
- Dish of red ware with slightly outturned thickened rim, of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 3. Deep bowl of red ware with slightly out-turned featureless rim and straight sides, of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Platter of red ware with featureless rim and flat base; of medium fabric showing an oxidized core, treated with red slip. From middle level of Period II.
- 5. Bowl of red ware with featureless rim having shallow internally and flat base externally; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 6. Deep bowl of red ware with featureless rim, oblique sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 7. Small squat dish-on-stand of red ware with a featureless thick rim and stand, painted with black internally showing wavy lines on the rim; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 8. Dish-on-stand of red ware with featureless rim, flat dish and oblique stand; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

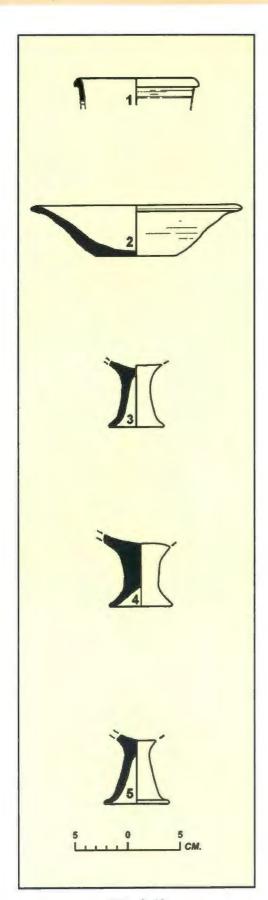


Fig. 8.42

- 1. Small pot of red ware with slightly out-turned thickened rim, straight sides showing incised lines; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Bowl of red ware with out-turned featureless rim, tapering sides and flat base; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Miniature cup-on -stand of red ware with broken cup, straight sides and hollow base, hand-made; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Cup-on-stand of red ware with broken top, straight sides and hollow base, hand-made; of coarse fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 5. Cup-on-stand of red ware with broken top having thickened concave sides and hand-made, having hollow base; of coarse fabric showing an oxidized core, treated with red slip. From an early level of Period II.

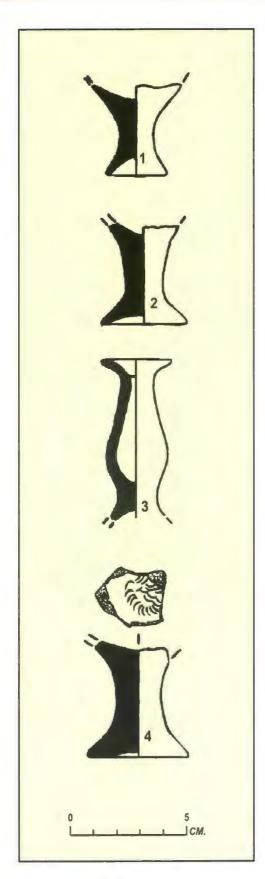


Fig. 8.43

- 1. Miniature dish-on-stand of red ware with broken dish, convex body and flat flaring base, hand-made; of coarse fabric showing an incomplete oxidized greyish core, treated with self slip. From an early level of Period II.
- 2. Miniature dish-on-stand of red ware with broken dish, straight sides and flaring base, hand-made; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 3. Miniature flask of red ware with an out-turned rim, concave neck, convex sides and footed base, handmade; of coarse fabric showing an incomplete oxidized greyish core, treated with self-wash. From a middle level of Period II.
- 4. Miniature dish-on-stand of red ware with broken dish and top of the surface decorated with nail design, convex sides having flat flaring base, hand-made; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.

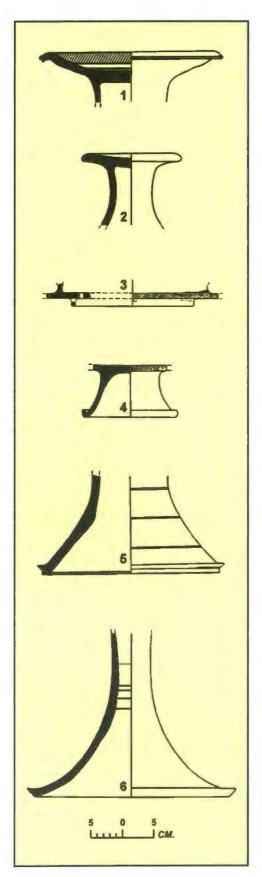


Fig. 8.44

- 1. Dish-on-stand of red ware with outturned rim, straight stem; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 2. Dish-on-stand of red ware with featureless rim and slightly concave stem; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Dish of dish-on stand of red ware with broken top and having perforations on dish with stand on base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Dish-on-stand of red ware with broken dish, oblique sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Big size dish-on-stand of red ware with broken dish, concave stem and hollow flaring base, painted with black bands; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 6. Long dish-on-stand of red ware with broken dish, long concave stem and flaring base; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

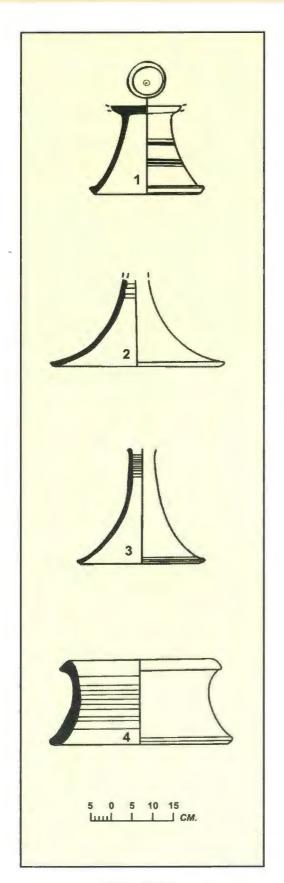


Fig. 8.45

- 1. Dish-on-stand of red ware with broken dish, concave sides with wide base, painted with black showing a dot within circles, also showing two groups of bands four each; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 2. Dish-on-stand of red ware with broken dish, having long tapering sides and flaring base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Large dish-on-stand of red ware with broken dish, having long stem with flaring base, painted with black having bands on the base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Ring stand of pot of red ware with out-turned thickened rim, concave sides having flaring hollow base; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

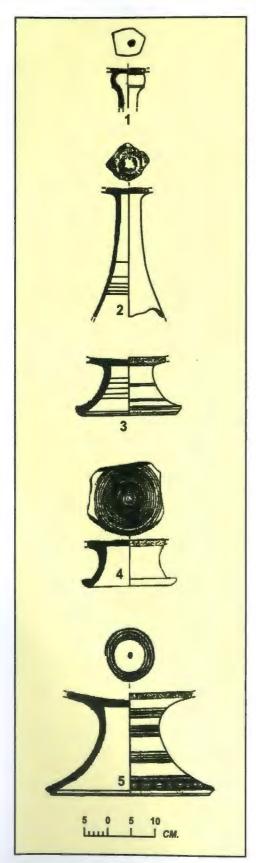


Fig. 8.46

- 1. Bowl-on-stand of red ware with broken rim and bulbous stem having hole on long stem; of fine fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- 2. Dish-on-stand of red ware with broken dish and concave body, decorated with pinch-up design on dish; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 3. Dish-on-stand of red ware with broken dish and concave body, painted with black; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Dish-on-stand of red ware having broken dish with spiral design, coneave sides and out-turned base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Large dish-on-stand of red ware with broken dish showing a dot within spiral design, painted with black bands in groups, coneave sides and flaring base; of fine fabric showing an oxidized core treated with red slip. From a late level of Period II.

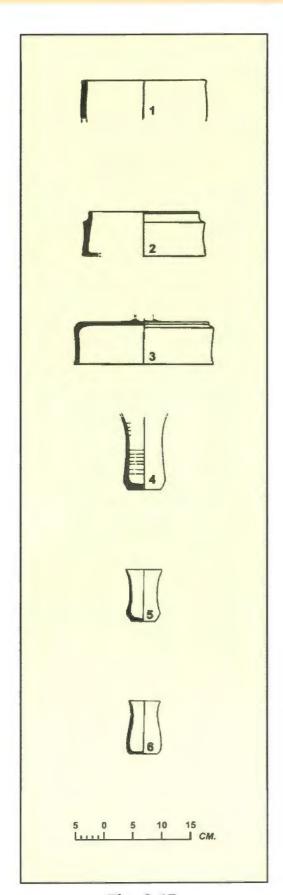


Fig. 8.47

- 1. Bowl of red ware with slightly thickened rim and straight sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Bowl of red ware with featureless rim having ledge near rim; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- Lid-cum-bowl of red ware with a knob and straight sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Beaker of red ware with broken rim and flat base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Small beaker of red ware with concave sides and flat base; of fine fabric showing incomplete oxidized greyish core, treated with self-wash. From a late level of Period II
- 6. Small beaker of red ware with flat base; of fine fabric showing an oxidized core, treated with red wash. From a late level of Period II.

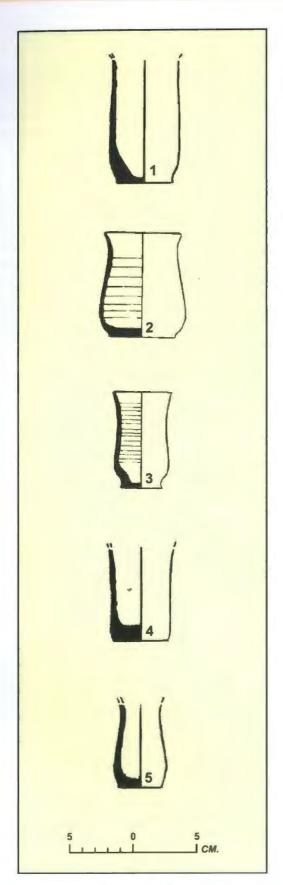


Fig. 8.48

- 1. Wide-mouthed beaker of red ware with broken rim, having straight sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Wide-mouthed beaker of red ware with slightly out-turned rim, concave neck, slightly spherical body and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Small narrow, mouthed beaker of red ware having featureless rim, straight sides and button base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Wide mouthed beaker of red ware with broken rim having straight sides and flat base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Small narrow-mouthed beaker of red ware with broken rim and slightly concave neck and bulbous body below; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

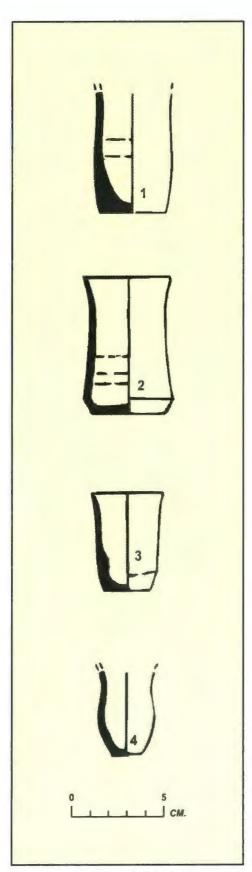


Fig. 8.49

- 1. Small beaker of red ware with broken rim, straight sides and flat base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 2. Miniature beaker of red ware with featureless rim, slightly concave sides and flat base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Miniature beaker of red ware with featureless rim straight sides and flat base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 4. Small goblet of red ware with broken rim, concave sides and disc base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

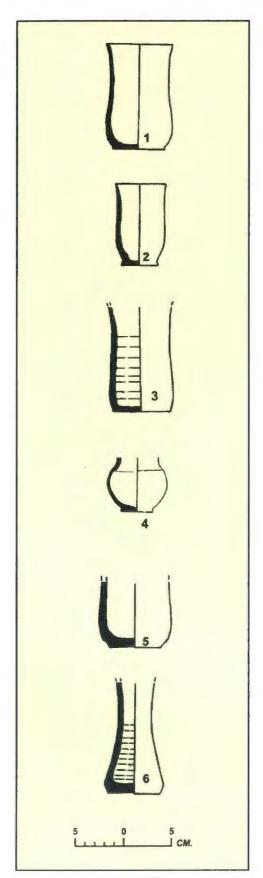


Fig. 8.50

- 1. Beaker of red ware with flat base; of fine fabric showing an oxidized core, treated with red wash. From a late level of Period II.
- 2. Beaker of red ware with straight sides and footed base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Beaker of red ware with broken rim, straight sides and flat base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 4. Miniature pot of red ware with broken rim, slightly globular profile and flat base; of medium fabric showing an oxidized core, treated with self wash. From a late level of Period II.
- 5. Base of a beaker with disc base; of medium fabric showing incomplete oxidized greyish core, treated with self-wash. From a late level of Period II.
- 6. Beaker of red ware with a broken rim, slightly narrow body and a wide flat base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

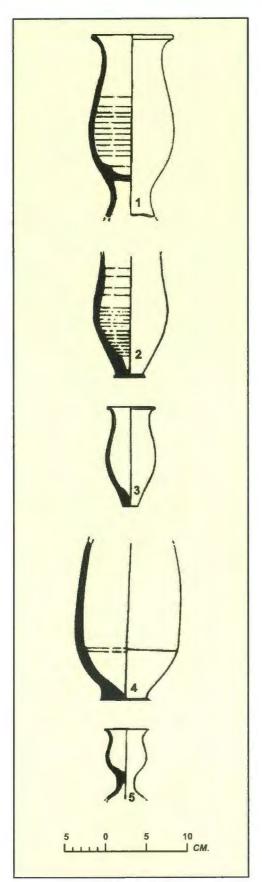


Fig. 8.51

Fig. 8.51¹

- 1. Goblet of red ware with featureless rim, concave neck, elongated body and broken base; of medium fabric showing an oxidized core, treated with self- wash. From an early level of Period II.
- 2. Goblet of red ware with broken rim, elongated body with disc base; of fine fabric showing an oxidized core, treated with self-wash and burnished surface treatment. From a late level of Period II.
- 3. Small goblet of red ware with featureless rim, concave neck, elongated body and disc base; of fine fabric showing an oxidized core, treated with self-wash. From a middle level of Period II.
- 4. Big goblet of red ware with broken rim, elongated body and footed base; of medium fabric showing an oxidized core, treated with red slip. From a late of Period II.
- 5. Goblet of red ware with featureless rim, concave neck, spherical body and broken footed base; of fine fabric showing an oxidized core, treated with self-wash and burnished treatment. From a late level of Period II.

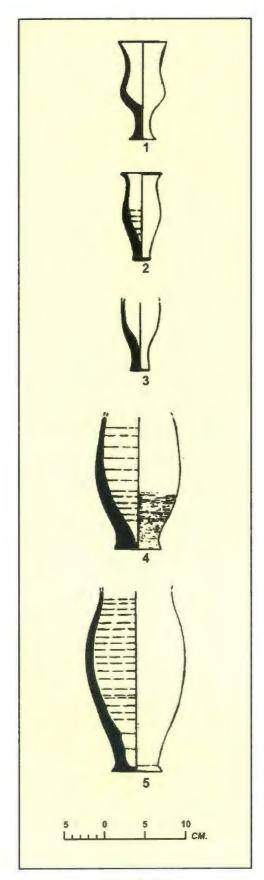


Fig. 8.52

- 1. Goblet of red ware with featureless rim, slightly concave body and elongated disc base; of fine fabric showing an oxidized core, treated with self-wash and lower surface given burnished treatment. From middle level of Period II.
- 2. Small goblet of red ware with slightly out turned rim, concave profile and elongated disc base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 3. Goblet of red ware with broken rim and straight sides with elongated base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 4. Big goblet of red ware with broken rim, spherical body having multiple incision on lower body with disc base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Big goblet of red ware with broken rim, spherical body and disc base; of medium fabric showing an ill fired core, treated with self-wash. From a late level of Period II.

Specially goblets have been given burnished treatment in this figure.

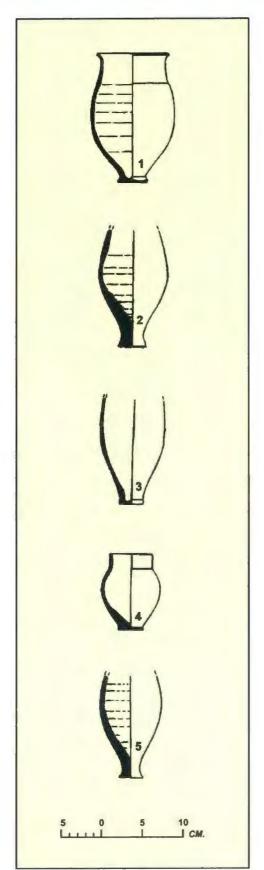


Fig. 8.53

- Pot of red ware with a featureless rim, slightly concave neck and spherical body with footed base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Goblet of red ware with broken rim, spherical body and elongated disc base; of fine fabric showing an oxidized core, treated with self-wash and burnished surface treatment. From a late level of Period II.
- 3. Goblet of red ware with broken rim and spherical body with footed base; of fine fabric showing a complete oxidized core treated with burnished surface. From a middle level of Period II.
- 4. Goblet of red ware with featureless rim, concave neck and globular body with flat base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Goblet of red ware with broken rim and globular body with elongated base; of fine fabric showing an oxidized core, treated with self-wash and burnished surface treatment. From a late level of Period II.

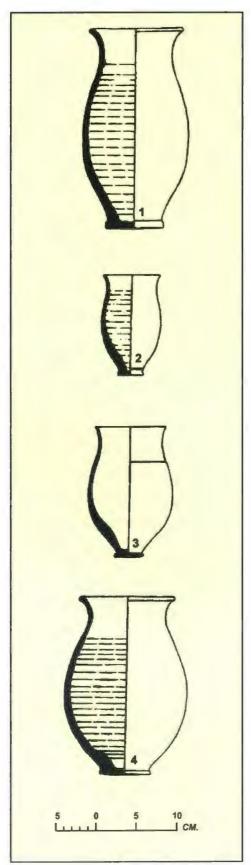


Fig. 8.54

- 1. Long vase of red ware with a featureless rim, concave neck, spherical body and disc base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 2. Goblet of red ware with a featureless rim, slightly concave neck and slightly globular body with disc base; of fine fabric showing an oxidized core, treated with self-wash and lower portion with burnishing. From a late level of Period II.
- 3. Goblet of red ware with a featureless rim, slightly concave neck and spherical body with footed base; of fine fabric showing an oxidized core, treated with self-wash having burnished surface. From a late level of Period II.
- 4. Vase of red ware with a featureless rim, concave neck and spherical body with disc base; of fine fabric showing an oxidized core, treated with self-wash and lower part of the body treated with burnishing. From a late level of Period II.

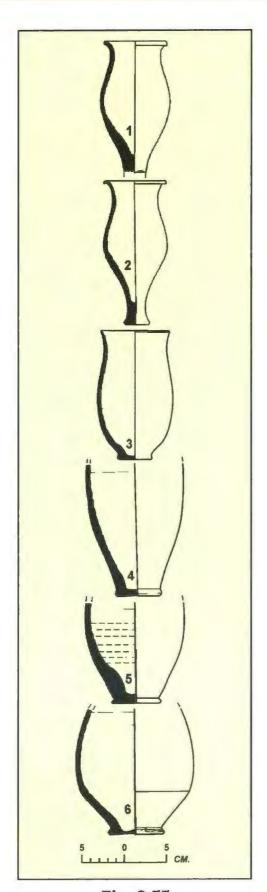


Fig. 8.55

- 1. Goblet of red ware with featureless rim, concave neck with spherical body and broken footed base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Goblet of red ware with featureless rim, concave neck with globular body and button base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Flask of red ware with featureless rim slightly spherical body and disc base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 4. Flask of red ware with broken rim, spherical body and disc base; of fine fabric showing an oxidized core, treated with red slip. From a medium level of Period II.
- 5. Flask of red ware with broken rim, spherical body and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Pot of red ware with broken rim spherical body and disc base; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.

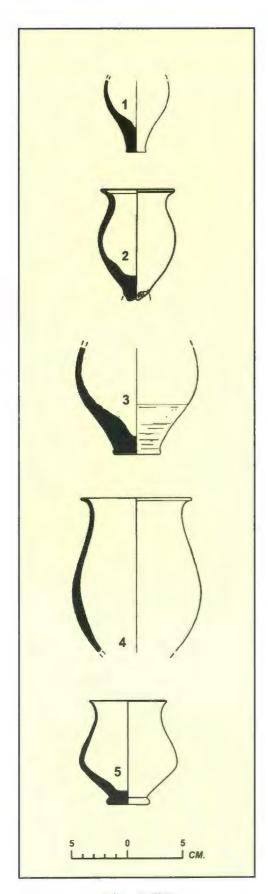


Fig. 8.56

- 1. Goblet of red ware with broken rim, and globular body having long button base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Vase of red ware with slightly out turned rim, concave neck and spherical body with broken base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- Cup having wide mouth, of red ware, with spherical body and flat base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Vase of red ware with featureless rim, concave neck and spherical body; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Miniature Vase of red ware with featureless rim, concave neck and spherical body with disc base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.

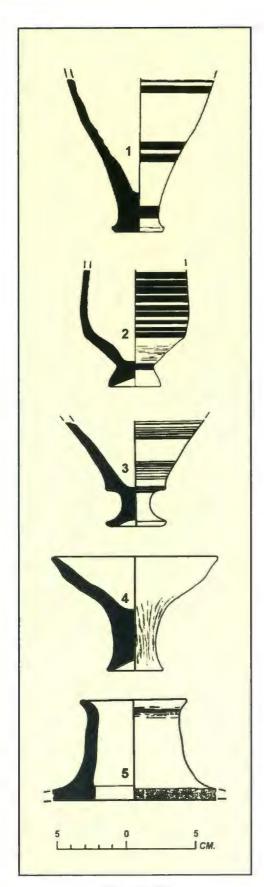


Fig. 8.57

- 1. Cup of red ware with broken rim and tapering sides with button base, painted with black bands on exterior; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Bowl of red ware with broken rim and straight sides with footed base, painted externally with horizontal bands; of fine fabric showing an oxidized core, treated with bright red slip. From an early level of Period II.
- 3. Cup-on-stand of red ware with broken rim showing tapering sides painted with black bands and footed base; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Bowl-on-stand of red ware with deep bowl, tapering sides and long stand having burnishing; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Stand of red ware with wide top, straight sides and flat flaring base, painted with black bands externally; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

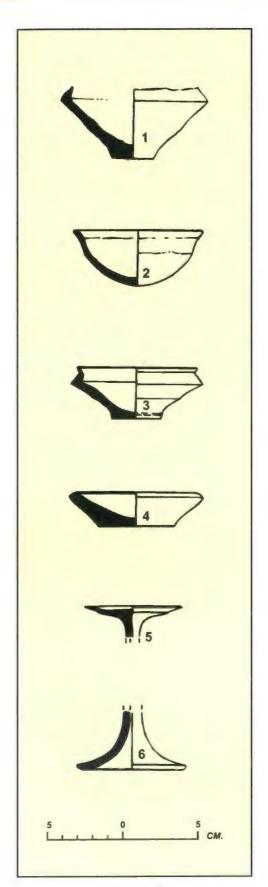


Fig. 8.58

- 1. Bowl of red ware with broken incurved rim having carinated exterior and flat base; of coarse fabric showing an oxidized coarse treated with self-wash. From a late level of Period II.
- 2. Miniature bowl of red ware with featureless rim and round base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Small bowl of red ware with a featureless rim, deep and carinated exterior with disc base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 4. Small bowl of red ware with featureless thickened rim and flat base; of medium fabric showing an oxidized core, treated internally with red slip. From a late level of Period II.
- 5. Miniature very thin dish-on-stand of red ware with a splayed out rim and flat dish, straight broken stem; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Stand of dish-on-stand of red ware with broken dish, concave sides and flaring base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.

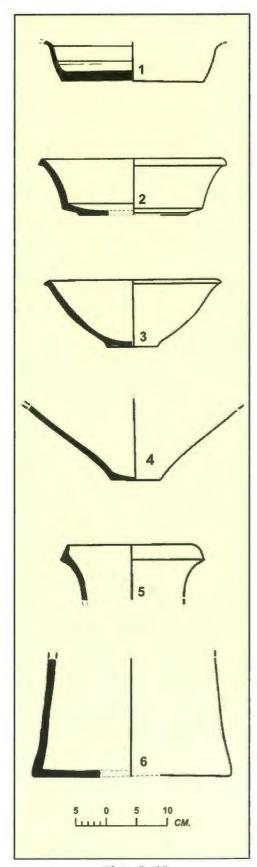


Fig. 8.59

- 1. Dish of red ware with out-turned wide mouth, straight sides and flat base, painted with black having circles within circles and band on the rim internally; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Bowl of red ware with featureless wide mouth rim, concave sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Deep bowl of red ware with slightly out-turned rim, tapering sides and disc base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 4. Wide deep bowl of red ware with broken rim, tapering sides and disc base; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 5. Vase of red ware with featureless luted carinated rim, straight sides, hand-made; of coarse fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 6. Large jar for red ware with broken rim, straight sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.

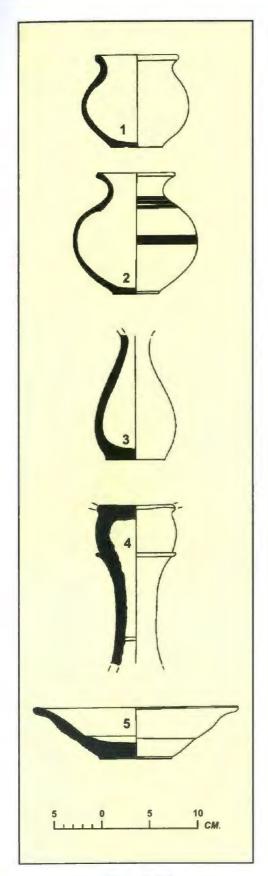


Fig. 8.60

- 1. Vase (lota) of red ware with slightly out-turned rim, concave neck, spherical body and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Vase (lota) of red ware with featureless rim, concave neck, globular body and disc base, painted on shoulder showing triple lines and single line on body, of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Flask of red ware with broken rim, gourd-shaped body and flat base; of medium fabric, showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Stem portion of dish-on-stand of red ware with straight sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Bowl of red ware with featureless rim, oblique sides and disc base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

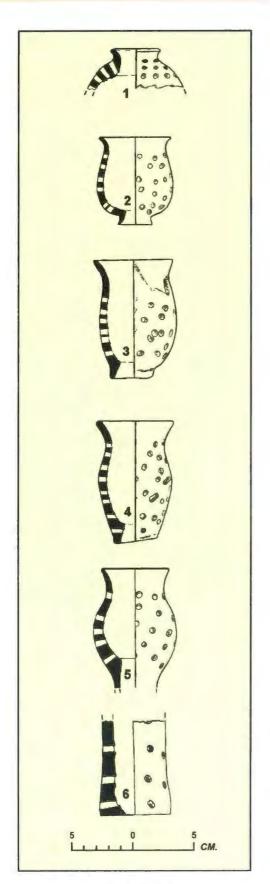


Fig. 8.61

- 1. Small perforated jar of red ware with featureless rim and spherical body; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Small perforated vase of red ware with featureless rim, concave sides, slightly spherical body and hollow base; of medium fabric showing an oxidized care, treated with red slip. From a late level of Period II.
- 3. Perforated vase of red ware with featureless rim, concave neck, straight sides and hollow base; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 4. Perforated vase of red ware with featureless rim, concave neck, slightly globular body and hollow base; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 5. Small perforated vase of red ware with featureless rim, concave neck and spherical body with broken hollow base; of medium fabric showing an oxidized core, treated with red slip. From a late level of period II.
- 6. Perforated cylindrical vase of red ware with broken rim, straight sides and hollow base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

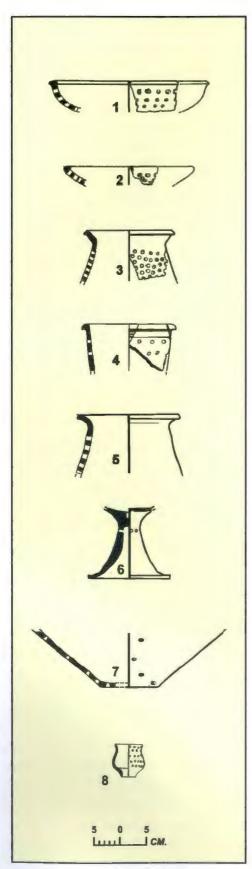


Fig. 8.62

- 1. Bowl of red ware with thickened featureless rim, tapering sides having perforation on all sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Bowl of red ware with featureless rim and tapering sides having perforations all over; of fine fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 3. Pot of red ware with out-turned rim, having full perforations on all sides; of fine fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 4. Deep bowl of red ware with featureless thickened rim, straight sides having incisions and perforations on neck and body; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Perforated jar of red ware with an outturned rim, concave neck and oblique sides; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Dish-on-stand of red ware with broken dish, concave sides with flaring base having two holes on upper side of stem; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 7. Wide-mouthed bowl of red ware with broken rim, tapering sides having perforations on the base of the bowl and also having a line of perforations, vertically; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 8. Small-perforated vase of red ware with featureless rim and slightly spherical body with hollow base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.

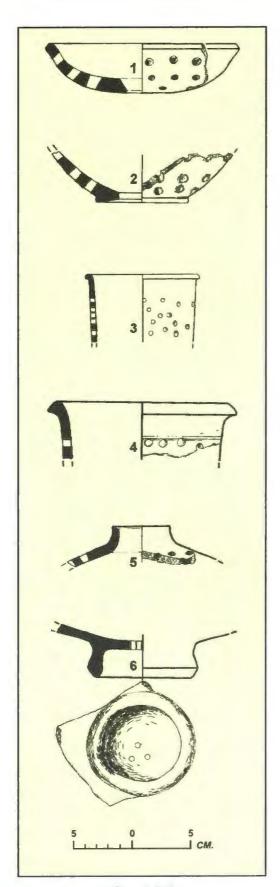


Fig. 8.63

- 1. Perforated bowl of red ware with featureless rim and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Perforated bowl of red ware with broken rim, deep internally and tapering sides having flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Beaker of red ware with featureless rim and straight sides having perforations all over; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Jar of red ware with thickened outturned rim, straight sides having perforations all over; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Perforated jar of red ware with featureless rim, slightly concave neck and spherical body; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Dish-on-stand of red ware with a broken dish having perforations in the centre of the dish with hollow stand; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

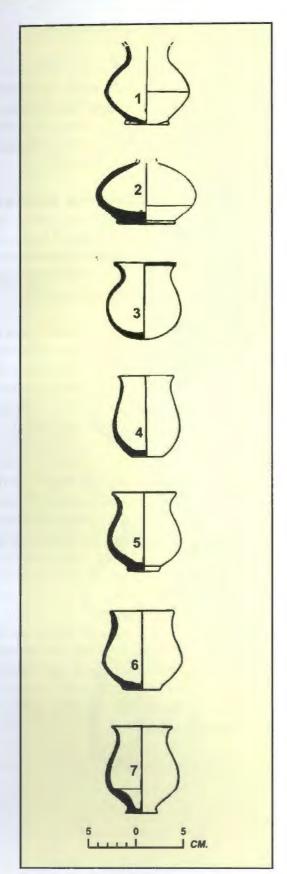


Fig. 8.64

- 1. Small pot of red ware with broken rim, concave neck and spherical body having carination on lower portion with disc base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 2. Pot of red ware with broken rim, constricted neck and globular body having disc base; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Small pot of red ware with featureless slightly out-turned rim, concave neck and spherical body with flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Small pot of red ware with featureless rim, slightly spherical body and flat base; of fine fabric showing an oxidized core, treated with red slip. From a mid-level of Period II.
- 5. Small pot of red ware with wide mouth, concave neck and spherical body with disc base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Small pot of red ware with featureless rim, slightly concave neck and spherical body having wide mouth and disc base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 7. Small pot of red ware with featureless rim, concave neck and spherical body with button base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

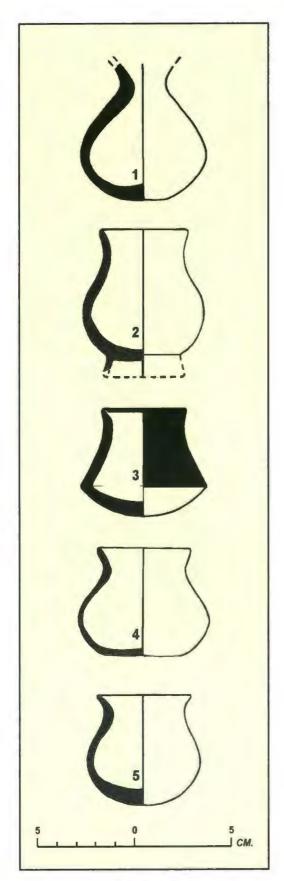


Fig. 8.65

- 1. Miniature pot of red ware with broken rim, concave neck, spherical body having flat base, hand-made; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Miniature pot of red ware with wide mouth, featureless rim, slightly concave neck and spherical body on stand; of medium fabric showing an oxidized core, treated with red slip. From a middle level of Period II.
- 3. Miniature pot of red ware having featureless rim, slightly concave sides painted with black bands with carination below; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Miniature pot of red ware with featureless rim, wide mouth and concave neck with spherical body having flat base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 5. Miniature pot of red ware with featureless rim, concave neck and globular body; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.

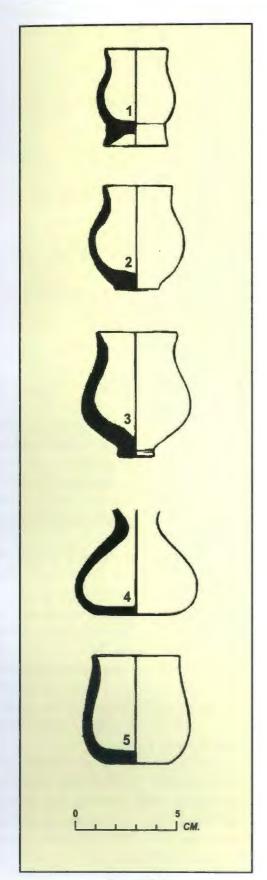


Fig. 8.66

- 1. Miniature pot of red ware with featureless rim, concave neck, spherical body and ring base; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 2. Miniature pot of red ware with featureless rim, concave neck and spherical body with footed base, hand-made; of coarse fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Miniature pot of red ware with slightly out-turned featureless rim and spherical body with footed base hand-made; of coarse fabric showing an incomplete oxidized core, treated with red slip. From a late level of Period II.
- 4. Miniature vase of red ware with broken rim concave neck and globular body with flat base, hand-made; of coarse fabric showing an oxidized core, treated with red slip. From an early level of Period II.
- 5. Wide-mouthed miniature pot of red ware with featureless rim, straight sides and flat base, hand-made; of medium fabric showing an oxidized core, treated with red slip. From an early level of Period II.

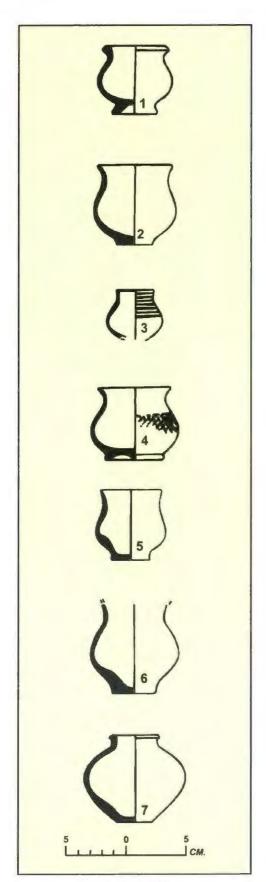


Fig. 8.67

- 1. Miniature wide-mouthed jar of red ware with out-turned thickened rim, concave neck, spherical body and ring base; of medium fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 2. Small pot of red ware with featureless rim, concave neck, globular body and footed base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Miniature pot of red ware with featureless rim, concave neck and spherical body, painted in black showing horizontal bands; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Small pot of red ware with featureless rim, concave neck, spherical body and footed base, painted in black showing checker design; of fine fabric showing an oxidized core, treated with red wash. From middle level of Period II.
- 5. Miniature pot of red ware with featureless rim, concave neck, spherical body and footed base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- Miniature pot of red ware with broken rim, spherical body and disc base; of medium fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 7. Miniature pot of red ware with featureless thickened rim and spherical body having flat base; of medium fabric showing an oxidized core, treated with red wash. From a late level of Period II.

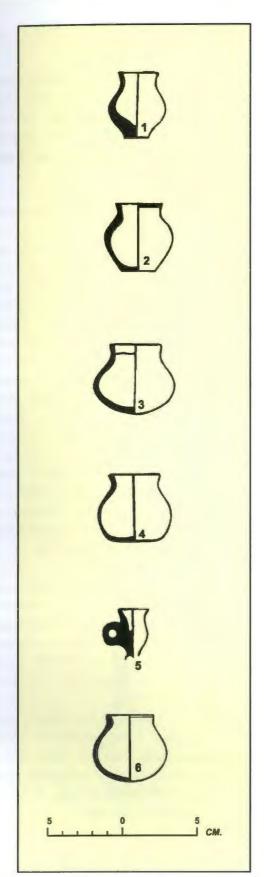


Fig. 8.68

- 1. Miniature pot of red ware with featureless rim, concave neck, globular body and footed base; of medium fabric showing an ill-oxidized greyish core, treated with self-wash. From a late level of Period II.
- 2. Small pot of red ware with featureless rim, straight neck and spherical body with flat base; of coarse fabric showing an incomplete oxidized greyish core. From a late level of Period II.
- 3. Small pot of red ware with featureless rim, slightly concave neck and spherical body with a round base; of coarse fabric showing an oxidized core, treated with red wash. From a late level of Period II
- 4. Miniature pot of red ware with featureless rim, concave neck and spherical body with flat base; of coarse fabric showing an oxidized core, treated with bright red slip. From a late level of Period II.
- Miniature cup of red ware with featureless rim having handle in the centre; of fine fabric showing an oxidized core, treated with bright red slip. From middle level of Period II.
- 6. Miniature pot with wide mouth of red ware with featureless rim, concave neck, spherical body and round base; of fine fabric showing oxidized core, treated with self-wash. From middle level of Period II.

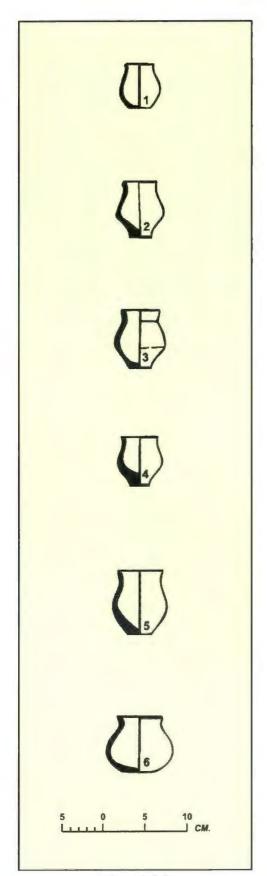


Fig. 8.69

- 1. Miniature pot of red ware with featureless rim and globular body with disc base; of fine fabric showing an oxidized core, treated with self-wash. From an early level of Period II.
- 2. Miniature pot of red ware with featureless rim, concave neck and globular body with disc base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Miniature pot of red ware with featureless rim, slightly concave neck and globular body; of coarse fabric showing an oxidized core, treated with self-wash. From middle level of Period II.
- 4. Miniature pot of red ware with featureless rim, globular body and disc base; of fine fabric showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Miniature pot of red ware with featureless rim, slightly concave neck, spherical body and disc base; of fine fabric showing an oxidized core, treated with self-wash. From middle level of Period II.
- 6. Miniature pot of red ware with featureless rim, concave neck, spherical body and flat base; of fine fabric showing an oxidized core, treated with self-wash. From a middle level of Period II.

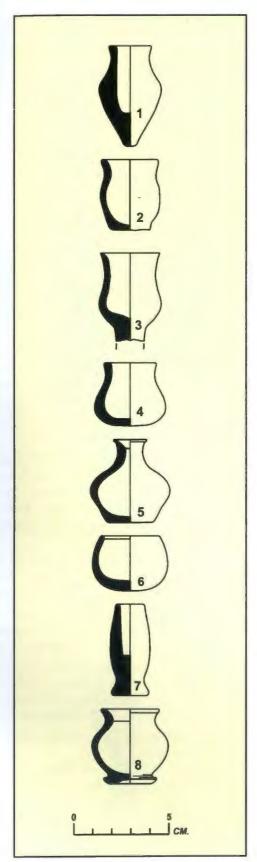


Fig. 8.70

- 1. Miniature hand-made vase of red ware with rim, concave neck, elongated body and pointed base; of coarse fabric, showing an oxidized core, treated with self-wash. From a late level of Period II.
- 2. Miniature hand-made pot of red ware with featureless rim and wide mouth, having slightly concave neck, straight sides and flat base; of medium fabric, showing an oxidized core, treated with self-wash. From a late level of Period II.
- 3. Miniature beaker of red ware with featureless rim, concave neck, spherical body and broken pointed base; of fine fabric, showing an oxidized core, treated with selfwash. From a late level of Period II.
- 4. Miniature hand-made vase of red ware with featureless rim, concave neck, spherical body and flat base; of medium fabric, showing an oxidized core, treated with self-wash. From a late level of Period II.
- 5. Miniature hand-made pot (surahi) of red ware with narrow mouthed rim, concave neck, spherical body and flat base; of medium fabric showing an oxidized core, treated with selfwash. From a late level of Period II.
- 6. Miniature hand-made bowl of red ware with featureless rim, wide mouth, spherical body and flat base, showing an oxidized core, treated with self wash. From a late level of Period II.
- 7. Miniature elongated flask of red ware, hand-made, with rim, straight sides and flat base; of medium fabric, showing an oxidized core, treated with self wash. From a late level of Period II.
- 8. Miniature hand-made vase of red ware with featureless rim, concave neck, spherical body and flat base; of medium fabric, showing an oxidized core, treated with self-wash. From a late level of Period II.

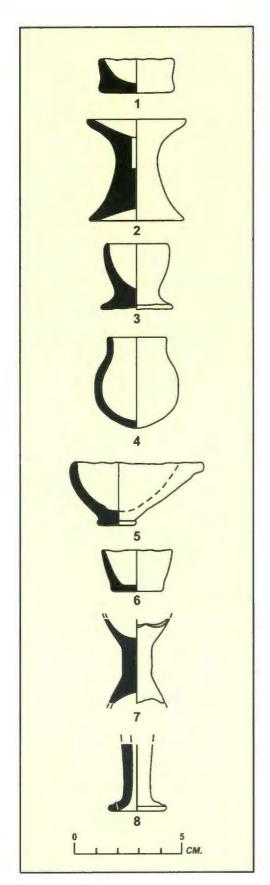


Fig. 8.71

- 1. Miniature hand-made vessel of red ware with featureless rim-wide mouth, straight sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Miniature hand-made dish-on-stand of red ware with dish, stem on stand; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Miniature hand-made pot of red ware with featureless rim, wide mouth, straight sides and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Miniature hand-made pot of red ware with featureless rim, slightly concave neck and globular sides with round base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 5. Miniature hand-made broken cup of red ware with featureless rim, handle and footed base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 6. Miniature hand-made bowl of red ware with featureless rim, wide mouth, straight sides and flat base, of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 7. Miniature hand-made dish-on-stand of red ware with broken dish and broken base having stem; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 8. Miniature hand-made lower portion of dish-on-stand of redware with broken dish, having long stem and flat base with a hole; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

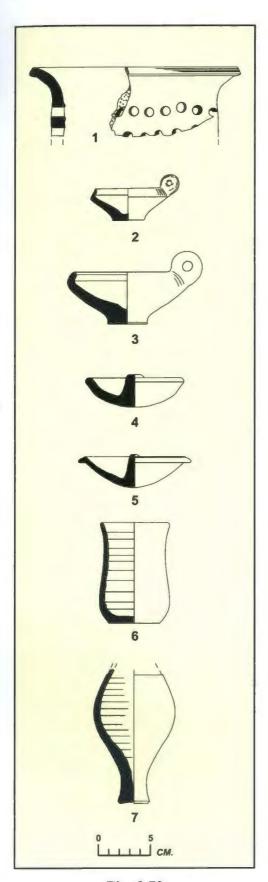


Fig. 8.72

- 1. Fragmentary perforated jar of red ware with slightly out-turned thickened rim, straight sides, having perforations on body; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Fragmentary cup of red ware with incurved rim, tapering sides, and disc base with a handle having a hole; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 3. Fragmentary cup of red ware with incurved rim, tapering sides and disc base, with a handle having a hole; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 4. Lid of red ware with prominent knob, of medium fabric showing an oxidized core, treated with a red ship. From a late level of Period II.
- 5. Fragmentary lid of red ware with prominent knob; of medium fabric showing an oxidized core, treated with a red slip. From a late level of Period II.
- 6. Beaker of red ware with featureless rim, slightly concave sides on the centre and flat base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.
- 7. Fragmentary goblet of red ware with broken rim, spherical body and elongated button base; of medium fabric showing an oxidized core, treated with red slip. From a late level of Period II.

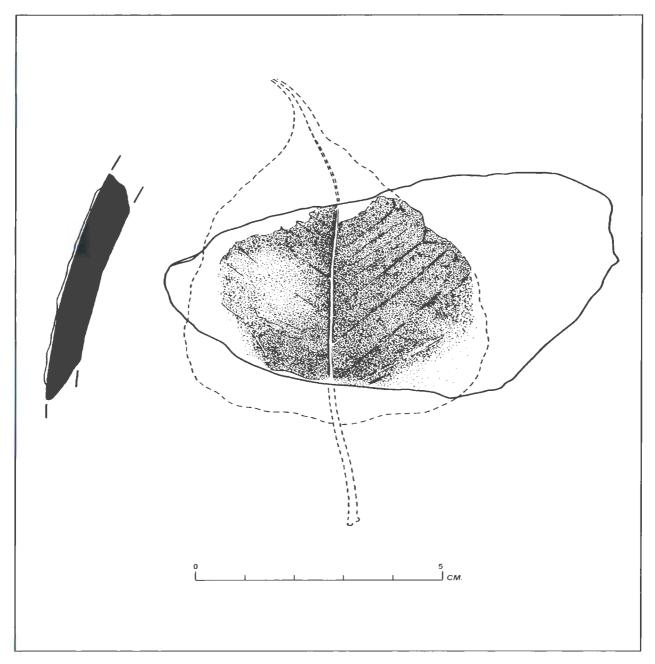


Fig. 8.73 Potsherd of a Red ware sticking with a peepal leaf

A RED WARE POTSHERD STICKING WITH A PEEPAL LEAF

Figs. 8.73

Potsherd of a red ware having

portion of a *peepal* leaf sticking on it over the surface; of fine fabric, showing a complete oxidized core, treated with a red slip. From a middle level of Period II. (KLB-2, Reg. No. 22028).



Fig. 8.74 Cut Ware

CUT WARE

A cut ware has been found at Kalibangan. Similar pieces have been found at Mohenjodaro and described variously as latticed flat pieces of window gratings or boxes or stands or perforated domed lids. Dales has described these as "triangular, rectangular or biconvex, lentoid cut out designs". In all thirteen such pieces are available which are described below:-

Fig. 8.74

1. Cut ware, convex in shape with broken frame-like rectangular cut out window design in relief. From a late level of Period II.

- 2. Cut ware flat piece with a triangular cut out design. From surface.
- 3. Cut ware, interior groove having cut out design in two rows. From a late level of Period II.
- 4. Cut ware, flat outer broken sides with sharp cut out triangular design. From a late level of Period II.
- 5. Cut ware, convex with rectangular with a sharp cut out design. From a late level of Period II.
- 6. Cut ware with lenticular and triangular cut design. From an early level of Period II.

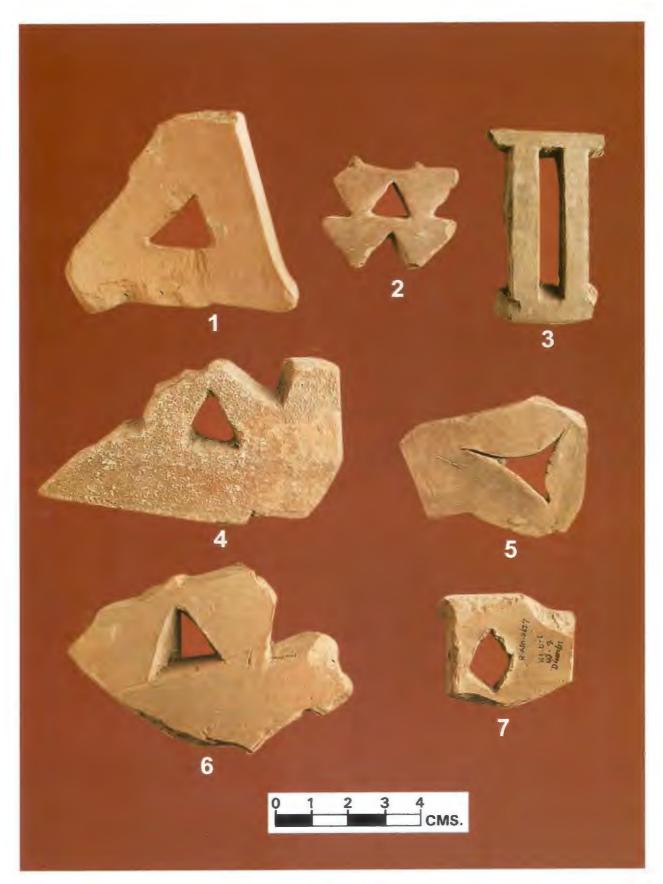


Fig. 8.75 Cut Ware

- 1. Cut ware with a triangular cut-out design from outside. From a middle level of Period II.
- 2. Cut ware on a flat piece with a cut-out design running triangles with a sharp instrument. From an unstratified level.
- 3. Cut ware on a convex piece with a cut-out design of running rectangular cut from outside. From a middle level of Period II.
- 4. Cut ware on a convex piece with cut-out design of triangle from

out side. From surface.

- 5. Cut ware on a convex pot with triangular cut-out design from out side. From a late level of Period II.
- 6. Cut ware on a convex pot with triangular cut-out design from out side. The cutting is not complete as it does not fully pierce the wall. From a late level of Period II.
- 7. Cut ware on a concave wall lozenge shaped, cut-out design from out side. From a late level of Period II.

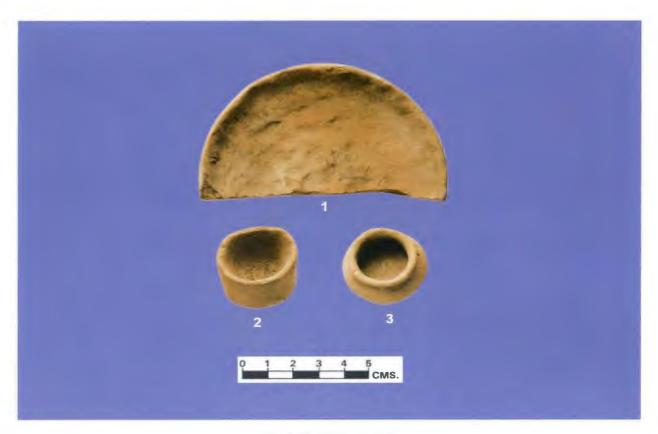


Fig. 8.76 Miniature pots

MINIATURE POTS, Fig. 8.76

- 1. Miniature fragmentary hand-made dish of red ware with featureless rim, shallow base with thumb impression; of medium fabric 3. showing an oxidized core, treated with red slip. From a late level of Period II.
- 2. Miniature hand-made pot of red ware with featureless rim,

- straight sides and flat base; of fine fabric showing an oxidized core. From a late level of Period II.
- Miniature hand-made pot of red ware with slightly out-turned rim, slightly concave neck and spherical body; of fine fabric showing an oxidized core, treated with red slip. From a late level of Period II.



Fig. 8.77 Painted pottery (assorted)



Fig. 8.78 Painted pottery (assorted)

Fig. 8.79 Painted pottery (assorted)



Fig. 8.80 Painted pottery (assorted)



Fig. 8.81 Painted pottery (assorted)



Fig. 8.82 Painted pottery (assorted)



Fig. 8.83 Painted pottery (assorted)



Fig. 8.84 Painted pottery (assorted)



Fig. 8.85 Painted pottery (assorted)



Fig. 8.86 Painted pottery (assorted)



Fig. 8.87 Painted pottery (assorted)



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A. GENERAL INTRODUCTION

The inscribed material from Period II of Kalibangan consists of: seals, sealings, other seal-impressions, a copper tablet, other metal objects, a terracotta bangle, terracotta gamesmen, terracotta drain-pipes and pottery. Of these, the seals number 63; the sealings 9; other seal-impressions 13; Copper tablet 1; metal objects 2; terracotta gamesmen 28; terracotta drain-pipes 2; and pottery specimens 254. While the specific features in each category will be discussed in detail in the sub-sections concerned, here are some observations of a general nature.

First, the direction of writing. For a long time there has been a debate about the direction of writing in the Harappan script. While most scholars have held that it was from the right to the left, there have been some who thought that it was the other way about. In this context, Kalibangan has yielded unimpeachable evidence. Over here two potsherds have been found which bear post-firing inscriptions. The signs in these inscriptions, as chance would have it, show an overlap (see Figs. 9.144 and 9.148). It would be observed that in each case the sign on the right is partly overridden by the one on the left. This shows that the right-hand sign was inscribed prior to the one on the left. In other words, the direction of writing was from the right to the left. A provisional paper based on these observations was presented at an International Conference on Asian Archaeology, held in New Delhi in 1961.

Finally, with a good deal of additional data, a paper entitled 'The Direction of Writing in the Harappan Script' was published in Antiquity, Vol. XL (157), pp.52-55 (1966). Readers interested in a detailed discussion may kindly have a look at that.

However, it needs to be added that whereas the general rule of writing was from the right to the left, there are a few cases in which the opposite is applicable. Some of these perhaps were aberrations.

Further, when the inscription could not be accommodated in a single line and had to be carried over to the next, the first sign of the second line, being in continuation of the last sign of the first line, was written directly below the last sign of the first line and the subsequent signs of the second lines had to be placed on the right. In other words, the style became boustrophedon.

But in the foregoing context too Kalibangan presents an unusual example. Since the inscription was meant to be read as it appeared on the impression, attention is drawn to the latter (Fig. 9.15, b). In this particular case, a wheel-like sign and two strokes, one full-sized and the other half, occur in the lower (i.e. second) line. This combination usually occurs at the beginning of the inscriptions concerned. Further, the U-like sign with strokes, followed by a human figure, usually occurs at the end of the inscriptions. This kind of positioning of the signs would indicate that the inscription has to be read beginning with the wheel-sign of the lower line, followed by the strokes. Thereafter, the

The author would like to record with thanks the assistance given to him by Shri Vishnu Kant in analyzing the material dealt with in this chapter.

signs of the upper line are to be read, beginning on the right.

There is yet another seal from Kalibangan which poses a problem. It is debatable whether in this case the inscription was meant to be read as it appears on the seal itself (which is the negative) or as it appears on the impression (see Fig. 9.5, (a) and (b)). This question arises from the following two facts noted on the impression: (i) the extremeright sign in the upper line opens to the left whereas its normal opening is on the Mahadevan's Sign-List, right (cf. abbreviated later as M-List, Appendix I, No. 216); and (ii) in the almirah-like sign on the extreme right in the lower line the sub-division is in the right column. whereas the usual disposition of this feature is in the left column (M-List No. This would suggest that the inscription has to be read as it appears on the seal itself. But such a conclusion is not wholly free from objection, because the 'flag', the first sign on the extreme right in the upper line on the seal, usually flutters to the right (M-List No. 402). The matter thus requires further investigation.

Kalibangan also offers evidence that in certain cases the inscriptions had to be read from the top downwards. Whereas in the case of the long chisel (Fig. 9.83) this top-downwards arrangement may have been dictated by the elongated nature of the object itself, there was no such compulsion in the case of the axe (Fig. 9.84) which was broad enough to accommodate the inscription horizontally. Anyway, these are features which have to be taken note of.

In spite of the tall claims made by a number of eminent scholars, such as Asko Parpola, Walter A. Fairservis, S.R.Rao, I.Mahadevan, the hard fact remains that no one has yet succeeded in deciphering the Harappan inscriptions. 1 However, no less disappointing is that there is no agreement even on some basics. In fact, in 2003 there was a seminar at California State University, Long Beach, California, USA at which one of the participants even challenged the very notion that it was a script, that is to say if it had any phonetic value at all. Perhaps, that may be going too far, since the inscriptions often comprise many standard combinations and occur on all kinds of media, including pottery where the idea that the signs may have been mere graffiti is controverted by the length of the inscriptions.

Anyway, a special reference may be made here to the V/U-like sign with two small strokes emanating outwards from the upper ends of the two vertical lines of the V/U. In the decipherment of the Harappan script this particular sign may one day turn out to be of great help, since it usually occurs at the end of the inscriptions and may denote some kind of suffix (?). This sign has been assigned different phonetic values by different scholars. Thus, for example, Parpola, deriving the shape of this sign from a 'boat' and presuming that the Harappan language was a Dravidian one, gives it the value of 'ota'. Further, using the principle of homophony, he argues that the sign may have been ofu, which is the commutative suffix in modern Dravidian. All this would have worked well had the identification of the sign with a boat been justified. As explained in one of my papers, this is not so.² Hence the rest of the argument falls to the ground. On the

¹ Cf. B.B. Lal, 1970. Some Observations on the Harappan Script. In L.Chandra et al. (eds.) *India's Contribution to World Thought and Culture*, pp. 189-202.Madras. B.B. Lal, 1974. *Has the Indus Script been deciphered?* An Assessment of Two Latest Claims. Shimla: Indian Institute of Advanced Study. B.B. Lal, 1983. Reading the Indus Script. *Indian and Foreign Review*, 20(13): 33-36.

B.B. Lal, 1979. On the Most Frequently used Symbol in the Indus Script, East and West (N.S.) Vol. 29, Nos. 1-4, pp. 27-35.

other hand (as shown in that paper), the evidence from the inscribed pottery of Kalibangan suggests that the V/U-like sign may have been derived from the basic form of an elongated cup/vase with a pedestal-base.

In so far as the stratigraphical distribution of the inscribed material is concerned, the statistics show that most of it comes from the late levels, and comparatively less from the middle and early levels. But this may not represent the true picture, since the area excavated in the late levels was very much more than that in the middle and early. We did not remove any structures; hence the deeper we went, the area available for excavation became less and less.

We may now refer briefly to the spatial occurrence of the seals, sealings and other inscribed material. The seals occur both in KLB-1 and KLB-2. As regards the animal motifs on the seals, while the unicorn is ubiquitous, there are some animals or animal-cum-human combinations which have been found in a particular house-block in KLB-2. These include: tiger 9.35);(Fig. three-faced. composite animal (Fig. 9.36), tigercum-man (Fig. 9.38), tiger with a man sitting on a tree (Fig. 9.39), as well as the only 'cylinder' seal found at the site with a tiger-cum-man motif (Fig. 9.51). All this might indicate that the residents of this area were some important people, perhaps business men, trading with West Asia, as may be guessed on the basis of the cylinder seal - a type uncommon in Harappan repertoire but common in West Asia. It may perhaps be added that it is in this area that an excellent flooring of terracotta tiles with an intersectingcircle design was found (Figs. 6.45 and 6.46(a)). In it were also found storage

jars piled close to one another (Fig. 6.45).

The sealings are lesser in number than the seals. However, these occur in both KLB-1 and KLB-2 (Fig. 9.184). It may be clarified here that distinguishing the sealings from other seal-impressions. Whereas the former bear not only the impressions of seals (on one side) but also impressions of reeds, cords, etc. (on the other), the latter are plain on the non-impressed side i.e. do not bear any impression of reeds/cord. In this latter category come, for example, a series of seven rectangular tablets (Figs. 9.77 to 9.79).

Besides one inscribed copper tablet (Fig. 9.82), there are two inscribed copper objects, a chisel and an axe (Figs. 9.83 and 9.84).

Only one specimen of an inscribed terracotta bangle has been found. The inscription consists of three signs (Fig. 9.85). There are two terracotta drain-pipes illustrated at Fig. 9.91.

An interesting variety of terracotta objects comprises gamesmen. These bear inscribed signs, sometimes only one but at others even upto three (Figs. 9.86 to 9.90).

The inscriptions on pottery fall under two main categories: (i) those inscribed before firing (Figs. 9.92 to 9.119); and (ii) those inscribed after firing (Figs. 9.120 to 9.172). Besides, there is one specimen which bears an inscription in paint (Fig. 9.173). It is likely that many of the single signs may just have been potters' marks (e.g. Figs. 9.92 to 9.97).

We now proceed to a somewhat detailed discussion of the various categories and descriptions of individual specimens.

B. SEALS

(I) INTRODUCTION

Under this category are included examples on which the matter, whether an animal or other motif(s) or/and an inscription, is engraved, and which are likely to have been used for 'stamping'. In most cases, there is a perforated boss through which, it has been surmised, there passed a thread for suspension. In some cases there is no boss and the perforation is through the body. In one case, there is no perforation at all. This categorization is irrespective of the material used, whether stone or terracotta. However, there are a few examples, in terracotta, which are 'not engraved' but bear the animal and inscription in low relief. The extant 'edges' on their margins show that these are 'impressions' from 'engraved' specimens. An interesting point, however, is that at least in one case (Fig. 9.58) there is the usual perforated boss on the reverse.

The exact purpose to which the seals were put has been a matter of debate. Thus, while some would call these as amulets or marriage—tokens³ and others would read in them even Rigvedic verses,⁴ most scholars agree that these were used for stamping packages which contained commodities for shipment, whether by sea or overland. A classic example of such a use is provided by Lothal where in the burnt ruins of a

warehouse as many as seventy-one clay sealings were found.⁵ These bear impression (s) of seals on one side and those of reeds, cord, etc. on the other. Clay sealings with similar impressions have been found at many other sites and Kalibangan too has yielded as many as nine examples (Figs. 9.64 to 9.72). Such an evidence would tend to suggest that the inscriptions on these sealings are most likely related to the sender of the packages, as is the case even now whenever seals are used.

However, what exactly are the details of these inscriptions it is difficult to say. Often the inscriptions are divisible into blocks.⁶ May be (this is just a guess) these represent the various components, such as place-name, actual proper name of the person, surname, etc.

Perhaps it is because of the foregoing reason that the motifs and inscriptions differ from one another on the over-2000 seals found so far from various Harappan sites. However, we have noted a few cases where the inscription as well as the motif are similar, though the seals have been found at different places. Then there are a few cases where the inscriptions are identical but the animals portrayed are different. There are still a few other cases where specialized kinds of motifs (not the usual ones such as unicorn, bull, etc.) are similar on seals from different sites, though the inscriptions are not identical.

W.A. Fairservis, 1992, *The Harappan Civilization and its Writing*, pp. 5 and 138. New Delhi: Oxford and IBH Publishing Co.

⁴ Richter-Ushanas. 1992. The Symbolic Conception of the Indus Script, p. 25. Germany.

S.R. Rao, 1985. Lothal: A Harappan Port Town (1955-62), Vol. II, p. 305. New Delhi: Archaeological Survey of India. For another view on the use of these seals see Dennys Frenez and Maurizio Tosi, The Lothal Sealings: Records from an Indus Civilization Port Town at the eastern end of the Maritime Trade Network across the Arabian Sea, in M. Perna (ed.) Studi in onore di Enrica Fiandra. Contribute Archeologia Egea e Vicinorientals, Paris, pp. 1-33.

⁶ B.B. Lal, 1997. The Earliest Civilization of South Asia, p. 205. New Delhi: Aryan Books International.

To illustrate what has been stated in the preceding paragraph. For example, the inscription, animal motif (unicorn) and standard on the steatite seal at Serial No. 16 (Fig. 9.16) from Kalibangan are similar to those on a seal from Harappa.⁷ The only difference which, however, is of minor consequence, is that whereas in the Kalibangan example the unicorn faces right (as on the seal) in the case of the seal from Harappa the animal faces left (the latter being the more common style). Again, in the case of the steatite seal at Serial No. 18 (Fig. 9.18) the inscription, animal (unicorn) and standard are similar to those on a seal from Mohenjo-daro, the only minor difference being in the pictorial delineation of the animal and the standard.8 Would such a similarity in motif and inscription suggest that the near-identical seals belong to the same person who, in the former case, commuted between Kalibangan and Harappa and in the latter case between Kalibangan and Mohenjo-daro? This may have been a good guess, only if we could establish that the seals concerned also belong to the same limited date-range. This, however, is not possible even with the radiocarbon method of dating which has a wide plus-minus component. Further, one of the Kalibangan examples (Sl. No. 18) is unstratified, having been picked up on the surface.

In the case of the steatite seal at Serial No.25 from Kalibangan (Fig. 9.25),

the inscription is the same as on a seal from Mohenjo-daro, though the animals are different, there being a humped bull in the case of Kalibangan and a unicorn in the case of Mohenjo-daro.⁹

This very feature, similarity of the inscription but difference in animal motifs, is noticeable between Kalibangan steatite seal at Serial No.28 (Fig. 9.28) and three Banawali seals, Nos.B-5, B-7 and B-15.¹⁰ Whereas in the Kalibangan example the animal is a (humpless) bull, the Banawali seals depict respectively a two-horned animal but with a unicornlike body (?), a buffalo and a rhinoceros.

We may now pass on to another category in which there are specialized motifs, which are different from just a single animal, like unicorn, bull, etc. This takes us to a motif in which there is a single body of the animal but three sets of necks, heads and horns (Sl. No. 36; Fig. 9.36). In one set the animal's head is bent downward and the horns are clearly those of a bull. In the set above it the animal looks forward and has a single horn, implying a unicorn. In the third case, the animal looks backward and there are two horns, but unlike those of the bull just stated. This very motif, though with minor variations in the display of the horns of the animals, occurs on seals from Mohenjo-daro. 11 However, the inscriptions are different in all the cases. (In fact, in one case there is no inscription at all.) This motif, without any inscription, also occurs at Amri. 12

M.S. Vats, 1975 (Reprint). Excavations at Harappa, Vol. II, pl. LXXXVI, No. 31 (impressions). Varanasi: Bhartiya Publishing House.

⁸ E.J.H. Mackay, 1937. Further Excavations at Mohenjo-daro, Vol. II, pl. LXXXVI, No. 215. Delhi: Govt. of India.

J.P. Joshi and A. Parpola, 1987. Corpus of Indus Seals and inscriptions. 1: Collections in India, p. 52, No. M-185: Helsinki: Suomalainen Tiedeakatemia.

¹⁰ Ibid., pp.344-46.

Mackay, op.cit., Vol.II, Pl. LXXXIII, No. 24: Pl. XCVI, No. 494. Marshall, J.1931 Mohenjo-daro and the Indus Civilization, Vol. III, Pl. CXII, No. 382. London: Arthur Probsthain.

¹² J.M. Casal, 1964. Fouilles D'Amri, Vol.II, Pl. XXVII D, Paris: Librairie C. Klincksieck.

Then there are seals which depict a combination of an animal (tiger) and a human figure with long hair-tail and a head-gear. This motif occurs at Kalibangan (Sl. No. 38; Fig. 9.38), Mohenjo-daro¹³ and Nausharo,¹⁴ although the inscriptions are different in all the three cases.

In yet another category is a motif in which a man is seated on the branch of a tree and a tiger, standing below, looks back towards the man. The Kalibangan example is a steatite seal, at Serial No. 39 (Fig. 9.39). Parallel motifs occur on three seals from Mohenjo-daro. 15 However, the inscriptions are different in all the four cases.

Since the Harrapan script has not yet been deciphered, it is always risky to hazard any guess about the similarities in seals discussed above. If, by any chance, the specialized identical motifs are associated with a particular family, the different inscriptions may relate to the individuals concerned. However, such a postulate would also imply that branches of the same family lived at different places, like Kalibangan, Mohenjo-daro, Harappa, Banawali and Nausharo. Anyway, these are matters which only future research can throw light on.

On the basis of their shapes and other features, the seals may be placed under the following types:

Type I. Square in shape; with boss; engraved; motif and inscription.

Type II. Square in shape; without boss; engraved; motif and inscription.

Type III. Square in shape; with boss; engraved; inscription only.

Type IV. Square in shape: with boss; motif only.

Type V. Square in shape; with boss; matter in relief; motif and inscription.

Type VI. Rectangular in shape; with boss; inscription only.

Type VII. Rectangular in shape; no boss; hole through the body; inscription only.

Type VIII. Cylindrical; perforated; motif and inscription.

While the size of each seal will be given in the descriptions that follow, some general details are given here. The square seals vary on plan from 12×12 mm to 34×34 mm, and in thickness from 2.5 mm to 9 mm. Minor differences in the measurements of the sides, which perhaps were unintended, have been ignored. The rectangular seals vary from $38 \times 17 \times 16$ mm to $14 \times 7 \times 7$ mm (length x width x thickness). The length and diameter of the (only) cylinder seal are 20 mm and 12 mm respectively.

The material used for most of the seals is steatite of various hues – white, buff, black, grey, pink, etc. Besides, a few seals are of terracotta and one of copper/bronze.

¹³ Mackay, op.cit., Vol. II, Pl. LXXXIX, No. 347.

¹⁴ S.G.M. Shah and A. Parpola (eds.) 1991, *Corpus of Indus Seals and inscriptions*: 2. Collections in Pakistan, p. 409, No. Ns. 9A. Helsinki: Suomalainen Tiedeakatemia.

¹⁵ Mackay, op. cit., Vol.II, Pl. XCVI, No. 522. Marshall, op. cit., Vol. III. Pl. CXI, Nos. 353 and 355.



The technique of making steatite seals has been dealt with by various previous writers on the subject. Here we add a scientific report on the topic by Dr. R.K. Sharma, Director (Science), ASI and his colleagues (Sub-section L of this Chapter).

It appears that before engraving the signs these were drawn with some thin instrument, as suggested by Seal No. 12 (Fig. 9.12). Most likely the same technique may have been followed in the case of the animals as well. In the area so far excavated we did not come across any evidence indicating the manufacture of the steatite seals at Kalibangan. For instance, we have not found any material in raw stage or in the form of debitage, nor do we have any unfinished seal.

There is no general agreement about certain terms such as 'incense burner', 'bowl', 'box', etc. We have tried to retain terms that have been most commonly used.

The animals portrayed on the seals are unicorn (26 cases), humped bull (1), humpless bull (3), tiger (2), buffalo (1), goat (1), rhinoceros (1), elephant (1), markhor (?;2). Besides, there are some cases which show either composite animals or an animal-cum-human figure or a scene showing an animal as well as a human figure or a scene with a composite animal-cum-human figure along with other independent human figures.

The provenance of the seals is no doubt a matter of interest. Of the total number of seals described below, 27 come

from KLB-1 and 23 from KLB-2. Others are surface finds. In this context, (See Figs. 9.184 and 9.185), which give a detailed picture of the provenance.*

The photographs, in each case, include not only the frontal, side and back views (as considered necessary) of the seals themselves (which, as already stated, are negatives from which stamping was done) but also the impressions of these seals. It is this 'positive' that was meant to be read.

While the signs occurring on the seals have been described individually, an attempt has also been made to refer to Mahadevan's Sign List (M-List), and relevant variants. These are reproduced in sub-chapter M, as Appendices I and I A. 16

(II) STEATITE SEALS

We have already dealt with the general features of the steatite seals in the preceding pages. Here we give the description of individual specimens.

1. (Fig.9.1). While a, c and d present respectively the obverse, reverse and side views of the seal, b gives its impression. It measures 34 x 34 x 9 mm (respectively length, breadth and thickness). The boss on the reverse is ovalish, measures 19 x 18 x 4.5 mm and has a perforation in alignment with the inscription on the obverse. It must, however, be added that the perforation is not horizontal. Having been bored from both the ends, the holes dip down from each end, joining each other at a level lower than the base of the boss, but within

^{*} Under my guidance, these maps have been prepared by Shri S.K.Sharma.

¹⁶ I. Mahadevan, 1977. *The Indus script: Text, Concordance and Tables*, pp. 32-35 and 785-92, New Delhi: Archaeological Survey of India.





the thickness of the seal. This perhaps was necessitated because of the low height of the boss (since in cases where the boss has a reasonable height, the hole is generally horizontal and lies within the thickness of the boss).

The seal is made of black steatite. While the obverse is smooth, the reverse and sides bear ample abrasion marks.

The impression of the seal (view b) shows a unicorn, with an inscription above it and what is generally called a 'standard' or an 'incense burner'. below the mouth of the animal. The unicorn faces right. The horn is curved and raised up. Covering the shoulder, above the two front legs, is the depiction, by means of two curved but parallel lines, of what has been termed as a 'saddle', though this is not precisely the place where a 'saddle' is expected to be. The 'standard' or 'incense burner' consists of a vertical staff above which and supported by it are respectively a 'bowl'like object and a 'box-like' one. The inscription consists of four signs. Beginning from the right, there are two parallel vertical lines (M-List No.87). The next is a rectangle, within which there are six parallel vertical strokes or small lines, a set of three emanating downwards from the upper enclosing line of the rectangle, and another set of three, going upwards from the lower line of the rectangle (M-List No. 244). The third sign consists of a small triangle within which there is a small horizontal stroke, and going up from the

apex a vertical line. This vertical line supports (or balances?) a horizontal line, from each of the two ends of which hang down vertical lines (cf. Variant No. 5064 of M-List No. 206). At the left end is a vertical line (cf. M-List No. 86).

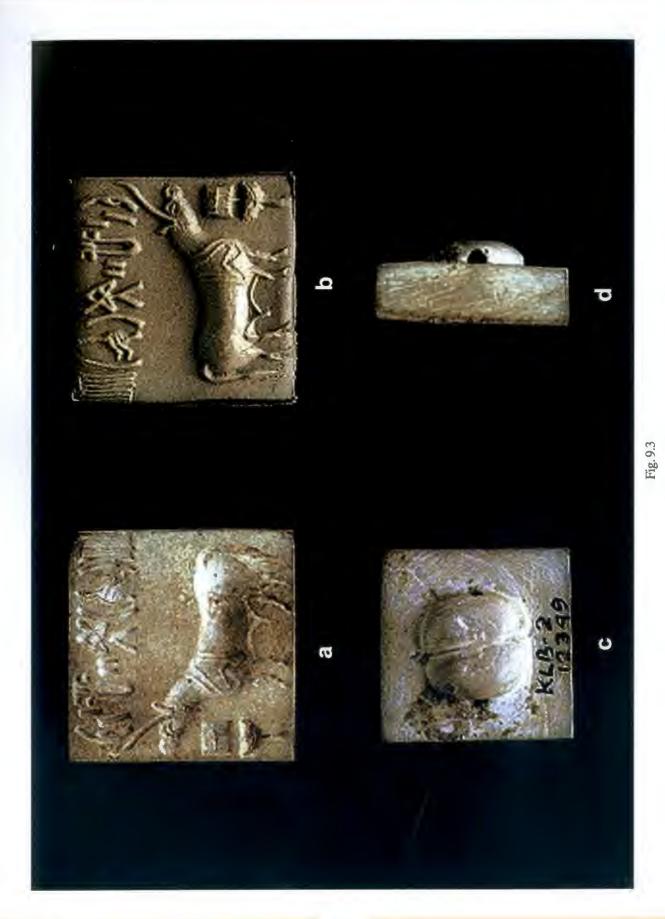
KLB-1, Sq XA1. From a middle level of Period II. Reg. No.2249(2).*

2. (Fig.9.2). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives the impression. The measurements are: 39 x 39 x 8 mm. The boss covers an area of 19 x 18.5 mm and has a maximum height of 9 mm. It has a circular hole, 4 mm in diameter, which is parallel to the longer axis of the animal-motif on the obverse. The boss also bears a medial groove, which is at a right angle to the hole. Made of white steatite with a thin coating, the seal bears abrasion marks, though these are not very prominent. As per the report of the specialists, the core is non-structured, a feature indicating that the original stone was powdered and then set in a mould with an alkaline solution, followed by slow heating (cf. Subsection L of this Chapter).

To turn to the impression (view b). It shows a unicorn, facing right, a 'standard' below the neck of the animal and an inscription at the top. Though the front part of the mouth and horn of the unicorn are damaged, it may be observed

^{* 1} am grateful to Shri J.P.Joshi, who has written the Chapter on the Stratigraphy of the Site, for providing me with the information about the stratigraphical horizon of the individual specimens (viz. seals, sealings, pottery, etc.) dealt with in this chapter.

In this context, it would be well worth while recalling that the area excavated in the late levels was much larger than that in the middle and early levels respectively (because no superimposed structures were removed). Thus, the number of inscribed objects recovered from the respective levels varied accordingly. Hence the available data will not give a true perspective in regard to either the evolution of the script or the relative frequency of use of seals, etc.



that the horn in this case (as distinct from No. 1) was hatched. The neck bears a series of curved lines, which may indicate a necklace (?). Over the front shoulder may also be seen the supposed 'saddle'. Further, the body of the unicorn in this case shows more muscularity than in No. 1. As regards the 'standard', this too is highly decorated with curved lines alternating with dots, whereas in No. 1, it was 'plain'.

The inscription is damaged at its beginning. Even the first available is not easy to identify satisfactorily. This, however, is followed by two small strokes in the upper part – a feature which generally marks the 'end' of a 'block' usually found at the beginning of many inscriptions. This is followed by a sign which comprises seven vertical strokes, four in the upper row and three in the lower (cf. M-List No. 112). The penultimate sign is the same as M-List No. 194. It may be added that the combination of this sign and seven strokes is to be found in many inscriptions (cf. Mahadevan, pp. 453-54). Finally is the U-like sign with two strokes jutting out from the upper end, which occurs generally at the end of many inscriptions (M-List No. 342). (On pottery this sign sometimes looks like V, but on the seals it mostly resembles U.)

KLB-2, Sq C8. From a late level of Period II, Reg. No. 9087.

3. (Fig.9.3). While a, c and d show respectively the obverse, reverse and side views, b shows the impression. Size $30.5 \times 30.5 \times 9$ mm. On the reverse is a boss, measuring $15.5 \times 16 \times 4.5$ mm. It has a hole in line with the longer axis of the animal-motif on the obverse, and is subdivided by a groove roughly at a right angle to the hole.

Made of white steatite, with a white slip/coating, the seal bears faint abrasion marks, both on the obverse and reverse.

To turn to the impression. It has the figure of a unicorn, facing right, whose body is vigorous, but is less decorated than in No. 2. For example, the horn is plain. There is only a single-string 'necklace', behind the ear and a plain 'saddle' over the front shoulder. Compared to No. 2, the 'standard' too is relatively less decorated: only a single row of dots is seen below the 'bowl' and some unidentifiable hatching on the lower part of the 'box'.

Starting from the right, the first sign consists of a large arc to the middle of which is affixed a very small arc (M-List No. 293). This is followed by two strokes, one in the lower part and another, smaller, in the upper (somewhat similar to Variant No. 1100 of Sign No.123 of M-List). The next sign is the usual U-mark with the jutting-out strokes, but it also has a small vertical stroke within the upper part of the U (M-List No. 343). This sign is followed by two small strokes, placed at the middle level (M-List No. 100). Then occurs a human-figure-like sign, holding a 'stick', comparable to Variant No. 1018 of M-List No. 17. The next sign consists of a bird placed vertically and enclosed on each side by a vertical arc facing each other, so as to look like a 'bracket'. The last sign comprises five fulllength vertical lines (M-List No. 96).

KLB-2, Sq A2. From a late level of Period II. Reg. No. 12349.

4. (Fig. 9.4). While a shows the obverse view and b shows the impression of the seal. The square seal has an inscription and animal motif on the obverse and a boss roughly circular on plan on the reverse. The boss has a circular hole which is parallel to the longer axis of the



Fig. 9.4

animal motif on the obverse and a medial groove roughly at right angle to the hole

White steatite, self-slipped; abrasion marks observable on the sides and reverse.

On the impression, a unicorn, facing right, with a rather long horn, slightly curved at the tip. Single-beaded string around the neck and a 'saddle' over the front shoulder; rest plain. The lower part of the staff of the 'standard' is damaged. However, the 'bowl' and the 'box' are lightly decorated.

The inscription consists of six signs: Beginning from the right these are: (i) a man holding a bow and arrow (M-List No. 28); (ii) U-sign with two jutting-out strokes at the upper ends and a single stroke within the upper part of the U (M-List No. 343); (iii) an oval with a trident within it (M-List No. 387); (iv) fish-like sign with strokes representing fins (?) (M-List No. 67); (v) again a fish-like sign, but with a curved stroke passing through the belly (or a stroke within the belly and two fins'); and (vi) an arrow with a triangular tip (M-List No. 211).

KLB-1, Sq XA1. From a late level of Period II. Reg. No. 7295 (2).

5. (Fig. 9.5). While a, c and d show respectively the obverse, reverse and side views, b shows the impression. Size $30 \times 30 \times 4$ mm (as reconstructed, since it is broken at bottom left). The boss at the back is rectangular on plan, 15×13 mm, and has a height of 6 mm. The hole with a diameter of 3 mm is, as usual, along the length of the unicorn on the obverse; and the groove of the boss is at a right angle to the hole.

Made of white steatite, the seal has a white slip. There are no abrasion marks on the obverse, but the same are faintly observable on the reverse and sides.

To turn to the impression (view b). It bears, as usual, a unicorn, a 'standard' and an inscription at the top. Unlike in the previous examples, the unicorn faces left. It is heavily decorated, in marked contrast to what one sees, in Nos. 3 and 4 above. The entire portion from the mouth back to the front shoulder is decorated with lines, drawn in various directions. This gives a very pleasing effect. Also may be seen the 'saddle' at the front shoulder. The horn is plain, fairly long and curved.

Of the 'standard', both the 'bowl' and the upper part are decorated. It may also be stated that the upper part is domical in shape, unlike its counterparts in Nos. 3 and 4.

The inscription is in two lines, of which the upper has four signs and the lower three. However, it is the sequence of these signs that poses a problem. Thus, if we read the inscription as it appears on the impression (which is the positive) and follow the usual pattern, i.e. from right to left, the first sign to be read would at once appear to open in a wrong direction, since usually its open side is to the right (cf. M-List No.216). Likewise, the sign on the extreme right in the second line also seems to depart from its usual pattern. It consists of a vertical rectangle, divided into two by a vertical line, the right hand compartment being further sub-divided into two by a medial horizontal line. This is unlike its normal disposition in which the sub-divided compartment is on the left (cf. M-List No.242). Thus, one begins to wonder whether the inscription was meant to be read as it appears on the positive or as on the negative. But such a stand also presents a difficulty, since the 'flag' of the sign placed between the ear and the horn



of the unicorn usually flies to the right (cf. M-List No.402), which is not the case in the negative. The issue, thus, requires further examination.

To continue with the identification of the remaining signs on the impression. Nos. 2 and 3 from the right are the same as M-List Nos. 391 and 267. In the lower row, the second and third signs from the right are comparable respectively to M-List Nos. 342 and 341 (though the latter is not quite the same).

KLB-2, Sq D7. From an early level of Period II. Reg. No. 9434.

6. (Fig. 9.6). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives the impression. Measurements: $28 \times 28 \times 7.5$ mm. The convex boss on the reverse has a height of 4 mm and covers an area of 12×12 mm. The hole, as usual, is along the alignment of the unicorn on the obverse and the groove is at a right angle to it. Made of off-white steatite, it has a whitish slip.

On the impression (view b) may be seen a unicorn, a 'standard' and an inscription at the top. The unicorn faces right, but the face is damaged. The body has no decoration but for a 'saddle' over the front shoulder. On the other hand, both the 'bowl' and the 'box' above are decorated with strokes and dots.

The inscription consists of eight signs. Beginning with the right, these are: (i) the U-sign with two strokes jutting out from the upper end of the vertical lines and a further stroke in between these lines (M-List No. 343); (ii) as in M-List No. 225; (iii) M-List No. 233 (iv) 'fish' as in M-List No. 59 followed by a stroke at the upper level; (v) an oval with a vertical stroke arising from the lower end (M-List No. 386); (vi) as in No.

48 of M-List, but with a lesser number of strokes; (vii) human figure, as in M-List No. 7; and (viii) though disfigured, it may have been a U-like sign.

KLB-1, Sq E4. From a late level of Period II. Reg. No. 17730.

7. (Fig. 9.7). While a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of greyish white steatite, the seal has a white coating. Though a corner is damaged, it measures 24 x 24 mm and has a thickness of 7 mm. The upper part of the boss on the reverse is damaged, but the hole, which ran in alignment with the unicorn on the obverse; is available; also an indication of there having existed a groove at a right angle to the hole.

It is interesting to note that whereas the general surface of the obverse and of the sides bears a shine (along with marks of rubbing/abrasion?), no shine is visible in the engravings, either on the body of the animal or in the signs comprising the inscription. It would thus appear that the engraving was done after the surface of the seal had been given the shine.

On the impression may be seen a unicorn, a 'standard' and an inscription. The unicorn faces right; the horn has a pronounced curve; and there is the 'saddle' over the front shoulder. Of the 'standard', the 'box' is more decorated than the 'bowl'. To come to the inscription. On the extreme right there are three strokes in the upper part followed by the fish sign (M-List No. 59). Though damaged, the next sign seems to have been U-like with horizontal strokes emanating outwards from the upper end (M-List No. 342). The last sign is still more damaged, but appears to have been the representation of a man with a rod across the shoulders, and a bag hanging down from each end of the rod. (M-List No. 12).





ig. 9.7





KLB-1, Sq ZC7. From a late level of Period II. Reg. No. 17658.

8. (Fig. 9.8). While a, c and d represent respectively the obverse, reverse and side views of the seal, b shows the impression. Made of white steatite and having a white slip, the seal, measures 26 x 25.5 x 7mm. The boss with rounded ends measures 13.5 x 13mm on plan and has a height of 4mm. The hole, 3mm in diameter, is in alignment with the body of the unicorn on the obverse; and the groove is at a right angle to the hole.

On the impression may be seen a unicorn, a 'standard' and an inscription. The unicorn has very little decoration but for the 'saddle'. Of the 'standard', both the 'bowl' and 'box' are decorated; and the latter has a domical top. The inscription begins with an arc (M-List No. 287) with three small vertical strokes at the middle level of the former. Then there is the fish sign (M-List No. 59). Next is the U sign with strokes (M-List No. 342). At the left end is a human figure (M-List No. 1). (Note: This has not come out well in Joshi and Parpola, 1987, p. 300, Nos. K 9A and K 9a, since some extraneous material was still sticking to one of legs of human figure when that photograph was taken.)

KLB-2, Sq C7. From a late level of Period II. Reg. No. 9435.

9. (Fig. 9.9). While a, c and d represent respectively the obverse, reverse and side views, b gives the impression. Made of greyish steatite, the seal has a white coating. It is observed that the coating goes into the engraved body of the animal, as well as into the 'standard' and the inscribed signs. This would indicate that the coating was given after the seal had been inscribed.

Measurements of the seal: $28 \times 27 \times 7$ mm. The boss on the reverse measures 13×13 mm on plan, has rounded corners, the height being 7mm. The hole with a diameter of 3 mm is in alignment with the body of the animal on the obverse; and the groove, as usual, is at a right angle to the hole.

On the impression occur a unicorn, a 'standard' and an inscription. The neck of the unicorn is decorated and there is the usual 'saddle' over the shoulder. Both the parts of the 'standard' are 'bowl'-like, the lower with its rim up and the upper with the rim down. Both are decorated.

The inscription, consisting of eight signs, begins with a 'flag' (M-List No. 402), followed by two vertical strokes in the upper part. Next is a 'box'-like sign with a long vertical line (M-List No. 249). This is followed by a lozenge with an angle-like fixture in the upper corner (M-List 267). Again, there is the 'flag' sign, combined with two small vertical strokes in the upper part (a repetition of what was there at the beginning). Next is the 'hatched-bird' sign. roughly similar to M-List No. 77. Then comes the M-List sign No. 130. This is followed by a sign as given in M-List No. 149. The last is the usual U with two strokes jutting out from the upper ends of the U (M-List 342).

KLB-1, Sq XA1. From an early level of Period II. Reg. No. 2247.

10. (Fig. 9.10). While a, c and d represent respectively the obverse, reverse and side views, b shows the impression. Made of white steatite, the seal has a buffish-white coating, which can be seen very distinctly on the boss, though it is largely damaged. Underneath the coating may also be observed the abrasion marks. It also appears that the engraving was done after the coating. The seal measures: 26 x 27 x 6 mm. The boss on the reverse covers an area





Fig. 9.10





14.5 x 17.5 mm on plan, rounded off at the corners, and its extant height is 3.5 mm. The hole having a diameter of 3.5 mm. follows the alignment of the body of the animal on the obverse, while the groove runs at a right angle to the hole.

On the impression may be seen the unicorn, with a 'standard' below its neck and an inscription above it. The unicorn has a prominent horn, and its neck is heavily decorated. Of the 'standard', both the 'bowl' and the slightly domical 'box' above it are heavily decorated.

The inscription comprises five signs. Beginning from the right, these are: (i) an arc (M-List No. 287); (ii) a vertical oval (M-List No. 373), (iii) a sign resembling a pronged 'tool' placed vertically (M-List No. 171); (iv) an asymmetrical U-like sign with hatching in the lower part (M-List No. 341); and (v) the usual U-like sign with horizontal strokes jutting out (M-List No. 342).

KLB-1, Sq ZC9. From a late level of Period II. Reg. No. 16052.

11. (Fig. 9.11). While a, c and d represent respectively the obverse, reverse and side views, b gives the impression. Made of greyish steatite, the seal has a buffish-white coating, which can be easily made out in damaged parts. The abrasion marks may also be seen underneath the coating. The coating was done after the engraving. Had it been otherwise, the original colour (grey) of the stone would have been visible in the engraved portion, particularly in the hind part of the unicorn where the engraving is pretty deep.

The seal, would have measured $25 \times 24 \times 6$ mm, though one of the corners is now damaged. The boss covers an area 12×12 mm with the corners rounded off. With a convex profile, its

maximum height would have been 5 mm, though the crest is damaged. The hole (3 mm in diameter) through the boss is in line with the body of the unicorn on the obverse, and the groove is at a right angle to the hole.

The impression shows a unicorn, a 'standard' and an inscription. The tip of the horn of the unicorn is curved, while on the neck are a series of rings and over the shoulder the 'saddle'. The 'bowl' of the 'standard' is decorated with curved lines, while the 'box', which is domical, is hatched with criss-cross lines.

The inscription begins with a vertical oval within which are three lines, one vertical and two oblique, cutting one another at the centre (cf. M-List No. 391). Immediately following it are two small vertical strokes in the upper part. Then there are three small vertical strokes, but this time in the lower part. The sign (or signs) thereafter is (or are) damaged.

KLB-1, Sq ZB11. From a late level of Period II. Reg. No. 18257 (1).

12. (Fig. 9.12). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives the impression. Made of buffish-white steatite, the seal had a whitish coating, which was given after the engraving. It measures 28 x 28x 7 mm. The boss is roughly ovalish, covering an area of 15 x 12.5 mm and with a height of 6 mm. The hole (diameter 3 mm) and groove are in the usual directions.

The impression shows a unicorn, a 'standard' and an inscription. The unicorn has a prominent curved horn, decoration along the neck and a 'saddle' over the front shoulder. Of the 'standard', both the 'bowl' and 'box' are highly decorated, the former showing bead-like projections along the lower edge. The 'box' is domical



Fig. 9.12

and bears three rows of small vertical strokes, each row separated from the other by a horizontal line.

The inscription consists of five signs, of which that on the extreme right is a rectangle, with the longer side being vertical; on the interior it has two strokes coming down from the upper line and two strokes going up from the lower (cf. Variant 1002 of Sign No. 244 of M-List). The next sign is the usual U with horizontal strokes, there also being a small stroke in the upper part of U (M-List No. 343). This is followed by seven small vertical strokes, four in the upper row and three in the lower (M-List No. 112). It may also be noted that below the upper four strokes there are four faint lines, suggesting that the signs of the inscriptions may have been drawn with some thin instrument prior to their being engraved. Then comes sign No. 194 of M-List. The last sign is the U with horizontal strokes (M-List No. 342).

KLB-1, Sq ZB11. From a late level of Period II. Reg. No. 18257 (2).

13. (Fig. 9.13). While a, c and d give respectively the obverse, reverse and side views, b gives the impression. The seal is damaged at the upper corners. However, when complete, it would have measured $25 \times 25 \times 5$ mm. Made of greyish steatite, it has a buffish coating. With somewhat rounded corners, the boss measures 13.5×13.5 mm and has a height of 8 mm. The hole and groove follow the usual alignments.

On the impression may be seen a unicorn, a 'standard' and an inscription. The unicorn shows decoration along the neck and the 'saddle' over the front shoulder. The 'bowl' and 'box' of the 'standard' are decorated, the 'bowl' showing a line of beads along the lower edge and the 'box', domical in shape, being decorated

with two rows of small vertical strokes, separated by a horizontal line.

The inscription is damaged, but it was in two lines. In the upper line may be seen a square with three small hazy strokes coming down from the upper line and three going up from the lower (cf. M-List No. 244). This is followed by the U-like sign which is without the usual horizontal strokes but contains three small vertical strokes in the upper part (M-List No. 330). Next, however, is the U sign with horizontal strokes, having also a small vertical stroke in the upper part (M-List No. 343). In the lower line are an oval, the other details of which are indistinct; and three small vertical strokes with an oblique line adjacent to these.

KLB-2, Sq XA8, Surface. Reg. No. 5441.

14. (Fig. 9.14). While a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of white steatite, the seal has a buffish coating which overlies the abrasion-marks as well as the engravings. It measures 29 x 28 x 5.5 mm. The boss is a rough rectangle on plan, measuring 14 x 13 mm. The longer side, through which the hole is bored, follows the length of the animal on the obverse. A part of the boss is damaged, exposing the core. However, from the extant part, its height is measured as 7.5 mm. The groove, as usual, runs at a right angle to the hole.

On the impression may be seen a unicorn, a 'standard' and an inscription. The horn of the unicorn is very prominent, going all the way up to the corner of the seal. A close look at the seal shows that the horn was hatched with small strokes, though this feature has not come out well in the impression. The seal also shows that the face too was hatched; in particular with radial strokes surrounding the eye. The neck



Fig. 9.13



Fig. 9.14





has the usual ring-decoration and on the front shoulder there is the 'saddle'. Both the parts of the 'standard' are also heavily decorated: the 'bowl' with a frill below, and the domical 'box' with rows of small vertical strokes separated from one another by curved lines which follow the curvature of the dome.

The inscription is in two lines, with eight signs in the upper and five in the lower. Thus, with a total of thirteen signs, it is perhaps the longest inscription on the seals as also on any other material from Kalibangan. Starting at the right end, the first sign is the same as No. 192 of M-List. The next is the fish-sign, No. 59 of M-List. Then comes sign No. 370 of M-List. This is followed by the bow-andarrow sign enclosed on either side by four small strokes, two each in the upper and lower parts (M-List No. 308). Then appears a sign which is a combination of a small oval below and a trident above, there also being a horizontal stroke at the junction of the two. (M-List No. 175). The next sign is the 'hour-glass' or damarū sign, there also being a small vertical stroke within one of the triangles (cf. Variant No. 4008 of Sign No. 214 of M-List). This is followed by the U-sign with two strokes jutting out (M-List No. 342). The last sign in this line is a vertically placed 'comb', with five teeth. (M-List No. 176)

If the second line was written following the boustrophedon pattern, then the first sign would be a lozenge, to the apex of which, on the interior, is attached an apex-down triangle and to the latter is further attached a small 'comb'-like sign. (M-List No. 282). Next is a double-curved vertical line (Variant No. 2851 of M-List No. 287). This is followed by a sign comprising two ovals, cutting each other, one placed vertically and the other at a slant (M-List No. 324). The next sign seems to be a variant of it (Variant No. 8056 of No. 324). The last

sign is again a double-curved vertical line (Variant 2851 of M-List No. 287). However, it is also probable that the two aforementioned curved vertical lines may be 'enclosing' the two sets of intersecting ovals, though this cannot be established finally until the script is really deciphered.

KLB-2, Sq C7. From an early level of Period II. Reg. No. 19829.

15. (Fig. 9.15). While a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of dull white steatite, the seal has a white coating which overlies the abrasion marks as well as the engravings. It measures 24 x 24 x 5.5 mm, though one of the corners is slightly damaged (see reverse). The boss, on the reverse, is completely missing, but one may well see the depressed outline forming a roundcornered rectangle 10 x 11mm. Also may be noted the inward kink in the middle of the longer sides indicating where the groove might have been. There is, however, no indication of the hole.

On the impression are seen: a unicorn, a 'standard' and an inscription. Of the unicorn, which faces left, the horn and even the ear are hatched (or indented). Over the neck are the usual rings which run on to the shoulder. The 'saddle' in this case overlies the back and is rectangular in outline. The 'bowl' of the 'standard' is somewhat blurred, nevertheless parts of its beaded lower outline may be seen. The 'box' is vertically elongated and domed. It is hatched with a series of vertical lines.

The inscription is in two lines. In the upper, on the extreme right, is the fish-sign with two fins on each side. (M-List No. 67). This is followed by the usual U-sign with horizontal strokes (M-List No. 342). Then is the human



Fig. 9.16

figure which is fairly realistic since even the rounded head and feet may be seen. (The original form of M-List No. 1). In the second line, on the right is a circle with three diameters, one vertical and two oblique, all cutting one another at the centre. This sign is more often drawn as a vertical oval (cf. M-List No. 391). Then there is an oblique line followed by a short vertical stroke. It is generally seen from other examples that these two signs usually occur in a combination at the beginning of an inscription (cf. Mahadevan, p.694). From that criterion, it would appear that the lower line was meant to be read first, followed by the upper line, from right to left, with the human figure marking the end. If this hypothesis is correct, it is somewhat unusual for the arrangement of the lines.

KLB-2, Unstratified. Reg. No. 17731.

16. (Fig. 9.16). Whereas a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of white steatite, the seal has a white coating which overlies the abrasion marks as well as the engravings. One of the corners is slightly damaged. However, the measurements are: $23 \times 23 \times 6$ mm. The boss on the reverse is somewhat higher than usual (8mm), and covers an area of 14×14 mm, with rounded off corners. The hole is along the length of the animal on the obverse and the groove is at a right angle to the hole.

As usual, the impression shows a unicorn, a 'standard' and an inscription. The unicorn faces left, which is not the usual way. Its neck is decorated. There is also an indication of a rectangular 'saddle' over the back. Both parts of the 'standard' are decorated, with vertical

strokes in the case of the 'bowl' and with curved horizontal lines in the case of the 'box' which is domical.

The inscription consists of two signs. That on the right is a reduplication of Sign No. 225 of M-List, placed one above the other and joined with a vertical stroke. Such a combination is shown in M-List No. 228. The second sign is the usual U with two horizontal strokes (M-List No. 342).

KLB-2, Sq XA11. From a late level of Period II. Reg. No. 12870.

Note: This seal is similar to one from Harappa though the unicorn in the latter case faces the other way.¹⁷

17. (Fig. 9.17). While a, c and d give respectively the obverse, reverse and side views, b shows the impression. Made of grey steatite, the seal has a white coating which covers it fully, overlying the abrasion marks and engravings. Though slightly damaged here and there, it measures 28 x 28 x 7 mm. A part of the boss on the reverse is damaged. However, the two extant sides measure 13 and 16 mm respectively, the height being 5 mm. The hole and groove are considerably damaged, but these seem to have followed the usual layout.

On the impression may be seen a unicorn, a 'standard' and an inscription. The unicorn faces left. Its horn, face and neck are highly decorated with indentations and lines. The 'saddle', covering the back, is rectangular. While the 'bowl' of the 'standard' is considerably damaged, the upper part, with a domical top, is vertically elongated and within it may be seen a

¹⁷ Vats, M.S. 1975 (Reprint). Excavations at Harappa, Vot,II PI. LXXXVI, No. 31 (impression).



Fig. 9.17

kind of 'tree pattern', comprising a vertical trunk with oblique branches shooting out from it on either side.

The inscription consists of five signs. It begins, on the right, with a human figure holding a rod which passes over the left shoulder. (M-List Sign No. 7 shows it in a stylized from.) The next sign depicts, as if, three contiguous mountain peaks (M-List No. 230). It has been placed somewhat obliquely, evidently for space-adjustment. Following it are two small strokes which seem to go with the former sign, as may be observed from some other similar examples. The next sign seems to be a composite one, incorporating a U sign with tridents emanating from each of the upper ends of the vertical lines of the U and a small sign occupying the belly of the U. It is somewhat comparable to M-List No.356. The last sign may have been a variant of M-List Nos. 180/181.

KLB-2, Sq F16. From a late level of Period II. Reg. No. 17574.

18. (Fig. 9.18). While a and c give respectively the obverse and reverse views, b gives the impression. No sideview is given since the reverse is badly damaged as a result of which not only is the boss missing but quite a bit of the thickness of the seal is gone. Made of pinkish steatite, the seal measures 25 x 24 x6 (?) mm. It has a white coating, which covers the engravings.

On the impression may be seen a unicorn, a 'standard' and an inscription. The unicorn has a prominently curved horn, decorated face, some decoration on the neck and a 'saddle' over the front shoulder. Of the 'standard', both the

'bowl' and 'box' are decorated with vertical lines. The 'box' has a concave profile.

The inscription consists of two signs. On the right are five vertical lines (M-List No. 106) placed roughly at the middle level of the next sign. The latter sign falls in the general category of Sign No. 169 of M-List, though in our case the oblique strokes are only three.

KLB-1, Surface. Reg. No. 21503.

Note: This seal, is similar to one from Mohenjo-daro. 18

19. (Fig. 9.19). Whereas a, c and d give respectively the obverse, reverse and side views, b gives the impression. The seal is broken, nevertheless its size can be ascertained: it was 28 x 27.5 x 9 mm. The boss on the reverse is roughly rectangular, 13 x 14.5 mm, with the ends rounded off. Its height is 5.5 mm. The hole and groove are in the usual alignments. Made of white steatite, the seal has a white coating which covers the abrasion–marks as well as the engravings.

On the impression may be seen a unicorn and an inscription. The place where the 'standard' might have been is damaged. So also the face of the unicorn. The neck is decorated with rings and the 'saddle' covers the front shoulder.

The inscription consists of only two signs. That on the right is the same as M-List No. 417. The next is a human figure with a pole across the shoulder, from each end of which hangs down a bag (somewhat similar to M-List No. 12).

KLB-1, ZE10. From an early level of Period II. Reg. No. 18902.

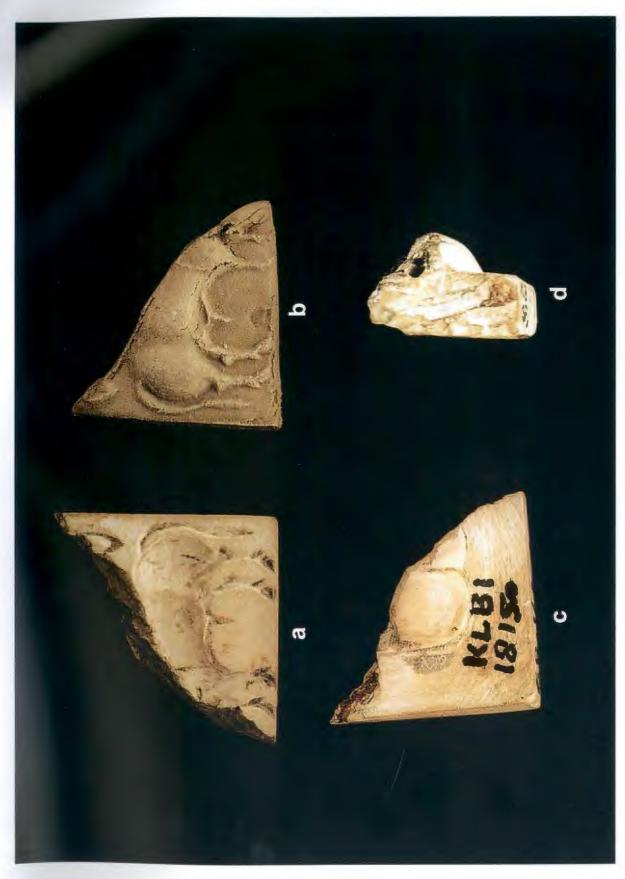
[🖰] E.J.H. Mackay, 1937. Further Excavations at Mohenjo-daro, Vol. II. PLLXXXVI, No.215.



Fig. 9.18



Fig. 9.19



ig. 9.20

20. (Fig. 9.20). While a, c and d represent respectively the obverse, reverse and side views, b represents the impression. The seal is nearly half-damaged, hence its exact original size is difficult to determine. The extant sides, however, measure 24 x 23 mm, while the thickness is 7 mm. Made of white steatite, the seal has a white coating which, as usual, covers the entire body, including the abrasion-marks, boss and engravings. The boss too is damaged, its extant height being 6 mm. The hole and groove are in the usual alignments.

On the impression may be seen the body of a unicorn, without the horn and face. The 'standard' is also damaged. Of the inscription only a part of one sign (probably an 'oval') is noticeable.

KLB-1, Sq ZC9. From a late level of Period II. Reg. No. 18150 (1).

21. (Fig. 9.21). Whereas a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of black steatite, the seal has a white coating which covers the entire body, including the engravings and boss. Sizewise, it measures $22.5 \times 22.5 \times 7$ mm. The boss is somewhat ovalish, covering 12.5×10.5 mm. Its height is 4 mm. The hole and groove follow the usual alignments.

The impression shows a unicorn, a 'standard' and an inscription. Of the unicorn, the neck is decorated and there is the 'saddle' over the front shoulder. The 'bowl' of the 'standard' is decorated with horizontal lines, whereas the 'box', which has a domical top, is hatched with horizontal and vertical lines.

The inscription comprises four signs. On the right are two signs, each consisting of three vertical lines (M-List No. 89). Then comes a man with a pole

across the shoulders, and a bag hanging down from each end of the pole (somewhat similar to M-List No. 12). The last sign consists of a lozenge from the upper corner of which emanate oblique lines joined by three small strokes (M-List No. 274).

KLB-1, XA1. From a middle level of Period II. Reg. No. 2249(1).

22. (Fig. 9.22). While a, c and d represent respectively the obverse, reverse and side views, b shows the impression. Made of buffish steatite, it has also a buffish coating which covers all the surfaces including the engravings, boss, etc. Though slightly damaged on the reverse, it measures 21.5 x 21.5 x 7 mm. The boss covers an area of 11 x 10 mm, is rounded off at the corner and has a height of 6 mm. The hole and the groove are in the usual alignments.

On the impression may be seen a unicorn, a 'standard' and an inscription. Of the unicorn, the neck is decorated with rings, and the 'saddle' over the front shoulder may also be identified. The two parts of the 'standard', viz. the 'bowl' and the 'box' above, have more or less a common outline which forms an oval. Both the parts are hatched with vertical lines.

The inscription comprises five signs. That on the extreme right consists of three vertical lines (M-List No. 89). The next is an oval within which are a vertical and two oblique lines all of which cut one another at the centre (M-List No. 391). Adjacent to it are two small vertical strokes in the upper part, which seem to go with the oval just described. Then there are two signs vaguely resembling 'hooks' with angular turns (M-List No. 127). And finally is the usual U-sign with two jutting-out horizontal strokes (M-List No. 342).





ig. 9.22





KLB-1, Sq XC8. From a late level of Period II. Reg. No. 14507.

23. Fragmentary. (Fig. 9.23). While a and c give respectively the obverse and reverse views, b gives the impression. Available length and breadth respectively 21 mm and 20 mm and thickness 7 mm. Boss damaged, available height 4 mm. Hole and groove in the usual style. Made of greyish steatite, the seal has a white coating.

Seen on the impression are: damaged figure of a unicorn and an inscription. Of the latter, five signs are available. Beginning from the right, these are: (i) Sign similar to M-List No. 197; (ii) Sign No. 302 of M-List, followed by two vertical strokes at the upper level; (iii) a human figure with a stroke between the legs (Sign No. 3 of M-list); (iv) Sign No. 347 of M-List; and (v) U-sign with two horizontal strokes, M-list No. 342.

KLB, Surface. Reg. No. 21710

24. (Fig. 9.24). While a and c give respectively the obverse and reverse views, b gives the impression. Made of white steatite, the seal has a white coating covering the boss, engravings, etc. One side is intact, which measures 21.5 mm. Of the other, only 11 mm is available. However, like other seals, it may also have been squarish. The thickness is 6 mm. The boss is also broken, but a part of the hole and groove may be seen. Extant boss, 12 x 6 (broken) mm; height 5.5 mm.

On the impression are seen just a part of the unicorn, *viz.* the horn and parts of the face and neck, the latter having a ring-decoration.

The inscription consists of six signs. That on the extreme right is comparable

KLB-1, Sq ZA9. From a late level of Period II. Reg. No. 16174.

25. (Fig. 9.25). While a and c show respectively the obverse and reverse views of the seal, b gives the impression. Made of greyish white steatite, it has a whitish coating which covers the entire surface including the engravings. The obverse is intact, the sides measuring 22.5 x 23 mm. The thickness of the seal, where intact, is 8 mm. The back is damaged, but traces of the boss may still be seen.

On the impression may be seen the zebu with its well pronounced hump, dewlap and horns. This is indeed the most majestic of the animals on the seals. It is difficult to say what the curved lines passing over the hump are supposed to indicate.

Above the bull is an inscription consisting of two signs: a fish with fins (M-List No. 59) on the right, and an arrow (M-List No. 211) on the left.

It may be added that this inscription occurs on a seal from Mohenjo-daro, but in the latter case the animal is a unicorn.¹⁹

to M-List No. 160. The next sign is a human figure holding in one of the hands a three-pronged object (M-List No. 22). Then comes a vertical stroke with a small stroke attached to its lower part (Variant No. 1110 of M-List No. 125). Thereafter is the fish-with-fins sign (M-List No. 59), followed by two small vertical strokes in the upper part, which seem to go along with the fish sign. Again there seems to be another fish sign. The last is an arrow (M-List No. 211).

¹⁹ Joshi and Parpola, op. cit., 1987, p. 52, M-185.



Fig. 9.24







ig. 9.26

KLB-1, Sq ZC9. From a late level of Period II. Reg. No. 18150 (2).

26. (Fig. 9.26). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives the impression. Made of white steatite, the seal also has a white coating which covers the entire surface including the engravings and the boss. The measurements are 25 x 25.5 x 7.5 mm. The boss covers an area of 14 x 14 mm, rounded off at the corners. Its height is 6 mm. The hole and groove are in the usual alignments.

On the impression are seen a humpless bull and an inscription. Though the bull has a well-built body, it is different from the humped bull of the previous seal. The horns too are shorter than those of the zebu. The neck and shoulder are decorated with curved lines. Over the front shoulder, going down to the legs, is something similar to the 'saddle' seen in the case of the unicorn.

The inscription has six signs. On the extreme right is a sign shown as Variant No. 1090 of Sign No. 205 in the M-List. The next sign consists of an oval with four small strokes below it and a curved line with three prongs attached to its upper end. This is somewhat similar to Variant No. 1330 of Sign No. 395 in the M-List. It is followed by two small strokes in the upper part, which may perhaps have gone with the previous sign. Then comes a square, topped by two triangles facing each other (Sign No. 192 of M-List). After it is the U sign with two jutting-out strokes (M-List No. 342). Then is a tree-like sign (Variant No 8038 of Sign No. 167 of M-List). At the end is the 'hook-like' sign (No. 127 of M-List).

KLB-1, Sq ZC7. From a late level of Period II. Reg. No. 16945.

27. (Fig. 9.27). While a, c and d show respectively the obverse, reverse and side views, b shows the impression. Made of black steatite, it has a white coating which covers the entire surface, including the engravings and the boss. The measurements are $19.5 \times 19.5 \times 8 \text{ mm}$. In fact, the thickness in relation to the length and width is more than what it is generally in most other seals. The hole and groove of the boss follow the usual pattern. Boss size: $11 \times 9.5 \times 5 \text{ mm}$.

On the impression is seen a bull with the head lowered, as if it is going to put its mouth into the 'trough' placed below the head. The neck has a ring-decoration. The body of the 'trough' is vertically hatched, while its ends curve out very prominently.

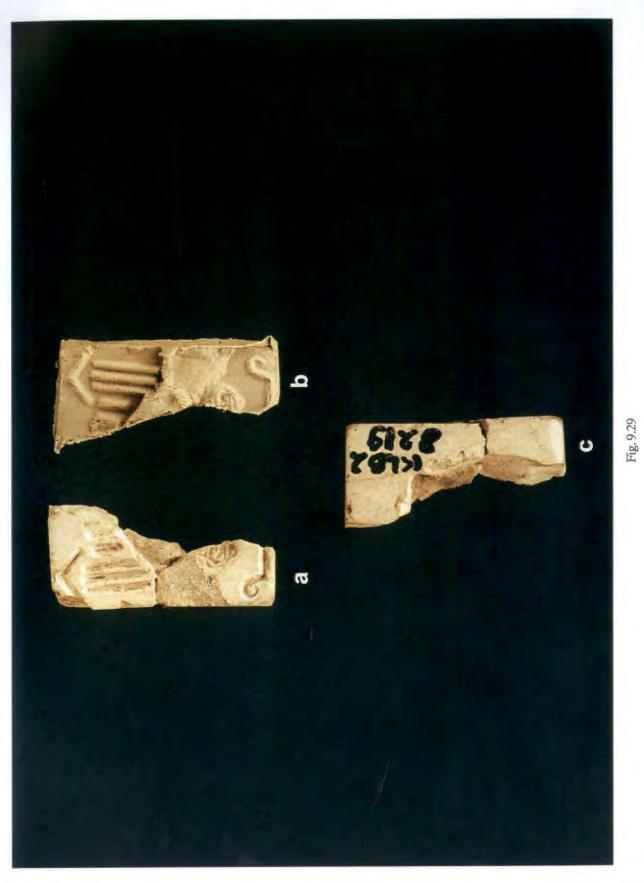
Above the animal is a small inscription of two signs. That on the right consists of two arcs, placed back to back (M-List No. 303). The other sign comprises of a set of twelve small strokes, placed in three rows, each row having four of them (Sign No. 121 of M-List).

KLB, Surface. Reg. No. 343.

28. (Fig. 9.28). Whereas a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of white steatite, the seal has also a white coating, the latter covering the entire surface including the engravings and the boss. The measurements are $15 \times 15.5 \times 4$ mm. It is amongst the smaller variety of the seals. The boss on the reverse is damaged, but the hole may clearly be seen. The groove, however, is faint. The maximum height of the boss is 3 mm, while its available size is 7.5 x 5 (broken) mm.







On the impression is seen a bull (facing left) with prominent horns but a comparatively slender body. The head is upraised and the neck bears ring-decoration. (There is no trough.)

The inscription has two signs which may perhaps make a single unit. That on the right is an oval with an apexdown angle affixed to its interior upper end. (Variant No. 1022 of Sign No. 267 of M-List). Then there are two small strokes, placed in the upper half. This combination occurs at the beginning of many inscriptions, but its occurrence by itself is somewhat interesting. In this context see also examples from Banawali, where, however, the animals are different (cf. Nos. B-5a, B-7a, and B-15a, on pp. 344-46 in Joshi and Parpola, op. cit.)

KLB-2, Sq C7. From a late level of Period II. Reg. No. 9631.

29. (Fig. 9.29). While a and c give respectively the obverse and reverse views, b shows the impression. This seal is fragmentary and only one edge is intact, which measures 27 mm. The thickness is 7.5 mm. The seal seems to have been of the square type with an animal and inscription on the obverse and a boss on the reverse, though the reverse is so much damaged that the boss cannot be made out. Made of white steatite, it has a white coating which covers the entire surface including the engraving.

On the impression may be seen a part of the trough in the lower right corner, above which is also visible a part of the mouth of an animal which, however, cannot be identified.

Of the inscription, only two signs are extant. That on the right consists of three vertical lines capped by an angle (M-List No. 92). This is followed by two short strokes which may have gone with it.

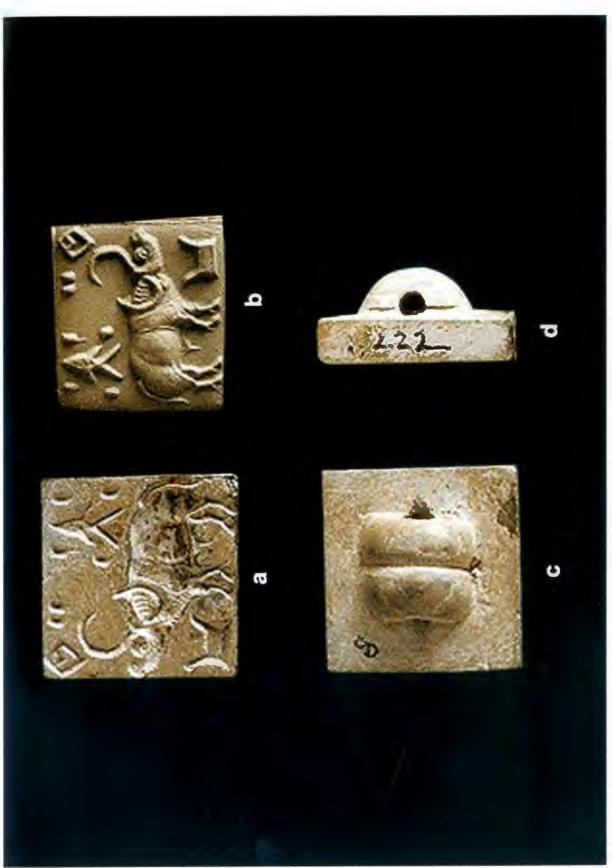
KLB-2, from the baulk between Squares XA6 and XB6, Layer 1, From a late level of Period II. Reg. No. 8219.

30. (Fig. 9.30). Whereas a, c and d represent respectively the obverse, reverse and side views of the seal, b shows the impression. It measures 22 x 21 x 5 mm. The boss on the reverse covers an area 12 x 11.5 mm and has a height of 6mm. Its hole and groove follow the usual pattern. Made of white steatite, the seal has a white coating which covers the entire surface including the boss on the reverse.

On the impression are seen a buffalo and an inscription. The former is characterized by its incurved long horns which bear indentations. The face is slightly upraised, and the neck has 'ringed' decoration. Maybe it represents the folds of the neck. Below the face lies a trough, with upraised sides.

The inscription consists of two signs. On the right is a lozenge with a triangular appendage in the upper corner (M-List No. 267). It is immediately followed by two small strokes in the upper part. Most likely these strokes go with the lozenge sign. The other sign is the fish-motif with four small strokes on its sides, two in the upper part and two in the lower (M-List No. 60).

KLB-2, Sq D6. From a late level of Period II. Reg. No. 11222.



31. (Fig. 9.31). While a, c, d represent respectively the obverse, reverse and side views of the seal, b shows the impression. Made of white steatite, it has also a white coating. It is a small-sized seal, measuring $13 \times 12.5 \times 3$ mm. The boss on the reverse is barrel-shaped, the length, width and height being respectively $7.5 \times 5.5 \times 4$ mm. The hole is in the longitudinal direction, in alignment with the body of the animal on the obverse.

On the impression may be seen: (i) a markhor(?) facing left, with long curly horns and upraised bushy tail; and (ii) just one-sign inscription. The latter, in the form of a fish (M-List No. 59), is placed below the neck of the animal.

KLB-1, Sq ZB11. From an early level of Period II. Reg. No. 18597.

32. (Fig. 9.32). While a, c and d represent respectively the obverse. reverse and side views of the seal, b gives the impression. Although a corner of the seal is damaged, it measured 25 x 24.5 x 5 mm. On the reverse is a rectangular boss measuring 14.5 x 9.5 mm. The height is 4 mm. The top of the boss is almost flat, the curvature being only nominal. The hole is along the longer axis, and in line with the length of the animal on the obverse. There is no groove. Made of white steatite, the seal has a white coating which covers the entire surface including the boss and the engravings.

On the impression may be seen a markhor/goat(?) with curly horns and upraised tail. The neck has a ringed decoration. There is also indication of some kind of a 'saddle'. However, the face presents an unusual look: an elongated eye (?) and a down-flowing adjunct (beard ?).

Perhaps there was an inscription consisting of only one sign. But its details cannot be made out.

KLB-2, Surface. Reg. No. 16031.

33. (Fig. 9.33). Whereas a, c and d present respectively the obverse, reverse and side views of the seal, b gives its impression. Of small size, it measures $16 \times 16 \times 3.5$ mm. Made of white steatite, it also has a white coating which covers the entire surface, including the engravings, boss and abrasion marks. The boss, covering an area of 8.5×8 mm, has a height of 4.5 mm, with a vault-like top. There is no groove but the hole, as usual, is in alignment with the length of the animal on the obverse.

On the impression may be seen a goat (?) having curved, long horns, thrown backward and an upraised bushy tail. There is only one sign, *viz.* the fish (M-List No. 59), which is placed below the face of the animal.

KLB-2, Sq F16. From a late level of Period II. Reg. No. 17729.

34. (Fig. 9.34). While a, c and d present respectively the obverse, reverse and side views of the seal, b gives its impression. The seal measures $27.5 \times 27 \times 7$ mm. Made of off-white steatite, it also has an off-white coating which covers the entire surface including the boss and engravings. The boss covers an area of 14×13 mm and has a vaulted top, the height at the apex being 6 mm. The hole is relatively large and so is the groove which goes fairly deep into the boss. The diameter of the hole is 3 mm.

On the impression are seen an elephant facing left and an inscription above it. The elephant is typically Indian (as against the African variety) with its sloping



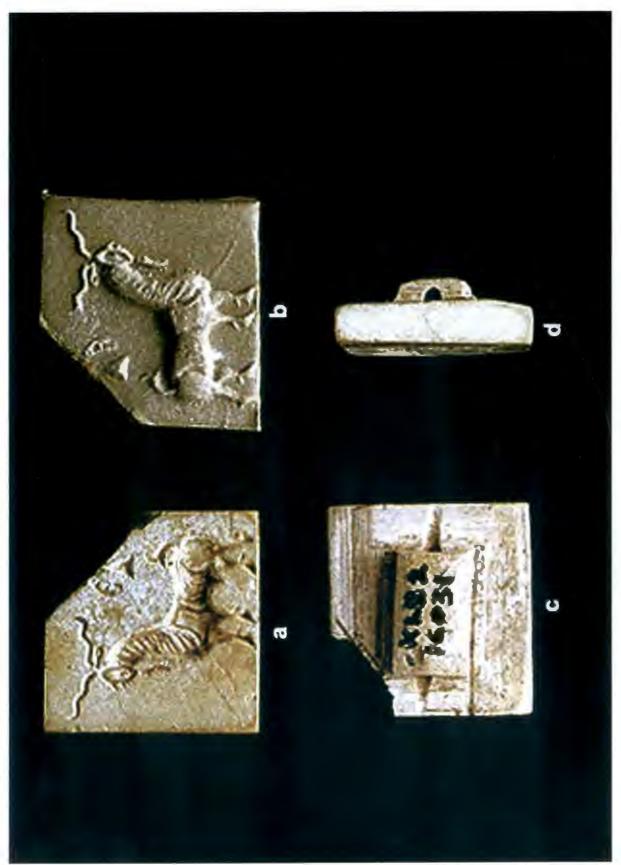


Fig. 9.32

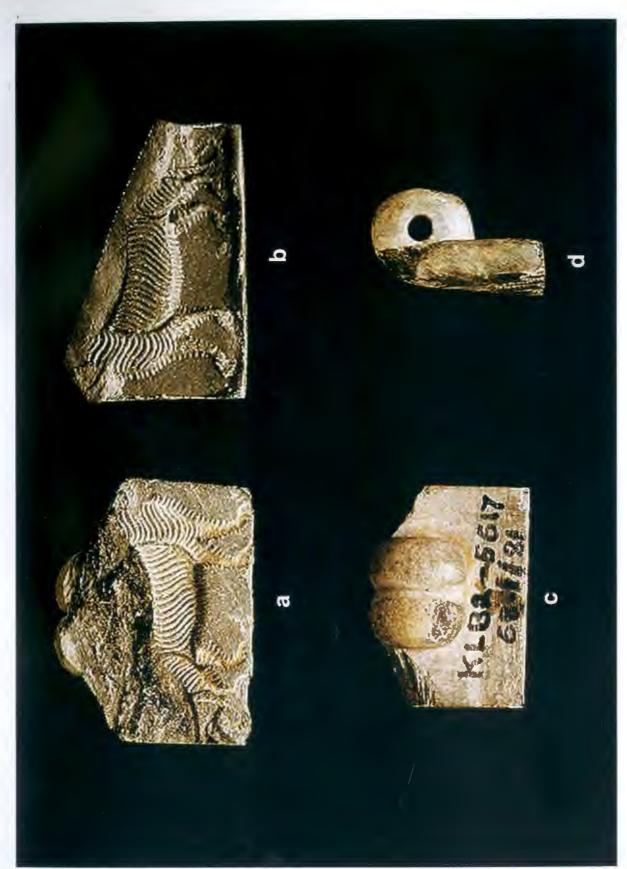


ig. 9.3



Fig. 9.3





back and relatively shorter ears. There are lines on the neck which may indicate its folds or maybe some kind of decoration. The vertical lines over the middle of body may indicate some kind of a 'saddle' as envisaged in the case of unicorns in earlier examples. The rings along the trunk evidently indicate the folds, but the purpose of indentations along the back is not clear. The eyes, as is to be expected in the case of an elephant, are small; and the tusks are fairly prominent. On the whole, the animal has been depicted nicely.

The first sign on the right is the same as Variant No. 1340 of the No. 341 of M-List. The second sign, resembling a 'table' is similar to M-List No. 197, but without the superimposed small 'box'. Then come two circlets, which may (or may not) be variants of M-List No. 374. These are followed by a lozenge having an apex-down angle appended to its inner upper corner (M-List No. 267). The two small strokes that come immediately after the lozenge appear to go with it. Then there is a full-length oblique line (Variant 1385 of M-List No. 86). Finally, there is a U-shaped sign with tridents emerging from the upper ends of each of the two vertical lines of the U (M-List No. 347).

KLB, Surface. Reg. No. 21705.

35. (Fig. 9.35). Whereas a, c and d present respectively the obverse, reverse and side views of the seal, b gives its impression. It is broken, with only one edge intact. However, it seems to have been, like other seals, square on plan. The measurements are: 33 x 24 (broken) x 7 mm. The boss on the reverse is very prominent. It covers an area of 16 x 14.5 mm and, with a wagon-vault-like side view, rises to a height of 7 mm. The hole and groove are very prominent, but follow the usual pattern. Made of greyish-black

steatite, the seal has a whitish coating which covers the entire surface including the boss and the engravings.

On the impression is seen is a tiger with its prominent stripes. The face, though damaged, seems to have turned backwards.

Since the part above the body of the animal is damaged, nothing can be said about the inscription.

KLB-2, Sq XA6. From a late level of Period II. Reg. No. 5617 (2).

36. (Fig. 9.36). While a, c and d present respectively the obverse, reverse and side views of the seal, b gives its impression. Made of white steatite and measuring $25 \times 25 \times 6.5$ mm, the seal has a white coating which covers the entire surface including the engravings, boss and abrasion marks. The boss, roughly squarish on plan and with curved corners, measures 12×12 mm. The top is vaulted, with a height of 6 mm. The hole and groove are in the usual alignments.

On the impression may be seen a composite animal, with a single body but with three different fore-parts. Thus, looking downwards is a bull, while a unicorn looks up and an animal with two curved horns looks backwards. Many mythological interpretations have been advanced to explain this kind of composite animal, but these remain still in the realm of guess-work. The necks of all the three animals have a 'ringed' decoration. The carving on the whole is a pleasant example of high workmanship.

Here it needs to be noted that whereas on a positive (i.e. the impression) the animal usually faces right, in the present case, two animals are facing left, and only one, right.



Tip. 9.36

The signs of the inscription are laid out in such a way that it can be anyone's guess from where to start. The lowermost sign on the right consists of a U-like sign with two strokes emanating outwards from the upper ends, there also being two more small vertical strokes within the upper part of the sign itself (M-List No. 344). The next two signs, the open parts of which face each other, resemble Sign No. 217 of M-List, though it must be added that in the present example, the lines are curved and not straight. The next sign, across the horns of the backward-looking animal, is the same as the first one (i.e. No. 344 of the M-List). The next adjacent sign is slightly blurred in the middle but may have consisted of two adjacent/intersecting ovals (M-List No. 403?). There are three dots, below the above-noted two signs. The sign placed in the upper left corner resembles No. 347 of the M-List. The last sign, placed between the faces of the unicorn and the bull, is the usual U-sign with two strokes at the top (M-List No. 342).

KLB-2, Sq A7. From a late level of Period II, Reg. No. 16947.

Note: The motif of a 'three-headed animal' occurs also on three seals from Mohenjo-daro and Amri (See Footnote Nos. 11 and 12, given earlier).

37. (Fig. 9.37). This is a highly damaged seal, the upper parts of both the obverse and reverse having flaked off. Anyway a and c present respectively its obverse and reverse views, while b its impression. Made of white steatite, it seems to have been squarish; the intact side measures 29 mm, while the thickness is 8.5 mm. A major part of the boss on the reverse is damaged, hence exact dimensions cannot be made out.

The seal has a white coating, which seems to have covered the entire surface, including the engravings.

On the impression may be seen an animal facing downwards. Judging from the faintly visible horns, it may have been a bull. The faint lines above the neck of this animal indicate that there was yet another head. If this guess is correct, then this seal, may have followed the pattern of the seal described at No. 36 above.

There is no trace of any inscription.

KLB, Surface. Reg. No. 21707.

38. (Fig. 9.38). Whereas a, c and d give respectively the obverse, reverse and side views of the seal, b gives its impression. Made of buff steatite, it measures $19.5 \times 19 \times 4$ mm. On the obverse is a flattish boss, hardly 3 mm in height. On plan it is roughly rectangular, 11.5×10 mm. There is no groove, but the hole follows the usual alignment. The entire surface of the seal is covered with a buffish coating.

On the impression is seen a composite figure, the front part representing a human body and the rest, the body of a striped animal most likely a tiger. Of the human figure may be seems two legs, two arms, the body wearing a skirt-like garment, the head with a long flowing tail of hair, and a 'crown' consisting of two horns and three branches of a plant (or tree). The theme of this seal is somewhat similar to the one from Mohenjo-daro²⁰ and Nausharo²¹. However, the inscriptions differ in all these cases.

²⁰ E.J.H. Mackay, 1938. op. cit., Vol. II, Pl. LXXXIX, No. 347.

²¹ S.G.H. Shah and Asko Parpola (eds.). 1991. op. cit., p. 409, No. NS 9A.

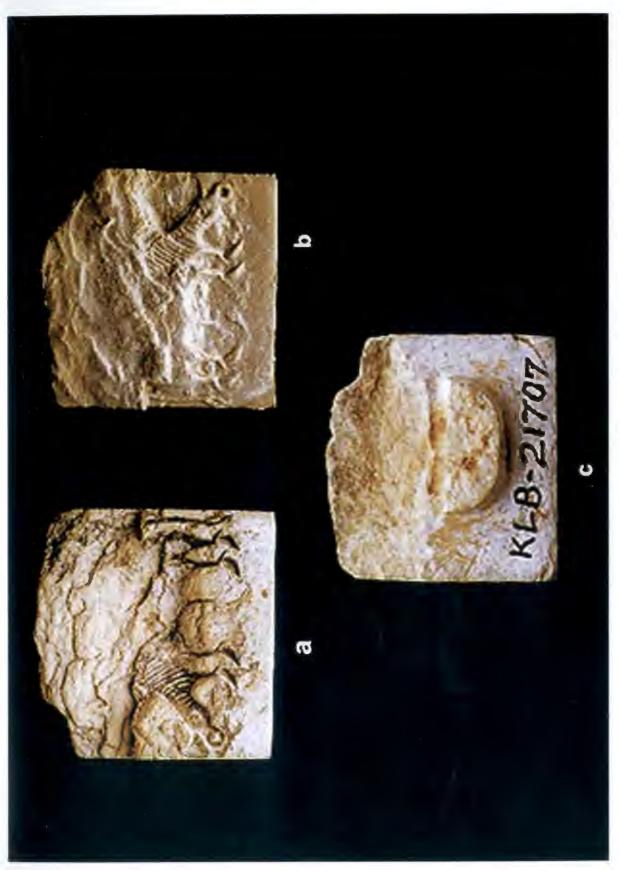
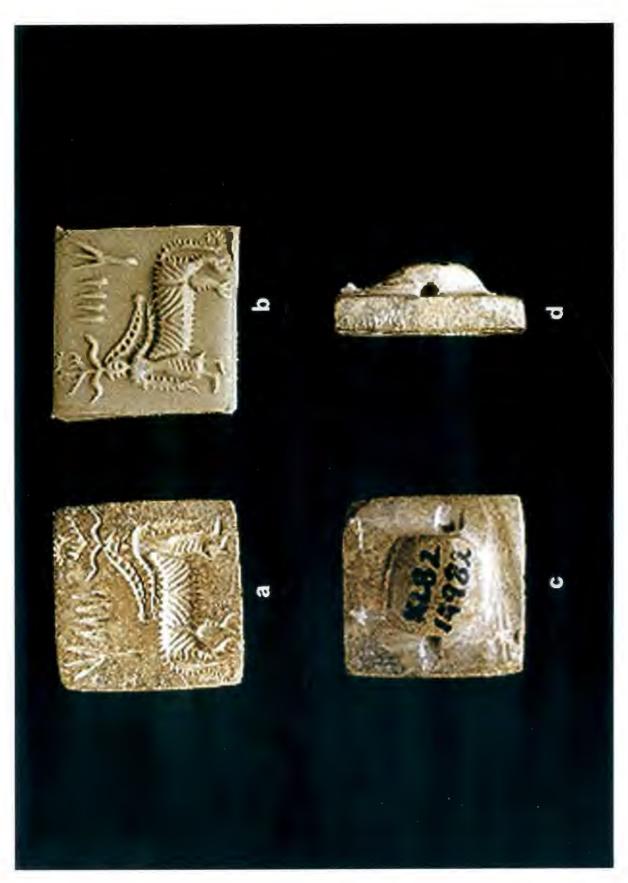


Fig. 9.37









In our case, the inscription consists of two signs. That on the right resembles a trident (No. 162 of M-List). It is followed by four medium-sized strokes in the upper register (No. 104 of M-List).

KLB-2, Sq A7. From a late level of Period II. Reg. No. 14982.

39. (Fig. 9.39). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives its impression. Made of buff steatite, it measures $32.5 \times 32.5 \times 7$ mm. On the obverse is a bold boss, with curved top, rising to a height of 8.5 mm. On plan, it is somewhat rectangular, measuring 17 x 14.5 mm, and has curved corners. The hole and groove follow the usual alignments; the latter is rather prominent. The entire surface of seal, including the boss and the abrasions around it, as well as the engravings are covered with a buff coating.

On the impression is depicted an interesting scene. On one of the branches of a tree (acacia?) a human figure is seated, while in the lower part there is a striped animal, most probably a tiger. The latter has turned its head backwards and is looking at the human figure. The tail of the animal is long and is marked by a curly twist at the end. A more or less similar scene occurs on three seals from Mohenjodaro, 22 though the inscriptions in all the cases are different.

In our case, the inscription consists of three signs. From the right these are: (i) three dots or short strokes: (ii) seven dots/short strokes, of which three are in the upper row and four in the lower; and (iii) a human figure carrying an equipoise across the shoulder (cf. Variant No. 2421 of Sign No. 12 of M-List).

KLB-2, Sq XA6. From a late level of Period II. Reg. No. 5617 (1).

40. (Fig. 9.40). This is a fragment of a seal, the two extant sides measuring respectively 11.5 and 9 mm. The thickness is 5 mm. Made of white steatite, it has a white coating which seems to have covered the entire surface including the engraving on the obverse and the abrasion marks on the reverse. The boss is no more there. In the photograph, a and c present respectively the obverse and reverse views, while b the impression.

On the impression is seen what may be the face of a human figure, together with a headgear with curved horns.

KLB-2. Sq XA17. From an early level of Period II. Reg. No. 2152.

41. (Fig. 9.41). While a, c and d give respectively the obverse, reverse and side views of the seal, b gives its impression. Though broken, it may have been squarish in shape, the extant complete side measuring 30 mm. The thickness is 6.5 mm. The boss on the reverse is squarish, measuring 10 x 9x 6.5mm. It also has to be noted that the top of the boss is flat, quite unlike the vaulted ones in the case of the seals discussed earlier. There is no groove on the boss, but there is a prominent hole, which is in alignment with the basal line of the inscription on the obverse. Made

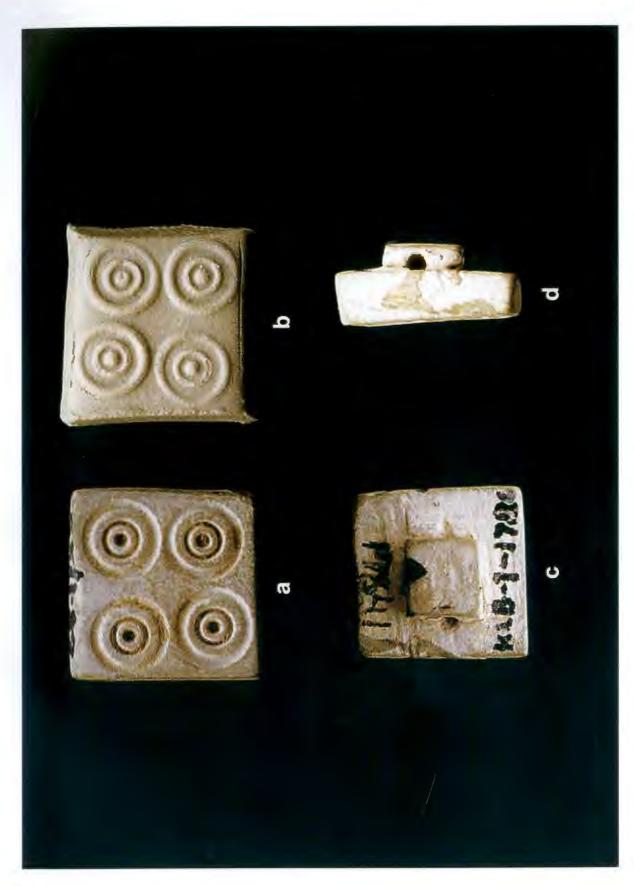
E.J.H Mackay. 1938 op. cit. Vol. II, PL XCVE, No. 522
 J. Marshall, 1931 op cit, Vol. PL. CXI, Nos 353 and 355







Fig. 9.41



of white steatite, the seal has a white coating which covers the entire surface including the engraving on the obverse and the boss on reverse.

On the impression one does not see any animal or other motif. However, there occurs an 'inscription' which consists of three consecutive triangles; and to the top of the middle one is added a pipalleaf. This composite sign is the same as No. 232 of the M-List.

KLB-1, Surface. Reg. No. 16093.

42. (Fig. 9.42). Whereas a, c and d give respectively the obverse, reverse and side views of the seal, b gives its impression. It is a small-sized, square seal, each side measuring 12 x 12 mm. The thickness is 4 mm. There is a squarish boss on the reverse, measuring 6 x 6 x 1.5mm. The top of the boss is flat and there is no groove. The hole through the boss follows the usual alignment. Made of white steatite, the seal has a white coating which covers the entire surface including the engraving on the obverse and the boss and abrasion marks on the reverse.

On the impression are seen four sets of concentric circles, one in each quadrant. Each set has a dot for the centre and two concentric rings.

KLB-1, Sq ZD 3, Unstratified. Reg. No. 17841.

43. (Fig. 9.43). This is again a small-sized squarish seal, measuring 15×14 mm. The thickness is 2.5 mm. In the photograph, a, c and d give respectively the obverse, reverse and side views of the seal, while b, its impression. The boss on the reverse is like a truncated cone, receding upwards and ending up in a flat top. Its diameter at the base is 4.5 mm; the height is 2 mm. There is no groove,

but there is a hole, as usual. Made of white steatite, the seal also has a white coating.

On the impression, one sees three sets of concentric circles, two in the upper register and only one in the lower. However, the latter set has an additional curvilinear design around it.

KLB-2, Sq A6. From a late level of Period II. Reg. No. 12996.

44. Fragmentary. In Fig. 9.44 a and c represent respectively the obverse and reverse views, while b gives the impression. Available measurements: 22 x 15 x 6 mm. Of the boss, only a fraction is available, hence measurements do not mean much. Made of white steatite, it has a prominent white slip.

On the impression may be seen the hind part of an animal, probably a unicorn, and an inscription at the top. Of the latter, only four signs are available. From the right, these are: (i) though not clear, it may be similar to M-List No. 84; (ii) similar to M-List No. 127, but with the 'hook' on the right; (iii) U-sign with two horizontal strokes at the top and probably a small vertical stroke between the upper part of the vertical lines of the U. M-List No. 343; and (iv) a trident capped by an apex-up acute angle, M-List No. 163.

KLB-1, Sq ZB9. From a late level of Period II. Reg. No. 19360.

45. (Fig. 9.45). Another fragmentary seal, probably of the square variety and a boss on the reverse. Though parts of the edges are available, the size of the seal cannot be made out. The thickness, however, is 7 mm. Made of greyish steatite, the seal has a white coating covering the entire surface including the engraving on the obverse and the boss on



ig. 9.4

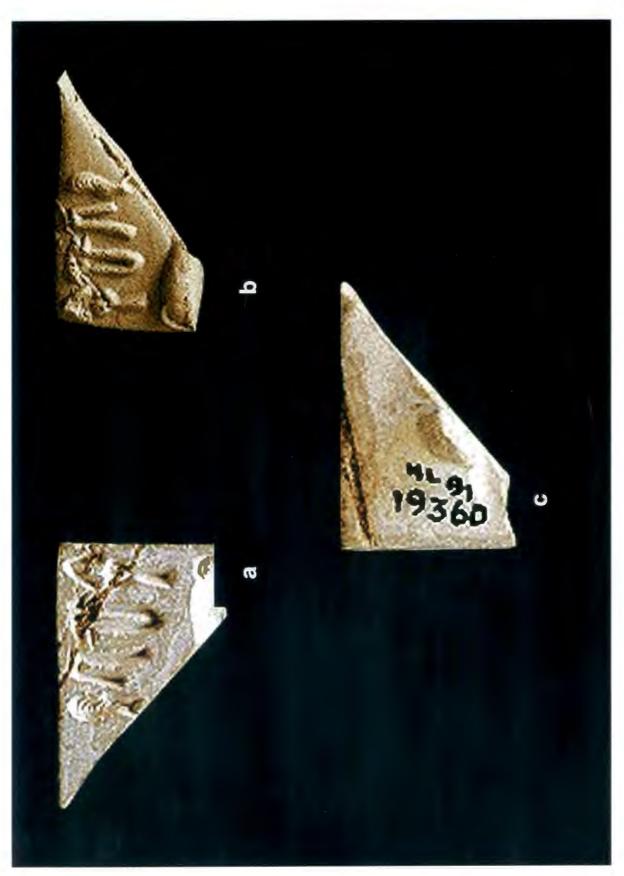


Fig. 9.44



Fig. 9.4

the reverse. Of the boss, only a part remains, but there are clear indications of where the hole and groove may have existed.

On the impression may be seen a part of the back of an animal (not identifiable). Of the extant inscription, the sign on the extreme right cannot be made out. The next sign seems to fall in the category of No. 181 of the M-List. It is followed by two small strokes in the upper register. These may have gone with the former sign. Then comes a sign which is similar to Variant No. 1187 of Sign No. 48 of the M-List. The next sign is the same as No. 193 of the M-List. The last sign is the usual U sign with two horizontal strokes at the top (M-List No. 342).

KLB-1, Sq ZD2, Unstratified. Reg. No. 17800.

46. (Fig. 9.46). Fragment of a small-sized seal of the square variety, the extant side measuring 12 mm and thickness being 3 mm. It has engraving on the obverse (view a) and a fragmentary boss on the reverse (view c). Made of dull white steatite, it has a white coating.

On the impression (view b) only the lower part of an animal may be seen. There seems to have been some symbol below the face (?) of the animal, but it is unidentifiable.

KLB-2, Sq XA16. From a late level of Period II. Reg. No. 14984.

47. Fragmentary. In Fig. 9.47, a and c represent respectively the obverse and reverse, while b, the impression. Available length and breadth respectively 13 and 16 mm; thickness 8.5 mm. No clear trace of the boss on the reverse. Made of white steatite, it has a white coating.

On the impression may be seen an inscription of which only two signs are available. From the right: (i) a fish (though damaged), M-List No. 59; and (ii) again a fish followed by two strokes, one at the lower level and the other (damaged) at the upper.

KLB-2, Sq N15. From a late level of Period II. Reg. No. 18760.

48. Fragmentary. In Fig. 9.48, a and b give respectively the obverse view and the impression. Available length and breadth respectively 23 mm and 13 mm; thickness 6.5 mm. Boss not available. Made of black steatite, it has a white coating. As seen on the impression, only a part of the inscription is available. The extreme right sign is damaged, but following it are five strokes. Next is the U-sign with two horizontal strokes (M-List No. 342). At the end is a human figure, though badly damaged. (M-List No. 1).

KLB-1. Sq ZB 9. From an early level of Period II. Reg. No. 16067.

49. (Fig. 9.49). Shape-wise, this seal is quite different from the foregoing. It is rectangular on plan, the two sides measuring 18.5mm, and 12.5 mm respectively. The back is convex, the maximum height in the central part being 9 mm. The hole is through the shorter side. In the Figure, a, c and d give respectively the obverse, reverse and side views, while b, its impression. Made of white steatite, the seal has a dull white coating which covers the entire surface.

On the impression, there is no animal motif but only an inscription. The latter consists of four signs. Beginning from the right, these are: (i) a bow-and-arrow (M-List No. 307); (ii) one long vertical line (M-List No. 86); (iii) three short lines, two of which are in the upper half and only one



Fig. 9.46

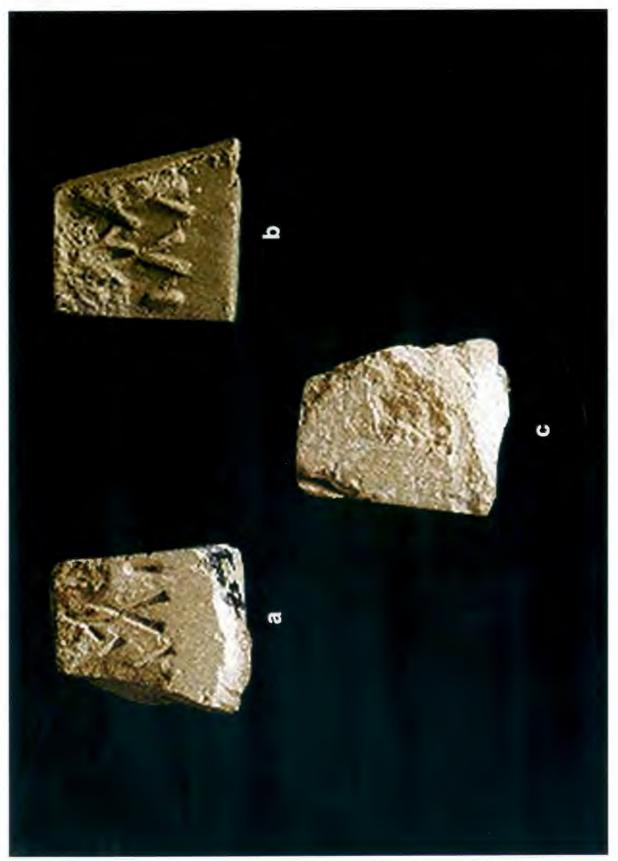
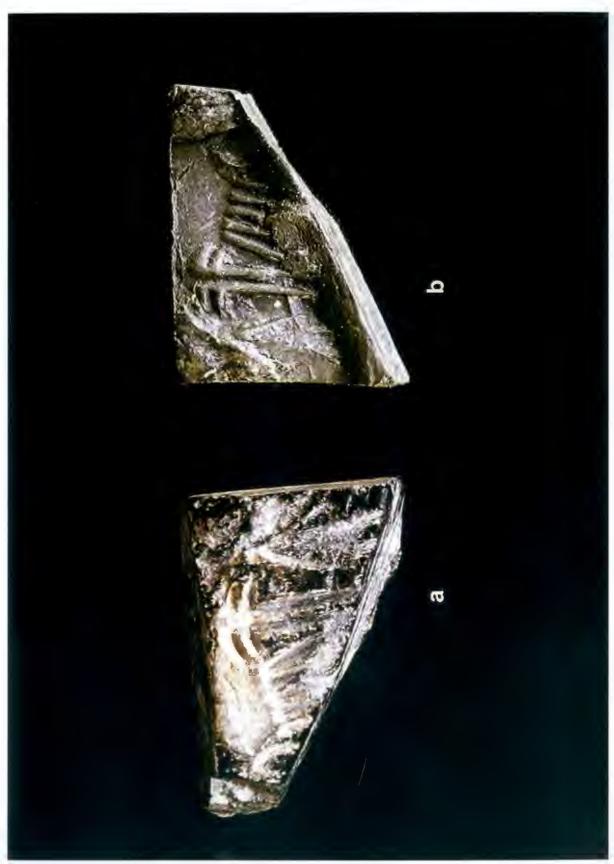


Fig. 9.4







ig. 9.49





in the lower (a variant of M-List No. 103); and (iv) five short lines, three of which are in the upper half and two in the lower (M-List No. 107).

KLB-1, Sq XA1. From a late level of Period II. Reg. No. 7295 (1).

50. (Fig. 9.50). This seal has a rectangular front view and a squarish cross-section. The rectangular face measures 14 x 7 mm, while the square side measures 8 x 7 mm. All the faces are plain, there being no boss. The hole, however, passes through the longer side. In the photograph, a, c and d presents respectively the obverse, reverse and side views, while b, the impression. Made of white steatite, the seal has a coating over the entire surface including the inscription.

There is no animal or other motif. The inscription (view b) consists of four signs. Beginning with the right end, these are: (i) an elongated, slightly curved triangle, hatched with three horizontal strokes (cf. Variant No. 4460 of sign No. 205 of the M-List); (ii) same as No. 367 of the M-List; (iii) the U-sign with two horizontal strokes at the top (M-List 342); and (iv) a vertical line with small prongs projecting to the right (cf. M-List, sign No. 176).

KLB-1, Sq ZC11. From a middle level of Period II. Reg. No. 19400.

51. (Fig. 9.51). This is a cylindrical seal, the only one of its kind found at Kalibangan. Cylindrical seals, however, have also been found, though in very small number, at a few other Harappan sites, for example at Mohenjo-daro.²³ In this context it may be added that cylindrical seals are more at home at West Asian sites and maybe the idea was borrowed from there. In the illustration,

a - i give the various views of the cylindrical surface of the seal; j gives a view of the truncated side of the cylinder, wherein a hole may also be seen; k gives the impression, in which, however, there is a repetition of the motif at the end, in order to present a comprehensive picture of the entire scene. Made of white steatite, the seal has a dull white coating which covers the entire surface including the engraving. The length of the cylinder is 20 mm, while the diameter of the truncated side is 12 mm.

To come to the engraved scene (view k). It needs to be noted that the tiger-cum-human-figure motif on it is similar to that on Seal No.38 described earlier. It also ought to be added that both these seals come from the same sector of the habitational area in KLB-2. Seal No. 36, which depicts three-conjoined animals, also comes from the same general area.

To return to the scene on the seal under discussion. Alongside the tigercum-human figure already referred to. there is another motif consisting of a relatively smaller human figure flanked by two larger ones. Each of these two flanking figures holds a long spear which, passing over the head of the middle figure, touches the shoulder of the opposite flanking figure. These flanking figures do not wear any garment, but their hair is tied in a bun at the back of the head. The middle figure, however, wears a skirt and the hair flows back, way down in the form of a tail.

The inscription on this seal consists of two signs, *viz.* three small vertical strokes in the upper register and a tree (or a 'trident' with an extra prong) in the lower register. It may be recalled that

²³ E.J.H. Mackay, 1937. op. cit. Vol. II, Pl. XCVI, No. 488.

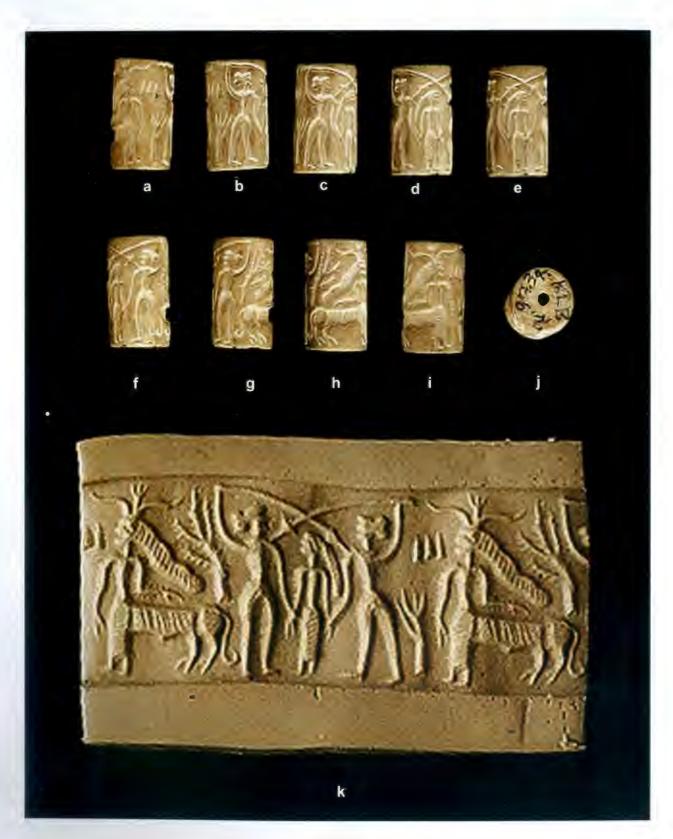


Fig. 9.51

the overall make-up of the inscription on Seal No.38 above is not very much different, though in the latter case there are four strokes instead of three and the trident has only three strokes. Since we have not yet succeeded in deciphering the Harappan script, we cannot overstress the significance of the near-similarity of the inscription in the two cases just discussed.

KLB-2, Sq C7. From a late level of Period II. Reg. No. 9734 (2).

(III) TERRACOTTA SEALS

Like the steatite seals, the terracotta seals are also divisible into separate types, in accordance with their shapes, presence/absence of the boss, portrayal/absence of animal/other motif, inscription, etc. Here it needs to be added that within this category only those examples have been included which are likely to have been used for stamping. These seals were either engraved (e.g. Nos.1-6 and 9-11) or were even in low relief (Nos. 7 and 8).

The following is a description of the individual specimens.

1. (Fig. 9.52). Herein a, c and d give respectively the obverse, reverse and side views, while b gives the impression. Square in shape, 41 x 40 mm; thickness 14 mm, well-fired; traces of a reddish slip. It may be noted that there is no boss on the reverse.

On the impression may be seen a unicorn, though not as nicely executed as in the case of the steatite seals. It has also to be noted that the animal faces left, unlike its normal depiction. Below the neck of the animal is the 'standard', consisting of a stand, a 'bowl' and a crossed square above it.

The inscription has three signs. The 'opening' of the sign on the extreme left is usually on the right and this sign is rarely at the end of an inscription. Further, the sign on the extreme right is the usual U-sign with two strokes, which is generally to be found at the end of most of the inscriptions. It would thus appear that this inscription is to be read perhaps from the left to the right instead of from right to the left which is the usual direction of the script.

Thus, starting from the left, the first sign is the same as No. 216 of the M-List. It is followed by a small stroke in the lower register. Then comes a curvilinear sign with an incurved loop. There is also an oblique stroke emerging from the top (cf. No. 320 of the M-List). However, it has to be noted that the loop-part of this sign is usually on the left side and thus the present case may be an aberration. The final sign is the usual U with-strokes (No.342 of M-List).

KLB-2, Surface. Reg. No. 885.

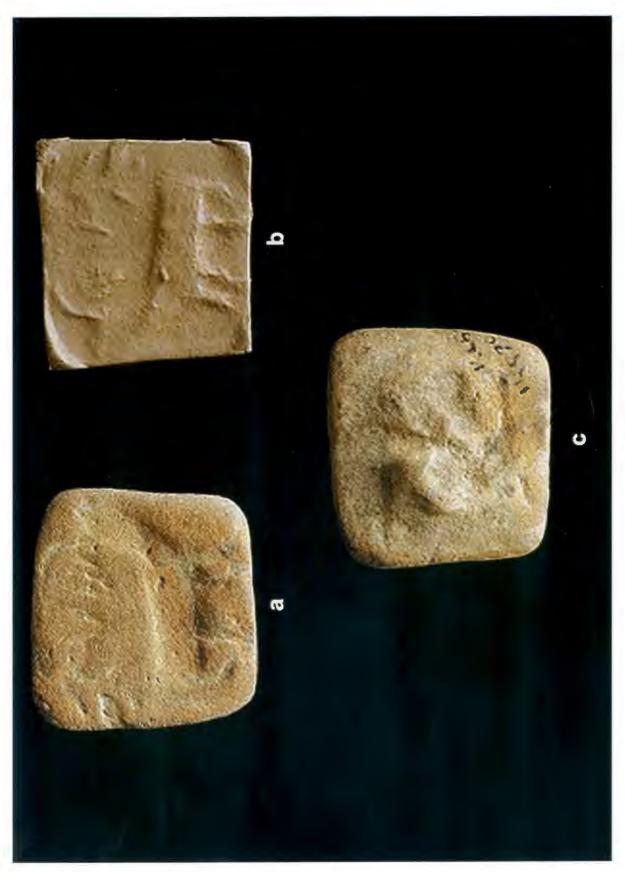
2. (Fig. 9.53). Herein a and c present respectively the obverse and reverse views of the seal, and b, the impression. Squarish in shape, but the sides are not equal and measure 39 x 37 mm; thickness 12 mm. There are clear remnants of a boss on the reverse, which perhaps also had a hole. Well fired, no trace of slip.

On the impression may be seen a unicorn, with an inscription above it. As in the previous example, in this case too the unicorn is rather shabbily portrayed. It faces left. There is, however, no 'standard'.

The inscription appears to have comprised of two signs, of which the one







ig. 9.53



nearer the head of the unicorn is indistinct. The other sign seems to represent a human figure holding a Ushaped 'pot' (Sign No. 32 of M-List).

KLB-1, Sq YD7. From a late level of Period II. Reg. No. 14570.

3. (Fig. 9.54). Herein a, c and d give the obverse, reverse and side views of the seal, while b gives the impression. Square, sides measuring 27 x 26 mm. Thickness 7 mm. On the reverse, a broken boss, with traces of a hole. Well-fired.

On the impression may be seen a crudely carved, long-legged animal with somewhat curly horns of which only one is extant. There also seems to have been a 'standard' which, however, is very faint now. Below the animal are some faint incisions, which may or may not represent an inscription.

KLB-1, Sq A1. From a late level of Period II. Reg. No. 2250.

4. (Fig. 9.55). Herein a, c and d give respectively the obverse, reverse and side views of the seal, while b, the impression. Though broken, the seal seems to have been squarish in shape. The maximum length available of the two, relatively better preserved sides are 24 x 21.5 mm; thickness 7.5 mm. Well-fired. On the reverse is a boss, measuring 13 x 12 x 7.5 mm. It has a hole as well as a groove.

On the impression is seen only an inscription (no animal motif). It is in two registers. In the upper register, on the extreme right, is the sign consisting of one vertical line with six horizontal prongs (Variant No. 2121 of Sign No. 176 of M-List). Next are six small strokes, three each in the upper and lower parts (No. 109 of M-List). Then comes an arc (M-List No. 299) facing the strokes and may have gone with them. In the lower

register, there are two 'ovals' with some further markings in the belly (cf. Variant Nos. 1028 of Sign No. 381 of M-List). The oval on the left seems to have an additional 'loop' at the top.

KLB, Surface. Reg. No. 6236.

5. (Fig. 9.56). Herein a, c and d give respectively the obverse, reverse and side views of the seal, while b gives its impression. Square in shape, sides measuring $28.5 \times 28 \text{ mm}$. Thickness 10 mm. Somewhat rectangular boss (17 x 15 mm.) at the back. The boss is 7 mm in height and is flat–topped. It has a hole, but no groove. On the reverse may also be seen faint traces of a reddish slip. Well-fired.

On the impression may be seen an inscription, there being no animal or any other motif. The inscription consists of two signs, one of which is similar to No. 51 of the M-List. The other seems to fall in the category of the 'fish' sign, though without the fins.

KLB-1. Sq ZA2. From a late level of Period II. Reg. No. 435.

6. (Fig. 9.57). Herein a, c and d give the obverse, reverse and side views of the seal, while b gives its impression. Square, measuring $21 \times 20 \times 6$ mm. Damaged boss on the reverse. The boss had a hole. Extant height 6.5 mm.

On the impression there is no animal or any other motif; only an inscription. This latter consists of a large, lozenge-shaped 'central piece' with an inset in one of the corners (cf. Nos. 277/280 of the M-List). Around the lozenge there are many small strokes.

KLB-2, Sq XA17. From a late level of Period II. Reg. No. 16037.

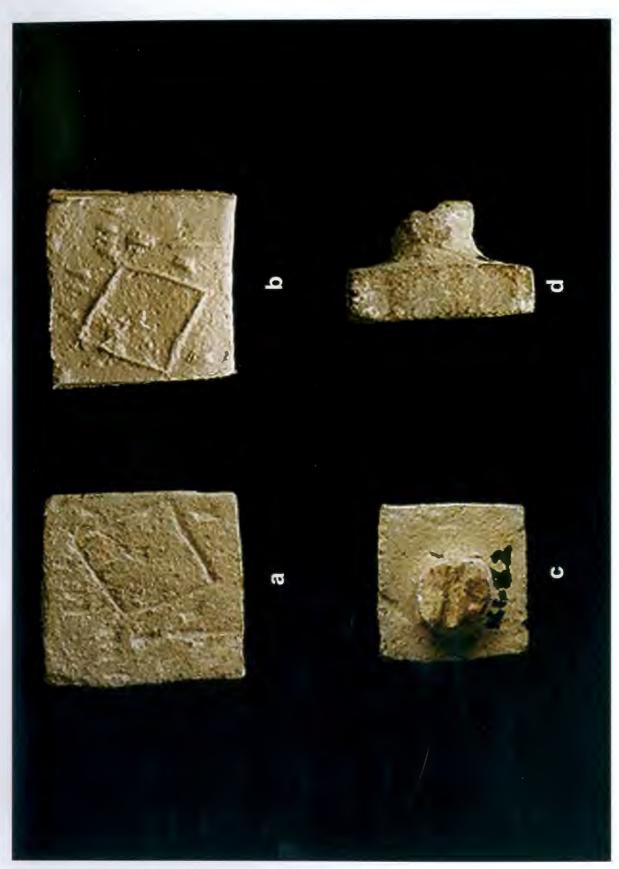
7. There are two specimens (Nos. 7 and 8 here), which are somewhat



ig. 9.5



Fig. 9.50



ig. 9.5

enigmatic. While, on the one hand, these specimens fulfil the requirements of a 'seal' in terms of their shape, viz. a flat, matter-bearing obverse and a boss on the reverse, these are not engraved and hence do not follow the pattern of the normal seals, whether in steatite or in terracotta. In the case of these two seals, the matter on the obverse is in relief something which we expect on 'sealings'. indeed positive are the impressions of the seals. Under these circumstances, it is difficult to say if these two specimens were really used as negatives i.e. for sealing purposes.

In fact, the disposition of the signs of the script on No. 7 (Fig. 9.58) might well suggest that the 'seal' as it is, was 'positive'. Thus, while the two signs above the animal, being symmetrical along a vertical axis, would have the same kind of disposition whether in the negative or the positive, the flag sign, occurring below the face of the animal, usually has the flag fluttering on the right (M-List Sign No. 402; pp. 700-704 of Mahadevan's book under reference). There is yet another factor which comes into play. A close look at the seal shows thin ridges, at least on three edges, viz. on the two sides and bottom. This feature would also indicate that it had been 'stamped' from another (negative) seal. However, all these observations are provisional and open to debate. The details of the seal are as follows.

Square, measuring 19.5 x 19 x 4 mm. Boss on the reverse, measuring 11 x 11 x 8 mm, has also a hole. The seal is well-fired. In Fig. 9.58 a, c and d give respectively the obverse, reverse and side views of the seal as it is, while b, its impression. On the impression are seen an animal (rhinoceros) and an inscription. The latter consists of three signs, of which two are above the animal and one below its face. Of the former two, that on the

left is the same as No. 249 of the M-List. The other, a trident, is No. 162 of the M-List. The third sign, a 'flag', is conceptually similar to No. 402 of the M-List, though in M-List the 'flag' is hatched, whereas in our example it is solid.

KLB-1, Sq ZA2. From an early level of Period II. Reg. No. 5059.

8. (Fig. 9.59). Herein a and c present obverse and reverse views of the seal, while b gives its impression. This specimen is also subject to the observations made under item No.7 above. Though the edges are damaged, the seal seems to have been squarish in shape, measuring approximately 28 x 26.5 mm. The reverse is damaged hence the original thickness of the seal cannot be made out. It is also difficult to say if there was a boss or not. Well-fired.

On the impression (view b) are seen an animal and some other matter, which may have constituted a part of the Harappan signary. The animal has two horns, rising up and then bending forward. The neck and a part of the body have 'ringed' decoration.

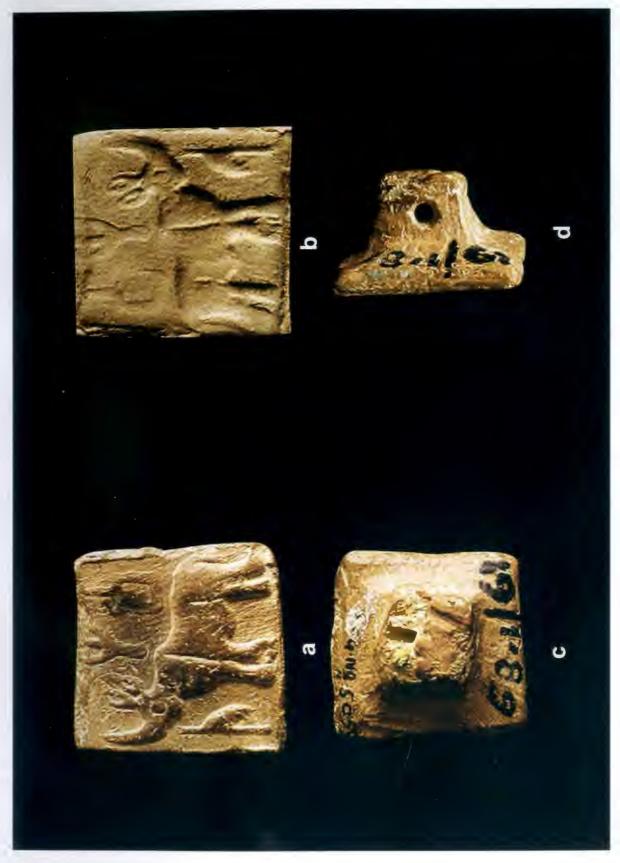
Above the body of the animal is a pipal leaf, which may have constituted a part of the Harappan signary (cf. No. 326 of the M-List). Below the neck of the animal there seems to be another 'leaf'.

KLB-1 and 2. Surface. Reg. No. 148.

9. (Fig. 9.60). Herein a, c and d give respectively the obverse, reverse and side views of the seal, while b gives the impression. The hole, it may be added, does not go all the way through the boss. Well-fired, with traces of reddish slip. Size $27.5 \times 14 \times 10 \text{ mm}$ (including the boss).

On the impression (view b) may be seen on inscription, which has two signs.









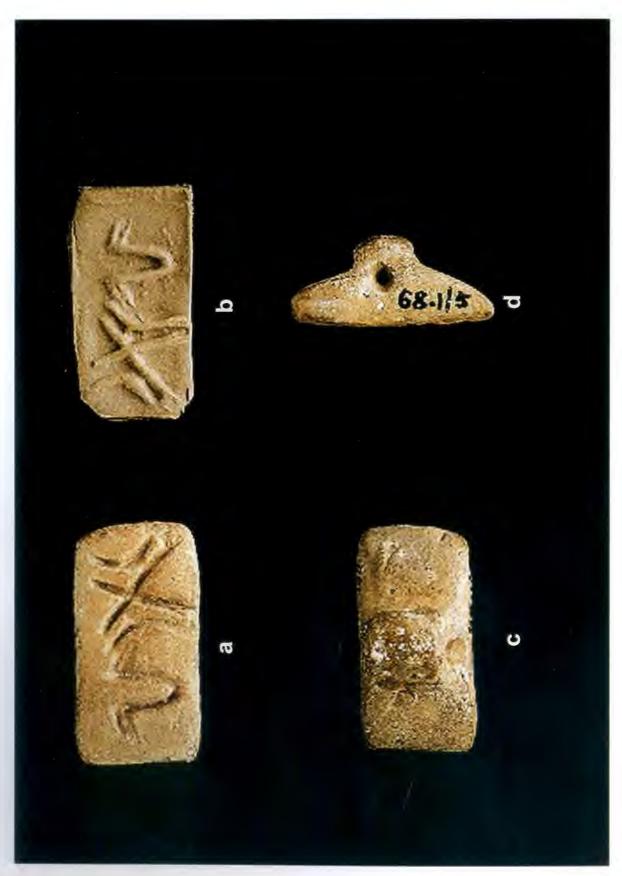


Fig. 9.60

However, the positions of these signs pose a problem. The U-sign with two strokes, which lies on the right, usually occurs at the end of an inscription. The other sign, occurring on the left, is a 'multiplication' sign with an angular adjunct on each side (Variant 4001 of M-List No. 149). This would suggest that the inscription (as noticed on the impression) may have to be read from left to right).

KLB-1 and 2, Surface. Reg. No. 288.

10. (Fig. 9.61). Herein a, c and d present respectively the obverse, reverse and side views of the seal, while b gives its impression. Rectangular, size $38 \times 17 \times 23 \text{ mm}$ (including the boss).

The impression has no animal or any other motif, but only an inscription. The latter consists of three signs. That on the right is a combination of three long, vertical lines (M-List No. 89). The sign in the middle depicts a human figure holding a rod (vertically down) in each hand. The figure seems to stand on a (platform?) indicated by a horizontal line beneath the feet. The third sign is a trident (M-List No. 162), of which the upper part, however, is bent.

KLB-2, Sq YC17. From a late level of Period II. Reg. No. 21504.

11. (Fig. 9.62). Herein a, c and d give respectively the obverse, reverse and side views of the seal, while b gives its impression. Rectangular, without boss, but with a hole pierced through the shorter side. The back is slightly convex. Measurements 36.5 x 19.5 x 16 mm. Well- fired, greyish in colour.

On the impression is seen only an inscription. There is no animal or any

other motif. The inscription comprises four signs. The first sign on the right consists of an oval with a trident set within it (M-List No. 387). The next sign is a 'fish', with a horizontal line passing through its belly (roughly comparable sign is M-List No. 72). The third sign falls in the category of No. 48 of the M-List, though in our case there are only three strokes. The final sign is the usual U with two horizontal strokes (M-List No. 342).

KLB-2, Sq C7. From a late level of Period II. Reg. No. 9734 (1).

(IV) COPPER / BRONZE SEAL

1. (Fig. 9.63). This is the only copper (bronze?) seal found at Kalibangan. In the photograph, a, c and d give respectively the obverse, reverse and side views of the seal, while b, its impression. It measures $18 \times 18 \times 4$ mm. The boss on the reverse, measuring $8 \times 7 \times 5$ mm, and has a hole which is in alignment with the inscription on the obverse.

On the impression, which is very faint since the engraving is not deep enough, are seen an animal in the lower register and an inscription above it. Of the animal, bare outlines of the body and legs can be made out; hence it is difficult to identify it.

The inscription consists of three signs. Beginning with the right end, these are: (i) a sign similar to No. 175 of the M-List; (ii) though not very distinct, it seems to resemble Sign No. 341 of the M-List; and (iii) the usual U-sign with strokes at the top (M-List No. 342).

KLB-1, Sq ZA1. From a late level of Period II. Reg. No. 2248.



Fig. 9.61



Fig. 9.6



C. SEALINGS

Whereas the seals are the negatives which were used for stamping, the sealings are actual specimens that bear the stamps. The stamped material is invariably clay, which in most cases bears, besides the impression of one or more seals, impressions of cloth, reeds and thread. This throws light on how the commodities were packed and sealed. It would appear that depending on the nature of the commodity it was packed either in a coarse cloth or a reed package, which was then tied with a string. In certain cases the impression of the knot can also be made out. The clay was then stamped with one seal (cf. No. 1) or more (cf. Nos. 8 and 9). (For an alternative use, of the seals, see Footnote No. 5 above. Individual specimens are described below.

1. (Fig. 9.64). Views a and b show respectively the obverse and reverse of the sealing. Made of clay, it is fired also. On the reverse are seen impressions of a coarse cloth, reed and string with a knot. On the obverse is the impression of a seal, of which three edges are identifiable. The top-to-bottom measurement of the seal is 30 mm. The impression comprises a unicorn facing right, with a 'standard' below the face. There is no decoration on the body of the unicorn. The standard consists of two parts; besides the staff there are a 'bowl' below and a squarish 'box' above.

The inscription comprises five signs. Beginning from the right, these are: (i) a somewhat obliterated oval, with three lines inside it, one vertical and two oblique, intersecting one another at the centre of the oval (M-List No. 391); (ii) a sign similar to M-List No. 57; (iii) the lower part of this sign is obliterated hence it is difficult to be sure of its original shape, it may (or may not) have been a flag-sign

(M-List No. 402); (iv) for the reason already stated, the exact composition of the fourth sign is ambiguous; (v) the final sign, on the extreme left, is a composite one, comprising a human figure holding an equipoise with bags hanging down from the two ends and a U sign with strokes at the top, same as No. 15 of M-List.

KLB, Surface. Reg. No. 17892.

2. (Fig. 9.65). Herein a, b, and c give respectively the obverse, reverse and side views of the sealing. On the reverse is seen the impression of cloth, which is finer than that in No. 1 above. The side view shows impressions of cloth as well as of a string. The change of angle between the reverse and side views tends to suggest that the seal was applied to the neck of a pot. The sequence seems to have been as follows: first, the part concerned of the pot was wrapped in a cloth, then a string was tied around the neck. Thereafter clay was applied, covering the cloth and the string. Finally, the clay was stamped with a seal.

In view 'a' is seen the impression of a seal, which is broken. Only a part of the inscription is seen at the top, along with a ridge on the left, marking the edge of the seal. The available sign on the extreme right, though largely defaced, may have been the same as No. 216 of the M-List. It is followed, on the left, by two long vertical strokes (No. 87 of M-List). Then comes a sign somewhat similar to No. 341 of the M-The top of the next sign is obliterated; maybe it was like No. 171 of the M-List. Then comes a human figure. Finally, there is the U-sign with two horizontal strokes on each of the upper ends (M-List No. 342).

KLB-1, Sq A1, Unstratified. Reg. No. 5105.





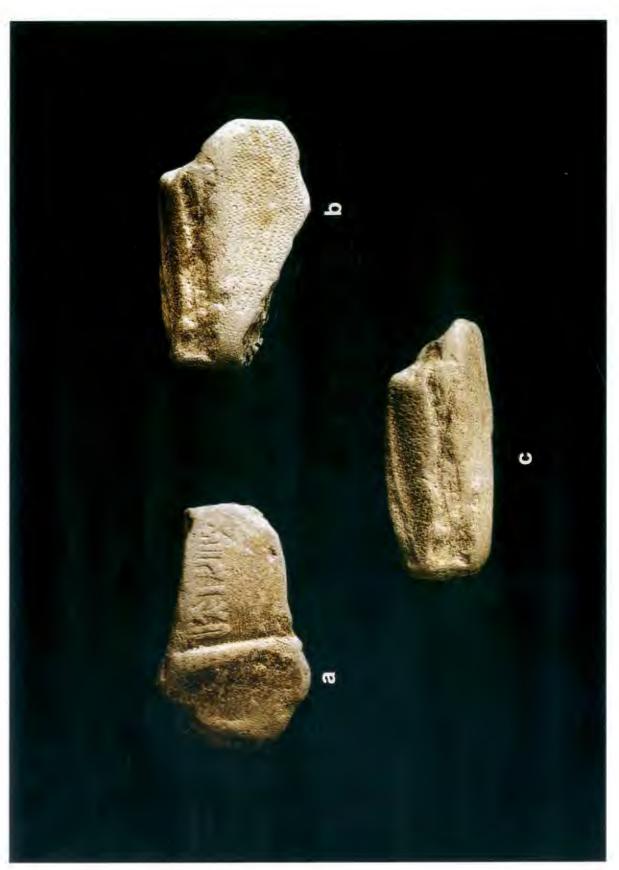


Fig. 9.65



io 9.6

3. (Fig. 9.66). Views a and b show respectively the obverse and reverse of the sealing, which is in a high state of decay. The reverse view shows the 'negative' cast of the package or a part thereof, to which the clay was applied. On the cast, two corners can be identified, one clearly (in the bottom left) and the other (in the top-left of the photograph) only partly. These indicate the likely shape of the package to which the clay was affixed.

On the obverse are seen impressions of two seals, of which the lower one is almost completely obliterated. The upper one seems to show a unicorn (though the distinctive horn is gone). Above it, are traces of an inscription, which is highly obliterated. However, the sign on the extreme left may have been a human figure with equipoise.

KLB-2, Sq B1. From a late level of Period II. Reg. No. 18.

4. (Fig. 9.67). View a shows the obverse, while views b and c the reverse and side respectively of the sealing. The latter two views show two plain faces which between them make a right angle. This leaves one guessing regarding the shape of the object to which the clay was applied.

On the obverse, there are impressions of two seals, of which the upper one is almost completely damaged. In the other, the sign on the right is not clear but may have been a rectangle with strokes on the inner side (cf. M-List No. 244). The other sign seems to have been similar to No. 176 of the M-List.

KLB-1, Sq A1. From a late level of Period II. Reg. No. 3712.

5. (Fig. 9.68). Views a and b show respectively the obverse and reverse of the sealing. The reverse shows deep impressions left by the reeds that seem to have been used for packaging. In the lower part are seen impressions of the string (and most probably of the knot) that had been used for tying. These are clearer in view c.

On the obverse are seen impressions of two seals, one of which is nearly intact. It is squarish on plan, the intact side measuring 27 mm. The animal depicted on it is basically an elephant (facing left) with a sloping back and a 'serrated' trunk. However, from the head there spring up two horns, as of a bull, indicating that a composite figure was intended. Above this seal-impression may also be seen faint finger-prints, obviously of the person who did the sealing. To come to the inscription. The sign on the extreme right is a rectangle within which there is a small square in the upper right corner. This is followed by two small strokes in the lower part. Thereafter there are four full length vertical strokes. The final sign on the extreme left is somewhat indistinct, but may have been a tanged arrow (cf. M-List No. 211). Of the other sealimpression, only a small fraction is extant, showing the head of an animal with only horns. Anyway, it was not an elephant. Thus, the two seals were not identical.

KLB-2, Sq XA5. From a late level of Period II. Reg. No. 11204.

6. (Fig. 9.69). Herein a and b show respectively the obverse and reverse of the sealing. The reverse has no clear impression of reed, string, etc. On the obverse, however, there are impressions of four seals, as indicated by four juxtaposed corners. The impression on the upper right shows an animal, facing left.



71g. 9.6



Fig. 9.68

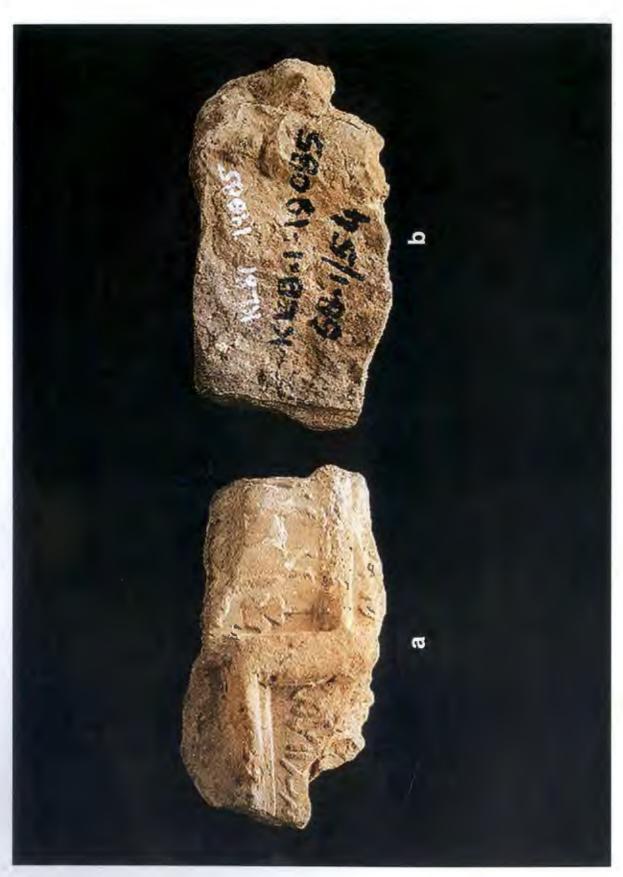


Fig. 9.69

Though the horn-part is damaged, it seems that the animal may have been a unicorn. The 'standard' below its face is somewhat unusual. It consists of a vertical staff, a triangle-shaped object above it and finally a domical object pointed at the lower ends. Since the portion above the back of the animal is damaged, no inscription is to be seen.

To the left of the above-mentioned impression, is another impression on which only the inscription may be seen, and that too partly. The sign on the extreme right is the same as M-List No. 216. The second sign is not clear, but it is followed by two vertical strokes. The lower parts of the next two signs are badly damaged, making it very difficult to identify them with any degree of certainty.

Nothing can be made out of the impression on the top left, except a bit of the lower right corner. Likewise, the lower right impression is also badly damaged. In this case, however, there are traces indicative of an inscription.

KLB-1. Sq YA4. From a late level of Period II. Reg. No. 19085.

7. (Fig. 9.70). Herein a and b show respectively the obverse and reverse views of the sealing. While the latter shows nothing but a flattish surface. the former shows impressions of two seals. Of these, the upper one shows an animal facing right. For all one can guess, it may have been a unicorn. though the typical horn is missing. Below the head of the animal there are faint traces of a 'standard' (?). Most of the inscription above the animal is damaged, but the sign on the extreme left may be made out as being a U with the strokes jutting out from the upper end (cf. M-List No. 342).

The lower seal-impression also shows a damaged animal, perhaps a unicorn(?). The inscription above the animal is also damaged at places. However, the sign on the extreme right seems to be have been a lozenge with a small apex-down triangle attached to the upper interior corner of the lozenge (M-List No. 267). The next sign is completely blurred. This is followed by an oval sign with a small stroke at the center (M-List No. 375). The next sign is again unclear. However, the last sign, on the left, is the usual U with strokes.

KLB-1, Surface. Reg. No. 19348.

8. (Fig. 9.71). Herein a and b show respectively the obverse and reverse views of the sealing. On the reverse may be seen clear impressions of the string over which the clay was laid.

On the obverse may be seen four impressions. Though these have suffered damage in varying degrees, it appears that all the four impressions are from the same seal. This is indicated not only by the size of impressions but also by the contents. In three of the impressions, viz. the ones on the upper and lower right and upper left, one sees the same animal, viz. a unicorn, with a 'standard'. (The impression on lower left is badly weathered.) Further, though the inscription in most cases is largely obliterated, one may nevertheless make out the first sign on the right and the last sign on the left. These are respectively a lozenge with an apex-down angle attached to its inner upper corner (M-List No. 267) and the U-sign with strokes (M-List No. 342) on the extreme left. Further, the sign to the left of the 'lozenge' seems to have been like that in M-List No. 175. To its left may be seen (in the top-left impression) sign





Fig. 9.71



Fig-9.72

similar to No. 230 of the M-List, though placed in an incline.

KLB, Surface. Reg. No. 21505.

9. (Fig. 9.72). Herein a and b show respectively the obverse and reverse views of the sealing. The reverse shows an inward curvature which may have resulted from the contact of the clay with the object sealed. There are also some faint traces of the packing material.

On the obverse may be seen impressions of four seals and a few finger-impressions too. Of the seal-impressions, the two in the upper part show only the inscription. Whether these also bore the figure of any animal, it is difficult to say, since their lower parts are obliterated by the impressions of the seals below them. The lower two impressions, however, show the inscriptions as well as the animal, which is the unicorn in both these cases. The details of all the four impressions, beginning from top left, are as follows.

In the top left impressions the sign on the extreme right is not very clear, but may have been No. 319 of the M-List. This is followed by two small vertical strokes in the upper part. Then comes the fish sign (No. 59 of the M-List). The next sign is similar to Variant 1030 of No. 336 of the M-List. To its left are three full length vertical strokes (M-List No. 89). The last sign on the extreme left is damaged.

The inscription on the top right consists of the following signs: (i) that on the extreme right, though partly blurred, may have been Sign No. 375 of the M List. Next to it, on the left, is a sign similar to sign No. 202 of the M-List. It is followed by two vertical strokes in the upper part. The sign that comes next is Variant No. 2103 of Sign No. 201 of the M-List. This is followed by the usual U-

sign with strokes (No. 342 of the M-List). At the extreme left there seems to have been a human figure, though it is blurred.

The seal impression on the lower left bears the upper part of a unicorn, above which there is an inscription. The latter begins, on the extreme right, with an arc and a juxtaposed smaller are in the middle, similar to Sign No. 293 of the M-List. Next seems to be the U-Sign with strokes. This is followed by a human figure. The next sign is similar to Variant No. 1090 of Sign No. 205 of the M-List. though the continuity of the right-hand curved line, down to the basal line, is not very distinct. The sign on the extreme left may have been either an oval or a lozenge with a small annexure to the interior of the upper part.

The impression on the lower right, though partly damaged, shows that the animal was a unicorn, below whose neck is the 'standard', with the usual staff, 'bowl' and 'box'. While the first letter on the extreme right is damaged, the one to its left is a trident (M-List No. 162). Then comes a sign showing a 'hatched box' with a vertical line emerging from the middle of the upper edge (M-List No. 252). This is followed by two vertical strokes in the upper part. Next comes a sign similar to No. 175 of the M-List. At the end may also be seen a single vertical line.

What does the fact that all the four inscriptions are different indicate? Would it suggest that there was a partnership of four individuals/agencies?

KLB-1 and 2, Surface. Reg. No. 868.

D. OTHER SEAL-IMPRESSIONS

Under this category are included impressions of seals, which, however, were not sealings in the real sense of



Fig. 9.73

the term, since the specimens concerned do not bear any evidence of packing material such as reed, string, cloth, etc.

Individual examples are described as follows.

1. (Fig. 9.73). Faience. Rectangular tablet. Size $13.5 \times 8 \times 4$ mm. While a and b give the obverse and reverse views, c and d give two side views.

On the obverse are portrayed a unicorn (though the horn is not clear), with a 'standard' below its face. The inscription, above the back of the unicorn, resembles number VII of the Roman numerals. On the reverse, the sign on the extreme left falls in the category of No. 176 of M-list, though the number of horizontal prongs in the present case is eight. To its right is the U-sign with strokes (M-List No. 342), followed by a seated monkey (as indicated by its long tail and posture).

KLB, Surface. Reg. No. 19527.

2. (Fig. 9.74). Faience. Broken. May have been rectangular. The intact side measures 10.5 mm while the broken one is 8.5 mm. Thickness 4 mm (views c and d).

On one side of the tablet (view a) there is an inscription, while on the other three full-length vertical lines (view b). The inscription poses a problem. Of the sign on the right, viz. a vertical line with attached horizontal prongs, the prongs are usually on the right. But in the present case these are to the left. This may mean an abberation. The next sign is the U with strokes, which, being symmetrical along the vertical axis, does not help much in so far as the direction is concerned. The sign on the extreme left is damaged. However, it may have been like Sign Nos. 47/48 of M-List, but drawn in the reverse

direction, as may be guessed from the examples (4 in number) referred to under Class 7, Type h, by M.S.Vats on p. 326 cf. his report, *Excavations at Harappa* (Vol. I).

KLB-2, Sq YB14/YB15, Surface. Reg. No. 21425.

3. (Fig. 9.75). Terracotta; traces of reddish brown slip. Rectangular, 28×12 mm, with slightly curved ends. Thickness (view c) 4 mm.

On one side (view a) there is an inscription consisting of four signs. The first sign on the right is an oval with one vertical and two oblique lines intersecting at the centre (M-List No. 391). The two small strokes near its upper left seem to go with it. The next sign is a trident (No. 162 of M-List). This is followed by an oval with an apex-down angle attached inwardly to its upper corner (cf. Variant No. 1022 of M-List Sign No. 267). The last sign is U with strokes (No. 342 of M-List). On the other side (view b) is shown a crocodile holding a fish in the mouth. There is also a fish on each side of its long tail, though the one on the upper side is rather indistinct.

KLB-2, Sq XA2. From a late level of Period II. Reg. No. 3844.

4. (Fig. 9.76). Terracotta: traces of reddish brown slip. Damaged, but seems to have been rectangular, with rounded ends. 22 x 17 mm. Thickness (view c) 4 mm.

On one side (view a) are clearly seen a tree and a tall bird. Since the right-hand portion is broken one does not know if there was any other motif. The motif on the extreme left is indistinct but may have been a scorpion (?). On the other side (view b) there is a tall multi-branched tree, with a base.

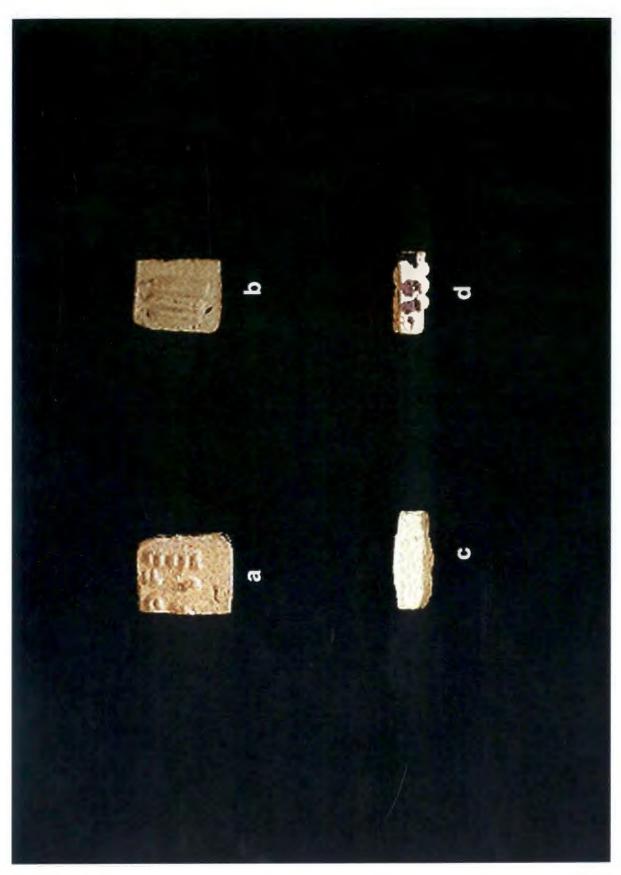


Fig. 9.74

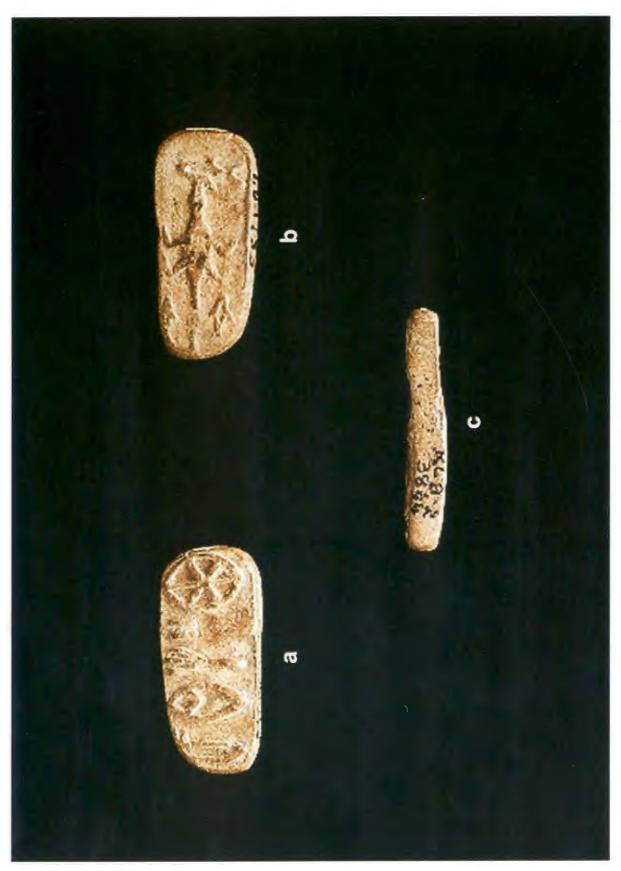


Fig. 9.75

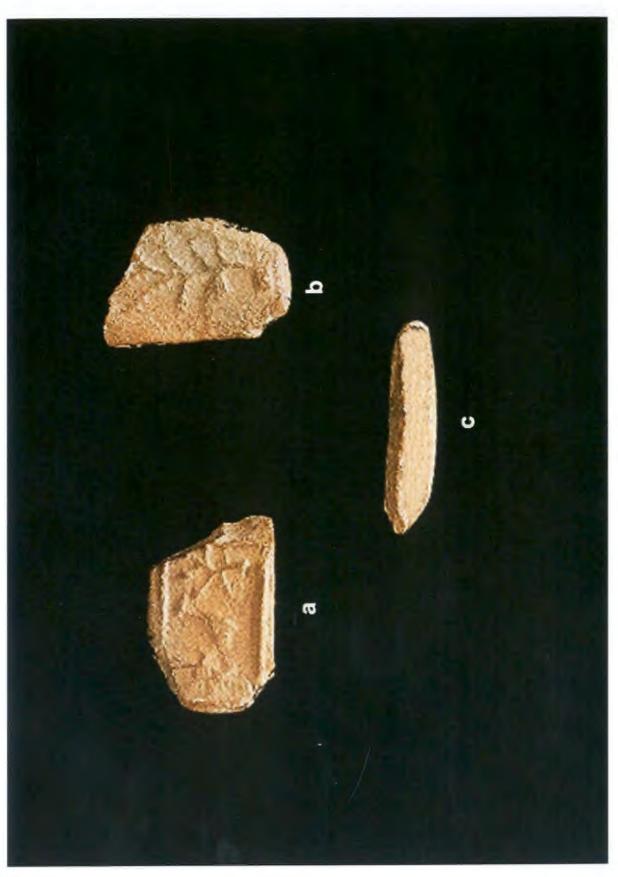


Fig. 9.76

KLB-2, Surface. Reg. No. 15118.

5-11. (Figs. 9.77 to 9.79). Terracotta repetitive tablets. Since these seven tablets bear the impression of one and the same seal, these are clubbed together for purposes of general description and discussion. However, their photographs and provenance are being given individually. On an average, these tablets measure 32-33 mm in length, 10-12 mm in width and 6-7 mm in thickness. It is also to be noted that at the longer ends of these tablets there are straight cut-marks, indicating that these were cut out from a longer strip. It may also be added that while one sees ridges on the upper, left and right edges, no such ridge is seen at the lower edge.

While one side (obverse) of these tablets bears an inscription and the horn of an animal (most likely the unicorn), the other side is just flat, without any impression of reed, thread, etc. This would suggest that these were not 'sealings' in the correct sense of the term, i.e. affixed to some package.

What exactly could have been their use? Indeed, it is very difficult to be sure of. To begin with, two possibilities present themselves. One, these could have been tokens, given by X to be presented to Y, as a means of identification of the bearer. Another possibility is that these may have been tablets meant for ritualistic offering. This latter idea comes to the mind on the analogy of the find of a large number of specimens inscribed with the wellknown Buddhist formula. Om Mani Padme Hum, at many sites. Though these latter belong to the early historical period, the projection of the idea back

in time, deserves consideration in view of the fact that many religious ideas and practices have continued from the Harappan times to the modern, e.g. the worship of Linga-cum-yoni, buffalo sacrifice, practice of vogic āsanas (cf. Lal 2002. The Sarasvatī Flows on: The Continuity of Indian Culture). In this context, the provenance of these seven tablets also calls for attention. They all come from the Citadel area (cf. Fig. 9.184, repetitive tablets), which is known to have had platforms bearing religious relics, as well as the residences of the priests who seem to associated with have been performance/supervision of the rituals concerned.

Similar concentrations of tablets. cylindrical in shape, with a common inscription and motif (though different from that of Kalibangan) occur at Harappa. In one case, more than 30 tablets were found within a limited space in 'Area G', which constitutes the southernmost part of the entire settlement.24 It is also interesting to note that in the same area was found a faience sealing depicting a 'deity' in pipal arch, with a goat in front. In another case, nine cylindrical tablets with a common inscription and motif were found in Mound F.25 Such concentrations do call for further thinking.

Individual tablets are described below.

5. (Fig. 9.77). Tablet, terracotta, well fired, traces of light brown slip; rectangular, 34 x 12 mm; thickness 7 mm (view c). Vertical cut-marks at the longer ends (views d and e). Ridges on the upper and two side edges (view a), indicate that it had been stamped from an engraved seal. Back is flat (view b).

M.S. Vats, 1940 (Reprint 1974) Executations at Harappa, Vol. I, pp. 195-96. Delhi: Government of India.

⁵ Ibid. pp. 36-39

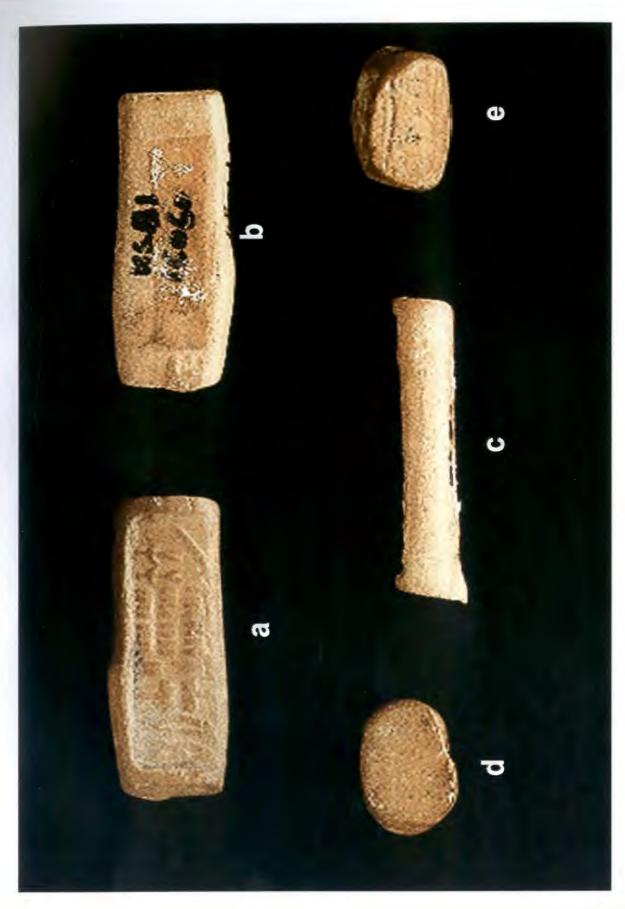


Fig. 9.77

On the obverse (view a) are seen the horn (most likely of a unicorn; bottom right) and an inscription. Starting from the right, the latter consists of the following. Two standing human figures, hand-in-hand. Then there are three rows, one above the other, each row containing eight small strokes. A minor gap in between would suggest that the strokes in each row were in groups of four. This set of strokes is followed by two small strokes in the upper register. Then come two pronged staves, one vertically up and the other up-side-down, placed over the former (M-List No. 172). These are followed by a D-like sign (M-List No. 304). At the extreme left is the bowand-arrow sign (M-List No. 307).

KLB-1, Sq ZD8. From a late level of Period II. Reg. No. 16060.

6. (Fig. 9.78). In general similar to No.5 above. Views a, b and c give respectively the obverse, reverse and side views; and views d and e show the cutends. Measurements $36 \times 12.5 \times 8 \text{ mm}$. Ridges along the upper and side edges. Vestiges of a reddish-brown slip. Some protrusions on the obverse.

Inscription same as in No. 5, though the two human figures on the right and some of the small strokes have slightly faded.

KLB-1, Sq ZF7. From a late level of Period II. Reg. No. 16047.

7. (Fig. 9.79, No.7). In general, same as No. 5 above. Views a and b give respectively the obverse and reverse. Measurements 36 x 11.5 x 7 mm. Right edge shows a straight cut. Ridges as usual on three sides. In this example, the horn of the unicorn is very distinct. Also may

be noticed the upper part of the ear. Of the inscription, all the signs are clear except the D-like sign, second from the left.

KLB-1, Sq ZE10. From a late level of Period II. Reg. No. 19182.

8. (Fig. 9.79, No. 8). In general, similar to No. 5 above. Views a and b give respectively the obverse and reverse. Measurements 37 x 13 x 7.5 mm. Straight cuts at the longer ends; ridges, as usual, along the upper and side edges.

Inscription same as in No. 5, though somewhat worn out.

KLB-1. Sq ZD9. From a late level of Period II. Reg. No. 18705.

9. (Fig. 9.79, No.9). In general, similar to No. 5 above. Views a and b give respectively the obverse and reverse. Measurements $36.5 \times 25 \times 7.5$ mm. Straight-cut-marks at the longer ends; and ridges along the upper and side edges.

Inscription same as in No. 5, though some of the signs, particularly the sets of small strokes, are worn out. But those on the left are very distinct.

KLB-1, Sq ZD9. From a late level of Period II. Reg. No. 18352.

10. (Fig. 9.79, No. 10). In general, similar to No. 5 above. Views a and b give respectively the obverse and reverse. Measurements $37 \times 13 \times 6$ mm. Straight-cut-marks at the longer ends. Ridges along the upper and two side edges.

Inscription same as in No. 5 though some of the signs are somewhat blurred.



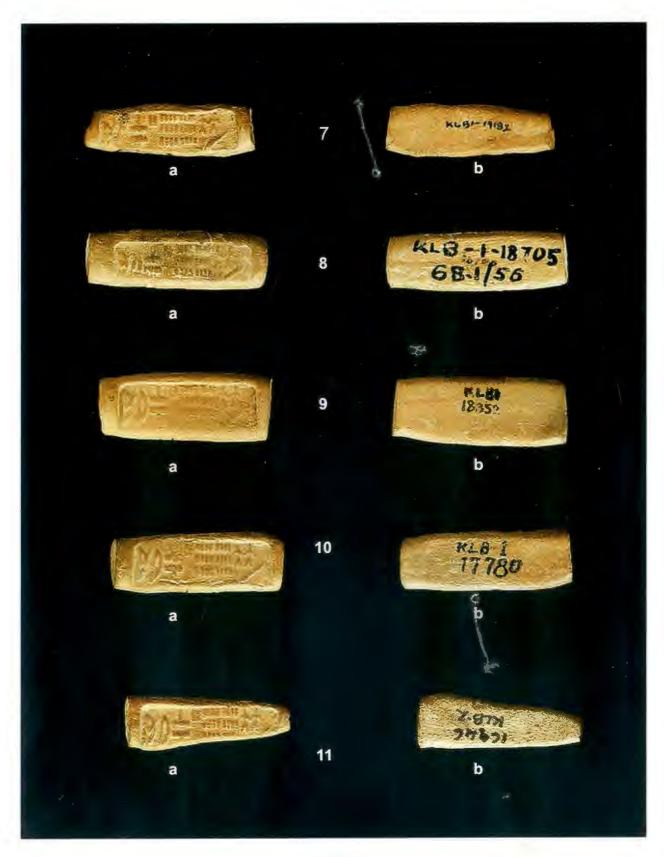


Fig. 9.79

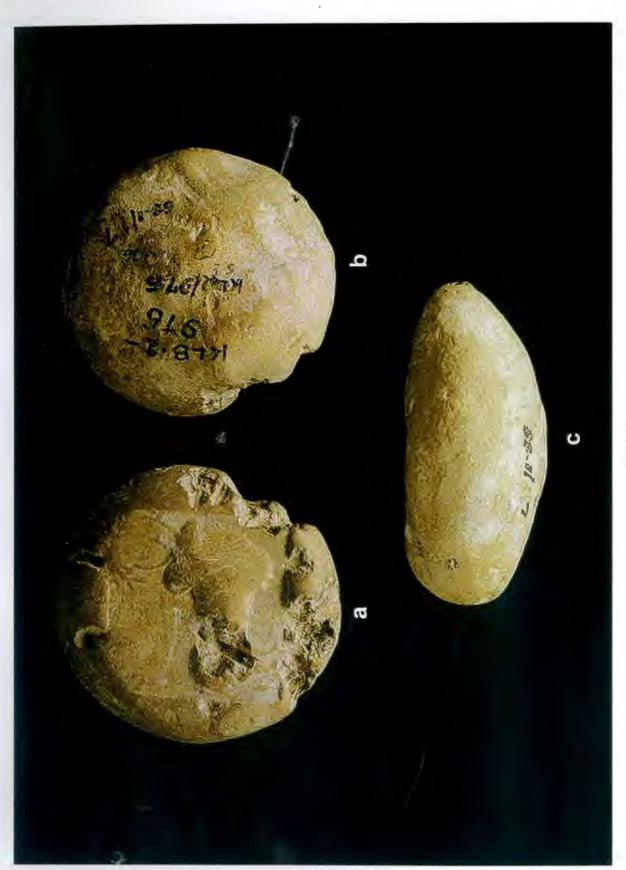


Fig. 9.8

KLB-1, Sq ZC8. From a late level of Period II. Reg. No. 17780.

11. (Fig. 9.79, No. 11). In general, same as No. 5 above. Views a and b give respectively the obverse and reverse. Length 35 mm; width at the left hand 12 mm, but on the right 6. Thickness 5 mm. Cut-marks at the longer ends; and ridges along the upper and side edges.

Since the width of the tablet goes on diminishing towards the right hand, the part of the inscription in the lower right area has been affected though from what remains it can be easily made out that the inscription was the same as in No. 5.

KLB-1, Sq ZF9, Surface. Reg. No. 16946.

12. (Fig. 9.80). Terracotta. Circular in shape. Obverse flat, reverse convex. Diameter 52 mm; maximum thickness 22 mm. In the photograph, a, b and c give respectively the obverse, reverse and side views of the specimen.

On the reverse there are three more or less longish or parallel depressions. How exactly these came into being, it is difficult to say. Maybe these were caused when the clay was pressed with fingers. Cutting across these three depressions, there are two parallel strips of a much narrower width. All told, it is difficult to say how exactly this specimen was used. The obverse bears the impression of a square seal, the size (33 x 33 mm) of which is clearly indicated by the small ridges. Within this frame stands the majestic humped bull, with its prominent dewlap, horns, hump and muscular body.

Of the inscription only two signs are discernible. The one at the right end,

near the horn of the bull, seems to have been like Variant No. 2908 of sign No. 327 of the M-List. The other sign, at the extreme left, appears to be an arrow, like No. 211 of the M-List.

KLB-2, Sq XA9. From a late level of Period II. Reg. No. 976.

13. (Fig. 9.81). This is not a sealing in the real sense of the term. It shows the impression of a seal on the exterior of a pot which is thick-sectioned and well-fired. Only two edges of the seal are clear. The impression (view a) shows a unicorn with the traces of a 'standard' in front of it and an inscription above it. The latter consists of three signs. The one on the extreme right is a lozenge with an angular adjunct in its upper part (cf. M-List No. 267). Along with it, on its left, there are two small strokes (cf. M-List No. 99). Then there are three strokes in the lower part. Of the final sign on the left, only a vertical line may be seen.

KLB-1, Sq XA1. From a late level of Period II. Reg. No. 7295(3).

E. COPPER TABLET

Only one copper tablet (Fig. 9.82) has been found at the site and that too from the surface, in KLB-1. It is rectangular in shape, measuring 13 x 11 mm, and has a thin section of 2 mm. The sides indicate that it was cut from a bigger strip.

On one side (view a) the sign on the right is No. 53 of the M-List. The other sign is not very clear, but may have been V-like. On the other side (view b) the surface is uneven, leaving one only to guess.

KLB-1, Surface. Reg. No. 711.



ig. 9.81

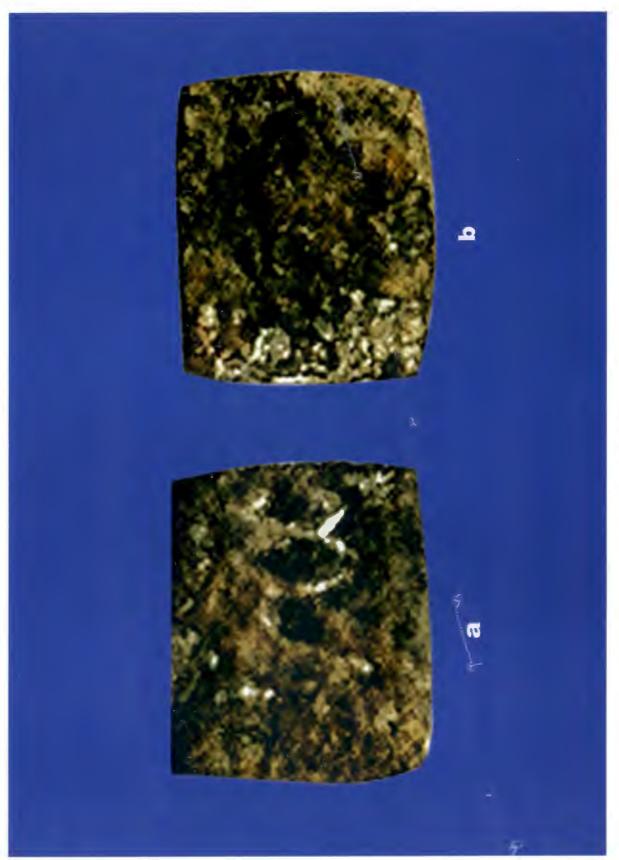




Fig. 9.83

F. OTHER METAL OBJECTS

There are two copper objects, a chisel and an axe, which bear inscription. These are described below:

1. (Fig. 9.83, a and b). A copper chisel, measuring 235 x 12 x 8 mm, with inscriptions on its two opposite sides. The inscription on one side seems to run from the top downwards. It consists of five signs. Seriatim, these are: (i) an inverted 'L'- like sign; (ii) two vertical strokes (M-List No. 99); (iii) 'Fish'-sign with oblique strokes, one on each side of the upper part and two on the left side of the lower part; (iv) the U-sign with usual strokes at the upper ends (M-List No. 342); and (v) a stylized human figure (M-List No. 1). On the other side there are two signs. The upper one may have been a Variant of M-List No. 197. The sign below it is angle-like, but with a curved apex.

KLB-2. Sq J7. From a late level of Period II. Reg. No. 16948.

2. (Fig. 9.84, a, b, c and d). There are inscriptions on the two sides of the axe (measurements 145 x 65/55 x 5 mm). On one side (views a and c), the inscription seems to run from top to bottom. The uppermost sign is an oval with an inserted 'angle' at the upper end (Variant No. 1022 of M-List No. 267). The next sign consists of a large square within which are drawn a series of zig-zag lines in the middle and a small square at one corner (M-List No. 236). There are traces of yet another sign further down, but the shape is not clear.

On the opposite side (views b and d) there are five parallel vertical strokes (of M-List No. 106).

KLB-2, Sq XC8. From a late level of Period II. Reg. No. 14983.

G. TERRACOTTA BANGLE

1. (Fig. 9.85, a and b). We have only one specimen of an inscribed bangle. It is in terracotta, made of fine clay and well-fired. Has a triangular cross-section, with the basal side on the interior and the apex on the exterior. The internal and external diameters are respectively 58 mm and 94 mm.

The inscription, post firing in nature, has three signs. Beginning from the right, these are: (i) a human sign with an angular adjunct to one of the legs (M-List No. 41); (ii) another human figure, with a thin 'flag'-like object attached to the head; and (iii) a sign similar to M-List No. 216.

KLB-2, Sq ZA1. Surface. Reg. No. 3011.

H. TERRACOTTA GAMESMEN

Gamesmen constitute an important section of the antiquities recovered from the excavations at Kalibangan. By and large these are made of terracotta and only a few examples are of stone. While no stone gamesman has so far been found inscribed, of the over three hundred terracotta gamesmen recovered as many as twenty-eight are inscribed. The 'inscription' usually consists of a single sign, but there are a few specimens which bear more than one sign. Of the inscribed examples 20 come from KLB-1 and 3 from KLB-2 while 5 are surface finds. No example was found from KLB-3. Stratigraphically, four examples come from the middle levels and eleven from the late levels of Period II, while the rest are unstratified. This uneven distribution may well be due to the fact that larger areas were excavated of the late levels, whereas the areas became less and less as the trenches went down. It may,



Fig. 9.84

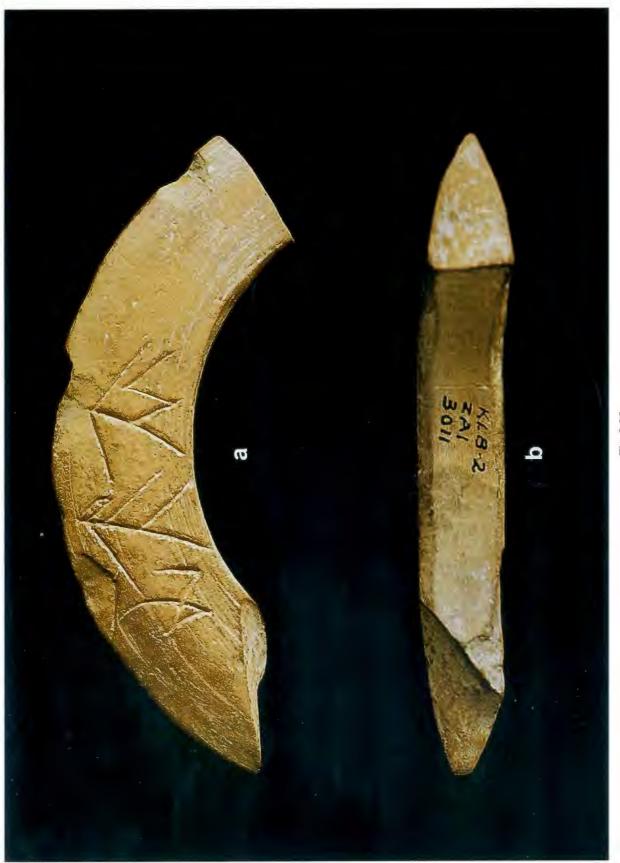


Fig. 9.85



70 9 86

however, be recalled that no gamesman was found in the Early Harappan Period (Period I) at Kalibangan.

The gamesmen are hand-made, using fairly well-levigated clay, but are usually moderately fired. Some of the pieces show evidence of a brownish slip as well.

Shape-wise, there are many varieties but by and large these are related to the basal form. Thus, the base may be either circular or may have one, two, three, four or five like projections. These seem to have been produced by pressing the circular outline. The inner (lower) side of the base shows concavity. The middle part of the stem is somewhat cylindrical, while the uppermost part is rather conical with a pointed top. There is one specimen whose total form is just conical (No. 3).

Since the different basal shapes had been produced deliberately, they must have had some significance, though right now we may not be able to offer any indisputable answer. Did these different shapes signify different 'designations', such as we have in the game of chess today?

The nature of the inscriptions on the examples under discussion also does not bail us out in this regard. For example, if a given sign is to be associated with a particular 'designation', it is normally expected that it would occur only on a specific shape. But that is not the case. Thus, it may be noted that the Brāhmiga-like sign (Sign No. 134 of Mahadevan's List) occurs on a variety of examples, viz. those having one or four or five 'prongs' (Nos. 7-13). Again, of the two examples which have a circular base, one (No. 15) bears a damarū-shaped sign, viz. Sign No. 214 of the M-List, while the other (No. 26) has two signs, viz. Sign No. 261 and

Variant No. 4871 of Sign No. 284 of the same List.

In almost all cases (except No. 6) the inscribed sign/signs is/are on the exterior.

Individual specimens are described below:

- 1. (Fig. 9.86, No. 1). The inscribed sign is a single vertical line (M-List No. 86). The base has one 'prong'.
 - KLB, Surface. Reg. No. 21788.
- 2. (Fig. 9.86, No. 2). In this case also there is only one line, though placed obliquely. The base is broken, but seems to have been rectangular.
 - KLB-2, Sq XB8. From a late level of Period II. Reg. No. 5545.
- 3. (Fig. 9.86, No. 3). There are two parallel horizontal lines. It is not very clear whether these were joined in the middle with a short stroke. The shape of the gamesman is conical.
 - KLB-1, Sq XA1. From a late level of Period II. Reg. No. 6496.
- 4. (Fig. 9.86, No. 4). There is a pluslike sign. The base has two prongs, one opposite the other.
 - KLB-1, Sq YA1. From a late level of Period II. Reg. No. 12769.
- **5.** (Fig. 9.86, No. 5). This also has a plus-like sign. However, the base has four prongs.
 - KLB, Surface. Reg. No. 21785.
- 6. (Fig. 9.86, No. 6). This is the only example in which the inscribed sign occurs on the lower side of the



Fig. 9.87

base. The sign consists of one vertical and two oblique lines all of which criss-cross one another in the upper part of the vertical line. It resembles Variant No. 7048 of M-List sign 158. The stem part of the specimen is completely gone; the basal part is circular with a single prong.

KLB, Surface. Reg. No. 21787.

- 7. (Fig. 9.87, No. 7). The sign resembles the *ga*-sign of the Brāhmī script. In the M-List, it is numbered 134. The basal part of the specimen is squarish, but with a prong, though not very pronounced, at each corner.
 - KLB-1, Sq YA1. From a late level of Period II. Reg. No. 681.
- 8. (Fig. 9.87, No. 8). Though blurred, the sign in this case too is similar to that in the preceding; but here it is upside down. The base has four prominent prongs.
 - KLB-1, Sq YA1. From a late level of Period II. Reg. No. 68.
- 9. (Fig. 9.87, No. 9) Sign same as in No. 7 above. Base has four prominent prongs, one of which is broken.
 - KLB-1, Sq W3, Dump. Reg. No. 11374.
- 10. (Fig. 9.87, No. 10). Sign same as in the previous case. Of the four prongs of the base, one is damaged.
 KLB-1, Sq YA4. From a late level of Period II. Reg. No. 18949.
- **11.** (Fig. 9.87, No. 11). Sign same as in the previous case. The base has five prominent prongs.
 - KLB, Surface. Reg. No. 21784.
- **12.** (Fig. 9.87, No. 12). Sign same as in the previous case. The base too has five prongs, though these are less

- prominent than in the preceding examples.
- KLB-1, Sq YA2. From a late level of Period II. Reg. No. 1168.
- **13.** (Fig. 9.87, No. 13). Sign same as in the previous case, but placed horizontally. The base is circular, but with one prong.
 - KLB-1, Sq ZA1. From a late level of Period II. Reg. No. 2285.
- 14. (Fig. 9.88, No. 14). The sign resembles an arrow and is in the category of sign No.153 of M-List. The base has three prongs.
 - KLB-1, Sq XB1. From a late level of Period II. Reg. No. 741.
- **15.** (Fig. 9.88, No. 15). *damarū*-shaped, the sign is same as No. 214 of M-List. The base is circular. The stem is broken.
 - KLB-1, Sq ZK13. From a middle level of Period II. Reg. No. 17122.
- **16.** (Fig. 9.88, No. 16). The *damarū*-sign is cut by a line in the middle. Base four-pronged; stem broken.
 - KLB, Surface. Reg. No. 21786.
- 17. (Fig. 9.88, No. 17). The sign resembles a lozenge and is in the category of No. 261 of M-List. Base has five prongs.
 - KLB-1, Sq ZA8, Unstratified. Reg. No. 14712.
- 18. (Fig. 9.88, No. 18). The exact nature of the sign is not very clear. It may either be a V-like sign (though the mouth is not open, as it should be) with a single stroke on each side at the upper end, as for example in Variant No. 7029 or 2269 of sign No. 342 of M-List. However, if the two lines of the V



551

join up in the upper part, the sign would form an oval, with an oblique stroke emanating from the upper end, on each side. The base has five prongs.

KLB-1, Sq XA2, Unstratified. Reg. No. 4585.

19. (Fig. 9.89, No. 19). The main part of the sign seems to consist of two arcs, a larger opening to the left and a smaller one, facing the other way, and joining the former on the left. Besides, a small arc facing upwards cuts the former two arcs in the upper part. The base is some what triangular.

KLB-2, Sq ZG17. From a late level of Period II. Reg. No. 20992.

20. (Fig. 9.89, No. 20). The sign consists of an arc on the right side, facing left. There seems to be another arc on the left facing the other way round, though it is not so well pronounced as the former one. In between the two arcs there is vertical line. All the three intersect. The base is squarish.

KLB-1, Sq YA1. From a late level of Period II. Reg. No. 1763.

21. (Fig. 9.89, No. 21). There seem to be two signs. Though not very clear, the one on the right may be taken to comprise two vertical lines, with a faint one in between (cf. M-List Nos. 87 or 89). The sign on the left too is not very clear, but may fall in the category of M-List No. 167. The base seems to be two-pronged. The stem is broken.

KLB-2. Sq ZA3, Unstratifed. Reg. No. 19789.

22. (Fig. 9.89, No. 22). The sign seems to consist of four 'thumb-nail' marks, one below the other, all cut by a vertical line. It may fall in the category of M-List No. 315, with an addition of the vertical line. The base has five prongs, of which only three are prominent.

KLB-1, Sq A1. Unstratified. Reg. No. 4378.

23. (Fig. 9.90, No. 23). There seem to be three signs. That on the right consists of at least six 'thumb-nail' marks, one below the other. The in the middle seems to comprise an oblique line with a small vertical stroke below it, and may roughly be compared with Sign No. 124 of M-List, along with its variants. The sign on the left is messed up, but may consist of a vertical oval with a few strokes within it. A near-parallel is Variant No. 4423 of Sign No. 379 of M-List. The base has three prongs.

KLB-1, Sq YA1. From a middle level of Period II. Reg. No. 6639.

24. (Fig. 9.90, No. 24). There seem to be three signs. Those on the right and left consist each of two 'thumbnail' marks cutting each other, while in between them is a long line. The base is broken, but one prong can be made out.

KLB-1. Sq XA1. From a late level of Period II. Reg. No. 6511.

25. (Fig. 9.90, No. 25). Though not very clear, there seem to be two identical signs on this specimen. Each one consists of a horizontally placed 'multiplication' sign, with a single stroke within each segment. The sign seems to fall in line with No. 140 of the M-List, but with a



Fig. 9.89





difference, namely that No. 140 is **I. TERRACOTTA DRAIN-PIPES** vertically placed and has two small strokes within each segment. addition to these two signs, there are a few strokes here and there. The base has four prongs.

KLB-1, Sq ZA1. From a middle level of Period II. Reg. No. 5101.

26. (Fig. 9.90, No. 26). There are two The one on the right signs. resembles No. 261 of M-List. That on the left resembles variant No. 4871 of M-List No. alternatively, it may be a variant of No. 391 of the M-List. The base is circular.

> KLB-1, Sq YF2. From a late level of Period II. Reg. No. 5364.

27. (Fig. 9.90, No. 27). There are three signs. That on the extreme right consists of three small strokes, two in the upper row and one in the lower. It is the same as No. 103 of the M-List. The middle one, which is a bit removed from the foregoing sign, consists of two overlapping ovals, and is similar to No. 403 of the M-List. The one on the extreme left is the familiar V-sign with strokes, same as No. 342 of the M-List. The base has four prongs, of which one is broken.

> KLB-1, Sq YA4-YA5, Unstratified. Reg. No. 19377.

28. (Fig. 9.90, No. 28). The sign is rather shallow engraved but may be thought to consist of a man holding a bow-and-arrow in each hand. It is similar to No. 29 of the M-List, though the bow in our case is triangular. The base is squarish with the corners forming incipient prongs.

> KLB-2, Sq ZG17. From a late level of Period II. Reg. No. 20992.

Two pieces of wheel-made, well-fired terracotta pipes, which may have been used for water-drainage, bear inscribed signs. One of them (Fig. 9.91, No. 2) bears the fish symbol (M-List No. 59), while the other (Fig. 9.91, No. 1) has three interconnected vertical ovals, one below the other, the middle one having a vertical stroke inside (cf. M-List Nos. 415 and 417). The Reg. Nos. respectively are No. 21582. and No. 21583

These were found from a late level in, Sq ZA8 of KLB-1.

J. POTTERY

(I) INTRODUCTORY

The inscriptions on pottery from the Mature Harappan levels at Kalibangan, as at many other Harappan sites, are divisible into two broad categories, viz. (i) those inscribed prior to the firing of the pots, and (ii) those inscribed after the firing. While separating the abovementioned two categories from each other, it has been observed that in the case of pre-firing inscriptions the lines are deep and some clay is usually (not always) thrown up along their edges, resulting in minor 'ridges'. On the other hand, in the post-firing examples the lines are relatively shallow and their edges show (though not always) a kind of scaling of the pot-surface. Besides the above-mentioned two categories, there is yet a third one, usually not met with at many Harappan sites, in which the inscription was painted. The painting, however, was done after the pot had been fired.

Below we illustrate and describe in brief the specimens concerned in each of these categories.



Fig. 9.92

(II) POTTERY INSCRIBED BEFORE FIRING

In many cases under this category, there is usually a single sign. Examples bearing more than one sign are relatively rare. These single pre-firing signs are generally on the exterior of the bottom of the pots, or on the rim, but could sometimes be on the body itself.

The multiple signs, however, are on parts of the body, other than the bottom. Since the script has not yet been deciphered, it is difficult to say anything definite about the purpose of these pre-firing inscriptions. However, it may not be very much off the mark to guess that in most cases where there is only one sign, it may represent the potter's mark. In other cases, there may have been a regular 'inscription', like what is usually met with in the post-firing cases.

We begin with single signs and then pass on to the multiple ones.

- 1. (Fig. 9.92, No. 1). The sign resembles a plus mark, i.e. the two straight lines cut each other at a right angle. It is inscribed on the exterior of the base of a vase of red ware which is made of well-levigated clay, is of medium thickness and fairly well-fired.
- KLB-1, Sq. YA8. From a late level of Period II. Reg. No. 14728.
- **2.** (Fig. 9.92, No. 2). Like No. 1, it is also a 'plus' sign, but is located on the exterior of a vase, a little below the shoulder. Thin-sectioned red ware, well-fired.
- KLB-1, Sq. B10. From a late level of Period II. Reg. No. 21535.
- **3.** (Fig. 9.92, No. 3). 'Plus' sign. On the exterior of a vase, a little below the

shoulder. Thin-sectioned red ware, not so well-fired.

- KLB-1, Sq. ZD8. From a late level of Period II. Reg. No. 13347.
- **4.** (Fig. 9.92, No. 4). 'Plus' sign. On the exterior of the flat base of a pot of red ware, medium-sectioned, moderately fired.
- KLB-2, Sq. YA16. From a late level of Period II. Reg. No. 21536.
- **5.** (Fig. 9.92, No. 5). Though damaged, it seems to have been a 'plus' sign. On a vase of red ware which is also painted in black colour.
- KLB-2, Sq. A16. From a late level of Period II. Reg. No. 21538.
- **6.** (Fig. 9.93, No. 6). The sign resembles a 'multiplication' mark, i.e. the two straight lines cut each other at an acute/obtuse angle and not at a right angle. It is located on the exterior of the base of a large-sized basin of red ware, which is thick-sectioned and well-fired.
- KLB-1, Sq. ZA1. From a late level of Period II. Reg. No.21564.
- **7.** (Fig. 9.93, No.7). The sign resembles a 'multiplication' mark, located on the exterior of the body of a jar, a little below the shoulder. Sturdy red ware,
- KLB-2, Sq. YA16. From a late level of Period II. Reg. No. 21542.
- **8.** (Fig. 9.93, No. 8). The sign resembles a 'multiplication' mark, located on the exterior part of a jar of red ware, which is sturdy and well-fired.
- KLB-1, Sq. ZA2. From a middle level of Period II. Reg. No 21732x.



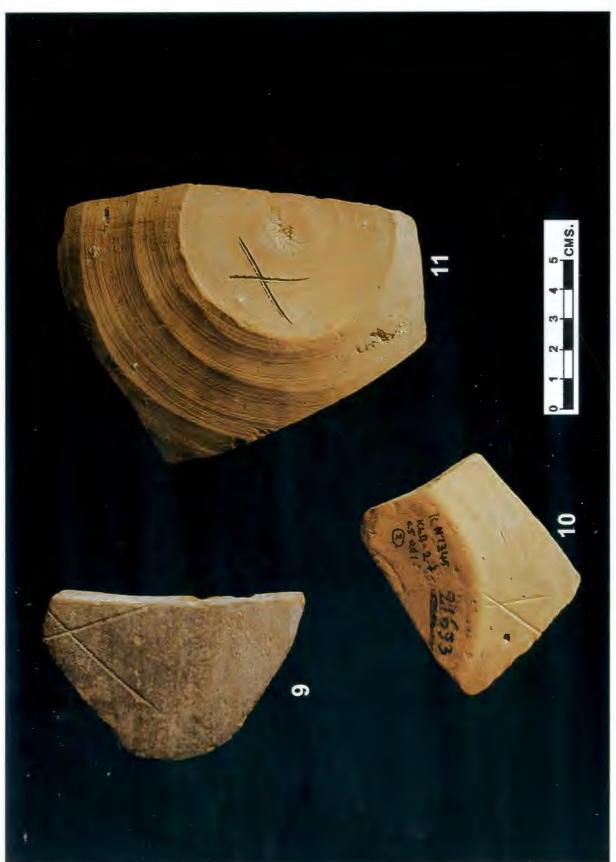
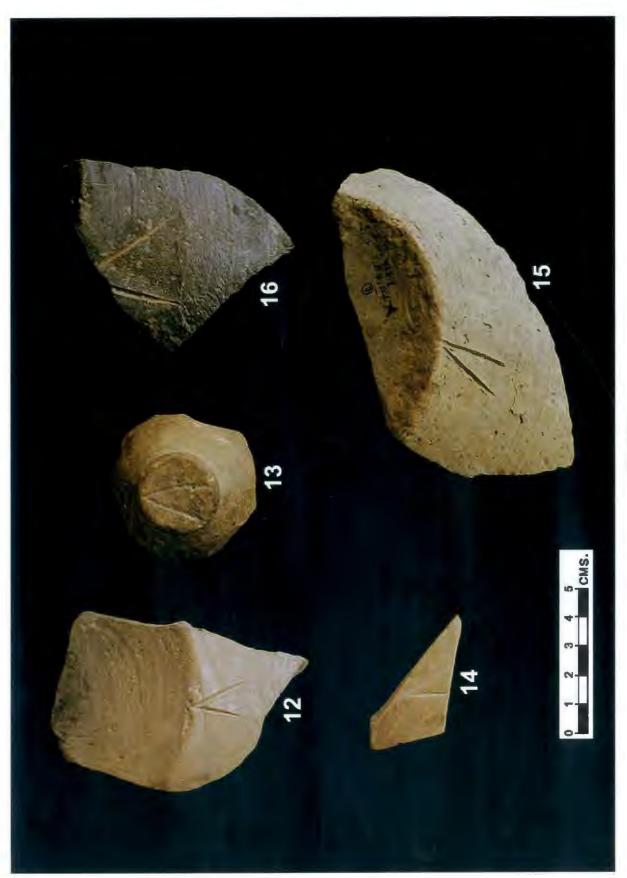


Fig. 9.94

- **9.** (Fig. 9.94, No. 9). The sign resembles a 'multiplication' mark, located on the exterior of a jar of red ware with a blackish-brown slip. Sturdy and well-fired.
- KLB-1, Sq. YF9. From a late level of Period II. Reg. No. 21734x. Period II. Reg. No. 21511.
- **10.** (Fig. 9.94, No. 10). Seems to belong to the category of the 'multiplication' mark, though the strokes above the point of intersection are very short. On the exterior of a pot, near the base. Red ware, somewhat inadequately fired.
- KLB-2, Sq. C5. From a late level of Period II. Reg. No. 21693.
- **11.** (Fig. 9.94, No. 11). 'Multiplication' sign. On the exterior of the base of a jar of red ware. Well-fired.
- KLB-2, Sq. A7. From a late level of Period II. Reg. No. 21686
- 12. (Fig. 9.95, No. 12). The sign resembles an 'acute-angle', with the apex upwards (cf. M-List No. 134). It is located on the lower part of the pot just where it meets the base. The pot is thick-sectioned and well-fired.
- KLB-2, Sq. A7. From a late level of Period II. Reg. No. 21733.
- **13.** (Fig. 9.95, No. 13). 'Acute angle', on the disc-base of a small vase of red ware.
- KLB-2, Sq. G6. From a late level of Period II. Reg. No. 13001.
- **14.** (Fig. 9.95, No. 14). 'Acute angle', on the exterior of the body of a pot of red ware. Medium-sectioned, well-fired.
 - KLB, Surface. Reg. No. 21526.

- **15.** (Fig. 9.95, No. 15). 'Acute angle', located near the base of a thick-sectioned, sturdy red ware.
- KLB-2, Sq F16. From a late level of Period II. Reg. No. 21734x.
- **16.** (Fig. 9.95, No. 16). Though a part of the sign is not available because of the breakage of the pot, it seems to have been an 'acute angle'. The pot is sturdy, with a black slip.
 - KLB-2, Surface. Reg. No. 21735.
- **17.** (Fig. 9.96, No. 17). Though a part of the sign is missing because the pot is broken, it was evidently an 'acute angle'.
- KLB-2, Sq. YB16. From a late level of Period II. Reg. No. 21527.
- **18.** (Fig. 9.96, No. 18). 'Acute angle', on the exterior of the base of a vase of red ware. Well-fired.
- KLB-1, Sq. XF1. From a late level of Period II. Reg. No. 21674.
- 19. (Fig. 9.96, No. 19). Falling in the category of an 'acute angle' sign, this example slightly differs from the previous ones, inasmuch as one of the lines is slightly curved. The sign is located on the disc-base of the pot. Red ware, medium-sectioned, not so well-fired.
- KLB-1, Sq. ZB2, Unstratified. Reg. No. 21736.
- **20.** (Fig. 9.96, No. 20). The sign appears to follow the general features of an 'acute angle', though the lines forming the angle are not straight but curved. Hence it may be regarded as a 'variant' of the angle-sign. It is located on the exterior of the disc-base of a jar of red ware, which is relatively thin-sectioned but well-fired.



ig. 9.95



Fig. 9.96



Fig. 9.97

- KLB-1, Sq. XF1. From a late level of Period II. Reg. No. 21675.
- **21.** (Fig. 9.97, No. 21). The shape of the sign and its location are similar to those in No. 20.
- KLB-1, Sq. YF2. From a late level of Period II. Reg. No. 21586. Period II. Reg. No. 21677.
- **22.** (Fig. 9.97, No. 22). The shape and location of the sign follow the pattern of No. 21. Red ware, medium section, moderately- fired.
- KLB-1, Sq. YC 7. From a middle level of Period II. Reg. No. 16584.
- **23.** (Fig. 9.97, No. 23). Though the specimen is damaged, it seems to follow the pattern of No. 21, both in shape and location.
- KLB-1, Sq. XE1. From a late level of Period II. Reg. No. 21737x.
- **24.** (Fig. 9.97, No. 24). Sign and location same as in the previous cases. Red ware.
- KLB-1, Sq. YF2. From a late level of Period II. Reg. No. 21665.
- **25.** (Fig. 9.97, No. 25). Sign and location same as in previous cases.
- KLB-1, Sq. XE1. From a late level of Period II. Reg. No. 21673.
- **26.** (Fig. 9.98, No. 26). An oval/circle on the exterior of a pot of sturdy red ware. Broadly comparable to M-List No. 373. The full shape of the pot cannot be determined since the piece is too small.
- KLB-1, Sq. ZD9. From a late level of Period II. Reg. No. 21617.

- **27.** (Fig. 9.98, No. 27). Two vertical, curved lines, producing an oval or biconvex shape, on the underside of the disc-base of a medium-sized vase of sturdy red ware.
- KLB-2, Sq. A8. From a late level of Period II. Reg. No. 21586.
- **28.** (Fig. 9.98, No. 28). Partly damaged; may have been similar to No. 27 above. Located a little above the base, on the exterior of a vase of sturdy red ware.
- KLB-1, Sq. ZC10. From a late level of Period II. Reg. No. 25615.
- **29.** (Fig. 9.98, No. 29). Though incomplete, the sign may have been similar to No. 27 above. On the exterior of a pot of sturdy red ware, a little above the base. The striation marks on the interior indicate that the sign was placed horizontally.
- KLB-1, Sq. ZB5, Unstratified. Reg. No. 14661.
- **30.** (Fig. 9.98, No. 30). Incomplete. However, the available part is an elongated oval. On the exterior of a sherd of red ware.
 - KLB, Surface. Reg. No. 21738.
- **31.** (Fig. 9.98, No. 31). Though damaged, the sign may be placed in the category of an oval, like M-List No. 373. On the exterior of a sherd of sturdy red ware.
 - KLB, Surface. Reg. No. 21739.
- **32.** (Fig. 9.99, No. 32). Similar to No. 29. Sturdy red ware pot, broken; striation marks on the exterior indicate that in this case the sign was placed vertically.



- KLB-1 and 2, Surface. Reg. No. 880.
- **33.** (Fig. 9.99, No. 33). Two conjoined vertical ovals (cf. M-List No. 410). On the exterior of a pot of sturdy red ware.
- KLB-2, Sq. B6. From a late level of of Period II. Reg. No. 21547. Period II. Reg. No. 12997.
- **34.** (Fig. 9.99, No. 34). Sign similar to No. 33; on the exterior of a pot of sturdy red ware.
- KLB-2, Sq. A6. From a late level of Period II. Reg. No. 21551.
- **35.** (Fig. 9.99, No. 35). Though damaged, seems to be similar to No. 33. On the exterior of a sherd of sturdy red ware.
 - KLB, Surface. Reg. No. 21741.
- **36.** (Fig. 9.100, No. 36). Seems to be similar to No. 33, though the lower oval is missing; on the exterior of a vase of red ware.
- KLB-1, Sq. ZD2. From an early level of Period II. Reg. No. 21613.
- **37.** (Fig. 9.100, No. 37). Though damaged, may have been in the category of No. 33, above.
- KLB-2, Sq. XB1. From a late level of Period II. Reg. No. 21740.
- **38.** (Fig. 9.100, No. 38). Conjoined triple oval, placed vertically. (cf. M-List No. 415).
- KLB-2, Sq. A5. From a late level of Period II. Reg. No. 13003.
- **39.** (Fig. 9.101, No. 39). The sign seems to consist of a long arc, with another smaller one joining the former

- in the middle, but facing the opposite direction. Occurring on the exterior of a red ware pot, it is placed horizontally as indicated by the striation marks.
- KLB-1, Sq. ZB1. From an early level of Period II. Reg. No. 21547.
- **40.** (Fig. 9.101, No. 40). Though incomplete, it seems to be similar to No. 39; also horizontally placed. Sherd of sturdy red ware, well-fired.
- KLB-1, Sq. YA4. From a late level of Period II. Reg. No. 21549.
- **41.** (Fig. 9.101, No. 41). Like No. 40. On the exterior of a pot of red ware, medium thickness, well-fired.
- KLB-1, Sq. YA3. From a late level of Period II. Reg. No. 21742.
- **42.** (Fig. 9.101, No. 42). This sign seems to differ from the foregoing since only one line is curved, forming a big arc, while the other line is straight. On the exterior of a pot of red ware with a blackish slip.
- KLB-1, Sq. XD1. From a late level of Period II. Reg. No. 21682.
- **43.** (Fig. 9.102, No. 43). Though incomplete, it seems to belong to the foregoing category. Placed horizontally, on the exterior of a red ware pot.
- KLB-1, Sq. YA 4. From a late level of Period II. Reg. No. 21546.
- **44.** (Fig. 9.102, No. 44). Though incomplete, this also seems to belong to the foregoing category. On the exterior of a medium-sectioned pot of red ware, well-fired.
- KLB-1, Sq. ZB6, Surface. Reg. No. 21544.

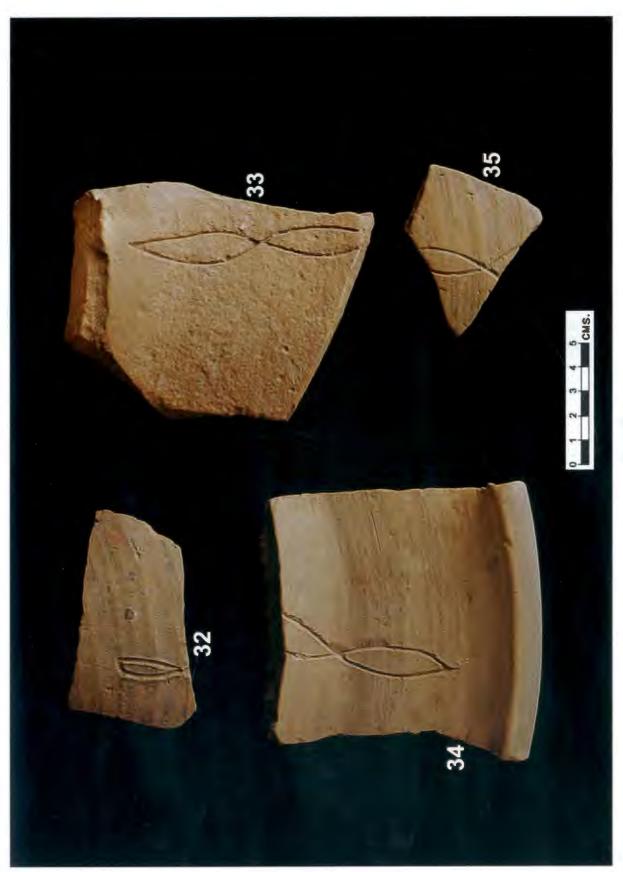


Fig. 9.99



Fig. 9.100



570



Fig. 9.102



Fig. 9.103

- **45.**(Fig. 9.102, No. 45). This pot seems to have an additional sign, namely a 'multiplication' mark, besides a sign similar to the previous ones. Red ware, medium fabric, well-fired.
- KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21545.
- **46.** (Fig. 9.102, No. 46). There seem to have been two signs. The one on the right falls in the former category, while the exact shape of the other is indefinite. On the exterior of a vase of medium fabric of red ware, not well-fired.
- KLB-1, Sq. ZA1. From a late level of Period II. Reg. No. 21548.
- **47.** (Fig. 9.102, No. 47). There are two signs. While that on the left falls in the former category, the other consists of two vertical lines. On the exterior of a pot of red ware.
- KLB-1, Sq. YD3, Unstratified. Reg. No. 21743.
- **48.** (Fig. 9.103, No. 48). There are two signs, one above the other, on the exterior of the pot. Of these, the lower one seems to follow the foregoing pattern of No. 42, with the addition of three short, oblique strokes within the 'belly'. The shape of the upper sign cannot be determined because of the breakage of the pot. Red Ware, medium fabric, well- fired.
- KLB-1, Sq. ZE 3. From a late level of Period II. Reg. No. 21687.
- **49.** (Fig. 9.103, No. 49). A bow-like sign, but with the straight line prolonged quite the way down. On the exterior of a pot of sturdy red ware.
- KLB-2, Sq. YA2. From a late level of Period II. Reg. No. 21568.

- **50.** (Fig. 9.103, No. 50). Located on the outer side of the base of a vase of red ware, the sign comprises an incomplete oval (or circle?) with a vertical stroke cutting across it.
 - KLB-2, Surface. Reg. No. 21579.
- **51.** (Fig. 9.103, No. 51). The sign consists of four lines making a sort of lozenge, though two of the lines extend beyond the corners of the lozenge. On the exterior of a thick pot of sturdy red ware.
 - KLB-1 and 2, Surface. Reg. No. 165.
- **52.** (Fig. 9.103, No. 52). Incomplete, but seems to have consisted of a small lozenge, placed within another indefinite sign. Sherd of red ware.
 - KLB-1, Surface. Reg. No. 21717.
- **53.** (Fig. 9.104, No. 53). The sign resembles a 'five-pointed star'. On the exterior of a vase of red ware, medium-sectioned, well-fired.
- KLB-1, Sq. ZB8, Unstratified. Reg. No. 21554.
- **54.** (Fig. 9.104, No. 54). There are two signs, one complete and the other damaged. The former resembles No. 53 above. The other may have been similar to No. 39 above. On the exterior of a pot of red ware, medium-sectioned, well-fired.
- KLB-1, Sq. YA3. From a late level of Period II. Reg. No. 21553.
- **55.** (Fig. 9.104, No. 55). Though damaged, the sign may have belonged to the category of No. 53 above. On the exterior of a vase of red ware, well-fired.
- KLB-2, Sq. B8. From a late level of Period II. Reg. No. 21744.



Fig. 9.104

- **56.** (Fig. 9.105, No. 56). Though one of the corners of the sign is damaged, it was meant to be a 'five-pointed star'. On the inner side of a dish-on-stand. Red ware, thick-sectioned, well-fired.
- KLB-2, Sq. C5. From an early level of Period II. Reg. No. 21555.
- **57.** (Fig. 9.105, No. 57). Though badly damaged, the sign seems to fall in the category of a 'five-pointed star'. On the exterior of a thin-sectioned potsherd of red ware.
- KLB-2, Sq. B2. From a late level of Period II. Reg. No. 21630.
- **58.** (Fig. 9.105, No. 58). The sign consists of two adjacently placed acute angles, thus forming an M-like sign. On the exterior of a sturdy pot of red ware.
 - KLB-1, Unstratified. Reg. No. 21725.
- **59.** (Fig. 9.105, No. 59). Damaged. Two curved lines, drawn parallel to each other. On the exterior of the disc-base of a pot of red ware, with buffish brown slip.
- KLB-1, Sq. YE2. From an early level of Period II. Reg. No. 21669.
- **60.** (Fig. 9.106, No. 60). The sign, though damaged, represents a bow-and-arrow. It may be compared to M-List No. 307. However, in the latter case the shaft of the arrow is inclined and does not have an angular tip. On the exterior of a jar of red ware, well fired.
- KLB-1, Sq YB1. From a late level of Period II. Reg. No. 21510.
- **61.** (Fig. 9.106, No. 61). Though damaged, it is similar to No. 60. On the exterior of a jar of sturdy red ware.

- KLB-1, Sq. YC2. From a late level of Period II. Reg. No. 6130.
- **62.** (Fig. 9.106, No. 62). Similar to No. 60, though in this case the tip of the 'arrow' is damaged, and the shaft of the arrow is inclined. On the exterior of a pot of sturdy red ware.
- KLB-1, Sq. YA4. From a late level of Period II. Reg. No. 21509.
- **63.** (Fig. 9.106, No. 63). The sign is damaged. However, it may represent the lower part of the bow of the bow-and-arrow sign. On the exterior of a red ware pot.
- KLB-2, Sq. YB17. From a late level of Period II. Reg. No. 12516.
- **64.** (Fig. 9.106, No. 64). Though damaged, it falls in the category of No. 60. On the exterior of a pot of sturdy red ware.
 - KLB, Unstratified. Reg. No. 21718.
- **65.** (Fig. 9.107, No. 65). Seems to fall in the category of the 'fish' sign but without the 'fins'. On the exterior of a vase, at the level of the shoulder. Red ware, but not well- fired, with the result that a major part of it is greyish black.
 - KLB, Surface. Reg. No. 21745.
- **66.**(Fig. 9.107, No. 66). Though largely damaged, the lower part seems to suggest that it may have been a 'fish' sign. On the exterior of a vase of red ware, medium thickness, well-fired.
- KLB-2, Sq. ZD8. From a late level of Period II. Reg. No. 21539.
- **67**. (Fig. 9.107, No. 67). Damaged, hence it is difficult to identify it correctly.



Fig. 9.105



Fig. 9.106



ig. 9.107

Maybe it was a 'fish' symbol with an 'angle' over the 'head'. Cf. M-List No. 65. On the exterior of a pot of red ware, thick and well-fired.

- KLB-2, Sq. XA13. From a late level of Period II. Reg. No. 21614A.
- **68.** (Fig. 9.107, No. 68). Again, the damage makes the identification difficult. Typologically, the sign seems to be similar to No. 67. Similar also is the location of the sign.
- KLB-2, Sq. XA13. From a late level of Period II. Reg. No. 21614B.
- **69.** (Fig. 9.108, No. 69). The sign is similar to No. 365 of the M-List. On the exterior of the base of a dish of red ware, thick-sectioned, well-fired.
- KLB-2, Sq. YF4. From a late level of Period II. Reg. No. 21747.
- **70.** (Fig. 9.108, No. 70). Though damaged, the sign seems to belong to the category of No. 69. On the exterior of a pot (dish?) of red ware, well-fired.
- KLB-2, Sq. XA10. From an early level of Period II. Reg. No. 12436.
- **71.** (Fig. 9.108, No. 71). Two signs. That on the right seems to be similar to No. 69, while the other, though damaged, may have been a 'bow-and-arrow'(?). On the exterior of a pot of red ware, though the slip has turned greyish-black.
- KLB-1, Sq. YD4. From a late level of Period II. Reg. No. 21550.
- **72.** (Fig. 9.109, No. 72). There seem to be two signs, the one on the left being identifiable as a trident (similar to M-List, No. 162). Of the other, only a part of the horizontal stroke is

available. On the exterior of a vase of red ware, well-fired, medium thickness.

- KLB-1, Sq. ZE2. From a late level of Period II. Reg. No. 21746.
- **73.** (Fig. 9.109, No. 73). Two signs. A variant of 'trident' on the left and seven strokes on the right. The latter are in two rows, four in the upper and three in the lower. On the exterior of the neck of a vase of red ware; thin section, well-fired.
 - KLB, Surface. Reg. No. 21713.
- **74.** (Fig. 9.109, No. 74). Two signs. That on the right comprises an angle with the apex upwards and an oblique stroke cutting the left arm. The other consists of three near-vertical strokes.
- KLB-1, Sq. ZA8, Unstratified. Reg. No. 25198.
- **75.** (Fig. 9.110, No. 75). Two signs, both damaged and hence unidentifiable. However, the one on the left may have been like 'V' of the Roman script. Of the other, two vertical lines are observable, but there may also have been an oblique stroke joining the lower end of the right-hand line. On the exterior of a pot of thick red ware, well-fired.
- KLB-2, Sq. YB18. From a late level of Period II. Reg. No. 21633.
- **76.** (Fig. 9.110, No. 76). Located on the shoulder of a red ware pot, this sign resembles the outline of an elongated vase with bulbous body, slightly constricted towards the neck, and an extremely flaring out rim. In this particular case, the base is missing but may have been like that in No. 79. The recognition of this type of shape is important since many theories have been



Fig. 9.108



ig. 9.109



Fig. 9.110

propounded about the origin of the mostfrequently used terminal sign in Harappan inscriptions, viz. (M-List, No. 342). A paper captioned, 'On the Most Frequently Used Symbol in the Indus Script', published by the present writer in the East and West (N.S.) 29:27-35 (1979), shows that the above-mentioned terminal sign is indeed derivable from this basic pot-shape. In this context, see No. 79 which gives the full shape of the vase, along with a disc base. There is, however, in it an additional stroke on each side below the flaring out and curved rim. This leads to the left-hand sign in Serial No. 81, in which the disc-base is not potrayed. The initial pot-shape then gets finally fossilized in a V-like profile with an angular base and straight oblique sides (No. 82).

KLB-1, Sq. ZB5. From a late level of Period II. Reg. No. 21522.

77. (Fig. 9.110, No. 77). Similar to No. 76, located a little below the shoulder of a vase of red ware, medium section, well-fired. A short oblique line (damaged) may also be seen a little away to the left of the aforementioned sign.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21578.

78. (Fig. 9.110, No. 78). The upper part not available. But the sign seems to fall in the category of Nos. 76-77. On the upper exterior of a vase of red ware, medium section, well-fired.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21644.

79. (Fig. 9.111, No .79). The sign, as stated earlier, represents the full shape of an elongated vase, having a disc-base, slightly bulged body, relatively narrow neck and flaring-out everted rim. However, there is one additional stroke

below the rim on each side, whatever its significance. The sign is located on the interior of a sturdy red ware pot, which may have been either a large dish or basin.

KLB-2, Sq. YC19. From a late level of Period II. Reg. No. 21523.

80. (Fig. 9.111, No. 80). There are two signs, located on the inner base of a dish of thick red ware. The sign on the right is evidently similar to No. 79, though one cannot be too sure about the nature of the base (which is missing). The left-hand sign resembles Variant No. 1225 of M-List No. 155.

KLB-2, Sq. XA10. From an early level of Period II. Reg. No. 12350.

81. (Fig. 9.112, No. 81). There are two signs. That on the left falls in the foregoing category, while the one on the right consists of an oval to the left-hand upper part of which is attached a sign with an oblique line and four emergent strokes. The stroke joining the upper right-hand part of the oval suggests that the attachment was similar to the one just stated. Conceptually, this sign seems to be similar to M-List No. 273. Both the signs are located on the inner side of a pot, which may have been a lid. There is a large central hole which is not in favour of the pot having been a bowl. Sturdy red ware.

KLB-2, Sq. YC18. From a late level of Period II. Reg. No. 21514.

82. (Fig. 9.113, No. 82). There are two signs. That on the left falls under the foregoing category in general. The one of the right may have been an oval, though only a part of it remains. On the exterior of a pot of thick red ware.

KLB-1, Sq. ZC10. From a late level of Period II. Reg. No. 21517.



Tig. 9.111



Fig. 9.112



Fig. 9.113

83. (Fig. 9.113, No. 83). Seems to fall under the foregoing category in general, though there is a breakage of the pot along the right-hand oblique stroke. On the exterior of a pot of sturdy red ware.

KLB-2, Surface. Reg. No. 21524.

84. (Fig. 9.113, No. 84). Two signs. That on the right falls under the aforesaid general category; there are, however, two small strokes within the upper part of the sign (M-List No. 344). The sign on the left is similar to M-List No. 216.

KLB-1, Surface. Reg. No. 887.

85. (Fig. 9.114, No. 85). There seem to be three signs, located on the exterior of a thick red ware pot. The sign on the left consists of an oval with an apex-down acute angle inserted within the belly of the oval. (Variant No. 1022 of M-List No. 267). Though not very clear, the middle sign may have been in the general category of the V-like sign. Of the right-hand sign, only two strokes, joining at an angle, are seen, the lower part not being available.

KLB-2, Sq. YA16. From a late level of Period II. Reg. No. 21618.

86. (Fig. 9.115, No. 86). Since the pot is broken, it is difficult to say if there were more signs than the available four. That on the extreme right consists of two clear vertical lines, with an indication of a third. On its left is the 'arrow'-sign, which may have been similar to M-List No. 211. Next is the fish-sign (cf. M-List No. 59). On the extreme left there are three vertical lines.

KLB-1, Surface. Reg. No. 21708.

87. (Fig. 9.116, No. 87). Since the pot is broken, one does not know how many signs were there originally. However, two

complete signs may be seen in the middle, with evidence of two more signs at each end. Of the complete signs, that on the left is an 'arrow' (somewhat similar to M-List No. 153). The other sign consists of three near-vertical lines, at the top of which there is a long oblique line. Further, above it are two oblique lines joining the aforesaid oblique line, but by themselves forming an acute angle at the top. The inscription is on the exterior of a pot of sturdy red ware with a buffish slip.

KLB-2, Sq. XC1. From a late level of Period II. Reg. No. 21598.

88. (Fig. 9.117, No. 88). Since this is only a fragment of a pot, it is difficult to say what the complete inscription was like. However, what is available comprises a fish sign with fins (Variant 9832 of M-List No. 74). On its right there are three vertical lines. Both these appear to have been 'encased' by vertical strokes on the outside, of which only those on the lower side are available. It may be presumed that there were two similar strokes on the upper side, as, for example, may be seen in M-List No. 68. The pot involved is thick and sturdy.

KLB-1, Surface. Reg. No. 21689.

89. (Fig. 9.117, No. 89). On the exterior of a potsherd of thick red ware with buffish slip, there occur two signs. Of these, the one on the right looks like a trident (cf. M-List No. 162), while the other seems to have comprised two vertical lines (partly damaged).

KLB-2, Sq. YB18. From a late level of Period II. Reg. No. 21635.

90. (Fig. 9.117, No. 90). This seems to be the lower part of a dish-on-stand, of well- fired red ware with a buff slip. On its exterior two signs may clearly be seen.

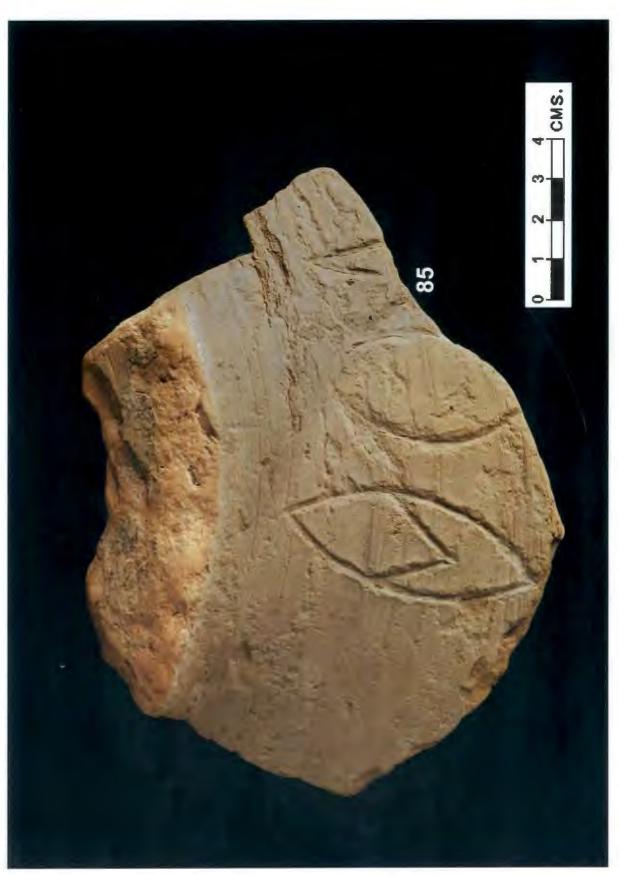
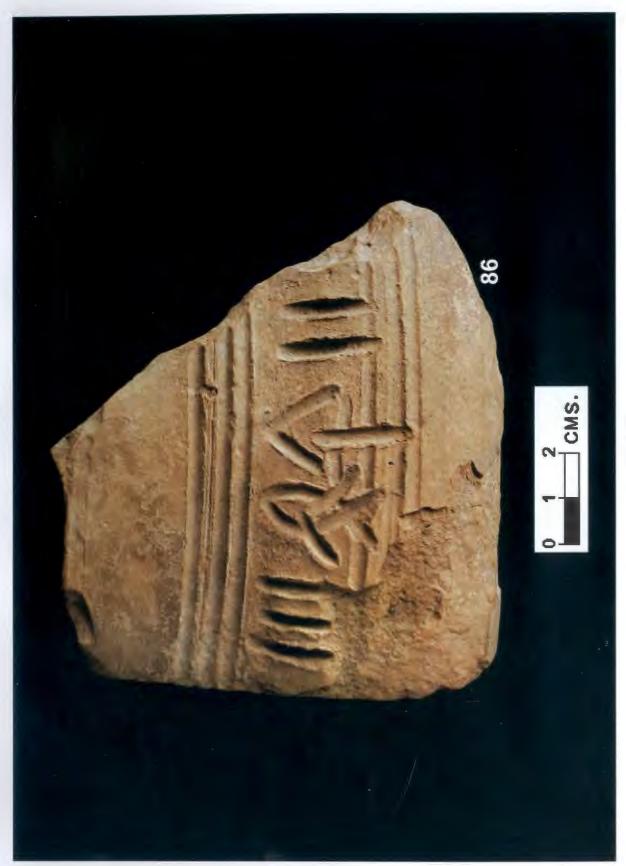


Fig. 9.114



ig. 9.11.

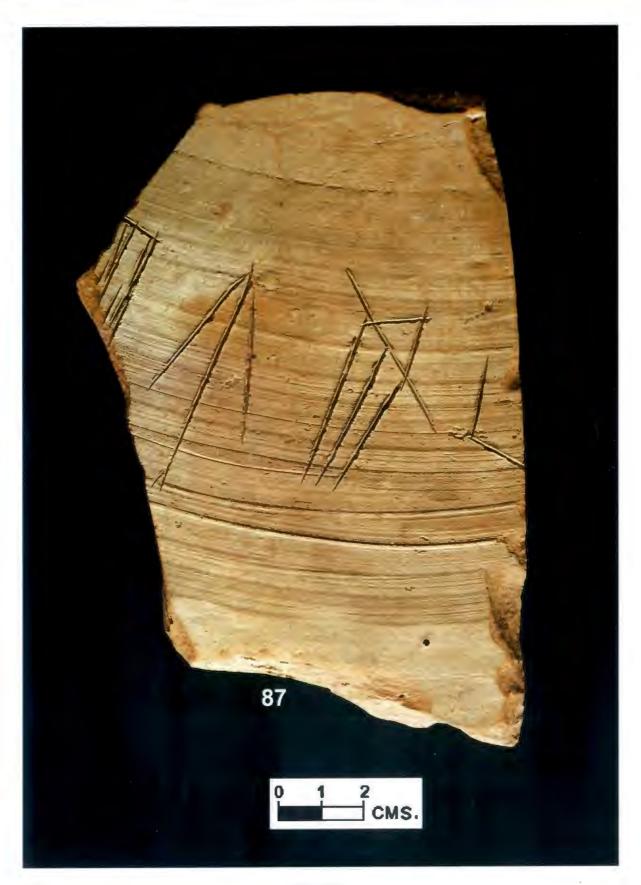


Fig. 9.116

There may have been yet another sign on the extreme right, as indicated by the traces of a small stroke. However, leaving this last-named (doubtful) sign aside, the central sign, though not very clear, seems to be a human figure carrying an equipoise on the shoulders (cf. M-List No. 14). The sign on the left consists of a 'V' combined with a trident in the middle.

KLB-2, Sq. M10. From a late level of Period II. Reg. No. 16920. Period II. Reg. No. 21606.

91. (Fig. 9.117, No. 91). On the exterior of a medium-sectioned potsherd of red ware. The sign, though damaged in its lower part, seems to have been a cross-hatched rectangle, similar to sign No. 245 of M-List.

KLB-2, Sq. XE6. From a late level of Period II. Reg. No. 21628.

92. (Fig. 9.117, No. 92). On the exterior of a potsherd of greyish ware. The design consists of criss-cross parallel and oblique lines forming some sort of a game-board.

KLB, Surface. Reg. No. 21748.

93. (Fig. 9.118, No. 93). There are two parallel vertical lines on the rim of a pot-fragment of red ware, well-fired. (cf. M-List No. 87).

KLB-2, Sq. YA17. From a late level of Period II. Reg. No. 21654.

94. (Fig. 9.118, No. 94). There are two parallel vertical lines, and, a little away on the left, two small strokes – all on the inner side of the rim of a pot of red ware, well-fired.

KLB-2, Sq. B8. From a late level of Period II. Reg. No. 21749.

95. (Fig. 9.118, No. 95). Three parallel vertical lines on the rim of a vase of red ware, well-fired.

KLB, Surface. Reg. No. 21657.

96. (Fig. 9.118, No. 96). Three parallel lines on the rim of a pot of buffish red ware, well-fired.

KLB-1, Sq. ZB9. From a late level of Period II. Reg. No. 16920.

97. (Fig. 9.118, No. 97). Three parallel lines on the rim of a pot of red ware, well- fired.

KLB-1, Surface. Reg. No. 21750.

98. (Fig. 9.118, No. 98). Three parallel oblique lines on the body of a goblet of red ware, well-fired.

KLB-1, Surface. Reg. No. 21619.

99. (Fig. 9.118, No. 99). Indefinite. The signs may have consisted of a series of adjacent and overlapping angles. On the rim of a pot of red ware, well-fired.

KLB-1, Sq. D1. From a late level of Period II. Reg. No. 21751.

100. (Fig. 9.119, No. 100). A deep basin of red ware, well-fired and slipped. On the inner side of the base there are two signs. The one on the right consists of a square of which the two vertical lines continue downwards (cf. M-List No. 202). Between these downward lines there are four more vertical lines. In M-List No. 188, however, there are only two such lines, in between the downward lines. The sign on the left resembles Sign No. 51 of the M-List, along with its Variant No. 1100.

KLB-1, Sq. XA1. From a middle level of Period II. Reg. No. 22032 N.S.







Fig. 9.118



Fig. 9.119

101. (Fig. 9.119, No. 101). Besides pottery, there is another category. viz. terracotta chakalās, which were inscribed before firing. The chakalās were usually used for rolling the bread. This specimen. like others of the kind, is circular on plan; has a thickness of nearly 2 cm, and has a ring base. (Sometimes the chakalās are provided with three legs, instead.) The inscription, placed in the middle of the ringed base, is damaged because the specimen is broken. However, it comprises two signs, one of which resembles a human figure, probably with upcurved arms, while the other has two long vertical lines. Inscribed *chakalās* have also been found at other Harappan sites, for example at Mohenjo-daro, Harappa and Alamgirpur.

KLB-2, Sq. Q14. From a late level of Period II. Reg. No. 21625.

102. (Fig. 9.119, No. 102). On the base of another *chakalās*, the sign is similar to No. 214 of M-List. The oblique stroke at the upper left-hand of the sign does not seem to constitute its part. It appears to be the result of the falling off of some piece of chaff, which was mixed with the clay for making the pot. (There are a few more strokes like this in the upper right hand of the ring base.) Thick red ware, well-fired.

KLB-2, Sq. B7. From a late level of Period II. Reg. No. 21533.

(III) POTTERY INSCRIBED AFTER FIRING

The post-firing inscriptions on pottery are distinguishable from the pre-firing ones, as already stated earlier, by two main characteristic features. In the first place, since the pot-surface was much more pliable before firing, the incisions are much deeper in the pre-firing

examples than in the case of the postfiring ones. In the latter case the surface was much harder and hence the penetration by the inscribing instrument was relatively shallower. Secondly, since in the case of the pre-firing inscriptions the surface was still wet to some extent, the displaced clay formed minor 'ridges' along the line of incisions. On the other hand, the pot-surface being hard in the post-firing examples, the edges of the incised lines 'scaled off' at the time of incision and in most cases these 'scales' may still be identified. It may, however, be added that in a few cases these abovementioned criteria are not easily identifiable, making it somewhat difficult to be absolutely certain about the prefiring/post-firing nature of the given inscribed sign/inscription.

As in the case of the pre-firing examples, in the post-firing ones too the range of signs varies from a single one, which may or may not have had a phonetic value, to regular inscriptions comprising many signs.

Examples of post-firing inscriptions are dealt with below, beginning with solitary signs and then moving on to regular inscriptions. Finally, we would discuss certain symbols which may or may not have been part of the Harappan script.

1. (Fig. 9.120, No. 1). The sign consists of two straight lines cutting each other at a right angle, thus resembling a 'plus' mark. It is located on the exterior of the disc-base of a small pot of red-ware, medium-sectioned, well-fired.

KLB-2, Sq. E8. From a late level of Period II. Reg. No. 21563.

2. (Fig. 9.120, No. 2). Similar to No. 1, both in shape and location. Red ware, medium-sectioned, well-fired.





- KLB-1, Sq. ZC8. From an early level of Period. II Reg. No. 21560.
- **3.** (Fig. 9.120, No. 3). Similar to No. 1, both in shape and location. Red ware, medium-sectioned, well-fired.
- KLB-2, Sq. YB18. From a late level of Period II. Reg. No. 21537.
- **4.** (Fig. 9.120, No. 4). Similar to No. 1, both in shape and location. Red ware, well-fired.
- KLB-2, Sq. E4. From a late level of Period II. Reg. No. 14949.
- **5.** (Fig. 9.120, No. 5). Sign similar to No. 1, but is located on the exterior of the body (the piece is very small). Red ware, medium-sectioned, well-fired.
- KLB-1, Sq. YE8. From a late level of Period II. Reg. No. 4143.
- **6.** (Fig. 9.120, No. 6). Though damaged because of breakage of the potsherd, the sign seems to fall within the category of Nos. 1-5. On the exterior of a thin-sectioned, well-fired, red ware pot, which has a dull red slip and is also painted in black.
- KLB-2, Sq. YA15. From an early level of Period II. Reg. No. 21631.
- **7.** (Fig. 9.120, No. 7). Sign is similar to No. 1; located on the exterior of a small vase of red ware, thin-sectioned, well-fired.
- KLB-2, Sq. A11. From a late level of Period II. Reg. No. 13346.
- **8.** (Fig. 9.121, No. 8). In the case of this and the following few signs, the two straight lines cut each other at an acute/obtuse angle, whereby the sign resembles a 'multiplication' mark. On the exterior

- of the disc-base of a goblet of red ware having a buffish slip, thin-sectioned, and moderately-fired.
- KLB-2, Sq. H8. From a late level of Period II. Reg. No. 21562.
- **9.** (Fig. 9.121, No. 9). Similar to No. 8: also located on the exterior of the base of a goblet of red ware, medium section, moderately-fired.
- KLB-1, Sq. YE8. From a late level of Period II. Reg. No. 21627.
- **10.** (Fig. 9.121, No. 10). Similar to Nos. 8 and 9. On the exterior of the body of a pot of red ware with a buffish slip, medium-sectioned, well-fired.
- KLB-2, Sq. YB17. From a late level of Period II. Reg. No. 21540.
- 11. (Fig. 9.121, No. 11). There are two 'multiplication' marks, one of which is indistinct and faded. On the interior of a pot of red ware; medium-sectioned, moderately-fired. There are traces of a painted black line as well.
 - KLB, Surface. Reg. No. 21752.
- **12.** (Fig. 9.121, No. 12). Similar to Nos. 7 and 8. A little below the shoulder, on the exterior of a pot of red ware, medium-sectioned, moderately-fired. In addition there is a small line not far from the 'multiplication' mark.
- KLB-1, Sq. YC4. From a late level of Period II. Reg. No. 21540.
- **13.** (Fig. 9.122, No. 13). Though the pot is broken, the sign may have belonged to the foregoing category. On the exterior of a pot of sturdy red ware, with a reddish slip.
- KLB-2, Sq. ZA15. From a late level of Period II. Reg. No. 21590.



Fig. 9.121

- 14. (Fig. 9.122, No. 14). In this case, there are two vertical lines cutting a horizontal line, thus making a 'plus' mark, as well as a 'multiplication' mark. On the exterior of a sherd of red ware, thinsectioned, moderately-fired.
- KLB-1, Sq. YF2. From a late level of Period II. Reg. No. 21666.
- 15. (Fig. 9.122, No. 15). In this case, there are two 'multiplication' signs side by side. On the exterior of a pot of red ware, a little below the shoulder. The pot is somewhat thin-sectioned, moderately-fired and has a band of black paint at the shoulder.
- KLB-1, Sq. XD4. From a late level of Period II. Reg. No. 21753.
- **16.** (Fig. 9.122, No. 16). There seem to have been many 'multiplication' signs, adjacent to one another, running in a horizontal row. On the exterior of a pot of sturdy red ware.
- KLB-1 and 2, Surface. Reg. No. 21724.

The signs that follow consist of lines/ strokes placed vertically. Their numbers may vary from two to as many as eleven. Usually, these occur on the rim, but may also be found on other parts of the body. The examples are described below.

- 17. (Fig. 9.123, No. 17). Two parallel vertical lines and a little away two small vertical strokes (cf. M-List Nos. 87 and 100) all on the rim of a pot of red ware, well-fired.
- KLB-2, Sq. E8. From a late level of Period II. Reg. No. 21754.
- **18.** (Fig. 9.123, No. 18). Three lines, two vertical and one slanting. On the rim of a jar of red ware, well-fired, thick-sectioned.

- KLB-2, Sq. A8. From a late level of Period II. Reg. No. 21700.
- 19. (Fig. 9.123, No. 19). The sign consists of a total of five lines, but these are not parallel to one another. Of these, three vertical parallel lines form a 'group', while the remaining two form another group. On the rim of a pot of red ware, with light creamish slip.
- KLB-2, Sq. K10. From a late level of Period II. Reg. No. 21653.
- **20.** (Fig. 9.124, No. 20). There are three groups of three lines each, separated from one another. Further, while in two groups the lines are long, in one group these are small (cf. M-List Nos. 89 and 102). All these occur on the rim of a pot of red ware, well fired.
- KLB-2, Sq. YA16. From a late level of Period II. Reg. No. 21639.
- **21.** (Fig. 9.124, No. 21). Four strokes (cf. M-List No. 104), overriding a black-painted line, on the rim of a small-sized pot of red ware, thin fabric, well-fired.
- KLB-2, Sq. XB8. From a late level of Period II. Reg. No. 21629.
- **22.** (Fig. 9.124, No. 22). There are two separate groups, each consisting of four parallel lines. On the rim of a jar of red ware, medium-sectioned, well-fired.
- KLB-2, Sq. B8. From a late level of Period II. Reg. No. 21565.
- **23.** (Fig. 9.125, No. 23). There are four vertical lines, not far from which on the right there are two small vertical strokes. The large strokes override a painted band running along the rim of a pot of well-fired red ware.
- KLB-1, Sq. ZC9. From a late level of Period II. Reg. No. 21566.



ig. 9.122



Fig. 9.123

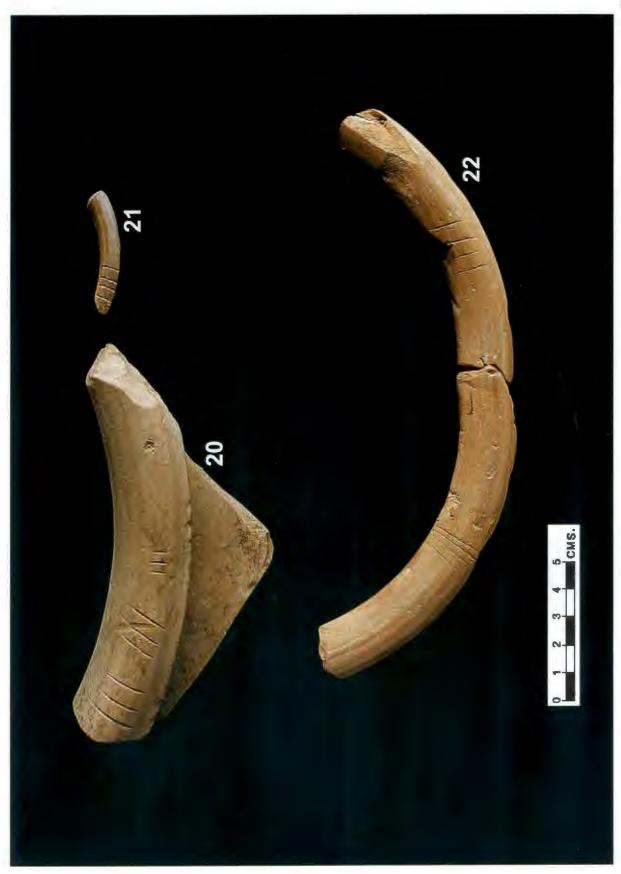


Fig. 9.124

24. (Fig. 9.125, No. 24). There is a group of four strokes, to the left of which are seen two large oblique lines (one clear and the other damaged). On the rim of a jar of sturdy red ware.

KLB-2, Sq. XB1. From a late level of Period II. Reg. No. 21640.

25. (Fig. 9.126, No. 25). There are four parallel almost vertical lines which are capped by an arch-like line (indistinct). On the inner side of the rim of what may have been the upper part of a dish-on-stand or a bowl, of well-fired red ware.

KLB, Surface. Reg. No. 21577.

26. (Fig. 9.126, No. 26). There are four parallel lines. However, these are not straight, but make parallel curves. On the inner side of a pot, near the rim. Red ware, well-fired.

KLB-2, Sq. XB1. From a late level of Period II. Reg. No. 21574.

27. (Fig. 9.126, No. 27). There seem to be two signs. The one on the right appears to comprise four strokes in the lower part of which the left three are joined by three oblique strokes at the top. The sign on the left consists of two vertical strokes. On the shoulder of a ledged handi of red ware, of which the lower part has a buffish slip.

KLB, Surface. Reg. No. 21647.

28. (Fig. 9.127, No. 28). There are five parallel vertical lines (M-List No. 96). On the rim of a jar of red ware, thick-sectioned, well-fired.

KLB-2, Unstratified. Reg. No. 21641.

29. (Fig. 9.127, No. 29). There are five long, obliquely placed lines tending to coverage, but not joining one another. On

the exterior of a jar of red ware, thicksectioned, well-fired.

KLB-1, Sq. ZB12. From a late level of Period II. Reg. No. 21575.

30. (Fig. 9.127, No. 30). There are twelve parallel lines, of which the one on the extreme left is damaged. On the rim of a pot (which may have been a basin) of red ware, thick-sectioned, well-fired.

KLB-2, Sq. ZC18. From late level of Period II. Reg. No. 21656.

31. (Fig. 9.128, No. 31). The sign is similar to M-List No. 225. On the disc-base of a pot of red ware, medium-sectioned, well- fired.

KLB-2, Sq. D5. From a late level of Period II. Reg. No. 21755.

32. (Fig. 9.128, No. 32). Though damaged, the sign may have belonged to the category of No. 31. On the exterior of a pot of sturdy red ware.

KLB-1, Sq. ZB8. From a late level of Period II. Reg. No. 21532.

33. (Fig. 9.128, No. 33). Again, damaged, but seems to have belonged to the above-mentioned category. On the exterior of a pot of red ware, thinsectioned, well-fired.

KLB-2, Sq. XC8. From a late level of Period II. Reg. No. 21696.

34. (Fig. 9.128, No. 34). Broken, but may have belonged to the foregoing category. On the exterior of a jar of sturdy red ware, thick-sectioned, well-fired.

KLB-2, Sq. XA4. From a late level of Period II. Reg. No. 21534.

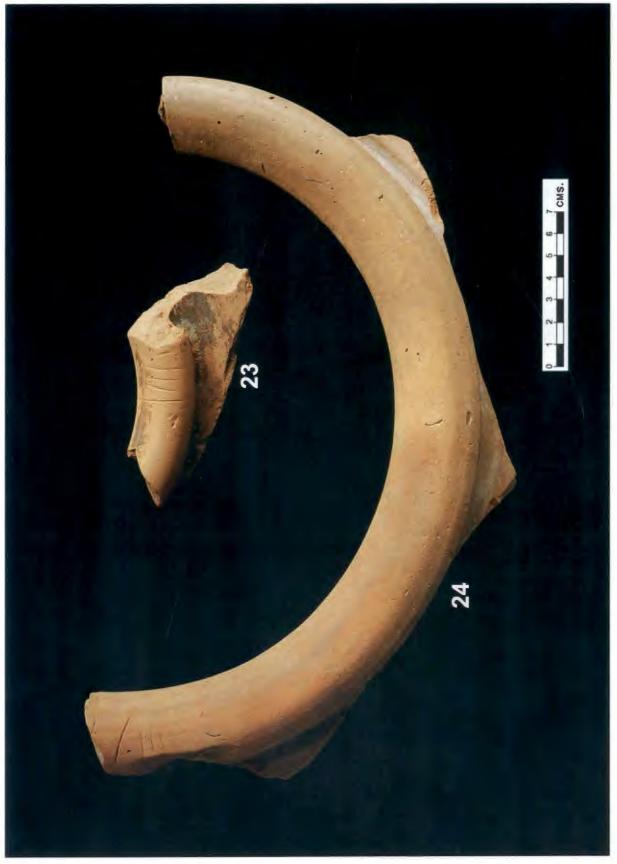


Fig. 9.125



Fig. 9.126







Fig. 9.128



- **35.** (Fig. 9.128, No. 35). This too may have belonged to the foregoing category. On the exterior of a medium-sized pot which has turned greyish because of inadequate firing.
- KLB-2, Sq. XC8. From a late level of Period II. Reg. No. 21756.
- **36.** (Fig. 9.129, No.36). Sign similar to M-List No. 214, on the shoulder of a pot of red ware, with buffish slip, medium sectioned, not so well-fired.
- KLB-1, Sq. YA16. From a late level of Period II. Reg. No. 21530.
- **37.** (Fig. 9.129, No. 37). Similar to No. 36. On the exterior of a jar of red ware, thick-sectioned, well- fired.
- KLB-2, Sq. XA1. From an early level of Period II. Reg. No. 21695.
- **38.** (Fig. 9.129, No. 38). Sign similar to No. 36, but with an addition of two strokes at one of the corners. On the rim of a pot of red ware, medium-sectioned, well-fired.
- KLB-2, Sq. E7. From a late level of Period II. Reg. No. 10994.
- **39.** (Fig. 9.129, No. 39). Two conjoined signs of the type shown in No. 36. On the exterior of a red ware pot, thin-sectioned, well-fired.
- KLB-1, Sq. XF1. From a late level of Period II. Reg. No. 21672.
- **40.** (Fig. 9.129, No. 40). Not definite, but may belong to the category of No. 36. On the shoulder of a sturdy jar of red ware.
- KLB-1, Sq. ZF10. From a late level of Period II. Reg. No. 13059.

- **41.** (Fig. 9.130, No. 41). A trident, similar to Variant No. 1361 of No. 162 of M-List. On the interior of a rim of red ware, painted with a black band.
- KLB-2, Sq. E8. From a late level of Period II. Reg. No.8483.
- **42.** (Fig. 9.130, No. 42). Trident, similar to No. 41. On the rim of a red ware, medium thickness, well-fired. The medial line is rather too long.
 - KLB, Surface. Reg. No. 21610.
- **43.** (Fig. 9.130, No. 43). Belonging to the same category as Nos. 41 and 42, but the medial line is rather short. On the exterior of a pot of red ware, medium thickness, well-fired.
- KLB-1, Sq. YF8. From a late level of Period II. Reg. No. 21521.
- **44.** (Fig. 9.130, No. 44). Belonging to the same category as Nos. 41-42. However, the medial line is rather short. On the inner side of the rim of a pot of red ware, medium thickness, well fired.
- KLB-2, Sq. XC9. From a late level of Period II. Reg. No. 14513.
- **45.** (Fig. 9.130, No. 45). Though the lower part is damaged, the sign may have belonged to the same category as Nos. 41-42. On the exterior of a pot of red ware with a buffish slip.
- KLB-2, Sq. XA10. From a middle level of Period II. Reg. No. 21646.
- **46.** (Fig. 9.131, No. 46). Belongs to the foregoing category. The pot is thick-sectioned and well-fired.
- KLB-1. Sq B2. From an early level of Period II. Reg. No. 21611.



Fig. 9.130

47. (Fig. 9.132, No. 47). Trident, with an extra stroke on the right side. Or maybe a tree (?). On the shoulder of a pot of red ware; medium thickness, well-fired, painted on the exterior in black colour.

KLB, Surface. Reg. No. 21529.

48. (Fig. 9.132, No. 48). The sign has five oblique strokes on the right and four on the left. Thus, it is roughly comparable to variant No. 8201 of No. 167 of M-List.

KLB-1, Sq. ZC2. From a middle level of Period II. Reg. No. 21519.

49. (Fig. 9.132, No. 49). In this case the oblique strokes are going downwards, thus looking like a stylized coniferous tree, though the lower part (trunk) is missing. On the exterior of a pot of red ware, medium-sectioned, well-fired.

KLB-2, Sq. XH12, Surface. Reg. No. 21512.

50. (Fig. 9.133, No. 50). This could be an 'arrow' with a short 'tang' or, if viewed the other way about, it could be a sign similar to No. 365 of M-List. On the rim of a pot of red ware, medium thickness, well- fired.

KLB-2, Sq. XA9. From an early level of Period II. Reg. No. 21757.

51. (Fig. 9.133, No. 51). Similar to No. 50. On the inner side of the rim of a pot of red ware; medium thickness, well-fired; a black band along the rim.

KLB-2, Sq. B8. From a late level of Period II. Reg. No. 21758.

52. (Fig. 9.133, No. 52). Besides two deep strokes, two thin strokes are also there, which can be seen only in proper light. The sign may belong to the foregoing category, or may represent an angle (cf.

M-List No. 134) with extra strokes. On the interior of the rim of a pot of red ware, medium thickness, well-fired.

KLB-1, Sq. XB4. From a late level of Period II. Reg. No. 16191.

53. (Fig. 9.133, No. 53). Though the apex is damaged, the sign may have formed an acute angle, as in No. 134 of M-List. On the exterior of a potsherd of red ware, well- fired.

KLB-2, Sq. XA10. From a late level of Period II. Reg. No. 14199.

54. (Fig. 9.133, No. 54). Two acute angles with apex upwards, drawn side by side. This may fall in the category of either No. 134 (duplicated) or of No. 132 of the Sign List of Mahadevan. On the exterior of a pot of red ware, thin-sectioned, well-fired.

KLB-2, Sq XA9. From an early of Period II. Reg. No. 21759.

55. (Fig. 9.134, No. 55). In this case there are three angles, side by side. If viewed the other way round, it may fall in the category of M-List No. 132.On the inner side of the rim of a pot of red ware; medium thickness, well-fired.

KLB, Surface. Reg. No. 21760.

56. (Fig. 9.134, No. 56). Two adjacent rectangles, each one being 'hatched' by a series of transverse strokes. Cf. Variant No. 1242 of M-List No. 245. On the exterior of a pot of red ware, medium thickness, well- fired.

KLB-2, Sq. XA10. From a late level of Period II. Reg. No. 14196.

57. (Fig. 9.134, No. 57). In this sign double lines have been used. One set intersects another, towards the top, at



Fig. 9.131



Fig. 9.132



Fig. 9.133

an acute/obtuse angle. Further, from the top there emerge oblique strokes. On the shoulder of a pot of red ware, medium thickness, well-fired, reddish brown slip.

KLB-1, Sq. YC7. From a late level of Period II. Reg. No. 16583.

58. (Fig. 9.134, No. 58). This is another sign with the doubling of the lines. Broken, but may have been similar to No. 135 of M-List. On the exterior of a sherd of reddish grey core and blackish brown slip.

KLB-1, Sq. XC1. From a late level of Period II. Reg. No. 21761.

59. (Fig. 9.135, No. 59). There are three signs, close to one another, on the rim of a jar of red ware (sturdy and well-fired). Since the part concerned of the rim has flaked off, it is difficult to say whether the signs were 'closed' at both the ends. If there was a closure at both the ends, then the signs would fall in the category of ovals (cf. Variant No. 4379 of No. 373 of M-List).

KLB-1, Sq. ZD3. From a late level of Period II. Reg. No. 21612.

60. (Fig. 9.135, No. 60). Since the lower part of the sign is damaged, it is difficult to be sure of its full identity. If a guess has to be hazarded, it may represent two ovals one below the other, as in M-List No. 410. In the alternative, it may represent a 'fish', without the fins. On the exterior of a pot of red ware, medium thickness, well fired.

KLB, Surface. Reg. No. 833.

61. (Fig. 9.136, No. 61). The lower part of the sign is damaged, but it would appear to belong to the category of U or V-sign, like No. 328 of M-List. Within the upper part of it, there is another sign, similar to

M-List No. 125. Thus, the sign would represent a combination of two signs, like many other combinations in the Harappan script. On the shoulder of a thick and well-fired jar of red ware.

KLB-1, Sq. ZD3, Unstratified. Reg. No. 21508.

62. (Fig. 9.136, No. 62). Similar to No. 61. Again, on the shoulder of a jar of sturdy red ware.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21507.

63. (Fig. 9.137, No. 63). Though parts of the sign are eroded, it seems to follow the pattern of No. 61 above. On the exterior of a jar of sturdy red ware.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21543.

64. (Fig. 9.137, No. 64). There are three signs. Beginning from the right, these are: a lozenge (M-List No. 261); an oblique stroke (Variant No. 1385 of M-List No. 86); and a sign similar to our Nos. 61-62 above. On the shoulder of a small pot of red ware.

KLB-1, Surface. Reg. No. 21762.

65. (Fig. 9.137, No. 65). The four lines of the sign form a lozenge (cf. M-List No. 261). On the exterior of a potsherd of red ware, well-fired.

KLB, Surface. Reg. No. 21763.

66. (Fig. 9.138, No. 66). Two signs. That on the right is similar to No. 130 of M-List. On the left is a lozenge, the lower left arm of which is cut by a stroke, comparable to M-List No. 263 in which, however, the stroke cuts the lower right arm. On the exterior of a pot of sturdy red ware.



Fig. 9.134

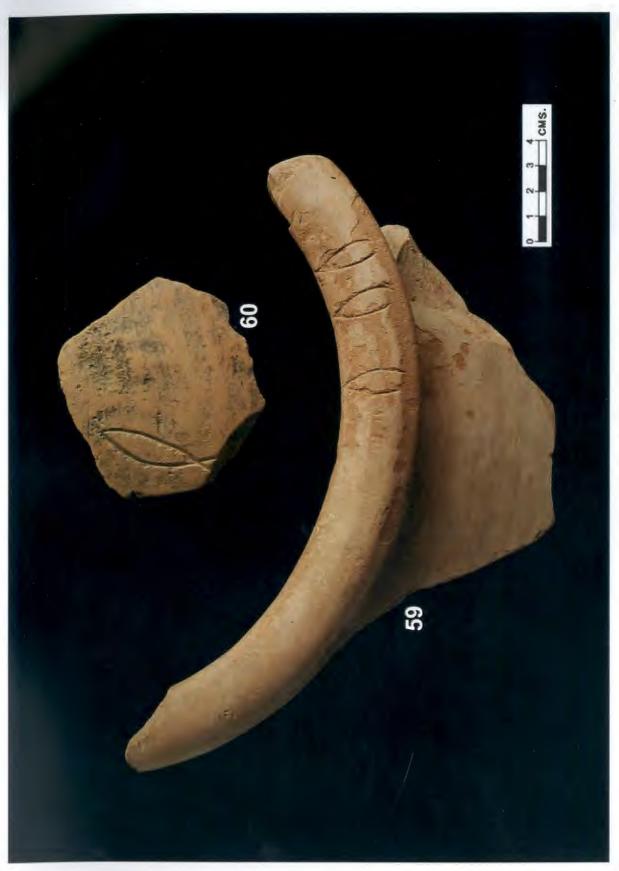


Fig. 9.135



Fig. 9.136





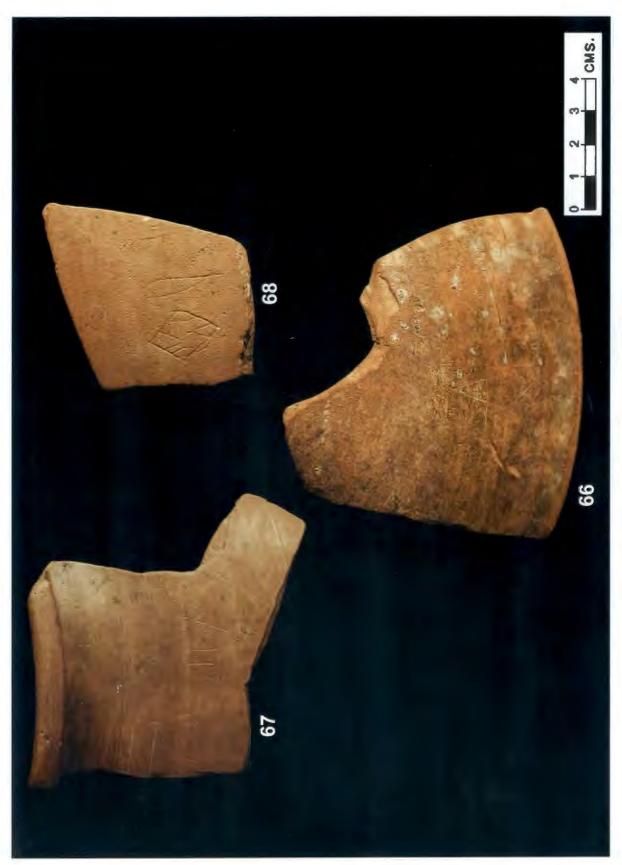


Fig. 9.138

KLB-1, Sq. B1. From a middle level of Period II. Reg. No. 21558.

67. (Fig. 9.138, No. 67). Four signs. From the right: a lozenge with a small apex-down angle attached to the interior of the upper corner of the lozenge (cf. M-List No. 267). This is followed by two strokes which may go with the lozenge. Next is a 'plus' like sign, after which at the end is a very faint V-like sign with outwards strokes attached to the upper end of the V. On the shoulder of a jar of sturdy red ware.

KLB-1, Sq. ZB8. From an early level of Period II. Reg. No. 15197.

68. (Fig. 9.138, No.68). It is a broken potsherd. Thus, it is not clear as to how many signs were there altogether. However, one now sees three signs. That on the right consists of a group of five vertical lines, though faint. The middle one may have been a 'V' sign. That on the left is a lozenge with angles affixed to all the four inner corners (cf. M-List No. 284). On the exterior of a pot of red ware.

KLB 1, Sq. ZA1, Unstratified. Reg. No. 7146.

69. (Fig. 9.139, No. 69). Sign similar to Variant No. 1018 of No. 17 of M-List. It falls in the general category of the human sign, with an addition in the upper part. On the exterior of a pot of well-fired red ware with buffish slip.

KLB-1, Sq. ZB8. From a middle level of Period II. Reg. No. 21605.

70. (Fig. 9.139, No. 70). Four signs. From the right, a sign similar to No. 69 above, followed by five vertical lines (M-List No. 96). Thereafter is the 'arc'-part of some sign (damaged). Finally, the U-like sign with the usual oblique strokes (M-List No. 342).

KLB-1, Sq. ZB8. From an early level of Period II. Reg. No. 15200.

71. (Fig. 9.139, No. 71). Damaged. While the first sign on the right cannot be clearly made out, the second may have been a 'lozenge' with a small arc joining the interior of the left-hand corner of the lozenge. The middle sign is similar to No. 69 above. That on the left, though damaged, seems to have been similar to No. 48 of M-List.

KLB, Surface. Reg. No. 21595.

72. (Fig. 9.139, No. 72). There are five signs. The first sign on the right consists of an oval, the interior of which is divided by one vertical line and two criss-cross oblique lines (similar to M-List No. 391). This is followed by two strokes, which may go with the oval sign. The next sign may fall in the category of variants of Sign No. 162 or 169 of M-List. The two further signs on the left are damaged. However, if a guess is to be hazarded, the first one may have been an oval with an angular attachment at the upper corner, while the last may have been a V-like sign or a repetition of the previous one. On the exterior of a pot of well-fired red ware with brownish red slip and painted with black bands.

KLB-2, Sq. D7. From a late level of Period II. Reg. No. 21593.

73. (Fig. 9.140, No. 73). There are three signs. On the right are two vertical parallel lines. In the middle is a curved line, suggesting that there may have been an 'arc'. At the left-end is an oval the inner space of which is divided by one vertical and two transverse lines passing through the centre. This last-named sign also occurs on No. 72 above and, as already mentioned, is similar to No. 391 of M-List. On the shoulder of a jar of sturdy



Fig. 9.139

red ware. As may be seen from the illustration, there are two parts of the pot which were found separately.

The provenance of that on the right is KLB-2, Sq. ZC13, while the left one was found in KLB-2, Sq. ZC17. They both belong to a late level of Period II. The Reg. Nos. are 21672 and 21616 respectively.

- **74.** (Fig. 9.140, No. 74). There are two signs. That on the left, though damaged, seems to have been an oval with criss-cross lines. On the right seems be a part of a lozenge, cross-hatched by two sets of parallel lines running in diagonally opposite directions. On the shoulder of a pot of sturdy red ware with reddish brown slip.
- KLB-2, Sq. ZK1. From a late level of Period II. Reg. No. 21591.
- **75.** (Fig. 9.141, No. 75). The U-like sign with oblique strokes at the top (M-List No. 342). The pot is broken, but it is not unlikely that there were other signs on the right, since this particular sign usually (though not invariably) occurs at the end of an inscription. On the exterior of a pot of red ware, medium thickness, well-fired.
- KLB-2, Sq. XA10. From a late level of Period II. Reg. No. 14195.
- **76.** (Fig. 9.141, No. 76). V-like sign with strokes, though the relevant left-hand part is damaged. This sign, usually occurring at the end of an inscription may sometimes occur by itself. On the exterior of a pot (basin?) of sturdy red ware with a buffish slip.
- KLB-1, Sq. XD4. From a middle level of Period II. Reg. No. 21596.
- **77.** (Fig. 9.141, No. 77). Seems be the usual U-sign with strokes. Also seen are

two horizontal lines at the top, which is an unusual feature. However, it is equally likely that these lines were not deliberately inscribed (since they have very little depth) and may be the result of the flaking of the slip.

- KLB-1, Sq. ZA8. From a late level of Period II. Reg. No. 14963.
- **78.** (Fig. 9.142, No. 78). V-sign with attached strokes, though the upper left part is damaged. On the exterior of a pot (dish-on-stand) of sturdy red ware.
- KLB-1, Sq. ZK12. From a late level of Period II. Reg. No. 21525.
- **79.** (Fig. 9.142, No. 79). V-sign with attached strokes. However, there are three additional vertical strokes within the upper part of the V (M-List No. 345). On the exterior of a pot of red ware, though due to inadequate firing the exterior has turned buffish.
- KLB-1, Sq. ZB10. From a late level of Period II. Reg. No. 21688.
- **80.** (Fig. 9.142, No. 80). There are three signs. The two on the right appear to be duplication of the V-sign with strokes, though in the case of the extreme right sign the right end is missing and in the case of the sign on the left the right-hand upper strokes are drawn towards the interior (an unusual feature). The left-most sign, though damaged, consists of three strokes in the upper row and four in the lower. However, joining the lower row at the base is yet another, horizontal, stroke (cf. M-List sign No. 189). On the exterior of a pot of red ware.
- KLB-1, Sq. YC8. From a middle level of Period II. Reg. No. 14962.



Fig. 9.140







81. (Fig. 9.142, No. 81). There are two signs, the one on the right being smaller than the other. The former (i.e. the right one) seems to be in the form of an acute angle with apex upward, though the right-hand line is faint. That on the left seems to be a part of the U-sign of which only the right-hand (two) strokes have survived. On the exterior of a pot (probably the stem of a dish-on-stand) of sturdy red ware.

KLB-2, Sq. B6. From a late level of Period II. Reg. No. 21599.

82. (Fig. 9.143, No. 82). Three signs. That on the extreme right is highly cannot and hence damaged satisfactorily identified. The middle one is a vertically placed rectangle hatched with transverse oblique strokes which too are cut by a long oblique line drawn diagonally from the upper left corner of the rectangle and going towards the lower right corner. (cf. Variant No. 8204 of M-List No. 245). On the left is the usual Vsign with strokes. On the shoulder of a pot of red ware, medium thickness, wellfired.

KLB-1 and 2, Surface. Reg. No. 21721.

83. (Fig. 9.143, No. 83). Two signs, of which that on the right is highly damaged hence difficult to identify. The one on the left is the usual U-sign with strokes. On the shoulder of a pot of red ware.

KLB-1, Sq. ZC8. From a middle level of Period II. Reg. No. 21685.

84. (Fig. 9.143, No. 84). Two signs. While the one on the left is the usual V-sign with strokes, that on the right seems to be similar to No. 319 of M-List, though in this latter case the incurved part is on the left. However, since the lower left part of our sign is

damaged, it may well have had another in-curve at the lower end, in which case the sign would be similar to No. 321 of M-List. On the exterior of a pot of sturdy red ware.

KLB, Surface, Reg. No. 21701.

85. (Fig. 9.143, No. 85). Two signs. On the left is the usual U-sign with strokes. That on the right is damaged, but may have been a part of what is seen in the middle of item No. 86 below. (cf. also No. 48 of M-List). On the exterior of a pot of sturdy red ware with reddish brown slip and a band in black.

KLB-1 and 2, Surface. Reg. No. 21709.

86. (Fig. 9.144, No. 86). There are three extant signs. One does not know if there were more on the right part which is damaged. A close look at the signs shows that the left-hand fin of the fish-sign on the extreme right is overridden by the oblique strokes of the next sign on the left. This feature, however, is partly obliterated by the breakage-line of the potsherd. Anyway, the lower end of the I-like sign (in its script-form) is overridden by the righthand lower end of the next sign forming an 'angle' with the apex at the top. The left-hand lower end of this 'angle' is, in turn, overridden by the right-hand vertical line of the following V-sign. Finally, the lower left-hand oblique stroke emanating from the top of the V runs on and on, indicating that this was the end of the inscription. Thus, the overlap of the signs duly establishes that the direction of writing in the Harappan script was from the right to the left, there, however, being a few exceptions here and there. On the shoulder of a pot of red ware with a weak reddish brown slip.



Fig. 9.143

KLB-1 and 2, Surface. Reg. No. 21702.

87. (Fig. 9.145, No.87). Three signs. The middle one is the usual V-sign with strokes, with additional three vertical strokes within the upper part of the V(cf. No. 79 above). The sign on the right is a small-sized oval, while that on the left is again an oval but with an oblique stroke jutting out from the left-hand arc. On the exterior of a part of sturdy red ware.

KLB-2, Sq. ZC9. From a late level of Period II. Reg. No. 21603.

88. (Fig. 9.146, No. 88). There are three signs. That on the right consists of twelve vertical strokes in three rows of four each, laid out one below the other (cf. M-List No. 121). The middle sign is the usual V with strokes. That on the left is damaged, but it consists of an oblique line with a series of strokes on the right, of which only six are available (Variants cf. No. 8208 of M-List No. 176). On the exterior of a basin of sturdy red ware, with reddish brown slip and a series of painted bands.

KLB-2, Surface. Reg. No. 21720.

89. (Fig. 9.147, No. 89). The signs are incomplete, because the pot is damaged. However, one may note parts of two vertical lines on the extreme right, though these are not close to each other. The next sign on the left seems to be the usual V-sign with external oblique strokes of which those on the left are distinct while the right ones are not so. In the upper part of the V, there are three small vertical strokes, though these are very faint. Further to the left is an arrow-like sign, though the left component is very faint. At the extreme left is again the V-sign of which only one oblique stroke, each on the right and left is clear. On the exterior of a pot of sturdy red ware. On the inner side of the pot are pre-firing, deeply incised, criss-cross lines (not illustrated here).

KLB-1, Sq. ZE8. From a late level of Period II. Reg. 21584.

90. (Fig. 9.145, No. 90). There are three signs on the rim of a pot of red ware with buffish slip. The sign on the extreme left is the usual V-sign with two strokes on each side of the upper end (M-List No. 342). The middle sign consists of two juxtaposed vertical ovals (cf. Variant 5103 of M-List No. 403). The sign on the extreme right presents an enigma. If it is taken to have been incised in a slanting fashion, it may resemble Sign No. 171 of the M-List.

KLB-2, Sq XA4. From a late level of Period II. Reg. No. 21655.

91. (Fig. 9.148, No. 91). There are two clear signs, with indications of a third one on the extreme right where the potsherd is broken. On the shoulder of a pot of red ware, well-fired. The damaged sign on the extreme right seems to have been the fish-sign. That in the middle consists of a long medial horizontal line above which there are four vertical lines and below it, two comparatively longer vertical lines (M-List No. 174). The sign on the extreme left is the usual V-sign with strokes (M-List No. 342). It is interesting to note that the long horizontal line of the middle sign is cut by the right-hand vertical line of the V-sign, showing that the latter was inscribed after the middle one. This once again confirms that the direction of writing was from right to left.

KLB-1, Sq. YA2. From a late level of Period II. Reg. No. 21699.



Fig. 9.144

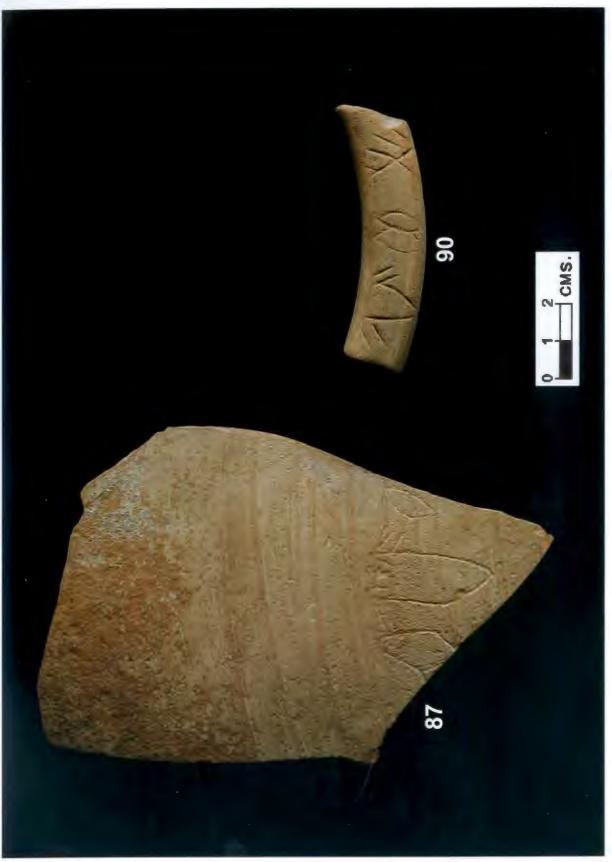


Fig 9 14



Fig. 9.146



Fig. 9.147



Fig. 9.148

92. (Fig. 9.149, Nos. 92 a, b and c). This is the only complete pot bearing an inscription. Storage jar (in situ) of sturdy red ware, slipped and painted. On the rim there are two parallel lines (view b). Besides, there is a three-sign inscription on the shoulder (views a and c). It consists of a V-sign on the right. The middle sign comprises an oval with two attached angles, one at the upper level and the other at the lower (M-List No. 53). The extreme left sign is the usual V with attached strokes.

KLB-1, Sq. ZC12. From a late level of Period II. Reg. No. 21506.

93. (Fig. 9.150, No. 93). On a broken potsherd of well-fired red ware there are indications of three signs. Of the one on the extreme right only a curved vertical line is available. Though damaged at the upper left end, the middle sign seems to have been the usual V with strokes. The sign on the extreme left is one of the variants of M-List No. 176. In it one may noticed at least nine oblique strokes.

KLB-2, Surface. Reg. No. 21716.

94. (Fig. 9.150, No. 94). On a potsherd of thick greyish-red ware, three signs are traceable. While the one on the extreme right is difficult to identify, that in the middle is the V-sign with strokes. The sign on the extreme left belongs to the category of M-List No. 176, the oblique series consisting of eight strokes.

KLB-2, Sq. J7. From a late level of Period II. Reg. No. 21602.

95. (Fig. 9.151, No. 95). On the exterior of a jar of well-fired red ware, four signs may be seen. Though highly damaged, the sign on the extreme right seems to be similar to M-List No. 249. The next sign on the left falls in the an extra line. The last sign seems to be

category of M-List No. 167, but with the 'twigs' numbering four on each side of the vertical 'trunk'. This is followed, on the left, by the usual V-sign with strokes. The last sign, once again, follows the pattern of examples Nos. 93-94 above.

KLB-1, Sq. ZA2. From a late level of Period II. Found in two pieces and registered as Nos. 21528 and 21711.

96. (Fig. 9.152, No. 96). On the exterior of a sherd of red ware. The sign is difficult to identify. However, what may be seen are: an outline of a carinated 'vase' and an 'angle' within its upper part.

KLB-1 and 2, Surface. Reg. No. 21722.

97. (Fig. 9.153, No. 97). On the exterior of a part of a jar of sturdy red ware, slipped and painted, three signs may be seen. If there were originally more signs on each side one cannot say. Anyway, that on the extreme right is similar to M-List No. 216, though the lower right-hand part is damaged. The middle sign consists of three strokes, one vertical each in the upper and lower parts and an oblique one in the middle. The sign on the left is a fish capped by an apex-up angle (cf. M-List No. 65).

KLB-2, Sq. D5. From a late level of Period II. Reg. No. 13000.

98. (Fig. 9.154, No. 98). Since the pot is broken, it is uncertain how many signs were there in all. One may, however, see on the extreme right a portion of a faint curved line which may have constituted a part of some sign. A little away to the left is a large-sized oval (M-List No. 373). Then there is a human figure with upraised arms holding a horizontal rod (cf. M-List No. 10). Attached to the legs, one also notes

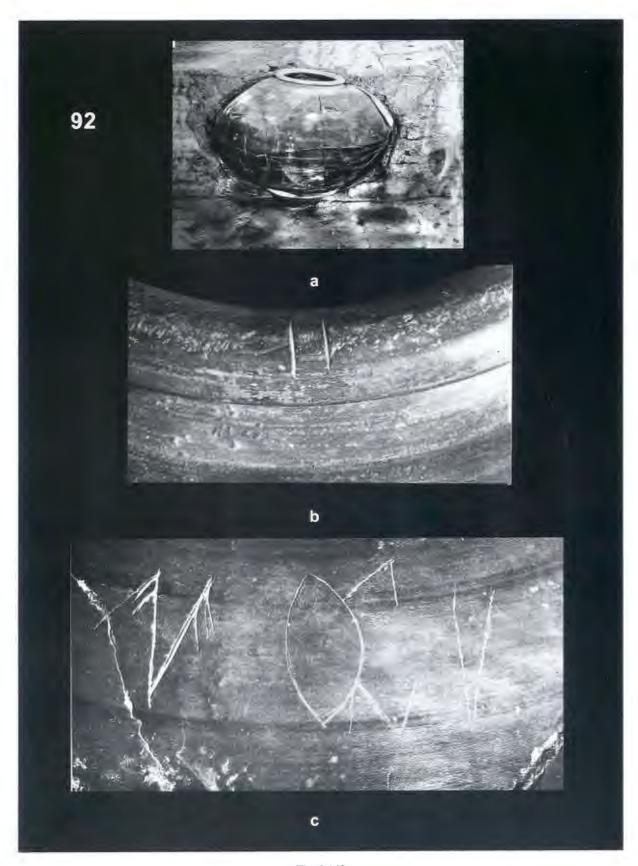


Fig. 9.149





Fig. 9.151



Fig. 9.152





that of the fish. Above these signs, on the extreme right, there also appears a horizontally placed V-like sign, though faint and damaged. On the shoulder of a jar of red ware, well-fired and of medium thickness.

KLB, Surface. Reg. No. 21697.

99. (Fig. 9.152, No. 99). On a small sherd of thin red ware may be seen (on the left) a part of a sign which may have been a stylized human figure with a stick (cf. M-List No. 25?). Any guess about the remnant of the sign on the right would be futile.

KLB-1, Sq. YF2. From a late level of Period II. Reg. No. 21667.

100. (Fig. 9.152, No. 100). On a broken potsherd of thick red ware, there are three signs, of which the right one consists of two vertical strokes at the upper level (M-List No. 99). That in the middle is a 'fish' sign with a small stroke within the belly (M-List No. 70). The broken sign on the extreme left may have been a large oval.

KLB, Surface. Reg. No. 21595.

101. (Fig. 9.155, No. 101). On the rim of a pot of sturdy red ware, there are three signs, of which that on the right is a fish. The middle one, though somewhat indistinct, also seems to have been a fish. On the left is a single vertical line.

KLB-1, Sq. ZF9. From a late level of Period II. Reg. No. 21658.

102. (Fig. 9.155, No. 102). Broken. However, three signs may be noted. That on the right may have been a small-sized oval (M-List No. 374). The middle one is a fish, while of the extreme left sign only a curved line remains. On the exterior of a pot of red ware, well-fired and slipped.

KLB-1, Sq. YA8. From a middle level of Period II. Reg. No. 21601.

103. (Fig. 9.155, No. 103). Three signs are extant, of which that on the extreme left seems to be the V-sign with oblique strokes at the top. The middle sign may have been a fish. In between it and that on the right there two oblique strokes whose association is not clear. The sign on the extreme right has an oval as its basic form. However, the left hand arc goes lower than its conjunction with Secondly, an the right-hand arc. oblique stroke is attached to it on the left. Further, within the oval may be seen three somewhat vertical strokes. On the exterior of a pot of red ware, sturdy and well-fired, with a slip and black painted bands.

KLB-2, Sq. Y8. From a late level of Period II. Reg. No. 21592.

104. (Fig. 9.156, No. 104). Three signs are extant, of which that on the right seems to have been a 'fish' sign with four strokes, two in the upper part and two in the lower (M-List No. 67). There is, however, one more stroke on the upper right-hand side. The exact identification of the middle sign is difficult, but one may note a series of eight near-vertical strokes cut by an oblique line. There is also a long loop above it and a horizontal line going leftward. Of the sign on the extreme left only the uppermost part remains, which shows a vertical line and two short oblique strokes emanating from it, suggesting that it may have been the Vsign with strokes. On the exterior of a jar of sturdy red ware, well-fired, slipped and painted with black bands.

KLB-2. Sq. XA9. From a late level of Period II. Reg. No. 21694.









ig. 9.15(

105. (Fig. 9.156, No. 105). There seem to be three signs, of which the right one is difficult to identify. The middle one seems to have been the 'fish' sign with a vertical stroke within the belly (cf. M-List No. 70). That on the extreme left may have been the V-sign. On the exterior of a pot of red ware.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21604.

106. (Fig. 9.156, No. 106). Traces of two signs. That on the right may have belonged to the category of M-List No. 176 along with its variants. Of the other, only a curved vertical line may be seen. On the exterior of a pot of red ware.

KLB-2, Baulk between Sqs. XA7 and XA8. Unstratified. Reg. No. 21764.

107. (Fig. 9.157, No. 107). It is difficult to identify the sign, beyond stating that it consists of vertical or slightly oblique lines. On the exterior of a pot of red ware.

KLB-1 and 2, Surface. Reg. No. 21719.

108. (Fig. 9.157, No. 108). Damaged. However, on the extreme right there seems to have been a sign similar to M-List Nos. 216 or 225. There is, however, a stroke within the 'triangle' and to the left of this sign there are two vertical strokes. There is one more sign on the left, which, however, is indistinct.

KLB-1 and 2, Surface. Reg. No. 831.

109. (Fig. 9.157, No. 109). The sign is damaged, but may have been similar to M-List No. 47.

KLB - 1 and 2, Surface, Reg. No. 21770.

110. (Fig. 9.157, No. 110). Three signs may be noted. Of these, that on

the right appears to be an oval (or a lozenge?) with a small stroke inside (cf. M-List No. 375). The middle one consists of an X-like sign with three more lines in the lower part and two in the upper (cf. Variant 7094 of M-List No. 141). The sign on the left comprises five near-vertical lines. On the exterior of a pot of red ware, medium thickness, well-fired.

KLB-1, Sq. YB4, Unstratified. Reg. No. 21684.

111. (Fig. 9.158, No. 111). In this case the signs are on the interior, suggesting that this part was visible, as in the case of a basin or large bowl. The incisions are somewhat deep and consist of many lines, sometimes cutting one another. Red ware, medium section, well-fired.

KLB, Surface. Reg. No. 21765.

112. (Fig. 9.158, No. 112). Three signs are extant; two in one group and a third separated, a little away on the left. Of the first two signs, that on the right consists of an acute angle with the apex upwards. Within this angle are two further lines going downwards (Mahadevan does not list such a variant of the angle-sign). Of the other sign, only an oblique line may be seen. The third sign consists of four strokes. On the exterior of a jar of red ware, medium thickness, well-fired.

KLB-1, Sq. ZC3. From an early level of Period II. Reg. No. 21608.

113. (Fig. 9.158, No. 113). On the exterior of a potsherd of red ware there are two signs. That on the right resembles an acute angle with apex upwards (cf. M-List No. 134). The left-hand sign resembles a trident (cf. M-List No. 162). The vertical line of the trident is also cut lower down



Fig. 9.15



ig. 9.158





by a horizontal line, but what else was there cannot be said.

- KLB-2, Sq. XG3. From a late level of Period II. Reg. No. 21609.
- **114.** (Fig. 9.158, No. 114). Two signs, both resembling an acute angle with apex upwards (cf. M-List No. 134). On the exterior of a pot of red ware, thin section, well-fired.
- KLB-1, Sq. YF1. From a late level of Period II. Reg. No. 21683.
- 115. (Fig. 9.159, No. 115). On the rim of a pot of red ware, there are four or five signs, somewhat indifferently incised. One may, however, recognize, in the middle, a sign similar to M-List No. 125 and at the extreme left the acute-angle sign similar to M-List No. 134. On the rim of a red ware pot.
- KLB-1, Sq. ZA8. From a late level of Period II. Reg. No. 14581.
- 116. (Fig. 9.159, No. 116). There seem to be three signs, the first two of which, from the right, consist of vertical lines and strokes, but their complete shape cannot be made out. The one on the left, though damaged at the bottom, seems to be similar to Variant No. 2103 or 2661 of M-List No. 201. On the shoulder of a jar of sturdy red ware.
- KLB-2, Sq. ZA2. From a late level of Period II. Reg. No. 21648.
- **117.** (Fig. 9.160, No. 117). A little above the base of a goblet of red ware with a buffish slip, there are two signs. The sign on the left seems to be a composite one, formed by a human figure holding the horizontal rod of an equipoise (the bag, however, being unclear). On the top is the V-sign with strokes. To the right

of this composite sign are three vertical strokes.

- KLB-2, Sq. XA14. From a late level of Period II. Reg. No. 21559.
- 118. (Fig. 9.161, No. 118). There are two chevron-like signs, suggesting that it may have been like Variant No. 1711 of M-List No. 296 (but with open ends.). Below, there is also a curved line. On the exterior of a sherd of red ware.
- KLB-1, Sq. YF1. From a late level of Period II. Reg. No. 21766.
- 119. (Fig. 9.161, No. 119). On the exterior of a jar of red ware there is a design which cannot be duly identified. However, it consists of a series of double or triple lines, placed either vertically or obliquely. In the central part there are two parallel vertical lines, from the top of which emanate a set of two oblique lines on each side. All these lines, put together, produce the effect of a human figure with upraised hands, though admittedly this identification is somewhat subjective.
- KLB-2, Sq. B6. From a late level of Period II. Reg. No. 13343.
- **120.** (Fig. 9.161, No. 120). On the rim of a basin of sturdy red ware there are three parallel vertical lines, on each side of which there are three parallel oblique lines.
- KLB-2, Sq. E5. From a late level of Period II. Reg. No. 10995.
- **121.** (Fig. 9.162, No. 121). On the exterior of a latticed pot (?) of sturdy red ware, there is a D-Like sign (cf. M-List No. 304).
- KLB-1, Sq. ZD3. From a late level of Period II. Reg. No. 21585.



Fig. 9.160

Fig. 9.16



Fig. 9.162

- 122. (Fig. 9.163, No. 122). On the exterior of a pot of red ware with buffish slip there is a damaged bow-and-arrow sign (somewhat similar to M-List No. 307).
- KLB-2, Sq. A11. From a late level of Period II. Reg. No. 13352.
- 123. (Fig. 9.163, No. 123). On the exterior of a pot of sturdy red ware there are the remains of three signs, of which only the middle one can be identified. It is like M-List No. 47.

KLB-1, Surface. Reg. No. 877.

- 124. (Fig. 9.163, No. 124). On the exterior of a pot of sturdy red ware, there are perhaps two signs, the identity of which cannot be satisfactorily established.
- KLB-2, Sq. H8. From a late level of Period II. Reg. No. 14961.
- **125.** (Fig. 9.163, No. 125). On the exterior of a pot of red ware, there are two signs. That on the right consists of three parallel vertical strokes (M-List No. 102). That on the left is somewhat similar to M-List No. 169.

KLB-2, Surface. Reg. No. 21714.

- **126.** (Fig. 9.164, No. 126). On the exterior of a pot of red ware, there is a single sign which may fall in the category of M-List No. 167, with its variants.
- KLB-2, Sq. YB17. From a late level of Period II. Reg. No. 21659.
- 127. (Fig. 9.164, No. 127). On the exterior of a sherd of red ware, bearing bright chocolate slip, there are a few signs of which the one on the right may be a stylized human figure (cf. M-List No. 1). The other signs are difficult to identify.

- KLB-1, Sq. ZC10, Unstratified. Reg. No. 21767.
- 128. (Fig. 9.164, No. 128). On the exterior of a sherd of dull red ware, there are two signs. (Also seen are some lines of one more sign on the extreme right.) The sign clearly identifiable is a lozenge (M-List No. 261). The sign on the left, though largely damaged, may have been a human figure, holding an equipoise with bags.
- KLB-1, Sq. XB5. From a late level of Period II. Reg. No. 10433.
- 129. (Fig. 9.164, No. 129). On the exterior of the neck of a sherd of red ware there are a few signs, like circlets and horizontal and vertical lines which are difficult to identify with a known sign.
- KLB-2, Sq. ZR1. From a late level of Period II. Reg. No. 21697.
- 130. (Fig. 9.164, No. 130). On the exterior of a 'latticed' pot (?) of red ware, there are a few vertical and horizontal lines, which do not correspond to a known sign.

KLB, Surface. Reg. No. 21768.

- 131. (Fig. 9.165, No. 131). On the exterior of a pot of sturdy red ware, which bears chocolate slip and black-painted designs, there are many vertical and horizontal lines, along with indentations.
- KLB-2, Sq. F8. From a late level of Period II. Reg. No. 21544.
- **132.** (Fig. 9.166, No. 132). On the exterior of a basin of sturdy red ware, bearing chocolate slip, there is a long horizontal line which is cut by a series of small vertical strokes (about ten in number). There may have been a similar



Fig. 9.163



Fig. 9.164

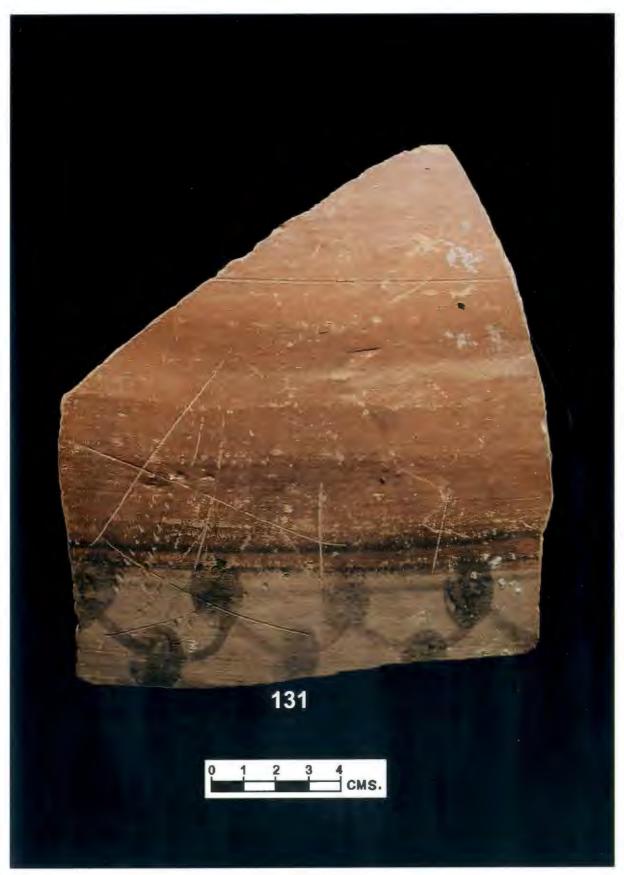


Fig. 9.165

- set above it which, however, is badly damaged.
- KLB-1, Sq. XD1. From a late level of Period II. Reg. No. 21769.
- **133.** (Fig. 9.167, No. 133). Svastika, with the small strokes turning to the left, on the shoulder of a jar of red ware with a blackish slip; medium-sectioned, well-fired.
- KLB-2, Sq. C6. From a late level of Period II. Reg. No. 21513.
- **134.** (Fig. 9.167, No. 134). Svastika, damaged. On the shoulder of a vessel of red ware; relatively thin-sectioned, not so well- fired.
- KLB-1, Sq. ZA6. From a late level of Period II. Reg. No. 14980.
- **135.** (Fig. 9.167, No. 135). Svastika, left-sided. On the exterior of a small-sized pot of red ware, thin-sectioned, not so well- fired.
- KLB-1, Sq. E1. From a late level of Period II. Reg. No. 21515.
- **136.** (Fig. 9.168, No. 136). 'Hollow cross'. On the exterior of the disc-base of a pot of red ware; medium-sectioned, not well-fired.
 - KLB, Surface. Reg. No. 21557.
- **137.** (Fig. 9.168, No. 137). 'Hollow cross'. On the exterior of a pot of red ware, medium-sectioned, well-fired.
- KLB-2, Sq. XA11. From a late level of Period II. Reg. No. 14197.
- **138.** (Fig. 9.168, No. 138). 'Hollow cross'. On the exterior of a pot of red ware, thin-sectioned, well-fired.

- KLB-2, Sq. A11. From a late level of Period II. Reg. No. 13351.
- **139.** (Fig. 9.168, No. 139). 'Hollow cross'. On the exterior of a pot of red ware, medium-sectioned, well-fired.
- KLB-2, Sq. K4. From a middle level of Period II. Reg. No. 21556.
- **140.** (Fig. 9.168, No. 140). 'Hollow cross'. On the exterior of a pot of red ware, medium-sectioned, not well-fired.
- KLB-2, Sq. A11. From a late level of Period II. Reg. No. 21350.
- **141.** (Fig. 9.169, No. 141). Though damaged, it seems to have been a five-pointed star. On the inner side of a vase of dull red ware, a little below the rim.
- KLB-1, Sq. YF9. From a late level of Period II. Reg. No. 12784.
- **142.** (Fig. 9.169, No. 142). Largely damaged, but may have been a five-pointed star. On the exterior of a pot of red ware, thick-sectioned, well-fired.
- KLB-2, Sq. YB17. From a late level of Period II. Reg. No. 21552.
- **143.** (Fig. 9.169, No. 143). Damaged, but may have belonged to the category of six-pointed star (?). On the exterior of pot of sturdy red ware; thick-sectioned, well- fired.
- KLB-2, Sq. A6. From a late level of Period II. Reg. No. 21589.
- **144.** (Fig. 9.170, No. 144). Three-leaf pattern (cf. M-List No. 233). On the exterior of a pot of red ware, thick-sectioned, well-fired.
- KLB-2, Sq. C6. From a late level of Period II. Reg. No. 21588.



Fig. 9.166



Fig. 9.16



ig. 9.168

- **145.** (Fig. 9.170, No. 145). Though damaged, it may (or may not) have formed a 'four-leaf' pattern. (Of these, only one is clear.) On the exterior of a pot of red ware; thin-sectioned, well-fired.
- KLB-1, Sq. A4. From a late level of Period II. Reg. No. 13115.
- **146.** (Fig. 9.170, No. 146). Though damaged, it may be placed in the foregoing category. On the interior of a large jar of red ware, thick-sectioned, well-fired.
- KLB-1, Sq. ZD9. From a late level of Period II. Reg. No.21645
- **147.** (Fig. 9.171, No. 147). This is the design of the 'board' of a game which children play even now in the villages. On the exterior of a pot of red ware, medium-sectioned, well-fired, has traces of black painting as well.
- KLB-2, Sq. A6. From a late level of Period II. As may be observed from the photograph, there are two sherds which have been joined. These were registered separately under Nos. 15634 and 21512.
- **148.** (Fig. 9.172, No. 148). An incomplete design. For all one may guess, it may have been a part of a 'chowk'-design drawn on certain occasions in houses. On the shoulder of a pot of red ware, medium-sectioned, well-fired.
- KLB-2, Sq. E16. From a late level of Period II. Reg. No. 17527.
- **149.** (Fig. 9.172, No. 149). An indefinite design; may be in the style of what is known as an 'unending knot'. On the exterior of a potsherd of red ware.

- KLB-2, Sq. XA11. From a late level of Period II. Reg. No. 21632.
- **150.** (Fig. 9.172, No. 150). A design formed by the intersection of four lines, placed variously horizontally, vertically and obliquely. On the exterior of a pot of red ware, thin-sectioned, not well-fired.
 - KLB, Surface. Reg. No. 21771.
- **151.** (Fig. 9.172, No. 151). Indefinite, but seems to represent a bird (or some small animal?) with elongated hatched body and beak (?). On the shoulder of a red ware pot, well fired and having a blackish slip.
- KLB-2, Sq. H7. From a late level of Period II. Reg. No. 13527.

(IV) POTTERY BEARING PAINTED INSCRIPTION

1. (Fig. 9.173). There is only one example which bears a painted inscription. It is on a pot (a lid or a goblet?) of red ware, having brownish slip on the exterior, on which the inscription occurs. The inscription consists of three signs. The one in the middle is an oval with a dot inside it, similar to Variant No. 2185 of M-List No. 375. The sign on the left consists of three vertical strokes whereas that on the right is a long vertical line with a thickened end, perhaps left by the brush.

It may not be out of place to add that specimens of inscriptions painted on pottery have also been recovered from Surkotada²⁶ and Daimabad.²⁷

KLB-2, Sq. A9. From a late level of Period II. Reg. No. 12871.

²⁶ J.P. Joshi, 1990. Excavation at Surkotada 1971-72 and Exploration in Kutch, pp. 357-363, Fig. 84 and Pl. LXXX. New Delhi: Archaeological Survey of India.

²⁷ S.A. Sali, 1986. Daimabad 1976-79, p. 505, Pl. CXXXIX,F. New Delhi: Archaeological Survey of India.



Fig. 9.169



Fig. 9.170



Fig. 9.171



Fig. 9.172

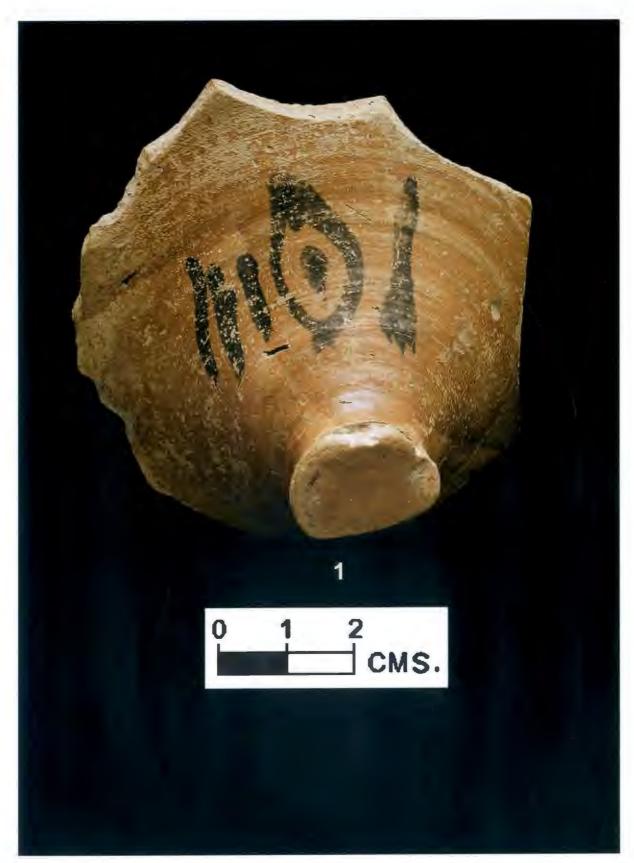


Fig. 9.173

K. SUPPLEMENTARY INSCRIBED MATERIAL

(I) INTRODUCTORY

After the foregoing text had been written, some more inscribed material was brought to my notice in March 2006. This was found at the site by the staff of the Museum located there, from time to time after the excavations had been closed (1969). Since it was collected from rain-gulleys, exposures in stratigraphical horizon cannot determined. Further, as no record has been kept about the find-spots (except in rare cases) it is even difficult to say whether a given antiquity came from KLB-1 or KLB-2. Such a location would have been of interest in certain cases, for example in respect of Seal No. 2 and inscribed Tablets Nos. 1 and 2.

Individual items, category-wise, are described below.

(II) SEALS

1. (Fig. 9.174, a, b, c and d). Whereas a, c and d give respectively the obverse, reverse and side views, b gives the impression. Made of white steatite, the seal has a dull white coating which covers the entire surface. It measures 36 x 32 x 7 mm. The boss on the reverse is very prominent (12 mm. In height), has a hole in the alignment of the animal on the obverse and a prominent groove at a right angle to the hole.

On the impression (view b) may be seen a charging bull, facing left. It is of the unhumped variety, but no less vigorously portrayed. There are three inscribed signs above the bull. Beginning on the right, there are six vertical strokes (M-List No. 108); then comes the fish-sign

(M-list no. 59); and at the end is the arrow (M-List No. 211).

This seal was recovered from the south-eastern slope of KLB-1.²⁸

Museum Accession No. 1.

2. (Fig. 9.175, a, b and c). While a and c represent respectively the obverse and reverse, b gives the impression. The seal measures 24 x 29 x 5 mm. The reverse is damaged, though there is indication that a boss was planned. The material is white steatite, with a pinkish tinge.

On the impression is portrayed a scene similar to that on Seal No. 39 (Fig. 9.39) above, showing a man seated on a tree and a tiger below, looking back towards the man.

While there is an inscription on Seal No. 39, there is none in the present case.

Museum Accession No. 268.

3. (Fig. 9.176, a, b, c and d). A small-sized seal of white steatite, measuring 12 X 12 x 3 mm. It has a boss (5 mm in height, but partly damaged) on the reverse, with the usual hole. Views a, c and d show respectively the obverse, reverse and a side, while b gives the impression.

On the impression is seen an animal, probably a goat or markhor (?). There is no inscription.

Museum Accession No. 263.

4. (Fig. 9.177, a, b and c). Made of dull white steatite, the seal is broken. Its available measurements are: $14 \times 14 \times 5$

²⁸ S.C. Saran and Urmila Sant. 1983-84. Post-Excavation Antiquities from Kalibangan, *Journal of the Bihar Puravid Parishad*. Vols. VII and VIII, pp. 59-60.



Fig. 9.174

mm. Since the back is completely damaged, nothing can be said about the boss.

On the impression (view b) may be seen the front lower part of an animal, as also the lower portion of a 'standard'.

Museum Accession No. 267.

(iii) SEALING

1. (Fig. 9.178, a and b). Broken part of a terracotta sealing. View 'a' represents the obverse and 'b' the reverse. On the latter is seen the impression of a string which seems to have been used for tying and over which the clay was put before being stamped. The stamp (view a, damaged) shows the head of a unicorn above which there is an inscription. Of the latter only three signs may be seen. That on the extreme right is difficult to identify, whereas the next may be a vertical oval criss-crossed internally with lines. Further to the left, there are two small strokes in the upper part, which may have gone with the oval.

Museum Accession. No. 253.

(IV) TERRACOTTA TABLETS

The two objects described hereunder are not sealings in the real sense of the term, but are impressions of seals nonetheless. These are described below.

1. (Fig. 9.179, a, b, c, d, and e). An elongated terracotta tablet, measuring 37x12x6 mm. There is the impression of a seal on the obverse (view a) the obverse (view b) is plain. The two edges at the extreme ends bear cut-marks, showing that this piece was cut out from a longer strip.

The specimen is similar to the seven examples described in detail earlier (Nos.

5-11, Figs. 9.77-79). Although the provenance of this specimen is not recorded, it is most likely that it may have belonged to the same complex as the other seven.

Museum Accession No. 254.

2. (Fig. 9.180, a, b and c). An elongated terracotta tablet with rounded ends. It measures 28x14x5 mm. One of the sides (view a) bears an inscription which, though slightly defaced, is the same as in the case of No. 3 described earlier (Fig. 9.75). Likewise, the motif on the other side (view b) is also similar to that on the aforesaid specimen. In fact, though the degree of firing and surface treatment differ in the two cases, the two tablets, for all intent, are identical.

Had the provenance of this specimen been recorded, it would have been of interest to know if or not these two identical tablets came from the same area.

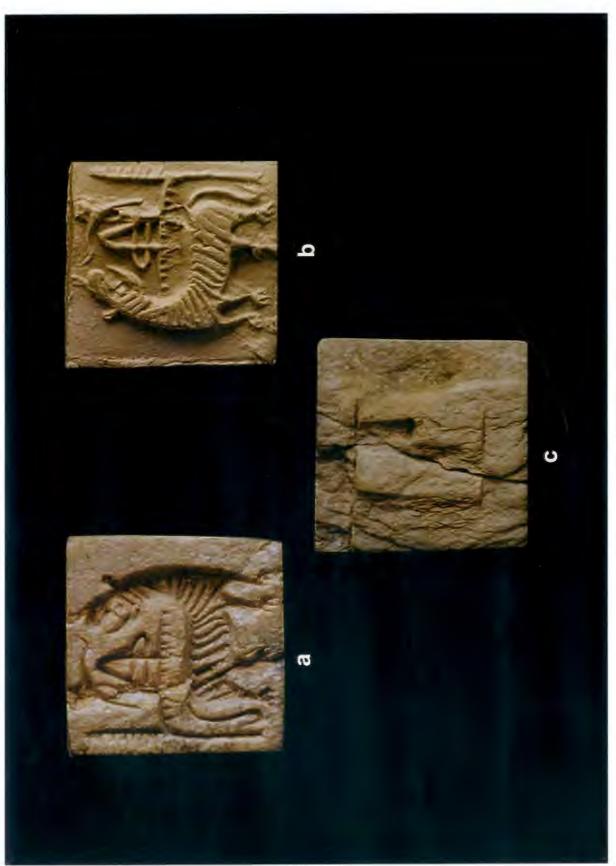
Museum Accession No. 259.

(V) INSCRIBED TERRACOTTA CHAKALĀ

1. (Fig. 9.181, a and b). In the main part of this chapter we referred to two inscribed, fragmentary terracotta *chakalās* (above, Fig. 9.119, Nos. 101 and 102). Here, however, is a complete specimen.²⁹ Like the other two examples, this one also has a ring-base. The measurements are: overall diameter, 24.5 cm; overall height, 4.2 cm; diameter of the basal ring 18.5 cm. Well- fired, traces of buffish slip.

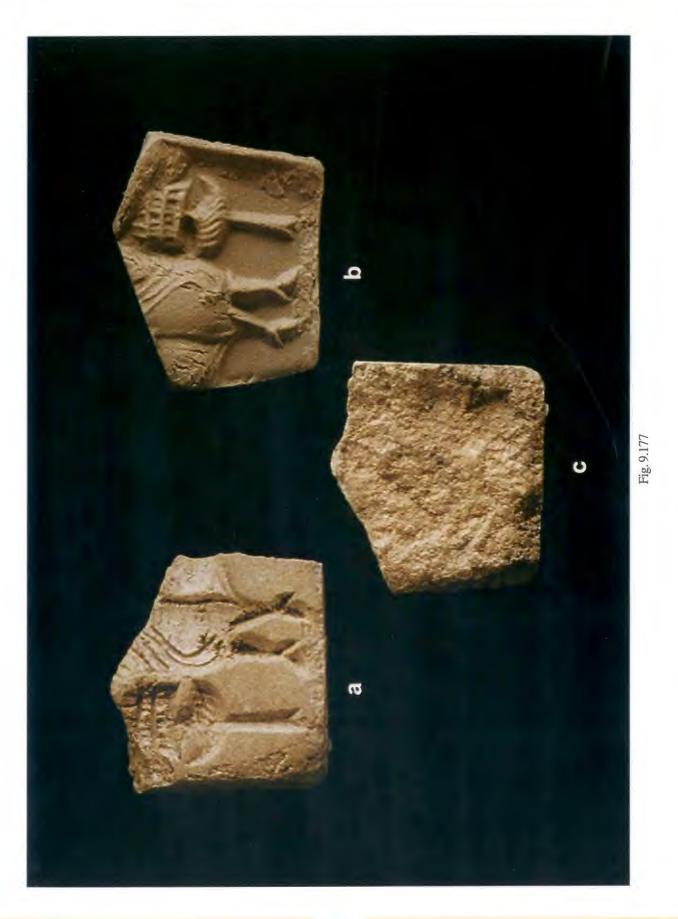
The inscription, occurring within the basal ring, is pre-firing and comprises two signs. That on the

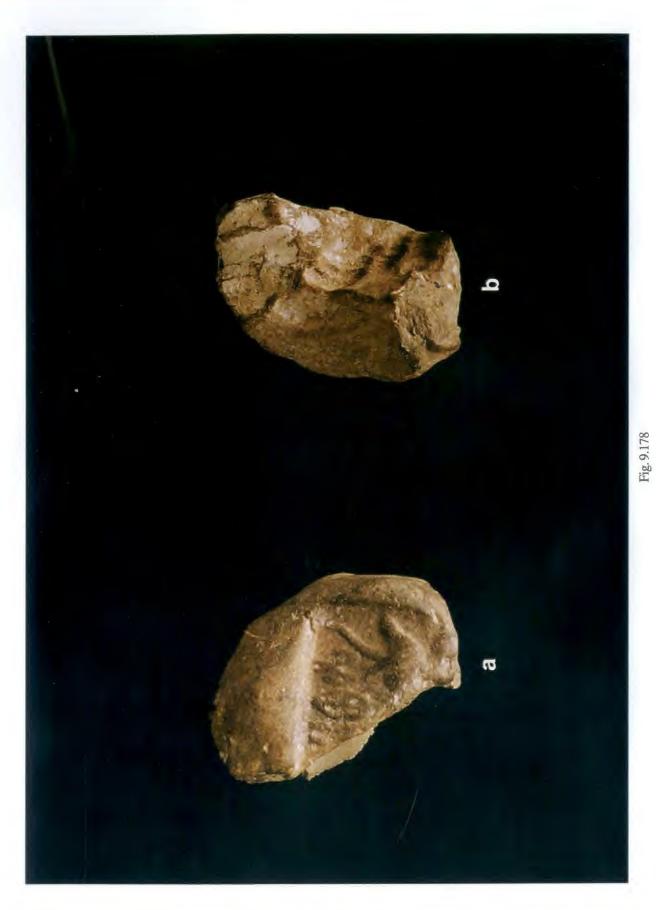
²⁹ Saran and Sant, op.cit., p.60.



ig. 9.17.







...



right is a bird falling in the general category of M-List Signs No. 76 (cf. Variant No. 1207) and No. 78 (Variant 1237). That on the left is the usual U-sign with strokes (M-list no. 342).

Museum Accession No. 78.

(VI) UNIDENTIFIED TERRACOTTA OBJECT

1. (Fig. 9.182, a, b and c). This is a thin-sectioned terracotta object, with one side straight and the other curved (view a). It is not flat but has a slight curvature (view c). On the reverse there are many horizontal and vertical lines, enclosed within a general outline following the shape of the object itself (view b). It is difficult to offer any positive opinion on its use; maybe it was a scraper of some kind. Measurements: 82 x 55 x 7 mm.

The inscription (view a) consists of the pipal-leaf (M-List No. 326).

Museum Accession No. 184.

(VII) INSCRIBED POTTERY

1. (Fig. 9.183). Part of a red ware pot, bearing a pre-firing inscribed sign which is difficult to identify with certainty.

Museum Accession Number not available.

L. SCIENTIFIC STUDIES ON FRAGMENTS OF THE SEALS

In all, four samples as detailed below, were received from Superintending Archaeologist, Archaeological Survey of India, Purana Qila, New Delhi through Deputy Superintending Archaeological

Chemist, Delhi Zone, Red Fort, Delhi.

Sample No.	Reg. Number	Weight (grams)	
1.	KLB-Sf-21710	5.3760	
2.	KLB-1-16067	2.5755	
3.	KLB-2-18760	2.6407	
4.	KLB-1-19360	2.6420	

VISUAL OBSERVATION

On the basis of visual observation, Sample Nos. 1 and 2 appear to be similar, having off-white thin coating on the stone. The core material of sample No. 1 has been observed to be greyish green, while that of sample No. 2 dark grey. Both the samples also have engravings, but the pattern or the details are not clear. The coating of sample No. 1 is fine and more uniform in comparison to sample No. 2 in which losses of coating material from the engraved area have been noticed. Careful observations with the help of hand-held lens also revealed brush marks on the coating layer in case of sample No. 1. The core material of both the samples (Nos. 1 and 2) has been observed to be soft and foliated to fibrous mass of fine grain aggregates with pearly lustre on cleavage surfaces.

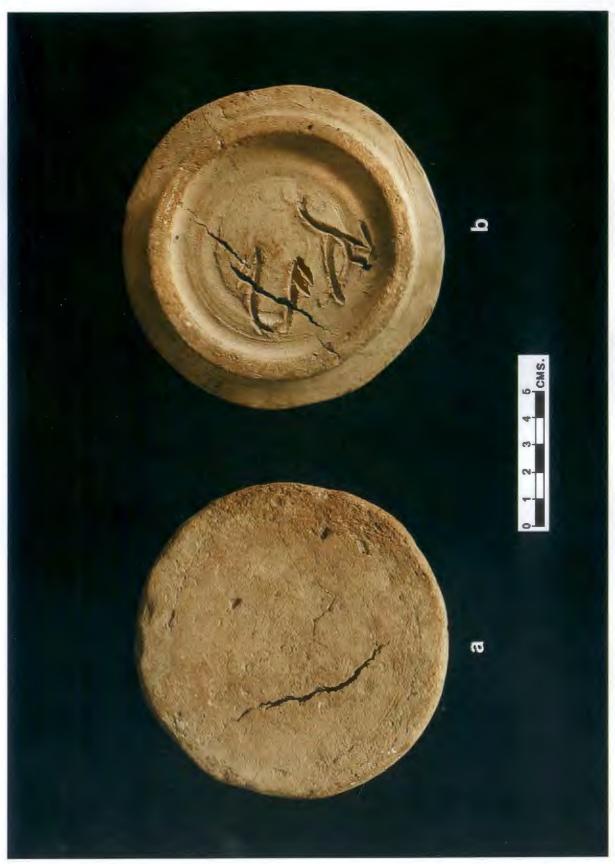
Sample Nos. 3 and 4 in contrast to sample Nos. 1 and 2 appear totally different in nature and have been observed to be white, comparatively less compact masses with soft and soapy texture without any top coating layer. However, engravings have been observed in both the cases.

INVESTIGATIVE STUDIES

In order to study material characteristics of stone or the core



Fig. 9.180



ig. 9.181



Fig. 9.182





material as well as coating material, the following studies have been carried out:

1. Mircroscopy

2. Infra-red Spectroscopy

above two techniques of The scientific investigations have been used for the material characterization of the stone and the coating of the seals keeping in view their utility in such types of analysis. As desired, the information related to coatings on the core material of the seals could be obtained only on the basis of detailed surface microscopy. The crystallography i.e. unique crystal arrangement of the mineral in case of the core material could also be studied with the help of microscopy, which in combination with other studies may help establishing the chemical characteristic of the material. Microscopy in the present scheme of analysis has been proved more useful because the observations could be compared with the reference sample to draw conclusions.

Like Microscopy. Infra-red Spectroscopy, which is based on comparison of the fingerprints of the sample with the reference spectrum or the spectrum obtained from the reference sample, has also been used. However, this technique does not help to establish chemical composition in an absolute manner but is of immense use for basic characterization of materials. In the present case, this technique proved to be very useful with regard to studies of the coating material because no ready reference or standard spectra of such materials is generally available.

In the present scheme of investigations, different permutations and combinations have been tried to prepare the recipe of coating material on the basis of reference available elsewhere. The coating thus developed in the laboratory were compared with the coating of the sample material on the basis of their chemical characteristic for their characterization using fingerprints obtained in the form of Infra-red spectra. Further physical properties of the samples like colour, etc. usually do not interfere with the Infra-red Spectrometry.

1. MICROSCOPY

This study was carried out with the aim of obtaining information regarding the physical characteristics of the core material as well as the coating material. For this purpose simple optical microscope as well as Scanning Electron Microscope (SEM) were used.

The optical properties of the powdered grains of the core materials of sample Nos. 1 and 2 studied with the help of simple optical microscope indicated that the core material consisted of a soft mineral, which is the main mineral of soapstone or steatite. Clear-cut information could not be obtained with regard to sample Nos. 3 and 4 on the above lines. The studies have been further extended with the use surface of SEM to study the characteristics of the core materials of the seals for characterization of the material on the basis of the arrangements of mineral crystals and related geological information. For this purpose a small piece of the core material from the seals has been used.

The photomicrograph of the surface characteristics of the core material of sample Nos. 1 to 4 are given below: (Figs. 9.186 to 9.188)

The surface characteristics of sample Nos. 1 and 2 based on arrangement of

minerals as observed with the help of SEM appear to be almost similar (Figs. 9.186 and 8.187), which in contrast to sample Nos. 3 and 4 (Figs. 9.189 and 9.190) are compact and show crystalline structure without any air voids. The core of the sample Nos. 3 and 4, which were visually observed to be distinct from sample Nos. 1 and 2 when examined with the help of SEM show a comparatively less compact mass with a number of air voids and irregular surface (Figs. 9.188 and 9.189). This particular observation indicates that either the materials have undergone some alterations due to interaction of moisture or it may not be a true representative of steatite/ soapstone. The observations made in case of sample Nos. 1 and 2 have been compared with the reference photomicrograph of talc mineral.2 which almost matches with the original. In order to further confirm the observations, a sample of soapstone (steatite) was obtained from Gaveria Mines. Rajasthan and same studies have been carried out (Fig. 9.190) with this reference sample (Fig. 9.190). The close similarity as observed with regard to surface characteristics almost confirm the stone of sample Nos. 1 and 2 to be steatite, which is a member of talc family.

2. INFRA-RED SPECTROSCOPY

This method has been used to identify the basic mineral of the stone on the basis of comparison of the fingerprints of the samples to that of fingerprints of reference material.

(A) CORE MATERIAL

Infra-red Spectra of the core material of all the four samples (Figs. 9.191 - 9.194) using very small quantity of the material have been recorded and fingerprints thus obtained have been compared to that of reference sample of steatite or soapstone (Fig. 9.195) that has been collected from Gaveria Mines Rajasthan.

The fingerprints of core material of Sample Nos. 1 and 2 (Figs. 9.191 and 9.192) are almost similar which show a sharp intense peak at 1000 cm⁻¹ and a medium peak at about 660 cm⁻¹. Both the peaks are characteristics of Talc mineral and pertain to Silicates. These two spectra match well with the reference sample fingerprints (Fig. 9.195) and indicate the similarity between the sample material and the reference.

The Infrared Spectra of core material of Sample Nos. 3 and 4 (Figs. 9.193 and 9.194) are somewhat different to that of Sample Nos. 1 and 2 having shoulder at about 1060 cm⁻¹ and medium peaks at about 910 cm⁻¹ and 840 cm⁻¹. However, these three absorptions are not very clear in case of Sample No. 4 but the pattern appears to be same. These two spectra also show deviations and have a few dissimilarities to that of spectrum of reference material (Fig. 9.195). However, the basic absorptions are similar which pertain to silicates.

(B) COATING MATERIAL

In order to characterize the coating material very little quantity of sample has been taken out from the sample No. and spectra was recorded. On comparison, the fingerprints of this spectra (Fig. 9.196) has been observed to have similarities to that of spectra of core material of sample Nos. 3 and 4 (Figs. 9.193 and 9.194). This observation indicates that the material of Seal Nos. 3 and 4 is almost similar to the coating material, which might have been prepared in the similar way. absorptions, which pertain to silicates as in the case of sample Nos. 1 and 2 (core material) are indicative of use of identical material with some chemical treatment.

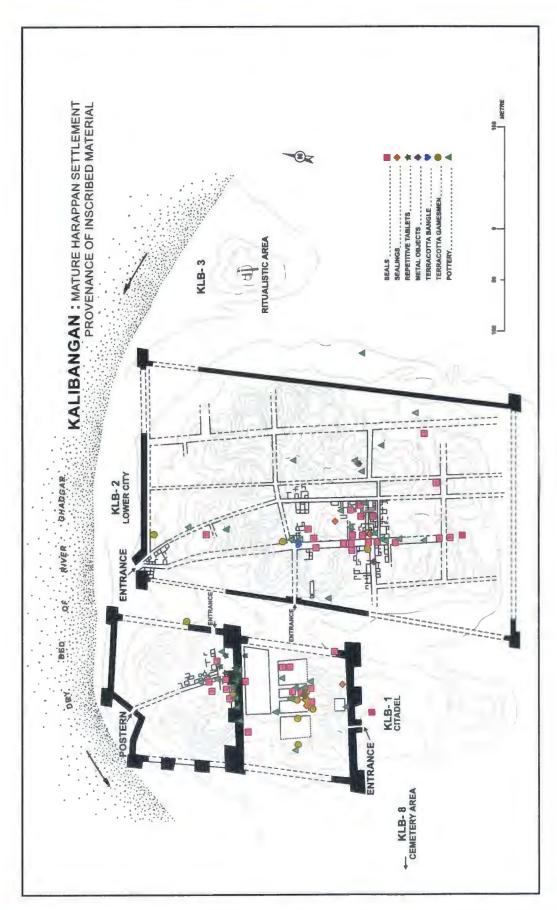


Fig. 9.184

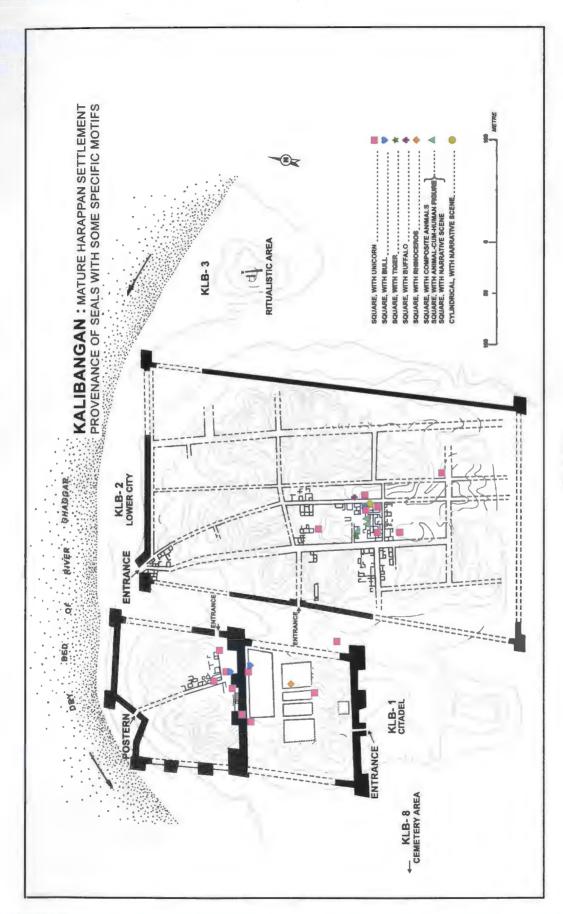


Fig. 9.185



Fig. 9.186 SEM Photomicrograph of cross-section of Sample no.1

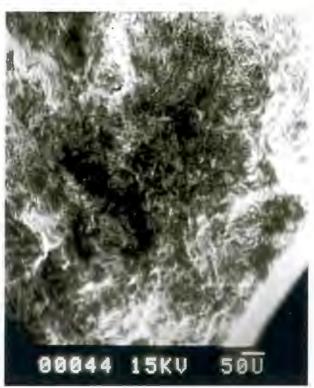


Fig. 9.187 SEM Photomicrograph of cross-section of Sample no.2



Fig. 9.188

SEM Photomicrograph of cross-section of Sample no.3

LABORATORY STUDIES FOR THE DEVELOPMENT OF COATING

(Figs. 9.197-9.198)

On the basis of above studies and available references on the subject, an attempt was made to develop the recipe as well as the technique which might have been used to develop the coating for the preparation of seals. Since the base material used as coating on the seals has similarity with the core materials with regard to chemical characteristics, very fine powder of the soapstone or steatite obtained from Gaveria Mines, Rajasthan was used to develop the slip to be used as coating on the same stone with an alkali as a mix. Considering the reactivity of talc mineral with bases, alkaline aqueous medium was preferred to develop the thin coating of steatite on the same stone. It is worth mentioning that talc does not react with acids at room temperature.

(A) PREPARATION OF COATING MATERIAL

For the preparation of coating material for the slip, fine powder of steatite was mixed with simple water, aqueous, calcium hydroxide and sodium hydroxide.

Best result for preparing the paste with good consistency was achieved only with aqueous sodium hydroxide solution and the studies were extended with this recipe only.

FIRST TRIAL

The slip or the coating material was thus prepared by mixing a few grams of fine steatite powder with 10% aqueous sodium hydroxide solution with mild heating and constant stirring. In this way a paste with uniform consistency was

prepared and a thin coating was applied on small pieces of same soapstone or steatite. After drying the coating at room temperature the stone pieces with the top layer of coating material were subjected to heat treatment at two different temperatures viz. at 800°-900°c in Muffle Furnace and at about 400°c on Bunsen Flame for sufficient time but with constant observation. The results thus obtained were not encouraging as coating material failed to develop perfect bonding with the stone on which it was applied. The coating was observed to crumble on cooling.

SECOND TRIAL

After understanding the reasons for the failure of first trial, a second attempt was made to develop a fine coating of the same material on a few pieces of soapstone or steatite stone.

The paste or slip for the coating was prepared in the similar fashion as discussed above but experiment was conducted with two modifications as follows:

- a. A coating of alkaline solution (10% aqueous sodium hydroxide solution) was given on the surface of the stone prior to application of paste or slip on the semi-wet surface.
- b. Instead of direct heating at higher temperature, the samples were subjected to indirect heating at low temperature using a terracotta plate. In this process the coating after complete drying was given the heat treatment. (Fig. 9.199)

It was observed that these modifications helped to develop the strong bonding between the coating and the base material in a perfect manner and the



Fig. 9.190 SEM Photomicrograph of cross-section of reference sample



Fig. 9.189 SEM Photomicrograph of cross-section of sample No. 4

KALIBANGAN: 1960-69

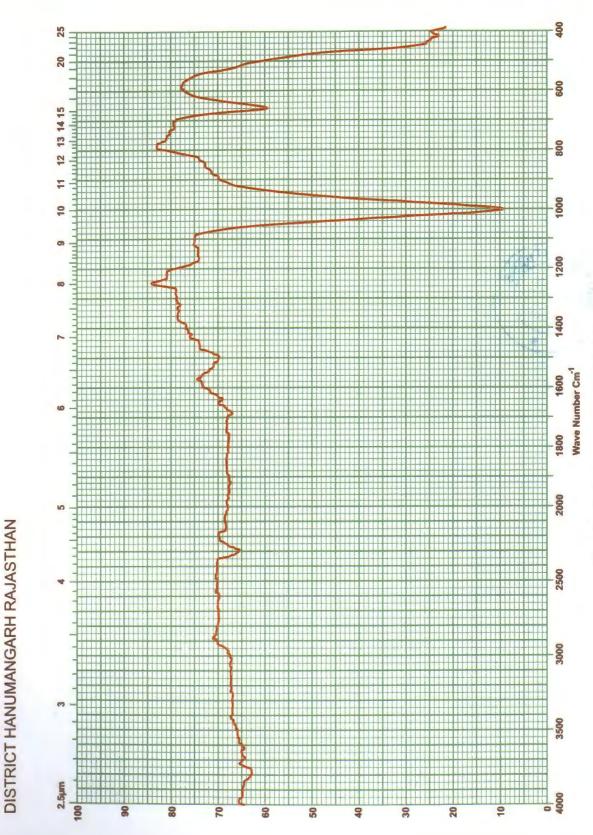


Fig. 9.191 IR Spectrum of core material of Sample No.1

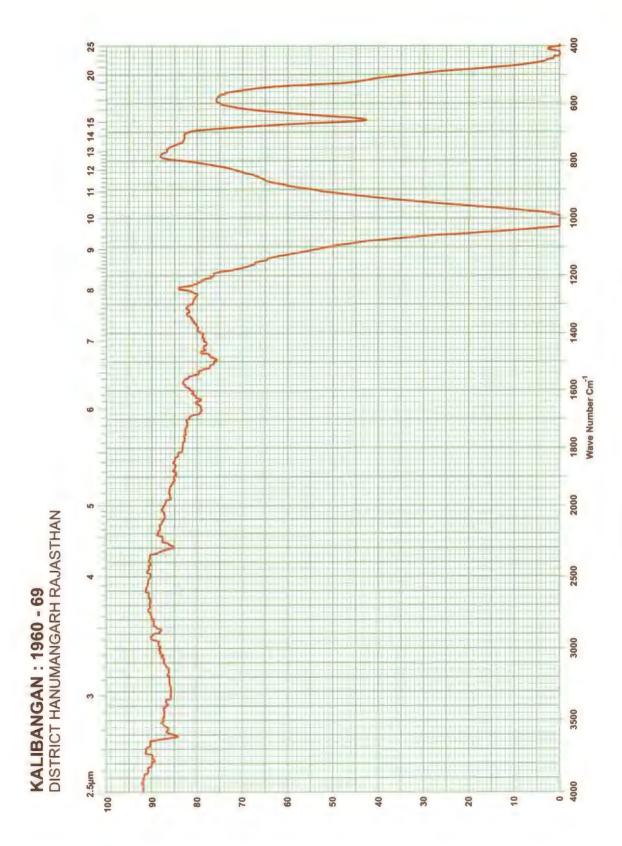
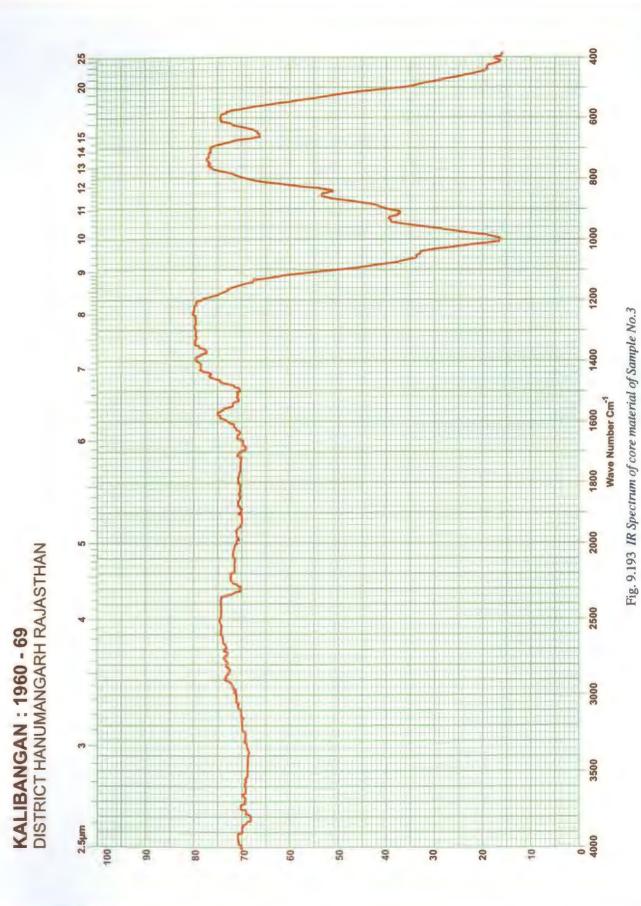


Fig. 9.192 IR Spectrum of core material of Sample No.2



689

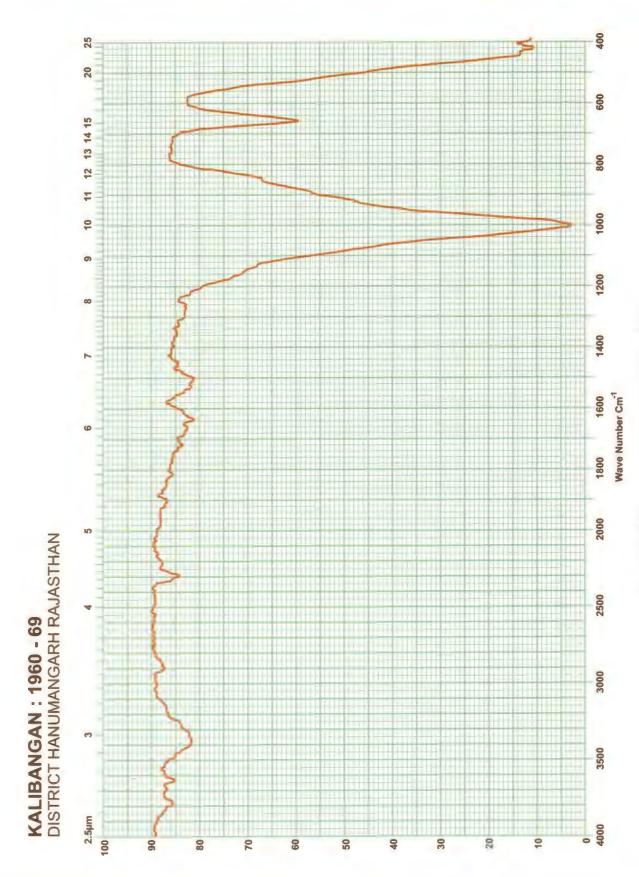


Fig. 9.194 IR Spectrum of core material of Sample No.4

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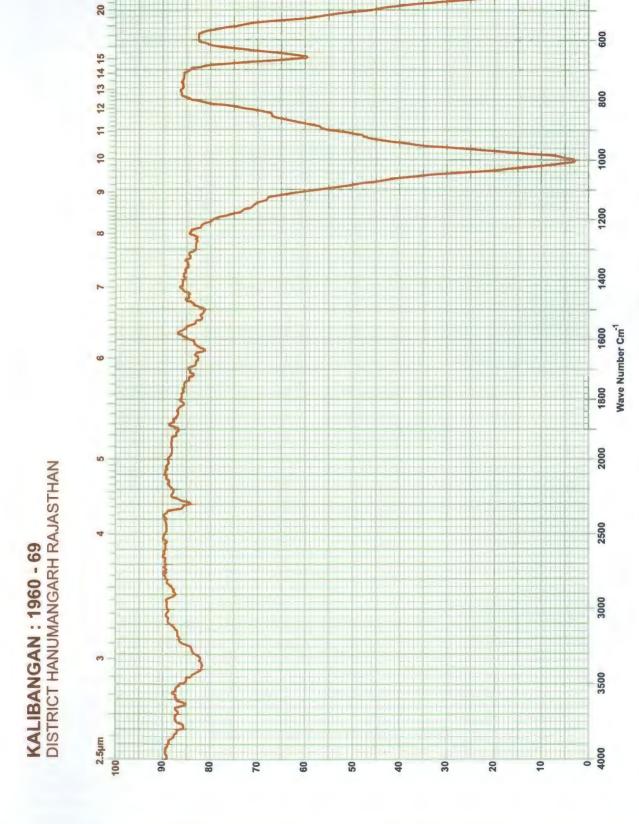
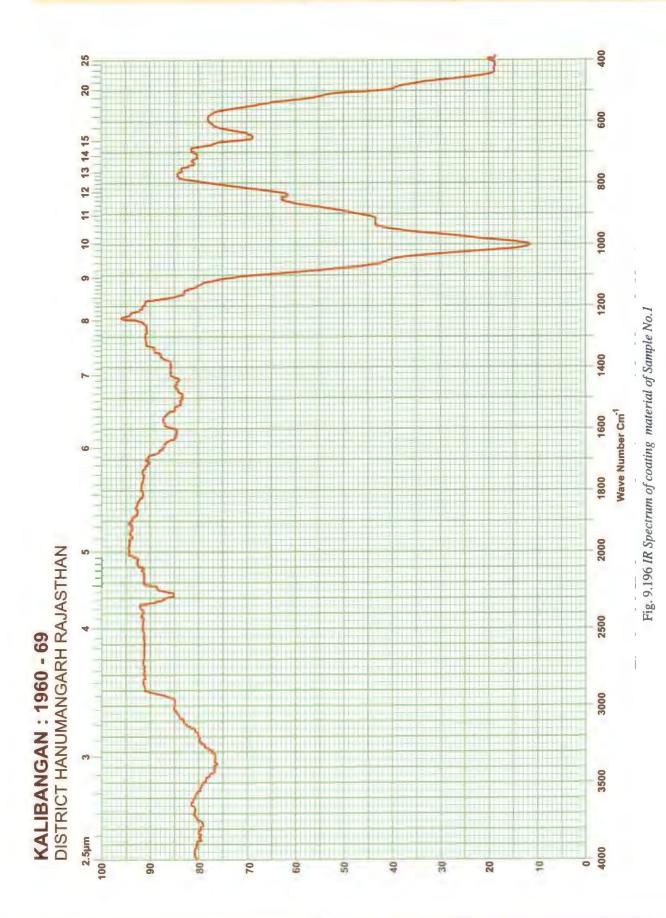


Fig. 9.195 IR Spectrum of reference steatite sample



692

desired results were achieved within 30-45 minutes of slow indirect heating. The modification 'a' appears to be an important factor for developing perfect bonding between the two surfaces.

An attempt was made to develop a polish on the coating by buffing the coated surface with dried and wet polishing cloth. A good polish was thus achieved. (Fig. 9.200)

B. SPECTROSCOPIC STUDIES OF COATING MATERIAL PREPARED IN THE LABORATORY

An IR spectrum of this coating developed in the laboratory was recorded in similar fashion as discussed earlier (Fig. 9.201). A fingerprint thus obtained in this case, on comparison was observed to be similar to that of coating of the sample No. 1 (Fig. 9.196) and the core material of sample Nos. 3 and 4 (Figs. 9.193 and 9.194).

CONCLUSION

On the basis of above scientific studies and related available references, it may be inferred that the core material of sample Nos. 1 and 2 is a steatite, the chief component of which is talc. The term steatite has been used as a synonym for talc, an alternative name for soapstone and as a name for any massive talc.

The physico-chemical characteristics of the material of sample Nos. 3 and 4 as studied above indicate that seal Nos. 3 and 4 might have been prepared with the help of a mould using paste of soapstone powder mixed with an alkali, which on drying and slow heating develops sufficient hardness. Our observations on this particular aspect are based on microscopic studies as well as available references on the subject.

As far as engraving of seals is concerned we are of the opinion that this might have been done on the core material itself before the application of coating material. The soapstone is very soft material to be engraved with any pointed tool. This observation receives support from sample No. 2 where engravings are clearly visible even after the complete loss of coating material at some places. The engravings in case of sample Nos. 3 and 4 appear to be done directly on the cast. The smooth finish might have been developed through burnishing.

For the preparation of coating fine powder of same material might have been used to prepare the slip using an alkali. It appears that pure variety of steatite has been used to achieve the uniform white coating even if the core material is greenish white or light green. The colour of the soapstone may vary depending upon the impurities present in the form of pyrites, iron and manganese oxide. As far as heat treatment to the coating material is concerned, it can be inferred that slow heating was carried out as at high temperature all the combined water of crystallization of talc mineral is lost and the crystal structure is destroyed with the formation of new modification of silicates.

References:

- 1. Rao, S.R. 1979. Lothal: A Harappan Port-Town (1955-62), Vol. I. New Delhi: Archaeological Survey of India.
- Paul F. Kerr 1950. Optical Mineralogy, New York. Mc Graw Hill Book Company, Inc.
- 3. *Journ. of analytical Chemistry*, Vol. 22, No. 12, Dec. 1950, p. 1488.

Above scientific studies have been carried out at the office and laboratories of the Director (Science), Archaeological Survey of India, Dehradun, Uttaranchal,



Fig. 9.197 Studies in progress in the Science Laboratory, Archaeological Survey of India, Dehradun



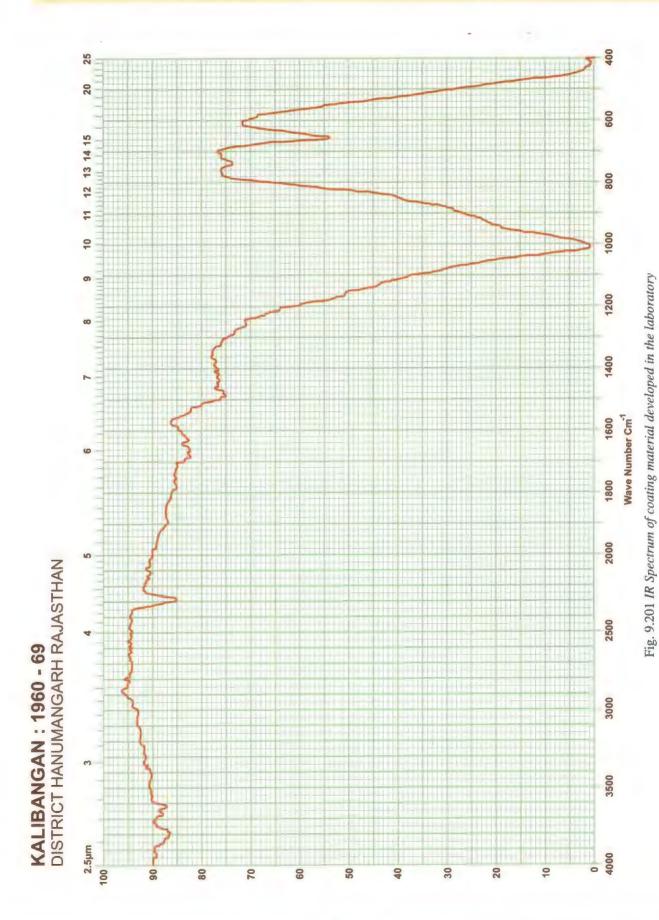
Fig. 9.198 Applying the slip prepared in the laboratory on the stone



Fig. 9.199 Heating treatment to the coating, using terracotta plate



Fig. 9.200 Final coating developed on stone



696

The Inscribed Material

under the guidance of Dr. R.K. Sharma, Director (Science).

Following officials have been associated with the above studies;

- 1. Dr. V.K. Saxena, Dy. Suptdg. Archl. Chemist
- 2. Sh. Y.K. Kanotra, Asstt. Suptdg. Archl. Chemist
- 3. Sh. S.K. Tewari ,Asstt Suptdg. Archl. Chemist
- 4. Sh. Ramji Nigam, Asstt. Suptdg. Archl. Chemist
- 5. Smt. Shilpa Raturi, Asstt.

M. APPENDIX I: LIST OF THE INDUS SIGNS (After I. Mahadevan)									
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SIGN LIST (Contd.)

SIGN LIST (Contd.)



Signs marked † in the Sign List have graphic variants recorded in the list of Sign Variants

M . APPENDIX 1A : LIST OF SIGN VARIANTS (After I. Mahadevan)					
SIGN NO.	VARIANTS	SIGN NO.	VARIANTS		
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86	1030 1385	197	2191 1052		
103	1366 2481 4564	201	1015 4271 2518		
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CRAFTS # AT KALIBANGAN JAGAT PATI JOSHI

The various types of small finds found in the excavations at Kalibangan give a fairly good idea of the different crafts which people were practicing locally for their living. Except for a few items, they were dependent on import of finished goods e.g. seals, sealings, copper objects and semi-precious stone beads, bangles of albaster, gold ornaments, faience, lead objects, from other sites of the Harappan Civilization involving riverine, sea and land routes. From the finds it appears that the society consisted of priests, merchants, agriculturists, masons, architects and craftsmen of different types. Besides, the various artifacts show the excellence in the development of technology employed manufacture and ingenuity to evolve locally better ways of living. Some of the objects found in the graves also indicate a lady's personal effects, e.g. mirror, beads, jewellery and also plumb-bob of a mason, etc.

1. AGRICULTURE (Fig. 10.1)

Agriculture was a major occupation and people were growing double crops in one season and were ploughing their fields with bullocks. The terracotta plough indicates the type of ploughshare used by the Harappans at Kalibangan. The discovery of ploughed field in the early Harappan levels, happens to be very early evidence of practicing agriculture in the world. The availability of gypsum suggest use for reducing salinity and perhaps reclaim saline lands. Wheat, barely, rice,

pisum (matar) and horse gram (chana) were grown and eaten. Fishing was also practiced as fish hooks of small and big size are available. Agriculture largely depended on monsoon but well irrigation as in Allahdino and canal irrigation could have been in practice as at like Baror, another Harappan site in Rajasthan where a 'V' shaped canal has been traced to a length of 40 m.

2. HOUSE BUILDING ACTIVITY (Figs. 10.2 and 10.3)

The craft of house building was quite developed. They were making houses of sun-dried bricks. Baked bricks were used only for drains and wells. The standard size of bricks was in the ratio 1:2:4 i.e. 10x20x40 cm or 7.5x15x30 cm. The houses had walls in English bond with mud and chuna mortar. Mud plaster was used in the fortification and house walls. Generally a house had three-four rooms, a courtyard and a well. The wells had wedge-shaped bricks. The terracotta pulleys indicate that perhaps wooden pulley filled on a cross bar of two standing wooden poles over the wells were used for pulling up the water from wells. The streets were not having pucca drains due to perhaps scarce rain. Terracotta pipes and wooden scooped pipes were used for draining out sullage from the houses into soak pits. Houses were built doublestoryed also. The rooms were having decorated incised tiled floors, wooden doors used to move on round stone devices with round depressions and holes for moving of the tenon. There were



Fig. 10.1 An agricultural field, showing criss-cross pattern of the furrows, Early Harappan



Fig. 10.2 General view of the north-south street with successive back walls of the houses



Fig. 10.3 General view of a house and street

platforms in streets for sitting of the people or having shops. The streets followed cardinal directions. The houses were occasionally constructed and repaired. Masons were using plumb-bobs and right angles. The streets were paved with broken terracotta nodules and cakes. For house building there were masons and labourers using plumb-bobs and scale.

3. CARPENTER'S CRAFT Fig. 10.4

Carpenters craft was also highly developed. They prepared doors and lintels for the houses and also manufactured wooden ploughshares and vokes for bullocks and handles for agricultural implements and spears. They manufactured cots and dewans like furniture for the house-holders. Different types of carts, their frames and spoked wheels were manufactured by the carpenters besides wooden pulleys were manufactured for lifting water or goods from the wells or ground floor to first floor as indicated by terracotta pulleys. Spoked wheels and pulleys show advanced technological innovation for the use of man or bullocks. The carpenters also manufactured takhtis for the education of tiny tots who could write the alphabets on them with bone stylus.

4. POTTER'S CRAFT Figs. 10.5, 10.6 and 10.7

The potter's craft was highly developed. They manufactured the standardized types of Harappan pots for the people wheel which could be a foot wheel used in Punjab and Sind even now which is attested by the string marks on flat cut surface of bases of the pots. The movement is regulated by the foot wheel connected by an axle with the turntable. Spun wheel was also used. The pottery is painted on a red slip having motifs and then fired in a round kiln with

pierced floors underlying fire pits. No kiln has been found at Kalibangan but it is presumed to have existed. The potter's craft also included makers of terracotta cakes, beads, bangles, tiles, pipes, animal and human figurines, terracotta toy carts, a variety of other objects for children like feeding cups, gamesmen and toys.

The potter's craft was one of the most important crafts which perhaps employed the entire family and catered to the needs of the elite, poor and other catagories of the society.

5. COBBLER'S CRAFT

The large amount of bones of sheep and cattle found in the excavations suggest domestication of sheep for wool and cattle for milk products by Harappans. The hides of wild animals were available which were killed by copper spear-heads and arrow-heads. For scraping and cutting of hide stone scrapers were used and for stitching, stone and copper awls and points were used by cobblers (see Lithic Tools).

6. IVORY and BONE CRAFTS (see Chapter 13. Ivory And Bone Objects)

The availability of ivory and bone, particularly two fragments of ivory tusks with saw marks suggest local manufacture of ivory objects though ivory was a rare and costly material. Ivory combs were prized possession of women folk. Bone needles and stylus were prepared. Bone needles were used for knitting woolen shawls and other garments.

7. BEAD MAKER'S CRAFT Figs. 10.8 to 10.12

The craft of making beads was limited to tubular beads of terracotta and steatite which were found in great numbers and varities. The other beads



Fig. 10.4 Reconstructed Harappan terracotta toy cart

Fig. 10.5 Pottery types



Fig. 10.6 Painted potsherds

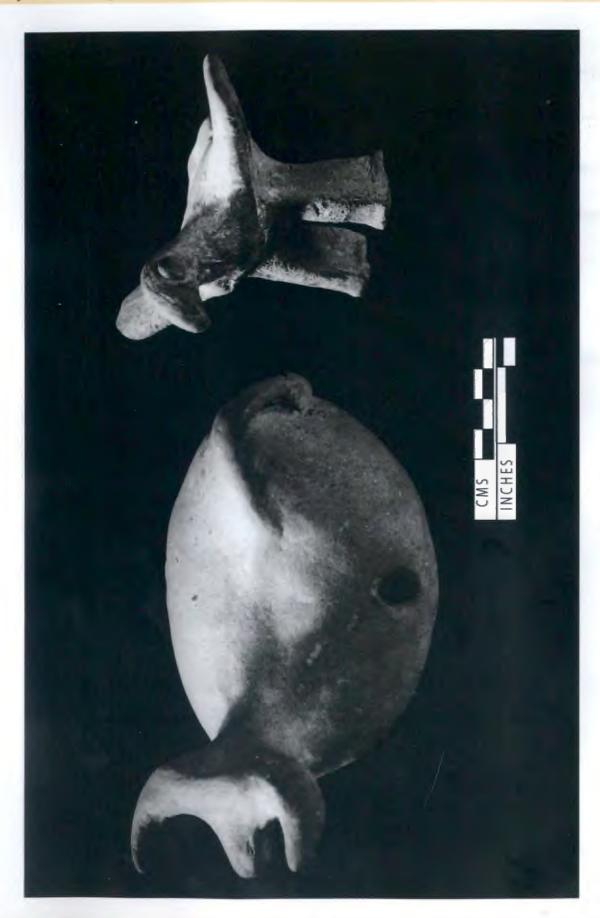


Fig. 10.7 Terracotta toys

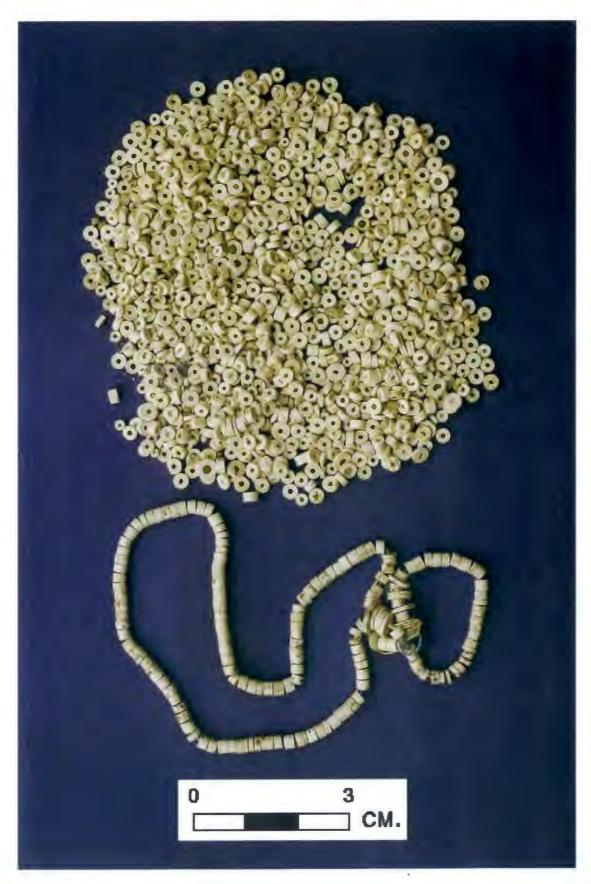


Fig. 10.8 Small steatite beads



Fig. 10.9 Close-up of steatite disc beads

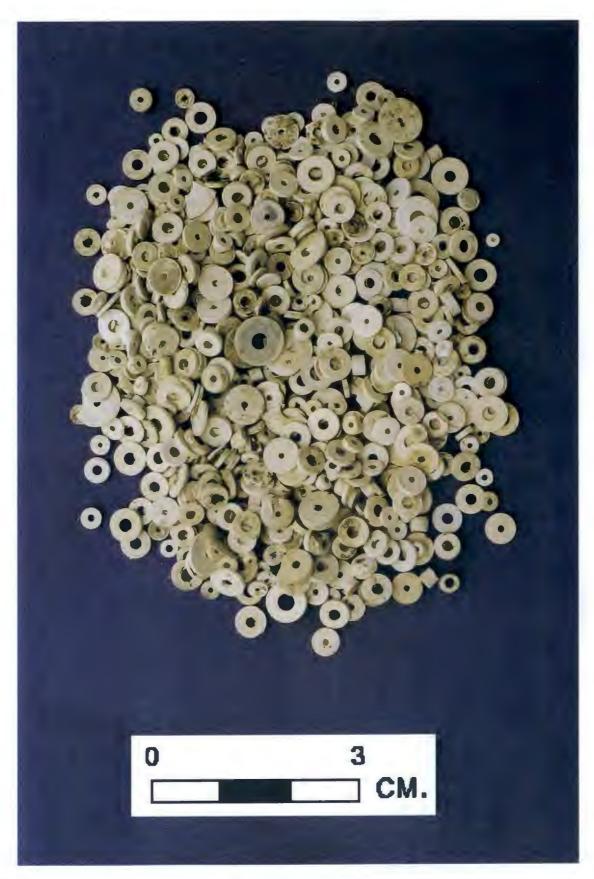


Fig. 10.10 Steatite beads



Fig. 10.11 Tubular steatite beads lying on the floor



Fig. 10.12 Steatite beads lying on the floor

are in steatite, faience and stone in a decreasing frequency. It appears that the banded agate stone beads manufactured as unfinished beads have been found.

Beads of semi-precious material, copper, gold and alabaster were imported from other places (see Chapter on Beads).

8. LITHIC TOOL INDUSTRY

A large number of lithic tools are available. In a limited way, the need a based nodules of cores imported from Sukkur and Rohri suggest local manufacture. The variety of tools show their wide use in house holds. (see Chapter on Lithic Tools).

9. SHELL INDUSTRY

Shell bangles were made locally also in a limited way. It was a precious and rare item. Some of the bangles, which were broken, were rivetted obviously by copper wire. The large gastropods Turbinella pyrum and Chicorems ramosus which were imported were cut with bronze saw and bangles, ladles, bowls and beads were made. For cutting the shell copper/bronze saws and sharp double/single sided needles were used for boring holes in shell pieces

particularly for rivetting the broken bangles.

10. WEAVER'S CRAFT Fig. 10.13

The Kalibangan people had a full-fledged weaving industry. Though no piece of cotton has been found yet it could be inferred from the terracotta whorls, spools and the cloth impression found on potsherds. It appears that cotton and woolen yarn was prepared and then cotton and woolen cloth was manufactured. Large number of small and big needles of bone have been found (see under Ivory and Bone Objects). Stitching could be done by copper needles with an eye on the top. (see under copper objects).

Decorated bedspreads/darries were used as in one of the toy cots from early Harappan levels at Kalibangan a decorated bedspread or darri has been found. It appears that the Harappans were using strings in the cots as one of the cots have signs of a weaved string. In one of the headless terracotta figurines the lower garment which looks like a dhoti has a herring bone design. Impression of cloth also appeared in terracotta sealing on the back (see Figs. 9.64 and 9.65). Mat impression suggests that weaved mats were used. (Fig. 10.14).



Fig. 10.13 Terracotta seated human figure (fragmentary) in vajrāsana wearing decorated dhotī



Fig. 10.14 Mat impression on terracotta lump





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