CHAPTER V

CERAMIC ASSEMBLAGE

The ceramic assemblage of the district has been treated under two broad categories, viz., (1) Harappan Chalcolithic pottery and (2) Historic pottery.

(1) Harappan Chalcolithic Pottery:

The exploration of the district has revealed that there is continuity of tradition in the fabric and shapes of pottery. Mostly the ceramics are wheel turned, well fired. The fabric vary from thick sturdy wares to extremely thin types. They are usually made of well levigated clay. All the vessels have smooth surface.

The bulk of the ceramics is, plain as at other Chalcolithic sites. Paintings are mostly confined to the vessels of superior fabric, viz., the red and buff wares. Normally, a black colour is used for paintings over red slip. But chocolate or pink is also used over light red or pink surface. Mostly horizontal bands, vertical lines, wavy and zigzag lines are painted on jars and bowls, linear patterns and suspended loops are usual on dishes. But several other designs such as vertical row of hatched diamonds and multiple intersecting loops are also encountered. However, coarse red and fine red ware is also sometimes decorated with comb designs or incised lines.

Due to the salinity in soil the pottery was sometimes highly
covered with calcareous deposit. ($\text{CaCO}_3$ and $\text{CaSO}_4$). They were carefully cleaned by using dilute hydrochloric acid followed by thorough washing.

Following are the pottery types found in the district:
1. Red ware,
2. Prabhas ware,
3. Buff ware,
4. Fine grey ware,
5. Black and red ware,
6. Lustrous red ware,
7. Coarse ware:
   (a) Coarse red ware,
   (b) Coarse black and red ware,
   (c) Coarse grey ware.

Red Ware:

This is the most striking ceramic ware of this period. It is a heavy sturdy ware; with finely levedigated clay, well fired, pink or red in colour. Close and regular striation and graceful symmetrical curvatures are indicators towards the use of fast wheel. However, some of the sherds have lost their characteristics due to salinity in the soil. Moreover, the specimens of the inferior workmanship were also known.

Bulk of this pottery is unpainted. However, a few painted specimens are found. Painting is mostly confined to rim and body portion of the vessels. Mostly horizontal bands, loops, wavy and
zigzag lines, vertical bands, vertical row of hatched diamonds and roundles are used separately or in combination on bowls, dishes and basins. Another interesting feature of painting on vessels is the bichrome effect produced by reserved slip or by applying more than one slip (white slip), further emphasized by the horizontal bands painted in black or pink at the junction of two slips or reserved slip portion. However, the lighter unslipped or white slipped portions are decorated with roundles, suspended loops, vertical or intersecting lines. Such type of vessels and decorations are found in II-A and II-B periods of Rangpur sequence.

The shapes like bowls, basins, dishes, dish-on-stand, pots, storage jars and goblets were found in this variety. Their shapes have similarities with Rangpur II-A, II-B, II-C and Lothal B periods. Painted convex bowls; stud handle bowls, concave bowls, carnated bowls and the basins with flat projecting rim shows affinities with those reported from II-A, II-B, and II-C periods of Rangpur sequence. Dishes with projecting rims, carnated shoulders are characteristic of period of period II-A and II-C of Rangpur sequence. Besides these strong and sturdy, thick storage jars has also affinities with the same periods. The perforated jars with eplayed rims also show strong affinities with period II-1 and II-B of Rangpur sequence.

**Bowl:** Figure D.1 and D.2

Plain and sub-spheroid bowls with their variants are very rare in Harappan centers of Indus Valley. However, few specimens have been found from the later periods of Mohanjodaro only. This lacuna
is made up in Gujarat, where they are found in considerable number in
various shapes in red and all its associated wares.

From the exploration of the district, bowls in different shapes
such as convex-sided, parallel-sided, concave-sided and deeper bowls
with projecting rim were found. They are plain as well as painted
in black.

Variant A: (Convex-sided Bowls) Fig.D.1; 1-9.

This type of bowls are strong with thick fabric and uniform
surface. They are plain and painted with black on red. Mostly
horizontal, vertical bands, intersecting lines, roundels are used.
A bichrome effect is produced by using reserved slip. The diameter
of bowls range between 4.5 to 20 cm. The convex-sided bowls are
found from late levels of II-A and B periods of Rangpur sequence,5
Rojadi,6 Lothal A, Lothal B,7 Kanowal8 and Somnath in lustrous
red ware and black and red ware.9 Following is the description of
some of the representative shapes:

   Red slip inside and outside, wheel made. Diameter 20 cm.
   (Rasnal; Taluka Jodiyas).

2) A convex-sided bowl with incurved featureless rim. Medium red
   fabric. Light red slip inside and outside, (only traces of
   slip as left) wheel made.

   Black painted decoration of horizontal bands on outer and
   inner surface. Wheel made. Diameter 16 cm. (Tarana-II;
   Taluka Jodiyas).
(4) A variant of 1. Fine red fabric, red slip inside and pinkish surface inside. It has U shaped graffiti with central stroke and horizontal bands in black from outer side. Diameter 19 cm. (Rasnal; Taluka Jodiya).


(6) A variant of 3. Fine red fabric. Red slip inside. From the outer side red slip is applied in two distinct bands, leaving the central portion unsliped, to produce a bichrome effect, the unsliped portion has vertical and horizontal band decoration in black. Wheel made. Diameter 18 cm. (Rasnal; Taluka Jodiya).

(7) A variant of 6. Fine red fabric. Red slip inside. Having horizontal and vertical decoration in black and graffiti, which forms the cross (X) with additional connecting lines from outside. Wheel made. Diameter 19.1 cm. (Rasnal; Taluka Jodiya).

(8) A variant of above devoid of any decoration but the central portion has unsliped, horizontal band. Wheel made. Diameter 20 cm. (Tarana-II; Taluka Jodiya).

(9) A variant of 1 with roundles inside on the unsliped portion. Wheel made. Diameter 9 cm. (Rasnal; Taluka Jodiya).

Sub-variant A: (Stud handle bowl) Fig.D.1, 10

(10) A stud handle bowl with incurved featureless rim and convex body. The body has a circular top with intersecting lines.
Black decoration of horizontal bands from outside, wheel made. Diameter 4.5 cm. (Nageshwar; Taluka Okhamedal). Such type of bowls are found in II-A-B periods of Rangpur sequence, Kanawal, Lothal A-B periods etc.

Variant B: (Parallel sided Bowls) Fig. D.1; 11 to 15.

This type of bowls have slightly straight sides. Both painted and plain varieties were found. Mostly vertical horizontal bands and roundles have been used for decoration in combination or separately. The diameter of this type of bowls range from 9 to 20 cm. Such type of bowls have been reported in red ware and black and red ware in Rangpur in period II B.C.13

(11) A bowl with slightly vertical sides and featureless rim.
Fine red fabric. Red slip inside and outside. Having graffiti of two, more or less vertical strokes internally. Wheel made. Diameter 20 cm. (Duchala; Taluka Jodiya).

(12) A bowl with vertical sides having a groove near the rim.
Fine red fabric. Red slip inside and outside. The unslipped portion has dark red roundles. The rim is also decorated with black horizontal bands on both the sides. Wheel made. Diameter 16 cm. (Rasnal; Taluka Jodiya).


Variant C: (Concave-sided Bowls); Fig. D.1 and D.2; 16 to 22.

This type of bowls have slightly out-turned, bevelled rim, which forms concave sides. Some of the specimens have also carination in the body. Mostly horizontal, vertical bands, loops, hatched diamonds, wavy lines were used in combination or separately as decorations. Black or brown red colours over red surface for decoration. The diameter of these bowls range between 9 to 21.5 cm. Such types of bowls have been reported from Rangpur in II-C-IIII periods, Rasnal, Lothal B, etc. Following is the description of some of the representative shapes:

(16) Bowl with slightly concave sides with lightly flaring rim, coarse red fabric. Reddish yellow slip outside, yellowish surface inside. Wheel made. Diameter 20 cm. (Rasnal; Taluka Jodiya).

(17) Bowl with slightly concave-convex profile. Fine red fabric. Brown red slip inside, from the outer side red slip is applied in two distinct bands leaving unslipped portion in the centre. This unslipped portion is decorated with brown
red vertical lines. Wheel made. Diameter 19 cm. (Gokulwar; Taluks Lalpur).

(18) A variant of 16. Wheel made. Diameter 17 cm. (Singach; Taluks Lalpur).

(19) Bowl with slightly flaring rim, concavo-convex profile.
Medium red fabric. Blushish-red slip inside. The rim and neck portion of the bowl is unslipped, while the body portion has black slip. The rim is decorated with wavy lines in dark red. Diameter 21 cm. Wheel made. (Varnal-Mota; Taluks Lalpur).


Sub-variant IC: (Stud Handle bowl) Fig.D.2.

(23) A stud-handled bowl with featureless rim, concavo-convex profile. The handle portion is missing. Fine red fabric. Red slip inside and outside. Black decoration of vertical
rows of hatched diamonds from outside. Internally the rim has a thick black horizontal band. Wheel made. Diameter 4.5 cm. (Godawari; Taluka Lalpur). This type of bowl has been also recovered from Kanawal.17

Sub-variant IRC: (Concave side Bowl with carminication) Fig. 8.2, 24 to 26.

This type of bowls has concave sided with sharp or slight carminication in the body. Both painted and plain bowls were found. The diameter of these bowls range between 19.9 cm. to 24 cm. Such types of bowls have been reported from Rangpur II-C and II periods,18 Meheshwar and Navdatoli in period III.19 Following are the few representative shapes:


Variant D: (Deeper Bowls with Projecting Rim) Fig. D.2; 27 to 30.

In this type bowls are with projecting rim convex body. Only plain bowls were found in this variety. The diameter of these bowls range between 18.7 to 34 cm. This type of bowls are reported from Rangpur in Micaceous red ware and black and red ware and in Bhavnagar from surface collection at Chota-Ixvaria, Gadhadu (Taluka), Ixvaria village,21 Kenawal22 etc. Following is the description of the representative types:


(30) A bowl with projecting flat grooved rim. Medium red fabric. Red slip outside, inner side has light red surface. Diameter 34 cm. (Shaparvadi; Taluka Kalavad).

Variant E: (Prabhas ware bowls) Fig. D.2; 31 to 32.

At Somnath this ware has been found in period associated with Harappan wares and has been named as Prabhas ware, because they were first found at this site.23 However, such types are also reported from Lothal B and Rangpur II-B.
In this ware only two bowls were recovered during present investigation, therefore they have been included in red ware only. This type include painted bevelled rim, with a convex-sides and most probably with rounded base. The slip is light chocolate colour and violet coloured paintings. This type of bowls range between 15.2 cm. to 17.5 cm.


Dishes: (Fig.D.3 and D.4; 33 to 48)

It is possible that many of the dishes may be fragments of dish-on-stand, but in absence of the joint portions they are classified under dishes. Mostly all the specimens have projecting rim or everted rim with or without carniation. They are plain as well as painted with black on red. Mostly vertical horizontal bands, wavy lines and loop designs have been used for decoration. Another interesting feature of more than one slip (white slip) and application of reserved slip, leaving central portion unslipped. The slipped or unslipped portions are usually decorated with wavy vertical lines or loop designs. The bichrome effect on the rims of dishes are reported from Rangpur in early levels of period IL-A.
II-D and the earliest level of period II-C. However, white slipped ware has been reported from Mohanjodaro also.

(33) Deep dish with raised flaring rim having carnicated shoulders. Red slip inside and outside. Diameter 36 cm. Wheel made. (Harappa-1; Jutarka Jamindpur). Such type of dish have been reported from Rangpur from middle level of period IL-A.

(34) Comparatively shallow dish with flaring rim and prominent carnicated shoulders. Fine red fabric. Brown red slip inside and outside. Wheel made. Diameter 20 cm. (Mohenjo-Daro; Taluka Jodiya). Such type of dishes have been reported from Rangpur in middle levels of period IL-A.

(35) Deeper dish with flaring beaded rim with carnicated shoulders. Fine red fabric. Brown red slip outside, reserved slip inside, producing a bichrome effect. Two groups of wavy lines of four each in black coming down up to the middle portion of dish from outside. Wheel made. Diameter 23 cm. (Jhakar; Taluka Lalpur). Such type of dishes are reported from Rangpur period IL-B-C.

(36) Shallow dish with flaring slightly beaded rim and carnicated shoulders. Fine red fabric. Red slip inside and outside. Black decoration of intersecting loops at rim and on the carnation outside. Wheel made. Diameter 25.3 cm. (Talara-III; Jutarka Jodiya). This type of dish is reported from Late levels of period IL-A of Rangpur sequence.

(39) Shallow dish with flaring slightly beaded rim, having a ledge from outside. Fine red fabric. Red slip inside and outside. (partly flaked off). Black decoration of vertical lines on the rim internally. Wheel made. Diameter 26.7 cm. (Tankaria; Taluka Kalyanpur). Such type of dish has been found from Rangpur in lustrous red ware from the middle levels of period III.

(39) Dish with flaring beaked rim and slightly carnated shoulders. Fine red fabric. Red slip inside and outside. Wheel made. Diameter 32.3 cm. (Kotada; Taluka Kalavad). Such type of dish has been found from early levels of Rangpur II-III period.


(41) Dish with flaring beaked rim with light carnation at the shoulder. Fine red fabric. Red slip inside and outside. Wheel made. Diameter 38.0 cm. (Nageshwar; Taluka Okhemandal). Such type of dishes are reported from Kanewal.

(43) Dish with flaring beaded rim. Fine red fabric. Red slip outside, reserved slip inside, thus produces a bichrome effect. The unslipped portion is decorated with black intersecting loops and besides the rim has a thick black horizontal band. Wheel made. Diameter 37 cm. (Tarana-II; Taluka Jodlya). Such type of dish has been recorded from period II-C of Rangpur sequence.33


(45) Dish with incurved thick rim. Fine red fabric. Brown red slip inside and outside. Design of vertical lines on the rim from inner side. Wheel made. Diameter 34.5 cm. (Nageshwar; Taluka Okhmandal). Such type of dishes are reported from Kanewal.34

(46) Deeper dish with beaded rim. Fine red fabric. Brown red slip outside. The rim has white slip, below it has a brown slip. The white slipped portion is decorated with criss-cross lines and a black horizontal band. Wheel made. Diameter 32.2 cm. (Piparthoda-I; Taluka Lalpur). Such type of shapes in dishes have been reported from Rangpur in period II-C.35

(47) A shallower dish, variant of above, but a thicker variety, having a shallow groove. Decoration of suspended loops on the white slipped portion and a thick black band of horizontal
Dish on the rim: Wheel made. Diameter 35 cm. (Piparoda-I; Taluka Lalpur).


Dish-on-Stand:

The most distinctive type of the Harappan pottery is what is called 'offering-stand' having dish or bowl for its crowning component. Generally, they were carefully made of well levigated clay, normally mixed with small proportion of lime and sand to prevent warping. They are made in two parts, dish or bowl attached to the stem with base. Both the parts were turned on wheel and subsequently luted together. No complete of dish-on-stand was recovered from the present exploration, but different parts, such as; dish, stem, joint and base of dish-on-stand were recovered.

Dishes: Fig. 84; 49 to 50.

These are fragments of dish-on-stand. They have projected rim and sharp carnation with the signs of joining parts below. Black loop designs and horizontal bands have been used in decoration. The diameter of dishes range between 17.5 to 19.5 cm. They have been reported mostly from the Chalcolithic sites of Gujarat. Following is the description of the few representative shapes:

(49) A dish portion of dish-on-stand with more or less convex base, concave flaring sides and carnated shoulders. The base indicates the joint, possibly hollow stem. Fine red
fabric. The dish is decorated with black bands from outside near the joint. Red slip inside and outside (partly flaked off), wheel made. Diameter 19.5 cm. (Narmada-II; Taluka-Jamshedpur).

(50) A dish portion of dish-on-stand with convex base, concave flaring sides and beaked rim. Shoulder has a heavy carination. The base indicates the joint, possibly hollow stem. Fine red fabric. Red slip inside and outside. The rim is decorated with black suspended loops from inner side and a thick band on the carinated shoulder from outside. Wheel made. Diameter 17.5 cm. (Nageshwar; Taluka Okhamedal). Such types of dishes have been found from Mohanjodaro in the upper levels.36

Joints: (Fig. D.4 & D.5; 51-55)

The fragments of stand of dish-on-stand includes, joints, stem and base. Mostly stands are hollow and sturdy. However, a solid stand was also recovered during exploration. A close observation shows that dish and stem portion were separately manufactured and were assembled before baking. The assemblage is so perfect that no trace of joint is visible unless it is broken and carefully observed. The solid stands have been also reported from Runeja in M.P. in Runeja ware.37

(52) A fragment of joint with dish preserved (Nageshwar; Taluka Okhamandal).


(55) A variant of 51; with stem attached below. (Dudhol; Taluka Kalavad).

Stem: (Fig.5; 56 to 58).

(56) A fragment of a corrugated stem. (Singach; Taluka Lalpur).

(57) A fragment of a stem. Yellowish red slip. (Shaydi-Mota; Taluka Kalavad).


Base: (Fig.3; 59 to 63).


(60) A fragment of base of dish-on-stand with externally rounded rim painted with three horizontal black bands from outside. Fine red fabric. Brown red slip outside and red surface
inside. Wheel made. Diameter 26 cm. (Kalavad-I; Taluka Kalavad).


(63) A fragment of a base of dish-on-stand with externally beaded rim having a red slip outside and light red surface inside. Wheel made. Diameter 15 cm. (Chandravad-I; Taluka Kalyanpur).

(64) A fragment of base of dish-on-stand with externally beaded rim. Fine red fabric. Brown red slip outside and light red surface inside. Diameter 22.7 cm. (Ranpara; Taluka Kalyanpur).

Basins: (Fig. D.5 & D.6; 65-79)

Basins are bigger than dishes and shallower than the bowls. Being a common kitchen ware, they mostly devoid of any decoration. However, specimens with decoration were also recovered during exploration. Mostly the decoration of interesting loops wavy lines etc. have been used. The diameter of the basin range between 17 to 42 cm. Following is the description of the following representative forms of the basins:


(68) Basin with more or less nail-shaped rim. Fine red fabric. Red slip inside and outside. Wheel made. Diameter 39 cm. (Blandi; Taluka Kalavad).


(73) Basin with out-turned pointed rim. Fine red fabric. Red slip inside and outside, but the central portion is left unslipped from outside producing a bichrome effect. Wheel made. Diameter 38 cm. (Singoch; Taluka Jodiyad).

(74) A variant of 73, having the unslipped bands on inner side as well as outer side. Fine red fabric. Wheel made. Diameter 38 cm. (Sangach; Taluka Lalpur).

(75) Basin with averted pointed rim having a groove just below the rim internally. Medium red fabric. The slip is flaked off. Wheel made. Diameter 42 cm. (Haripur; Taluka Lalpur).

(76) A variant of 75. Medium red fabric. Red slip inside and outside. Diameter 37.6 cm. (Balavadi; Taluka Kalavad).


(79) Basin with flat base broken rim and same portion of side are preserved. Fine red fabric. Red slip inside and outside, with ledge on the flat portion of the base from outer side.
Wheel made. Diameter could not be determined. (Nageshwar; Taluka Okhamandal).

Goblet: (Plate D.7: 80)

Only one goblet was recovered during exploration. It is devoid of any decoration. Following is the description:

(30) Goblet with footed base. Medium red fabric. Slip has flaked off. (Veraval-Mota; Taluka Kalavad). Goblets are reported from Rangpur II-a and early levels of II-b, Lothal. Moreover, they have been also reported from other mature Harappan centers.

Jars: (Fig. D.7 & 3)

The jars are mostly plain except few. Only the rim portion are found. They have beaded or flared rim with high neck or short neck. The curvature of the body shows that they had rounded body. They are plain and painted with bands, loops etc. Sometimes a bichrome effect is produced by the use more than one slips (white slip) and application of reserved slip leaving a band unslippered. However, in this variety thick storage jars with medium core have also been included.

Variant A: (Jars with flaring rims and inscipient neck) (Fig. D.7; 31-33).

This type of jars are with flaring rims, inscipient neck and globular body and possibly flat base. The diameter of these jars range between 14 to 18 cm. They are plain as well as painted with black on red. Mostly vertical, horizontal bands, wavy lines and loop designs have been used. Another interesting feature of the
painting is the bichrome effect produced by the use of more than one slip (white slip) and application of reserved slip leaving central portion unslipped. The slipped or unslipped portion are further decorated with wavy lines, vertical and horizontal bands. Such types of jars are reported from Rangpur in early levels of period II-A and period II-B. Following is the description of the jars of this variety:


(82) Jar with flaring rim incipient neck, bulbous body. Fine red fabric. Red and white slip outside and red surface inside. (White slip is applied on the center, the lower and upper portion is red slipped). Black band of vertical lines on the body from outside. Wheel made. Diameter 18 cm. (Pithadia; Taluka Lalpur).


(84) A variant of 83. Fine red fabric. Dark red slip outside, red surface inside, having criss-cross lines and horizontal bands in red from outside, with a arrow-shaped graffiti on the rim. Wheel made. Diameter 14 cm. (Laloi; Taluka Kalavad).
A variant of 83. Fine red fabric. Diameter 18 cm. (Kota; Taluka Khambhalia).

A variant of 85. Medium red fabric. Reserved slip outside and red surface inside. Light red slip is decorated with wavy, vertical and horizontal lines. Wheel made. Diameter 18 cm. (Shaparwadi; Taluka Kalavad).


Variant B: (Jars with beaded rims and raised neck) (Fig.8.7; 99-91).

This type of jars are with beaded rims and raised necks and possibly globular bodies. The diameter of these jars range between 11 to 15 cm. only unpainted jars were found in this variety. Such types of jars are reported from middle levels of period II-4 and II at Rangpur, Kanewal etc. Following is the description of the respective shapes of this variety:

Jars with raised neck, beaded rim and possibly globular body.

Red slip outside and red surface inside, wheel made. Diameter 11 cm. (Namana-II; Taluka Jamjodhpur).

(91) A variant of 89. Diameter 14 cm. (Rasnala; Taluka Jodlya).

**Variant C:** (Jar with grooved rim and raised neck)

Only one vessel was found in this variety.

(92) Jars with raised neck, out-turned grooved rim and possibly globular body. Red slip outside and red surface inside. Black decoration of vertical lines in grooved rim, from outside. Wheel made. Diameter 15 cm. (Rasnala; Taluka Jodlya).

**Variant D:** (Perforated Jars) (Fig. D.7; 93 to 94).

These are one of the diagnostic ceramics of the Harappans, as they are found in considerable number at all the important centres of their culture. Some variation in shape of course are visible, but more often they are almost cylindrical with flat base. The holes are pierced from outside leaving the rugged edges on the inside. However, only two shapes were recognised in this variety, but number of non-descriptive sherds in perforated ware were also found from large number of sites. Perforated jars have been reported from Rangpur II–A–43 and Lothal A and B.44 Following is the description of the shapes found in the variety:

(93) Cylindrical perforated jar, splayed rim and straight sides. Fine red fabric, slip is flaked off. Diameter 21 cm. Wheel made. (Kota; Taluka Khambhaliya).
(94) A variant of 93. (Nageshwar, Taluka Okhamand).  

**STORAGE JARS:** (Fig. 9, 10 and 11; 95 to 112).

This type of jars are thick and sturdy and are very big in size. These were possibly used for storing water and grains and these were meant for storage. Both plain and painted varieties of storage jars were recovered. Horizontal bands, loop designs were usually employed for decoration. The diameter of storage jars ranges between 20 cm. to 52 cm. Following is the description of the representative shapes:

(95) Sturdy Jar with a splayed projected rim. Fine red fabric. Red slip outside and light red surface inside. Painted with thick horizontal bands, the rim is also painted with suspended loops in black. Wheel made. Diameter 53 cm. (Kalavad-II; Taluka Kalavad).

(96) A variant of 95, Diameter 28 cm. (Nageshwar; Taluka Okhamand).

(97) A variant of 95; but devoid of any decoration. Diameter 42 cms. (Kalavad-II; Taluka Kalavad). Such type of storage jars are reported from middle and late levels of II-A at Rangpur. Moreover, such type of jars were reported from Sai-no-Takro, in Hut-II at Kanaval.

(98) Storage jar with restricted neck, splayed out-turned pointed rim and convex profile. Fine red fabric. Red slip outside and light red surface inside. It has a griffiti from outside of three horizontal and four vertical strokes, thus forming
eight small squares. Wheel made. Diameter 23.5 cm. (Pajvad; Taluka Kalavad). Such type of jars are reported from Amri-III-D, Mohanjodaro and Kalibangan. 47

(99) Flanged storage jar with concave neck and possibly globular body. Medium red fabric. Red slip outside and light red surface inside. Wheel made. Diameter 35 cm. (Kalavad-II; Taluka Kalavad). Such types of jars are reported from Rangpur period II-B. 48

(100) Flanged storage jars with straight sides. It has the flange below the rim. Fine red fabric. Red slip outside; light red surface inside. Wheel made. Diameter 25.5 cm. (Changar; Taluka Dhanvad). Such type of flanged jars with straight sides have come to light from Amri-III-B, Lothal. 49 Moreover, similar specimens with perforations below the rim are reported from Chandhugaro. 50

(101) Storage jar with wide mouth, flaring neck and beaked rim, with smoky core red slip outside. Wheel made. Diameter 20 cm. (Rasnal; Taluka Jodiya).

(102) A variant of above, with slightly groove on the brim and deep concave neck. Red slip outside and light red surface inside. Wheel made. Diameter 24.2 cm. (Pilarkoda-II; Taluka Laipur. Such type of storage jars have been reported from late levels of period II-B from Rangpur in buff ware. 51

(103) Thick storage jar with out-turned beaded rim and possibly globular body. Red slip outside and light red surface inside. Wheel made. Diameter 39.9 cm. (Pithadia; Taluka Laipur).
Such type of storage jars are reported from Rangpur II-52.

(104) Thick storage jar with slightly clubed rim having medium red fabric. Red slip outside and inside. Wheel made.
Diameter 52 cm. (Rangdi-Mota; Taluka Lalpur). This type of storage jars are reported from middle levels of period II-B at Rangpur.53

(Dipartoda; Taluka Lalpur). Such type of storage jars are reported from early levels of period II-B at Rangpur.54

(106) Storage jar with slightly beaded rim and more or less straight sides. Medium fabric. Red slip outside and light red surface inside. Wheel made. Diameter 44 cm.
(Bhanger; Taluka Dhanbad).

Wheel made. Diameter 24 cm. (Haripur; Taluka Lalpur).
This type of storage jars are reported from Rangpur II-B.55

(108) Barrel shaped storage jar with an acute angular rim. Fine red fabric. Red slip outside, red surface inside. Wheel made. Diameter 32 cm. (Nageshwar; Taluka Okhamandal. Such types of jars have came to light from Lothal A and B in Grey and Coarse red ware.56

(109) a variant of 101. But a thicker variety. Diameter 32 cm.
(Nageshwar; Taluka Okhamandal).
(110) A variant of 103. Diameter 32.2 cm. (Rampur; Taluka Kalyanpur).

(111) Jar with slightly beaded out-turned rim. Coarse red fabric. Reserved slip outside and the lighter red surface inside, having black bands of horizontal lines on the body from outer side on the unslipped portion. Diameter 34 cm. (Haripur; Taluka Lalpur).

(112) Thick and sturdy beaded rim of a storage jar. It has raised neck and possibly bulbous body. Medium fabric. Slightly incrusted with calcareous deposit. Diameter 22 cms. (Dhangor; Taluka Dhanvd). Such types of pots are reported from Bhangpur in later levels of period II-B and II-C.57

Miniature pots: (Figure D.10; 113 to 116).

During exploration of the district few miniature pots were also recovered in this ware. They are plain as well as painted. Following is the description of the few representative shapes:


(114) A variant of above. (Nageshwar; Taluka Okhamedal).

(115) A miniature pot with flaring beaked rim and raised neck and globular body having black horizontal band. Decoration from outside. Red slip outside and red surface inside. Wheel made.

Mostly rim and body portions of jars were found. No complete specimen of jar were found during exploration. Therefore to make rough conjecture of the complete pots few pot bases are here described and drawn here. They are both plain as well as painted. Following is the description of few representative shapes:


(119) Pot base of miniature pot with concave sides. (Nageshwar; Taluka Okhamandal).


(121) Footed base of jar with bulbous body. (Kalavad-III; Taluka Kalavad).

(122) Footed base of a pot with excurred ring base. Wheel made. Diameter of the base 8 cm. (Bhagor; Taluka Bhanvad).

Non-descript painted sherds: (Figure D.11; 124 to 140).

Large number of non-descript painted sherds with vertical, horizontal, suspended loops, roundles, wavy lines were found painted in combination of separately. The colours used for decoration ranged from light-dark to dark colours. Recently an analysis on the pigment has shown that the iron oxide and manganese oxide minerals in the pigment made difference in colours. The percentage of manganese oxide was found higher in the colours of darker tones and the percentage of manganese oxide was lowered for getting lighter tones. This shows sophistication in taste and artistic talents of the people. Still another variety of non-descript pottery was represented by incised pattern. Moreover, few non-descript sherds were having graffiti marks. Following is the description of some of the representative designs found on the sherds:

(125) A sherd painted in black of four wavy lines. (Taranaj-II; Taluka Jodiya).

(124) A sherd painted with black parallel horizontal bands.
   (Lalo; Taluka Kalavai).

(126) A sherd painted with black vertical and horizontal bands in a group. (Basel; Taluka Jodiya).

(127) A sherd with reserved slip, the unslipped portion is decorated with cross hatched design. (Morpur; Taluka Lalpur).
(128) A variant of above, but the design is in red over light red surface. (Shangor; Taluka Bhanvad).

(129) A variant of above with thick horizontal band below.

(130) A sherd with reserved slip. The unslipped portion is decorated with four roundels in red over light red surface. (Singach; Taluka Lalpur).

(131) A sherd with wavy bands, wavy lines, expanded loop with roundle inside has been decorated in combination. (Rasnal; Taluka Jodiya).

(132) A sherd with vertical and horizontal bands in combination. (Shangor; Taluka Bhanvad).

(133) A sherd with floral motif (leaf). (Nageshwar; Taluka Okhanda
dl).

(134) A sherd with a black blot from which two sharp floc-like strokes come out. (Kalavd-II; Taluka Lalpur).

(135) A sherd with triangular decoration with vertical lines inside, the other side has circular decoration with small strokes emerging out from it. (Kalavd-II; Taluka Lalpur).

(136) A sherd (possibly portion of dish-on-stand) with incised pattern on the flat portion. Such type of flat based dishes and basins with incised pattern are reported from Mohanjodaro and Kalibangan. (Nageshwar; Taluka Okhamedal).

(137) A non-descript sherd with comb design. (Nageshwar; Taluka Okhamedal).
(138) A variant of 136. (Bhuleshwar, Taluka Okhamedal).
(139) A non-descript sherd with a graffiti on the inner side of the pot-sherd having six vertical and eight horizontal strokes thus forming number of small squares. (Balmendi, Taluka Kalavad).

BUFF WARE

One of the typical Chalcolithic ceramics indicate whitish or buff colour. The buff ware is made of a Calcareous clay, which is rather coarse when compared with fine buffish alluvial clay used in making pots in red ware. The presence of lime in the clay develops buff colour. It is made of well levigated clay and very well fired. Even patches of red along with buff are also found, and it is because of differential firing.

Bulk of this pottery is unpainted. When painted, the painting is mostly confined to rims and body portion of bowls and dish-on-stand. Mostly horizontal, vertical bands and wavy lines painted over buff background. An interesting feature in this ware is that sometimes a red slip is applied internally and especially in the bowls. Mostly the shapes are similar as found in the red ware such as bowls, dishes, basins, goblets and storage jars. Jars with wide mouth, flaring rim, jar with beaded rim and nail-shaped rim of the basin show strong affinities with period II-4 of Rangpur.61
Moreover, jars with flat rim with convex profile show strong affinity with pots reported from the middle level of period II-B of Sangpur. Following is the description of some of the representative shapes found in this ware.

Bowls: (Fig. 12; 141 to 146)

Only two types of bowls were found during present exploration which includes convex sided and deeper bowls with projecting rim. They are plain as well as painted with chocolate colour over buff background. Mostly vertical and horizontal bands have been used for decoration. The diameter of bowls in general ranges between 14 to 20 cm. Following is the description of the bowl types found:

**Variant A**: (Convex sided Bowls) (Fig. 12; 141 to 152).

This type of bowls are strong with thick fabric. They are painted with chocolate over buff background. One of the specimen has a red coloured slip from inner side. Except for the buff surface they are similar to the bowls of red ware and their diameter range between 14 to 19 cm. Following is the description of the few representative forms in this variety:

1. **(141)** A convex sided bowl with featureless rim. Fine fabric, having a thick band in chocolate colour over buff background internally, just below the rim. Wheel made. Diameter 14.5 cm. (Shangar; Taluka Shrivad).

2. **(142)** A variant of 141. Fine fabric. Decoration in chocolate of five horizontal lines on the body from outside, between
these bands red colour is applied to produce bichrome effect. The bowl has a rod slip and a thick band in black internally. Wheel made. Diameter 19 cm. (Pasal; Taluka Jodiya).

(143) A variant of 141. Fine fabric. Decoration in chocolate of four vertical lines on the body from outside. Wheel made. Diameter 17.2 cm. (Pipartoda-II; Taluka Lalpur). Such type of bowls are reported from Kanewal. 63

Variant B: (Bowls with Projected Rim) (Fig.D.12; 144 to 145)

This type of bowls are also strong with comparatively thick fabric. Only plain type of bowls were found in this variety. These bowls are with out-turned rim with convex or concave sides. The diameter ranges between 19 to 20 cm.

Following is the description of the bowls:

(144) Bowl with penknife-like out-turned projecting rim and slightly concavo-convex profile. Wheel made. Diameter 20 cm. (Kalavad-II; Taluka Kalavad). Such type of bowls are also reported from Kanewal. 64

(145) Bowls with out-turned slightly beaded rim and convex profile. Wheel made. Diameter 19 cm. (Pithadia; Taluka Lalpur).

Dish: (Fig.D.12: 146).

Only one dish was recovered during exploration in this ware. It may be possible that this dish may be a part of dish-on-stand but in absence of the joint portion below, it may be classified under dish only.
Dish with slightly beaded projecting rim and round shoulders. Fine fabric. Wheel made. Diameter 45.5 cm. Such type of dish with chocolate designs have been reported from latest level of period II-A and period B from Rangpur.65 Dish-on-stand: (Fig.D.12; 147).

Only the base portion of dish-on-stand was recovered during exploration. The presence of base portion of dish-on-stand indicate that the chalcolithic people also made dish-on-stand in this ware also.

Base portion of dish-on-stand with beaded rim. Fine fabric. A thick band of chocolate colour is applied over buff background near the rim. Wheel made. Diameter 24 cm. (Shangor; Taluka Shanvad).

Basin: (Fig.D.12; 149).

Only one plain basin was recovered which is devoid of any decoration.

Basin with slightly nail-shaped rim. Fine fabric. Wheel made. Diameter 23 cm. This type of basin have been reported from middle levels of period II-A at Rangpur.66 Goblet: (Fig.D.12; 149)

Only one goblet was recovered during exploration. It is devoid of any decoration. Following is the description:

Goblet (?) with footed base. Fine red fabric. (Kalavad-II; Taluka Kalavad).
Jars: (Fig. 3.12 and D.13: 150 to 156).

All the jars found in this ware are plain. Only the rim and body portion of the jars were recovered. They have beaded or flared rim with high or incipient necks. The curvature in the body portions indicate that they had rounded body. The diameter of the jars range between 13 to 50 cm. This type includes both big storage jars and small pots. Such type of jars are reported in buff ware at Rangpur in period II-A-B.

Following is the description of some of the representative shapes in this variety:

(150) Jar with medium thickness with wide mouth. Flaring rim and bulbous body; greenish buff colour. Wheel made. Diameter 23 cm. (Singach; Taluka Lalpur). Such type of pots are reported from early levels of period II-A at Rangpur. 67

(151) Jar with medium thickness; narrow mouth, flaring beaded rim and raised neck, bulbous body. Greenish buff. Wheel made. Diameter 13 cm. (Salamoi; Taluka Kalavad). This type of jar has been reported from Rangpur in middle levels of period II-A. 68

(152) A variant of 150. Medium thickness. Wheel made. Diameter 41 cm. (Laloi; Taluka Kalavad).

(153) Storage jar with a sturdy flat rim and slightly convex profile. Buffish colour, having flying bird-like griffiti on the body from outside. Wheel made. Diameter 32.5 cm. (Laloi; Taluka Kalavad).
(154) Storage jar with beaked rim, incipient neck and globular body. Wheel made. Diameter 42.2 cm. (Rasnal; Taluka Jodiya).

(155) Jars with wide mouth, flaring beaked rim, greenish buff colour. Wheel made. Diameter 45.5 cm. (Balandi; Taluka Kalavad). Such types of jars reported from period II-B at Rangpur. 69


(157) Thick and sturdy storage jar with beaded rim and slightly convex profile. Light red wash partly flaked off. Wheel made. Diameter 50.5 cm. (Balandi; Taluka Kalavad).

Pot Stands: (Fig. D.13; 158 to 159).

As already mentioned above that only rim and body portions of jars were recovered. No complete specimen was found therefore to make a rough conjuncture of the complete pots few pot bases are described here:

(158) Pot base with flat base. Greenish buff. Wheel made. Diameter 11.5 cm. (Singeach; Taluka Lalpur).

(159) Pot base with beaded rim and raised sides. Whitish buff. Wheel made. Diameter 14.7 cm. (Laloi; Taluka Kalavad).

Miniature pots: (Fig. D.13; 160 to 161)

During exploration few miniature pots were also recovered in this ware. The range between 7.9 to 10.5 cm. Following is the description:

(161) Pot with flaring beaded rim incipient neck and globular body. Diameter 7.9 cm. (Bhadri-Moti; Taluka Kalavd).

Non-descript. Sherds: (Fig.D.13: 162 to 163)

Only two non-descript painted sherds were recovered during exploration:

(162) A sherd with painting of horizontal bands in chocolate colour. (Nageshwar; Taluka Okhamsandal).

(163) A sherd with buff background. It is decorated with thick band and wavy lines on it. (Kalavad-II; Taluka Kalavd).

GREY Ware

It is a grey coloured pottery with almost fine core and fabric. The clay used is well levigated and is devoid of any impurities, which is evident from the section. The dark grey coloured slip is applied over the surface, which is also polished to give it a soapy touch, otherwise it is devoid of any extraneous ornamentation. It was found in very limited number and variety and from Nageshwar (Taluka Okhamandal) only. This type of ware has been found throughout the entire span at Mohanjodaro. Convex-sided bowl, base portion of dish-on-stand, pot with beaded rim and pot base was recovered from this site. Following is the description of
the pottery shapes found: (Fig. D.13: 164 to 167)


ILLUSTRATED RED WARE

This ware has a glossy surface. A red slip has been applied on the surface and burnished before firing i.e. when the pot is wet and the texture is dense to medium. It is carefully prepared on wheel. It is characterized by lustrous slip showing sheds of orange to red. It seems that the pottery was fired at medium temperature, because its section has smoky core. However, only limited number of vessels were made of fine core.

Both plain as well as painted specimens have come to light. The waxy shining surface is painted in black. The designs are mostly of straight, horizontal, criss-cross and wavy lines.
The ware has wide distribution and has been reported from many sites like, Mashal and Prakash in Tapri Valley, 71 Navadotoli in Central India, 72 RamBhatra in Rajasthan. 73

It also appears at Rangpur in transitional phase of period II-C and continues unto period III. 74 However, it was also reported from number of explored sites in Gujarat.

Bowl: (Fig. D.13, D.14 and 15; 168-179)

From the exploration of the district, bowls in different shapes such convex sided, parallel side, concave side with or without carinations and deeper bowls with projecting rim were found. They are plain as well as painted in black.

**Variant A:** (Convex sided Bowl) (Fig. D.13; 168)


**Variant B:** (Concave sided Bowl) (Fig. D.13 and D.14; 169 to 174)

This type of bowls have slightly out-turned, bevelled rim, which forms concave sides. However, some of the specimen has concavo-convex profile and sometimes have a handle attached to the rim. They are painted as well as plain. Mostly horizontal, vertical bands are used in combination or separately. The diameter of these bowls range between 11 to 22.5 cm. Following is the description of some of the representative shapes:
(169) A bowl with slightly out-turned rim with concavo-convex profile. Blackish core. It is painted on both sides by vertical and horizontal bands in black. Wheel made. Diameter 20.5 cm. (Rajvad; Taluka Kalavad).

(170) A bowl with out-turned pointed rim with concavo-convex profile. Red core. Wheel made. Diameter 22.3 cm. (Raanal; Taluka Jodiya).

(171) A bowl with out-turned rim. Concave sides. Blackish core, having a thick band of black over the rim from outside. Wheel made. Diameter 17.4 cm. (Rajvad; Taluka Kalavad).

(172) A variant of 170. Wheel made. Diameter 17 cm. (Rajda; Taluka Kalavad).

(173) A bowl with out-turned rim with slightly concave sides. Blackish core, having horizontal line decoration from outside. Wheel made. Diameter 12.2 cm. (Chandravad-I; Taluka Kalyanpur).

(174) A variant of 171; but devoid of any decoration. Wheel made. Diameter 11 cm.

Variant C: (Parallel sided bowl) (Fig.D.14; 175)

Only one bowl of this type has recovered from exploration. Following is the description:

(175) Bowl with parallel sides and possibly saggar base. Blackish core, having parallel horizontal thin bands in black from outside. Wheel made. Diameter 16.4 cm. (Raanal; Taluka Jodiya).
Variant D: (Deeper Bowls with Projecting Rim) (Fig.D.14;176)

In this type, bowls are with projecting rim, convex body. Only plain bowls were found in this variety.

Following is the description:


Sub-Variant E: (Stud Handle Bowls) (Fig.D.14; 177 to 179)

(177) Stud handle bowl with featureless rim, concavo-convex profile. The handle portion is missing. Blackish core. Wheel made. Diameter 15.1 cm. (Rajda; Taluka Kalavad).

(178) A variant of above. Wheel made. Diameter 13 cm. (Shangor; Taluka Kalavad).

(179) A variant of above, with suspended loops and vertical band design from outside. (Rajda; Taluka Kalavad).

Dishes: (Fig.D.14; 180-183).

It is possible that many of the dishes may be fragments of dish-on-stand, but in absence of the joint portions they have been classified under dishes. Mostly the dishes are with out-turned beaded rims, non-carniolated shoulders and plain. Following is the description of some of the representative shapes:

(180) A fragment of dish with out-turned beaded rim, having a deep groove from inner side. Blackish core. Wheel made. Diameter 33.5 cm. (Shaparwadi; Taluka Kalavad).
A fragment of dish with flaring beaded rim, having a groove from the inner side. Blackish core. Wheel made. Diameter 32.5 cm. (Pipartoda-II; Taluka Lalpur).

A dish with outturned raised rounded rim having a groove from the inner side. Blackish core. Lustre washed out. Wheel made. Diameter 30 cm. (Rajda; Taluka Kalavad).

A dish with raised out-turned beaded rim, having a slight carniation just below the rim. Blackish core. Wheel made. Diameter 30 cm. (Chandrawad-I; Taluka Kalyanpur).

Dish-on-stand: (Fig. D.14; 134 to 188).

The most distinctive type of the Harappan pottery of red ware continued in this ware. No complete dish-on-stand was recovered during exploration, but different parts such as, dish, stem, joint and base of dish-on-stand were recovered. Following is the description of the few representative shapes:

Dish:

A deep dish with beaded rim, non-carnistioned, with a curvature below indicating portion of dish-on-stand. Blackish core. Wheel made. Diameter 20 cm. (Rajda; Taluka Kalavad).

Base:

Joint:

(186) Joint portion of dish-on-stand with a portion of stem attached. (Bhagedi-Mote; Taluka Lajpur).

(187) A variant of above. (Rajds; Taluka Kalavad).

(188) A variant of above, having black parallel horizontal lines from outside. Blackish core. Rajds; Taluka Kalavad).

Basins: (Fig. D.14; 19 to 194.)

Basins are broader than dishes and shallower than the bowls, being a common kitchen ware, they are devoid of any decoration. The basin range between 19.4 to 38 cm. Following is the description:

(189) Basin with raised rounded rim, having a groove from outside. Blackish core. Wheel made. Diameter 19.9 cm. (Chandravad-I; Taluka Kalyanpur).


(191) Basin with slightly pointed rim. Blackish core. Wheel made. Diameter 32 cm. (Morpur; Taluka Lajpur).


(193) Basin with out-turned beaded rim having a groove from outside. Blackish core. Wheel made. Diameter 34 cm. (Rajds; Taluka Kalavad).
A basin with out-turned rounded rim having blunt carination in the shoulder. Blackish core. Wheel made. Diameter 38 cm. (Rajda; Taluka Kalavad).

**Jars:** (Figure D.15: 195 to 202)

All the jars recovered in this ware are plain. Only the rim and body portions of the jars were recovered. They have beaded or flared rim with high or inceptent necks. The curvature in the body portion indicate that they had rounded bodies. The diameter of the jars range between 12 to 45.5 cm. This type includes both big and thick storage jars and small pots.

(195) Thick storage jar with walls of medium thickness and bended rim, having convex profile. Wheel made. Diameter 45 cm. (Nipartoda-II; Taluka Lalpur).

(196) Jar with out-turned beaded rim and convex profile. Wheel made. Diameter 23 cm. (Rajda; Taluka Kalavad).

(197) Storage jar with inturned beaded rim, inceptent neck and convex profile. Blackish core, wheel made. Diameter 36.2 cm. (Rajda; Taluka Kalavad).

(198) Storage jar with a grooved splayed rim, in inferior fabric. Wheel made. Diameter 45.3 cm. (Shangor; Taluka Bhanvad).

(199) Jar with out-turned beaded rim raised concave neck and possibly globular body. Wheel made. Diameter 12 cm. (Haripur; Taluka Lalpur).

(200) Jar with out-turned pointed rim raised concave neck and possibly globular body. Wheel made. Diameter 12 cm. (Rampara; Taluka Kalyanpur).
(201) A variant of 199. Wheel made. Diameter 11 cm. (Bedi; Taluka Jamnagar).

(202) Jar with out-turned beaked groove rim, raised neck and globular body. Blackish core, wheel made. Diameter 15.2 cm. (Morpur; Taluka Kalavad).

Non-Descript Shards: (Fig D.15: 203 to 205)

(203) A pot shard having black horizontal bands on both the sides. Fine fabric. (Rasnal; Taluka Jodiya).

(204) A pot shard painted on both the sides with vertical and horizontal lines in black. Fine fabric. (Rasnal; Taluka Jodiya).

(205) A pot shard with a graffiti having a circle and vertical and horizontal strokes marked on it from outside. Medium fabric. (Chandrawad-I; Taluka Kalyangpur).

-- BLACK AND RED WARE --

The black and red ware is prepared as lustrous red ware except the technique of firing i.e., inverted firing is done in this case. It has been reported from Rangpur and Lothal throughout the occupation.

However, no specimen of black-on-red ware was recovered during explorations; but few non-descript shards and bowls have been reported from Amra during excavation. It is from this collection that one of the specimens is described here: (Figure D.15: 206).
(206) Bowl with flaring pointed rim, having concavo-convex profile and possibly saggar base. Rough surface. Wheel made. Diameter 25 cm. (Anra; Taluka Jamnagar). Such type of bowls have been reported from Rangpur from early levels of period III.75

COARSE WARE

This pottery is a coarse gritty ware usually without any slip. The clay used for making this pottery is not levigated and a grit such as dung, grass, sand or even broken pot-sherds is added to clay in some cases. This ware is not very well fired because core is smokey black in most of the specimens. This type of pottery can be studied under following heads:

(a) Coarse red ware,
(b) Coarse grey ware,
and (c) Coarse black ware.

(a) Coarse red ware: (Flure D.15 and D.16: 207 to 221).

This ware shares all the features of the coarse ware except it has red colour and is devoid of any decoration. The vessels are fairly porous and are not usually treated with slip. This ware includes bowls, basins, various parts of dish-on-stand and jars with flaring rims. This type of pottery has been reported from Kanewal, Rangpur etc. throughout the occupational layers.
Two types of bowls were found in this ware, i.e. convex and concave sided bowls. The diameter of the bowls range between 16 to 18 cm. They are devoid of any decoration.

Following is the description of some of the representative forms:

**Variant A: (Convex-sided Bowl) (Fig. D.15: 207)**

(207) A convex-sided bowl with featureless bevelled rim, porous blackish core. Red slip on both the sides. Wheel made. Diameter 16 cm. (Tankaria; Taluka Kalyanpur).

**Variant B: (Concave-sided Bowl) (Fig. D.15: 208)**


**Basins: (Fig. D.15 and D.16L 209 to 212)**

Large number of basins were collected in this ware during exploration. However, only few representative shapes have been discovered here.

(209) Basin with beaded rim having a groove just below the rim. Porous gritty core. Red slip from the inner side. Wheel made. Diameter 20 cm. (Tankaria; Taluka Kalyanpur).

Such type of basin have been reported from Rangpur period IL-C.76.
Basin with grooved rim having a groove below the rim. Porous gritty core. Red slip from inside and outside. Wheel made. Diameter 22 cm. (Tankaria; Taluka Kalyanpur).

A variant of above but without a groove below the rim. Porous gritty core. Red slip from inside and outside. Wheel made. Diameter 34 cm. (Tankaria; Taluka Kalyanpur).

A basin with nail-shaped flat rim. Porous gritty core. Without any slip. Wheel made. Diameter 40 cm. (Pasna; Taluka Jadlya). Such type of basin have been reported from Rangpur in period II-A.77

Dish-on-stand: (Fig.D.16; 213 to 215).

Various parts of dish-on-stand were collected from the site, which includes base and stem portion of dish-on-stand but unfortunately no dish was found. Following is the description of the stem and base portion of dish-on-stand:

Stem:


A corrugated hollow stem of a dish-on-stand, coarse fabric. Wheel made. Diameter could not be determined. (Tankaria; Taluka Kalyanpur). Such type of corrugated stems in coarse red ware have been reported from Rangpur period II.78

Base portion of dish-on-stand with rounded rim, without any slip, wheel made. Diameter 18 cm. (Chandravad-I; Taluka Kalyanpur).
Jars:

Number of jars were found during exploration. Only few representative shapes have been discussed here:

(216) Jar with beaded rim, slightly raised neck and possibly globular body. Porous gritty core. No slip. Wheel made. Diameter 20.2 cm. (Ranperda; Taluka Kalyapur).

(217) A variant of above but a thicker variety. Wheel made. Diameter 31.3 cm. (Tankaria; Taluka Kalyapur). Such type of pots have been reported from Rangpur period III.

(218) Jar with bulbous body and projecting rim. Porous gritty core. Wheel made. Diameter 22 cm. (Bhanger; Taluka Bhanvatl). Such type of jars are also reported from Rangpur period III.

(219) Jar with beaked rim, incipient neck and corrugated bulbous body. Coarse core. Wheel made. Diameter 22 cm. (Tankaria; Taluka Kalyapur).

(220) Jar with raised concave neck and beaded rim. Coarse fabric. Red slip, wheel made. Diameter 13.3 cm. (Laloi; Taluka Katved). This type of jar has also been reported from early levels of period III at Rangpur in lustrous red ware.

(221) Jars with slightly beaded rim, slightly raised neck and globular body. Coarse gritty fabric. Wheel made. Diameter 16 cm. (Bhanger; Taluka Bhanvatl).

(b) Coarse grey ware: (Fig. D.16 and D.17: 222 to 225).

This coarse grey ware was similarly meant for rough use such as cooking. It is hardly noticeable in the Indus Valley but is profuse in Saurashtra. The vessels are rendered porous...
by use of grit and the surface is rough. Sometimes powdered pottery is added to the clay. (Fig. D.17: 227). Usually they are slipless but rarely burnished. This ware is generally decorated with incised designs. Some of the specimens in this ware are hand made. Jars and bowls are some of the common shapes. Following is the description of some of the representative types:

(222) Jars with flaring rim, incipient neck and globular body. The body is decorated with incised two rows of dots and wavy line. Coarse fabric. Slightly burnished surface. Wheel made. Diameter 26 cm. (Nageshwar; Taluka Okhasandal). Such type of jars are reported from Panapur IX-A.

Jars:

(223) Jar with projecting rounded rim, corrugated bulbous body. Coarse fabric, slightly burnished surface. Wheel made. Diameter 20 cm. (Kota; Taluka Khabhaliya). Such type of jars have been reported from later levels of period II-A.

(224) A variant of above. Wheel made. Diameter 13 cm. (Kalavad-II; Taluka Kalavad).

Bowl: (Fig. D.17: 226 to 227)

Two bowls were recovered during exploration and both are hand made. Following is the description:


(227) Bowl with thick featureless rim and more or less straight sides. Pottery can be seen used as grit in the section. Hand made. Diameter 21.5 cm. (Mageshwar; Taluka Okhamandal).

(c) Coarse black and red ware: (Figure D.17: 228 to 234).

Significantly the coarse ware has been fired by using variety of techniques. This ware is the result of inverted firing. Some of the vessels are decorated with incised designs. Probably different instruments like reed, knife or a comb were used for making incised designs. Most of the designs are of simple, oblique, vertical and zig-zag lines. Common shapes in this type include small thick and thin jars (Handi). Following is the description of some of the representative shapes:

(228) Jar with flaring rounded rim, inceptive neck and bulbous body, having a two rows of vertical and oblique incised design. Just below the rim from outside a knot-like appendage is attached, (which may be considered as a prototype of handles which later on became very common feature in historic periods). Coarse fabric. Wheel made. Diameter 19 cm. (Tara; Taluka Jamnagar). Such types of loop handle pots are
(229) A variant of above. A thicker variety, with a row of vertical incised design. Wheel made. Diameter 24 cm. (Changor; Taluka Kharvarad).

(230) Jar with incurved pointed rim, incipient neck and globular body, having a incised vertical row and zig-zag lines on the body. Wheel made. Diameter 17 cm. (Chandradad-I; Taluka Kalyanpur).


Discussion:
The ceramic assemblage of Jamnagar district shows strong affinities with periods I II A, II B-G of Rangpur sequence. It is only from Nageshwar that the mature Harappan pottery was found. The dish-on-stand with flaring mouth and bulbous body, (Fig.7;
Stud handle bowl with short handle (Fig. 2; 23); Sturdy jar with heavy splayed rim and flanged shoulders painted in black, (Fig. 3; 95); dish-on-stand, with incised pattern on the flat portion, (Fig. 39); fine grey ware, (Fig. D.13:165 to 167) and a non-descript sherd (Fig. D.11:133) with floral motif of a leaf are some of the positive points indicating the nature Harappan phase of the site. Moreover, the bangle fragments collected from this site also represent the same major style found from other Harappan sites.

Large number of sites have yielded the pottery, which show affinities with pottery reported from Banagpur in II B.C. periods; which has been placed in a time bracket of 2000 to 1500 B.C. Some of the important sites of this period are Rasna, Tarana (Jodha Taluka), Jamnagar, Lakhavel (Taluka Jamnagar), Singach (Lalpur Taluka); Kalavat II-IV, Kotda and Lolina (Kalavat Taluka). Narmand and Cop in Jamjodhpur taluka. Bowls with straight sides (Fig. 1; 11 and 12); dishes with blunt carnation and less flaring rims (Fig. D.3:35 and 39). Trabhas were bowls (Fig. 2; 31 and 32) are some of the representative shapes of this period. However, fine type of lustrous red ware was also collected, which marks the transition phase period II-C. Moreover, local material was exploited for manufacturing of blades, but the technique remained unchanged.

From few sites, pottery having affinities with Banagpur period III and period II of Somnath was also discovered. The
Important sites representing this period are Chandravad-I, (Kalyanpur: Taluka)Morpur, Haripur (Lalpur Taluka) and Rajvad (Kalavad Taluka). This type of sites yielded large number of lustrous red ware — a 'marker ceramic' of this period. Though the larger vessels like the storage jars were made as sturdy as before, the smaller vessels used in every day life for eating, drinking show remarkable changes. This change is witnessed in vessels like the bowls, dish and jars etc. which have bright red surface. Hence after this characteristic ware the culture is also known as the lustrous red ware culture and has been dated from 1500 to 1000 B.C. Bowls with flaring rim and carniated bodies (Fig. 2; 24 to 26); the dish-on-stand with no carniated and beaded rims, (Fig. 3; 33) and clubed shaped storage jars (Fig. 4; 9; 104 & 105) became more popular. Oblique, wavy lines and diamond shaped decoration became more frequent. However, coarse red ware, coarse grey ware and coarse black and red ware was also found but they are of little importance from chronological point of view, as they have been reported from all the periods of Rangpur and Somnath.

Thus judging from the ceramic assemblage of the Jamnagar district, it appears that the Chalcolithic Jamnagar witnessed a fairly long period of time from 2500 B.C. to 1000 B.C. and thus also witnessed all the stages of Rangpur sequence and shares its cultural affiliations with the rest of Saurashtra.
(2) Historic Pottery:

The study of historic pottery has been fully justified due to the excavation of various historical sites in Gujarat and Saurashtra and more particularly at Dwarka in Okhamandal Taluka of Jamnagar district. Large number of sites in Jamnagar district revealed the historic pottery. The historic pottery discovered from different habitational sites like Pathepur-I, and II; Varad-I and II; Mevasa, Kabarka, Kalavad etc. (Bhanvad Taluka; Khakharda-I and II; Bavnasra, Lamba, Lindi, Chochna, Kalyanpur etc. (Kalyanpur Taluka); Hadiyana, Pithad, Hanpur, Tarana (Jodiya Taluka); Lalpada, Dantana, Kota-II, Zakasia etc. (Kambhalia Taluka); Vasai, Uhasenvel, Kalyanpur etc. (Okhamandal Taluka; Drafa, Gop, Valasan etc. (Jamjodhpur Taluka); Dhandoraj, Machilavad etc. (Kalavad Taluka); Trikhan, Haripur, Sevak-Bhatia etc. (Lalpur Taluka); and Vasai, Shekhapat, Gangajale etc. (Jamnagar Taluka) are some of the important settlements representing the wares of this period. The historic assemblage of the district have been studied on the basis of pottery sequence established at Dwarka35 and Vadnagar.36 The excavation at these sites have given a clear picture about the sequence of historic pottery. The above excavated sites have revealed a large variety of ceramics but the pottery collected during exploration is rather in limited variety.

The historic period is divided into four periods, as described in the chapter of chronology of culture and following are the chronology of each period:
Historic period-I:

This is represented by black-on-red ware. At Dwarka and Vindhyagiri, it has been assigned the date of 1st/2nd century B.C. to 0 B.C. The date has been fixed on its being anterior to the layers containing red polished ware. 87

Limited number of sites representing this period were discovered. The main difficulty in locating such types of sites is due to the presence of black-on-red ware in succeeding historic period-II also. However, two main criteria were used to differentiate the two periods are:

1) the absence of red polished ware from the sites yielding black-on-red ware,

and (2) presence of typical decorated pots (Fig. D.18) with out-turned rim with ledged band below having triangular designs on the rim and triangular decoration on the border of pots, which have been reported from Dwarka, 88 Rangamahal, and Taxila, 89 and is dated to first half of the first century B.C. This type of decorated vessels have been reported from Dwarka in period-I and are not repeated in succeeding periods. Thus yielding of such vessels and the non-availability of red polished ware from the site have been taken as representing period I. However, there is no measure which will provide an evaluation of these collections in terms of sampling error. It can only be said in this regard that the collections were made in sufficient quantity, so that mistakes of gross nature, missing an entire occupational period are unlikely. Along with
black-on-red ware, coarse wares have been also reported from this period but as they are also found in succeeding periods also, thus, they are of little importance from chronological point of view.

**Historic Period-II:**

This period is characterised by the presence of Roman amphora ware, red polished ware. However, as mentioned above the black-on-red ware with typical Bhangarh type pottery shapes have also been recovered from the Dwarka and other sites of Jamnagar.

**Historic Period-III:**

In this period, the earliest pottery like red polished ware, black-on-red ware disappears. Red slipped and burnished red ware along with some crude wares represent this period.

**Historic Period-IV:**

This period is represented by crude red, crude black (plain and burnished) and glazed ware. This type of pottery have been reported from Nagara, 91 Patan, 92 and Baroda. 93 Glazed ware is generally dated to 10th century onwards.94

The ceramic assemblage have been treated as a whole. Following is the list of all the pottery fabrics found in Jamnagar district in historic period:

1. Roman Amphora ware,
2. Red polished ware,
3. Black-on-red ware,
4. Burnished red ware,
5. Red slipped ware,
(6) Coarse red ware,
(7) Coarse burnished ware,
(8) Coarse black ware,
(9) Coarse burnished black ware,
(10) Glazed ware,
and (11) White painted red ware.

**Roman Amphora Ware:**

This is definitely imported ware. It is thick gritty and compact in appearance, and has a coarse surface. This ware was mainly used for exporting wine and olive oil from Roman empire. Since the latter was in lesser demand in India and the sherds have been found with dried resin mixture, it is also probable that most of the Indian examples are those of wine amphora. The resin on chemical analysis has shown that is the residue of an ingredient (resin) used in preparation of Roman wine. They seem to be obtained from Roman world during the beginning of Christian Era as such its appearance from the sites be ascribed to first century A.D.

This ware was recovered from Dwarka, Fatehpur-I, Kota-II, Aria-I and Reyt in Jamnagar district. However, no complete specimen of amphora was brought to light during present investigation. Only few non-descriptive sherds were recovered from the above mentioned sites. However, the shape of the amphora could be understood at Navasa as sherds from different parts of the vessels were found. The shape of this vessels is generally elongated with pointed base, a narrow cylindrical neck and handles attached to
Another interesting early pottery is the red polished ware, that is used for dating the historic period-II sites. The ware is made from very well levigated clay and is devoid of any impurities. It is fired at a high temperature and oxidized completely as the section show uniform red colour. Surfaces are highly polished which reflect light and the colour is red to orange. Since its clay and firing are marked difference with those of other ware, and the shapes are very much restricted. It is believed that the ware is imported from the Roman world, but there is no direct proof available, as these shapes are obscure in Italy or in Rome's African and Asian colonies. However, it has some technical affinity between the Roman red ware and the red polished ware, an influence attested by the presence of classical Roman antiquities in India—a fine cameo from Kervan, a bronze handle decorated with the figure of Kaus from Baroda and Graeco-Roman clay seals from the ancient Ankottaka, the village of Akota near Baroda. Excavations at Nasara, Ahmednager in Bombay have produced the sprinklers of red polished ware in Satavahana layers, together with an amphora of mediterranean origin and a coin of Tibuvanus. It is associated with Ksatrapa period in Gujarat and Saurashtra. It is also associated with Kusana period on Punjab. As a matter of fact this typical ware have been observed throughout India and almost at all the places its historic period II position is confirmed.
During present explorations of the district this ware was reported from large number of sites. Some of the important sites, which revealed this pottery are Kalyanpur-I and II, Bambasa, Chachlona, Lamba, Khakhardh, Suryavadar-II, Tankaria, Chandavad-II etc. (Taluka Kalyanpur); Mevasa, Verad, Pathapur-I, Hathala etc. (Taluka Bhanvad; Hadiyana (Taluka Jodhya); Kota-II and Lalparda etc. (Taluka Khambhaliya); Vasai, Badi, 'Dara, Lakhabawal etc. (Taluka Jamnagar); Machilivad and Dhandhoraji (Taluka Kalavad); Dhrapa, Valasan, Gop etc. (Taluka Jamjodhpur) and Dwarka in Okhamandal Taluka.

Sprinklers, various variants of globular pots, bowls, pot bases were found in this ware. However, a specimen of bowl with stamped designs and a non-descriptive sherd with black decoration of horizontal and oblique lines were also recovered during exploration. Fairly large number of sites also yielded a number of non-descriptive sherds and thus helped in fixing the chronology of those sites. Following is the description of some of the representative shapes:

**Sprinklers:** (Fig. D.18L 1).

The most outstanding type in the red polished ware is what is generally called as sprinkler. It seems quite probable that it had special application, probably religious and perhaps Buddhist as hinted at by Puri, but no definite evidence is available in support of this assumption. Variety of sprinklers have been reported from all over India during different explorations and
excavations. During present exploration only two sprinklers were found and only one is drawn and described below. However, a sprinkler had also been found in past near Gop (Taluka Jamnagar) is drawn and described in Amreli excavation report.

(1) Neck of sprinkler with a concave profile, partly broken nipple; Khakharda-I; Taluka Kalyanpur; such type of sprinklers have been reported from Khapra, Kodi caves Junagadh, Amreli, Vadnagar etc.

Jar: (Fig. D.13: 2 to 8).

The second most important type is the globular pots. Large number of globular parts with number of their variants have been reported from Amreli. Moreless similar shapes of globular were also found during exploration of the district. Following is the description of some of the representative types:

(2) Jar with flaring grooved rim, raised neck, flanged shoulders. The interior of the rim is also flanged and possibly globular body. Diameter 22.9 cm. (Khakharda-II; Kalyanpur Taluka). Such types of jars are found from Amreli in period-II.

(3) Jar with flaring grooved rim slightly raised neck, flanged rim. Diameter 19 cm. (Pathapur-I; Dhanavad Taluka). This type of jar have also been reported from Amreli in late middle levels of period-II.
(4) Jar with flaring grooved rim and possibly globular body. Diameter 18 cm (Kutrivad; Taluka Kalavas). This type of jar have also been reported from Amreli in period II.

(5) Jar with flaring slightly beaded rim and possibly globular body. Diameter 20.1 cm (Kutrivad; Taluka Kalavas). Such types of pots have been also reported from Amreli in period II.109

(6) Jar with flaring rounded rim, raised neck and possibly globular body. Diameter 18.2 cm (Fathepur-II; Taluka Bhanvad).

(7) Jar with flaring slightly beaded rim and possibly globular body. Diameter 13 cm (Fathepur-II; Taluka Bhanvad). Such types of jars have been reported from middle levels of period II in Amreli.110

(9) Small jar with penknife edge flaring neck having number slight grooves. Diameter 10 cm (Saryavadar; Taluka Kalyanpur). Such types of jars have been reported from late levels of period II at Amreli.111

Bowls: (Figure D.18: 9 to 10)

During exploration of the district few bowls were found. Such types of bowls in red polished ware from Amreli in period II.112 Following is description of the representative shapes:

(9) Bowl with slightly beaded rim, Diameter 12.2 cm (Lamba; Taluka Kalyanpur).

(10) Bowl with slightly convex-sided and grooved. It is decorated with stamped floral design. Diameter 10.2 (Lalpada; Taluka Shambhaila).
Pot bases: (Fig. 6.18: 11 to 14).

(11) Base of a pot with concave sides. Diameter 8.5 cm (Dhara; Taluka Jamnagar). Such types of disc bases have been reported from Anrelli. 113

(12) A variant of above, (Valsan; Taluka Jamnagar).

(13) Pot base with beaded rim and raised concave sides. Diameter 11 cm, (Fathepur-I; Taluka Bhanvad).

(14) Pot base with pointed rim and raised concave sides. Diameter 12 cm (Kota-II; Taluka Khambhaliya).

Decoration:

As a rule the red polished ware have been found devoid of any decoration. But during recent exploration one non-descript sherd painted in black was found. Following is the description: (Figure D.18: 15).

(15) A non-descript... sherd of red polished ware with black horizontal and oblique line decoration.

Black-on-red ware: (Fig. D.18 and D.19: 37)

This is the most striking ceramic ware of historic period-I and II. It is prepared from well levigated clay. The fabric of majority of pottery is usually completely fired although vessels with grey core within two red walls 114 are also very frequently found. In a few rare cases the potter has been unsuccessful and the fabric is in a blistered state. The chief characteristics of this pottery is the designs with which the potter have
decorated the vessels. Chiefly the designs are geometrical. This pottery shows great similarities in design, shapes and fabric to ceramics reported from Rangmahal. However, zoomorphic and floral designs were absent unlike, Rangmahal. The geometric patterns are especially parallel and horizontal bands and are reported from earlier (Lowest) levels, while the naturalistic designs (zoomorphic and floral) were mostly found in middle and upper levels at Rangmahal.

The decorations are confined to shoulders body and rim portion of the vessels. Generally bands, arches, loops and triangular designs between the bands are executed in black colour, over red surface. The majority of vessels are decorated with painted designs consisting of zones of parallel lines, around the neck or shoulders round the top of the rim and in grooves round the rim.

The common type of shapes in this ware are globular jars as indicated by their curvature. No complete specimen has collected during present exploration, but however roughened or marked with rubbing, like Rangmahal vessels, as indicated by few non-descript sherds found from Bajt during exploration (Fig.D.26).

The first reaction on seeing this pottery assemblage and Rangmahal pottery is to compare it with Harappan decorations, and it is accepted now by few scholars that there are certain Harappan elements in it. However, they failed to show the cultural continuity century by century. It is believed that the area west of Travallis belong to different ceramic zone, (black-on-red ware)
which includes North Gujarat and Saurashtra and is due to the function of Rajasthan and the Aravallis in the historical geography of India which has been absorbing the fugitive elements from Panjab and Central India. It could have been a refuge zone for the fugitive of the upper India basin, displayed by newcomers and conquerors e.g., foreign and Central Asian tribes, like Scythians, Huns and Persians etc. However, to go into details about the controversial origin of the ceramic and their designs, it is better to see different shapes found during exploration of the district.

Globular Pots: (Fig. D.19: 16 to 18).

Variant-I: (Globular pots with constructed necks).

(16) Globular pot with out-turn ed rim with ledged band below, flaring mouth and constructed neck. Painted with upward triangular decoration the rim from outside. Diameter 22 cm (Suryavadar; Taluka Kalyanpur).

(17) Globular pot with out-turned rim with slight ledged band below, flaring mouth and concave neck. It has invested triangular decoration in between the parallel horizontal bands from inner side, while the body is decorated with horizontal bands from outside. Diameter 17.2 cm (Limdi; Taluka Kalyanpur).

(18) Globular pot with out-turned rim flat brim, flaring mouth and constructed neck. The flat brim is decorated with upward triangles in between the horizontal bands while it has an horizontal band on the body from outside. Diameter 23 cm (Limdi; Taluka Kalyanpur).
Such type of globular pots have been reported from Dwarka in period 1 \^{119} and Rangmahal. \^{120}

**Variant-II:** (Globular pots with incipient necks) (Figs. D.18 and 19: 19 to 31).

(19) Globular pot with splayed rim at a acute angle, incipient neck, having a groove on the body internally and decorated with horizontal bands on the body from outside and on the rim internally. Diameter 19 cms, (Limdi; Taluka Kalyanpur).

(20) Globular pot with splayed rim, incipient neck. The rim is decorated with suspended loops, vertical bands and criss-cross lines from outside. The rim has also two shallow grooves on the rim. Diameter 21.1 cm (Amra; Taluka Jamnagar).

Such type of pots with incised rims and black decoration have been reported from Rangmahal. \^{121}

(21) Globular pots with splayed rim with rounded side, incipient neck. There is a deep groove on the pot near the junction of the rim and body. The rim is decorated with horizontal and group of vertical lines from inner side. The body is also decorated with horizontal parallel lines from outside. Diameter 19.1 cm (Bhitya; Taluka Lalpur).

(22) Globular pot with slightly splayed rim at very acute angle the rim is slightly concave internally. Slight neck with a deep groove internally. The pot is decorated with vertical and horizontal lines on the rim internally and with horizontal, vertical, wavy lines in combination on the body from outside. Diameter 19 cm (Amra; Taluka Jamnagar).
(23) Globular jar with out-turned splayed rim having slight ledge on the rim from outside. The rim is decorated with a shallow groove and two horizontal bands from inside and four horizontal bands on the body from outside. Diameter 19.2 cm. (Kutri-wad; Taluka Kalavad).

(24) Globular pot with out-turned splayed rim having a ledge on the rim internally, incipient neck. The rim is decorated with three shallow grooves and vertical and horizontal bands internally. The body has horizontal parallel band decoration from outside. Diameter 19 cm (Lindi; Taluka Kalyanpur).

(25) Globular pot with out-turned splayed rim, the neck has a deep groove internally. The rim is decorated with parallel horizontal and vertical lines. The body has a incised decoration from outside. Diameter 21 cm (Haripur; Taluka Lalpur).

(26) Globular pot with upright constructed rim and ledge outside. The rim is decorated with parallel horizontal and vertical lines internally, while the rim is decorated with thick horizontal band and three parallel horizontal bands from outside. Diameter 19 cm (Hara; Taluka Jammagar).

(27) Globular pot with upright flaring rim and constructed neck. The rim is decorated with parallel horizontal and vertical lines from inner side and four vertical horizontal lines on the body from inner side. Diameter 17 cm (Haripur; Taluka Lalpur).

Such types of Globular pots have been reported from Bagnhahal.122
During exploration of the district few basins found in this type pottery. Following is the description of the basins found:

(28) Basin with wavy rim having parallel vertical bands on the flat brim, Diameter 47.5 cm (Naryari; Taluka Jodlya).

(29) Basin with flaring slightly beaded rim having a thick horizontal black band on the rim from outside, while the rim of it is decorated with horizontal and vertical bands from inner side. Diameter 30 cm (Nithad; Taluka Jodlya).

(30) Basin with nail-shaped rim having a thick black band internally. Diameter 34.2 cm (Hadiyan; Taluka Jodlya).

Non-Descript Painted Sherds: (Fig 19: 32 to 37)

Few non-descript sherd were found during exploration and the description of which is given below:

(32) A non-descript sherd possibly body portion of a pot with loop, horizontal and vertical lines and inverted triangle design in combination. (Limdi, Taluka Kalyanpur). Such type of designs on the body portion of the pots have been reported from Rangmahal. 123

(33) A pot sherd with parallel, wavy and chequer design on red surface by black. (Limdi, Taluka Kalyanpur). Such type of designs have been reported from Rangmahal and this type of chequer pattern have been reported from Waziristan. 125

(34) A non-descript sherd with parallel lines and wavy and roundles decoration. (Bhitya; Taluka Balpur).
(35) A non-descript shard having relief band between two horizontal lines (Suryavadar; Taluka Kalyanpur). Such types of relief bands have been reported from Rashmahal and Waziristan.

(36) A non-descript shard with horizontal and hatched diamond decoration. (Haripur; Taluka Lalpur).

(37) A non-descript shard (possibly globular body) with rough-end base and vertical and horizontal decoration from outside and black band a vertical stroke internally and the flaring rim. (Dhanrherji; Taluka Kalavad).

Burnished red ware: (Fig. D.19 and D.20: 38 to 55)

It is usually well fired pottery with gritty core with burnished slip. The slip has different tones ranging from light red to deep red. However, some of the shapes are similar to the painted black-on-red ware. The absence of earlier "marker wares" like red polished ware and Roman amphora from the burnished red ware sites have been taken as representing period-III. The important sites representing this period are Dhraasenvel (Okhamandal Taluka) and Kalavad-I and II. (Shankar Taluka). Mandana (Kalyanpur Taluka etc.).

Globular pots, storage jars, basins, etc. are the shapes found in this variety.
Globular pots: (Figs. D.19 and 20: 38 to 60)

Large number of globular pots were found during exploration. They are painted as well as plain. Following is the description of some of the representative shapes.

(38) Globular pot with beaded flaring rim forming dish-like top. Diameter 25 cm (Walse; Taluka Jamnagpur).

(39) Globular pot with pointed rim. Diameter 20 cm (Nandana; Taluka Kalyanpur).

(40) Globular pot with beaded rim, concave neck. Diameter 20.9 cm (Nandana; Taluka Kalyanpur).

(41) Globular pot with under-cut and fillet band, having black decoration of horizontal lines. Diameter 30 cm (Chandrawad-II; Kalyanpur Taluka).

(42) Globular pot with broad flaring mouth, constructed neck, flat-topped beaded rim having parallel horizontal lines from outside on the body of the pot and a shallow groove on the rim on inner side. Diameter 21 cm (Kalyanpur; Taluka Kalyanpur).

(43) A variant of 40 but a thinner variety. Diameter 14.9 cm (Chandrawad-II; Taluka Kalyanpur).

(44) Globular pot with out-turned beaded rim, constructed neck having groove internally. Diameter 14 cm (Nakasia; Taluka Kambhalia).

(45) Globular pot with beaded rim concave neck with a groove internally on the rim. Diameter 21.5 cm (Faithpur; Taluka Shanvd).
(46) Globular pot with flaring pointed rim having a groove internally and ledge on the rim from outside. Diameter 22 cm (Khijad; Taluka Kalyanpur).

(47) Globular pot with flaring pointed grooved rim. Diameter 10 cm (Khijad; Taluka Kalyanpur).

(48) Globular pot with beaded with indented ledge on the rim. It has horizontal parallel line decoration on the body from outside and a thick black band on the rim from outside. Diameter 26 cm (Chandravad-I; Taluka Kalyanpur).

(49) Globular pot with flaring ledged rim having finger impression design on the rim. Diameter 29 cm (Vered-I; Taluka Chanvad).

(50) Globular pot with grooved flaring rim with indented ledge on the rim. The body portion of the pot is decorated with horizontal lines in black. Diameter 34 cm (Chandravad-I; Taluka Kalyanpur).

Storage Jars: (Fig.D.20: 51 and 52)
During exploration few storage jars were collected and following is the description:

(51) Thick storage jar with incurved rim incipient neck and possibly globular body. The rim has a indented ledge on the rim. Diameter 24 cm (Chandravad-II; Taluka Kalyanpur).

(52) Thick storage jar with partially beaded rim and concave neck having a ledge on the body. Diameter 25 cm (Bamnasa; Taluka Kalyanpur).
During exploration only one basin has discovered and following is the description:

(53) Basin with pointed rim and carnated shoulders and possibly flat base. Diameter 23 cm (Sinhais; Taluka Khambhaliya).

Pot base: (Fig. D.20: 54 and 55).

(54) Pot base with pedestal base. Diameter 10 cm (Chandhorji; Taluka Kalavad).

(55) Pot stand with slightly beaded rim and the bottom portion of a vessel which was supported by this stand. Diameter 18 cm (Kalyanpur; Taluka Kalyanpur).

Slipped Red Ware: (Fig. D.21: 56 to 66)

This ware has its outer surface treated with red slip, which is not burnished. Globular pots, basins, bowl and storage jars were found this variety. Following is the description of some of the representative shapes:

Globular pots: (Fig. D.21: 56 to 60)

Variant-I: (Globular pots with raised necks)

(56) Globular pot with out-turned rim, raised concave neck and possibly globular body. Diameter 16.7 cm (Nandana; Taluka Kalyanpur).

(57) Globular pot with out-turned grooved rim, raised concave neck and possibly globular body. Diameter 14.7 cm (Nandana; Taluka Kalyanpur).
(53) Globular pot with flaring rim and ledge on the rim internally concave neck and possibly globular body. Diameter 30 cm (Surlyavadar; Taluka Kalyanpur).

**Variant-II:** (Globular pots with incipient necks)

(59) Globular pot with flaring beaded rim and incipient neck and globular body. Diameter 32 cm (Khakhrad-I; Taluka Kalyanpur).

(60) Globular pot with incurved rounded rim, incipient neck and having grooved rim and possibly globular body. Diameter 29 cm (Chandrawad-I; Taluka Kalyanpur).

**Bowl:** (Fig.D.21: 61)

(61) Bowl with incurved featureless rim. Diameter 20 cm (Rayt; Taluka Okhamandal).

**Basins:** (Fig.D.21: 62 to 66)

Large number of basins were collected in this variety and following is the description of some of the representative types:

(62) Basin with rounded rim, shallow carnated body and more or less vertical neck. Diameter 13 cm (Rayt; Taluka Okhamandal).

(63) Basin with incurved rounded rim raised neck and prominent carnated body. Diameter 17 cm (Bodki; Taluka Chandrawad).

(64) Basin with out-turned beaded rim having a groove internally on the rim. Diameter 24.7 cm (Sinhan; Taluka Khamkhaliya).

(65) Basin with incurved grooved rim having ledged internally on the body. Diameter 34 cm (Haripur; Taluka Lalpur).
(66) Pot base with rounded rim raised concave side. Diameter 11.5 cm (Dhundharji; Taluka Kavalad).

Storage Jars: (Fig. D.21: 67 to 68)

Few storage jars were found during exploration and the description of which is given below:

(67) Globular thick storage jar with incurved beaded rim which turns into globular body. Diameter 33 cm (Gajana; Taluka Lalpur).

(68) Thick storage jar with out-turned pointed rim having a groove internally on the rim, incipient neck and globular body. Diameter 25 cm (Lindi; Taluka Kalyapur).

Coarse Red Ware: (Figs. D.22 and D.23: 92)

The bulk of the pottery from Jamnagar district is represented by a coarse red ware, which was possibly used for cooking and storage purposes. Several jars, bowls, basins, lids and spouted vessels of coarse red fabric have been recovered. A jar possibly used on an important religious ceremony bearing the impression of birds feet is interesting.

The vessels are generally made of a clay which was not levigated. As such many impurities are found in it. Grit in the form dung and grass, appears was used deliberately to make the vessels porous; hence they are not sturdy and break easily. Normally, no slip or wash is given. In few cases incised and thumb impression designs are used. Following is the description of the pottery shapes found:
Globular pots: (Figs. D. 22: 69 to 71)

**Variant-I:** (Globular pots with constructed concave necks).

69) Globular pot with flaring slightly grooved rim and constructed concave neck. Diameter 16.7 cm (Nandana; Taluka Kalyanpur).

70) Globular pot with flaring grooved and constructed slightly straight neck. Diameter 23.7 cm (Nandana; Taluka Kalyanpur).

71) Globular pot with flaring beaded rim, short concave neck having ledge on the body. Diameter 20.7 cm (Chandmavad-II; Taluka Kalyanpur).

**Variant-II:** (Globular pot with incipient neck) (Figs. D. 22: 72 to 73)

72) Globular pot with grooved rim and incipient neck. Diameter 19 cm (Haripur; Taluka Lalpur).

73) Globular pot with flaring beaded rim, submerancy concave neck and globular body having incised decoration and two parallel shallow grooves on the body from outside. Diameter 20.7 cm (Zakasia; Taluka Kambhalia).

**Basins:** (Figs. D. 22: 74 to 77)

74) Basin with beaded flaring rim and carnished shoulder. Diameter 15 cm (Nandana; Taluka Kalyanpur).

75) Basin with inverted rounded rim having sagger base with groove on the body from outside. Diameter 26.3 cm (Lalpada; Taluka Kambhalia).
(76) Basin with rounded rim with groove on the top. It has carination in the body and rough outer surface. Diameter 26 cm (Khakharda, Taluka Kalyanpur).

(77) Basin with out-turned rounded rim and thumb impression from outside. Diameter 40 cm (Naryari; Taluka Jodiyal).

**Miniature pots:** (Fig.D.22: 78 to 82)

During exploration few miniature pots were found. Among the pot with legs and feet of bird, possibly Gruda is interesting. Following is the description of some of the representative shapes:

(78) Miniature pot with averted pointed rim having ridge from outside at the base and possibly with sagger base. Diameter 8 cm (Naryari; Taluka Jodiyal).

(79) Miniature pot with averted pointed rim having finger press decoration from outside and possibly sagger base. Diameter 8 cm (Bodki; Taluka Shanvd).

(80) Miniature animal figured pot with broken rim and base, globular body, with remnants of feet of a bird. Diameter could not be determined. (Dharsenvel; Taluka Okhamandal).

(81) Miniature globular pot with raised concave neck and sagger base. Diameter 4 cm (Veler-II; Taluka Shanvd).

(82) Globular miniature pot with raised neck, featureless rim and sagger base. Diameter 2.3 cm (Naryari; Taluka Jodiya). This might have been used as a ink-pot. Such type of ink-pots are quite common in Kashmir, even at present.
Lids: (Fig. D.22: 83 to 86).

Variety of lids were recovered in this variety and following is the description of some of the forms:

(83) Lid-cum-bowl with a bowl in the center and saggar base. The rim portion is missing. Diameter could not be determined. (Kankawati; Taluka Jodiya).

(84) A lid with solid knob at the top and concave body. Diameter could not be determined. (Bodki; Taluka Phanvel).

(85) A lid with solid top and slightly incurved rim. Diameter 17.9 cm (Amra; Taluka Jamnagar).

(86) Bowl-like vessel with a hole in the center. The function could not be understood. Diameter 9 cm (Tarana-IV; Taluka Jodiya).

Pot Bases: (Fig. D.22: 87 to 88)

(87) Pot base with pointed rim and raised concave sides. Diameter 10 cm (Amra; Taluka Jamnagar).

(88) Pot base with pedestal base, possibly of a bowl. (Gajana; Taluka Lalpur).

Storage Jars: (Fig. D.22 and D.23: 89 to 91).

Few large vessels used as storage jars were found during exploration in this variety. They are usually decorated with finger tip designs only. Following is the description of some of the representative shapes:

(89) Storage jar with out-turned rounded, incipient neck and concave body. Diameter 44 cm (Kutriwad; Taluka Kalavad).
(90) Thick storage jar with rounded top rim having ledge and convex body just below the rim. It is decorated with finger tipped designs from outside. Diameter 42 cm (Kankavati; Taluka Jodiya).

(91) Thick storage jar with slightly nail-shaped rim and convex body. Diameter 45.5 cm (Suryavadar; Taluka Kalyanpur).

Decorative Sherds: (Fig. D.23: 92)

(92) A decorative sherd with finger tipped design in two rows. (Suryavadar; Taluka Kalyanpur).

Plain and Burnished Black Ware: (Figs. D.23, 24 and 25; 93 to 116)

This wheel turned pottery is characterised by tones of grey and black, and smoky gritty core. It is plain or burnished. Variety of vessels are found in this variety, which includes handles, lids and basins etc. Mostly the vessels are decorated with wavy, vertical and floral incised designs. This type of pottery have been reported from Nagara in period III and IV. The details of the varieties in them are noted below:

Handles: (Figs. D.33 and 24; 92 to 102)

Number of handles were found during exploration. As lower parts of most of them are missing, their rims and parts of the upper body are studied. The fragments of the lower part indicate that they might have been rounded lower part.
It is devoid of any decoration but mostly incised designs and grooves on the body are encountered. Following is the description of some of the representative shapes:

(93) A handli with flaring rounded rim, small neck and globular body having a groove on the rim internally. Burnished from outside. Diameter 22 cm (Gandhavi; Taluka Kalyanpur).

(94) Handli with flaring grooved rim, small neck and globular body having a groove on the rim internally. Diameter 34 cm (Chachalana; Taluka Kalyanpur).

(95) Handli with raised concave neck and flaring beaded rim and globular body. It has ledge on the neck internally. Diameter 32 cm (Chandrapur-II; Taluka Kalyanpur).

(96) Handli with flaring pointed rim raised neck and globular body. The neck has a groove internally and number of shallow grooves on the body from outside. Burnished. Diameter 17 cm (Haripur; Taluka Lakhpur).

(97) Handli with flaring pointed rim. Diameter 19.5 cm (Handhane; Taluka Kalyanpur).

(98) Handli with flaring beaded rim, small neck and globular body. Diameter 20 cm (Godki; Taluka Bhandara).

(99) A variant of above, with ledge in the body from outside. Burnished. Diameter 23.5 cm (Sinhan; Taluka Khambholia).

(100) A handli with slightly flaring grooved rim and globular body. Having a slight ledge on the body internally. Diameter 22 cm (Hadiyanaj; Taluka Jodiya).
(101) A handle with beaded rim, small neck and possibly globular body having groove on the rim and neck internally. Diameter 18 cm (Nikva; Taluka Kalavadar).

(102) A handle with flaring rounded rim having incised design on the body. Burnished. Diameter 25 cm (Shambasa; Taluka Kolyampur).

Jars: (Fig. 24: 103 to 106)

Number of jars were recovered from the site, they have averted rims and globular bodies. Following is the description of some of the representative shapes:

(103) Jar with averted rounded rim, and possibly concave body. The rim is decorated with triangular, vertical and groove design. The decorations are very neatly made. Diameter 35 cm (Nara; Taluka Jamnagar).

(104) A jar with averted rim having ledge on the rim. The top is decorated with vertical strokes. Diameter 27 cm (Zakassra; Taluka Khambhalia).

(105) A variant of above but a thinner variety with incised vertical designs on body also. Burnished. Diameter 19 cm. (Vatara; Taluka Khambhalia).

(106) Thick storage jar with averted rim having two shallow grooves on the rim. Diameter 30 cm (Zakasia; Taluka Khambhalia).
BASIN: (Fig. D.24 and 25: 107 to 121).

During exploration large number of basins were recovered.

Following is the description of some of the representative shapes:

(107) Basin with rounded rim and concave brim having a sharp carnation on the body. The brim and body portions are decorated with wavy, vertical incised designs. Diameter 26 cm (Sanar; Taluka Jamnagar).

(108) Basin with averted rounded rim with slight carnation in the body. Diameter 42 cm (Nana-Bhagdi; Taluka Kalavad).

(109) Basin with nail-shaped rim and carnined body. Diameter 26 cm (Sinhah; Taluka Kambhaliya).

(110) Basin with rounded rim constructed flaring neck having a sharp carnation in the body and saggar base. Diameter 17 cm (Sinhah; Taluka Kambhaliya).

(111) Basin with flaring wavy beaded rim having grooves on the brim. Burnished. Diameter 32.5 cm (Kalavād-I; Taluka Kalavad).

(112) Basin with grooved rim having finger impression design from outside. Burnished. Diameter 37.5 cm (Katrīvad; Taluka Kalavad).

(113) Basin with grooved rim. Diameter 21.5 cm (Haripur; Taluka Lalipur).

(114) Basin with averted pointed rim. Diameter 18 cm (Pithad; Taluka Jodiya).
Pot Base: (Fig.D.25: 115)

(115) Pot base with rounded rim. Diameter 6 cm (Surivadar; Taluka Kalyannur).

(116) Lid; khao paddim qo. la (Jandia)

Non-descript Shred: (Fig.D.25: 116)

(117) A sherd with incised floral design. (Vatara; Taluka Kambhaliya).

White Painted Red Ware: (Fig.D.25: 117 to 119)

This wheel turned pottery is characterised by the white coloured decoration over the red slip. It has smoky and gritty core. Mostly globular pots were found in the variety.

(118) A globular pot with slightly flaring rim with beaded rim, raised concave neck. Having a vertical band of white below the rim. Diameter 5.5 cm (Katrivad; Taluka Kalavad).

(119) A globular pot with grooved rim, raised concave neck and globular body. It has ledge internally on the body. The body is decorated from outside with white patch. Diameter 8 cm (Hadiyana; Taluka Jadiya).

(120) A globular pot with raised neck incurved featureless rim having a ledge from outside below the rim, having decoration of wavy lines and roundle with red over white slipped surface. Diameter 12 cm (Haripur; Taluka Kalavad).

Non-descript Sherd: (Fig.D.25: 120)

(121) A sherd with wavy lines in white over red slip.
**Glazed Ware:** (Fig. D.25: 122)

This is highly characteristic pottery with blue, green, or white glaze. It has been noted in a number of excavations in India and outside the country. The general consensus of the opinion about its date is that it is found in the layers that could be ascribed to a period earlier than 10th century A.D. In Gujarat the ware was obtained from the excavations at Baroda,129 Akota,129 at Adilabad130 it is found from the deposits ascribed to 13th-14th centuries A.D. It is also found from many other sites in India the deposits of the Muslim period. Taking all these evidences into consideration the sites from which this ware was obtained were ascribed to historic period IV.

The pottery was recovered from number of sites but unfortunately only non-descript sherds were recovered during exploration, except a base portion of vessel. (Fig. 25)

**Discussion:**

The historic ceramic assemblage of the district show strong affinities with pottery reported from Rangamahal (Rajasthan) and various historic sites of Gujarat. The presence of Roman amphora ware in the assemblage indicate brisk contacts of Jamnagar district with Mediterranean world, which must have been facilitated due to sheltered ports offered by long coastal line of the district.
The black-on-red ware show strong affinities with pottery reported from Waziristan, Taxila, Ranighmahal, Rainh, Samrali, Vadhagar, Nagar etc. This establishes that the district of Jamnagar did not keep itself aloof from the main current of the Indian civilization and moved along with neighbouring regions of the area and thus participated in the development of the material culture through the ages in the country.
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