31. Protohistoric Ceramics of Dwarka and Bet Dwarka

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Abstract

From 1981 to 1990 the Marine Archaeology Centre of the National Institute of Oceanography, Goa undertook offshore excavations in Dwarka and Bet Dwarka (island). The excavations yielded a seal, chert blades, an inscription in the Late Harappan-Brahmi transitional script and protohistoric pottery. Thermoluminiscence date for the pottery of Period I from Bet Dwarka is 3520 BP and 2000 to 1800 BP for Period II. The ceramic wares are crucial to the understanding of the cultural sequence of Dwarka.

The pottery of Dwarka comprises the Red Ware, Grey Ware and Lustrous Red Ware, all of which are sturdy and made of fine clay. The main types in Red Ware are storage jars, bowls, goblets, dishes and dish-on-stands. The occurrence of straight-sided bowls and those with everted or beaded rim is significant as they are assignable to the level of Late Harappan period. A few incurved bowls, carinated dishes and sherds of perforated jars also occur. The Grey Ware of fine fabric occurs in a small quantity at Bet Dwarka. The only type of this ware is a bowl, and the main shapes of Lustrous Red Ware are bowls and jars, typical of Rangpur IIC-III. The pottery recovered from the seabed and intertidal zone are wave-rolled and have a pitted surface. They have lost all evidence of surface treatment including painting.

The ceramic wares of Dwarka and Bet Dwarka compare favourably in form and fabric with the pottery from Rangpur IIC-III and Somnath Period II. Here an attempt has been made to establish a correlation of the cultural affinities of Dwarka and Bet Dwarka with those of other protohistoric sites such as Somnath, Rangpur and Nageshwar on the basis of the wares.

INTRODUCTION

Pottery is an important evidence of habitation at any archaeological site. Protohistoric sites of Rangpur, Lothal, Prabhasa and Nageshwar are excavated in Saurashtra and their pottery is studied in a great detail enabling us to give a timeframe for the pottery of Dwarka and Bet Dwarka. Initially Jayantilal Thakkar, out of curiosity, collected pottery, coins and bangles of shell from Dwarka, whenever someone dug a foundation trench for building a house. His collection included the Red Polished Ware datable to 1 st century BC to 5th century AD besides two painted sherds of an earlier period (Rao, 1990). The first attempt to decide the antiquity of Dwarka was made in 1963 by the Deccan College, Pune. They dug a trench not far from the temple of Dwarkadhish. According to the excavator ancient Dwarka was initially founded in the 1st-2nd BC/AD (Ansari and Mate: 1966:). Excavation by S.R.Rao in the year 1979-80 led him to the conclusion that the existence of ancient Dwarka was around 15th century BC (Rao: 1979-80), which is also the widely accepted date of Mahabharata.

The excavation has yielded ceramics of the historic and protohistoric periods as indicated by the Lustrous Red Ware and other articles recovered from stratified deposits.

From 1981 to 1991 offshore excavations were carried out by the Marine Archaeology Centre of the National Institute of Oceanography, Goa, at Dwarka as well as Bet Dwarka. This brought to light protohistoric settlements in Dwarka and Bet Dwarka, which were later destroyed by the sea. From Bet Dwarka considerable pottery has been collected from the intertidal zone and sea bed excavations.

A comparative study of the pottery from Dwarka and Bet Dwarka with that of Rangpur is attempted here. A brief description of the pottery from Nageshwar (Kuldeep and Kenoyer: 1980) and Prabhasa (IAR-11975-76) two other protohistoric sites is also given here.

METHODOLOGY: Pottery has been collected from onshore excavation at Dwarka and Bet Dwarka as well as from intertidal zone and sea bed of Bet Dwarka. Most of the pottery found in these sites is fragmentary because of wave action. Some shapes which are universally available from the Harappan and Late Harappan sites, were however recovered in onshore excavation of Dwarka and offshore of Bet Dwarka. For example perforated jars, carinated dishes and parts of dish-on-stand in sturdy red ware, bowls in red ware and grey ware, high-necked jars in coarse red ware assignable to protohistoric period occur here. Most of the

protohistoric pottery of Dwarka comparable with the pottery of Rangpur IIC-III is described below.

The Red ware sherds are sturdy with a red core, while the grey ware has a light to deep smoky core. The clay used for the Red Ware is fine and the pots were fired to a high temperature. In the case of big storage jars the clay is coarse.

TECHNIQUE: The pottery is mostly wheel-turned. The pots with bulbous body or carinated body are turned on a wheel and after drying, the body was beatenwith a dabber to make the vessel impervious.

DECORATIONS: The sherds recovered from the sea bed and intertidal zone are wave-rolled and have a pitted surface. They have lost all evidence of surface treatment including painting. But pottery collected from the surface is decorated on the shoulder and rim. Painted decorations, which appear only on the red ware consist of horizontal bands and roundels on the bowls. These decorations are executed in black and chocolate colour over a red slip.

THE MAIN CERAMIC TYPES

JAR: Storage jars with rims varying in shapes and thickness occur in the Red Ware. The shapes vary from bulbous to a concave-convex profile. These are similar to the Rangpur III and Prabhasa Period II pottery types.

The jar with a wide mouth, splayed out rim, ledged neck and globular body or convex profile is a popular type. The second type has a narrow mouth, projected rim, globular body and flat base. Other types are high necked jars with convex-profile. Small jar with a flaring and globular body are also noticed in the Red Ware. A few sherds of perforated jars recovered from the intertidal zone of Bet Dwarka are highly significant as they indicate late Harappan settlement at Bet Dwarka.

BOWL: One of the most common ceramic types in use at the Harappan sites in Kathiawar is the convex-sided bowl in which two important sub-types are present. Another type is a bowl with featureless rim with convex profile, some have a straight profile and others have a projected and beaded or incurved bevelled rim with convex profile. The surface of the bowls is treated with red slip and one bowl is painted in chocolate colour with roundels. These shapes are similar to bowls of RGP IIA, IIB, IIC and III. Perhaps the Harappan tradition of bowls in this region was continued in late and post Harappan times.

DISH-ON-STAND: This was in common use at Bet Dwarka, Nageshwar and Prabhasa in Late Harappan period. It is made in two pieces on the wheel, the stem plus the base forming one part and the pan the other part. There are two types of stands, one with moulding and the other without it. It is however, difficult to determine the shape of the

dishes attached to different types of stands. Another type of dish-on-stand with a squat broad stem is often painted. Normally the dishes are treated with a red slip. The rim is often projected with a carination at the shoulder. Another type is a thick dish with an averted or beaked rim, carinated shoulder, and occasionally the interior is ledged.

DISH: Apart from the dish-on-stand a large number of shallow dishes are found at all the Harappan sites. The dishes from Bet Dwarka have an incurved beaded rim and a round or flat base. Most of them are thin and have a nailheaded rim. Deep dish with a flat base and raised edge also occurs here. It belongs to Late Harappan and post Harappan phases.

BASIN: Basins of various types with a flanged shoulder are noticed at Bet Dwarka. Mostly inward and a few projected beaded rim type are found in Red Ware.

GOBLET: Another Harappan type goblet is found to survive in late levels at Bet Dwarka which is in Red Ware. Its surface is plain. It has less-pointed base.

FABRIC

RED WARE: The most prominent ceramic ware of Dwarka region is a heavy sturdy jar red in colour and made of well levigated clay. It is well fired. Except a few miniature vessels and large storage jars which are handmade all the vessels are wheel-turned, with a majority of them treated with a red ochre slip or wash. At Nageshwar the red ware is represented by the dish-on-stand, perforated jar, convex-bowl, stud-handled bowl, basin, storage jar, globular pot, lid, lamp and dish-on stand with dishes having projected rim and sharp carination at the lower part. Jar with bulbous body and projecting rim and a storage jar with heavy rectangular rim are important types. They can be favourably compared with the pottery of Rangpur IIA and IIB (Rao: 1962-63).

GREY WARE: The Grey Ware of Bet Dwarka occurs in very small quantity. It is also noticed in Rangpur IIB-IIC, Mohenjo-daro and Kalibangan II(Rao: 1985). Its grey colour which occasionally deepens into black is attributed to the use of carbonaceous matter. It may also be due to firing under reducing conditions. The texture of the vessels is homogenous and the surface is well burnished. The only type in this category is a bowl. But at Nageshwar it is represented by convex sided bowl, pedestal base of a pot and a few non-descriptive sherds. The Grey Ware has also been reported from Mohenjo-daro (Mackay: 1953).

LUSTROUS RED WARE: Its surface is treated with a thin slip of finely levigated red ochre and is burnished to produce a glittering effect. The burnishing or wetsmoothening was done when the vessel was

leatherhard, with pebbles of haemitite which left a powder of iron-oxide sticking to the surface (Rao S.R. 1963). The main types are (a) the bulbous jar with beaked rim and high bottle-neck (b) the dish with beaded grooved or splayed rim and cordoned shoulder and (c) the bowl with splayed out rim and concave-convex profile. Occurring in Period IIC and III of Rangpur, Period III of Prabhas Patan this ware shows derivation from the late Harappa. The decorative motifs include loops with hatched diamond columns with volutes etc. (IAR: 1956-57; Rao S.R. 1963).

POTTERY DESCRIPTION

DWARKA

A. RED WARE: (Fig. 1)

- Jar with a beaded rim and flaring neck. slipped Red, well fired and medium fabric. DWK - 3 - 80.
- Jar of a thin and sturdy fabric with a beaded rim, ledged neck, globular body, DWK - 3 - 80 (Compare with RGP IIA, Type 15).
- Bowl with a nail headed rim. Red wash, well fired and medium fabric. DWK
- 4. Convex-sided bowl of medium size. Red slip. Well fired and medium fabric. DWK 3 -80 (Compared with RGP IIA. Type 49).

LUSTROUS RED WARE: (Fig. 2)

- High-necked jar with a beaded rim; centre of the section is smoky and lustrous red surface. Ill-fired and medium fabric. DWK - 3 - 80 (Compare with RGP III, Type 12).
- Shallow dish with a beaded rim, lustrous red surface, a groove on interior, thick section. Ill-fired and coarse fabric. DWK 3 80. (Compare with RGP IIC, Type 33).

BLACK-AND-RED WARE: (Fig. 2)

Shallow bowl with a beaded rim and blunt - carinated shoulder. Exterior lustrous red in colour. Ill-fired and coarse fabric. DWK - 3 - 80 (Compare with RGP III, Type 117).

BET DWARKA

RED WARE: (Fig. 3-5)

- Thick storage jar with a heavy beaded rim and bulbous body, ill-fired and coarse fabric. BDK-II-85 (Compare with RGP III, Type 61).
- Jar with a bulbous body and projected rim, raised

- neck, well fired and coarse fabric. BDK II 85 (Compare with RGP IIA, Type 3).
- Jar with a wide mouth, splayed beaded rim and bulbous body. Well fired and fine fabric. BDK - VI -88 (Compare with Lothal B-Type 237B).
- Jar with a flaring rim, bulbous body. Well fired and fine fabric. BDK-I-85 (Compare with RGP III, Type 133).
- Jar with raised neck, slightly beaded and undercut rim, grooved interior. Well fired. BDK-I-88 (Compare with Lothal B, Type 234a).
- High-necked jar with a beaded rim and convex profile, Ill-fired and medium. BDK-VI-85 (Compare with RGP-III, Type 71).
- Large thick convex-sided bowl with a sharp rim, grooved exterior, Ill-fired and medium fabric, red slip. BDK - II - 85 (Compare with RGP IIA Type 49).
- Bowl with a sharp and an everted rim, blunt-carinated shoulder, red slip and painted in chocolate colour with roundels. Well fired and fine fabric.
 BDK-VIB-87 (Compare with RGP IIC, Type 10a).
- Bowl with a sharp rim and convex profile. Well fired and fine fabric. BDK - II - 85 (Compare with RGP III, Type 107).
- Bowl with a projected, beaded rim and convex sided, well fired and fine fabric. BDK-VIb 87 (Compare with RGP IIB, Type 23 and also with Lothal A, Type 61b).
- Shallow dish with a projected rim and prominent carinated shoulder, Ill-fired and coarse fabric. BDK
 II - 85 (Compare with RGP IIA, Type 76a and also with Lothal A 42f).
- Dish of a dish-on-stand, featureless rim, non-carinated shoulder, well fired and fine fabric. BDK-VIB-87 (Compare with RGP IIA, Type 77 and also with Lothal A, Type 43).
- Dish with a projected sharp rim, blunt-carinated shoulder, well fired and fine fabric. BDK-VI-85 (Compare with RGP IIA, Type 67a).
- Goblet with a flat base and thick tapering sides, well fired and medium fabric. BDK-II-88 (Compare with RGP IIA, Type 83).

CONCLUSION: It can be said that the pottery of Dwarka establishes the existence of a habitation at Dwarka since 16th century BC if not slightly earlier. The site is also

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contemporary with its neighbouring well known late Harappan sites such as Nageshwar, Prabhasa and further southeast Rangpur. The Kushasthali, as Dwarka referred to in the Mahabharata, can therefore be, dated back to 1600 BC.

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REFERENCES

1.	Ansari, Z.A. and Mate, M.S	1966	Excavations at Dwarka Poona, pp.13-17.
2.	Indian Archaeology- A Review	1956-57 :	Archaeological Survey of India, N. Delhi, p.16.
3.	Indian	1975-76 :	Archaeological Survey of

Archaeology-

A Review

India, N. Delhi. p.13.

4.	Kuldeep, K.B. and Kenoyer, J.M.	1980 :	Excavations at Nage- shwar' Puratattva No. 12, N.Delhi, pp. 11-15.
5.	Mackay, E.J.H.	1953 :	Further Excavation at Mohenjo-daro, Vol. I, New Delhi. pp.175.
6.	Rao, S.R.	1 96 3 :	"Excavation at Rangpur and other explorations in Gujarat" Ancient India No.18, Delhi, pp.68.
7.		1979	Indian Archaeology - A Review ASI, New Delhi, p.25-29.
8.		1985	Lothal - A Harappan Port Town, Vol.II, N.Delhi, p.391
9.		1990	"Excavation of the legend- ary city of Dwarka in the Arabian sea" Journal of

Marine Archaeology, Vol.

1, p.62 NIO, Goa.





