Scenario of Chalcolithic Site Surveys in Gujarat

RAJESH S.V., PRABHIN SUKUMARAN AND K. KRISHNAN

Abstract

The Chalcolithic Cultural milieu of Gujarat is primarily identified based on variations in ceramic traditions. Lack of multidisciplinary approaches and other methodological constraints made it difficult to assess other cultural components that could have explained the role of regional Chalcolithic Cultures within the Gujarat Harappans. The present article explains the role of regional ceramic traditions and its spatial and temporal variations within Gujarat.

Keywords: *Chalcolithic, Site Survey, Gujarat, Pre Urban Harappan, Urban Harappan, Post Urban Harappan, Ceramics*

Introduction

Chalcolithic researches in Gujarat, western India over the last eight decades by government agencies and several universities have identified 755 settlements (Figures 1 and 2) of which 59 have been excavated (Figure 3). These intense studies identified intricate variations within the Harappan Culture and its association with regional traditions, mainly represented by different variety of ceramics, along with findings of microliths.

Gujarat Region

Attempts have also been made by researchers to categorize the Harappan settlements, primarily based on their geographical locations. Thus, within the geographical region of Greater Indus (Mughal 1970), Rao (1973: 3, 8-49) identified four provinces; the eastern province consisting of Rajasthan and Uttar Pradesh, southern province including entire Gujarat, the western province extending over southern parts of Baluchistan and central province consisting of Sind and Punjab. Joshi (1984: 51-54) followed a type site centered division, which resulted into categorizing the area into six geographical

regions/sectors; northern (Punjab, type site: Harappa), eastern (Rajasthan and Haryana, type site: Kalibangan), central (Bahawalpur, type site: Ganveriwala), Southern (Sind, type site: Mohenjo-Daro), south-western (Baluchistan, type site: Kulli Harappan) and south-eastern (Gujarat, type site: Lothal). Finally Possehl (1999: 269) classified the sites of the Indus Civilization into seven regions; the Central Region, the Gedrosia Region, the Southern Region, the North-western Region, the Northern Region, the Eastern Region and the Hakra Region.

The southern region of Possehl's (1999: 269, 327) classification is corresponding to the boundaries of the present day political state of Gujarat, which comprises 26 districts. Based on geographical criteria and ethnic composition, Gujarat can be divided into four sub-regions namely the North Gujarat (Banaskantha, Mehsana, Patan, Sabarkantha and Surendranagar districts), South Gujarat (Bharuch, Dahod, Dang, Narmada, Navsari, Panchmahal, Surat, Tapi, Vadodara and Valsad districts), Kachchh (Kachchh district) and Saurashtra (Ahmedabad, Amreli, Anand, Gandhinagar, Bhavnagar, Jamnagar, Junagadh, Kheda, Porbandar and Rajkot districts) . In the earlier period, these sub-regions were known as Anarta, Lata, Kaccha and Surastra/Saurashtra respectively (Sankalia 1941: 4-6; Subbarao 1958: 128; Majumdar 1960: xvii-xviii).

Based on chronometric (Figure 4) and relative dating methods, the Chalcolithic cultures/ traditions in Gujarat region can be tentatively dated between 3950-900 BC, which is divisible into three phases namely, Pre Urban Harappan (c. 3950-2600 BC), Urban Harappan (c. 2600-1900 BC) and Post Urban Harappan (c. 1900-900 BC).

Pre Urban Harappan Phase (c. 3950-2600 BC)

It represents the period which precede the Urban or Mature Harappan period. Possehl (1992: 118) defines it from a site specific point of view, while (Kenoyer 1991, 1994) views it as a developmental phase of different cultural processes. Till the second half of 1980s, the Pre Urban Harappan Phase in Gujarat (Figures 5 and 6) was not defined. But, based on several excavations and explorations in the following decades, the relative and absolute dates from various sites and reanalysis of ceramics and other artefacts from previously excavated sites brought out the existence of various cultural traditions. These

cultural traditions are mainly represented by the characteristic features of ceramic traditions and are now designated 'vaguely' as Anarta, Padri, Pre Urban Harappan Sindh Type, Pre Prabhas, cultural groups using Reserved Slip Ware and Black and Red Ware. Sonawane and Ajithprasad (1994) observes that except the Sindh Type Pottery, none of the ceramic types of this period from Gujarat showed clear technological and stylistic similarities to the Pre Urban Harappan ceramics or later ceramics of the Indus Valley proper .

Urban Harappan Phase (c. 2600-1900 BC)

The term Urban Harappan is used to represent the developed stage of the Harappan culture beginning from the middle of the third millennium BC (Possehl 1992). In a similar way the terms Harappan, Mature Harappan (Mughal 1970: 7) and Integration Era (Shaffer 1992) were used. According to Shaffer (1992), at the beginning of this period, most of the regional cultures of the Greater Indus Valley and adjoining regions, integrated into a wide spread urban society termed as Harappa Phase. Pronounced homogeneity in material culture of the urban society distributed over a vast area (Shaffer 1992), technologically complex craft activities, standardized weights and measures, use of un-deciphered script and maritime trade with Mesopotamia are the characteristic features of this period (Kenoyer 1998; Possehl 2002).

Urban Harappan period in Gujarat was marked by huge urban centre, Dholavira to small sites of less than 0.25 ha. At least fifteen known sites of this period were surrounded by huge fortifications (Figure 7). Based on the similarities in the material culture of these sites to those of Indus Valley proper, sometimes they are considered as outposts or colonies (Bisht 1989: 397-408; Joshi 1990; Dhavalikar 1994). Residents at many of the sites like Dholavira (Bisht 1989: 265-272), Lothal (Rao 1979, 1985), Gola Dhoro (Sonawane et al. 2003: 21-50), Nageswar (Hegde et al. 1990) and Navinal (Gadekar et al. 2014) were involved in craft activities, such as, production and trading of stone beads and shell bangles (Bhan and Gowda 2003), faience materials, lithic blades, copper objects etc., to different Harappan artefacts, regional Chalcolithic artefacts were also unearthed from many sites of the Urban Harappan period. Majority of the ceramic

traditions of Pre Urban Harappan period continued to this period, and some new traditions/cultures like Prabhas were also integrated.

Post Urban Harappan Phase (c. 1900-900 BC)

The term Post Urban Harappan is equivalent to the terminologies Late Harappan, Post Harappan and Localization Era, which encompasses the period following the principal urban occupations at Mohenjo Daro, Harappa and the urban phase sites coincident with the period of literacy and the making of the classic Indus stamp seals (Possehl 1992: 118). During this period, the long distance/inter regional trade, one of the characteristics of Integration Era appears to have broken down and the major geographic regions that had been encompassed by the Urban Harappan period were differentiated from one another on the basis of ceramics and other aspects of material culture (Chase 2007). Production of inscribed steatite seals, standardized weights, stoneware bangles and Classical Harappan architectural practices almost disappeared during this period (Kenoyer 1998: 173-185).

Post Urban Harappan period in Gujarat corresponds to Rangpur Phases IIC and III. Four hundred and thirty nine sites belonging to this period have been reported from different parts of Gujarat (Figures 8 and 9). This period was represented by the cultures/traditions namely Late Sorath Harappan, Prabhas Ware, Black and Red Ware, Micaceous Red Ware, Lustrous Red Ware, Jorwe Ware and Malwa Ware. During this phase, in Gujarat, many of the Classical Harappan vessel forms became extinct, Rohri chert blades became very rare, and they were substituted by smaller blades of local chert and chalcedony (Sonawane 2002: 167). Terracotta beads became very common (Sonawane 2002: 167) and distinctive aspects of Harappan material culture such as chert weights, triangular terracotta cakes and steatite stamp seals decreased in frequency or disappeared altogether (Bhan 1989: 226; Sonawane 2000: 142). Deterioration in urban settlement pattern is also noticeable (Sonawane 2000: 142) and there was a decrease in the average size of the settlements in Saurashtra (Bhan 1994: 82).

Classical Harappan and Regional Chalcolithic Cultures/Traditions in Gujarat

As many of the excavated and explored sites in Gujarat had some elements of Classical Harappans, without any doubt or second thought, they were labelled as 'Harappan' until the first half of the 1980s. However, excavations and explorations from the mid-1980s and reanalysis of the ceramics from the earlier excavated sites revealed the evidence for the existence of regional Chalcolithic cultures other than the Classical Harappans. In the beginning of Chalcolithic researches, the distinct features of the material culture of the site(s) in Gujarat was observed by a few scholars like Vats (1937), Dikshit (1950), Subbarao (1958), Nanavati (1962) Wheeler (1959, 1966) and Rao (1963). Vats (1937) based on his observations at Rangpur suggested that the part he excavated at the site might correspond to the Late period of the Indus Civilization or probably fall between that time and Cemetery H at Harappa, and it triggered the belief that Chalcolithic sites in Saurashtra are Late Harappan (Possehl 2007: 303). In 1958, Subbarao categorized the excavated Chalcolithic sites of Gujarat into three viz. Kathiawad Harappan (Lothal and Rangpur IIA), Late Kathiawad Harappan (Rangpur IIB, Somnath IA and IB and Lakhabawal I) and Post Kathiawad Harappan (Rangpur IIC and III, Somnath II and Amra I) (Subbarao 1958: fig. 37). Though he hasn't given any explanation for this classification, it can be viewed as a division based on the geographical region supported by differences in artifacts. Subbarao (1958: 132-133) also identified the presence of a typical regional ceramic type; Prabhas Ware along with the Harapppan ceramics at Somnath. Wheeler (1959: 38) also noticed the distinctive character of the Chalcolithic sites in Saurashtra/Kathiawar, and he called them as a sub-Indus or a provisional variant of the Indus Civilization. Later, Wheeler (1966: 87) used the term Saurashtrian Indus to denote a late and the developing branch of the Indus civilization. Nanavati (1962: 424) suggested the possibility of Lothal being a regional variation of the Harappan culture in Gujarat, which may have dissociated from the parental one at an early stage and took its own course of development. In 1963, Rao suggested the probable existence of an indigenous Micaceous Red pottery using community at Lothal prior to the Harappan occupation (Rao 1963).

In the 1960s and 70s, ceramics similar to those of Jorwe and Malwa culture were recovered from a few excavated sites in south Gujarat along with the Post Urban Harappan pottery (IAR 1961-62; IAR 1966-67; Mehta et al. 1971). Joshi (1972: 122-

126) also noticed the variation of certain ceramics found associated with the Harappan pottery from Surkotada. Sankalia (1972: 171-172) regarded the trends observed through the material remains at Rangpur and Somnath as regional, ethnic and cultural forces that clearly differed from the Harappan way of life. He also suggested that changes in pottery shapes, techniques and decoration cannot be indigenously evolved without some outside influence (Sankalia 1974: 381). Although, Pandya (1983: 59-63) based on the results of Rangpur excavations by Dikshit (1950) and Rao (1963) argued that the local Chalcolithic communities may have preceded as well as co-existed with the Harappans. Similarly, Allchin (1990: 30) suggested that the local settlements with a distinctive regional character were already established in Gujarat even before the arrival of the Harappans and later in time Post Urban Harappan features blended with the re-emerging local cultural style.

By the end of 1980s Possehl and Herman (1990: 314) noticed significant variations from the Classical Harappan in the material culture of Rojdi and many sites in Saurashtra and they termed this regional manifestation of the Harappan Urban phase as Sorath Harappan, which is stylistically different from the Sindhi/Classical Harappan (urban phase sites in Kachchh, Sind and Punjab) and clearly a part of the entire Harappan culture. Allchin and Allchin (1997: 160-161) suggested the term Local Harappan instead of Sorath Harappan to this regional manifestation. A very short period after the identification of Sorath Harappans, Shinde (1992 a, 1992 b) identified a new regional Chalcolithic assemblage at the lowest levels of Padri and termed it as Padri Ware. Reanalysis of ceramics from Prabhas Patan (Dhavalikar and Possehl 1992) in Saurashtra also revealed the evidence for the existence of a regional Chalcolithic population well represented by the ceramic assemblage named as Pre-Prabhas. Excavations and explorations in various parts of North Gujarat and adjoining regions by the Maharaja Sayajirao University of Baroda clearly established the evidence for the existence of another regional Chalcolithic tradition termed as Anarta (Sonawane and Ajithprasad 1994). In the same time, a few sites in North Gujarat and Saurashtra also revealed ceramics similar to those from Pre Urban Harappan levels at Amri, Nal, Kot Diji, Balakot and Dam Sadat (Hegde et al. 1988; Majumdar and Sonawane 1996-1997). Thus, it clearly indicates that from the beginning of the fourth to the beginning of the first millennium BC (3950-900 BC), Gujarat was populated by the Classical Harappan and different regional Chalcolithic cultures. In the following section, various features of these Chalcolithic cultures and their district wise distribution pattern in Gujarat are mentioned.

Anarta Tradition

Anarta Assemblage is the Regional Chalcolithic tradition first reported as a distinctive ceramic group from North Gujarat. Though the ceramics similar to this tradition were noticed in association with Classical Harappan ceramics at Surkotada (Joshi 1972: 122-126), its regional trait was first recognized in 1985 during the excavations at Nagwada in Surendranagar district where these ceramics were found associated with Pre Urban and Urban Harappan elements. However, its independent nature as a Pre Urban Harappan ceramic tradition of North Gujarat was established only after the excavations at Loteshwar in Patan (part of erstwhile Mehsana) district in 1991-92 (Sonawane and Ajithprasad 1994). The site revealed two fold cultural sequence (Mesolithic and Chalcolithic) and Loteshwar is conspicuous for the absence of crested ridge technique of blade production (Brahmbhatt 2000: 75). The introduction of sheep and goat a long time after the beginning of Chalcolithic occupation (Patel 2009: 181) and a very thin Chalcolithic deposit representing almost 2000 years of habitation (probably seasonal) having a number of pits of varying diameter and the absence of structures are the other important features of the site. Anarta ceramics are also found associated with Pre Urban Harappan Sindh Type Pottery/Burial pottery (Amri Nal type) at sites like Motipipli and Datrana and with Pre-Prabhas pottery at Datrana. The similarities between Anarta ceramics and Padri Ware were also noticed by Shinde (1998) and Ajithprasad (2002). Anarta ceramics are also found along with the Classical Harappan and Sorath Harappan artefacts at Gola Dhoro (Bagasra) (Sonawane et al. 2003: 21-50; Bhan et al. 2004: 153-158) and Shikarpur (Bhan and Ajithprasad 2008: 1-9, 2009: 1-9). This pottery tradition is represented by Gritty Red Ware, Fine Red Ware, Burnished Red Ware and Burnished Grey/Black Wares. The vessels are hand /slow wheel made and vessel forms include straight or convex sided bowls with incurved rims, basins with thick flaring rim, pots/jars with flaring rim, constricted neck and bulbous body. They are treated with red slip with paintings in red, black and white (Sonawane and Ajithprasad 1994; Ajithprasad

2002). Apart from many sites in North Gujarat, it is also found associated with the Classical Harappan and Sorath Harappan artifacts at Shikarpur (Bhan and Ajithprasad 2008: 1-9; Bhan and Ajithprasad 2009: 1-9) in Kachchh and Bagasra in Saurashtra (Sonawane et al. 2003; Bhan et al. 2004). The non-Harappan ceramic tradition from all the periods (IA, IB and IC) of Surkotada is analogous with Anarta pottery. Though, the Anarta pottery was found associated with the pottery analogous to the Rangpur IIC ceramics at a number of explored sites in North Gujarat, none of the excavated sites till date has revealed its presence in the Post Urban Harappan context. Hence, based on series of radio carbon dates from Loteshwar and Bagasra, this tradition can be tentatively dated between 3950 BC - 1900 BC.

The archaeological evidences till date suggest that the core area of the spread of Anarta tradition is North Gujarat. Material remains of this tradition primarily characterized by the pottery are reported from sixty seven sites in North Gujarat, Kachchh and Saurashtra regions. Sixty sites of this tradition are reported from North Gujarat, four sites from Kachchh and three from Saurashtra regions respectively. If the so called Padri Ware is not different from the Anarta Tradition, the number of sites from the Saurashtra region will increase to fourteen. Figure 10 shows the district-wise distribution of Anarta tradition in various sub-regions of Gujarat.

Padri Ware

Another set of Chalcolithic ceramics showing non-Harappan features is the Padri Ware/Padri Culture reported from Padri in Padri Gohil Ni, the 'salt manufacturing site' of the Chalcolithic time in Talaja taluka of Bhavnagar district (Shinde 1992 a, 1992 b, 1998; Shinde and Kar 1992; Paul et al. 1997; Bhagat 2001; Shirvalkar 2008). At Padri, this hand/slow wheel made coarse ceramic having thick red slip with black paintings occur during Pre Urban Harappan and Urban Harappan periods (3600-2000 BC). The important vessel shapes are bowls with straight/incurved/convex sides, stud handle bowls, basins, globular pots, dish on stands and perforated jars (Shinde 1992, 1998, Shinde and Kar 1992). Other ceramic types occur in the Pre Urban Harappan levels at

Padri are Coarse Red/Grey Ware, White Lustrous Ware, Pink Slipped Ware, Bichrome Ware, Plain Handmade Ware and Red Painted Ware (Shinde 1992a, 1998; Prabodh 2008).

Red Painted pottery of Padri is akin to Sorath Harappan pottery and occurs from the lowest level of the site (Bhagat 2001). A resemblance in some of the shapes and a few decorations of Padri Ware with ceramics from North Gujarat (Anarta) (Shinde 1992b; Shinde and Kar 1992; Sonawane and Ajithprasad 1994; Shirvalkar 2008) and Pre Urban Harappan pottery from Dholavira (Bicrhome ware) (Shinde 1998) has been suggested. It is also reported from eleven other explored sites in the lower Shetrunji river basin in Bhavnagar district along with Sorath Harappan ceramics and classified as Pre Harappan (Paul et al. 1997; Shirvalkar 2008).

Till date, none of the sites outside the Bhavnagar district produced evidence for the existence of Padri Ware/Padri Culture. Among the twelve reported sites, eleven are from Talaja and one is from Mahua talukas respectively. Among all the reported sites, Padri is the biggest and the only excavated one. In all sites, Padri Ware is chiefly associated with Urban Harappan (Sorath Harappan) and Post urban Harappan (Late Sorath Harappan) ceramics. Intensive explorations in other parts of Bhavnagar district and Saurashtra may provide a better picture regarding this tradition/culture. Figure 11 shows the distribution of Padri Ware/Padri Culture in Gujarat.

Pre-Prabhas Assemblage

Pre-Prabhas pottery is a non Harappan assemblage first unearthed in 1956-57 excavation at Prabhas Patan (Somnath) in Junagadh district. According to Subbarao (1958), Period IA at Prabhas Patan was characterised by the occurrence of a corrugated or broadly incised ware along with a blade industry of agate and chalcedony with crested ridges (IAR 1956-57; Subbarao 1958; Dhavalikar and Possehl 1992) and this ceramic had similarities with Rangpur IIB pottery (IAR 1956-57), although, in the Somnath excavation report (Nanavati et al. 1971) there is no mention of the Pre-Prabhas level. Pre-Prabhas level datable to 3000-2600 BC was identified during 1970s through a reexcavation of the site and the details of this ceramic type were published only in 1992 (Dhavalikar and Possehl 1992). Pre-Prabhas assemblage is characterised by handmade pottery comprising of Red Ware, Incised Red Ware, Black and Red Ware and Grey Ware. A Black Painted Red Ware akin to the Post Urban Harappan pottery is also reported from the site (IAR 1971-72). The forms represented are wide mouthed jars, deep shallow basins, flat bottomed basin with flaring sides and incised rims (IAR 1971-72). Other finds from the level include chalcedony blades; beads of faience (some are segmented) and steatite; and a wall plaster suggesting wattle and daub architecture (Dhavalikar and Possehl 1992). Though, there is mention about the availability of Pre-Prabhas type Crude Corrugated Ware in the earliest level of Rojdi (IAR 1957-58); from the reports of the later excavations it appears that the site is devoid of the same and the pottery reported in 1957-58 might be the Sorath Harappan Corrugated Ware (Ajithprasad: Personal Communication). The excavations at Datrana (mound IV) in Banaskantha district of North Gujarat also revealed Pre-Prabhas pottery (3200-2600 BC), where it was found associated with Anarta pottery, Pre Urban Harappan Sindh Type Pottery, crested ridge blades and cores of chalcedony, agate, jasper and chert and copper/bronze punch (Ajithprasad 2002).

As per the current knowledge, there are only four Pre-Prabhas sites in Gujarat and they are located in Saurashtra (1) and North Gujarat regions (3) respectively. The reasons for the availability of this assemblage only in four sites of two different regions need to be understood properly. Figure 12 shows the district wise distribution of Pre-Prabhas Assemblage in Gujarat.

Pre Urban Harappan Sindh Type Pottery (Burial Pottery)

Pre Urban Harappan Sindh Type Pottery was first reported during the excavations at Nagwada in 1985 (Hegde et al. 1988: 55-65; Ajithprasad 2002: 144) where both inhumation and symbolic burials were noticed in Period IA. Red Ware, Pinkish Buff Ware and Grey Ware represented the symbolic burials at the site. The vessels were made of well elutriated clay and the ceramics were slipped and painted (Majumdar and Sonawane 1996-1997: 16). Major shapes in this group are large bulbous pot with narrow flat base, a short and straight neck and flat rim, flasks or beaker shaped vases with sides converging into a narrow opening, beakers with slightly flaring rim, dish on stand with

up turned rim, dish with no carination and shallow bowls (Ajithprasad 2002: 145). The bulbous pot is painted at the rim with a thick dark band and at the shoulder with horizontal and wavy lines. Pipal leaf motif on one of the large pots is an important feature. These burial ceramics resemble the vessels recovered from the Pre Urban Harappan levels at Kot Diji, Amri, Dam Bhuti, Nal and Balakot (Hegde et al. 1988: 58; Ajithprasad 2002: 145). Such ceramics are also present in the cemetery at Surkotada in Kachchh (Joshi 1990; Possehl 1997: 81-87). Subsequent excavations at Santhli, Datrana and Moti Pipli in north Gujarat also revealed these ceramics along with Anarta pottery. At Datrana, in the upper levels, it was also found associated with Pre-Prabhas assemblage. Exploration in the Junagadh district of Saurashtra region showed its existence in three sites (Ajithprasad et al. 2011). The relative time period assigned to the burial ceramics is beginning of the third millennium BC (Majumdar and Sonawane 1996-1997: 20; Ajithprasad 2002: 147). Majumdar (1999: 194) based on the evidence from Nagwada, Moti Pipli, Datrana and Surkotada suggest a time bracket of 3000 BC to 2600 BC for the spread of Pre Urban Harappan Sindh Type Pottery and its authors to Kachchh and North Gujarat.

Till date, Pre Urban Harappan Sindh Type Pottery is reported from fifteen sites in Gujarat. Among them ten are located in North Gujarat, two in Kachchh and three in Saurashtra sub-regions respectively. The availability of these ceramics in different sub-regions of Gujarat shows that more systematic explorations can bring to light more number of sites and better understanding of Sindh type ceramic using community. Figure 13 shows the district-wise distribution of Pre-Urban Harappan Sindh Type Pottery in different sub-regions of Gujarat.

Black and Red Ware

In India, Black and Red Ware ceramics are reported from Chalcolithic, Megalithic and Early Historic contexts (Dey 2003: 131-136). According to many scholars' dual colour in the ceramic is the result of inverted firing technique (Wheeler 1947; Sharma 1960; Subbarao 1961; Rao 1963). Black and Red Ware ceramics are reported from most of the

Chalcolithic sites in Gujarat, and it was first reported from Rangpur (Dikshit 1950: 18-19), where these ceramics were found in all the periods and the major shapes include bowl, jar and dish and some of the bowls were painted using white colour (Rao 1963). Black and Red Ware ceramics are found associated with Micaceous Red Ware (Rao 1985), Classical Harappan (Rao 1985), Prabhas Ware (Rao 1985), Sorath Harappan (Sen 2009), Pre Urban Harappan Sindh Type Pottery (Majumdar 1999), Pre-Prabhas Assemblage (Dhavalikar and Possehl 1992; Ajithprasad 2002), Anarta tradition (Ajithprasad and Sonawane 1994; Ajithprasad 2002), Lustrous Red Ware (Rao 1963; Rissman and Chitalwala 1990), Malwa Ware (Mehta et al. 1971), Jorwe Ware, Reserved Slip Ware and Microliths (IAR 1961-62). There are certain similarities and dissimilarities in the shape and fabric of Black and Red Ware in different periods and cultures/traditions in Gujarat. In Chalcolithic Gujarat, chronologically it can be roughly placed between 3950 BC - 900 BC.

Black and Red Ware ceramics are available from all the sub-regions of Gujarat. This Ware is reported from nine sites respectively in Kachchh and North Gujarat, twenty one in Saurashtra and seven in South Gujarat. The actual number of this kind of ceramic yielding sites might be quite higher as in many exploration reports the ceramic types available in these sites are not mentioned. Figure 14 shows the district wise distribution of Black and Red Ware in different sub-regions of Gujarat.

Reserved Slip Ware

Reserved Slip Ware was first reported during the excavation of Mohenjodaro and the term was used by the excavators to describe a kind of low fired ceramics (Mackay 1938: 184). The term reserved slip refers to a particular kind of surface treatment given to the pre-fired ceramic by applying two slip layers to the surface of the vessel and later by skillfully removing the upper slip through gently combing the surface thus leaving two contrasting colours, in either a straight or a wavy line pattern. There are different kinds of this ceramic; "Glazed" Reserved Slip Ware, "Ungalzed" Reserved Slip Ware and Periano Reserve Ware (Shinde et al. 2008: 85). The Glazed Reserved Slip Ware was characterized by a well-defined, glossy and hard surface layer, where as the surface of Unglazed Reserved Slip Ware is matt and soft (Krishnan 2005: 692). Periano Reserve

Ware which is totally different from the Glazed and Unglazed Reserved Slip Ware was first identified at Periano Ghundai by Fairservis and it is recovered from many sites in the Greater Indus Region including Kalibangan, Girawad and Farmana. The surface treatment of this ware includes the application of sandy clay coating or a slip on the surface of the leather hard vessel to give the appearance of a very smooth exterior surface over which broad wavy and horizontal parallel grooves in low relief are executed (Shinde et al. 2008: 85). Glazed and Ungalzed Reserved Slip sherds are reported from both Pre Urban Harappan and Urban Harappan sites in Gujarat and its main concentration is in Kachchh region. In Gujarat, it can be dated between 3950-1900 BC. At this stage of research, it is very difficult to pinpoint the authors of this ware.

Varieties of Reserved Slip Ware was reported from eleven sites in Kachchh, five sites in Saurashtra, three sites in North Gujarat and one site in South Gujarat regions. In all the excavated sites in Gujarat, these ceramics were found in very less quantity. Figure 15 shows the district wise distribution of Reserved Slip Ware in different sub-regions of Gujarat.

Micaceous Red Ware

S.R. Rao in 1963 described the possible existence of an indigenous Micaceous Red pottery using Chalcolithic population at Lothal prior to the Harappan occupation (Rao 1963). In spite of several efforts, he hasn't found a stratum exclusively of Micaceous Red Ware at the site (1985). This pottery type was found to increase in quantity in the lower levels of Lothal A but it was always found associated with Harappan ceramics (IAR 1961-62). In fabric, surface treatment, forms and modeling this pottery shows non-Harappan features (Rao 1963; Dhavalikar and Possehl 1992; Herman and Krishnan 1994; Sonawane and Ajithprasad 1994). This hand/mould made pottery has a thick pink to light brown/grey glossy slip with smooth surface and appears as dusted with tiny mica particles. The vessel forms represented are convex sided bowl with or without stud handle, shallow dish-basin, globular jar, lamp, bottle and perforated jar (Figure 16). Similar pottery was also reported from Rangpur (Rao 1963). The excavations at Kanewal (Mehta et al. 1980) and Vagad (Sonawane and Mehta 1985) in the Bhal region strengthened the theory of the existence of Micaceous Red ware using community in the

area around Gulf of Khambhat. Explorations (Dimri 1998-99; Dimri 1999; Krishnan and Dimri 2005; Dimri 2005; Rajesh 2011) in the Bhogava, Sukha Bhadar and Lilka river basins also provided supporting evidence. It is also reported in small quantities from excavated Chalcolithic sites like Rojdi, Nageshwar and Bagasra in Saurashtra, Desalpur in Kutch and Ratanpura in North Gujarat (Herman and Krishnan 1994, Dimri 1999). One sherd each showing similarities to Micaceous Red Ware were also recovered from Shimal in United Arab Emirates and Lohumjo Daro in Pakistan. Chronologically this Ware can be placed tentatively between 2600- BC (Lothal A Phase I and Rojdi A) to 1600 BC (Vagad IB).

The material remains collected from different parts of Gujarat till date suggests that the core area of the existence of this tradition is Saurashtra. Micaceous Red Ware is reported from twenty two sites in Saurashtra, five sites in North Gujarat and one site in Kachchh regions. Figure 17 shows the district-wise distribution of Micaceous Red Ware indifferent sub-regions of Gujarat.

Classical Harappan

Classical Harappan sites are mainly concentrated in the Kachchh region and represented by the excavated settlements like Dholavira, Desalpur, Surkotada, Pabumath, Kanmer, Juni Kuran, Shikarpur and Khirsara. The other sites are Lothal, Nageswar and Bagasra in Saurashtra; Nagwada and Zekhda in North Gujarat. All the excavated sites have Classical Harappan features apart from the artefacts of regional Chalcolithic cultures/traditions (Bhan 1994: 79). Possehl (1992) called the Classical Harappan settlements as Sindhi Harappan. According to Sen (2009: 1) "the term 'Sindhi Harappan' used by Possehl, although originally meant to refer to characteristic cultural traits generally found associated with the urban sites of the Harappa culture in the entire Indus valley, by default refers only to that of the Sindh region because the word Sindh/Sindhi has regional/ethnic connotations. The urban Harappan features are found not only in the Indus valley proper but also in the adjoining regions in the east, south and west". Many of the Classical Harappan sites were associated with the manufacture of specialized items of semi-precious stone, steatite, faience, shell and copper (Sonawane 2000: 141). Size of the Classical Harappan sites in Gujarat varied from less than 0.25 ha to 60 ha. The Classical Harappan sites revealed evidences for the existence of city, towns, villages, camp sites, craft production centres, market places, rituals, controlling authority, social stratification, monumental and domestic architecture, science and technology, script and writing, art, trade and craft specialization in ceramics, terracotta, stone, shell, metal, faience and bones. A number of Classical Harappan settlements are fortified and bipartite division is also present in some of them. Classical Harappan remains from the sites of Gujarat include goblets, beakers, S profile jar, copper tools, architecture with standardized sun dried/kiln baked bricks and dressed stone, cubical stone weights, seals with script and figures, long parallel chert blades of Rohri chert and terracotta triangular cakes (Sonawane 2000: 141). The Classical Harappans of Gujarat region probably traded shell bangles and stone beads to other sites in Greater Indus region and the collapse happened to the trade probably by the end of second millennium BC might have led to the decline of these settlements and contributed to a large scale cultural change usually called as Post Urban Harappan period. Based on absolute and relative chronology, Classical Harappan sites in Gujarat can be dated between 2600-1900 BC.

Five hundred and sixty one sites of the Urban Harappan period are reported from different parts of Gujarat. Majority of the Classical Harappan sites are located in Kachchh and almost all sites earlier reported as Harappan/Classical Harappan shows more affinity to Sorath Harappan rather than the Classical Harappan. Hence, both the Classical Harappan and Sorath Harappan sites are treated together.

Sorath Harappan

The regional manifestation of the Urban Harappan phase in Saurashtra is popularly known as Sorath Harappan (Possehl and Herman 1990). Radio carbon dates from Rojdi A and B showed that all the sites in Saurashtra having pottery similar to these two phases should be dated to the Urban Phase Harappan and not the Post-Urban Phase (Possehl 1992: 129). Ceramics and a few other tools associated with sites of Rojdi A and B type are quite different in detail from those of the Classical Harappan. In Sorath Harappan, the vessel shapes were much alike the Harappans in the Sindh region but the classic black on red painting styles were absent on them (Possehl 1992: 129). Though there are

no seals and little writing, there are weights and measures, etched carnelian beads and copper implements of Classical Harappan type (Possehl 1992: 129). Apart from Saurashtra, Sorath Harappan artefacts are recovered from sites in Kachchh and North Gujarat. The average size of the Sorath Harappan settlements is estimated to 5.3 ha (Possehl 1980) and many of these settlements are devoid of elaborate architecture showing proper plan and layout (Ajithprasad 2002: 85). Like the Classical Harapan settlements, some of the Sorath Harappan settlements are fortified and bipartite division is also present in some of them (Ajithprasad 2008: 83). According to Ajithprasad (2008), thickness of Sorath Harappan fortification walls are much lesser in comparison to the Classical Harappans. He (Ajithprasad 2008) further suggests that curvilinear and polygonal structures seem to be not the norm in Classical Urban Harappan sites. Till the beginning of 1990s Sorath Harappan sites were considered as Late Harappan or Post Urban Harappan, and they were classified to Period IIB-C or III of Rangpur Sequence. Possehl divided the Rangpur IIB sites as Sorath Harappan, IIC as Late Sorath Harappan and III as Lustrous Red Ware sites (c.f. Varma and Menon 1999: 9; Possehl 1999). Based on the absolute dates from Rojdi Sorath Harappan can be placed between 2600-1700 BC. However, the material remains and radio carbon dates from Padri suggest an earlier date of 3600 BC to Sorath Harappan. Among the five hundred and sixty one Classical Harappan/Sorath Harappan sites reported from Gujarat fifty three are located in Kachchh, seventy five in North Gujarat, four hundred and twelve in Saurashtra, eleven in South Gujarat and ten in unknown districts. Figures 18 and 19 show the district-wise distribution of Classical Harappan/ Sorath Harappan sites in different sub-regions of Gujarat.

Prabhas Assemblage

Period II at Prabhas Patan was marked by a different set of ceramics known as the Prabhas Ware and this was unearthed during the excavation in 1956 (Subbarao 1958; Nanavati et al. 1971; Dhavalikar and Possehl 1992). The characteristic Features of the Prabhas Ware are hemispherical bowls with slightly incurved and bevelled rim and medium size jars/pots with an averted short rim, incipient neck, wide shoulder and globular body (Ajithprasad 2002: 134). It is made of fine clay and treated with a thin greenish grey slip, decorated with faint violet or purple pigment and the decorative

patterns, generally geometric forms like horizontal and vertical lines, dots and other forms, were executed in horizontal panels or registers at the rim or at the shoulder (Nanavati et al. 1971). This pottery is found associated with Black and Red Ware, Sorath Harappan and Classical Harappan artefacts. At Somnath/Prabhas Patan it occurs along with stone structural remains, copper implements including celt, steatite and faience beads, and carved stone seal bearing images of several stylized deer indicating Harappan influence (Ajithprasad 2002: 134). Prabhas pottery has wide distribution in Saurashtra, and it was reported from the sites like Lothal, Rojdi, Amra and Lakhabaval. This assemblage is dated between 2200 BC to 1700 BC (Dhavalikar and Possehl 1992: 72).

The data available till date shows that core region of the distribution of this ceramic type is Saurashtra. Among the nineteen sites reported till date eighteen are from Saurashtra region and one belongs to Kachchh. The reasons for the distribution of this ceramic type mainly in Saurashtra region needs further investigations. Figure 20 shows the district and sub-region wise distribution of Prabhas Ware in Gujarat.

Lustrous Red Ware

Lustrous Res Ware is first reported during the excavations at Rangpur (Vats 1937: 34-38; Dikshit 1950: 3-55; Rao 1963). At the site, this ceramic type made its first appearance in Period IIC in limited quantity and Period III is noted for its exuberance (Rao 1963). This kind of pottery was later reported from many explored and excavated sites in Saurashtra, Kachchh, North Gujarat and South Gujarat. Generally, the fabric of Lustrous Red Ware is coarse with the rare occurrence of a fine variety (Rao 1963). These ceramics are treated with bright slip and are highly burnished, which results in a very shiny surface. Colour of the ceramics ranged from tan, orange, bright red and purple (Rissman and Chitalwala 1990). Major shapes in the same are bowl, basin, dish, pot/jar and dish on stand (Figure 21). In many sites, it is associated with Painted Black and Red Ware and Coarse Red Ware (Bhan 1994: 82). Based on chronometric and relative methods this ceramic group can be placed between 1900-1300 BC (Bhan 1994: 82; Sonawane 2002: 168). Lustrous Red Ware ceramics are reported from one hundred and twenty seven sites in Gujarat. Most of the sites are from Saurashtra followed by North Gujarat regions. Sixty eight sites from Saurashtra, fifty five from North Gujarat, two each from Kachchh and South Gujarat regions showed its presence. Figure 22 shows the district wise distribution of Lustrous Red Ware in Gujarat.

Malwa Ware

Malwa Culture (c. 1700-1450 BC) was spread over a large part of central India in general, and in Malwa, the western part of Madhya Pradesh, in particular (Ansari and Dhavalikar 1971: 345). More than hundred sites of this culture were located in the valleys of river Chambal, Narmada and Betwa and its tributaries (Misra 2001: 515). The excavations at Nagda (Banerjee 1986), Kayatha (Ansari and Dhavalikar 1973), Navdatoli (Sankalia et al. 1958; Sankalia et al. 1971), Maheshwar (Sankalia et al. 1958) and Eran (Singh 1962) revealed the evidence for the existence of Malwa culture (Dahvalikar 1979a: 236). The people of this culture built large rectangular houses and circular pit houses in wattle and daub, sun dried bricks and kiln baked bricks (Dhavalikar 1979a: 237-238; 1979b: 248; Misra 2001: 515). A defence wall of mud from Eran (Singh 1962) and drain of mud bricks from Nagda (Banerjee 1986) were also reported. A square pit unearthed from Navdatoli (Sankalia et al. 1958; Sankalia et al. 1971) is interpreted as yajna kunda (Sankalia et al. 1971). The economy of the Chalcolithic community of Malwa culture was based on farming, hunting and fishing (Dhavalikar 1979b: 250). Burials of this period were unearthed from Daimabad (Sali 1986) and Inamgaon (Dhavalikar et al. 1988). The people of this culture had a specialized blade industry of chalcedony and agate, and the tools like penknife blades, parallel sided blades, points, lunates and triangles were used by them. They also used copper tools like flat celts, spear head and swords with mid rib. The ornaments used by them are semi-precious stone beads, copper rings and bangles. Male and female terracotta figurines were also reported from many sites yielding Malwa Ware. This culture is characterized by wheel made black painted red pottery having orange-red slip. Simple and elaborate geometric designs in panels were painted using purple to brown-black pigment. The designs usually confined to the upper half of vessels, and it includes either hatched or solid triangles, diamonds in rows, concentric circles and loops. In addition to the geometric pattern,

there are animal motifs such as deer, crane and peacock. The common shapes in the Malwa Ware include lota, jars with flaring mouths and a variety of bowls and dishes. Another important ceramic is the white painted Black and Red Ware, usually represented by bowls and dishes. The people also used a coarse handmade red/grey ware identical with that of the southern Neolithic (Dhavalikar 1979b: 249).

Some ceramics showing affinity to the Malwa culture are unearthed from Jokha, Dhatva and Malvan in south Gujarat and these sites are relatively dated to the 15th-10th century BC. At Jokha, Malwa Ware was associated with Jorwe Ware, Painted Red Ware, Buff Ware, Black and Red Ware and Painted Red Ware with black bands on white back ground (Mehta et al. 1971: 14). At Dhatva, Malwa Ware was found associated with Black on Red Ware and Black and Red Ware (Mehta et al. 1975: 31). A few sherds of the Malwa Ware in the shapes of globular pots having flaring rim, medium fabric, cream colour and black painting were recovered from the site. The designs were mainly bands and wavy lines (Mehta et al. 1975: 29-31). Some of the sherds had corrugations in exterior (Mehta et al. 1975: 34). Based on the associated finds from Gujarat, Malwa Ware in Gujarat can be roughly dated between 15th to 10th centuries BC.

Malwa Ware is only reported from three sites in Surat district of South Gujarat region. This ceramic might have come to the sites in South Gujarat probably due to the contacts of the inhabitants of the sites to the Deccan Chalcolithic communities. Figure 23 shows the distribution of Malwa Ware in Gujarat.

Jorwe Ware

Jorwe culture is represented at more than 200 sites from Tapi valley in the north to Bhima valley in the south of western Maharashtra (Misra 2001: 517; Dhavalikar 1979b: 251; 1984: 63-80). Jorwe culture is divided into two phases, early Jorwe (1500–1200 BC) and late Jorwe (1200–900 BC) based on structures, subsistence economy and materials used. Jorwe settlements can be classified into large regional centres, villages, hamlets, farmsteads and camps. Largest settlement of Jorwe culture is Diamabad, which is 30 ha in size (Sali 1986). The early Jorwe houses were rectangular in plan but late Jorwe houses were small round huts. The animal remains from the Jorwe sites include

cattle, sheep/goat, buffalo and pig. Copper objects found at different sites comprise axes, chisels and fish hooks. Some pottery kilns were also noticed at Inamgaon (Dhavalikar et al. 1988) and Daimabad (Sali 1986). The ceramics were wheel made and well fired. The pots were painted in black on red background with simple geometric motifs. The typical shapes are spouted jar and carinated bowl. A large number of human burials of the early and late Jorwe phases have been found at Inamgaon (Dhavalikar et al. 1988), Nevasa (Sankalia et al. 1960) and other sites. Jorwe people worshiped both gods and goddesses (1997: 206-208) made out of baked as well as unbaked clay. The goddesses were represented with and without head (Misra 2001: 518). As per Dhavalikar (1979b: 251),

Jorwe people had contacts with the Late Harappans and the Lustrous Red Ware users of Gujarat. At Jokha, Period I (circa 1500-1000 BC) was marked by the occurrence of Jorwe Ware and Malwa Ware (IAR 1966-67). From Nagal, microlithic tools associated with Black and Red Ware and small fragments of Ochrous Red Ware similar to the ceramics from Jorwe were also recovered (IAR 1961-62). Some of the ceramics from Malvan also showed similarities to the coarse Wares of Jorwe-Nevasa complex (IAR 1966-67: 9). Jorwe Ware is only reported from three sites of South Gujarat region. Like the Malwa Ware, it might have reached sites in South Gujarat probably due to the contacts maintained by the inhabitants of these sites with the Deccan Chalcolithic communities. Figure 24 shows the distribution of Jorwe Ware in Gujarat.

Microliths

In Indian context, the term Mesolithic has been used to define the post-Pleistocene Stone Age culture (characterized by the presence of microliths like composite points, blades, arrow heads, burins, borers, scrapers and blade blanks)which succeeded the Palaeolithic and preceeded the stone, ceramic, and metal using cultures of the Neolithic/Chalcolithic periods (Sonawane 2002; Ajithprasad 2002). In Gujarat, microliths occurs at Mesolithic, Chalcolithic and even Early Historic Sites. In many of the excavated sites, microliths using community preceded the Chalcolithic after a chronological gap. Langhnaj in North Gujarat revealed a copper knife of 98% purity, Black and Red Ware and steatite disc beads in Mesolithic level and it indicates some sort of relationship existed between Chalcolithic and Mesolithic community of Gujarat. More than seven hundred sites in

various regions of Gujarat revealed the existence of Mesolithic/Microliths using community and based on the radio carbon dates it can be securely dated from the seventh millennium BC to the end of second millennium BC with two different Phases i.e. Pre Chalcolithic and Chalcolithic (Sonawane 2002; Ajithprasad 2004).

Based on the archaeological data till date, microliths of the Chalcolithic level were reported from one hundred and sixty nine sites in Gujarat. Among them fourteen sites are located in Kachchh, forty four in North Gujarat, one hundred in Saurashtra and eleven in South Gujarat regions. Figure 25 shows the sub-region wise distribution of Chalcolithic sites having Microliths in Gujarat.

Summary

Despite consistent effort from Archaeologists over more than eight decades the Chalcolithic archaeology of Gujarat offers more challenges. It must be admitted that, although the methods of archaeological investigations underwent several changes all over the world, most of them are not taken into consideration by the workers in Gujarat. To begin with, the term 'site' itself is not properly defined by majority of the workers, due to which one finds it difficult to understand its primary nature. Many investigators have failed to assign proper chronology to their sites though several chronometric techniques are available. Over emphasis on ceramic studies and lack of multi-disciplinary approaches pertaining to the development of cultural processes have weighed down our proper understanding of the Gujarat Harappans. The present overview suggests that many more facets of the Harappan Culture in Gujarat are yet to be understood.

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Figures



Figure 1. District and Sub-Region wise Distribution of all the Reported Chalcolithic Sites in Gujarat



Figure 2. Distribution of all the Reported Chalcolithic Sites in Gujarat



Figure 3. Distribution of all the Excavated Chalcolithic Sites in Gujarat



Figure 4. Distribution of Chalcolithic Sites Having Radio Carbon Dates in Gujarat



Figure 5. District and Sub-Region wise Distribution of Pre Urban Harappan Sites in Gujarat



Figure 6. Distribution of Pre Urban Harappan Sites in Gujarat


Figure 7. Distribution of Fortified Chalcolithic Settlements in Gujarat



Figure 8. District and Sub-Region Wise Distribution of Post Urban Harappan Sites in Gujarat



Figure 9. Post Urban Harappan Sites in Gujarat



Figure 10. Distribution of Anarta Sites in Gujarat



Figure 11. Distribution of Padri Ware Sites in Gujarat



Figure 12.Distribution of Pre-Prabhas Sites in Gujarat



Figure 13. Distribution of Pre Urban Harappan Sindh Type Pottery in Gujarat



Figure 14. Distribution of Chalcolithic Black and Red Ware in Gujarat



Figure 15. Distribution of Reserved Slip Ware in Gujarat



Figure 16. Micaceous Red Ware (Adapted: Rao 1985: 396, 397, 399 and 431)



Figure 17. Distribution of Micaceous Red Ware in Gujarat



Figure 18. District and Sub-Region wise Distribution of Sorath/Classical Harappan Sites in Gujarat



Figure 19. Distribution of Classical and Sorath Harappan Artifacts in Gujarat



Figure 20. Distribution of Prabhas Ware in Gujarat



Figure 21. Lustrous Red Ware (Adapted Rao 1963: 102, 110, 113 and 115)



Figure 22. Distribution of Lustrous Red Ware in Gujarat



Figure 23. Distribution of Malwa Ware in Gujarat



Figure 24. Distribution of Jorwe Ware in Gujarat



Figure 25. Distribution of Chalcolithic Sites Having Microliths in Gujarat