
Harappan Migrations: A Perspective about the Gujarat Harappans

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Abstract: *The new dates and the research on Harappan civilization have questioned the earlier hypotheses and theories regarding Harappan civilization in Gujarat. The old theories of eastward migration and core-periphery concepts need to be understood in the light of new evidences from Gujarat. The fortified Harappan settlements in Gujarat, particularly in Kachchh region require special attention to understand the function of these structures against the old model of defensive system against hunter-gatherers.*

Keywords: Gujarat, Harappan, Chalcolithic, Mesolithic, Center-Periphery, Fortification, Hunter-Gatherer

Introduction

The Harappan civilization was discovered accidentally in 1920's. After this discovery excavations were carried out at the sites of Mohenjodaro (Marshall 1931, Mackay 1937-38), Harappa (Vats 1940) and Chanu-daro (Mackay 1943) in the early 1930's. Along with these major sites some small sites were also excavated such as Amri (Majumdar 1934) and Nal (Hargreaves 1929) so forth. The constant excavations and explorations in various parts of Pakistan and India have firmly established the Harappan civilization as one of the oldest civilizations of the world.

The valleys of Indus-Hakra-Ghaggar-Nara have been always identified as a cradle of the Harappan or Indus Valley Civilization. The discovery of the two magnificent cities - Mohenjo Daro and Harappa - in the early 20th century further helped in identifying the core region of the Harappan civilization which directly shows the socio-political dominance of the two regional capitals or metropolitan cities. This directly divided the Harappan civilization into two groups i.e. core region sites, which are in the Indus-Hakra-Ghaggar-Nara and the sites of periphery region which include the ones in Gujarat on the western coast. The Harappans came to this area for various raw materials as well as for pasture-land during the Mature Phase by land routes as well as

by a sea route. The region of Kachchh, shares the northern border of hinterland Gujarat, shows more Harappan affinities than any remaining areas of Gujarat.

Although previous publications do not include criteria for the migration from Sindh (in modern-day southern Pakistan) - except for pasture-land and raw material - this particular aspect has been considered as one of the most important points in understanding migrations. However, if we look carefully at the various published literature, we can identify additional possible factors which have not been dealt with directly as reasons for migration. Before discussing the issues and problems related with Gujarat Harappan it is necessary to briefly review work carried out on the Harappan culture in Gujarat.

Previous Work in Gujarat

In the archaeological history of Gujarat 'Vallabhipur' in the Bhavnagar district was the first Harappan site which was excavated in 1930 by Father Heras of the St. Xavier's College, Mumbai. This was the first attempt to investigate the Harappans in Gujarat. In 1934 Pandit M.S. Vats of the Archaeological Survey of India examined some mounds around Limdi in the present Surendranagar district. He laid three trenches at Rangpur, where he identified some ceramic assemblage belonging to the Indus cultural period. Due to his new discoveries the extent of Indus culture was pushed up to the Kathiawar or the present Saurashtra (Vats 1934-35). Further it was excavated by G.S. Ghurye in 1936. According to him, as far as the ornamentation of the pottery is concerned it appears to be closer to Baluchistan and Amri (Ghurye 1939). Again in 1947 the site was excavated by M.G.Dixit of the Deccan College, Pune with the intentions of reaching the virgin soil and to find out the Pre-Harappan levels. He divided the total assemblage into three phases: Phase I as the formative period of Rangpur culture, Phase II as maturation of Rangpur culture and Phase III shows the last phase of Rangpur culture. The painted motifs in all the phases are predominantly geometric and confined to the rim, neck and belly. He totally disagreed with the views of M.S.Vats that it belonged to the Harappan period. He put forth that there were many differences within the two ceramics as well as the painted designs. He assigned this phase to the Post Harappan phase (Dixit 1950-51).

Department of Archaeology (Govt. of India) excavated the site from 1953 to 1956 under the leadership of S.R. Rao. The excavated material showed and proved Rangpur as a true Harappan settlement. The most important contribution was the establishment of cultural sequence starting with the true Harappan culture to its degenerated form, i.e. the Lustrous Red Ware culture. During the period of excavation intensive explorations were carried out in Saurashtra, Kachchh and some parts of Mehasana and Surat districts. S.R. Rao was able to discover 85 sites of mature or late Harappan affinity. His explorations also brought to light the famous site of Lothal (Rao 1962- 1963). He excavated the site of Lothal in 1954. The excavations revealed true Harappan settlement with citadel area and lower town. The most important discovery was that of

the dock yard which has remained a controversial identification (Leshnik 1968a, Pandya 1977, Possehl 1992) and still its true function remains a question mark. A different ceramic assemblage below the Harappan levels was identified in this excavation for the first time. This ceramic tradition was designated as the Micaceous Red Ware Culture (Rao 1973, 1985). In 1955-57 P.P. Pandya of M.S. University of Baroda excavated the site of the Prabhas Patan, (Nanavati *et al* 1971) which was re-excavated by the Gujarat State Department and Deccan College (*IAR* 1971-72: 12-13, *IAR* 1975-76:13, *IAR* 1976-77:17-18) and during this excavation the Pre-Prabhas cultural levels were identified (Dhavalikar and Possehl 1992). The site of Rojdi was first excavated by Pandya in 1957-59 followed by Dhaky in 1962-65 and again during 1982-86 it was excavated by the Pennsylvania University where G.L. Possehl for the first time developed his concept of the 'Sorath Harappan' to distinguish pottery assemblage from the Sindhi Harappan pottery style (Possehl and Rawal 1989, Possehl 1992). In 1964 J.P. Joshi of the Archaeological Survey of India (A.S.I.) started explorations in Kachchh district particularly in the northern area close to Sindh. He brought to light 25 Harappan and Post Harappan sites along the Rann of Kachchh including the important site of Surkotada (Joshi 1966). In subsequent years the site of Surkotada was excavated which gave evidence for the Early Harappan phase along with local Chalcolithic ceramic assemblage (Joshi 1972, 1974). Leshnik carried out explorations in the northern Gujarat (Leshnik 1968b). Extensive systematic surveys were carried out in various parts of Gujarat by Department of Archaeology, M.S. University of Baroda and Archaeological Survey of India. The districts surveyed were, Panchmahal (Sonawane 1979), Banaskantha (Parikh 1977), Kheda (Momin 1984), Jamnagar (Bhan 1986, 1989), Mehasana and Surendranagar (*IAR* 1978-79: 6-7), and Rajkot district by Y.M. Chitalwala (1979). The majority of newly discovered sites were very small in size with very low mounds, indicating agro-pastoral rural economic base in Gujarat. In order to find out the nature of these smaller sites, excavations were carried out at the sites such as Lakhabaval and Amra (*IAR* 1955-56: 7), Zekhada (Momin 1980), Nagwada (Hegde *et. al.* 1988), Kanewal (Mehta *et al.* 1980), Valabhi (Mehta 1984), Vagad (Sonawane and Mehta 1985), Oriyo Timbo (*IAR* 1985-86: 13; Rissman and Chitalwala 1990), Dhatva (Mehta *et. al.* 1975), Jokha (Mehta *et. al.* 1971), Nageswar (Hegde *et. al.* 1990), and Bagasra (Sonawane *et. al.* 2003). The Lilka river basin in Dhanduka taluka of Ahmedabad district, Saurashtra was explored and 7 sites belonging to Harappan/Harappan affiliated Chalcolithic culture were discovered (Krishnan and Dimri 2005).

Kutch (now officially changed to Kachchh) district of Gujarat state has been very well explored by various scholars to document the sites belonging to Harappan civilization. J.P. Joshi of the Archaeological Survey of India (A.S.I.) explored Kachchh district (*IAR* 1964-65, *IAR* 1965-66, Joshi 1966, *IAR* 1967-68, Joshi 1972, Joshi *et.al.* 1984) and the Gujarat State department of Archaeology also reports some of the sites (*IAR* 1967-68, *IAR* 1969-70, *IAR* 1970-71, *IAR* 1972-73, *IAR* 1976-77, *IAR* 1977-78, *IAR* 1979-80). Apart from these a rigorous survey was done by R. S. Bisht and his team (*IAR* 1985-86, *IAR*

1986-87), B.R. Meena of Vadodara Circle of Survey (IAR 1995-96) and Y.S. Rawat (IAR 1997-98). Apart from documentation of a good number of Harappan sites, some of the sites have been subjected to the large scale and small scale excavations such as Surkotada (Joshi 1990), Desalpur (IAR 1963-64), Pabumath (IAR 1977-78, IAR 1980-81), Dholavira (Bisht 1989, IAR 1989-90, Bisht 1989-90, IAR 1990-91, IAR 1991-92, IAR 1992-93, IAR 1996-97, IAR 1997-98, IAR 1998-99, IAR 1999-2000, Bisht 2000), Juni Kuran (Pramanik 2005), Shikarpur (IAR 1987-88, IAR 1988-89, IAR 1989-90), Kanmer (Kharakwal et.al. 2007, 2008, 2009, 2012) and Khirsara (Nath 2012), which is under excavation.

Core vs. Periphery Areas

The most important concept which has dominated Harappan studies the last few decades is the core and periphery model (Adams 1966). The concept is very similar to the model of Subbarao's (1958) seminal idea of a cultural regionalism. A similar idea was also extensively used by Dales (1966) and Fairservis (1967) for the Mature Harappan period and labeled 'Sindh' as the core urban centre. Based on this concept, Mughal (1990:187) defines the core region of the Harappans based on their settlement distribution and includes a "part of the sea coast and extends to include Saurashtra and the entire Makran coast" during the Mature Harappan period based on the material from the lower levels at Surkotada. However, he excludes Gujarat from the Early Harappan core region due to an absence of Early Harappan in Kachchh. This conceptual model of core vs. periphery was subsequently applied further by various scholars (e.g. Possehl and Herman, 1990; Kenoyer, 2008).

Early Harappan vs. Local Chalcolithic

The identification of the Harappan core region has been traditionally based on the location of Mohenjo-Daro and Harappa, which are taken as the nucleus of urbanized Civilization. This automatically gave rise to the inclusion of the Indus-Ghaggar-Hakra-Nara region as a part of the core region, even though this region had evidence of Chalcolithic occupation prior to the Mature Harappan phase or urbanized period. This Chalcolithic phase was characterized by "Distinctive pottery styles and painted designs, along with regional human and animal figurine styles such as Rehman Dheri (Gomal Plain), Sheri Khan Tarakai and Tarakai Qila (Bannu Basin), Sarai Khola (Taxila Valley), Harappa and Jalilpur (central Punjab), Siswal (Haryana), Kot Diji (Sindh), Amri and Ghazi Shah' (southern Sindh), Nal/Sohr Damb (southern Baluchistan), and Balakot (Makran coast). Different regional cultures or phases have been named after the regions or sites where they were first discovered, such as Hakra, Ravi, Sothi, Amri, and Kot Diji phases. These cultures are collectively referred to as Early Harappan, because they set the foundation for the development of major urban centers in the core agricultural regions and at important crossroads" (Kenoyer 2008:717).

In contrast to this, the material culture from Gujarat Harappan is not strictly comparable with the twin cities, and has been placed in the periphery region of the

Harappans where interaction took place but was marginal to the core region. This concept serves well to explain the geographic 'spread' of Harappans from Sindh into Gujarat and also proves the dominance of Harappan culture in the vast geographical area. In Gujarat, there is material evidences of the Early Harappan phase but these are always seen as 'establishments' rather than significant parts of a larger Harappan complex. For example, the following statement by Kenoyer (2008:717) clearly reflects the view how Harappan archaeologists generally viewed the Gujarat evidence: "In addition to the developments in the core areas of the Indus and Saraswati-Ghaggar-Hakra valleys, recent excavations in Gujarat, India reveal the establishment of Early Harappan culture traditions in Kachchh and Saurashtra. The sites of Dholavira, Loteshwar, and Nagwada appear to have links to Amri and Kot Diji phase cultures in Sindh, but also reflects a local tradition from Gujarat, sometimes referred to as the Anarta culture".

The term 'establishment' basically indicates migration or colonization as well as cultural links to the core region rather than a regional indigenous development. The Harappan sites in Gujarat are interpreted as 'establishment' and are always dated to the later period within Harappan chronological frame work or seen in comparison with the dual-city cultural context. Herman (1997:78) explains that the Harappan sites are "... consistently seen as representing 'devolution' or a late phase in the Harappan chronological scheme. Such interpretation resulted from a long-held, monolithic view on the Harappan culture which was strongly linked to the Indus valley as a geographical entity. Moreover such later culture stage served well the popular stimulus-diffusion model. Since Gujarat is located south-east of the Indus/Ghaggar-Hakra-Nara valley, this region fitted the scheme as an area of diffusion and certainly not of stimulus".

The combination of the core-periphery model and the stimulus-diffusion model placed Gujarat in the periphery area of the Harappan civilization and played an important role to demonstrate the eastward migrations of Harappans from Sindh into Gujarat (Pandya 1973, Joshi 1981, Sankalia 1982, Ratnagar 1991, Possehl 1992, Dhavlikar 1996).

Sorath Harappans

Following the excavations at Rojdi by G. Possehl in central Gujarat, a series of radiocarbon dates placed the site's chronology in the Mature Harappan period. Based on the material inventory and its comparison with Mohenjo Daro, Possehl and Herman (1990) came up with the idea of an urban regional manifestation of Harappan in Saurashtra which they called as Sorath Harappan. In other words, the material culture of Rojdi was not viewed as classic 'Harappan' or not readily comparable with the 'two cities tale' and shows the over-emphasis by most other archaeologists of the two metropolitans as the main marker of the Harappan Civilization. As far the source of origin of the Sorath Harappan culture is concerned, they do not explain it directly but hints at the Pre-Prabhas phase of Prabhas Patan (Possehl and Herman 1990). In another

paper, Possehl (2004) says that the ancestry of the Sorath Harappans goes back to Sindh and Neolithic Baluchistan, i.e. again, the concept of colonization or migration of people who introduced the Harappan civilization in Gujarat.

Possehl and Herman (1990) divide the Gujarat settlements into two cultural groups viz. Sindhi Harappan sites represented by Desalpur, Surkotada and Lothal whereas Sorath Harappan is represented by Rojdi A and B. The presence of Sindhi Harappan is attributed to the migrations from Sind to Kachchh and to northern Gujarat and Saurashtra. Thus, on one hand they accept Sorath Harappan as a regional manifestation of the Harappans in Saurashtra but at the same time they also speak about migrations of Sindhi Harappans around 2500 B.C. However, the most important question that arises is: If Sorath is a part of the Mature Harappan complex and working for the civilization as a whole, then what was the need of the Sindhi Harappan people to migrate into the area? This interpretation makes the scenario confusing and the issue that is not addressed directly is the relationship between the Sindhi and Sorath Harappans.

With the advent of the Sorath Harappan theory, scholars started looking at the ceramic assemblages in two different sets, one as Sorath Harappan and the other as local Chalcolithic. This was the main reason behind the creation of four regional Chalcolithic or non-Harappan cultures in Gujarat. Though most scholars accepted Gujarat Harappan evidence as a part of the overall Mature Harappan zone, the early levels in Gujarat have mostly been termed as local Chalcolithic or Pre-Harappan cultures. This again served the interest of some scholars to show the eastward migration of Harappans into Gujarat from Sindh to the west, thus eliminating any possibility of indigenous development of a Mature Harappan phase in Gujarat. As the growing archaeological evidence from Kachchh became prominent, it showed that a well developed and established Early Harappan phase had flourished here, contemporaneous with its counterparts in Sindh and Baluchistan, which lead to this region being added to the 'core zone' of the Harappan civilization. However at the same time, it is also treated as a 'buffer zone', which allegedly helped the Harappans to migrate into the hinterland of Gujarat i.e. north Gujarat and Saurashtra.

The radiocarbon dates from the Gujarat Chalcolithic sites such as Loteshwar, Nagwada, Padri, Prabhas-Patan place them in the later part of fourth millennium B.C. Since these sites share a lot of similarities with the Amri tradition from modern-day Pakistan, the associated evidence is traditionally treated as a cultural link or exchange. In this regard, Possehl (2006:320) - who analyzed the pottery from Dholavira's lower levels firsthand - states that "Period I at Dholavira has close parallels with materials from Amri II, the transitional period that Jean-Marie Casal postulated as the bridge between the Early Harappan of Period I and the Mature Harappan of Period III". This clearly establishes the fact that the Amri tradition was not geographically restricted to the lower Sindh region but extended into Gujarat as well. That may possibly explain

the reason why there is so much similarity between all those pottery assemblages: not due to cultural links or interaction, but because this region was itself a part of the Amri culture zone.

The identification of different regional Chalcolithic cultures in Gujarat is based purely on the variations of ceramic assemblages, more than any other attributes. Though these cultures shared similar ceramic types with some regional variations, these variations appear to have been utilized to erroneously recognize distinct cultures. While some researchers have mentioned these similarities, the original theory of different regional Chalcolithic signatures continues to dominate Gujarat Harappan research. For example, Possehl (2006:321) states that “there are types shared between Pre-Prabhas Somnath and the Pre-Harappan Anarta Chalcolithic of North Gujarat”. As far as the sites of Anarta and Padri culture are concerned, Sonawane and Ajithprasad (1994) earlier stated the similarities in their respective pottery assemblages and recent work has also positively demonstrated that both cultures are similar instead of separate and hence it is label as the Padri-Anarta Cultural Complex. The reason for this label is due to its vast geographical extension which spans Kachchh, northern Gujarat and Saurashtra or almost the same area as that of the Mature Harappan phase (Shirvalkar 2009). The cultural evidence and associated radiocarbon dates from Gujarat sites (see Table 1) confirm the *co-existence* of the Amri culture and the Padri-Anarta Complex in Kachchh. This co-existence is not due to contacts with such Early Harappan cultures of Sindh and Baluchistan but because Padri-Anarta is the early regional Chalcolithic culture of northern Gujarat and Saurashtra, and it enters Kachchh at a later stage which in turn, is comparable with Amri II.

Table 1: Chronometric Dates from Pre Harappan Sites

Site	Calibrated Date	Period	Reference
Amri	3637 B.C.	IB	Possehl 1994
	3702 B.C.	IB	Possehl 1994
	3355 B.C.	IC	Possehl 1994
	3505 B.C.	IC	Possehl 1994
Kot Diji	3344 B.C.	Early Harappan or Kotdijian	Possehl 1994
	3504 B.C.	Early Harappan or Kotdijian	Possehl 1994
Padri	3699 B.C.	Early Harappan or Padri Culture	Possehl 1994
	3792 B.C.	Early Harappan or Padri Culture	Possehl 1994
Prabhas Patan	3019 B.C.	Pre Prabhas	Possehl 1994
	3293 B.C.	Pre Prabhas	Possehl 1994

The evidence from the lower levels of Padri is also very important because the ceramics are highly comparable to the Sorath material and, in fact, it is the predecessor of the Sorath Harappans, whose origins probably lie within the Padri-Anarta Complex. The most classic Sorath material is found in the lower levels of Padri and is represented by

convex-sided bowls, deep and shallow dishes with a convex profile and a bi-chrome effect of painting (Shirvalkar 2009).

The established presence of this complex before, throughout and after the classic Harappan phase is also taken as a major criterion to show that this was a regional Chalcolithic culture, but there is a similar situation at Kot-Diji. To elaborate, Kot-Diji assemblages continue in the Mature Harappan phase which is called as Late Kot-Diji phase (Possehl and Rawal 1989); however, this does not classify Kot-Diji as a local Chalcolithic culture because it is a part of the 'core region'. This is an example of interpretative bias and the issue requires a more flexible approach.

As stated earlier, even in the 'Core Region', there are various Chalcolithic cultures predating the Mature Harappan phase but are classified as Early Harappan because they contribute to the development of the 'Two Cities'. In the same manner, the Padri-Anarta Cultural Complex contributed to the development of the Sorath Harappan and thus, it should be recognized as the Early Harappan culture of Gujarat, which reflects a different ecological and economical Early Harappan zone.

Fortified Settlement/Hunter-gatherer Exchange and Mesolithic/Microlithic Problem

Another argument often utilized in the support of migration is the presence of fortified sites in Kachchh. Fortification at Harappan sites has always been seen or inferred in the form of defense architecture such (Khan 1964; Lal and Thapar 1967; Joshi 1990). For example, the fortified sites in Kachchh have been used exclusively (and possibly erroneously) by Possehl and Herman (1990) to indicate the alleged presence of hostile populations in Kachchh in the form of hunter-gatherers. These allegedly hostile hunter-gatherers have been identified exclusively on the basis of absolute dates from Langhnaj and other sites which are relatively dated to 2500 B.C. (Period II) or contemporaneous with the Gujarat mature Harappan occupation. On the other hand, the absence of fortification at Lothal led Possehl (2007) to hypothesize positive relations with the local hunter-gatherers. However, there are several problems with this interpretation which may actually be different from reality and lacks a scientific approach. In addition, it is difficult to geographically expand this hypothesis outside Gujarat because no Mesolithic sites have been dated to be contemporaneous with mature Harappan elsewhere.

At the time of assumed migration from Sindh around 2500 B.C., the majority of Gujarat was thought to have been occupied by the Sorath Harappans and hunting-gathering groups (Possehl and Herman 1990). They associated Harappan fortification as protection from local hostile hunter-gatherers, instead of considering alternative explanations for such structures. For example, the Sorath Harappans could have constructed fortifications because they were an (economic) threat to each other and other contemporaneous Harappan cultures within the domain. The presence of hunter-

gatherers, which had a lower status in society and associated economical poverty, supports the possibility of alternate hypotheses rather than showing agro-pastoralists as a primary threat.

Again, the very idea simultaneously viewing hunter-gatherers as hostile populations, as carriers of information and exchange (Possehl and Herman 1990; Possehl 2002, Possehl 2007) is based almost exclusively on the absolute dates from Langhnaj. No other site(s) has yielded any evidence in this regards to confirm such a relationship. The chronology at Langhnaj has been extensively exploited to establish the relationship between the Harappans at Lothal and the local hunting-gathering community. However, it seems the concerned researchers (cited earlier) have failed to take the note of the original excavator's (H.D. Sankalia) statements or observations about the stratigraphy, that stratigraphic demarcation was not possible below four feet, and "it is not possible to demonstrate stratigraphic intrusions" (Sankalia 1965:13). Additionally, the associated pottery, a copper knife and comparatively later dates from Langhnaj from Period II were all taken by Possehl as a parameter to define the Mesolithic in Gujarat, and all regional Mesolithic sites are relatively dated on the basis of this single date from Langhnaj. In other words copper knife and/or other artifacts many have been stratigraphic intrusions and thus cannot be automatically used to consistently define a culture or tradition.

The research done thus far on Gujarat Mesolithic cultures shows that the lower limits of the period are fixed essentially on the basis of evidence from Bagor, Tilwara, Bhimbetka and Adamgarh (sites all outside Gujarat) whereas the upper limits of the period are fixed primarily on basis of Langhnaj (Sonawane 1984; Sonawane 1983; Bhan 1986; P. Ajithprasad 2002). There are two additional dates which fall between this bracket: 3396 B.C. from Oriyo Timbo (Rissman and Chitalwala 1990) and 3000 to 3500 B.C. at Loteshwar (Sonawane and Ajitprasad 1994).

However, the new thermo-luminescence (TL) dating results from Loteshwar - carried out by Ajita Patel - on the animal bones from the Mesolithic period are now 7168 ca. B.C., 6067 cal. B.C. and 5567 cal. B.C. In short, these new dates are much older than the earlier published dates (Patel 2009), falling in the bracket of late eight and mid-sixth millennium B.C., respectively.

Another site which is also important for understanding the chronology of the Mesolithic in Gujarat is Akhaj, again excavated by Sankalia in 1965. It was re-excavated by N. Juyal, and in which microliths occur at the depth of 1.50 to 1.75 cm, whereas the upper horizons and the lower horizons are without any microliths. The TL dates from the base level of microliths is $11ka \pm 3$ and the top has a date of $9ka \pm 1$ (Juyal et al. 2003; Singhvi and Kar 2004). The average dates therefore, are within the bracket of 8000 to 10000 B.C. The dates from Akhaj are particularly important for understanding the Langhnaj evidence, because Sankalia had remarked that the stratigraphy of Akhaj is

similar to Langhnaj (Sankalia and Karve 1949) and “the occurrence of microliths and pottery was exactly as at Langhnaj” (Sankalia 1965:11).

If the new dates from Akhaj are going back as far as 8000 to 10000 B.C., then there is strong probability that dates from Langhnaj may also go back to the same time bracket. The single date of 2500 B.C. from Period II in the context of Sankalia’s stratigraphical observations and the new dates from Akhaj seem to be an obvious mismatch. Sankalia (1960:13) had even stated that “since a majority of microliths, animal remains and human skeletons were found below four feet from the surface, which represents a buried soil phase, the Langhnaj Culture is likely to be considerably old, and may, by further tests and work, turn out to be towards the closing phase of the Pleistocene”. Thus, the (over-hyped) presence of the copper knife at Langhnaj now increasingly appears to be an intrusion rather than in primary stratified context.

The next important evidence regarding the antiquity of the Mesolithic cultures in Gujarat has come from various excavations in recent years. Most of the settlements in Gujarat, particularly in the north, show that the sites were inhabited by the Mesolithic populations prior to the Harappan occupations, and had well-established small habitats. At most of these sites, the cultural sequence starts with Mesolithic in lower levels; followed by Harappan or Chalcolithic cultures such as at Loteshwar, Santhali, Moti Pipli, Datrana IV and V and Ratanpura II and IV (Sonawane 2005). At most of the excavated sites, there is no stratigraphic break between the Mesolithic and Chalcolithic/Harappan occupation, but there is a marked chronological gap as evident from the excavations at Loteshwar. But the important point is that, at all these sites, there is either a Harappan or Chalcolithic deposit on the top and this particular situation has not been systematically studied and understood.

Although the microlithic tradition continues up to Early Historic period, there is also a possibility of co-existence of hunter-gathers and agro-pastoralists during the Harappan period. However, the way the evidence from Langhnaj has been used for hypothesis-building has been misleading and requires revision. Their hostile relationships with the Harappans in Kachchh and the associated link with the Harappan fortifications are farfetched until more convincing and consistent evidence is obtained. The ‘hostile-population hypothesis’ is not supported as no excavated Harappan sites have provided evidence of conflict with local non-Harappan populations. Therefore, the function of these so called fortifications was probably multipurpose, providing protection from flooding, defining the settlement for administrative or ritual purposes, and possibly defensive when and where necessary (Fairservis 1977; Dales and Kenoyer 1990, Kenoyer 2008).

Concentration of Late Harappan sites in Saurashtra

A large number of Late Harappan sites have been reported from Saurashtra. This particular distributional pattern is again considered as evidence for an eastward

migration of Harappans, showing devolution or a later Harappan phase. In this regard, it is important to understand the environmental and economical contexts of the region as well as the nature of the sites and their sizes. The region of Saurashtra comes under a semi-arid zone and mostly agro-pastoralist activities are carried out here. Almost all settlements in this region are small and are referred to as agro-pastoral sites by various scholars.

In the so called Core Region, almost all Harappan sites and their respective economies were dependent on the levels and types of trade, but once there was economical decline all the settlements in the region faced a setback around 2200 B.C. The same, however, did not occur in Gujarat as there is a difference between the urbanization process in Indus-Ghaggar-Hakra-Nara region and Gujarat. The urbanization process and the establishment of the Mature Phase in Saurashtra occurs comparatively later than the other area, a common feature at a global level. The process and attainment of urbanization depends upon the environment, ecology, socio-political factors and so forth, and all of these factors differ from region to region and hence, the differences in regional urbanization timings. These same factors played an important role in the Harappan urbanization process as “the emergence of the Indus Civilization seems to have occurred at different places at slightly different times, within the Harappan domain” (Possehl and Rawal 1989: 9). Regarding the Sorath Harappans, the same opinion was expressed by Herman (1997:88): “One gets the impression that the push towards urbanization in Saurashtra started at a later stage without being completed”.

The delay of Harappan urbanization in Gujarat, or particularly in Saurashtra, was not due to its peripheral setting, but was more connected with its economic framework. As most of the sites were small agro-pastoral or rural settlements, the typical urbanization process which the Indus-Ghaggar-Hakra-Nara region witnessed was based on agrarian and trading economies. In contrast, the Harappan urbanization in Gujarat, i.e. Saurashtra, was rooted in the rural communities which were poor and away from the metropolitan cities. This rural-level urbanization lacked exotic goods and other material standardizations. This absence of standardization and other attributes typical of cities has always been considered by scholars as later in age or different from the so called core-region. But most of the settlements in Saurashtra are basically small agro-pastoral in nature. The economy enjoyed by them does not require the standardization for the trade carried out with other urban centers such as Lothal, Nageshwar, Kuntasi and so on. The standardization is essential for the major trading centers or cities carrying out local, national and international trade. The trade which was carried out by rural settlements was mostly as a barter system and the little variation in the weight and valuation did not affect them, which is a more of a concern at trading sites such as Lothal, Bagasra, Kuntasi, Nageshwar and so on. Here in this sense it is important to understand various trading patterns given by Kenoyer (1991:359) “Three systems of trade/exchange may have existed during the Harappan Phase. The first, based on the standardized weight system, may reflect a centralized authority or a coalition of

merchants that maintained the standardized system to control the trade of specific commodities. The second system was probably regional, involving the exchange of grain for other commodities using generalized measures in baskets, bales, or pottery vessels.

The third possible form (not reflected archaeologically) is the exchange of goods for services between occupational specialists and those controlling land, grain or livestock. This type would have been more common in rural areas but is also possible in an urban context". In the context of Saurashtra the second system of trade network looks to be more appropriate rather than the standardized model of trading. This particular model well explains the absence of standardization and exotic goods in Saurashtra.

After the decline of the Mature Harappan phase in Indus-Ghaggar-Hakra-Nara belt, the region of Saurashtra continued as the important place of exchange and trade. The economy of this region was based on an agro-pastoral way of life and was well supported by the rural population, even after the decline of Sorath or Mature Harappan economy in Saurashtra the rural population continued in the region. This was possibly due to the nature of economy possessed by rural settlements. The low standard of living, their own economy to support the population in the village and agro-pastoral way of life made them well-adapted to the changing scenario, which resulted in the continuation of rural settlements in Saurashtra in form of the Late Harappan period. The presence of large number of Late Harappan sites in this area has nothing to do with the eastward migrations and colonization of the area by the Mature Harappan life ways and subsequent devolution of Mature Harappan phase, but mainly to do with economy and sustainability of the population.

Conclusion

The hypotheses proposed by various scholars about the eastward migration, taking into consideration various parameters as stated above needs to be seriously reconsidered as the new data from various sites and the dates suggest a different picture. Although Gujarat has produced a lot of data to show the independent origin of the Mature Harappan, this was not on strong grounds. The evidence or material culture has always been seen in the context of a Core and Periphery or stimulus-diffusion models and generally considering Mohenjo-Daro and Harappa as the only key sites for comparisons. The urbanization process was always looked upon from the urban point of view but the alternative or parallel rural or agro-pastoral economy and its relation with urban setup has never been explained in the archaeology, and thus we need to differentiate between city based urbanization and rural economic model. Only then, we will be able to do justice to the Gujarat Harappans within the whole cultural complex. Otherwise Gujarat will remain as the area of diffusion and not of stimulus. The currently-excavated sites and their respective material cultures reflect the stimulus provided for the Mature Harappan phase in Gujarat in the form of different cultural assemblage than that of Indus-Ghaggar-Hakra-Nara belt, which has a very wide

distribution covering entire Gujarat and Oman (Potts 1993). This, however, has generally been neglected by scholars. We need to approach the Harappan occupation of Gujarat with fresh perspectives and rather than continuing with outdated hypotheses. There is also a need to re-excavate and/or reanalyze archaeological material from older sites and compare them with new material in the light of new methods, approaches and directions rather than trying to fit such sites and material in old hypotheses.

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