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The Harappan Nomads of Cholistan

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Cholistan or *Rohi*, as it is called locally, lies in the southeastern part of the former state of Bahawalpur which is now an administrative division consisting of three districts, namely Bahawalnagar, Bahawalpur, and Rahim Yar Khan of the Punjab province in east-central Pakistan. Along its eastern side runs the Thar desert falling in the northern part of Rajasthan state of India. Cholistan consists of a 9,881 sq mile area which is about 62 per cent of the total area (15,918 sq miles) of Bahawalpur division. Almost in the middle the Hakra depression runs from northeast to southwest for more than 300 miles and marks the last course of the Hakra river before it dried up around 1000 BC (Fig. 1). In ancient times it was a perennial river flowing independently down to the Rann of Kutch.

The climate of Cholistan is marked by its harshness, with extremes of winter and summer temperatures. The annual rainfall is about 5 inches or less. Any failure of rainfall for a few consecutive years causes the death of large number of animals, human migration, and economic disaster. The people raise cattle, goats, sheep, and camels which are also markers of economic wealth (Fig. 2). Their dairy products, wool, skins, and carbonate of soda (called *sajji*, obtained from a local plant, *Croxylon griffithii*) are exchanged with the finished products of daily use in the city markets (Fig. 3).

Accurate numbers of nomads are not available in the district census reports. It is roughly estimated that in the 4.6 million population of Bahawalpur Division as counted in 1981, nearly 3 per cent live in the desert. The majority of nomads are Muslims belonging mainly to the Daudpottas, Baluchs, and Afghan tribes (Din 1908:115-155). A roughly estimated non-Muslim population of 5000 also lives in Cholistan (Gizali 1987:309). They belong to Menghwal, Jats, Medes, Bhils, Bohars, Bhen and several other tribes. The non-Muslims generally provide services to the Muslim community in which they live on the pattern of the *jajmani* system and they also raise goats and sheep received in annual compensation for their services.

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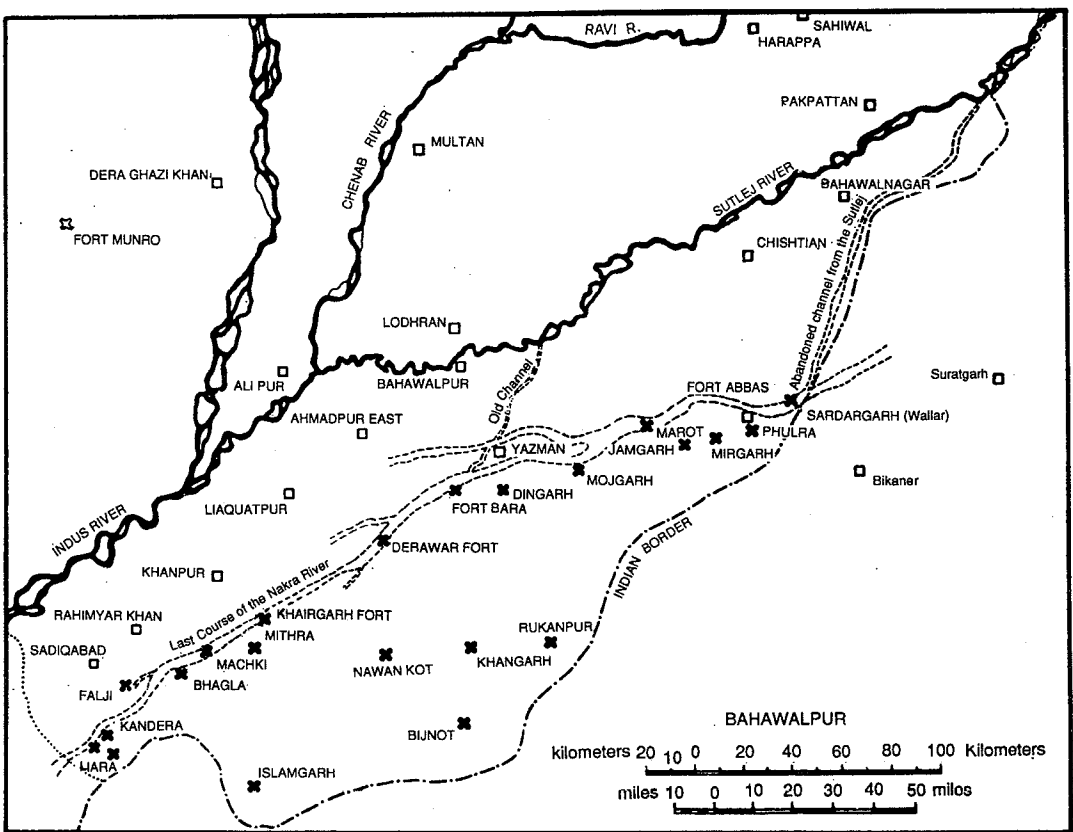


Fig. 1. Map showing area of former State of Bahawalpur and the principal course of Hakra River skirting the Cholistan desert.

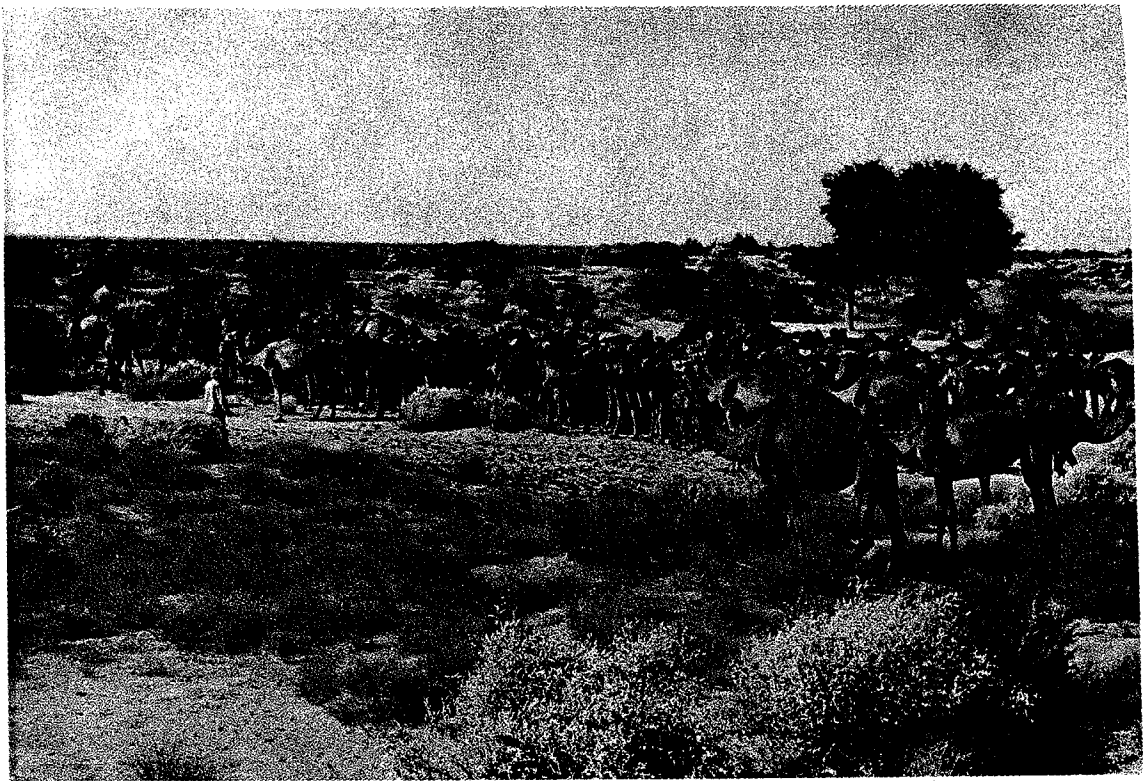


Fig. 2. A herd of camels, markers of wealth for the Cholistanis and still a dependable means of transport in the desert.



Fig. 3. *Caracalpon griffithii*, locally called *Khar* being burnt to make carbonate of soda.

The nomads are strongly organized socially on kinship lines. Their permanent hutments are a reflection of their extended family system and agnate groups. Due to scarcity of potable water, such settlements are few but are generally located close to the permanent sources of water. They are obliged to store rain water in tanks, called *tobas* (Fig. 4), where they make temporary enclosures with bushes and live for part of the year with their families and animals (Fig. 5). The archaeological evidence of protohistoric times has demonstrated a similar pattern of nomadic sites on the sand or near the *dahars* or mud flats.

THE HARAPPAN NOMADS: ARCHAEOLOGICAL EVIDENCE

The long strip of the Hakra depression and its adjacent area witnessed frequent changes in the river courses in ancient times which had profound cultural implications for the populations of the Hakra valley (Mughal 1992). The results of an intensive archaeological survey along the ancient river bed has established that the Hakra flood plains were intensively settled between the fourth and second millennia BC. (Mughal 1980, 1990a, 1990b, 1991). It is now possible to explain ancient settlements and their changing locations and size, and the developmental sequence of the Indus civilization in Cholistan, in the context of river changes in ancient times. A significant portion of the population lived a nomadic life in the desert alongside the settled populations of the Indus civilization. These nomads survived even after the Hakra river

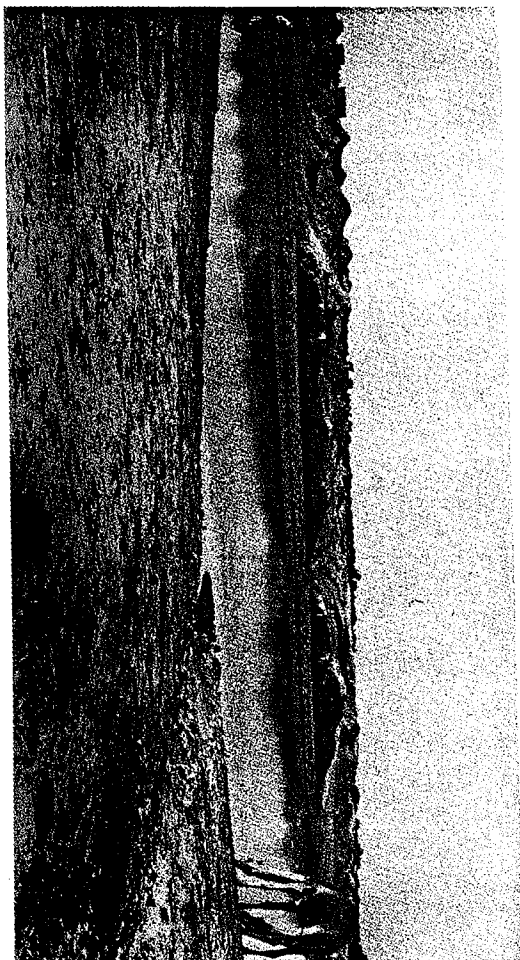


Fig. 4. One of the water holes or *toba* on the edge of mud flat or *dahar*.



Fig. 5. Temporary shelters of nomads on the sand dunes near a *toba*.

dried up, since they used the desert environment and were well adapted to it culturally. Therefore, changes in the river courses had little, if any, effect on their nomadic way of life.

In Cholistan, a number of nomadic sites of the Hakra and Harappan periods were identified which were distinguished by a thin scatter of potsherds and other cultural materials lying on the surface of sand or mud flats. Generally, there was little occupational debris on them but some showed concentrations of cultural materials in patches spread over a large area. These sites were originally labelled as "camp sites", implying temporary occupation by the nomads (Fig. 6). Further studies have suggested that the group of camp sites could be subdivided into two broad categories: (1) sites marking temporary occupation of graziers and (2) permanent settlements made of perishable materials whose occupants also practised nomadism and used their hutments either seasonally or throughout the year. Such permanent or semi-permanent hutments of the nomads in Cholistan are generally larger than those of temporary occupation. This ancient pattern of sites of a purely temporary nature and permanent hutments has precise analogies with modern sites in Cholistan.

CONTINUITY OF NOMADIC TRADITIONS

The Cholistan data of the protohistoric sites contain various functional categories of sites belonging to each developmental phase of the Indus civilization. Among more than 400 sites, 78 are identified as camp sites,



Fig. 6. An ancient camp site of the Mature Harappan period marked by a thin scatter of potsherds on an edge of sand dune.

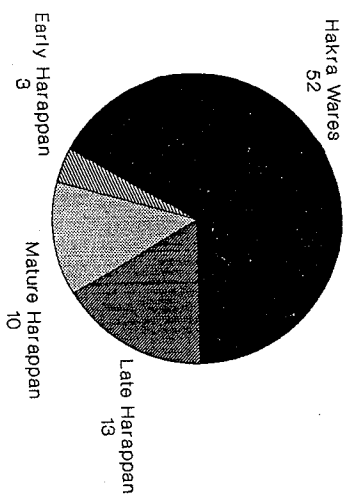


Fig. 7. Diagram showing number of nomadic sites belonging to various cultural periods in Cholistan.

marking nomadic occupation of varying duration (Fig. 7 and Table 1). This number, however, is not a reflection of all the nomadic sites in Cholistan but represents just one group found in the explored area along the ancient river bed. The available sample size, even though of a restricted area, does establish that the nomads remained an integral constituent of the Harappan society from the early formative period to the decline of the Indus civilization. The available number of nomadic sites is admittedly not representative of the entire region. A full picture will perhaps not be possible due to wind erosion and ever-changing locations of drift sand. However, their number when seen in the total context of all categories of sites within each cultural horizon clearly demonstrates that changes in the settlement locations and their number,

Table 1. The protohistoric sites of different periods in Cholistan by numbers and percentage (after Mughal 1990a)

	Hakra Wares	Early Harappan	Mature Harappan	Late Harappan
Total Sites	99	40	174	50
All	0	0	79	9
			45.40%	18.00%
Industrial	0	0	33	14
			18.96%	28.00%
Settlements with kilns	2	14	50	14
	2.02%	35.00%	28.74%	28.00%
Settlement sites only	45	23	10	13
	45.45%	57.50%	5.75%	26.00%
Camp sites	52	3	2	0
	52.52%	7.50%	1.15%	0
Cemetery sites	0	0	2	0
	0	0	1.15%	0

or fluctuations in functional articulation of sites, had little, if any, effect on the nomads who were using the desert environment where sudden or drastic cultural changes did not occur.

During the fourth millennium BC, the sites of nomads were almost equal in number to those of the settled population. The available evidence shows that such a large number of nomadic sites have not yet been found in subsequent periods. There were 52 camp sites among the total number of 99 sites of all categories in the Hakra Wares period. The sharp reduction of nomadic sites during the Early Harappan period, or around 3000 BC, to only three in number, or 7.5 per cent of the total, could be seen in the context of a major change towards settling of population in the Hakra valley. Still, a section of the population carried on their nomadic ways of life. The significance of their relationship with the sedentary population did not diminish even during the climax of the Indus civilization when the Hakra valley witnessed a high density of various categories of sites, dominated by one large urban centre, Ganweriwala. The nomadic sites constituted 5.75 per cent of the total number of Mature Harappan sites around 2500 BC. An increase in the nomadic sites to 26 per cent of the total number is evident during Late Harappan times beginning about 2000 BC. This increase could be partly explained in the context of a diminishing water supply during the Late Harappan due to diversion of the Hakra channel causing environmental changes which appeared to have induced nomadism. The process might have been accelerated with eventually drying of the Hakra river. The populations were forced to live with a precariously limited supply of water, thus creating an increased dependence on the rain water collected in the tanks. The present-day nomads of Cholistan, therefore, represent a survival of the Harappan nomadic way of life and have also retained most, if not all, of their past traditions.

SYMBIOTIC RELATIONSHIPS

The presence of migrant and nomadic sections of the population living throughout the Early, Mature, and Late Harappan times as identified archaeologically in Cholistan presupposes their close symbiotic relationship with the permanently settled communities on the floodplain of the Hakra valley. Such a relationship must have been primarily based on economic exchange between the settled and nomadic people, the latter also providing services and transport to the Harappan towns and cities. An analogous situation exists even today. Both the migrant and other Cholistani nomads sell animals, wool, dairy products, especially *ghee* (clarified butter), *sajji*, and handicrafts in the nearby cities in exchange for food and finished products for their daily use. In

the exchange centres, certain items are made to suit the special needs and preferences of the Cholistans, both Muslims and non-Muslims. Likewise, Harappan nomads, while retaining their own sociocultural traditions and independent lifestyle, must have been interwoven in the economic fabric of the towns and cities of the Indus civilization. The existing situation in the agriculturally developed areas and the desert in Bahawalpur is very similar to the past social and economic relationships. The cultural impact of such relationships is further emphasized particularly in the Hakra period when 52 per cent of sites (of the total 99) were associated with the nomads in the Hakra valley. The large concentration of nomadic sites, 52 per cent of the total, during the Hakra period of fourth millennium BC or about the beginning of the formative stage of the Indus civilization raises the possibility of the very crucial role of nomadism in the formation of Harappan society.

SIZE AND NUMBER OF NOMADIC SITES

An examination of the data on the nomadic sites in Cholistan gives interesting information on variations in the number and size of hutments through time (Fig. 8 and Table 2). The largest number of hutments, up to 80 per cent in number, occur in the group of 1 to 5 ha

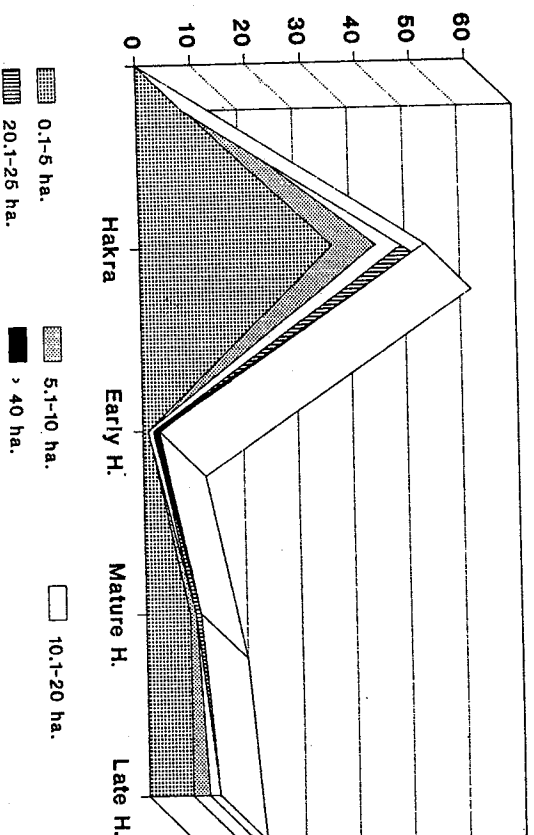


Fig. 8. Diagram showing number of nomadic sites of different sizes in Cholistan.

Table 2. The nomadic sites in Cholistan

Area in hectares	Hakra	Early Harappan	Mature Harappan	Late Harappan
0.1 - 5	35 67.30%	1 33.33%	8 80%	8 61.53%
5.1 - 10	8 15.38%	—	1 10%	3 23.07%
10.1 - 20	5 9.61%	1 33.33%	—	2 15.38%
20.1 - 25	4 7.67%	—	1 10%	—
Over 40	—	1 33.33%	—	—
Total	52	3	10	13

in size (Fig. 9 and Table 3). During the Hakra, Mature, and Late Harappan periods, for example, the number of hutments of 0.1 to 5 ha far exceeds the sites of larger than 5 ha. Surprisingly, there is only one Early Harappan site falling within that size range.

The information on the nomadic sites during the Early Harappan period is too limited to be of real significance in the discussion on

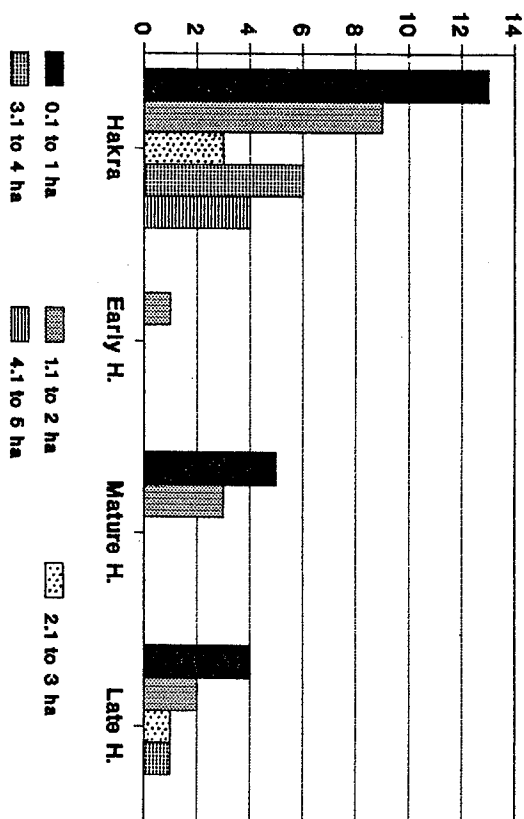


Fig. 9. Histogram showing number of nomadic sites less than five hectares in size in Cholistan.

Table 3. Number of nomadic sites between 1 and 5 ha in size

Area in hectares	Hakra	Early Harappan	Mature Harappan	Late Harappan
0.1 - 1	13	—	5	4
1.1 - 2	9	1	3	2
2.1 - 3	3	—	—	1
3.1 - 4	6	—	—	1
4.1 - 5	4	—	—	—
Total	35	1	8	8

size. Moreover, there is one odd size of about 40 ha which does not fit within the largest size so far known in other periods. In the category of 5.1 to 10 ha size, seven Hakra sites, out of eight, are smaller than 7 ha, while one site covers 8.5 ha. Likewise, three Late Harappan hutments range from 5.5 to 6 ha. It is evident that the largest number of hutments during the Hakra and Late Harappan times occupied less than 7 ha in area, which comes respectively to 80.7 per cent and 84.6 per cent of the total number in each period. Nine hutments of the Mature Harappan period are up to 5.3 ha in size, constituting 90 per cent of the total number, thus confirming that the Harappan nomads generally lived in small groups like their present-day successors.

There are three large hutments within 23 ha size, and only site covers nearly 25 ha during the Hakra period. Similarly, one Mature Harappan site occupies 17.7 ha, and in the succeeding Late Harappan period also, one hutment with 19.8 ha size stands out conspicuously among the remaining dozen sites with a maximum size of about 12 ha. The Early Harappan sample size, as already pointed out, is too small to be discussed but one site covers an unusually large area of over 40 ha. The existence of at least one large hutment up to 25 ha in the Hakra, Mature, and Late Harappan times seems to suggest a sort of hierarchy of nomadic sites. A few large sites with high population density could be important centres in the nomadic social-organizational system. Even today, Cholistan contains some large clusters of hutments near the permanent sources of water which also serves as commercial centres where their chiefs reside. It seems very likely that a similar situation existed during the Harappan times. These hutments are of permanent nature but are also used seasonally by the same residents when they are forced to move out to other areas in search of water for their own and animal use. At present, in any occasion it is not uncommon to see clusters of deserted huts in Cholistan which are found to be occupied after some months. Such sites are generally larger than

the temporary living areas found in the vicinity of mud flats where rain water is collected in the tanks and is used for a part of the year. On this analogy, ancient sites with a thin scatter of cultural materials which have been recorded in Cholistan seem to represent temporary occupation areas of the Harappan nomads.

The population estimates of the Harappan nomads are as difficult to work out as for the present population due to their frequent movements. There is no regularity in the location of temporary sites near the tanks where simple enclosures of bushes are made, varying in size and each intended for a family or joint families. The circular huts with conical roofs are built for permanent occupation and acquire a separate place-name, whereas temporary sites are known after the name of the tank near them (Fig. 10). In the hut settlements, a separate area is marked out for members of other casts or non-Muslims who provide various kinds of services to the community as carpenters, shoemakers, and weavers. In an archaeological context also, small but separate areas containing cultural materials of contemporary date are found near the main sites, thus indicating close similarities with the present-day situation.

Before concluding, a reference must also be made to the present-day method of pottery firing in the settled areas on the fringes of Cholistan which can be compared with the archaeological evidence found in Harappan contexts. In the modern villages, pottery is fired in kilns built of bricks which have no formal structure except for an inlet for the air. The pots are arranged upside down on an oblong surface covered with grass and dung (Fig. 11). After pottery is placed to a desired level, the spaces in between are filled with circular handmade clay discs and pottery pieces, and a thick layer of animal dung is spread over everything (Fig. 12). A number of Harappan sites in Cholistan demonstrated a very high concentration of the so-called terracotta cakes of triangular, circular, or oval shape lying mixed with over-fired or vitrified pottery pieces (Fig. 13). In the section of mounds, loose layers of ash were noticed indicating that the sites with a carpet of countless terracotta cakes and pottery on the surface marked pottery firing areas. It is evident that since the time of the Indus Civilization, the method of pottery firing in Cholistan has remained unchanged.

CONCLUDING REMARKS

Our brief review of the evidence highlights the significance of the nomadic population of Cholistan being an important component of the Harappan society. Using different ecological niche, the nomads managed to face the challenge of a harsh desert environment and to



Fig. 10. Semi-permanent huts or gopas.

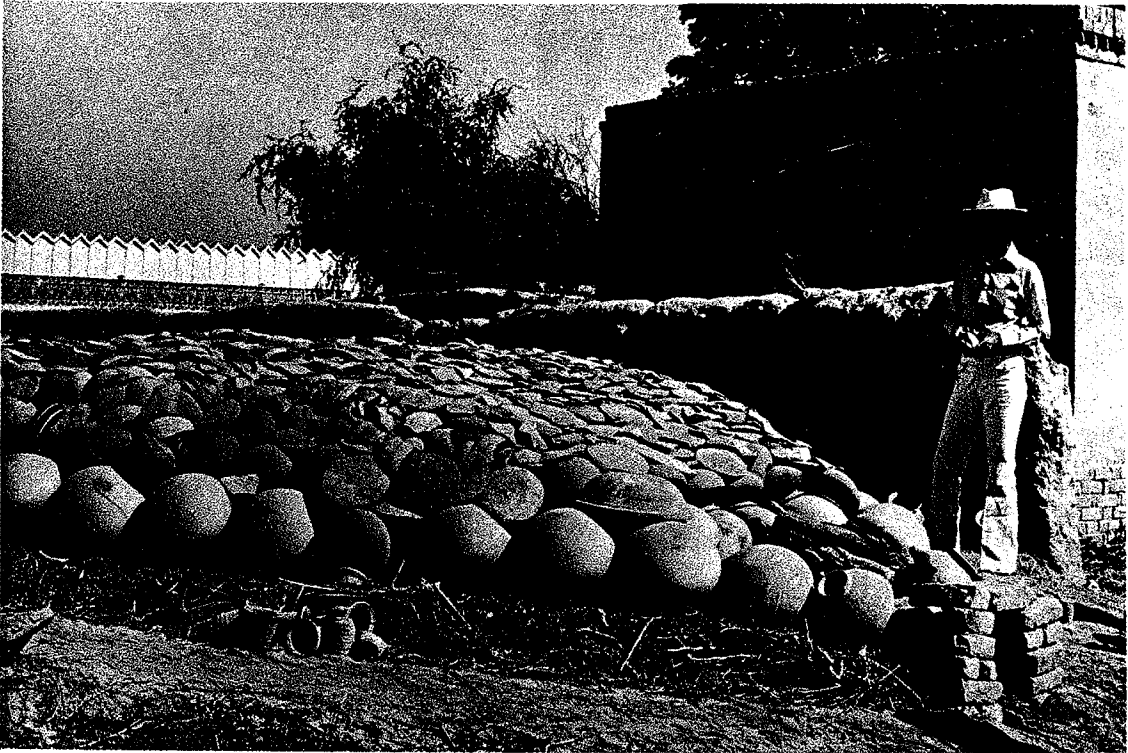


Fig. 11. Open pottery firing place near Derawar fort showing an inlet for the air. The spaces between the pots are covered over with circular discs and broken pottery before spreading a layer of animal dung.



Fig. 12. A pile of circular discs and pottery pieces used to cover the top of pottery before firing in the open kiln.

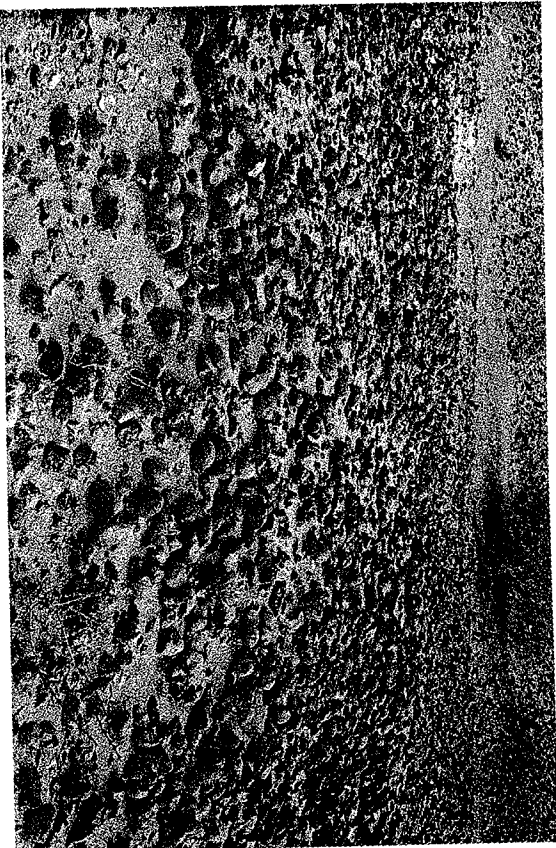


Fig. 13. Surface of a Mature Harappan site of firing pottery showing numerous pieces of terracotta cakes used to fill the interspaces of pottery before firing as it is done today in Cholistan.

develop their own social and economic organizational structure for survival and for the continuity of their traditions. The nomads established and maintained a network of economic exchanges with the settled population of the Hakra valley and, therefore, the two communities were interdependent. There are striking parallels between the present-day nomadic life in Cholistan and that which it has been possible to glean through the archaeological evidence. Further studied of the social organization of the nomads should be very helpful in further interpreting archaeological evidence from Cholistan and to emphasize the development and continuity of nomadic cultural traditions from the Harappan period to the present time.

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