

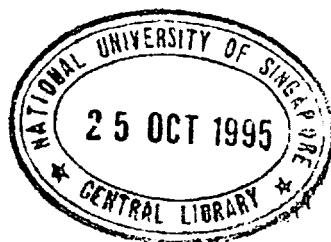
HARAPPAN CIVILIZATION

A Recent Perspective

Second Revised Edition

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14. Some Rural Harappan Settlements in Gujarat

INDIAN tradition has evidence for a theory and practice of settlement patterns or organization. A perusal of Kautilya's *Arthashastra* is highly instructive in this matter. The author of this work has instructions for the construction of a royal residence at *Nisanta Pranadhih* in *Vinayadhikarana*. He discusses populating the country, the creation of commercial centers in the *janapadanivesa*, uses of uncultivable land, and the building of forts for protection. There is mention of populating these forts and towns in *janapadanivesa* and *durganivesa*. Military operations and camps, that is the *skandhavaras*, are considered in *sangramikam*. While discussing settlements in *janapadanivesa* he specifies that these villages should be established at a distance of a *krosa* or two so that they can afford mutual protection. These agricultural settlements should also have a population between 100 and 500 families.

Besides these largely agricultural settlements he notes the nonagricultural units appropriate to a territory. These units are tabulated as follows:

Villages	Nonagricultural establishments
800	80 <i>Sangrahanis</i>
	4 <i>Karvatika</i>
	2 <i>Dronamukhas</i>
	1 <i>Sthaniya</i>
800	87

In addition to these regulated villages, Kautilya notes outposts and forts, as well as habitats in the forest, isolated habitations on bad land, etc. There are also the nonagricultural habitations of students, teachers, soldiers, miners, traders and the like. As their number is not specified in the *Arthashastra* it can be assumed that they were created according to need.

This would lead to more urban settlements.

The picture generated from the study of Kautilya's *Arthashastra* reveals some aspects of a rural urban dichotomy. This dichotomy was further imposed on Indian thinking by following a European model of towns in modern times. An interesting comparison is possible if one takes into consideration the separate existence of *Sangrahanis*, *Karvatika*, *Dronamukha* and *Sthaniya*. The Indian experience is that these were not purely urban. This view is supported by Kautilya, who notes the presence of agriculturists near the *Durga* and other "urban" settlements. These references indicate the mixed nature of these settlements.

Taking these facts into consideration, the urban proportion of the Mauryan Empire would work out to have been about 10 per cent. This percentage might be made more accurate. It has already been noted that there were other human habitats with urban functions. Assigning some percentage for the settlements of teachers, soldiers, miners, etc., is essential. If one sets this at about five per cent one may not be far wrong, since these functions were carried out by only a small fraction of the population. It has been observed that some villages had one or two trading families, and the same may have been the case with other families of specialists. The other point is that they were not found in all villages. In sum, these features suggest that about five percent additional urban population is called for. These figures indicate that the urban population of the Mauryan Period was about 15 percent of the total. They depended on the remaining 85 percent for their necessities. This 85 percent of the population can be identified as those who dwelled in villages, forests, etc.

This view of settlements within an empire of the

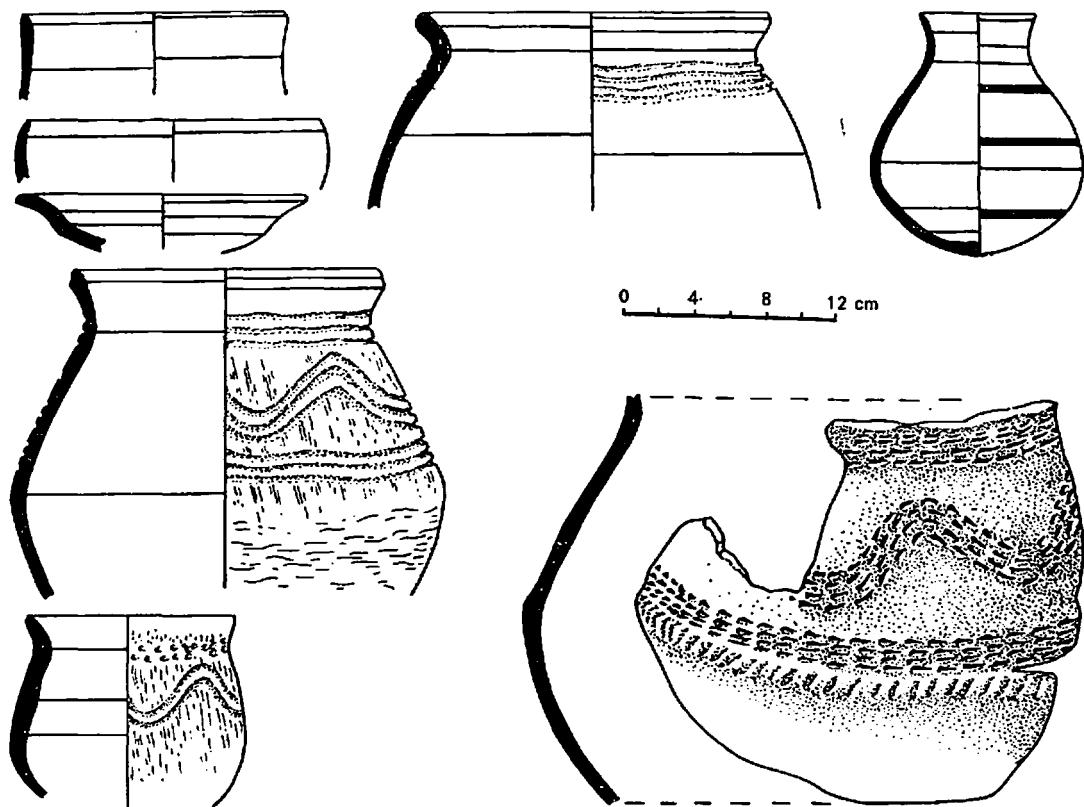


Fig. 14.5. Pottery from Kanewal and Zekda.

presence of all these animals in Gujarat has been established; although some of them are now extinct. But, it is important to note that they were wiped out due to human interference, such as over hunting. They indicate, then, that the environment has been fairly steady for a long period.

The discovery of charred animal bones and those with cut marks give some idea of nonvegetarian eating habits. Domesticated goat, sheep, cattle were eaten as well as deer, *barasingha*, *nilgai*, and pigs. *Varanus* was also consumed. Even at present, it is considered a delicacy, especially in winter, by some living tribes. The presence of cheetah indicates the existence of wild cats that subsisted on the animals and were in turn the food of man. Today these carnivorous animals are being continuously destroyed by man. The presence of camel and horse is also indicated. So also is the presence of bullocks indicated, being used for transport.

These animal remains also provide interesting environmental data on the basis of their natural habitats and food habits. Hog deer, *chital*, cattle and buffalo, subsist on grass. The goat and *nilgai* require foliage.

The rhinoceros and pigs require marshy areas which develop in natural depressions along streamlets, rivers and between sand dunes. These natural water reservoirs supply drinking water for animals and men, and also produce vegetation like the *lecromina croix*, as well as wild varieties of edible grains. The *lecromina croix* was found at Zekda. The presence of rice, wheat and other grains from other sites indicates that along with agriculture, there was the collection of wild grains like *banti sama*, which grow in the areas where *lecromina* develops.

The environmental picture with foliage, grasslands and marshes is indicative of abundant food resources. Local forests also had an abundant food supply all the year round with fruits, tubers, beans and grains. This broad base of food encouraged the life of *vanprasthas*, who lived in forests, and *unchravritti* of Indian saints. Interestingly, the collection of wild edible seeds can yield a fairly large stock, one which can last for the lean period of the year. Agricultural and cattle breeding activities would further augment this base. The discovery of large storage jars from Kanewal indicate that about 150

kilograms of grain could be stored in each vessel. This storage facility helped the rural population use grains, beans and the like for most of the year.

This collection and storage of food grains at one place is, according to the theory propounded by Bhoja Raja in *Samarangana Sutradhara*, the cause of struggle and the consequent development of *matsyanyaya*. The growth of political power, division of labor, and the development of urban life became necessary to control this *matsyanyaya*.

The presence of lapis lazuli, steatite and such materials that were not locally available would have been brought in by some agency. Copper and stone beads also might have been imported into these settlements. Chank came from the area of Dwarka. The presence of all these materials indicates some system of trade.

Ceramics with graffiti of the Indus script (Pl. 14.3) from these settlements, especially at Kanewal, indicate some form of literacy. These literate village settlers had wide contacts as indicated by the antiquities. These contacts indicate the presence of land routes connecting Gujarat with Sind. This was probably through Thar Parkar and Kutch which were used

throughout the historic period. The inland settlements would, of course rule out maritime trade, and emphasize land routes. However, sites like Malvan, or smaller places in Jamnagar do indicate the possibility of maritime movements, especially in eastern Saurashtra and coastal southern Gujarat. The River Tapi might have provided the route to Khandesh. Kutch and Saurashtra might have been similarly connected.

What happened to these groups with the passage of time? This cannot be ascertained by a simple hypothesis. Each site will require its own history. It seems that Jokha was abandoned due to the lack of water. Zekda indicates destruction by fire. Drought and abandonment of some of the sites can also be envisaged. Finding the reasons behind the abandonment of these sites will require careful analysis of the settlement, local topography, climatic and human situation.

Much further work is needed to understand the rural life of the Harappans. Future work on this problem should involve exploration and systematic excavation in different regions of the Indus Culture.

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