

OLD PROBLEMS AND NEW PERSPECTIVES
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Jonathan Mark Kenoyer

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Socio-Economic Structures of the Indus Civilization as reflected in Specialized Crafts and the Question of Ritual Segregation.

Jonathan Mark Kenoyer

Centralized authority and social stratification have been major topics of discussion among scholars studying the Indus Civilization, and yet the data used to support the presence of centralized authority and social stratification are admittedly poor and unreliable (Jacobson 1986). Repeated analyses and modified versions of the various positions have continued to be based on inadequately recorded structures, limited excavations, generalizations about artifact uniformity and unreliable site proportions or identifications. Such data are hardly suitable to use as a foundation upon which to decide the character of a major civilization let alone the processes which led to its formation.

It is with this realization that many researchers have returned to the archaeological record, as well as the reexamination of previously collected data to try and provide a more reliable data base from which to conduct these discussions anew. The major urban center of Mohenjo-daro has been the focus of many such studies (Dales and Kenoyer 1986; Jansen 1978, 1980a, b, 1984; Tosi 1984; Bondioli *et al.* 1984). Recent excavations at Harappa are also providing systematically collected and recorded data from excavated contexts (Dales 1986; Dales and Kenoyer 1987 ms).

Studies of the Indus Civilization have not been limited to the large urban centers, but also include rural settlements such as Lothal (Rao 1979, 1984), Kalibangan (Lal 1979), Balakot (Dales 1974, 1979; Dales and Kenoyer 1977), Allahdino (Fairservis 1982; Hoffman and Shaffer 1977), and Rojdi (Possehl *et al.* 1984, 1985). Together with recent new excavations at the site of Nausharo by the French Mission (Jarrige 1986, 1987 ms), these studies are providing important new perspectives of regional variation that will eventually be compared with the results of the current project at Harappa.

My own research has focused on the understanding of specialized crafts and the trade/exchange between rural and urban sites (Kenoyer 1983, 1984 a, b, 1985, 1986, n.d.). This research combined with my recent ethnoarchaeological studies has led me to question some of the generalizations

that are prevalent about craft specialization and socio-economic organization of the Indus Civilization.

On the basis of earlier reports we have assumed that there was a certain degree of occupational specialization and spatial segregation of craft activities at Indus sites. However, I feel that there has been a theoretical jump in assuming that the segregation of specialized crafts can be directly related to centralized control and to socio-economic stratification. There is not a *simple and direct* correlation between segregation of craft specialization and socio-economic stratification or centralized control. Uniform pottery and artifact styles, architecture, and intrasite patterning are the result of many different complex socio-economic processes. Many of these patterns do in fact reflect stratification and some sort of centralized authority or control, but others may not. It is important to assess the nature of stratification reflected by artifact patterning and to identify the processes of control that may have functioned in different contexts.

In order to try and answer these larger questions without the aid of literary materials, it is first necessary to conduct detailed studies of the data being used to determine the reliability of that data and thereby eliminate impossible or improbable interpretations. In this paper I will be drawing examples primarily from my own research on shell industries and my preliminary studies of the bead industry (Kenoyer 1986) and ceramic industry of the Indus Civilization (Dales and Kenoyer 1986). The data on which I will focus this discussion are those relating to specialized craft traditions. A series of questions that I would like to use as my framework for the discussion of specialized crafts are:

- 1) How do specialized technologies develop?
 - 2) How can we explain the uniformities and variations in these traditions as they are seen in the Indus Civilization ?
 - 3) How can we explain the distribution patterns of these artifacts within sites and between sites ?
- and finally,
- 4) What is the nature of the social stratification of these craft communities and their ranking the larger Indus social system?

SPECIALIZED TECHNOLOGIES

Specialized technology is probably one of the most commonly used terms in the archaeological literature of the third millennium in West and South Asia, and yet until recently there has been relatively little discussion regarding its definition and the processes by which these technologies developed (for recent views on specialization see Brumfiel and Earle 1987). In this discussion I define a specialized technology as one that is limited to skilled artisans who are full-time or part-time practitioners. In specialized technologies, different stages of the production are often carried out by different persons working together under the direction of one or more master-artisans. Whereas specific aspects of production can be undertaken by any dexterous person, the ability to consistently produce a range of culturally prescribed objects is determined by the select group of master-artisans or specialists. A final aspect of specialized technologies is that the objects produced are produced primarily for use by persons other than the producer.

There is no single criterion in the archaeological record that can be used to identify specialized craft production. The range of archaeologically visible features of specialized production include the consistent use of specific raw materials, the development of specific technologies and stages of manufacture to process these raw materials and the stylistic and/or morphological standardization of finished objects. Other criteria that contribute to the definition of specialization include the spatial and temporal distribution of production, as well as consumption (see Sinopoli this volume for further discussion of definitions).

How do specialized technologies develop?

Using shell working as an example I would like to briefly examine the archaeological evidence for the development of one form of specialized technology in the northwestern subcontinent. The original development of shell working of the Indus Tradition (Shaffer n.d.) began somewhere along the Sindh or Makran coasts in the early Neolithic period. Finished shell beads are found at Mehrgarh, but no manufacturing was done at the site itself (Kenoyer n.d.).

However, by the Early Chalcolithic we see production of shell beads and bangles at Mehrgarh in Period III (Kenoyer n.d.). The development of shell working traditions at Mehrgarh and other undiscovered Early Chalcolithic sites could be the result of two processes. (In this paper I do not wish to get involved in the discussion of *why* there was a need for shell workers, as this leads to a different discussion.)

The first is one where local craftsmen develop or learn the techniques from coastal communities and begin acquiring the raw materials either directly or through economic alliances and trade.

The second process would be where coastal craftsmen become incorporated into the settlement at Mehrgarh, either by establishing alliances or kin relations with the original settlers or being brought there forcibly.

On the basis of anthropological studies in South Asia, it is evident that these two processes are quite different. The first one can be called *fragmentation* (Gould 1971) and the other *agglomeration* (Karve 1961). If these processes did not occur together, it is possible that they could be differentiated archaeologically by looking at spatial and chronological continuities or variations. The variations could be identified in specific technological variables, in the uses of raw materials, and in stylistic similarities between the coastal region and the inland areas.

The process called fragmentation is when a local individual or group develops or learns a new technology. Due to increased demand for commodities, production may become intensified and specialized. This process could be gradual or rapid, but might eventually result in a distinct social group identified by specific occupation. If such a process was occurring in the Neolithic, I would predict that there would be a *higher degree of variability* in technology and style between coastal and inland sites, as well as between various inland sites.

In the process of agglomeration, specialists from the coast would move to the inland site, and either become a part of the community through kin relations, or remain distinct. Another possibility could be that coercion in the form of slave craftsmen may have been present, but it will be extremely difficult to define this without written texts or representations in figurines or art. In the agglomeration model there would be a higher degree of similarity between the technology, the use of raw materials and artifact style between coastal and inland sites. At this time we have no contemporaneous sites with which to compare the technology or the stylistic features of the shell working at Mehrgarh, but it would be possible to differentiate these two processes, unless of course, both processes were occurring together.

Given an increased demand from consumers, either process would have resulted in the specialization of production techniques which we can assume would be passed down along hereditary kin lines or through economic alliances between individuals or communities. Raw materials used in these crafts could also have been traded through kin networks or socio-economic alliances. These trade/exchange patterns would also continue from generation to generation as long as the overall communication networks of the region were not disturbed. Finished items were undoubtedly traded to consumers directly or through similar kin networks or alliances. Such a pattern may have developed in the Early Chalcolithic at Mehrgarh, Period III (Kenoyer n.d.).

By the Early Indus and the later Mature Indus Period however, there was an important change. The technology

for shell working became more complex, new sources of raw materials were being utilized and the stylistic features of the shell objects became more standardized. The Early Indus sites of Amri, Kot Diji, and Sarai Khola (I was unable to examine the bangles from Kalibangan) all have similar shell bangles made with identical technologies. Although additional research and data collection need to be done, the present data from these sites does not provide evidence for a centralized authority that controlled or ordered the production and distribution of items, such as shell bangles, over such great distances. The regional differences in most aspects of material culture between sites such as Amri, Sarai Khola, Kalibangan, etc. would suggest that the similarities in shell artifacts between these distant sites is due to one of two factors: 1) Uniform objects originating from a single workshop could have been traded/exchanged over great distances, as may be the case in Sarai Khola (one shell bangle); or 2) Distinct shell working communities were established at the various Early Indus sites (Amri, Kot Diji, possibly Rahman Dheri, Kalibangan and Mehrgarh).

Such uniformity in the industry can most reasonably be attributed to learning processes defined by strong kin relations or economic alliances between craft communities. The importance of ritual or religious precepts may also be involved in the uniformity, but it is impossible to separate this on the basis of present empirical evidence.

The data from the Early Indus sites is still quite sparse, but it is evident that a pattern has been established. During the subsequent Mature Indus period there is considerable data which can be used to further understand the socio-economic structure of this industry.

UNIFORMITY AND VARIATION

How can we explain the uniformities and variations in material culture that are seen in the Mature Indus Period ?

In studying uniformity and variation, it is first necessary to identify the features of the final artifact that result from the raw material and technology. Once these have been isolated it is then possible to understand the variables that indicate culturally defined uniformity and variation. The importance of conducting detailed analyses of the material properties of the artifacts and the manufacturing processes by which they were formed has been stressed by many researchers, and yet there is a general lack of such analyses in most facets of Indus archaeology.

In my study of the shell working industries of the Mature Indus period it was possible to identify features of the shell industry that were defined by the raw material and separate these from variables that were defined by the manufacturing techniques and tools. After these basic variables relating to the physical properties and technology had been identified, it was possible to isolate variables that were purely

culturally defined. For example, shell bangles from all the sites that I studied were sawn by a saw that had a uniform blade thickness of between 0.4mm and 0.6mm. All of the manufacturing stages seen at each site were basically identical though the species of shell used as a raw material varied depending on the regional availability and trade networks. The most common finished bangle at all sites had a width between 5mm and 7mm. The incised motifs on the bangles from all Indus sites were basically identical in terms of placement and form, a chevron incised over the suture area of the shell circlet. The results of these studies indicate that there were certain technological and cultural variables which showed an extremely high level of uniformity throughout the entire Indus region.

A preliminary examination of the production of stone beads in the Indus Civilization, indicates a similar uniformity in terms of technology and use of raw materials, as well as certain stylistic features. The stone bead industry and the shell industry share one thing in common - that they have distinct source areas from which raw materials are procured and/or processed. From these production centers the finished items were then distributed throughout the Indus region.

The nature of industries such as pottery making, carpentry or house building is quite different from that of shell working and bead making. The raw materials for ceramics, carpentry or architecture are available in every region and there is a high degree of variation in technology and style between various regions of the subcontinent. The original process by which crafts such as pottery developed is probably best defined by the fragmentation model presented above, though at later periods specialized craftsmen may have become agglomerated to urban centers where there would have been larger markets. When raw materials are locally available there is no need to maintain kin relations or alliances over long distances. This lack of long distance relations is reflected in present day South Asia by the presence of potters throughout India who belong to the *kumbhar jati*, but who do not necessarily have any kin networks beyond their local region. The *shankari jati* or shell worker caste on the other hand is connected through generations of kin relations, whether they live in Benares, Kanniyakumari, Dwarka, Delhi or Calcutta.

It may be due to this basic difference in availability of raw materials and the relatively easy diffusion of certain technologies that pottery manufacture of the Indus Tradition is so regionally varied. Beginning in the Neolithic and Early Chalcolithic Period, these regional styles continue through the Early Indus and even in the Mature Indus Period. The names of these industries are familiar to all Indus scholars; Amri, Kot Diji, Sothi, Hakra, Kulli, Jhukar, etc. The recent study of Mohenjo-daro pottery by Dales and myself (Dales and Kenoyer 1986) has shown that there is a great deal of variation in the Mature Indus pottery

reported at Lothal (Rao 1973: 111, 1979). The segregation of these crafts within specific sites is not uniform (Bondioli and Vidale 1986; Vidale this volume), and until we have more specific information, it is not possible to determine the degree to which they were present in different sectors of the sites, specifically the citadel and lower town areas.

On the basis of uniformity in style and technology defined above, and the meagre data on intra-site patterning suggested from preliminary studies, we can suggest that the shell workers and possibly some of the other specialized crafts were organized in *either* overlapping ranked groups *or* distinct stratified groups. At this point it is not possible to determine if there was a specific area of each site that was allocated to such crafts.

In contrast to intra-site patterning, there seem to have been distinct patterns of shell manufacturing between sites. The data needed to differentiate specific manufacturing centers or processes are; 1) the different types of manufacturing waste resulting from specific stages of manufacture and 2) the various species of shells used to make different types of finished items. The determination of specific species was even more significant because many of these species could be traced to distinct regional source areas. On the basis of these data it was possible to define different types of production at specific sites and a range of overlapping trade/exchange networks. Species from the coasts west of the Indus were used in regional production and for local markets as well as for trade to the large urban centers in the central Indus plain. Similarly, species from the eastern coasts of Kutch and Saurashtra were distributed in eastern regional settlements and also at the major sites in the Indus plain. Trade or exchange of these regional species between the coastal source areas was limited to a few finished pieces in each area. A third major trade network crossed over these coastal regional networks to supply the major urban centers with shell species obtained from the coasts of Oman. These species were not used in shell manufacture at the rural sites in either western or eastern coastal region. Other secondary trade networks of finished commodities are indicated by the presence of finished shell objects at distant sites such as Shortugai and possibly Shahr-i Sokhta. At the rural settlement of Allahdino there is evidence for either part-time shell workers or possibly itinerant shell workers.

We return to the question of whether these trade networks reflect centralized authority or not. The presence of long distance trade may reflect a maintenance of trade channels by some centralized power in order to facilitate trade, but the networks themselves are not necessarily the result of that authority. Once again I will use the ethnographic examples of traditional Bengal and historical South Asia. In traditional South Asia (and probably most of the world), trade secrets and contacts with good sources for raw material are well guarded or maintained through

extremely complex alliances between collectors/procurers of raw materials, regional producers, urban producers, regional marketers and urban marketers. These alliances between craft specialists are often kin related and hereditary, spanning thousands of kilometers and resulting in overlapping trade networks.

Although these networks usually function within the political organization of the larger state, they can also exist independently of that centralized authority. For example, the restriction of shell trade from Sri Lanka to Bengal by the Indian Government put a strain on the availability of good shell raw materials, so the Bengali shell merchants in Calcutta used their kin related networks to obtain these materials via Bangladesh *in spite* of centralized authority. Models for long distance trade and inter-regional trade take on a different color when they are seen as kin related networks that can variously combine a wide range of models - exchange, direct trade, central place trade and overlapping trade networks. How can we differentiate between kin related trade networks and networks based on economic or political alliances? At this point I do not think that this differentiation will be possible without more studies of other classes of artifacts and more reliable interpretations of the Indus script, the seals and other economic records.

In this discussion I have relied on only one class of artifacts, and can only point out that additional studies of the trade of finished ceramics, specialized ceramics (e.g., Halim and Vidale 1984), stone, and copper need to be done to fully understand the linkages between urban sites, rural sites and distant resource sites. A preliminary study of bead industries indicates that similar patterning may be discernible. Through the combination of several such studies I feel that it will be possible to identify more precisely the internal trade networks and the relationships between various specialized crafts in the Indus Civilization.

STRATIFICATION AND RANKING

What is the nature of the social stratification of these craft communities and their ranking in the larger Indus social system?

The final question in this discussion is really the beginning of my study. Given the limited nature of the archaeological record and the fact that we do not have any translated texts, can we determine the nature of social stratification in the Indus system? Is there a method for determining the socio-ritual ranking of craft or occupational specialization? I feel that there is a possibility for answering these questions through a more careful archaeological documentation of artifact distribution and settlement patterning, and the use of interpretive models derived from a critical examination of the historically documented cultural developments in South Asia.

Contrary to earlier reconstructions of South Asian cultural development that relied on diffusionist models of invasion and population replacement, increasing archaeological and linguistic data suggest that there is a strong continuity between the prehistoric and early historic period (Shaffer 1984). Fairservis (1975) and others have pointed out "the Indianness" of the Indus Civilization, while Possehl has discussed the process of deurbanization and continuities in traditions (1977). It is not unlikely that some of the basic social structures present in traditional South Asian society, particularly those structures relating to urban organization, have their roots in the proto-historic urban period. The structure that I would like to examine in this discussion is the hierarchical stratification of society and the role of ritual purity in the development of this hierarchy. In this discussion I use the term hierarchy in its primary meaning, a ranked order defined by religious status.

Berremen suggests that "in social evolution prior to the emergence of the state, kinship and rank or hierarchy were inextricable: hierarchy was a ranking among kinsmen. In fully developed class-stratified states, kinship was replaced by economics as the basis for rank. As caste emerged during the process of state formation in South Asia, kinship and hierarchy *both* were retained as the bases for social organization but they were separated. The hierarchy became a ranking among unrelated (and because endogamous, unrelatable) aggregates of kinsmen" (1983: 240).

In this context he is referring to the development of highly stratified and hierarchically ordered endogamous social groups during the second urbanization of the early historic period (around 500 B.C. to 600 A.D.) known as *jati* or more commonly as caste. The various factors used to define this hierarchy include economic control of resources, political control and *ritual control*. The factor of ritual control is what differentiates hierarchical stratification from simple socio-economic stratification, though it is unlikely that socio-economic and ritual factors were as separate or independent in pre-industrial societies as they are today. In Hindu society, ritual control is defined by the ability to provide sacrifices to the gods, which is in turn regulated by ritual purity (Kolenda 1978: 63). Contact with persons or objects of a lower socio-ritual status results in pollution and a loss of power. The most important avenues for pollution are by actual physical contact, contact through drinking water and eating food.

In a study of traditional Hindu communities, Pauline Kolenda (Kolenda 1978; Mahar 1959) found that water was the most readily contaminated substance and that porous earthenware vessels were more easily contaminated than brass vessels. Furthermore, boiled food was more easily contaminated than food that was fried in clarified butter.

Among the ritually conservative higher castes, pottery that is used to eat food from or drink water from is used only

once and cast away. Large storage jars for water or food, or pottery vessels that are used to boil milk or cook food in are touched only by people of the same kin group and usually only persons directly involved in food preparation (that is to say persons who are themselves in a state of purity). Food for consumption is transferred from these reusable vessels to disposable ones or metal containers that can be properly purified after being used, i.e. polluted.

The archaeological representations of hierarchical segregation and ritual purity have not yet been systematically studied in early historical sites, but these studies are beginning at Vijayanagara, a medieval site in Karnataka (Fritz *et al.* 1986). In this site there is a distinct segregation of the city in terms of socio-ritual and economic function and there are patterns in the distribution of pottery types related to food preparation that can be related to hierarchically stratified socio-ritual groups (Sinopoli 1986). I do not intend to suggest that the organization of Indus cities was as rigid as those of Early Historical or Medieval South Asia. However, if a concept of hierarchical stratification based on ritual purity was present in the Indus social order it is likely that it would be represented in much the same manner as it is represented in later societies in South Asia; segregation of living areas, private water sources, drainage and waste disposal and distinct sets of ceramics, specifically those connected with cooking, food preparation and food serving.

If we look at the Indus settlements, all of the basic data sets are present. The division of larger sites into two or more sectors indicates that some form of stratification was present, though we do not know if that stratification was hierarchical or simply political/economic. Double mounds are a feature found primarily at the larger urban centers and are not common at the smaller sites, though Flam does report the presence of such site divisions in the Early Indus period from Sindh Kohistan, where 15 out of 30 surveyed sites have an artificial high mound associated with a lower habitational area (Flam 1984: 81).

In the earlier literature it was often assumed that the division of the larger urban centers reflected the division of the society into a ruling elite (priest-kings) who lived in the citadel area and various landowners, craft groups, merchants and service groups who lived in the lower town (for an interesting modification of this perspective see Chitalwala 1984). Unfortunately, this rather simplistic interpretation of the site segregation is not supported by the limited amount of actual artifact patterning reported from the excavated sites and there has been no convincing argument that can demonstrate the presence of a political-religious elite, or an economically distinct community on the citadel mound. As mentioned above, shell working was found on the upper mound at Balakot and also on the "citadel" at Mohenjo-daro. There is also evidence that various crafts were being practiced on the "citadel" at

Harappa, but it is still unclear if these activities occurred after the disintegration of the urban structure were actually a part of it. Nevertheless, these scattered occurrences do not disprove the presence of a controlling elite, but they suggest that the segregation of these elites may have been defined by criteria different from those seen in cities of Mesopotamia and Egypt, where temple and palace complexes are the norm.

Given the size and socio-economic complexity of the Indus cities, it is not unlikely that some form of socio-economic ranking was present, specifically in terms of the various craft and occupational specializations that were required to maintain the large urban centers. Some of the basic occupations would include the removal of waste, transportation, food preparation, ritual specialists, administrators; while the crafts would include potters, metal workers, shell workers, builders, etc.

As has often been assumed, the inequality of these various occupations may have been maintained through a centralized authority. In the urban centers such an authority may have been organized into an administrative body that enforced the spatial segregation of specific communities. However, it should be noted that the same basic structure of inequality can be maintained through a different model based on hereditary relationships of reciprocal exchange. This model of control is seen in the *jajmani* system that has been documented in South Asia since the early historical period (Harper 1959; Gould 1987). The structure of *jajmani* relations has been likened to the "estate" relations which developed in the feudal system in Europe and Berreman suggests that it is the mechanism whereby inequality was organized and sustained "at the watershed between kin-based, unstratified, pre-state institutions of inequality and class-based, stratified, state-organized institutions of inequality". (Berreman 1983: 242)

The *jajmani* system functions best in a subsistence based economy where grain and food stuffs are exchanged for services. In South Asia today, this form of economy still functions in non-urban, rural settings (Harper 1959). In a market economy where cash crops or manufactured products are in high demand this system tends to fall apart, making it non-functional in modern urban centers. However, the basic hierarchical structure of Hindu society present in rural contexts is also present in urban centers.

In the Indus social system, it can be assumed that there were several mechanisms for control of inequality. It is not unlikely that a system of hereditary reciprocal exchange may have been present in the rural areas and a modified system of control was functioning in the urban contexts. In terms of general layout of rural sites such as Allahdino and Balakot, there does not appear to have been a distinct division into sectors. The apparent lack of need for strong social segregation may be due to either of two factors; 1) there was no stratification in the rural settlements and the

community consisted of ranked kin groups, or 2) stratification was an accepted socio-economic or political norm and required little or no coercion (Fairservis 1975: 301). In the cities, where there was undoubtedly a larger mixture of communities, there was a greater need for authoritative segregation and demarcation.

While socio-economic structures may have varied from rural to urban contexts, it is unlikely that the ritual aspects of Indus society would be significantly different between a rural and an urban setting. Therefore, if the social system as a whole was hierarchically stratified, we would expect to see specific similarities between the urban and rural settlements.

The detailed analysis of specific housing blocks at Mohenjo-daro is presently under preparation, but one of the features that is quite evident in the layout of most house units is the privacy of the inhabitants from passers by on the main streets (Marshall 1931, Vol. 1: 18; M. Jansen, personal communication). A comparison of smaller living units between the rural and urban centers would be useful in determining if similar patterns for defining private areas were used.

In the largest urban centers there is evidence for segregation in water sources, bathing areas, and the proper disposal of polluted water. This pattern is best documented at Mohenjo-daro (Marshall 1931, Mackay 1938) where approximately five wells are reported from the citadel area. In the lower town Marshall reports, "most buildings of any size had wells of their own ... [and] ... wells for public use are sometimes provided in private houses with an entrance to the well-chamber direct from the street" (Marshall 1931: 16). A similar pattern has been reported at Kalibangan (Lal 1979: 84). At Mohenjo-daro M. Jansen and his colleagues are presently involved in determining the contemporaneity of the wells and the habitation units. Once this has been accomplished it will be possible to understand how many wells were in use in different areas of the city at approximately the same period and determine if the number of wells was more than sufficient for the population. However, it may still be difficult to determine if the segregation of the wells was to keep persons of a different socio-ritual group from contaminating personal water sources, or if there were other factors involved. It is in this context that a study of pottery distributions correlated with the well distributions may provide the necessary information.

In the ethnographic context, cooking vessels and cooking areas need to be kept pure, and in most regions of South Asia, specific sets of domestic or ritual pottery serve to distinguish socio-ritual groups. At Mohenjo-daro, in the limited area excavated by Dales in 1964-65, five varieties of cooking vessels were found (Dales and Kenoyer 1986: 132). It is possible that in a larger area, distributional patterns could be defined; for example, the clustering of

specific cooking vessel types in association with neighborhoods or habitation units and water sources. It is quite reasonable to suggest that such clusters would represent distinct kin groups or ethnic communities as is often the case in traditional India.

When these distinct communities have been identified at Indus urban centers we must still address the question of hierarchical position, which is closely connected to the process of how purity and pollution would have been attached to specific occupational communities or craft specialists. One obvious answer would be that crafts associated with dirt, ashes, fire, odiferous matter, skins, etc. would eventually be segregated from the less onerous occupations and put on a lower status than other occupational groups, such as landowners, merchants, administrators, and ritual specialists. However, the process by which specialized crafts originally developed by fragmentation or agglomeration may also be an important factor in defining the hierarchical structure. Crafts that formed out of fragmentation within a community might be grouped together because of historically known kin ties and continued occupational alliances, while crafts or occupations resulting from agglomeration could be more

easily segregated. The combination of occupation, status and social origin is undoubtedly responsible for the position of an occupational group in the larger social order. This position however, is not permanent, and we would expect to see changes over time.

CONCLUSION

Returning to the general discussion of socio-economic structure, it is evident that there are variables in the ethnographic context that can be used to define hierarchical stratification in the urban as well as the rural sites. We need to conduct studies of artifact patterning in these traditional urban and rural communities, where ritual segregation and stratification is present. The objectives of these studies would be to test the hypotheses that the patterning of wells, of pottery types and the overall site layout do in fact reflect the hierarchical segregation of these communities, and not some other feature of economic or political organization. Based on the models generated from these studies it will be possible to better interpret the spatial and stratigraphic data from sites of the Indus civilization and delineate more precisely, the nature of the stratification in this ancient urban society.

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