Seeking the Past through the Present: Recent Ethnoarchaeological Research in South Asia

CARLA M. SINOPOLI

The importance of knowledge of contemporary societies for interpreting the past is a basic tenet of virtually all archaeology. Since the 1960s, the field of ethnoarchaeology has emerged as a discipline explicitly concerned with examining the archaeological relevance of contemporary phenomena, including such topics as site formation and depositional processes; documentation of traditional technologies, community forms, and settlement patterns; the relations between humans and their environment; and the study of the material implications of a variety of social systems and social strategies, as well as of ideologies and belief systems.

A focus of much recent ethnoarchaeological work has been the identification of general patterns in human behavior and their material consequences. From this perspective, ethnoarchaeology is a search for cross-cultural regularities which, coupled with uniformitarian reasoning, can aid our interpretation of the archaeological record. As such, ethnoarchaeological research provides archaeologists with an opportunity to evaluate our models of the material implications and operation of cultural systems. In addition, ethnoarchaeological studies have greatly increased our sensitivity to the diverse environmental and cultural factors that can affect or determine the nature of the static archaeological remains that we recover. Archaeologists are now in a position to develop more sophisticated and testable models for the interpretation of archaeological sites and, more important, of the human past.

Ethnoarchaeological study has also served as a warning, alerting us to the complexity of human behavior and the tremendous diversity and creativity manifest in human manipulation of the material world. For example, we have seen that items or behaviors that mark social boundaries in one cultural context may operate very differently in other contexts (Hodder 1979, 1982). As a result, we have learned to be wary of making generalizations from a single case.

For the ethnoarchaeologist, South Asia, with its cultural diversity, range of subsistence and settlement strategies, and persistence of traditional crafts, is an overwhelming land of plenty (see Griffin and Solheim 1990 for a general overview of
ethnoarchaeology in Asia). The seeming timelessness of the Indian village, the antiquity and apparent stability of social traditions and technologies, and the plethora of human adaptations found throughout the subcontinent provide a wealth of data for generating models to study the past. Such abundance is not without dangers, however. It is, at most, a slight exaggeration to state that in South Asia it is possible to find ethnographic parallels to virtually any type of artifact, technology, settlement, or other material consequence of human behavior that we recover from the archaeological record.

The demonstration of material parallels does not, however, unequivocally demonstrate social, cultural, or behavioral parallels, or even direct historic continuity between contemporary cases and the prehistoric past (Allchin 1985). Modern communities in South Asia, from hunter-gatherers to rural villagers and urban dwellers, have a rich and complex history (see also Nagar 1975:14). We risk oversimplifying both present and past cultural contexts if we attempt to map the present directly onto the prehistoric past. Ethnoarchaeological studies in South Asia, as elsewhere, do not provide a blueprint to the past. Rather, they provide a framework for understanding the material consequences of behaviors and technologies, as well as a rich laboratory for documenting the diversity and regularities in human behavior in well-defined cultural contexts.

ETHNOARCHAEOLOGICAL RESEARCH IN SOUTH ASIA

In considering ethnoarchaeological research in South Asia, I take a very broad definition of the field, including explicitly ethnoarchaeological studies, as well as ethnographic studies that have focused on material culture, without necessarily being concerned with its archaeological implications. Thus, I include the extensive craft documentation projects of the Anthropological Survey of India (ASI) even though their goals were not strictly archaeological.

South Asian ethnoarchaeological studies can be broadly divided into four main categories, covering (1) traditional subsistence and settlement strategies among various populations; (2) traditional technologies and the organization of craft production; (3) social organization and belief systems; and (4) the formation of archaeological sites.

Subsistence and Settlement Strategies


Ethnoarchaeological studies of contemporary hunter-gatherer or tribal populations have focused on subsistence resources (Vishnu-Mittre 1985), patterns of sea-
sonal movement, and technology (Misra 1974). Typically, the goal of such studies has been to apply the information derived from contemporary societies to the interpretation of prehistoric archaeological remains from the same region. As has been often noted, paleolithic studies in India are frustrated by the paucity of stratified and well-dated primary context sites, the near absence of preserved faunal or botanical remains, and limited reconstructions of Pleistocene environments. The development of sophisticated models based on a broad knowledge of hunter-gatherer adaptations may well provide the best means for interpreting these enigmatic paleolithic remains.

On the other hand, the ethnoarchaeological studies of tribal groups on the Indian subcontinent have also stressed the degraded nature of the contemporary environment and the loss of many wild plant and animal resources as a result of agricultural expansion and modernization (Raju 1988: 5). They have noted that the natural world inhabited by contemporary tribal populations is not at all the same as the one that was inhabited by the paleolithic populations of the same region. The wild plant and animal species exploited today may coincide to some extent with those collected in the past, but all the researchers writing on this topic have pointed out that the prehistoric hunter-gatherers could have chosen from a much wider array of species, particularly of large game animals, than can contemporary populations. Modern subsistence and settlement practices may, therefore, have only slight parallels to ancient ones in the same region.

There is, of course, as Paddayya (1982) has demonstrated, no necessary reason why models for the South Asian Paleolithic need be derived exclusively or even primarily from South Asian hunter-gatherers. It is a very tenuous link indeed to argue for direct historic continuity between present-day hunter-gatherers and those of the Paleolithic. The demonstration of such a link is not theoretically necessary nor, I suspect, is it justified.

Ethnoarchaeological studies of South Asian tribal populations have focused on general patterns of subsistence and settlement. Scholars have noted the broad knowledge that members of these groups have of their natural environments (Murty 1981), and that most groups traditionally exploited a very wide range of plant and animal resources (Murty 1981, Nagar 1985, Raju 1988). It has also been observed that the extant groups were traditionally mobile (though many are now sedentary), with a settlement system responsive to the seasonal availability of food and water (Paddayya 1982). At this broad level of generalization, it should be noted that these are patterns that hold for most small-scale tropical or subtropical hunter-gatherers, although, of course, the particular resources exploited vary considerably from case to case.

Contemporary tribal populations also inhabit a very different cultural world than did the hunter-gatherers of the Paleolithic. Murty (1978–1979, 1981, 1985a), in particular, has stressed the ongoing symbiotic relations between tribal populations and sedentary agriculturalists in Andhra Pradesh. These relations appear to have considerable antiquity in the region, as attested by inscriptive evidence (see also Possehl and Kennedy 1979, for a suggestion that such a pattern may have existed in Gujarat as early as the third millennium B.C.). The tribal populations provide forest products, including honey, sap, fiber, wood, and game, as well as labor, to the agriculturalists, in exchange for agricultural products and craft goods (Nagar and
Misra 1989). Nagar and Misra have also noted that in Uttar Pradesh, many of the traditional hunting groups have accepted caste ideology and incorporated attributes of Hinduism and Islam into their belief systems.

While this complex pattern of interaction makes it virtually impossible to detect the "pure" hunter-gatherer in contemporary tribal populations, the long-term continuity of symbiotic economic and social relationships between foragers and farmers is of considerable theoretical import. Over the past decade, a number of archaeologists have suggested the existence of similar interactions in regions as disparate as neolithic Europe (Gregg 1988), the late prehistoric Southwestern United States (Spielmann 1983, 1986), as well as in South and Southeast Asia. The continued existence of such patterns in contemporary South Asia provides an important opportunity for ethnoarchaeological work on the material and archaeological correlates of forager-farmer interaction. Such work will have relevance for archaeological studies of late prehistoric and historic South Asia, as well as for archaeologists working in many other regions of the world.

Ethnoarchaeological studies of subsistence and settlement practices among agriculturalists in South Asia include the work of Roy (1981) and Pratap (1987) on shifting cultivators in Assam and Bihar, respectively, and work by Roux and Sinha (1986) on agricultural technology in Northwest Rajasthan. Roy's work in Assam has focused on technological and social aspects of swidden agriculture in the subtropical zone of the Garo Hills. He sought to document the impact of environmental constraints on labor investment and coordination and seasonal variations in agricultural activities. Roy also examined the technology of swidden agriculture, in particular, the tools used and patterns of use wear. The axes and hoes used by modern agriculturalists are of metal, but Roy's work has demonstrated that the wear patterns they develop as a result of use in particular activities are quite similar to those found on prehistoric stone tools in the same region, and may result from similar kinds of use.

Roy has also recorded indigenous folk tales on the origins of these modern agriculturalists, and their beliefs concerning how cereal crops were introduced into their traditional system of root crop cultivation. Another provocative ethnoarchaeological study that examined local beliefs about origins of particular subsistence and settlement systems was conducted by Murty and Sontheimer (1980) in South India. They documented the ancient Birappa legends of the Kuruva pastoralists of Andhra Pradesh and Karnataka, and considered their relevance for understanding the origins of pastoralism in the third millennium B.C.

Ethnoarchaeological studies of South Asian villages have focused primarily on documenting specific material-culture parallels between ancient and contemporary villages, such as in house forms (Dhavalikar 1983; Nagar 1969, 1975; Rao 1965), often in the context of arguing for historic continuity between prehistoric and modern populations. These studies have not, for the most part, focused on the broader structure of subsistence or settlement.

Technologies and Craft Production

Although automation and large factories have replaced smaller scale technologies in many regions of the world, in South Asia many goods continue to be produced in small-scale workshops using ancient techniques. The continued existence of traditional potters, stoneworkers, metal casters, weavers, and other craftsmen (Pal
provides archaeologists with a tremendous opportunity to document both the technology and the organization of specialized craft production. We are also able to consider social relations between producers and consumers, as well as distribution and exchange systems—all questions of considerable importance to archaeological interpretation.

Documentation of traditional technologies in South Asia comes from many sources. From the nineteenth and early twentieth centuries, we have accounts in colonial gazetteers and early ethnographies (Baden-Powell 1972, Dobbs 1895, Halifax 1892, Mackay 1930, 1933). These accounts, though not necessarily explicitly concerned with the archaeological implications of various manufacturing techniques, nonetheless incorporate much information of interest to archaeologists on materials and techniques employed by traditional caste- and kin-based producers.

More recently, members of the ASI and the Census of India have carried out large-scale documentation projects on traditional craft production (Behura 1965, 1967a, 1967b, 1978; Biswas 1966; Bose 1982; Das Gupta 1967a, 1967b; Das Gupta and Syamchanduri 1966; Ghose 1981; Mitra 1964; Mukherjee 1978; Saraswati 1967, 1978; Saraswati and Behura 1966; Sinha, Dasgupta, and Banerjee 1961; Syamchanduri 1966; Syamchanduri and Biswas 1967). Their work has provided important information on regional traditions of craft production, as well as on the social and cultural patterns within craft-producing communities, and on the broader position of craftspeople in the contexts of caste and Indian society.

In many cases, these scholars have broadened their focus to discuss the implications of their work for interpretations of South Asian prehistory. Saraswati (1978:102–109), for example, in his discussion of Indian pottery manufacture, proposes that there exists long-term continuity in traditions of pottery manufacture in Northern India from Harappan times until the present. He further concludes that this continuity in techniques and ceramic forms derived from long-term genetic continuity within potting communities. That is, Saraswati proposes that the existence of localized endogamous communities of potters extends well back into the South Asian past, and that modern potters are the direct descendants of pre- or protohistoric potting communities.

Some archaeologists have recently begun to examine systems of traditional craft production in South Asian rural and urban contexts from an explicitly ethnoarchaeological perspective. Such work has focused on three main areas of production: ceramic vessels and fired clay figurines, bead manufacture, and metallurgy. In the following pages, I briefly describe the nature of a few of these projects, and then turn to the broader issue of the relevance of contemporary studies of craft production for interpreting the prehistoric past.

**Ceramics**

The production of earthenware ceramics is the South Asian craft most studied by ethnographers and archaeologists alike. Studies have focused on: ceramic manufacturing techniques and the organization of ceramic production (Aiyappan 1947; F. R. Allchin 1959, 1978; Ansari 1964; Banhophandhyay 1961; Biswas 1966, 1967; Bose 1982; Cort 1984; Das 1961; Das and Ray 1966; Das Gupta 1967a, 1967b; Das Gupta and Syamchanduri 1966; Dumont 1952; Foster 1956; Freed and Freed 1963; Gupta 1966; Hashim 1989; Kramer 1990; Nagar 1970; Reddy 1981; Roux 1985–1986, 1989a; Rye and Evans 1976; Sinopoli 1988; Sinopoli and Blurton 1986; and refer-
ences above, p. 181); ceramic vessel forms and ceramic use (Birmingham 1975; Junker 1985; Miller 1982, 1985); figurine production (Blurton 1987; Jayakar 1953, 1980; Jayaswal 1984, 1986; Jayaswal and Krishna 1986); distribution systems (Kramer 1990, 1991; Miller 1981); and kin and social relations among potting communities (Kramer 1990, 1991). Here, I will briefly consider the contributions of two recent studies of South Asian ceramics that are explicitly ethnoarchaeological: the first by Jayaswal, and the second by Roux.

Jayaswal's (1984, 1986; Jayaswal and Krishna 1986) research on figurine production in the Gangetic plain focused on: (1) production techniques, (2) the ritual and nonritual contexts of figurine use, and (3) regional distribution patterns. Coupled with her study of more than 800 modern potters, she examined archaeological figurines from several early urban sites in the region. Jayaswal used her knowledge of contemporary patterns of figurine production, distribution, and use to interpret the archaeological remains. Although some of her conclusions can be questioned—for example, that the widespread distribution of figurine types across a broad region necessarily implies a market system—she nonetheless provides much important and interesting information with considerable archaeological relevance beyond the South Asian context. She observed, for example, a correlation between settlement size and productive technique, with mold-made figurines produced primarily in urban contexts or for urban consumption.

Jayaswal also had the opportunity to observe firsthand the impact of centralized sponsorship of craft production among a subset of producers. These were a family of potters who produced ornamental figurines, in high demand among affluent urban consumers in Delhi and throughout India. A government grant was awarded to these potters to aid them in developing their craft and marketing structure. In documenting this success story, Jayaswal provided important information for considering such issues as technological innovation, and technological conservatism as a response to state sponsorship or consumer demands. Among the potters she studied, government sponsorship resulted in improved social and economic status and increased rates of production compared to other figurine makers in the region. Although the mechanisms of state support and figurine distribution are operating in modern market contexts, Jayaswal's data provide a useful framework for considering the relations among state institutions, technological change, and productive organization in premodern contexts. Her work also contradicts the oft-made claim that potters are inherently conservative. Jayaswal's research, along with the studies by Birmingham (1975) and Miller (1982, 1985) provide evidence that both innovation and conservatism must be viewed in their broader social and economic contexts.

Valentine Roux conducted her ethnoarchaeological study of ceramic production in the 1980s (1985–1986, 1989a). Roux was interested in examining the transmission of pottery-making skills through learning, and particularly through the practice of apprenticeship, as a means for understanding the emergence of craft specialization. She argued that there is a broad and universal link between the degree of technological sophistication in ceramic production and the degree of specialization. She focused particularly on the association of wheel-made pottery with fully developed craft specialization, and conversely the association of non-wheel-made pottery with the absence of specialization or the existence of less developed systems of ceramic specialization.
In her work, Roux examined the transmission of pottery-making skills in a New Delhi suburb that is home to more than 100 pottery-making families. She noted that the learning sequence is both formal and prolonged, beginning in childhood and proceeding through six stages into early adulthood. Roux conducted a morphological analysis of vessel forms produced at each stage of the learning process, in order to consider the material correlates of apprenticeship. Her study thus provides archaeologists with valuable information on the social context of ceramic transmission, and on the technological and physical constraints within which potters must work.

Roux next applied her ethnographic results to a consideration of the development of ceramic specialization throughout the Early and Mature Harappan periods. She suggested that “the stages of technological development of wheel-thrown pottery during the 4th and 3rd millennia seem comparable to the stages for apprenticeship in wheel-thrown pottery today” (Roux 1989a:7). That is, she argued that the process of ceramic development in the Indus region during the fourth and third millennia B.C. duplicates the process by which a contemporary potter masters his craft over 15 to 20 years, through a progression from small to large vessels and simple to more complex ceramic forms. Since wheel-made pottery, for Roux, is equivalent to specialized production, the identification of the increasing frequency and improved quality of wheel-made forms in the archaeological record throughout the Early and Mature Harappan provides evidence for the emergence and elaboration of craft specialization during that time.

This latter aspect of Roux’s work can be criticized on several grounds. It is incorrect to argue, as Roux does, that since wheel-made pottery equals specialization, non-wheel-made pottery equals nonspecialization. This claim can easily be refuted by considering such cases as the elite ceramics of the Inka empire (Earle et al. 1986) or the bevel-rim bowls of Uruk Mesopotamia (Beale 1978). Further, I would question whether the rather simple and coarsely made vessels produced by hand today are at all comparable in labor or skill requirements to the finely made and decorated hand-made vessels of the Early Harappan period.

A final and more important critique of Roux’s model concerns its logical structure. It is a logical fallacy to argue that societal change can be viewed as individual change writ large. There is no inherent reason why the process by which an individual learns a craft from a master should be the same as the process by which pottery-making techniques emerged in the first place. Nor is it clear why, if such links could be demonstrated, the time scales at which they operate are so radically different. Roux is conflating two very different issues in her interpretation, by comparing the development of individual skills with the emergence of systems of specialized production in complex societies.

Bead Making

Studies of traditional South Asian bead making include work by Mackay (1933), Trivedi (1964), and Roux and Pelgrin (1989). The most comprehensive ethnoarchaeological project on traditional bead making in South Asia is the ongoing work directed by Kenoyer, Bhan, and Vidale in Khambat, Gujarat (Kenoyer 1989; Kenoyer et al. n.d.). Khambat (Cambay) has been a center of agate bead making since at least 2500 B.C. Bead-making techniques exhibit considerable continuity from that time to the present. Kenoyer and colleagues have examined material ac-
Khambat bead making is organized in two main ways: large-scale production regulated by centralized workshops, and smaller scale production in independent workshops. The dominant centralized workshops are run by powerful merchant families. These merchants control all aspects of production, from raw material acquisition through distribution of the finished products. Regional and interregional kinship ties among merchants play an important role in bead distribution systems. The manufacturing process is directed from central workshops run by the merchants. Large quantities of raw materials and partially worked beads are stored in these workshops. Much of the actual production, however, takes place in spatially isolated households, as the proprietors farm out raw materials or partially finished products to widely dispersed artisans, each of whom is responsible for only a small stage in the highly standardized production process. Kenoyer (1989) has noted that such a pattern could be identifiable archaeologically by differential distributions of byproducts, raw materials, and finished products across a site.

Small-scale workshops run by independent entrepreneurs exist alongside the large centralized workshops. In the smaller workshops all stages of production occur in a single locale, though few individuals are involved in production. The work of Kenoyer and colleagues (n.d.) has provided documentation for multiple systems of production for a single product within a single community, and has broad implications for considering craft production in a variety of early urban contexts.

**METALLURGY**

Horne's work (1989, 1990) on brass workers in West Bengal has examined the techniques and social context of production of the traditionally mobile tribal artisan groups. Many of these brass workers now reside in a specialized community of artisans, though some are still mobile for portions of the year. They speak a different language from the dominant sedentary population of Bengal, for whom they produce elaborate rice-measuring bowls, lamps, and figurines of animals and deities. These groups present another example of mobile tribal populations who, until quite recently, have existed in a symbiotic relationship to sedentary communities.

**TECHNOLOGIES AND CRAFT PRODUCTION: DISCUSSION**

Each of the studies of craft production discussed here, and the many that I did not describe, have important implications for archaeological interpretation in South Asia and beyond. Documentation of the range of productive systems in South Asia can broaden our perspective of prehistoric productive systems in general. The information that ethnoarchaeological studies can provide about raw materials, the techniques necessary to form craft goods, and the material residues of these techniques has clear relevance for archaeological studies.

Ethnoarchaeological studies can also play an important role in the development and evaluation of models of productive organization and change. We can examine such topics as the scale and management of craft production and distribution, and the impact of social, cultural, and political factors on productive organization. In South Asia, we also have the opportunity to examine simultaneously a diverse range of technologies and goods in well-defined contexts. By contrasting ceramic production to bead making, iron working, brass casting, weaving, and so on in a single...
region or community, we are in a position to consider the coexistence of many and
diverse strategies for productive organization within a single cultural and political
context. Such work can play an important role in refining our models and
approaches to the study of economic organization in prehistoric contexts.

We would be on much less secure grounds, though, if we were to use ethno-
archaeological information to ascribe contemporary caste structure or genetic con-
tinuity to craft producers of the more distant South Asian past. Kin-based and
perhaps endogamous production groups seem to be characteristic of many, if not all,
early state societies. The Hindu caste system with its elaborate rules and characteris-
tics is, however, a unique historical manifestation, whose origins at present remain
unknown. Archaeological documentation of craft production by specialized social
or kin groups does not in and of itself demonstrate the existence of caste in pre- or
protohistoric South Asia. Archaeological evidence can potentially prove useful in
examining the origins of the South Asian caste system, but at present, we should be
very cautious in projecting caste into the past on the basis of productive organization
alone.

Social Organization and Belief Systems

The study of prehistoric social structures and belief systems through their mate-
rial remains is among the most difficult and important goals of archaeological analy-
sis. While ethnoarchaeological studies can help us to identify general behavior pat-
terns and social processes or structures, our task becomes much more difficult when
we attempt to assign more precise meanings to archaeological remains. We can rec-
ognize religious images or locales archaeologically, and we can examine the structu-
ral relations among such features. We can seldom if ever understand the precise
meanings or beliefs that the people who used and produced these materials attri-
buted to them.

To return to a point alluded to earlier, attempts to ascribe modern South Asian
cultural characteristics or systems to the past, or conversely to assign past conditions
to the present, have been all too common in the ethnoarchaeological and archaeologi-
cal literature on South Asia. This is a ready temptation, as scholars (and colonizers)
have long spoken of the timelessness and unchanging nature of South Asian
societies, and the stagnation of its technological, political, and cultural features. I do
not argue against the value or importance of using our knowledge of the present to
evaluate archaeological evidence; in fact, I view this as essential to all archaeological
interpretation. Nor do I suggest that seeking evidence for the origins and existence
of contemporary South Asian cultural traits in prehistoric times is not an important
goal for South Asian archaeology. I do suggest, however, that questions concerning
cultural continuity in South Asia must be tested rather than assumed. And I would
prefer to reserve terms such as caste, Hinduism, or even proto-Hinduism, for times
when they are historically or archaeologically well supported, rather than to use a
small number of material parallels to track these phenomena into the distant past.
Even in cases where we can demonstrate that individual material symbols have per-
sisted for centuries or millennia, we cannot easily demonstrate that their meaning or
import has remained unchanged (Trigger 1989:354). Such an interpretation would
require a great deal more contextual data than we have at present for the South Asian
prehistoric and protohistoric sequence.
I also wonder if Indologists may not have overemphasized the "timelessness" of Indian civilization(s) to such an extent that we sometimes fail to recognize the historical sequences of cultural change that have taken place throughout the subcontinent over the centuries and millennia. This conceptual legacy of South Asian timelessness, which dates back to the colonial period, has at times resurfaced in the archaeological and ethnoarchaeological literature, so that we read, for example, of "living Harappans" (Kashyap 1984) or "living Megalithic" or paleolithic peoples (Singh 1985) surviving in some corner of contemporary India.

Many of the ethnoarchaeological studies discussed above have been concerned with the material implications of various aspects of social relations and social structure, or the nature of belief systems. Among the most comprehensive ethnoarchaeological studies dealing with material culture and social structure and strategies is the work by Miller on pottery use and distribution in Madhya Pradesh (1981, 1982, 1985). Miller examined the role of goods in symbolizing social status in a caste-based hierarchical society. In particular, he documented the material implications of the process of Sanskritization, whereby lower status individuals adopt the materials used by higher status groups, as a means of raising their own position within the community structure. As a response to this challenge, groups on the top of the social hierarchy discard previously used ceramic forms for new ones, in order to retain their material (and social) distinctiveness.

The significances of the particular goods adopted and the meanings assigned to them are embedded in Hindu beliefs and caste relations. Miller focused on cooking vessels, closely tied to an elaborate set of beliefs and proscriptions involving purity and pollution in foodstuffs and intercaste commensality. The meaning of vessels was linked to the meanings of food prepared in them (high status milk products vs. low status meat products) and the status of the people using them (for example, brahmins vs. shudras). These sets of meanings were broadly shared by the pottery-using people of this community and thus could be subjected to symbolic manipulation.

Miller's study provides information on potential sources of change in material forms in a hierarchical society. When phrased in terms of a general strategy of emulation and innovation, his work has broad implications for archaeological analysis that extend well beyond the boundaries of South Asia. Archaeologists have long been able to document temporal changes in material culture in a variety of contexts, but we have been less successful in considering the reasons underlying these changes. Miller's data provide a valuable framework for considering causes of change in material culture in hierarchical societies, which can be evaluated using archaeological data from well-controlled contexts.

**Formation of Archaeological Sites**

The diversity of settlement types, building materials, and human adaptations in South Asia provides an excellent opportunity for archaeologists to examine the complex processes that affect the formation of archaeological sites. Discard practices, cultural and natural processes that affect the distribution and preservation of artifacts and organic materials, and the effects of site abandonment are all fertile topics of ethnoarchaeological research in South Asia.

Development of systematic understandings of site-formation processes will be
crucial to our understanding of the South Asian Paleolithic. Many of the most important paleolithic sites in the region are surface deposits or result from redeposition of archaeological materials in river gravels or other secondary contexts. Interpretations of these sites are limited by poor temporal control and the often sparse preservation of organic materials. Ethnoarchaeological research can provide an important tool for considering the range of natural and cultural processes involved in site formation; it can also improve our ability to interpret these fragmentary and often frustrating sites.

Despite the great potential for research on site formation in South Asia, relatively few ethnoarchaeological studies have focused on this topic. Exceptions include the Khambat bead project, discussed earlier, which is examining the deposition of bead-making debris as part of the larger project. A second project explicitly concerned with site-formation processes is presently being carried out by Luann Wandsnider in the state of Karnataka in southern India (Wandsnider 1991). Wandsnider's work focuses on short-term encampments used by semi-nomadic groups, herders, and agriculture workers. She is preparing detailed maps of the distribution of artifacts and features at a number of abandoned and still occupied sites. Interviews are also being conducted to build up detailed records on the history, use, and abandonment of individual sites.

CONCLUSIONS

Ethnoarchaeology in South Asia holds tremendous potential for archaeology, with implications for archaeological research far beyond the bounds of the Indian subcontinent. The studies I have discussed provide examples of the promise of such work and of the important results already achieved. Along with studies of contemporary communities, there exists a large body of publications on traditional technologies, settlement forms, and other aspects of material and social life that dates back to the early days of the colonial occupation of South Asia. Along with the numerous literary texts and inscriptions on society, economy, and politics that come from South Asia's precolonial states and empires, these multiple lines of evidence provide archaeologists with considerable data to develop detailed and sophisticated understandings of material culture and change in many South Asian cultural contexts. Such work has considerable import for archaeological interpretations in South Asia and beyond.

South Asian ethnoarchaeology also has its risks. The very abundance of information may lead to an uncritical acceptance of modern material parallels as direct evidence for cultural similarities between past and present. We must be wary of using such results to read too much of the present into the past, for by doing so we deny both past and present much of their distinctiveness.

ACKNOWLEDGMENTS

An abridged version of this paper was presented at the Nineteenth Annual South Asia Conference in Madison, Wis., in November 1990, in a session entitled "Ethnoarchaeology and Technological Studies in South Asia" (organizers: J. M. Kenoyer and C. M. Sinopoli). I would like to thank the participants in this session and in the discussion: Richard Meadows, Greg Possehl, and Jim Shaffer. Mark Kenoyer provided critical
comments, as well as many bibliographic references. I would also like to thank Lynne Goldstein, Henry Wright, and Michael Graves for their insightful comments on various drafts of this paper.

REFERENCES


1988 The end of "Bibipoiye" (dog not) days in the Andamans. Paper presented at the Fifth International Conference on Hunting and Gathering Societies, Darwin, Australia.

in press Analysis of the nature of contacts with the Andamans during the last two millennia. Journal of South Asian Archaeology.

in press The problem of the origins of the Andamanese. Prof. H. D. Sankalia Commemorative Volume.

Das, B. M.

Das, R., and G. S. Ray

Das Gupta, B. K.

Das Gupta, B. K., and N. K. Saxmchauduri

Dhavalikar, M. K.

 Dobbs, H. R. C.

Dumont, L.

Earle, T., C. Costin, and G. Russell

Foster, G. M.

Freed, R. S., and S. S. Freed

Ghose, B.

Gregg, S. A.

Griffin, P., Bion, and Wilhelm G. Solheim II

Gupta, J. D.

Halifax, G. J.

Hashim, Syed Anis

 Hodder, Ian

Horne, Lee
1990 Technological variation among brasscasters of Eastern India. Paper presented at the 19th Annual South Asia Conference, Madison, Wis.

Jayakar, P.

Jayaswal, Vidula
Jayaswal, V., and K. Krishna

Junker, Laura L.

Kashyap, P. C.

Kenoyer, J. Mark
1989 Khambhat bead making and the organization of production as revealed in the archaeological record. Paper presented at the 18th Annual Conference on South Asia, Madison, Wis.

Kenoyer, J. Mark, M. Vidale, and K. K. Bhan

Kramer, C.
1990 Ceramic ethnoarchaeology in Rajasthan. Paper presented at the 19th Annual Conference on South Asia, Madison, Wis.


Mackay, E. J. H.
1933 Decorated carnelian beads. M 33: 143–146.

Miller, Daniel


Misra, V. N.

Mitra, Deaba

Mukherjee, M.

Murty, M. L. K.

1985a Ethnoarchaeology of the Kurnool cave areas, South India. WA 17: 192–205.

Murty, M. L. K., and G. D. Sontheimer

Nagar, Malti


NAGAR, M., AND V. N. MISRA

PADDAYYA, K.
1982 The Acheulian Culture of Hunsgi Valley (Peninsular India): A Settlement System Perspective. Pune: Deccan College Postgraduate and Research Institute.

PAI, M. K.

POSSEHL, GREGORY L., AND K. A. R. KENNEDY
1979 Hunter-gatherer/agriculturalist exchange in prehistory: An Indian example. CA 20(3):592–593.

PRATAP, AJAY

RAJU, D. R.


RAO, M. S. NAGARAJA

REDDY, G. R.

ROUX, V.
1985–

1989a The Potter’s Wheel: Craft Specialization and Technical Competence. New Delhi: Oxford University Press and IBH.


ROUX, V., AND J. PELEGRIN

ROUX, V., AND A. K. SINHA

ROY, S. K.

RYE, OWEN S., AND CLIFFORD EVANS

SARASWATI, B.


SARASWATI, B., AND N. K. BEHURA
SINGH, O. K.  

Sinha, S., B. K. Dasgupta, and H. N. Banerjee  

Sinopoli, Carla M.  

Sinopoli, Carla M., and T. Richard Blurton  

Spielmann, K. A.  


Syamchaudhuri, N. K.  

Syamchaudhuri, N. K., and S. K. Biswas  

Trier, Bruce G.  

Trivedi, R. K.  

Vishnu-Mittre  

Wandsnider, L.  