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THE CULTURAL ECOLOGY OF SERVICE NOMADS

INTRODUCTION[1]

The anthropological literature deals mainly with two kinds of nomadism: pastoral nomadism and the nomadism of some hunting and gathering peoples. Spooner (1973 : 3) considers these two forms to be the "major types" of nonsedentary adaptation, apparently dismissing any other form as minor. Krader (1959 : 499) adds one more type: nomadic farming. Johnson (1969) deals only with pastoral nomadism, as do the authors in the collections edited by Nelson (1973) and Irons and Dyson-Hudson (1972). Yet it seems that, at least in South Asia, there is another type of adaptation, neither pastoral nor hunting and gathering, which should be considered to be nomadic.[2] The purpose of this paper is to describe the cultural ecology of this adaptation and to define a category of non-pastoral nomadism.

The people I am concerned with travel in well-settled areas in India, supplying goods and services to villagers and towns-people. Since this is their major economic activity I call them *service nomads*[3]; it is their adaptation which will be dealt with below. Until recently these peoples have been little studied by anthropologists. After the initial article by N. K. Bose (1956), several articles by K. C. Malhotra (1974) and P. K. Misra (1964, 1965, 1969a, 1969b, 1970, 1971, 1975, 1977; Misra, Rajalakshmi and Verghese 1971) have been the major descriptions in the literature. Most of these papers have dealt with specific aspects of specific nomadic groups, although Misra (1969a, 1970) has raised some of the points wnich will be discussed below. As yet, no one

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has provided a general description of this type of non-pastoral nomadism, and this paper is meant to delineate some of the attributes of this adaptation. Pastoral and service nomadism will then be contrasted so that the similarities and dissimilarities of the two adaptations will be clearly visible. As Barth (1973 : 11) has suggested, studies of nomadic nonpastoralists can be used as test cases for general approaches to pastoralism, and this paper aims to facilitate such testing. Finally, consideration will be given as to why service nomadism is so prevalent in India, and some thoughts will be presented as to the future of the adaptation.

SERVICE NOMADISM CONTRASTED WITH PASTORAL NOMADISM

The most important aspect of the service nomad adaptation is their nearly total dependence on the sedentary people amongst whom they move. Pastoral nomads also must deal with sedentary people (Bates 1973; Cole 1975: 105-111; Nelson [ed.] 1973), but this interaction is often much less intense than of service nomads. The point needs stressing: almost the entire income of service nomads is based on being paid by sedentary people. In a sense, service nomads are much more concerned with exploiting the social environment than they are with the natural environment, except as the latter limits the ability of the former to afford support. This brings up a major difference between pastoral and service nomads: while the pastoralists generally utilize land that is only marginally usable for agriculture (Johnson 1969 : 2; Spooner 1973 : 40), service nomads must circulate in areas which are heavily enough populated for them to consistently market their goods and services.

This dependence on sedentary peoples becomes particularly apparent if we look at the economic orientations of service nomads. In general, at least in India, each group will perform one primary occupation, and each may have one or more secondary occupations (cf. Misra 1970 : 170-193). These occupations can be put into three classifications: entertainment, religious ministration, and the practice of crafts or special services.

Entertainment as a primary occupation is illustrated by the Nandiwallas (Malhotra 1974). These people perform tricks with trained bulls, and the villagers and townspeople pay to observe this. This practice can also have a religious connotation, since the bull (*nandi*) is the vehicle of Lord Siva; this shows that the tripartite classification of occupations is not mutually exclusive. Entertainment occupations noted in Misra's survey of nomads in Mysore (now Karnataka) and Andhra Pradesh include story telling, "wearing different make ups", "acrobating", snake-charming, and the recitation of verses (Misra 1970 : 170-193); the author has also observed jugglers, top-

spinners, and displayers of trained bears. Doubtless other entertainment occupations exist.

Religious practitioners found by Misra sing devotional songs, display images of deities and engage in different manners of *bhiksha*[4] (Misra 1970 : 170-193). In addition, groups of monks or individual mendicants have long roamed India begging and bestowing blessings. The British tacitly recognized the commonness of this practice by excluding *sadhus* [holy men] from the strictures of the Criminal Tribes Acts (Act 3 of 1911 ; Act 6 of 1924) which were otherwise aimed at nomads (Misra 1970 : 153-154; implied by Havanur 1975 pp. 326-327). And, as noted for the Nandiwallas, some entertainers, such as singers, may perform religious functions. In this connection, the Hindu view that both begging (cf. *bhiksha*) and giving to beggars is meritorious must be noted (Misra 1970 : 161), since in this sense almost all nomads can serve a religious function.

The third occupational category is that of craftsman or provider of services. Misra (1970 : 170-193) lists blacksmiths, broom and basket makers, fortune tellers, magicians, shavers of buffalo, sellers of medicine, genealogists, tattooists, performers and several others. The length of this list is meant to illustrate the breadth of crafts and services practiced and provided ; there are apparently large numbers of highly specialized nomads roaming the Indian countryside. It should also be remembered that all of the above occcupations are only the primary ones of each group. Most also practice secondary occupations, e.g. selling trinkets or liquor.

The sheer variety of these occupations contrasts sharply with those of pastoral nomads. While it seems to be common enough for pastoral nomads to supply animals and animal products to sedentary people, other economic activities are more limited for them. Barth (1961 : 109) indicates that the few jobs which are available to nomads in Iran which are not concerned with their own animals require the maintenance of ties with a particular village, and may in time lead to sedentarization. While pastoral nomads may well exploit resources other than their herds (Salzman 1972; Spooner 1972 : 130) their economy is mainly based on the herds and they have only limited opportunities to obtain necessary commodities which cannot be directly derived from herding. In one sense, the pastoral nomad can be viewed as being similar to the peasant farmer in that both can produce directly only part of what they need and must obtain the rest, which can be quite varied (see Bates 1973 : 158-159), from other sources. Such exchanges, of course, are an essential feature of the relations between pastoral nomads and farmers. The point here is that due to the requirements of herding virtually all pastoral

nomads will practice occupations which are closely connected with their herds. Therefore, these occupations can vary only as herds vary, and since only a few species can be profitably herded pastoral nomads will exhibit only a few occupations. In contrast there is very wide scope for varying occupations among service nomads.

The occupations of pastoral and service nomads vary in another important way. Pastoralists can consume part of their own production as part of their subsistence : they can eat meat, milk and blood, otherwise utilize products of their animals, such as skins or wool (see, e.g. Bates 1973 : 149-156). That is pastoral nomads obtain part of their subsistence from their herds, while service nomads can meet very few of their subsistence needs from their own resources. While both groups must obtain some goods from settled people it seems that service nomads are much more dependent than pastoralists upon farming peoples for necessities.

This last point is important because it follows from it that pastoral nomads are more likely than service nomads to be able to vary their routes of migration. The reasoning here is that since service nomads must have all of their subsistence needs supplied by settled people they will have to establish patterns of migration which make such supply as certain as possible. Certainty can be increased by maintaining relations recurrently with specific settled persons. Since such relations must be maintained with regularity, and since no one area can support a nomadic group for too long a period of time, it is necessary for service nomads to create routes of migration which will carry them constantly to places where they know that provisions will be available. This is made as certain as is possible by regularly returning to groups who are already known. Lack of the means to support themselves for even short periods of time severely limits the ability of service nomads to vary their route, since a wrong guess can lead to economic disaster.

That such is the case is indicated by the Nandiwalla data. The Tirumal Nandiwallas several times said that they all knew where the others were when they travelled. Indeed, such knowledge is sometimes crucial for dispute processing, when it becomes necessary to send for one of the headmen (Hayden and Malhotra 1977 : 116). Since the Nandiwallas range over a fairly large area (Malhotra 1974 : 80-84), it is plain that fairly close itineraries must be kept if contact is so easy.

It is of course true that some pastoral nomads must also adhere to strict schedules. Barth (1959 : 9) has described such a situation in Iran and Bates (1973 : 9-20) another in Turkey. On the other hand, some pastoral nomad groups are able to greatly vary the timing and route of their migrations; the

Al Murrah Bedouin (Cole 1975 : 39-53) provide a good example of this flexibility. For these people, variations in route may be necessitated by the climate (Cole 1975 : 42), but it may also be due to social or political causes (see, e.g. Cole 1975 : 51). In any event, while some pastoral nomads can and do vary their routes, it seems doubtful that service nomads can afford to do so.

Both pastoral and service nomads are territorial, in that both have land areas which they consider to be theirs, at least in regard to other people so adapted. This congruence is due to a common feature of their diverse economic adaptations: both pastoral and service nomads must exploit resources which can support only a limited number of people for a long period of time. Pastoral nomads move because the physical environment will only support their herds for seasonal periods. Service nomads move because the people in no single area will supply a perennial market for their specialized goods and services. In both cases the resources being exploited are too thin to permit competition. Hence, through territorial division or dispersion the numbers of people living off a given area by the same exploitative technique is regulated and limited. A good example of this among service nomads is provided by the Nandiwalla assignment of *vatans*, or villages where one may display one's bull, to individuals (Malhotra 1974 : 80). Among pastoralists, the assignment of wells in the desert (Cole 1975 : 86), or pastures in the hills (Bates 1973 : 121-142) serves the same purpose.

From all of the foregoing it can be seen that while service nomads and pastoral nomads share some features there are also important differences between them. It is now possible to delineate a general description of service nomadism. This will be followed by a consideration of why service nomads are so widespread in India, their future prospects, and finally, a consideration of the importance of the study of non-pastoral nomads to the general problems presented by nomadic societies.

A GENERAL DESCRIPTION OF SERVICE NOMADISM

1. The economy of service nomads is based almost completely on what they can exchange and obtain from settled people. They produce a very small part of their own subsistence needs. Therefore service nomads can only operate in fairly well-settled areas, since only such areas can supply them with the markets needed for their services. 2. Some groups of service nomads (e.g. Nandiwallas and Gaudulia Lohars) are highly specialized in the primary services they supply, though they generally also have secondary occupations. 3. Since any given area will offer only a limited market for any special

occupation, service nomads will attempt to restrict competition by allocating territorial rights to operate to specific individuals or subgroups. 4. Service nomads' near total dependence upon sedentary communities requires that they maintain strong ties with the latter. This is necessary to provide certainty in the availability of market resources. 5. The necessity of maintaining contacts with the settled people limits variabity of routes which service nomads can take. Again, this is due to service nomads' needing assured markets for their services. Entering new areas is an uncertain proposition, and since service nomads produce very little of their own subsistence needs they are not very well able to support themselves in searches for new markets. At the same time, excursions into new lands could lead to clashes with other, similar nomadic groups who are already working the territory (see 3, above).

This is a general description of the cultural ecology of service nomads. It is concerned with strategies of exploitation of economic resources, rather than with patterns of social structure. Unlike Spooner's (1973) model of pastoral nomadism, it deals only with the economic base of the adaptation and not with the super-structure, for in my view, it is in terms of their economic bases that comparisons with pastoral nomadism will be most productive.

SERVICE NOMADISM IN INDIA

This typology of service nomadism outlined above was inspired by Indian examples. While service nomads may be found in other geographical areas (e.g. Arabia, see Cole 1975 : 105-106) they seem to be particularly prevalent in India. Their scarcity elsewhere may be shown in the lack of ethnographic reports on them, although since even the Indian reports are so few, this lack may reflect more a bias of anthropologists to overlook such phenomenon than a paucity of service nomads. In any case, there are several features of Indian society which have made service nomadism particularly viable in India.

The first of these features is the general identification of social groups with specific occupations. This can be seen at the ***varna*** level, where Hindu society is divided into Brahman (priest), Kshatriya (warrior), Vaishya (artisan) and Sudra (laborer) strata. On the ***jati***[5] level each ***jati*** is generally perceived as having a hereditary occupation, which is identified with the name of the particular ***jati***. Thus, ***dhobis*** are washers, ***chamars*** work with leather, Nandiwallas (***Nandi***=sacred bull; ***walla***=one who is associated with [the preceding noun]) exhibit bulls. Even after groups give up their traditional occupation they retain their original caste names. Misra's (1970)

table of nomads lists several groups which are known by trades they no longer practice, and the Nandiwallas studied by the author in Pathardi Taluka, Ahmednagar District, Maharashtra have almost entirely given up bull performing, though they are still popularly associated with it and are known as Nandiwallas.

As Bose points out (1956 : 2), this hereditary association of social groups with occupations is important for the operation of non-pastoral nomads since it creates a division of labor by which every individual is at least nominally classified as a worker of a certain job. In a sense there is a recognition of it. Further, this clear association of individuals and groups with certain occupations facilitates the operation of the *jajmani* system. It is the existence of *jajmani* which is probably the most critical factor in maintaining the varied systems of non-pastoral nomadism now seen in India.

Jajmani relations are "durable relations. . . . essentially those between a food-producing family and the families that supply them with goods and services" (Mandelbaum 1972 : 161). Mandelbaum stresses that *jajmani* ties are between families, not *jatis* (1972 : 162), but are enforced by the *jatis* involved (1972 : 163, 174). Thus while the individual ties of *jajmani* are between families, the existence of these individual ties creates a reciprocal relationship between the larger units, the *jatis*.

The ties between service nomads and sedentary people are not exactly like those of *jajmani* but they are analogous. The Nandiwallas provide a case in point. Individual Nandiwalla families—usually nuclear, but occasionally extended—have rights to operate in certain villages. These rights are inheritable and exclusive, although a man who has such a right may allow others to operate in his territory for a suitable fee (Malhotra 1974 : 80). It is important to note that these rights are enforced and protected against encroachment by the *jat-panchayat* (caste council), and fines and restitution are collected from persons caught violating another's territory (Hayden and Malhotra 1977 : 115). Thus, as in normal *jajmani*, the *panchayat* of the suppliers' *jati* will protect established relations against encroachment.

Unlike normal *jajmani*, however, the ties of the individual nomad family seem to be with villages, not specifically with other families. It is the village which permits the nomad to ply his trade, and according to the Tisgaon Nandiwallas, it is the village, not the *jat, panchayat* which deals with dispute cases between Nandiwallas and villagers[6]. What is implied by the Nandiwalla informants is that there are established relationships between individual families and particular villages and that these relationships are regulated by

the Nandiwalla *jat-panchayat* and the village *panchayat*. Thus the relationship is closely analogous to traditional *jajmani* and is probably patterned after it.

A third feature facilitating service nomadism in India is seen in the Hindu attitude towards *bhiksha*—begging as meritorious (see note 4). This permissiveness towards begging is clearly advantageous to service nomads, who otherwise might not fare quite so well, or be so well received.

Thus, the existence in India of established, hereditary occupational groups who relate to each other in formal ties of economic exchange, protected against encroachment by others, coupled with the charitable Hindu view of begging, creates a social environment that is highly congenial to the existence of service nomadism. This congenial environment may help to account for the wide variety of types of service nomads in India, as compared with other parts of the world.

There are indications, however, that this congenial environment is becoming somewhat hostile, and that service nomadism as an economic adaptation is becoming less viable. Misra (1969b: 307-308) says that the nomads' standard of living is declining; that they are "backward classes" who are becoming even more backward. This latter view was shared by the Karnataka Backward Classes Commission (Havanur 1975 : 330-331). In response to this evaluation, some attempts have been made to sedentarize service nomads (see Misra 1969b and references therein). Some of these attempts have been successful, though most have not (Misra 1969b : 313-314).

The entertainment nomads seem to be the ones whose adaptation is becoming least profitable. Misra would seem to agree, judging from the list he gives of professions which are declining in importance (1969b : 307). Certainly the Nandiwallas are giving up their traditional activities. Many of the Wadapuri Nandiwallas have gone into bull trading instead of performing, while other Nandiwallas have switched to trading in buffalos. For them, it is obvious that there is more money in these new occupations, but it seems likely that they would not have been adopted had the traditional occupation continued to be profitable.

This decline in importance of the entertainment adaptation is probably caused by the increasing spread and popularity of modern forms of mass entertainment, particularly Hindi films and film music broadcast over the radio. India has the largest film industry in the world and its products are immensely popular. Film music seems to have become the new folk music. The Nandiwallas now play and sing film music to accompany their bull performances, in place of the traditional songs.

While some are changing occupations, at least some of the Nandiwallas are attempting to settle. K. C. Malhotra (personal communication; see also Malhotra, Hulbe, Kolte and Khomne 1976) reports that some Nandiwallas have managed to obtain land in Ahmednagar District; others asked for assistance in acquiring land during our fieldwork in 1976. These people have a growing desire to settle, which Misra (1969b : 313-314) seems to consider to be one of the elements most critical for the success of sedentarization efforts. At the same time, however, there may be problems associated with such sedentarization. First, and probably most important, is the economic problem: how are newly sedentarized nomads to support themselves? Farming requires land, capital and training, and all of these may be in short supply. Even when all of these can be provided, it will require very careful planning to avoid the disruption of local economies by the sudden introduction of an increased number of farmers. When the large number of nomadic groups in India is considered it is clear that some large-scale, centralized planning is called for.

A second problem for some groups could be a decline in status as they settle. Looking to the Nandiwallas, such a decline seems likely in some cases. The Nandiwallas are traditionally a "touchable" group (Malhotra 1974 : 70), but the land that they are acquiring is usually outside of the main village, sometimes next to the untouchable Mangs and Mahars. Whether such unfortunate locations will actually bring about a decline in status remains to be seen, but the possibility is certainly there.

It seems likely that as India continues to modernize her economy the nomadic adaptation will become increasingly less viable. Other means of providing the services now supplied by the nomads will probably develop. Further, political pressure to settle the nomads will probably increase. As Misra (1969b : 308) notes, nomads do not fit very well in the "Welfare State" of India, and it seems likely that efforts will be made to "advance" the nomads' economic and social status. Contemporary national governments do not seem to view nomadism with any great favour, and attempts at both forcible (e.g. Iran [Irons 1971; 1973] and Turkey [Bates 1973 : 21-22]) and peaceful sedentarization (e.g. Arabia [Cole 1975 : 144-178]) are quite common. Thus it seems unlikely that service nomadism will thrive in India in the future, although it may well persist among some groups for quite some time.

CONCLUSION : THE IMPORTANCE OF THE STUDY OF SERVICE NOMADS

This paper has introduced a type of non-pastoral, non-hunting and

gathering nomadism. While this may be interesting simply as another type of economic adaptation, I think that the study of service nomads has relevance in at least two specific contexts.

First, I suggest that South Asianists should examine the role of service nomads in regard to particular villages and attempt to determine how important, both economically and socially, these groups are in the life of the villages. The diversity of occupations provided by service nomads and their probable pan-Indian distribution suggest that they have been beneficial to the settled people and have been integrated into village economies. Given this fact, any study of Indian village economics should consider the economic importance of service nomads. Furthermore, if some service nomads are successfully supplying villages with needed goods and services, perhaps government development schemes should attempt to support this interaction, rather than sedentarize the nomads. This paper has attempted to analyze the importance of sedentary people to the nomads; studies of the importance of the nomads to sedentary people would seem to be equally necessary.

Second, as already mentioned, studies of service nomads can provide tests for nomadism. That is, a method of controlled comparison can be utilized, with the service nomad adaptation providing the comparative model for selected features of pastoral nomadism. For example Spooner (1973 : 41) postulates that the size of the local group among pastoral nomads must constantly fluctuate with the size of the herd, and furthermore that such fluctuation leads to social instability at the level of the local group, which is counteracted by ideological rigidity. Studies of service nomads may help determine whether (a) fluctuation in local group size is necessitated by fluctuations in herd size, or by the exigencies of travel, and (b) if such fluctuation does occur, whether it is likely to be associated with an "inflexible ideology." In short, service nomads may well provide the test cases against which theories of nomadism can be tested, and revised if necessary.

NOTES

1. Support for field research in Maharashtra in the summers of 1975 and 1976 was provided by the Indian Statistical Institute, Calcutta and, in 1976, by the Centre for Studies of Rural Development, Ahmednagar College, Ahmednagar. This support is gratefully acknowledged. Drs. C. Frantz, K. C. Malhotra and P. K. Misra made helpful comments on an earlier draft of this paper, but they are not, of course, responsible for its contents. That responsibility rests with the author.

2. "Gypsies" are, of course, a type of non-pastoral nomad, indeed the type best known in the West. I will not, however, in this paper deal with gypsies, for two reasons:

(1) very little research by trained anthropologists has been done among them, and (2) the work which has been done was undertaken in more developed nations than I am here considering. I am interested in non-pastoral nomads in a traditional village-oriented economy, and the gypsy material does not seem to be suitable. Nevertheless, much of what is said in this paper probably applies to gypsies, but further research on such application is necessary.

3. While I recognize that etymologically *nomad* is derived from Greek and indicates pastoralism, it seems still to be proper to use the word to refer to non-pastoralists. Dictionary definitions emphasize physical movement and it is movement which seems to be most thought of in modern usage. Such is illustrated by the application of the term to non-pastoral hunters and gatherers by Spooner (1973 : 3).

4. *Bhiksha* refers to "alms in general religious contexts" (Bharati 1970 : 278). It is a form of begging, but should more accurately be viewed as acting as a mendicant; giving alms to such a person is viewed as meritorious to the giver. It is a common practice for Hindu monks (see Bharati 1970 : 157-167 for an excellent first hand account).

5. The English glosses for *varna* and *jati* have long caused confusion, due to the varied possible meanings of each. To most modern social scientists, *varna* is now considered to indicate the overriding class division in Hindu society, as described in Rg Veda X : 90 (Embree 1966 : 25-26) while *jati* refers to the localized endogamous groups which are commonly associated with the English word *caste* (Beteille 1965 : 46). Note, however, that confusion still can arise because of the varied uses of *jati* in the Indian languages; an Indian informant is quite apt to use *jati* in violation of the above distinction (Harper 1968 : 51*n*.).

6. This information was elicited from respondents and has actually not been observed. However, it corresponds with the relations existing between the Tirumal Nandiwalla of Wadapuri and the village of Wadapuri. Nevertheless, the conclusion should be verified by direct observation; this is planned for later fieldwork.

REFERENCES

Barth, Fredrik

1959 The Land Use Patterns of Migratory Tribes of South Persia. Norsk Geografsk Tidskrift, Band XVII.

1961 *Nomads of South Persia*. Boston : Little, Brown.

1973 "A General Perspective on Nomad-Sedentary Relations in the Middle East", in C. Nelson (ed.) (below).

Bates, Daniel G.

1973 *Nomads and Farmers : A Study of the Yoruk of South-eastern Turkey*. Ann Arbor: University of Michigan Museum of Anthropology, Anthropological Paper No. 52.

Beteille, Andre

1965 *Caste, Class and Power*. Berkeley: University of California Press.

Bharati, Agehananda

1970 *The Ochre Robe*. Garden City: Doubleday.

Bose, Nirmal K.
1956 "Some Observations on Nomadic Castes in India", *Man in India*. 36.

Cole, Donald P.
1975 *Nomads of the Nomads*. Chicago : Aldine.

Embree, Ainslee T. (ed.)
1966 *The Hindu Tradition*. New York: Modern Library.

Harper, Edward B.
1968 "A Comparative Analysis of Caste: the United States and India", in M. Singer and B. Cohn (eds.), *Structure and Change in Indian Society*. New York: Wenner-Gren Foundation.

Havanur, L. G.
1975 *Report of the Karnataka Backward Classes Commission*. Bangalore : Government of Karnataka. Vol I : I.

Hayden, Robert M., and K. C. Malhotra
1977 "Dispute Processing Among a Group of Non-Pastoral Nomads : The Nandiwalla", *The Eastern Anthropologist*. Vol. 30.

Irons, William
1971 "Variation in Political Stratification Among the Yomut Turkmen", *Anthropological Quarterly*. 44.
1973 "Variation in Economic Organization : A Comparison of the Pastoral Yomut and the Basseri", *Journal of Asian and African Studies*. 7.

Irons, William, and Neville Dyson-Hudson (eds.)
1972 *Perspectives on Nomadism*. Leiden : E. J. Brill.

Johnson, Douglas L.
1969 *The Nature of Nomadism*. Chicago : University of Chicago, Dept.of Geography, Research Paper No. 118.

Krader, Lawrence
1959 "The Ecology of Pastoral Nomadism", *International Social Science Journal*. 11.

Malhotra, Kailash C.
1974 "Socio-Biological Investigations Among the Nandiwallas—A Nomadic Caste-Cluster in Maharashtra", *Bulletin of Urgent Anthropological Research*. 16.

Malhotra, K. C., S. K. Hulbe, S. B. Kolte, and S. B. Khomne
1976 *A Preliminary Report on the Socio-Biological Survey Among the Semi-Nomadic Nandiwallas and Devwallas of Maharashtra*. Center for Studies of Rural Development, Ahmednagar College, Ahmednagar. (Mimeo).

Mandelbaum, David G.
Society in India. Berkeley : University of California Press.

Misra, P. K.
1964 "The Nomadic Gadulia Lohars : Their Region of Movement and the Composition of a Band", *Proceedings of the Symposium on Problems of the Indian Arid Zone*. Paris: UNESCO.
1965 *The Economy of a Nomadic Artisan Community—A Study of the Economy and Society Among the Nomadic Gadulia Lohars of Eastern Rajasthan*. Unpublished Ph.D, dissertation, University of Lucknow.

1969a "Nomadism in India", *Journal of the Indian Anthropological Society*. 4.

1969b "Rehabilitation of Nomads : A Review", *The Eastern Anthropologist*. 22.

1970 "Study of Nomads", in S. Sinha, ed. *Research Programmes in Cultural Anthropology and Allied Disciplines*. Calcutta : Anthropological Survey of India.

1971 "Nomads in a City Setting", *Man in India*. 51.

1975 "The Gadulia Lohars", in L. S. Leshnik and G. Sontheimer (eds.), *Pastoralists and Nomads in South Asia*. Wiesbaden : Otto Harrassowitz.

1977 *The Nomadic Gadulia Lohar of Eastern Rajasthan*. Calcutta: Anthropological Survey of India.

Misra, P. K., C. R. Rajalakshmi, ad I. Verghese

1971 *Nomads in the Mysore City*. Calcutta: Anthropological Survey of India.

Nelson, Cynthia (ed.)

1973 *The Desert and the Sown*. Berkeley: Institute of International Studies, University of California.

Salzman, Philip C.

1972 "Multi-Resource Nomadism in Iranian Baluchistan", in William Irons and Neville Dyson-Hudson (above).

Spooner, Brian

1972 "The Status of Nomadism as a Cultural Phenomenon in the Middle East", in William Irons and Neville Dyson-Hudson (above).

1973 "The Cultural Ecology of Pastoral Nomads", *Addison Wesley Module in Anthropology* No. 45.