

afflicted the !Kung for a long time. This has been attributed to mobility, feeding practices, long lactation, low body fat, and other ecological factors. Another possibility is that the !Kung suffer from the same infectious and presumably venereal infertility as their neighbors. The presence of this disorder among the oldest !Kung for whom reasonable estimates could be generated suggests that biological contact between !Kung and Herero is old in the region.

The second line of evidence comes from mitochondrial DNA, genetic material that is transmitted from mother to daughter but not from father to offspring. Vigilant et al. (n.d.) find that mitochondrial DNA in a sample of !Kung implies a branching history of our species in which !Kung occupy one branch and the rest of humanity another. A good world sample is not in yet, and our finding may not hold up, but it does show that the !Kung are truly genetically different from their neighbors. At the level of genetic material they do not look like members of an old, established regional social hierarchy, in the sense that !Kung do not include descendants of downwardly mobile Herero or other members of "higher" classes. The mitochondrial work is concordant with evidence from nuclear markers (Harpending and Jenkins 1973).

ROBERT K. HITCHCOCK

Department of Anthropology, University of Nebraska, Lincoln, Neb. 68588-0368, U.S.A. 30 x 89

Solway and Lee shed light on a number of important issues in what might be termed the "Kalahari forager-agropastoralist debate." The conclusions that they reach concerning the range of variation in San adaptations in the Kalahari and the differential effects of contact and interethnic interaction are quite important.

The ethnohistorical and ethnographic research conducted in the central portion of southern Africa over the past several decades supports the argument that some San groups were incorporated into patron-client relationships while others chose to forage for a living and still others oscillated back and forth between foraging and food production, depending upon environmental, economic, and sociopolitical conditions (Vierich 1981, 1982b; Hitchcock 1978, 1987). There is also evidence that San were involved in wage labor both in the mines and on farms of southern Africa. Virtually every anthropologist who has worked among San has taken note of the fact that they exhibit a wide array of adaptive strategies. These patterns of socioeconomic variation existed at the time contacts between San and Europeans occurred in the 19th century as well. On the one hand, statements are made to the effect that San "have a great aversion to agriculture and cattle breeding" (Holub 1881:349) and that they are not "able to accustom themselves to a settled dwelling place" (Mohr 1876:156), while, on the other, travellers point out that some San kept domestic animals and raised crops (Chapman 1971 [1868], vol. 1:154; Oates 1881:178-80).

It is not unlikely, as Schrire (1980) has argued, that at least some San were pastoralists at some point in the past who lost their herds. Indeed, there is both ethnohistoric and ethnographic evidence to support this suggestion. James Chapman, travelling through the eastern Kalahari in August 1853, was told by the San there that their forefathers had owned cattle but had lost them as a result of extreme cold (Chapman 1971 [1868], vol. 1:109). San in the northeastern and southeastern Kalahari told me that they had lost their cattle as a result of droughts in 1933 and the 1960s.

There is no question that most San today want to have livestock of their own. Some people are getting them, through purchase, payment for labor, gifts, inheritance, or government livestock loan schemes. At the same time, it is important to note that very few Kalahari San households have sufficient numbers of animals to be considered self-reliant pastoralists. There are ecological, economic, and social constraints that must be overcome in order for San to get and maintain access to livestock. Ecological constraints include low-quality grazing, lack of water, predators, disease, and poisonous plants (e.g., mogau, *Dichapetalum cymosum*). Economic constraints include getting sufficient funds to purchase stock; the wages of herders are low (averaging less than \$5-10 per month) and paid irregularly. Even in situations in which San get an animal a year as payment for their services, they are often given males. Many Tswana will not sell cattle to San, saying, "What good is a cow to these people? All they will do is kill and eat it." San livestock is sometimes confiscated by other cattle owners who claim that they have been responsible for stock theft or for the loss of animals they were supposed to be watching over. Sometimes government officials (e.g., Department of Veterinary Services staff) take San animals away on the pretext that they are being kept too close to veterinary cordon fences and as such are a threat in terms of the spread of hoof-and-mouth disease. San livestock owners must also contend with pressure to give them to other individuals within their own groups or to kill them and distribute the meat among group members.

Archaeologists have traditionally held that people living closest to food producers (agriculturalists or pastoralists) will have the greatest degree of dependence on crops or livestock. Data on Kalahari San food production reveals, however, that this is not the case. Those San living on the peripheries of villages, for example, tend to be less involved in their own crop and domestic livestock production than those who live in remote areas. Part of the reason for this is that the people near villages often have alternative means of making a living, such as working for others. In addition, cattle damage is a serious problem for people trying to raise crops.

There are several points in Solway and Lee's paper which need clarification. First of all, the argument that the central Kalahari was, by law, free of large-scale village and livestock development is true only in a relative sense. There is oral-history evidence that suggests that San kept livestock in the central Kalahari in the 19th

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century, and today, in spite of the laws, there are nearly 3,000 goats, 275 donkeys, and 60 horses in the Central Kalahari Game Reserve (Hitchcock 1988:A4-76). Secondly, although archaeological investigations have yet to be carried out in the western Kweneng District, the presence of Early Iron Age ceramics on pans and in fossil river valleys in other parts of the Kweneng, in the central Kalahari, and in the Ngwaketse District to the south suggests that agropastoralists may well have visited the area on occasion well before the end of the 1st millennium.

The use of the term *mafisa* to describe one type of relationship between San and Tswana also needs to be examined. The tradition of giving cattle to other people to manage in exchange for their being able to use the products of those animals (e.g., milk, draft power) is well-established in Botswana. The custom of making long-term loans of cattle, known as *go fisa* in Setswana, serves several purposes. It helps cattle owners to spread their animals around and thus reduces risk; it enables them to cut down their herd sizes, thus facilitating management; it provides a means of hiding wealth from other people, including tax collectors and jealous relatives; and it is a means of creating alliances and currying favor. The majority of *mafisa* relationships involve people of the same ethnic group, even sometimes the same family. Judging from interviews in several parts of the Kalahari, it is relatively rare for San to be given *mafisa* animals. Cattle owners usually lend livestock to people who already have some cattle of their own, something that is true for only a minority of San. Also, Herero, Tswana, and Mbukushu cattle owners often state that they consider San bad risks and therefore are reluctant to lend them their cattle. In the eastern Kalahari, less than 1% of the 666 households on which data were collected had *mafisa* animals (Hitchcock 1978:298-99). Even though San sometimes refer to the cattle they are watching over as *mafisa*, this may suggest a more institutionalized kind of interaction than actually exists.

Finally, while it is true that some San could withdraw from their involvement with Tswana and other agropastoralists, they often did so under the threat of punishment. There are numerous references in the ethnohistoric literature and in government reports to the beatings that San received for leaving their "masters," and in some cases people were killed (Tagart 1933, Joyce 1938). The options of changing jobs or of returning to mobile foraging were certainly available, but they involved a fair degree of risk in a complex social and natural environment.

TIM INGOLD

Department of Social Anthropology, University of Manchester, Roscoe Building, Brunswick St., Manchester M13 9PL, England. 4 XI 89

Though I am not qualified to comment on the specific historical and ethnographic material that Solway and Lee adduce in support of their argument, I am much in

sympathy with their general point of view. My comment focuses on the theoretical issues raised in the final pages of the paper and is more a suggestion than a criticism. I agree that debates about hunter-gatherers have often paid inadequate attention to the precise meanings of key terms such as "autonomy" and "dependency" (though see Ingold 1986a: chap. 9; Myers 1988), but surely the most crucial and neglected term of all is "society." In treating both autonomy and dependency as possible conditions of a *society*, in its relation to other societies, Solway and Lee do not question the applicability to hunter-gatherers of the concept of society itself. Yet I would maintain that this concept is part and parcel of what they would call "agrarian discourse," in which "structures of domination are taken as given." Society, as Levine and Levine (1975:177) put it, "is domination" (see Ingold 1986b:258 for a discussion of this idea).

In characterizing the social life of hunters and gatherers, what we are really attempting to get at is a certain *quality of relatedness*, both among people and between people and their environments. In other words, our aim is to discover the properties of hunter-gatherer *sociality*. Thus, when we examine the relations between hunter-gatherers and their agrarian or pastoral neighbours, we are really concerned with the articulation between one kind of relatedness (or sociality) and another rather than between one kind of society and another. It is only within the framework of non-hunter-gatherer (or, let us say, "agrarian") sociality that hunter-gatherers are seen as existing in "societies." The concept of society carves the world of human beings into mutually exclusive blocks in much the same way as the agrarian concept of territory carves up the country they inhabit. If the latter implies a relation of domination and control over the land, the former implies a relation of domination over people. Hunter-gatherers exist in "societies" for those who would seek to exert their control over them but not for the hunter-gatherers themselves. Their world is not a socially segmented one, for it is constituted by relations of incorporation rather than exclusion, by virtue of which others are "drawn in" and not "parcelled out."

The essential difference between hunter-gatherer and agrarian sociality, I believe, is that whereas the latter is based on domination the former is based on *trust* (see Gambetta 1988 for some exemplary discussion of this concept). Both domination and trust imply dependency, but trust implies acceptance rather than denial of the autonomy of the other on whom one depends. That is why personal autonomy is such a fundamental feature of hunter-gatherer social relations. The peculiar difficulty in characterizing the relations between San and non-San neighbours, which is the central problem of Solway and Lee's contribution, may lie precisely in the fact that on the one side they are framed within a discourse of domination epitomized by such notions as slavery, serfdom, and clientship whilst on the other they are framed within the discourse of autonomy and trust. The actual conduct of these relations seems to be an enactment of the contradictions between the two discourses and to be