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Gender Distortions and Development Disasters: Women and Milk in African Herding Systems

Bonnie Kettel

The pastoral peoples of Africa are spread across the vast semi-arid rangelands, the largest herding zone on any continent. This paper challenges the enduring invisibility of women in this underdeveloped region by focusing on the traditional importance of women's work in milk production.

Much of the scholarly literature on African pastoralism belittles women's traditional role in the use and management of livestock. This biased view acts as a barrier to our understanding of women's lives in this setting and undermines women's potential involvement as agents and beneficiaries of pastoral development.

Among African herders, indigenous subsistence is based on milk and on women's work in dairying. Women's involvement in milk production is an important element in the strong sense of personal identity that frequently characterizes women in pastoral communities. Dairying provides women with use rights and even ownership of animals. Women manipulate these rights in their own self-interest and the interests of their children.

With the donor-sponsored introduction of commercial meat production, particularly after the Sahel drought in the 1970's, women began to lose their valued work role and their rights in animals. An appropriate alternative may be found in small-scale dairying. This activity would allow women to maintain their traditional involvement in milk production with greater benefit to themselves, as well as to African national economies.

Recognizing Women in Pastoral Production

This paper offers a new framework for anthropological research on the productive responsibilities of women in the African rangelands.¹ It calls for a new vision of the importance of women's work in livestock herding,

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particularly their responsibilities in the provision of *milk*. This vision is a challenge to the enduring invisibility of women in African herding systems and a new approach to the recognition of women's interests in pastoral development.

The African rangelands occupy a vast stretch of the continent in two distinct regions: the Sahel-Sudan zones that form the southern border of the Sahara, and the grasslands of eastern and southern Africa. Across the rangelands, livestock provide a means by which grass, browse and water are converted into milk and other products for human use. Women's activities in milking, animal care, and the provision of water and fodder are essential to this "pastoral" production process. Nevertheless, the importance of women's tasks and interests in milk production has long been underestimated in anthropological research.² The devaluation of women's work is apparent, for example, in a seminar held to consider prospects for development in Kenya's semi-arid Kerio Valley where, we are told, that in the Kerio Valley men are responsible for the "high duties" of livestock management, while women's activities in pastoral production are limited to "everyday chores."³

I am interested in the background of assumption that allows anthropologists to differentiate between men's activities and women's tasks using a vocabulary that implicitly belittles the importance of women's work to pastoral production. Over the years, this vocabulary of analysis has come to occupy a central position in a received view of women's subordination in African herding systems. According to this received view, men's interests and rights in the use of productive resources—particularly livestock—have an overarching importance in pastoral production. As a result, women's avenues of authority are said to be severely circumscribed and limited to personal influence in the domestic realm.⁴

This received view has its origins in the work of Evans-Pritchard, who wrote about the Nuer of Sudan fifty years ago.⁵ In this paper, I suggest that his analysis was contaminated by his assumptions about the universality and appropriateness of female subordination.⁶ Fortunately, Evans-Pritchard's descriptive abilities exceeded the boundaries of his own assumptions. Thus, we can look to his Nuer ethnography for one of our richest accounts of the independence and importance of women among African herders.

Nevertheless, it was Evans-Pritchard's analysis, not his description, that became the received view. The framework of interpretation established by this distorted analysis of gender roles among the Nuer has restricted our understanding of the traditional importance of women's work in milk production and the factors that have affected the well-being of women in pastoral communities in the last twenty years.

Milk is the primary goal of women's productive labor in African herding systems. Thus, an emphasis on milk offers a strategic window through

which we can acquire a better understanding of women's interests and rights in livestock production, as well as some insight into the sources of respect and authority that were once available to women in this setting. This paper reviews our existing knowledge of women's involvement in milk production as a framework for future research and as a critique of recent initiatives for pastoral development.⁷

The Domestic Realm of African Pastoralism

My perspective on the importance of women's work in milk production is based on field research with the Tugen, an agropastoral people who live in Kenya's Baringo District (including parts of the Kerio Valley), on my general experience of other peoples in the Kerio Valley region, and on the extensive literature on African pastoralism. The field research was carried out in 1971-1972. Since that time, I have maintained an interest in the lives of women in pastoral communities and their involvement in programs for pastoral development.⁸

Previously, I have argued that the minimal unit of production in indigenous African herding systems is not the individual stock-owner, but the domestic group or "household".⁹ It is primarily, but not exclusively, within these residential units of production and reproduction—which exist in a variety of forms in the African rangelands—that women *and* men act as participants and as decision-makers in the pastoral production process.

For the most part, African herding systems are based on dairying rather than on meat production. As Dahl points out, this dairying process has two essential aspects: stock-breeding, which maintains the herd; and stock-milking, which maintains the domestic group. Responsibility for these two aspects of the production process is frequently allocated on the basis of gender, with men's activities centering on the overall management of the herd while women's concerns are focused on the milk supply.¹⁰

It is these tasks in stock-breeding and stock-milking which are commonly distinguished as "high duties" and "everyday chores." Thus, Oxy comments that "...women may be responsible for important *subsidiary tasks*, such as milking and processing milk, collecting fodder...and looking after and feeding lactating, young or sick animals."¹¹

From whose point of view are these responsibilities regarded as "subsidiary?" Although terms such as "everyday chores" and "subsidiary tasks" spring readily to the pens of anthropologists, the ethnographic data does not fully support this interpretation. The interdependent nature of gender roles in pastoral dairying is conveyed by Stenning's comments on the Fulani of Nigeria:

Men have to do with cattle.... Women have to do with milk.... Adult men are herd owners and managers, male children and adolescents are herdsman. Adult women are dairywomen and purveyors of milk, female

children and adolescents are dairymaids. The WoDaaBe family is a herding and milk selling enterprise.¹²

This gender-based pattern of responsibilities and tasks is typical of African herders. When camels are added to livestock herds, as they are in northern Kenya and across the Sahel, men commonly assume the task of milking these large animals. However, across this camel-herding zone, the distribution of milk from small stock, cattle, and camels continues to be the privilege of women. As Beaman says of the camel-keeping Rendille of Kenya: “On the hoof, the livestock belongs to men. But as soon as the milk is delivered to the wife, she is in control of its distribution.”¹³

While men’s responsibilities in stock-breeding have been regarded as a public phenomenon—one that links male stock-owners in their common use of grass, browse, and water—milking has been thought to be a domestic activity, an aspect of food processing or cooking. In the work of Gudrun Dahl, we can find a new awareness of the importance of milking to the success of pastoral production. Dahl draws our attention to the symbiotic relationship that emerges between people and their livestock in the task of milking. In order to yield well, livestock—particularly cattle—require familiarity with the people who milk them. The milking relationship that develops between the milker and the cow is a continuing context of animal domestication in pastoral production.¹⁴ It is also in milking that livestock herders must balance the needs of their households against the needs of the calves and the future of the herd as a reproducing resource.¹⁵

Milk production is a consequence of gestation. Thus, subsistence dairy herds must be structured for successful reproduction, with bulls and young male stock as well as milk-producing females. Camels, cattle, goats and sheep all have different requirements in herding and these, in association with the distribution of forage and water, largely determine the overall size and composition of the herd, the pattern of human settlement, the distribution of animals in homesteads and herding camps, and the seasonal and annual availability of milk. In every case, the gender-based division of labor in stock-breeding and stock-milking (or milk distribution) is the crucial ingredient that brings animals, people, and natural resources together for dairy production.

Women’s involvement in milk production appears to be an important factor in the strong sense of personal identity that so often characterizes women in pastoral communities. The autonomy and dignity possible for women is apparent in Evans-Pritchard’s classic description:

A Nuer home is run by the combined efforts of all its members.... No work is considered degrading, no one is a drudge, all have leisure for rest and recreation.... Indeed, the division of labor between sexes and ages accords with the social and personal freedom of women and children in Nuerland and with the recognition, so striking among the Nuer, of the independence and dignity of the individual.¹⁶

Women's Work in Livestock Herding

Women's involvement in pastoral production reaches its most labor-intensive level in the East African grasslands. In this setting, women act as the primary milkers of cattle, in addition to caring for young calves, providing veterinary care for sick animals, and supervising the herding of small stock, such as sheep and goats. Providing water and fodder for young and sick stock is a time consuming activity, one that can add considerably to the burden of collecting water and firewood for human use.¹⁷

Oboler's study of labor allocation among the agropastoral Nandi of Kenya indicates that women are engaged in tasks related to animal husbandry in 7.7% of all observations of adult women's labor activity, whereas the figure for adult men is only 4.4%. Nandi women are involved in milking, herding, taking livestock to the cattle dip, and for various veterinary services. One of the most surprising results of Oboler's study is that adult women are involved in the specific care of children in only 0.7% of all observations. Although Oboler's methodology gave precedence to productive activities, she observes that "...if all cases in which child care was taking place were counted as primarily...child care...the percentage of time women spend in child care would...still be surprisingly small."¹⁸

Many of women's tasks in pastoral production, such as milking, involve activities that must be carried out on a daily basis. As a result, it is women who are indeed responsible for the "everyday" tasks of pastoral dairying. Daily herding is commonly done by adolescents and children, including girls who play a particular role in the herding of small stock. Oboler's study of the Nandi indicates that over 50% of all herding is carried out by children under the age of 15, including girls, who account for 40 out of a total of 210 observations of cattle herding, and 50% of the shepherding.

Men's "high duties" include the distribution of animals in relation to one another, and to water and pasture, as well as to more dangerous tasks of bleeding, castration, and slaughtering. Particularly among nomadic herders, some of these duties—such as moving animals to dry season water sources—can be onerous, but men's tasks typically do not require daily work. From this point of view, it is women's work that acts as a limit on the size and distribution of household herds in indigenous African herding systems. This is particularly the case since it is also women's involvement in childbirth and child rearing that provides the household with access to a child labor force.¹⁹

Dahl points out that women in pastoral communities have a continuing responsibility for household work and the care and supervision of livestock. The element that connects these separate domains of women's activity is their work in the production and distribution of milk. Thus, I suggest that a focus on women's work in milk production will help us to appreciate the complex nature of these demands, the manner in which women prioritize their use of time and natural resources, and the way in

which this balancing process is affected by social and environmental constraints, as well as by recent strategies for pastoral development.

Dairying and Women's Lifestyles

In spite of its demands, dairy herding offers women some important benefits. In producing milk, livestock act in place of human labor, converting water and pasture directly into food. Grain, on the other hand, must be ground and cooked with water, using fuelwood or some other energy source. Ensminger, who compared fuelwood use among nomadic and sedentary Orma in Kenya, found that sedentarization, along with the introduction of maize in the diet, increased gathering time in wood collection by 1300 percent.²⁰

For livestock herders, milk is more than the primary element in the daily diet. It is also a basis for shared work and consumption. The immediate basis for milk-sharing is the residential group. Among the Turkana of Kenya, women's work centered on the provision of a milk supply that was assigned first and foremost to the children of the homestead. Gulliver comments that "it would be a grave violation of the needs and moral rights of the young... if one wife were unable to feed her children whilst a co-wife had enough to feed older persons."²¹ Gulliver also reports that he had never seen, nor could he imagine, a Turkana woman who would refuse to share her own supply with a woman whose children needed milk.²²

This child-centered view of pastoral production, based on field research carried out by Gulliver in the late 1940's, is refreshing. How different all women's lives would be if children's needs always came first and were "acknowledged by all and... generously fulfilled."²³

Milk-sharing is not limited to relationships between women and children. Among East African herders, men are frequently denied the right to milk animals or to cook food, a prohibition that centers milk consumption in the household, giving control over it to women. Gough highlights the social importance of Nuer women as milk providers, commenting that although relationships with and between women are often considered to have "only minor relevance," this analysis is not tenable for "a society where men... have to attach themselves to some kinswoman's hearth..."²⁴

Sharing between women balances out women's work and ensures every woman with adequate access to milk. These relationships between women also provide a context of friendship and support. Talle describes the companionship that characterizes the lives of Maasai women, who "fetch firewood and water together, lend each other... milch cows, help each other with house-building and child-care and cooperate in arranging... celebrations."²⁵ Through milk-sharing women establish their own autonomy as milk producers by participating in wider networks of exchange. They use their rights in milk, and also in butter, meat and hides, to establish relationships of reciprocity with other women. On occasions when

a man in a pastoral community asks another man for the loan of an animal, this is commonly referred to as “establishing a stock partnership,” an activity that is considered important—and public—because it contributes to the management of livestock herds. When a woman asks another woman for a gift of milk, this activity, which is considered personal and domestic, is often labelled as “begging.” Beaman stresses that Rendille women use begging relationships to establish networks of reciprocal obligation:

... women try to establish a sense of obligation in others by offering small gifts... and they keep careful track of those who have successfully begged a share of a resource from them.... A woman has established networks of women among whom she can make demands, including her own kin, her husband's kin, near neighbours, and other connections.... These networks can be vital when hardship strikes and she must feed her family. The broader her network, the greater her chances of maintaining a consistent flow of food into her household.²⁶

The generosity that men display in lending out animals is a frequent basis for public influence and prestige in herding economies. According to Carstens, female initiation rituals among the Nama of Namibia suggest that women's work in milk production had a similar public significance. Such rituals “dramatized a woman's elevated position in... the domestic economy” and “presented her as an indispensable figure for the community,” and this social prestige was linked specifically to their control over the distribution of milk.

Not only did they milk the animals, but they also controlled the supply of milk and milk products and their distribution among members of the domestic family. Women, moreover, had great influence and authority over men in their own homes, and men were said to fear women witnesses in court because their testimony was always respected and carried so much weight.²⁷

Recently, Stamp has called for clearer recognition of African women's domestic activities as “public” phenomena, arguing that women's concerns “operate in a sphere rendered less visible by... male-dominated structures and discourses.” Stamp suggests that “to understand the nature of ‘public life’ in Africa... the Western conceptualization of opposing private and public spaces must be abandoned.”²⁸

Stamp's comments provide support for the new image of women's involvement in pastoral dairying that I have put forward. I have drawn on the broad base of data on African herders to suggest that women across the miles of Africa have acquired autonomy, dignity, and even some level of authority—inside and outside of the household—from their involvement in milk production. This image is not intended to disguise the considerable variation in women's work and influence that exists among African herders (see, for instance, the differences between the Xhosa and the

Nama).²⁹ It is, however, meant to establish a new avenue of analysis within which we can begin to assess the sources and impact of these variations in women's lives.

Men's Property, Women's Cows

Few pastoral ethnographers would readily accept the validity of my image of women's autonomy and authority among African herders. Instead, most would agree that women's rights in milk production are generally "mediated" through male herd owners, and that women thereby "tend to become jural and political minors to men."³⁰

I attribute the origins of this male-centered view of the importance of livestock ownership to Evans-Pritchard. As Gough makes clear, Evans-Pritchard wrote two very different books on the Nuer. The first, *The Nuer*, deals with men and livestock as the central elements in the public life of the Nuer, a life that Evans-Pritchard argued was organized by patrilineal descent. In the second volume, *Nuer Kinship and Marriage*, Evans-Pritchard talks about domestic life, injecting women and relationships traced through female connections, into a pre-established analysis focused on men and livestock.³¹

Dorothy Smith has taught us that knowledge is mediated, and thereby contaminated, by the "social detritus" of the knower.³² I suggest that Evans-Pritchard's analysis of the significance of men and livestock among the Nuer was contaminated by his assumptions about the public importance of relationships between men and the necessary inevitability of female subordination. A little-known essay, "The Position of Women in Primitive Societies," reveals that Evans-Pritchard believed that women are always subordinate to men in public life, and should always be subordinate to them, otherwise little boys would grow up to be homosexual.

Writing about the phenomenon of "male inversion," Evans-Pritchard says "most psychiatrists seem to agree that one of the main factors in the production of the phenomenon is the domineering mother, and the consequently meek father." He argues that male authority is universal in human life (with the possible inclusion of older women), and attributes sexual hierarchy to "deep biological and psychological factors." In a moment of happy complacency, Evans-Pritchard also comments that "Gone...are the days of vigorous feminism...."³³

For fifty years, pastoral ethnographers have followed in Evans-Pritchard's footsteps, reflecting and reifying the contaminated framework of analysis that he set forward in 1940. Prior to 1980, almost everything that we knew, or thought we knew, about gender roles among African herders was written by men, and based on research with men.³⁴ In my view, this traditional male dominance was an important factor in the ready acceptance of Evans-Pritchard's analysis. As Stamp suggests, "...the community of men...has been favoured over the community of women."³⁵

Recently, Robertson and Berger have suggested that it is not important who actually owns something, but who controls its use.³⁶ When we examine the issue of property rights among African herders from a women-centered perspective, it becomes clear that men typically do not own livestock as individual “men.” Gulliver observes that “The Jie... regard the house as the stock-owning unit in their society” and that “In Turkana land the basic family group which emerges in actual life as a legally independent, stock owning... unit [is] the nuclear family.”³⁷

The importance of the household as the stock-owning and stock-managing unit underwrites women’s participation in transactions over livestock. Nandi women are active participants in bridewealth negotiations, raising “points relevant to the girl’s welfare,” playing the major role in actual bargaining, and standing up to the men “to make certain that they do not cheat the bride of her rightful share of the marriage payment.”³⁸

Among herders in eastern and southern Africa, wives are often assigned use-rights in animals, particularly milking-stock, as “house-property.” Men do not have free rights of disposal over animals which have been assigned to a woman as her house-property, since they are considered hers to use for the benefit of her children, and neither they, nor their offspring, should be loaned out, given away or sold without her consent. It is from their mother’s share of homestead herds that men typically receive and inherit animals from their fathers. Maasai women control the inheritance of their house-property and may thereby deny errant sons access to animals.³⁹

In the negotiations over her house-property, a first wife actually helps a young husband to claim animals from his father’s herd. It is also in this context that each new wife begins to carve out her own autonomy within the homestead. Spencer describes how this happens among the Samburu of Kenya:

On the day that she is allotted this herd...the bride signifies that she finally accepts the portion given her by opening up her husband’s gateway.... If, therefore, she feels that he is still holding too many cattle...she has merely to refuse.... Invariably, or so it seems, the initial allotment...is followed by a considerable pause.... The husband cannot afford at this stage to treat his bride too unfairly...for such an act might induce her to run away....⁴⁰

Men do have management responsibilities for all of the animals in homestead herds, and when asked they will describe themselves as “owners” of all these animals. But they cannot act as sole owners of their wives’ house-property without generating tension in their own households and debate in the larger community. Gulliver comments that Jie men recognize and respect the productive rights of their wives and mothers. He adds that “the Jie woman is always ready to air her opinion and to stand up

for what she considers her rights, and few men can afford to turn a deaf ear."⁴¹

There is clear evidence for the erosion of women's rights in house-property under the impact of colonial rule, and with the commoditization of livestock resources in a market economy.⁴² However, these rights have not disappeared entirely, as Oboler reveals in her account of modern weddings held by Christian Nandi.⁴³

Women's possibilities for sole ownership of animals, whether by gift, inheritance or purchase, vary considerably, but they can be important. Rupp evaluated the success of government-managed herd reconstitution programs in the Sahel following the drought years of the early 1970's. The program was administered through the assignment of cards to the male "head" of each family, who was then allocated replacement stock on behalf of the entire household. According to the Tuareg and Fulani she interviewed, herd reconstitution was creating considerable social damage, since none of the animals owned by women were being replaced. As a result, young men and women were unable to acquire bridewealth and dowry from their mothers, and women's influence and status in the community was being undermined.⁴⁴

Leadership, Authority and Gender

The prevailing interest in the "community of men" among African herders has meant that female leadership and authority roles have received scant attention. Evans-Pritchard emphasized the leadership role of Nuer "bulls," where "bulls" referred to a wide category of paternal kin, including half-brothers, uncles and cousins. Within this context, men competed with one another for recognition as the "bull," who was "an outstanding social personality... regarded as the head of... a cluster of cognatic kinsmen and affines, as a leader in village and camp, and a person of importance..."⁴⁵

However, as Hutchinson points out, it was primarily through kinship connections with women that Nuer men were able to acquire the allegiance of other men. A man became a "bull" by attracting a personal following consisting of "children of the girls," that is children of women from his own patrilineage: his father's sister, his sister and his daughter.⁴⁶ Such men often set off with their personal following of girl's children, including the women's husbands and sons, to found their own communities.

In Evans-Pritchard's second monograph, we learn that one of these "bulls" was actually a woman.⁴⁷ The case of the female "bull" serves to demonstrate that "men" among African herders are not always male individuals. Occasionally, they are women, socially recognized—at least for particular purposes—as men. Among many East African herders, women were transformed into men in the custom of woman-woman marriage. Oboler's research on "female husbands" among the Nandi indicates the importance of house-property in these marriages:

A postmenopausal, sonless woman uses some of her house property to pay bridewealth for, and thus marry, a younger woman. The two women are considered husband and wife, and the older woman becomes the social and legal father of any children her wife may bear. The female husband is said to have been “promoted” to male status.... Woman-woman marriage is not uncommon.... In my research community, 3.5 percent of households... were headed by female husbands.⁴⁸

Oboler makes clear that a female husband assumes full control over her own house-property, thereby removing control from her own husband, even if he is still alive.

Women also have gender-specific opportunities for leadership and authority among African herders. Klima, who did his research among the Barabaig of Tanzania in the 1950's, photographed a group of over thirty women, each armed with a stick, on their way to collect a cattle fine from a man who had committed an “offense” against a woman. Klima reported that jurisdiction over relations between men and women was the prerogative of women. Women's authority over gender relations was reflected in the “council of women,” a neighborhood moot composed of women elders who collectively passed judgment on men who had violated women's rights.

Attendance at such councils was obligatory for all married women, and any married woman might speak before the group. Leadership roles were the domain of older women. The sanction imposed by the women's council, called the “fine of the women,” consisted of a young black bull, which the women would beat to death, and divide amongst themselves. In one case, where a man refused to pay the cattle fine, the women imposed a death curse, and returned the man's wives to their fathers. They did not allow the wives to come back for a year, until they had convened another moot, and fined the man two animals and honey beer.

Such moots offered an opportunity for women to air a variety of grievances, including “a husband's sale of part of his wife's dowry cattle, child welfare, and the iniquities of men in general....” The authority of Barabaig women over gender-based relationships was validated by a myth involving women's role as milk producers in the origins of marriage, and a magical potion which women put into their milk gourds, after which “the men were afraid of losing the women and began to respond to their wishes.”⁴⁹

Women's councils were also held by the Tugen and the Nandi.⁵⁰ The significance and distribution of women's councils and related female authority roles is an important issue for research on women's lives among African herders. As the Barabaig myth suggests, our best point of entry into this investigation is women's activities in milk production and distribution. These activities are central to women's lives among African herders, including their personal identities, economic autonomy, and public roles.

It is sad, but not surprising, that Broch-Due, Garfield and Langton had to make a “special request” to have women’s roles in milk production addressed at a conference on “The Future of Pastoral Peoples.”⁵¹ As the final section of this paper reveals, the devaluation of women’s involvement in pastoral development has negative consequences for them and for the natural environment on which all African herders must depend.

Drought, Development, and the Future

Throughout the twentieth century, particularly since the 1970’s, the interests and responsibilities of African dairy women have been jeopardized by the ongoing destruction of the rangelands. During this time, herders—who preserved the rangelands by moving their herds in search of graze and water—have been limited to a smaller and smaller land base, and as a result, they have become profoundly vulnerable to drought.⁵²

Donor-sponsored attempts to maintain the rangelands have focused on meat production for urban markets in Africa and for export abroad. Meat herds are maintained by letting the calves run with the cows—which means that the cows are not available for milking—and by continuous off take from the herd to provide income. This transformation in animal management has been accompanied by the introduction of boreholes as water sources. The general consequence of these different patterns of resource use in herding has been sedentarization of human populations, along with the creation of distant cattle camps—where the majority of the livestock are kept—around the bore holes.⁵³ On the whole, these commercial initiatives for pastoral development have not been a success. Goldschmidt, who calls the situation an “almost unrelieved failure,” reports that “nothing seems to work... there is no evidence of increased production of milk and meat, the land continues to deteriorate, and millions of dollars have been spent.”⁵⁴

Wyckoff attributes the failure of Kenya’s beef production initiatives, particularly the Second Livestock Development Project, to donor insistence on “objectives that are not compatible with those of the proposed beneficiaries.” Wyckoff explains that Kenyan politicians and administrators acquiesce to inappropriate livestock projects “in order to get the donors to commit the funds to their Ministries for expenditure in their districts.”⁵⁵

Many agree that herder participation in projects intended to benefit them has been negligible. According to Horowitz: “Herder participation in the identification, design, implementation and assessment of livestock sector projects has been marginal.... Participation of women has been non-existent.” He wonders why “projects have gone from identification to implementation without ever facing up to their impacts on women (and children).”⁵⁶ In “almost all cases, it is the men who come to dominate production and exchange in its commercialized form.”⁵⁷ As livestock transactions become a basis for cash income, women begin to lose their

house-property rights in animals to their husbands.⁵⁸ Ensminger reports that commercial meat production also undermines women's ownership of animals. Writing about the Orma of Kenya, she says:

As exchange and sale of milk are the primary avenues of accumulation for women, the decline in milk production has drastically altered women's economic position vis-à-vis that of men.... The increased marketing of livestock has also in many cases had a negative impact upon women's ownership of livestock.... Prior to the marketing of livestock it was conceivable that...women's holdings would grow over time to appreciable numbers. Today, however, women...complain that their stock are some of the very first to be sold and...they are frequently completely wiped out....⁶⁰

Little of the income that men acquire from commercial meat production reaches women, who retain their traditional obligation to feed their children. At the same time, women's burden of labor in water and fuel wood collection increases as maize replaces milk in the household diet. We should also note that commercial meat production tends to benefit only a small category of wealthy men, while others may be forced to sell so many animals that they are no longer able to participate in pastoral production. In these circumstances, both men and women flock into town. For pastoral women, urban opportunities are few:

Many ex-pastoralist women are found among the ranks of single women in the peri-urban slums, eking out a living from the various "informal sector" activities that small towns offer to women, such as cash gathering of firewood, incense or building poles, small handicraft trades, employed housework or concubinage, prostitution or begging.⁶⁰

From an ecological point of view, meat production has been disastrous. According to Timberlake, "Africa is littered with examples of arrogant and failed attempts to "rationalize" pastoralism, which have often caused desertification and bloodshed, as well as considerable wasted amounts of money."⁶¹ Kerven reports that worldwide, milk production systems can support on average about 2.5 times as many people per hectare as could be supported by beef or mutton production.⁶² Milk production is also less expensive than meat production and the use value of milk exceeds the cash returns from selling live animals. During seasons of high production (typically the rainy season, when grain is in short supply), pastoral herds produce surplus milk that can be sold. A 1984 study of a Maasai group ranch indicates that cash sales from surplus milk brought in almost as much as those from meat, an average of K.Sh. 47/ha/year for milk and 50/ha/year for meat.

Kerven suggests that "...the pastoral dairy sector could supply producers with much-needed additional income, by taking advantage of an already existing surplus product...seasonally available milk." However, she

does not suggest that this surplus should be developed for sale through the formal market, arguing instead that milk production should be supported as an informal sector activity where costs are lower and prices are higher. Informal milk sales from a semi-arid area in Kenya have been noted at 2.5 times higher than the formal sector price offered in a neighboring area in the better-watered highlands. Such informal sector milk sales are the traditional domain of African dairywomen, whereas large-scale milk production for the formal market has generally become a male domain in the better-watered African highlands.⁶³

Oboler's study provides evidence of the potential dilemmas for women in formal sector sales:

...the morning milk, which is sold to the Kenya Creameries Cooperative (the government-run marketing cooperative) is thought of as belonging to the husband.... The right of the wife to control the afternoon milk may be negated...if there is a very large number of milk cows. In this case, afternoon milk must also be delivered to the KCC, and money coming from the sale of milk to the KCC is usually thought of as belonging to the husband.⁶⁴

Could small-scale dairying, based on informal sector sales, work for pastoral dairy women in Africa? Barbara Michael offers a fascinating account of informal milk sales by Hawazma dairywomen in Sudan. Hawazma women have "transformed a duty to do the milking and to distribute milk within the household, into a right to decide not only the household distribution but also...to sell surplus milk and control the proceeds." During the dry season, if their annual migrations bring them close to a village, women market their surplus milk "door-to-door," or they make clarified butter for later sale. In the rainy season, Hawazma women sell their milk to temporary cheese factories. Some of these "factories" are tents whose owners follow the Hawazma migration. Michael estimates that Hawazma women earn a potential cash income of US \$172.50 for combined dry and rainy season sales of raw milk. When sales of buttermilk and clarified butter are added to this figure, she estimates that women are able to provide at least a third of household income. As to the demands of the nomadic life style that makes this income possible, Michael notes that "women want to live in a camp rather than a village so that they will have access to milk...for their children's welfare (and)...to have the income from the sale of milk."⁶⁵

An idea promoted by a non-governmental organization, the Heifer Project International, has great potential significance for African dairywomen. Through a Y.W.C.A. Heifer Project in Uganda, over 200 women have received a heifer, given to them as a gift, on the condition that they pass along their first female calf to another woman. The Y.W.C.A. report notes that "...the wife who is the recipient of the cow, has in most homes become the principal money-earner."⁶⁶

The Y.W.C.A. Heifer Project, which is based on high-yield Friesian and Jersey cows, does not offer a specific model for small-scale dairying by women in the rangelands, where the conditions of production demand indigenous or cross-bred stock. But the idea of the "shared gift" is a powerful one that could benefit women across Africa. The Y.W.C.A. Heifer Project also includes training support for the recipients, covering subjects such as feeding, grazing, reproduction, tick control, and veterinary treatment. Why should this kind of support and training not be offered to dairywomen in the rangelands, such as the Hawazma women of Sudan?

But let us be clear: the heifers would have to be given to women, through a project designed to support women through the gift of animals and the provision of training to supplement women's knowledge of dairy production. A popular education program, designed to highlight and validate women's traditional roles as dairywomen, would also be useful as an antidote to the prevailing emphasis on men's interests in pastoral development. Oxyby also notes the importance of female extension workers qualified to assist women with veterinary support and treatment.

An important issue with regard to such a project would be the availability of grazing and water. Boreholes have resulted in considerable local damage to the plant cover, as animals cluster for water. The use of impermanent, seasonal sources may be more environmentally sustainable, but the movement of animals in relation to water is men's work. Commenting on a report of a women-centered goat project from Kenya, Oxyby notes:

Such projects run the risk of presenting a threat to husbands who may resent being totally excluded from project activities.... Taking full account of the community's existing division of labour according to the sex of the worker is, therefore, the best guide to follow in designing acceptable projects.⁶⁷

If this guideline had been followed in previous attempts at pastoral development, both African dairywomen, and the African rangelands, would probably be much better off today. However, while appropriate, this guideline is not a sufficient basis for the design of projects that will benefit women, particularly if a planner gives men's interests higher priority. The only persons who should decide on the design and objectives of projects intended to benefit women are women themselves. It is African dairywomen, not their husbands, not their national governments, and not pastoral development specialists, who should determine their participation in rangeland development and decide what risks they are prepared to run in order to benefit themselves and their children.

Where water and fodder are readily available, or available through a short walk, I suggest that small-scale milk projects, based on the notion of the "shared gift," might be women-centered. In rangeland regions where animals must be moved in relation to water, dairy animals might be given

to households, but infrastructural support should be offered to men as range managers and to women as milk sellers on the informal market.

In some areas, it may also be possible to open up opportunities for women to sell milk through the formal market. Badri suggests that Sudan could save itself several million pounds every year by helping women to construct women-run dairy farms.⁶⁸ Sudan, which supports 55 million animals, currently spends 11 million Sudanese pounds annually to import milk powder and milk products.

The potential benefits of dairying, whether from informal or formal market sales, emerge from an activity—milk production—that has been a culturally appropriate source of income for pastoral women in Africa. The demand for milk across Africa is secure and growing. Modern strategies for herd reproduction, such as artificial insemination, will allow Africa's dairy herds to be managed for minimal size—and minimal environmental impact. When they are not clustered around boreholes, a herd of milking stock can actually help to promote sustainable rangeland use by helping to maintain a usable plant cover. At the same time, milking stock improve the domestic food supply, as well as providing a cash income. Furthermore, there is useful offtake from dairy herds, particularly in the form of mature males that can be sold.

The academic community can play a useful role in supporting African dairywomen by identifying women's work in milk production as an important focus for research. There is a particular need for the creation of interdisciplinary teams that will allow social scientists to work on this issue together with specialists in animal science and range management. The first stage in this new research endeavor must be our common recognition that received views can and should be challenged, and that there is much to be learned and gained from a new approach to the importance of women—and milk—in African herding systems.

NOTES

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²However, see Barbara Michael, "Milk Production and Sales by the Hawazma (Baggara) of Sudan: Implications for Gender Roles," *Research in Economic Anthropology* 9 (1987): 105-141.

³J. Tanaka, "On Residential Pattern and Livestock Management Among the Pastoral Pokot," in B. Kipkorir, R. Soper, and J.W. Ssenyonga, eds., *Kerio Valley: Past, Present and Future* (Nairobi: Institute of African Studies, 1983), 58.

⁴See Harold Schneider, *Livestock and Equality in East Africa* (Bloomington: Indiana University Press, 1979).

⁵E.E. Evans-Pritchard, *The Nuer: a Description of the Modes of Livelihood and Political Institutions of a Nilotic People* (London: Oxford University Press, 1940).

⁶See Kathleen Gough, "Nuer Kinship: a Re-examination," in T.O. Beidelman, ed., *The Translation of Culture* (London: Tavistock, 1971).

⁷Gudrun Dahl, "Women in Pastoral Production: Some Theoretical Notes on Roles and Resources," *Ethnos* 41 (1987) I-II: 246-279.

⁸Bonnie Kettel, "Time is Money: the Social Consequences of Economic Change in Seretunin, Kenya," Ph.D. Dissertation (Urbana: University of Illinois, 1980). The field research was made possible by a Predoctoral Research Fellowship from the National Institute of Mental Health and by a grant from the Center for International Comparative Studies of the University of Illinois. Permission to carry out the research was granted by the Office of the President, Republic of Kenya. The fieldwork was shared with my husband, David Kettel.

Currently, I am the Canadian Coordinator for the Women, Environment and Development Network (WEDNET). WEDNET is a large-scale research initiative focusing on African women's indigenous knowledge of natural resource management. Based at the Environment Liaison Centre International in Nairobi, WEDNET is fully funded by the International Development Research Centre in Ottawa. An early version of this paper was presented at a WEDNET project development meeting at York University in 1988. Two of the WEDNET researchers, Elizabeth Kyewalabye and Monica Munachonga, are currently involved in research on women's role in livestock management among the Ila and Tonga of Zambia.

⁹Kettel, "The Commoditization of Women in Tugen Social Organization," in C. Robertson and I. Berger eds., *Women and Class in Africa* (New York: Holmes and Meier, 1986).

¹⁰Dahl, "Women in Pastoral Production," 253.

¹¹Clare Oxby, "Women's Contribution to Animal Production and Husbandry," *World Animal Review*, 48 (1983); 2, my emphasis.

¹²Stenning is quoted by Michael Horowitz, "Research Priorities in Pastoral Studies: an Agenda for the 1980's," in J. Galaty et al., eds., *The Future of Pastoral Peoples* (Ottawa: IDRC, 1981), 85.

¹³Anne Beaman, "Women's Participation in a Pastoral Economy," *Nomadic Peoples*, 12 (1983): 23. See also Kate Cloud, "Sex Roles in Food Production and Distribution Systems in the Sahel," in L. Creevey, ed., *Women Farmers in Africa* (Syracuse: Syracuse U. Press, 1986).

¹⁴Dahl, "Women in Pastoral Production," 251-252.

¹⁵See Dahl, *Suffering Grass: Subsistence and Society of Waso Borana* (Stockholm: University of Stockholm, 1979); and Barbara Michael (see fn. 2).

¹⁶Evans-Pritchard, *Kinship and Marriage Among the Nuer* (Oxford: Clarendon, 1951), 130.

¹⁷Dahl, "Women in Pastoral Production," 251.

¹⁸Regina Oboler, *Women, Power and Economic Change: the Nandi of Kenya* (Stanford: Stanford University Press, 1985), 215.

¹⁹Dahl, "Women in Pastoral Production."

²⁰Jean Ensminger, "Economic and Political Differentiation Among Galole Orma Women," *Ethnos*, 52 (1987) I-II: 37.

²¹P. Gulliver, *The Family Herds: A Study of Two Pastoral Tribes in East Africa* (London: Routledge and Kegan Paul, 1966), 130.

²²Gulliver is quoted in Jan Wienpahl, "Women's Roles in Livestock Production Among the Turkana of Kenya," *Research in Economic Anthropology*, 6 (1984): 201.

²³Evans-Pritchard, *The Nuer*, 21.

²⁴Gough, 115.

²⁵Aud Talle, "Women as Heads of Houses: The Organization of Production and the Role of Women Among the Pastoral Maasai in Kenya," *Ethnos*, 52, I-II (1987): 63.

²⁶Beaman, 24.

²⁷Peter Carstens, "The Socio-Economic Context of Initiation Ceremonies Among Two Southern African Peoples," *Canadian Journal of African Studies*, 16 (1982): 512. See also A.W. Hoernle, "Certain Rites of Transition and the Conception of !Nau among the Hottentots," *Harvard African Studies* 2 (1918): 65-82.

²⁸Patricia Stamp, *Technology, Gender and Power in Africa* (Ottawa: IDRC, 1989), 116.

²⁹Carstens, 505-522.

³⁰Dahl, "Women in Pastoral Production," 257, 261-262.

³¹Evans-Pritchard, *Kinship and Marriage Among the Nuer* (Oxford: Clarendon, 1951).

³²Dorothy Smith, "The Social Construction of Documentary Reality," *Sociological Inquiry* 44 (1974): 257.

³³Evans-Pritchard, *The Position of Women in Societies and Other Essays in Social Anthropology* (London: Faber and Faber, 1965), 48, 50, 54 and 40 respectively.

³⁴A notable exception is Marguarite Dupire in "The Position of Women in a Pastoral Society," D. Paulme, ed., *Women of Tropical Africa* (London: Routledge and Kegan Paul, 1963).

³⁵Stamp, 116.

³⁶Robertson and Berger, 16.

³⁷Gulliver, *The Family Herds*, 69, 124.

³⁸Oboler, 107.

³⁹See Melissa Llewelyn-Davies, "Women, Warriors and Patriarchs," in S. Ortner and H. Whitehead, eds., *Sexual Meanings* (Cambridge: Cambridge U. Press, 1981).

⁴⁰Paul Spencer, *The Samburu* (London: Routledge and Kegan Paul, 1965), 53-54.

⁴¹Gulliver, *The Family Herds*, 62.

⁴²See Kettel, "The Commoditization of Women."

⁴³Oboler, 114.

⁴⁴Quoted in Kate Cloud, 33-34.

⁴⁵Evans-Pritchard, *The Nuer*, 179-180.

⁴⁶Sharon Hutchinson, "Changing Concepts of Incest among the Nuer," *American Ethnologist* 12, 4, (1985): 634.

⁴⁷Evans-Pritchard, *Kinship and Marriage*, 18.

⁴⁸Oboler, 131-132.

⁴⁹George Klima, *The Barabaig: East African Cattle Herders* (New York: Holt, Rinehart and Winston, 1970), 88-91.

⁵⁰Kettel, "The Commoditization of Women," 56; and Oboler, *Women, Power and Economic Change*, 67, respectively.

⁵¹Vigdis Broch-Due, E. Garfield, and P. Langton, "Women and Pastoral Development: Some Research Priorities for the Social Sciences," in J. Galaty et al., eds., *The Future of Pastoral Peoples* (Ottawa: IDRC, 1981).

⁵²Lloyd Timberlake, *Africa in Crisis: The Causes and Cures of Environmental Bankruptcy* (London: Earthscan, 1985), 87-102.

⁵³See C. Kerven, "Some Research and Development Implications for Pastoral Dairy Production in Africa," *ICLA Bulletin* 26, (1987): 29-35; and Daniel Bates and Francis Conant, "Livestock and Livelihood: A Handbook for the 1980's," in *The Future of Pastoral Peoples*.

⁵⁴Walter Goldschmidt, "The Failure of Pastoral Economic Development Programs in Africa," in *The Future of Pastoral Peoples*, 116.

⁵⁵J.B. Wyckoff, "Planning Arid Land Development Projects," *Nomadic Peoples* 19 (1985): 63.

⁵⁶Horowitz, 85-86.

⁵⁷Dahl, "Women in Pastoral Production," 271.

⁵⁸See Kettel, "The Commoditization of Women."

⁵⁹Ensminger, "Theoretical Perspectives on Pastoral Women: Feminist Critiques," *Nomadic Peoples* 16 (1984): 64.

⁶⁰Dahl, "Women in Pastoral Production," 271.

⁶¹Timberlake, *Africa in Crisis*, 93.

⁶²Kerven, "Some Research and Development," 31. See Also Elizabeth Kyewalabye, "Women's Role in the Expansion of Animal Production in Africa," paper presented at the Third General Assembly on "The African Crisis and Women's Vision of the Way Out," (Dakar: AAWORD 1988).

⁶³Kerven, 29, 31-33.

⁶⁴Oboler, 255-256.

⁶⁵Michael, 121, 129, 136, 138, 135.

⁶⁶Y.W.C.A. Uganda, n.d., "YWCA Women in Dairy Cattle Farming," in *Let's Work Together*, (Kampala: Y.W.C.A.) 3. The Heifer Project International is a nongovernmental organization based in

Little Rock, Arkansas. In May 1990 the Heifer Project organized an international conference on Women in Livestock Development at their International Learning and Livestock Center in Perryville, Arkansas. The conference was attended by 66 people, mostly women, from more than 20 countries. The Heifer Project now has a regular supplement dealing with women in livestock development issues as a component of their newsletter, *The Heifer International Exchange*.

⁶⁷Oxby, 7.

⁶⁸Balghis Badri, "Women, Land Ownership and Development in the Sudan," *Canadian Woman Studies* 7 (1986): 90.