

COWS, BULLS, AND GENDER ROLES

Pastoral Strategies for Survival and Continuity
in Western Sudan

by

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"A man must judge his labours by the obstacles he has overcome and the hardships he has endured, and by these standards I am not ashamed of the results."

E.E. Evans-Pritchard, The Nuer.

While it is true that my work must stand on its own merits, I owe a debt to a wide network of associates who supported and encouraged me in my research.

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By the completion of this dissertation I hope that I have demonstrated my right to join the cadre of anthropologists as a colleague. And, I hope that I merit the support and confidence given me as I have pursued my academic training.

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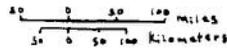
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Figure 1. Map of Sudan



Chapter I

INTRODUCTION

Problem Statement and Objectives

This dissertation is an attempt to elucidate and elaborate anthropological understanding of pastoral nomadic societies. It describes one pastoral nomadic society, the Baggara (Hawazma), and provides an analysis utilizing several approaches: (1) the idea of segmentation as a process affecting all sectors of nomadic life, (2) the value of the concept of complementary opposition, in structures, ideologies, and symbols; (3) the notion of continuums rather than dichotomies; and (4) the idea of variability.

One goal of this dissertation is to describe the native Hawazma Baggara normative model, a two-level model comprised of the public and private domains. A second goal is to relate observed behavior to this two-dimensional normative model. The purpose of the analysis is to test, clarify and expand several anthropological concepts which have become reified.

These include the concepts of gender, household, production unit, nomadism and sedentarization.

This dissertation contributes to the discipline and to the literature in several ways. There has been only one other major anthropological study of the Baggara, done by Ian Cunnison some thirty years ago, between 1952 and 1955 (Cunnison 1966). This study provides comparisons and insights into continuity in a group of nomads Cunnison predicted would be unable to retain their way of life.

The present study contributes to the literature on the concepts of public and private domains. It also contributes to studies of gender and role, in pastoral nomadic societies particularly. The dissertation also addresses the complex issue of defining a "primary" economic production and consumption unit, and the relationship of these units to the household.

While this study cannot be said to be representative of all pastoral nomadic societies, it does raise some questions about the analytical constructs anthropologists use to describe them. In turn, this raises some questions about commonalities and differences among pastoral nomadic societies as they are portrayed in the literature. Though the models developed to describe the Hawazma cannot be generalized without further field research, they do

contribute to refining analyses of pastoral nomadic societies.

It is well established in the literature that pastoral nomadic societies operate in two, sometimes strictly separated, domains: the public and the private (Lancaster 1981; Cunnison 1963, 1966; Nelson 1974; Tapper 1978; Young 1981). The study of these two domains has been seen as directly related to the analytic constructs of segmentation as it applies to the structural organization of pastoral nomadic societies, and to gender roles (also seen as segmented and segregated) in these societies. While all societies operate to some extent in the two modes, public and private ("frontstage" and "backstage" as in Goffman, 1959), pastoral nomads more consciously operate in the two domains. The literature of both segmentary and gender theory uses some of the same terminology: complementary oppositions; public and private as analagous to male and female; hierarchy; and dominance of public over private (or male over female).

Gender role theory, as it is found in the literature, is expressed in terms of oppositions (e.g., nature:culture; wild:tame; male:female). These oppositions are seen to segment societies, resulting, for example, in specific gender divisions of labor. They are also said to structure gender relationships

within the society in a hierarchial manner, resulting, for example, in male domination and female subjugation. In order to test gender role theory it would appear that segmentary, gender segregated societies as they are described in the literature, would provide the most clear-cut case within which to test the models. Segmentary societies such as the Hawazma Baggara seem to provide classic examples of gender role models.

One of the intriguing aspects of this dissertation is that as it unravels problems related to concepts of gender and role it will also provide a more insightful elucidation of pastoral nomadism. Therefore, a premise of this dissertation is that if gender role theory is adequate, the models should explicate behavior in segmentary societies.

The dissertation examines pastoral nomadic economic strategies in terms of social organization and gender roles. It makes two assertions: (1) that sedentarization is a pastoral nomadic strategy, and (2) that segmented gender roles, assigned contextually and situationally to public and private domains, facilitate (along with the various economic strategies), the overall goal of maintaining the pastoral nomadic lifestyle.

The Baggara:

The Arabic word for cattle is bugar and by extension, the Baggara are "cattle people," a group of tribes which share certain cultural characteristics and claim kinship to each other and to a tribe in the Hejaz. The Baggara occupy an area of savanna in what are now the provinces of Darfur, and North and South Kordofan, in a latitude south of the thirteenth parallel and in a belt from the White Nile to Lake Chad. The main groups of Baggara are the Messiriya, Humr, Hawazma, Reizegat, and Habbania. Other groups include the Beni Selim, the Oulad Hamayd, Ta'aisha, Beni Helba, Beni Khuzam, Beni Husayn and Salamat. Moving east to west the Baggara groups can be located geographically as follows:

Beni Selim	Banks of the White Nile
Oulad Hamayd Habbania	South of Um Ruaba, Kordofan and around Tekali.
Hawazma	Between El Obeid, Dilling and Talodi
Messiriya	South of Abu Zabad
Humr	Between El Odaya and the Bahr el 'Arab
Reizegat Habbania Ta'aisha Beni Helba Beni Khuzam	Southern Darfur

Messiriya
Beni Husayn

Darfur

Beni Helba
Beni Khuzam
Salamat

In the area of what was
Wadai, Bornu and Bakirmi

Territories are not as discreet as might be implied in the above outline. There is overlap and concurrent use of many areas. For example, the Hawazma and the Missiriya traverse much of the same territory and may, in the rainy season particularly, be found in adjacent camps.

Baggara genealogies claim that their origins go back centuries to connect with the Juhayna in the Hegaz (MacMichael 1967:131; Cunnison 1966:1). The Juhayna are a section of the Himyarites of southern Arabia and are said to have been among the first Bedouins to accept Islam (MacMichael 1967:138). In 869 A.D. the Juhayna were among the groups in Beja territory, exploiting the mines. By about 1281 A.D. they were reported fighting the Rifa'a in the Suakin desert (northeastern Sudan on the Red Sea) and by the end of the 14th century had penetrated deep into Nubia (Hasan 1967: 138). Another large group of Juhayna were still found in Upper Egypt at the beginning of the 15th century, but they were forced out during the Fatamite era and settled around El Siut and Manfulut. According to Sudanese nisbas there were fifty-two

groups of Juhayna in Soba on the Blue Nile under Fung rule (MacMichael 1967:139).

There are two traditions of how the Baggara reached their present location. One is that after the invasion of Egypt some of the groups which became Baggara moved across North Africa to Tunisia coming south across the desert into western Sudan. The second tradition says that they were part of an invasion of Nubia and came down the Nile, pushing west to Wadai and Bornu. Throughout the centuries there has been movement east and west. The Baggara, on the southern fringes of the sultanates of Darfur, Wadai, and Bagirmi in the West, and the Fung to the East between the two Niles, moved east and west along the line of the sultanates according to political fortunes. Thus the Baggara retained access to certain goods (and booty) while avoiding payment of tribute (Cunnison 1966:2).

Between the 15th to 18th centuries new tribes were added to the Baggara group, e.g., the Khuzam, Salamat, Ziyud, Jubarat and the Beni Helba. By the 18th century the Baggara were concentrated to the east of Lake Chad, and north of Lake Chad in Darfur and Dar Wadai. At this period some of the groups began moving eastward; first the Rezeigat (to occupy eastern Darfur), followed by the Messiriya (who in earlier periods included the Humr) and the Hawazma (Doxiadis

1966:10). Cunnison (1966:3) says the Humr probably moved eastwards from Wadai about 1775, and in 1795 there are references to the Messiriya at Denga in the southwest corner of what is now Kordofan province. Since they did not always move as complete units, the Baggara groups have become widely scattered as a result of lateral movement over centuries.

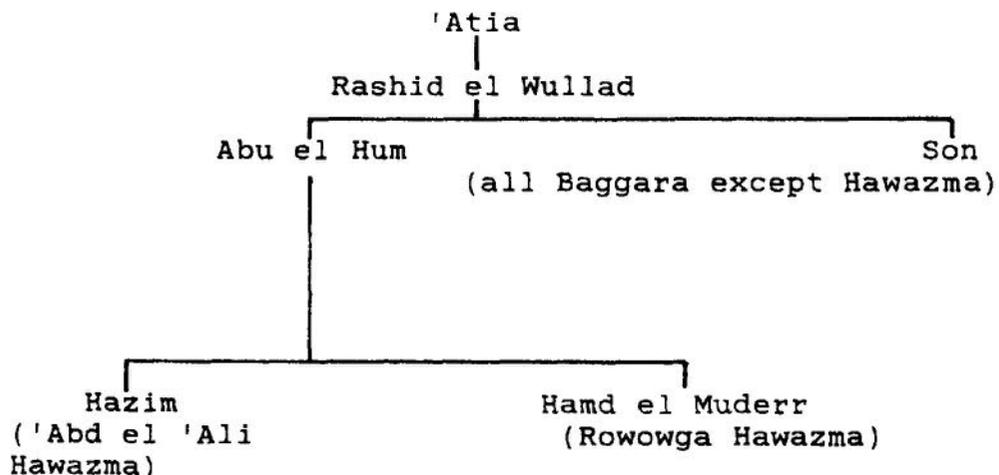
One source (Doxiadis 1966:10) suggests that the change from husbanding camels to cattle began in the 15th century during the Anag Kingdom. One tradition reports that the ancestors of the Hawazma bought their first bull and cow from a Fellati pilgrim (MacMichael 1967:274). Certainly, as the Baggara groups moved east and south into wetter climates they found that cattle were better adapted than camels.

The Hawazma:

Within the Hawazma there are three main divisions: the 'Abd el 'Ali, the Halafa, and the Rowowga. The 'Abd el 'Ali claim to be the "true" Hawazma, descended from 'Atia. The Halafa are composed of several tribes, none of which were originally Hawazma. These are the Bedayria (Asirra), the Takarir, the Jellaba, the Gawama'a, the Zenara, the Howara, and Nuba. About the middle of the 18th century (Fung Kingdom) the heads of families from these groups, unable to stand against the Fung, came

to the Hawazma for protection. The name Halafa is from the Arabic for "solemn oath," which they swore to ally themselves to the Hawazma (MacMichael 1967:152).

Some Hawazma claim that the Rowowga do not belong to the tribe, in terms of descent. Others claim descent as below.



The Rowowga are in part Beni Selim and Kenana who joined the 'Abd el 'Ali in the distant past. MacMichael says they have more Nuba blood than other groups (MacMichael 1967:282).

In the eastward movement from Wadai the Hawazma crossed the territory south of Abu Zabad, but found the Messiriya in the area of El Sinut. They continued east and established their territory between Abu Haraz, El Obeid, Er Rahad, Sherkeila and Birka. Some of them pushed further south into the Nuba Mountains, making alliances with Nuba chiefs or eliminating them by creating conflict between chiefs. The Hawazma

apparently both raided and married the Nuba, and by 1821 (the beginning of Turkish rule) were well established in the plains of the Nuba Mountains area (Doxiadus 1966:10). Further south the Hawazma were sometimes in conflict with the Messeriya.

The mid-nineteenth century saw the rise of the Mahdiya movement, and the whole tribe at first gave support to the Mahdi. In 1874 was the so-called Dervish revolt in which the Rowowga fought along with the rest of the Hawazma. The Hawazma took part in the seige of El Obeid. However, the Mahdi then proposed taking them to Omdurman to assist in an attack on Khartoum. At this juncture most of the Hawazma fled to Jebel Jaghub in the Nuba Mountains, remaining there until reoccupation. During this period there was increased intermarriage with the Nuba (MacMichael 1967:153).

During the Mahdist period large numbers of Baggara cattle were lost to negligence and raids by other tribes. At the end of the Mahdiya many Hawazma were impoverished which led to their taking up agriculture. However, savings from cash crops were converted to cattle and the Hawazma were able to regain their former status as cattle herders (Doxiadus 1966:11). Farming reverted to a subsidiary economic pursuit.

Other Ethnic Groups:

One of the most intriguing characteristics of Kordofan (and of Sudan) is the great ethnic diversity and interdigitation. While the different groups tend to dominate particular geographic locales no group is wholly isolated or bounded from other groups. The Sudan is a pluralistic society, though not in the sense of any of its provinces being the reserve of one main ethnic group. In fact, each province and even the smaller Regional Governments within each province are macrocosmic reflections of the national pluralistic polity. It is not possible or relevant to describe each group in detail. However, a brief review of the groups found in North and South Kordofan will be given in order to show the complexity of the cultural landscape. (The descriptions are based primarily on MacMichael 1967b and Nadel 1947.)

Daju: The Daju are from Darfur and are regarded as Nuba. In Kordofan they are found in the Messiriya jebels near Abu Zabad. Another group lives at Jebel Daju, just east of El Obeid.

Tungur: The Tungur reportedly came from Dongola, moved west into Darfur and displaced the Daju. There are a few Tungur just southwest of El Obeid, and others at El Rahad.

Ghodiat, Birged, Tomam, Tumbab: These related groups are located between the southern Nuba hills and El Obeid. The Ghodiat were closely allied to the Fung of Sennar who were predominant in South Kordofan from the 16th to 18th centuries. They are found near El Rahad and El Birka, almost in the same places they occupied upon their first arrival in the area. The Birged territory is in North Kordofan, around the jebels of Kaga and Katul.

Bedayria: The Bedayria are related to the Ga'aliin and Shaikia who, with other tribes, entered Kordofan with or shortly after the first Fung immigrants in the 16th -17th centuries. The Bedayria are not confined to Kordofan and there are numbers of them along the river as far north as Assuwan. They also have a number of villages north, south and west of El Obeid. They have mixed with the Hawazma and the Nuba.

Gawama'a: The Gawama'a are found around El Sa'ata in considerable numbers. Others are established east of Jebel Um Shidera near the present Um Arba'a, though most are near Um Dam, El Taiara and El Rahad where they are cultivators and collectors of gum.

Gima'a: These cattle breeders are east of the Gawama'a and near the White Nile. They are mostly sedentary.

Zaghawa: The Zaghawa are settled around Kagmar and are also found near the jebels of El Roy'ian and El 'Atshan.

Dar Hamid: Comprised of eight tribes, the Dar Hamid are found in the Khayran, low-lying cultivable basins stretching from north to south from Shershar to Bara. The Ferahna have villages in the Khayran. The Hababin have villages on the northeast side of Dar Hamid near Um Hashim, but are nomadic for most of the year. In the Bara district and to the east in the Um Dam district are the Nawahia. The Meramra are largely nomadic but have some villages in the Bara and Um Dam districts, near Jebel Maghanus. The Oulad 'Akoi are in the Um Dam district and at Um Gurfa. The 'Arifia are in the southern part of Dar Hamid. The Gilaydat live near Jebel Um Shidera on the southwest border of Dar Hamid. Some of the Maganin are at Hashaba but most are farther west. They are mainly nomadic having their winter and summer headquarters near El Mazrub, Delil, Shabuka and Shikayla on the western side of Dar Hamid.

Ma'alia: The Ma'alia, who are related to the Dar Hamid, are located between El Obeid and Shilluk territory, southeast of El Obeid. They have some villages but are primarily camel and sheep nomads, traveling southwest of Abu Haraz to Kaga. They are

also found near Sherkayla, Songeikai, El Odaya, Jebel Abu Sinun and El Gleit. In recent years they are sometimes seen in the Kadugli area in the dry season.

Ma'akla: The Ma'akla have been incorporated into the Ma'alia but are of different origin. They have villages around El Gleit in the western part of the Bara district and also near El Sa'ata southeast of El Gleit.

Zayadia: Related to the Dar Hamid, the Zayadia are nomadic, found mostly in Darfur. They have also settled at Um Arba'a east of Jebel Um Shidera.

Mima: The Mima moved to Sudan from Timbuktoo and are mostly in Darfur. In Kordofan they are found around El Rahad and Tekali.

Hamar: The Hamar are closely allied with the Dar Hamid. They were in Darfur but migrated to Kordofan. The Hamar are camel nomads who migrate from El Odaya to an area north of Um Badr, and as far east as Abu Haraz, Um Sumayma, Jebel Abu Sinun, Um Shidera and Jebel Abu 'Asal. They have been known to come as far south as Kadugli in the late dry season. However, the effects of increasing drought pressures in North Kordofan and Darfur can be noted when the Hamar are found watering their camels at wells around Kadugli by November, the early part of the dry season. The Hamar

have some villages between El Nahud and Jebel Abu Sinun.

Kenana: Most of the Kenana are on the east side of the White Nile, with many living in the Gezira and some in Sennar. The Kenana are also near Abu Haraz and between Abu Haraz and Dilling.

Shenabla: The Shenabla are camel nomads found in northwest Kordofan around Kaga el Hufra, Girgil, and Dar Hamid. In the dry season they are around Bara, Um Bosha, El Taiara and Sherkayla, though they may also be found as far south as Kadugli in recent years.

Nuba: In terms of social interactions between the Hawazma and other ethnic groups, the Nuba are of particular importance. These two groups, Nuba and Baggara, represent very different economic modes and very different ways of utilizing the same savanna ecozone. While there is competition between pastoral groups (and sometimes conflict), there is conflict of a different sort between pastoralist and farmer. On the other hand, there are similarities between Nuba and Hawazma adaptations and a certain degree of symbiosis. Both groups utilize the same staple crop, and cultivate it with the same techniques and tools. The Hawazma purchase some goods manufactured by the Nuba. The Nuba provide hired labor for both cropping and herding for the Hawazma. Nuba herdboys develop a

herd which can be used for investment cash, or even to become pastoralists themselves. For these reasons, the Nuba are important to a consideration of Hawazma social networks.

The Arabs call all the people of the Nuba Mountains area by the collective term "Nuba," though they are far from homogeneous and that term is not indigenous to any group. The people of the Nuba Mountains are an enclave of peoples representing three large language groupings: Sudanic, Bantoid and Nubian. Nadel (1947:2) notes that it has been said that every hill has people conscious of a separate identity and that there are as many Nuba languages as hills. He says this is only a slight exaggeration and that the population of the Nuba Mountains can be divided into over fifty different ethnic groups. The three main language groups can be further subdivided into ten language groups, each comprising related dialects.

Nadel (1947:3) says that despite linguistic and other differences there are aspects of similarity common to all groups. The cultural divisions do not always coincide with tribal boundaries, but may demarcate groups of tribes with cultural similarities. Also, the boundaries are not always associated with linguistic groups and are not always contiguous.

Movements into the Nuba Mountains were from several different directions. Traditions refer to

movements west to east, though some groups also moved from the east. The Daju of western Kordofan trace their origin to Dar Sila. The people of Shatt (south of Kadugli), a branch of the Daju, came from Darfur, reaching their present area from the Nile Valley near Malakal. The Tira had their original home in the Moro Hills and the Nyima claim to have come from Kuyya, near El Odaya. The people of Dilling regard Ghadayat (Jebel el Ein) as their original home, while the people of Kaduru and Jebel Tabak trace their origins to the Fung Kingdom in the east.

The Nuba are found concentrated on and around the hills rather than on the plains or in the valleys. Some of them claim to have always lived on the hills while others moved up into the inaccessible areas as protection from Baggara raids and Mahdist troops. The British forced many of the tribes to move down into the valleys or the plains. Since the end of British administration some have moved back up into the hills, while others have moved down as a result of the established security.

Demography

Population statistics on the Sudan are drawn from three censuses: 1955/56; 1973; and 1983. Table 1 gives the figures for each of those census years. As

Table 1. Population of Sudan.

	URBAN		RURAL SETTLED		RURAL NOMAD			TOTAL		
	1955/56	1973	1955/56	1973	1955/56	1973	%	1955/56	1973	1983
SUDAN	853,873	2,605,896	8,002,712	9,877,984	1,405,951	1,629,710	11.55	10,262,536	14,819,000	20,489,950
Province										
Kordofan		269,070		1,422,729	393,519	406,274	24.90	1,762,000	2,203,000	3,074,797
Kababish		2,676		59,652		137,523			199,851	
Dar Hamid		8,927		126,906		14,762			150,595	
Hamar		7,177		276,972		9,486			293,635	
Bederia		-----		88,233		4,973			93,206	
E. Kordofan		34,157		245,414		20,634			300,205	
Mesiriya		31,474		103,720		108,409			243,603	
Northern Jebels		19,216		149,167		22,030			190,413	
Southern Jebels		18,468		213,217		14,134			245,819	
Tegali		30,897		159,448		74,323			264,668	
Darfur		188,642		1,476,511		411,580	25.30	1,329,000	2,181,000	3,093,660
Bahr al Ghazal		120,146		1,201,608				991,000	1,386,000	2,339,510
Blue Nile		517,038		2,857,761		248,439	15.20	2,070,000	3,804,000	4,026,668
Equatoria		132,876		589,421		-----	-----	904,000	758,000	1,406,181
Kassala		231,178		579,695		244,018	15.30	941,000	1,113,000	1,512,325
Khartoum		784,294		256,327		54,996	3.40	505,000	1,150,000	1,802,299
Northern		170,085		654,473		93,165	5.70	873,000	964,000	1,067,098
Upper Nile		34,894		725,880		-----	----	889,000	799,000	1,471,538
Red Sea		157,673		113,579		166,238	10.20	*	459,000	695,874

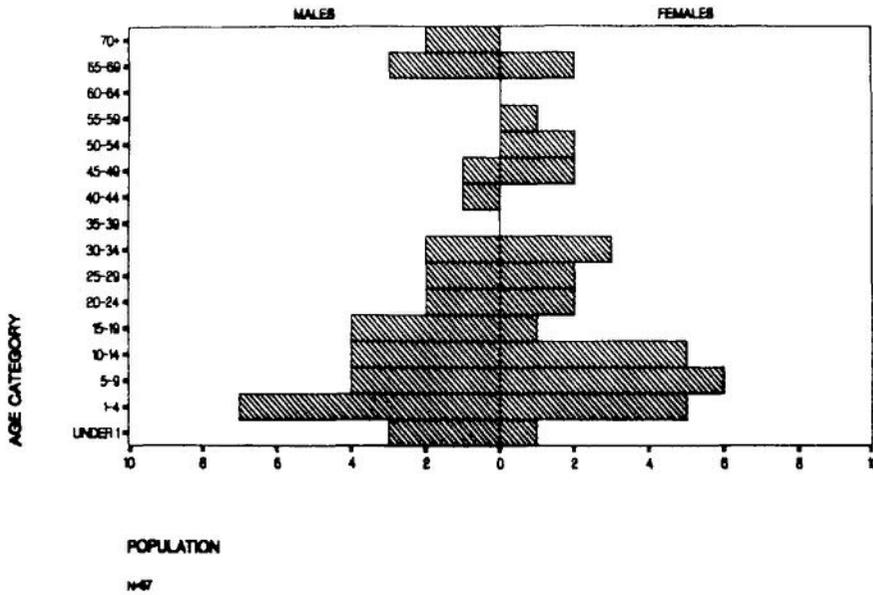
*In 1955/56 was combined with Kassala Province.

will be noted, the available information and categories are not consistent from census to census. Thus, the table has many gaps. The data for 1973 are disaggregated most completely, though at some future date the 1983 census will probably be more fully analyzed and more easily available. The sub-categories under the province of Kordofan are tribal groupings and geographical areas.

The characteristics of the population of the Oulad Nuba farig studied are shown in Figures 2 and 3. Most of the changes and gaps are due to shifting residence in the farig rather than to deaths. For example, the absence of men in certain age categories during the 1983 rainy season is due to their being in Saudia Arabia for wage labor. These changes in residence, and thus, farig population during a particular season will be discussed further in Chapters VI and VIII, particularly. Table 2 gives the characteristics of the nomadic population of Kordofan by age and sex. These figures are taken from the 1973 census. Comparability of Figures 2 and 3, and Table 2 should not be assumed, though some comparisons of the age/sex ratios can be made. Table 3 lists members of each household resident in the Oulad Nuba farig studied, by age and season.

FARIQ POPULATION BY AGE AND SEX

1982 DRY SEASON



FARIQ POPULATION BY AGE AND SEX

1983 RAINY SEASON

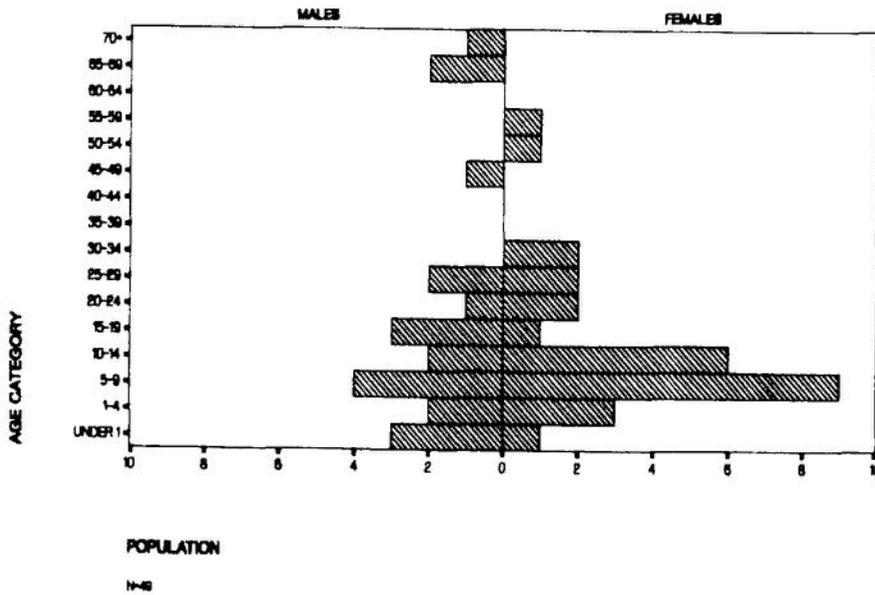
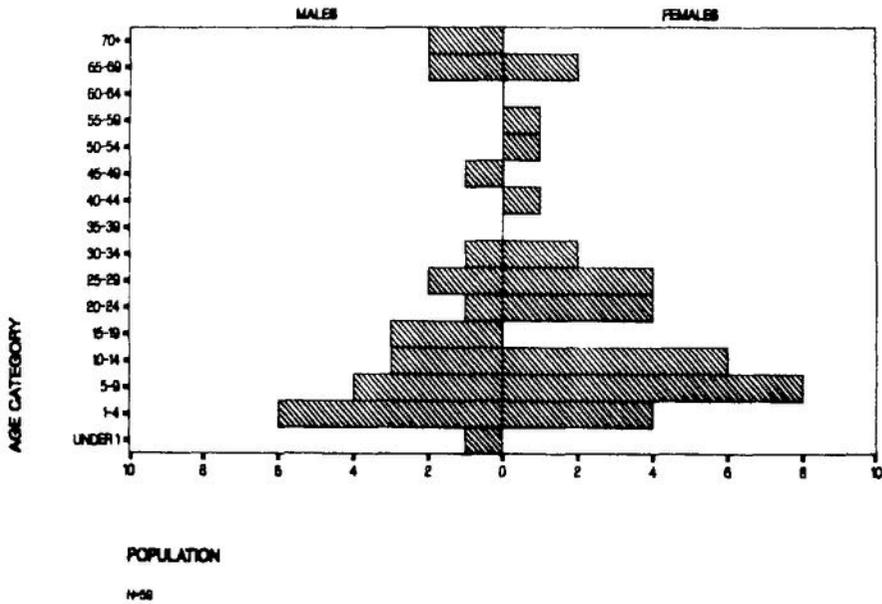


Figure 2.

FARIQ POPULATION BY AGE AND SEX

1983 DRY SEASON



FARIQ POPULATION BY AGE AND SEX

1984 RAINY SEASON

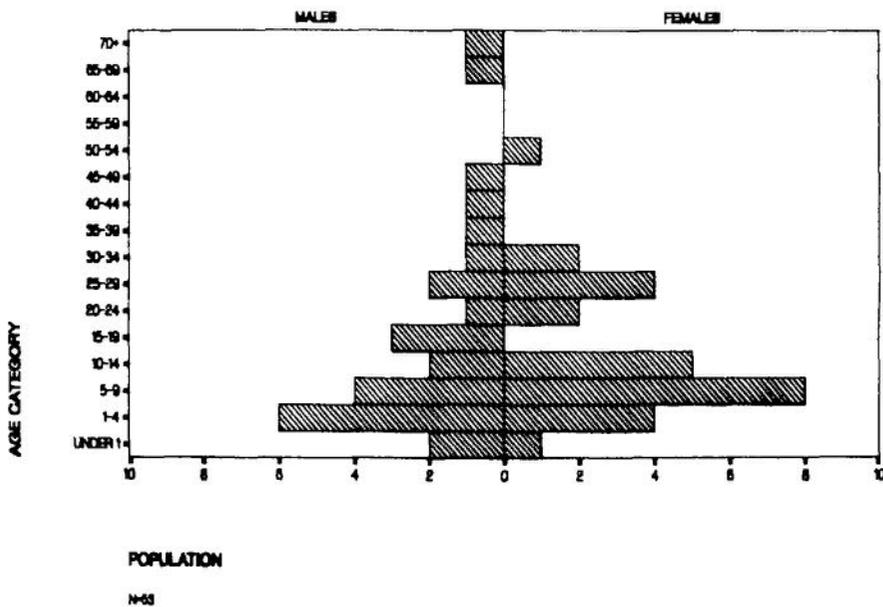


Figure 3.

Table 2. Nomadic Population by Age and Sex: Kordofan (1973)

Age	Both Sexes	Males	Females
Under 1	8,756	4,567	4,189
1 - 4	61,168	36,623	28,545
5 - 9	83,045	44,738	38,307
10 - 14	44,220	24,716	19,504
15 - 19	29,735	15,180	14,555
20 - 24	23,764	10,592	13,172
25 - 29	31,155	13,151	18,004
30 - 34	25,007	11,290	13,717
35 - 39	26,827	13,870	12,957
40 - 44	19,037	10,191	8,846
45 - 49	15,231	8,626	6,605
50 - 54	11,719	6,575	5,144
55 - 59	6,455	3,679	2,786
60 - 64	7,821	4,567	3,254
65 - 69	4,047	2,410	1,637
70+	7,589	4,355	3,234
Age Not Stated	688	296	392
TOTAL	406,274	211,426	194,848

Sudan. Ministry of Finance, Planning and National Economy. Dept. of Statistics. 1973: 10.

Table 3. Households Resident in Fariq Haj Younis Mohamed

	Age (1982)	1982-Dry (Oct.)	1983-Rainy (July)	1983-Dry (Oct.)	1984-Rainy (July)
1. Zeinab Hamad Hamid	28	x	x	x	x
Younis Mohamed (Sheikh)	45	x	x	x	x
a. Khadija	10	x	x	x	x
b. Fatna	8	x	x	x	x
c. 'Aisha	5	x	x	x	x
d. Hakmula	2	x	x	x	x

	Age (1982)	1982-Dry (Oct.)	1983-Rainy	1983-Dry	1984-Rainy
2. Amina Hamid Hanai	26	x	g		
Ahmed Said	30	x	g		
a. Fatna	4	x	g		
b. Gadoon	3	x	g		
c. Delal	2	x	g		

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
3. Khadija Nail	26	x	x	x	x
Mohamed El Ahmar	40	x	f	f	x
a. Oguli	8	x	x	x	x
b. Hasan	6	x	h	x	x
c. Hamad	3	x	x	x	x
d. Halima	11 mos.	x	x	x	x
e. Mariyam (b. July 1984)					x
a. Hamid	15	x	x	x	x
b. Shoibo	12	x	d		

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
4. Amna Mohamed	48		x/d		
a. Hamid Daduna	17		x		
b. Hawa	13		x		
c. Abdullah	10		x		
d. Nur	8		x		
e. 'Aisha	5		x		
Naima Daduna	20		x/a		
a. 'Aisha	3		x		
Hakmula			x/a		
a. Babo			x/a		
b. Younis (b. Jan. 1983)			x		

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
5. Fatna Hamid Hanai	31	x	x	x	x
Nur Ahmed Hanai	35	---	f	f	x
a. Hakmula	11	x	x	x	x
b. Abdul Rahim	9	x	x	x	x
c. Suad	6	x	x	x	x
d. Mahila	4	x/d			
e. Mohamed	3		x	x	x
f. Hamid	9 mos.	x	x	x	x

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
6. Hakmula Mohamed	52	x	x	x	x
Hamid Hanai	70	x	x	x	x
a. Younis	28	x	x	x	x
b. Mesar	17	x	b/e		
c. Bakheita	13	x	x	x	x
d. Abdul Rahman	11	x	c	c	c
Katcoot Abdullah	5	x	x		
Ahmed Hanai		x	e	x	e

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
7. Ganina	52	x	e		
Yayah Ali	68	x	e		
a. Mustafa	20	x	x	x	x
Granddaughter	4	x	e		

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
8. Um Khalthum	55	x	x	x	g
Ahmed Sultan	68	x	x	x	g
a. Abayd	18	x	x	x	g
Granddaughter	9		x		
	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
9. Kosha Tikale	48	x/d			
Mahdi Ma'tok	68	x	x	x	x
a. 'Aris	24	x	i		
b. Shoibo	15	x	c	c	x
	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
10. Fatna Husseini	33	x	x	x	x
Mahdi Ma'tok	68	x	x	x	x
a. Meriyam	12	x	x	x	b
b. Zein	10	x	x	x	x
c. Reifa	8	x	x	x	x
d. Abayd	11 mos.	x	x	x	x
e. Ma'tok	b. May 1984				x
f. Ajara (spouse in Army)			x		
a. Mahdi			x		
	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
11. 'Aniya Halil	14		x	x	x
'Aris Mahdi	26		x	x	x
	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
12. 'Aisha (Konduka) Hamid	22		x	x	x
a. Amna	6		x	x	x
b. Zeinab	5		x	x	x
c. Meriyam	2 mos.		x	x	x

Spouse: Hamid Mohamed in Saudi Arabia or resident in Um Batah.

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
13. Naima Daduna	20		x	x	x
Hamid Younis	26		x	x	x
a. 'Aisha	3		x	x	x
'Aisha Daduna (Naima's Sister)	5		x	x	e

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
14. Hawa Daduna	13		x	x	e
Hamid	17		x	x	i
Abdullah	10		x	x	x
Nur	8		c	x	c

	Age (1982)	1982-Dry (Oct.)	1983-Rainy (July)	1983-Dry (Oct.)	1984-Rainy (July)
15. Halima Mohamed Abbas	25			x	x
a. Katcoot Abdullah	5	h	h	x	x
b. Ali	2			x	x

Spouse: Abdullah Hamid Hanai
in Saudi Arabia.

	Age (1982)	1982-Dry (Oct.)	1983-Rainy (July)	1983-Dry (Oct.)	1984-Rainy (July)
16. Amna Mahdi Ma'tok	24	x	x	x	x
Bilal El Ahmar	32	---	x	x	x
a. Mahadia	4	x	x	x	x
b. Mohamed	3	x	x	x	x
c. Shoib	11 mos.	x	x	x	x

	Age (1982)	1982-Dry	1983-Rainy	1983-Dry	1984-Rainy
17. Muna Hamid Mohamed	16				x/i
Hamid Daduna	17				x/i

Key: a - during pregnancy
b - married and moved
c - in school
d - died
e - moved to Um Batah
f - wage labor in Saudi Arabia
g - moved to another fariq
h - with grandparent
i - married, new household

Methods and Fieldwork

The fieldwork upon which this dissertation is based was carried out between October 2, 1982 and October 8, 1984. I was a member of the Western Sudan Agricultural Research Project team, a project sponsored by the U.S. Agency for International Development, the World Bank and the Government of the Sudan, and for which Washington State University was the lead university. One of the main mandates of the project was to: "Develop and implement an integrated research program, which would aim to increase production by the traditional rainfed producers of the West (Kordofan and Darfur) while preventing and/or alleviating degradation of the natural resource base" (WSARP No.39, 1985:4). The project team was multidisciplinary, and at Kadugli, included anthropology, range science, livestock production, agronomy, and agricultural economics. I was stationed at Kadugli, in South Kordofan, about 400 miles south of Khartoum, in a region known as the Nuba Mountains.

While the project addressed research problems in both the sedentary (primarily Nuba) and pastoral (primarily Hawazma and Messiriya) sectors, I worked almost exclusively with the pastoral Hawazma. My project assignment was to study Baggara women's production and consumption activities.

I arrived in the field just after the beginning of the dry season, and the Hawazma fariqs were just returning to their dry-season camp sites. In fact, I met the fariq I was to work with "on the road," a short distance north of Kadugli. Dr. Joel Teitelbaum, Senior Anthropologist, who had been in the field some months before my arrival, had already visited a number of camps and knew many people. He greatly facilitated my entry into the field, spiriting me away from project meetings within the first days of my arrival to meet the Hawazma. Dr. Teitelbaum's stay in the field overlapped with mine for fourteen months. During that time we worked on some joint projects, but I also worked a great deal on my own.

Even though I was fairly certain of being able to work with pastoral nomads when I left for the Sudan, I was not certain of how my responsibilities to the Project might frame my research. For that reason I had not been able to write a proposal for approval for my committee before I left the country. In addition, my advisor, Dr. John Janzen, had gone to South Africa for research of his own before we were even certain that I would be going to the Sudan. Once I had arrived in Kadugli and had an opportunity to consult with Dr. Teitelbaum, I was able to draft an initial proposal and research plan. Fortunately, Dr. Janzen was in Cairo for two weeks toward the end of December

1982, and I was able to meet him there to discuss my research. Except for two broad project mandates, (1) I was to study women's production and consumption; and (2) I was not to "chase witch doctors," (supposedly what all anthropologists do) I was able to develop my research as I wished.

Initially I pursued a search for a female field assistant, someone who knew both the Hawazma Arabic dialect and English. I did identify a young woman who was Baggara, and whose parents gave permission for her to travel about the countryside with me. However, this woman worked in one of the government offices in Kadugli and it was impossible to obtain permission from the concerned Ministry to second her to the Project. Working with me would have meant her losing an excellent permanent position. In the long run it was probably better for us both that the secondment did not work out, as field conditions would have placed a great burden on me to be responsible in all the socially required ways for a young, unmarried Arab woman.

Arabic, the native language of the Hawazma, was the language in which I worked most of the time. The Hawazma speak a dialect of Arabic somewhat different than the main Sudanese dialect, which is in itself different from Arabic spoken in other parts of the Middle East. Although I knew Arabic before I went

to the field I needed to learn much new vocabulary. Initially I almost despaired of being able to carry out fieldwork without an interpreter, at least in any work with women. I could understand Hawazma men when they spoke, but I could hardly understand anything the women were saying. After several weeks of intense listening and many requests to "repeat slowly," my ear finally adjusted to the women's speech patterns and I regained confidence in my linguistic ability.

The selection of the primary fariq I worked and travelled with was based largely on access. Except when I worked with Dr. Teitelbaum or another Project member I rarely had access to Project vehicles. After Dr. Teitelbaum left the field I arranged purchase of a trailbike to facilitate my movements in the field. Haj Younis Mohamed's fariq camped for the dry season a twenty-minute walk from the research station. Until I had been granted permission to live in the fariq this was a major consideration. Throughout the first six months I spent most days at the fariq, learning, as well as investigating how I might be more closely attached to Haj Younis' fariq. There was much joking about this idea, and several suggestions: I might be married in, or I might be adopted as a daughter. Hamid Hanai Wanasi suggested this latter alternative which was acceptable to everyone, including me. In December, 1982, I took my tent to

the farig and set it up next to my "mother" Hakmula Mohamed's hut for a trial run of my new status.

The next idea for which I sought acceptance was that of trekking with the farig to their rainy season campsite. This topic also aroused a great deal of amusement as most people assumed it was hypothetical. Following general consensus on what beast would be appropriate for my transportation, were I to trek, I purchased a donkey in February 1983. Even though Haj Younis said I could travel with the farig it became clear no one believed I actually would. By the end of June 1983 anticipation for the beginning of the trek was high, and I was told I would be informed when a decision was made for the farig to move out. However, on an evening visit on July 2, 1983, I found the farig packing for a morning departure, and I had not been told. I got my gear together and arrived at the farig just after dawn ready to load my donkey. After travelling two days to a staging campsite just north of Kadugli my intent to trek was taken seriously. Since the farig intended to spend about two weeks at the staging site, until after the first 'Eid after Ramadan, I went back to Kadugli. I needed to complete preparations, and Dr. Teitelbaum insisted I have a medical examination.

I was diagnosed as having malaria, by both a local clinic and our Project veterinarian. Making

sure of a cure meant I missed six days of the trek. But as soon as I got medical clearance I rejoined the farig and continued on to the rainy season campsite at El Beida, just southwest of El Obeid. The farig spent 40 days there, (August 17 -September 26, 1983) and I also, except for one trip back to Kadugli. I decided not to trek back to Kadugli, but to pursue other areas of research while the farig was on the road.

Although I was in the field during the 1984 rainy season, I did not trek with the farig. Until that time I had focused most of my research effort on the farig. I needed, at that point, to concentrate on the Oulad Nuba kingroup living in Um Batah, a small hamlet just outside of Kadugli. I also needed to follow up research on cheese making, work I had not been able to complete the previous season, and which could only be done during the rainy season. This involved interviewing several cheese factory owners and personnel in the Veterinary Department which also operates some cheese factories. During the month Haj Younis' farig was on the road, I did keep track of their movements and visited them several times as they progressed north. Once the farig reached its northernmost point, I joined it for a period of about three weeks, the length of time they were able to spend since there was a severe shortage of grazing and water.

Even though I was attached to one particular fariq I visited quite a number of others. Dr. Teitelbaum worked extensively with a Dar Sholongo fariq, and I also got to know them well. Together we provided transportation in a Project pickup truck for people from both fariqs to go to weddings, funerals or other visits. The truck was particularly in great demand to transport new brides and their household goods to their new homes. Research projects of Dr. Trent Bunderson (Range Scientist) and Dr. Richard Cook (Animal Production Specialist) also provided opportunities to visit other fariqs.

The main research methodology was participant-observation. My situation was similar to that described by Evans-Pritchard (1940:9), who wrote, "...what I describe is almost entirely based on direct observation and is not augmented by copious notes taken down from regular informants, of whom, indeed, I had none." The Hawazma were not given to long, intensive grilling by an anthropologist. Most interviewing was done in group situations, in the context of the regular conversational gatherings of men or women, with everyone contributing an opinion or a bit of information. In this context, I was never able to keep the conversation on one topic for any lengthy time. The longest conversations I had with any one individual usually took place as we jogged

along side-by-side on our donkeys, not the best circumstance to utilize either a notebook or a taperecorder.

Genealogies were collected, first as a technique to learn who people were. Later, as the names and lines became real people and meaningful (to me) relationships, I collected the genealogies again in order to check information that perhaps had been misunderstood or glossed over superficially. The first time the genealogies were given to me by men; during the checking process, by both men and women.

Demographic data was also collected. Most of this work was done with the women. For these surveys, I devised a form, to insure consistency in data collection. Information on spouse, names and sex of children, age estimations, were among the categories included. This data was initially collected early in my fieldwork. However, as with the genealogical data, the longer I was in the field, the more certain I was that there were gaps in the data. These gaps were the result of public:private divisions (for example, always giving male children first, regardless of birth order, or identifying people by classificatory kinship terms); attitudes (for example, "forgetting" children who had died young or at birth); and the fact of the level of rapport and trust to which I was entitled. Familiarity with the culture after a long period in

the field also made me more adept at asking and phrasing questions. Therefore, in the last month before I left the field, I worked intensively to collect and check the demographic data again. I am quite confident of the high quality of the data collected. While most of the data collected on fertility, completed family size, probable ages of menarche and menopause, infant and child mortality are not directly relevant to the argument of this dissertation, they do demonstrate patterns and raise some interesting questions regarding such issues among pastoral nomads. The results of much of this study will be reported separately.

Household economic studies, particularly in the areas of milk selling and labor migration, were also made. Again, it was not possible to collect these data except by being on-hand to be aware of transactions. Once I knew what was "going on" I was able to press for specific information. Various case studies were followed, also possible by being in the camp to observe.

Chapter II

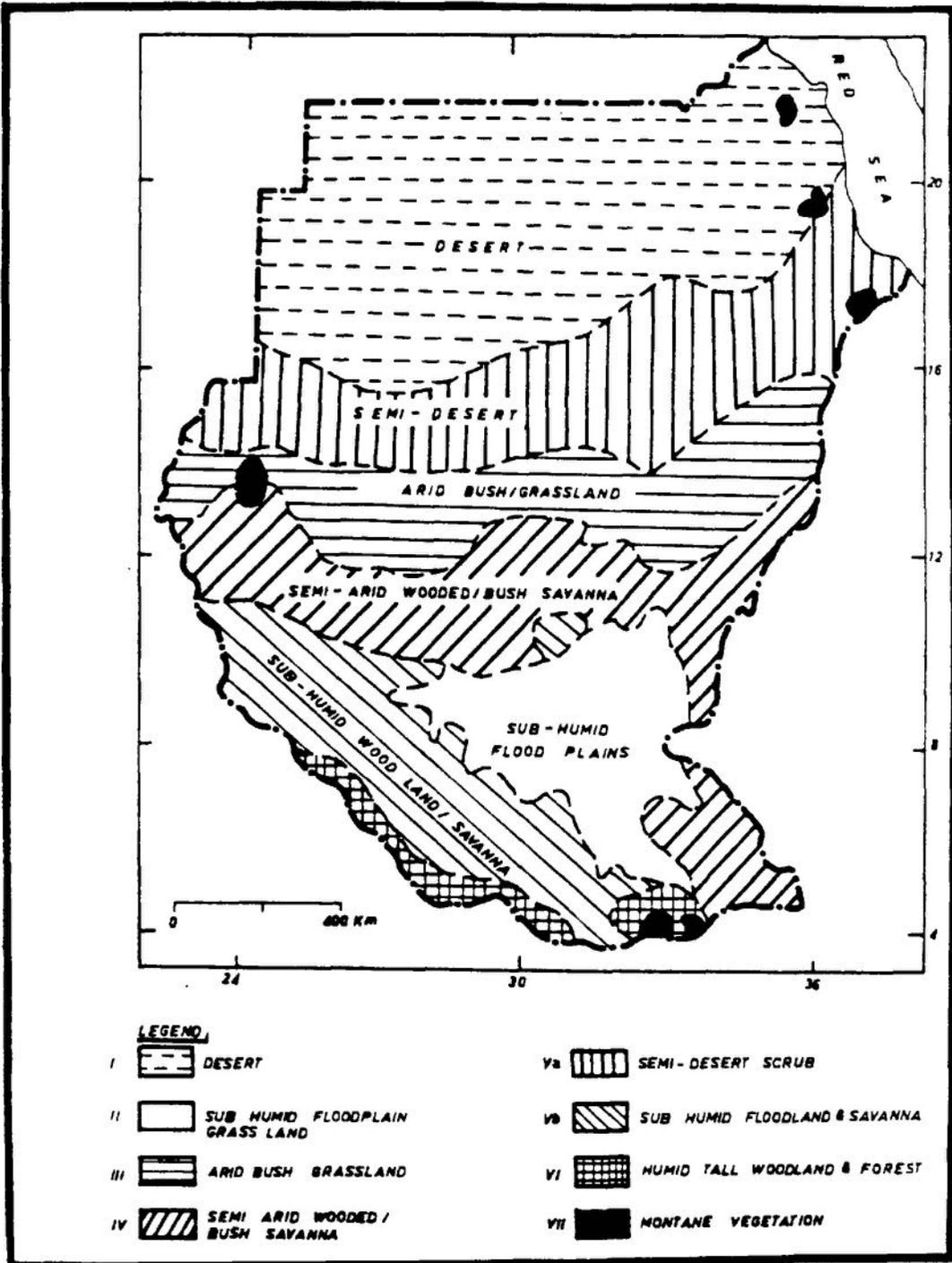
The Human Ecological Context

Environment:

Sudan, with a total area of 2.5 million square kilometers, is the largest country in Africa. Sudan's population is over 20 million. Topographically Sudan is a vast plain with occasional hill and mountain ranges. There are the Red Sea Hills in the northeast; the Jebel Mara in the west; the Nuba Mountains in the central area; and the Imatong Mountains in the south. Ecological zones which follow a north-south gradient are diverse. These zones range from desert and sparse scrubland in the north through arid and semi-arid bushlands and wooded savannas, to lush grasslands, tall woodlands and closed canopy forests in the south (WSARP 1984:5).

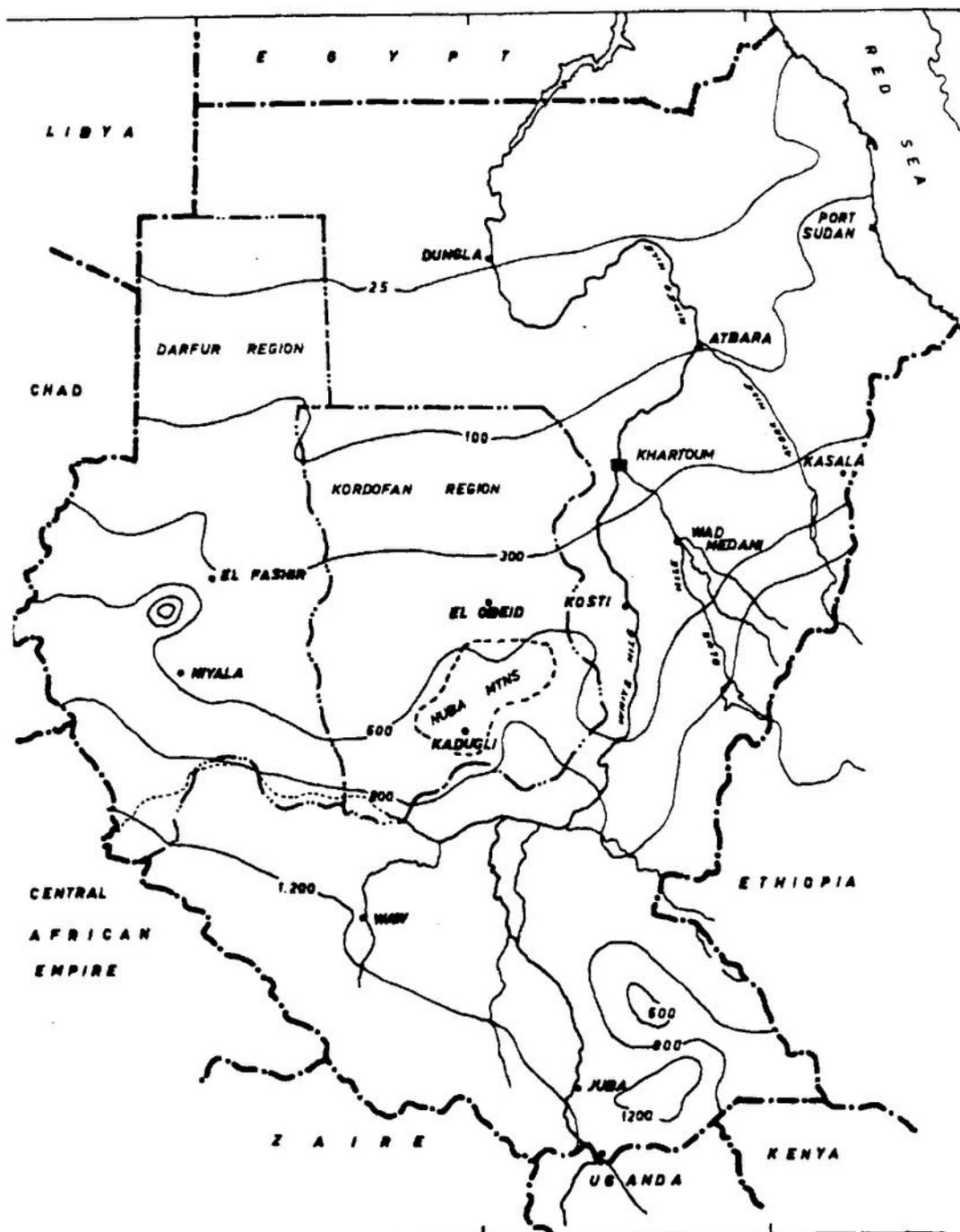
Climate:

Kordofan is in a savanna zone of the Sahelian belt, characterized by a hot, semi-arid climate. Rainfall is dependent on the Inter-tropical



From: Bunderson, Cook, Fadlalla 1984:2.

Figure 4. Broad Eco-Climatic Zones in Sudan.



From: Bunderson, Cook, Fadlalla 1984:3 Scale 1:10,000,000
 Figure 5. Mean Annual Rainfall.

Convergence zone where warm moist air from the equator meets dry air from the permanent high pressure areas over the Sahara. Annual rainfall varies from about 100mm in the north of the province, to over 800 mm in the south. However, rains occur in a single season, kharif, primarily from June to September. Rains may fall in May and October, the months marking the onset and end of the rainy season, but unseasonal rainfall is rare.

The Hawazma designate the seasonal calendar as follows:

Deret	Mid-October to Mid-December	short, hot season
Shita	Late December - February	cool, dry season
Seif	March to Early May	main dry season
Rushash	May - June	hot, increased humidity
Kharif	July to October	rainy season

In Kadugli the hottest months are March and April.

Daily means	30-32 C
Monthly maximums	39-41 C
Monthly minimums	22-24 C

The coolest months are December and January.

Daily means	25-27 C
Monthly maximums	34-35 C
Monthly minimums	17-18 C

Humidity in Kadugli is:

Dry season	15-20%	230mm/month evaporation
Rainy season	80-90%	150mm/month evaporation

Terrain:

South Kordofan is characterized by flat or gently undulating plains of cracking and non-cracking soils. Interspersed on the plains are the hills or jebels of basement complex rock and their associated footslopes. The Nuba Mountains are mainly granites, mica schists and quartzites. Elevation varies from about 500 M in the plains to over 800 M at the tops of the hill ranges. The maximum range of elevation is 400 M to 1200 M.

Water Sources:

Major drainage patterns in South Kordofan include the Khor el Berdab and Khor el Afin. Both were former tributaries of the Bahr el Arab system. They drain south and terminate in the alluvial clay depressions of Lake Keilak and Lake Abyad. These lakes are the only perennial sources of surface water in South Kordofan (WSARP 1984:11).

In the north of the province the drainage pattern is north to east toward the Khor Abu Habl which flows east to the Nile. Principal tributaries draining into Khor Abu Habl are Wadi Abu Seiba, Khor Sungalla, Khor Umm Berembeita and Wad Shallango. To the west of the Nuba Mountain region important drainages include Wadi el Ghallah and Wadi el Azraq.

Water sources in South Kordofan include hafirs, wateryards, hand pumps, traditional hand-dug wells, and ephemeral ponds. Hafirs are excavations in clay soils where surface run-off is collected. About 90 hafirs were constructed in the province in the 1950's. However, due to silting and lack of maintenance their potential storage capacity of about 2 million cubic meters has been reduced by over 35% (WSARP 1984:12). UNICEF and the National Administration for Water have recently begun a hafir rehabilitation program.

Wateryards are sites where boreholes have been constructed, with steel storage tanks and watering troughs. Wateryards are a valuable source for both animals and people but they are few. They are particularly important in the larger towns such as Kadugli, Dilling, Lagawa, and Hamra.

Hand pumps for household use are being put in rural areas by UNICEF and the NAW (National Administration for Water). However, the demand, and the need, exceeds the construction capacity and there is a long waiting list of villages or communities having applied for a hand pump. Another problem is that often hand pumps fall into disuse due to lack of maintenance as UNICEF and NAW cannot keep up with both construction and repair requirements. One solution that is being tried is to involve the community in the investment for a well and the hand pump. In order to qualify for a well a community must jointly contribute LS200 (USD100 in 1984) and send two men, who will be provided tools, to be trained to maintain it.

UNICEF wells, however, are rarely available to the pastoralists. Camps are usually far enough distant from towns or villages where the hand pumps are located as to make regular use of this water source impractical. Traditional hand-dug wells provide the major source of water for both people and animals. These are dug to varying depths on jebel footslopes and in the banks or beds of seasonal streams. Such wells are only possible where there is a high water table, and they are rare on the plains. Other than wells, standing pools of water in

depressions or stream beds provide seasonal, short-term sources of water.

In an interesting aside it may be noted that pastoralists are willing to consider investing in a UNICEF well. The camp studied traditionally located for the dry season about four kilometers from the main town of Kadugli. The main water source was hand dug wells, with problems of shortages at the end of the dry season and problems of pollution. Two men (resident in the camp) had been asked by some of their relatives settled in a village some distance from Kadugli to enquire at the UNICEF office about the status of their request for a hand pump. At the UNICEF office they were told about the requirement of the LS200 contribution and the commitment of two men to be trained in maintaining the well. For several days the idea of signing up for a hand pump was under serious discussion in the camp. In the end the idea was rejected, but not because of the LS200 investment. The money was available and the camp members were willing to pay. The final consideration was that while the hand pump would be extremely valuable to them during the dry season, when they left the site for the rainy season trek there would be no one to protect their right to the well. They were afraid that when they returned from the trek they would find

a village hamlet established around their well and they would lose access to their dry season camp site.

Soils:

Soils are also important, to pastoralists as well as agriculturalists, setting some constraints on livestock movement, types of grazing available, water retention, and cropping. As will be discussed in the sections on camp locations and migration patterns, soil types are considered not only for their physical characteristics. Reference to particular soil types symbolically represents not only a direction of travel but a complex package of cultural expectations.

There are six major soil types in the Nuba Mountains region and another two types in the region around El Obeid which are important to considerations of land usage in this study.

1. **Jebel soils:** The tops and slopes of jebels consist mostly of bare rock and shallow, skeletal sands and sandy loams. These dry out rapidly and tend to be infertile and susceptible to erosion. Jebel soils are generally unsuited to cultivation but are cropped regularly in areas of high population density. The jebels are also grazed extensively by sedentary livestock, particularly in the rainy and early dry seasons.

2. Footslope soils: Weathering processes in the hills have resulted in reddish-brown soils which vary from light sands to coarse sandy loams and sandy clays, usually over a layer of gravelly loam close to the surface. These soils are usually rocky. They are found in a ring, ranging from a few meters to several kilometers wide, around the jebels. These areas are highly populated and are the site of most Nuba gardens and near-farms. The footslope soils are deteriorating due to increasing pressures of cultivation, year-round and heavy dry season grazing, widespread burning and tree cutting.

3. Plains Residual Soils: These soils are red and red-brown, medium to fine textured non-cracking clays and clay loams, primarily found on the plains. They are derived from in-situ weathering of basement complex rock. They are deep but have a hard, compact surface which has low water infiltration and is subject to sheet erosion and run-off. Grazing is the main use, particularly in the early rains and shortly after they end. Their hardness and poor water infiltration makes these soils difficult to cultivate and so not used.

4. Shallow and/or Gravelly Cracking Clays: These soils range from brown surface cracking clays to darker, deeper cracking clays. They are found on the

more dissected and undulating parts of the plains where there is considerable run-off. Livestock grazing is the primary use. There is no extensive cultivation due to poor water retention, hardness and stoney profiles.

5. Dark Cracking Clays: The dark cracking clays contain an average of 60% clay and occupy over 50% of the plains area in the Central Districts of South Kordofan. The most common of these dark cracking clays are 2 meters in depth with cracks extending down to 1.5 meters. Cultivation is difficult because these soils are either too dry and hard, or too wet and plastic. The cracking clays are a valuable source of grazing, both to sedentary and nomadic livestock during the dry season.

6. Alluvial Complex Soils: These are highly variable, ranging from coarse sandy loams to finer clays. Their principal use is for dry season grazing. Some of these soils are utilized for the cultivation of irrigated horticultural crops in areas adjacent to stream banks.

7. Stabilized Sands or Qoz Soils: A sizeable region of the northern parts of South Kordofan are represented by qoz soils. They are a part of a deep aeolian mantle with quartz sand derived from the surrounding basement complex, Nubian sandstone and Umm

Ruwaba sediments. The goz soils form extensive sheets and dunes from the basement complex zone eastward to the White Nile and between the northern deserts and the Nuba Mountains. goz soils are deep and coarse, with low fertility. They are characterized by high rates of rainfall infiltration, low moisture holding capacity and are susceptible to erosion. However, the goz soils are widely cropped due to ease of land preparation, planting and weeding. They are also important for seasonal and year-round grazing where water is available.

8. Non-Cracking Clays or Garduds: The garduds are red clays and brown sandy clays, derived from basement complex rock. The areas where they are found consist of flat to gently undulating plains. They alternate with the goz areas and also form extensive plains in the northwestern regions of the province. Garduds are impermeable clays, typically forming surface crusts which reduce rainfall penetration. Heavy grazing and fires leave exposed surface layers of truncated clay pans which are common to gardud soils. These soils are relatively fertile but are rarely cultivated due to poor water infiltration and difficulty in tilling. The major use is grazing, primarily in the rainy season when ephemeral sources of water are found in small depressions (WSARP 1984:8-17).

Vegetation:

Bunderson (1985) has classified the major rangeland communities of the South Kordofan Central Districts on the basis of botanical composition, physiognomy, topographic characteristics and climate. In general, the vegetation is heterogeneous and complex, though there are close associations with land forms and soil types. Bunderson (1985:5) distinguishes six broad categories in the vegetation.

1. Deciduous broad-leaf savanna on sandy clay and loam soils of jebel hillsides and footslopes.

2. Semi-deciduous thorn savanna on cracking clay plains.

3. Mixed thorn and broad-leaf savanna on non-cracking clay plains.

4. Swamp grassland on seasonally flooded cracking clay depressions.

5. Mixed thorn and broad-leaf savanna on alluvial plains.

6. Riparian semi-evergreen woodland along drainage courses.

According to Bunderson's study (1984b) only 6-10% of the net primary production (NPP) is consumed by the existing livestock biomass in the central districts of South Kordofan. In relation to other areas of Africa where grazing frequently exceeds 25% of NPP with no adverse effects, utilization here is inefficient. Range conditions in the Nuba Mountains are fair to good. Grazing has little impact on vegetation

resources as timing and intensity of use are not conducive to physiological change.

The absence of sufficient grazing pressures during the growing season has led to the development and maintenance of coarse, low quality plants in the herb component. Exceptions are in two areas: (1) footslopes with permanent water where grazing has been excessive; and (2) burnt areas containing perennial grasses whose vigor and growth are reduced by early dry season fires. This burning has led to grazing selectivity due to the attraction of new regrowth (Bunderson 1985:7). Poor spatial and temporal distribution of livestock has resulted in inefficient utilization of forage resources. One reason is the migration of livestock during the rainy season to escape unfavorable disease, pest and environmental conditions. Uncontrolled burning, inadequate water supplies and exploitive agro-forestry practices also limit the realization of the area's ecological and land-use potential. On the qoz soils and non-cracking clays outside the Nuba Mountains, resource degradation is acute where continuous rainy season grazing pressures, expanding cultivation and tree cutting do not allow range rest and recovery. In these areas the abundance and diversity of tree and forage plants is being reduced (Bunderson 1985:7).

The Hawazma Annual Cycle:

The Hawazma divide the year into five seasons: deret, shita, seif, rushash, and kharif. Each season is characterized not only by changes in climatic conditions, but changes in the physical location of farigs (camps) in response to the availability of grazing and water for the herds, as well as social activities. The following tables (Tables 6-11) give an outline of activities as they move both through time and across ecological zones. The tables (and ensuing discussions throughout the dissertation) are organized according to Hawazma categorizations. The annual cycle described does not correspond to the Western annual cycle. A discussion organized in Hawazma terms is the only way to understand the cultural cycle. It is also the only way to understand the ecological cycle of the savanna zone. Climatically, for example, late December through February must be considered a unified sequence.

A problem in the literature is that attempts have been made to understand local environmental conditions and their sociocultural consequences, by forcing them into Western sequences. The result is one such as in Weiner (1980:427) where the "hungry period" is broken into non-contiguous segments with a nutritional intake curve which becomes meaningless in terms of the

cultural context being described. The hungry period does exist, though it corresponds with an agricultural and climatic calendar characteristic of a savanna zone, not a Western temperate zone calendar. The hungry period as graphed by Weiner, has multiple peaks and lows, appearing to occur at more than one point in the annual cycle.

The named divisions of the Hawazma year do not necessarily correspond to Western calendrical months. Nor do the seasons begin consistently on any given "date." They recur across years within a close range of days (or weeks) but since the onset or end of each seasonal period reflects weather conditions, there is some variation from year to year. In extreme cases, however, it is possible that from the Hawazma perspective an entire season could be missing from a given year if that season's weather conditions did not occur. That is, if the rains failed entirely, the Hawazma would not say the kharif had no rain, but rather that there was no kharif.

While the Hawazma are pastoral nomads they are not continuously on the move. There are two foci for their herding activities; the dry season grazing area and the rainy season grazing area. Utilization of these geographically separated areas requires two main movements, from dry season locality to rainy season locality, and back again. Timing of the moves and the

duration of the stay at either end is tied to the onset and end of rains and the associated availability of grazing and water for the herds. The distance between the two foci ranges from 300 to 400 kilometers. The dry season camps are located at the southernmost point, with movement to the rainy season grazing and camping area being northward.

Movement to and establishment of the dry season camp marks the beginning of a new annual cycle. This occurs during the deret (mid-October to mid-December) and is in the south, in the environs of the Nuba Mountains region. Establishment of the dry season farig depends on when rains end and herds must move to southern pastures. The early part of this season may find the fariqs still on the return trip from northern pastures if the rains were good and standing pools of water are still available along the way. Locations for dry season fariqs are usually in the same locale year after year, with specific locales recognized as "belonging" to a given farig. Fariqs from a particular lineage (khashem beit) tend to be concentrated in a defined territory. For example, the Oulad Nuba say their dar (home territory) encompasses an area demarcated by Kadugli, Um Heitan to the east, and Teis in the south. This dar, however, is not the exclusive domain of any khashem beit and may also be utilized by fariqs from other khashem beits. The

areas are also shared by sedentary groups; in the Kadugli area (Nuba Mountains), primarily by Nuba groups.

Fariqs are situated on cracking clay soils for the dry season. This is a conscious choice. The Hawazma say the cracking clays (tiin) are "cooler" for the upcoming extremely hot period. This is true, as the sandier soils produce a great deal of reflected heat. Also, good shade trees grow on the cracking clays which can provide some protection for the huts and a location for the men's gathering point.

As the fariqs arrive at their dry season camp location the moveable huts are immediately set up. Women then begin gathering the materials required to construct the more permanent dry season houses; larger saplings for the framework, and tall grasses for thatching. They may walk long distances to find areas where the appropriate grasses can be cut. The fariq will live on the initial site for a period of several weeks.

Late December through February marks the season known as shita, or winter. This is the coolest period in the annual cycle. By this time construction of the thatched huts will have been completed. Sometimes these have been interspersed between the mobile huts, but more likely they have been constructed on another site a short distance away. Within a few weeks of

their arrival in the dry season locale, the farig will have moved perhaps a few hundred yards to the site where the thatched huts have been constructed. Once the huts are built a great variety and many heavy goods will begin appearing in the farig. Iron bedsteads and cotton mattresses; glassware; a large collection of aluminum cooking pots; wooden tables and many other items are brought from storage where they have been left with relatives living in towns or villages.

The next season is seif, the main dry season with high temperatures. This is the period March through early May. Animals lose condition because of scarcity and distance to grazing. Water is scarce for both animals and people. During this season some of the young men and the hired herd boys will usually take the cattle further south to find water and grazing. The main camp remains. Household milk cows are also left but they are producing little milk. Disease susceptibility rises for both people and animals during this period. However, this is also a period marked by social activities such as weddings and other sorts of visitations from relatives in other camps or in surrounding villages.

Increasing humidity, though still with high temperatures, and perhaps some scattered rain showers marks the season known as rushash (May and June).

Again the fariq moves a short distance, this time onto gardud soils. There are several reasons for the move. Even a small amount of rain will make the cracking clay soils a difficult place to live. Insects also increase in the cracking clay areas and moving to gardud soils is one means of escaping flies and mosquitoes, for both humans and animals.

Thatched huts are abandoned and the mobile-style huts are built. These are a sapling framework, covered with woven mats, sometimes jute sacks, and plastic tarpaulins. Both men and women repair or make new items required for the trek, such as the straw pack saddles for bulls or camels. Women begin moving heavy household items back to storage.

Sometimes the main livestock herds are started moving north to a sort of staging camp. This early move is usually undertaken by the younger men. If the rains stop briefly before the onset of the true rainy season, the herds may need to return to permanent water points near the dry season camp.

Men who have decided to plant do it at this period. Land may need to be cleared or otherwise prepared. Their fields may be a day's walk or more from the dry season camp and thus they may be gone from camp for a week or so while planting is done. Some men arrange for hired labor to carry out weeding once they have left with the main camp on the trek.

Hired labor is usually from a Nuba village near the Hawazma farms. If the fields are north of the dry season camping area, along the way to rainy season pastures, the whole camp may move up to the area of the fields and stopover there while planting is done.

The kharif is the rainy season and may be divided into two parts, early and late, on the basis of distinct activities. The early kharif is usually July and August, though rains may have been falling regularly in late June. The late kharif is mid-August through about mid-October, when rains may still be heavy but begin to taper off.

Once the rains are well started the farig begins its northward movement. Baggage animals and herds move all together. Castrated bulls, which have been trained as riding and pack animals carry household goods. Some families may have a camel as the main baggage animal. Women pack, load and ride the main baggage animal. Usually some goods are loaded on two or three other animals which men or children may ride.

The pattern is for the farig to travel every other day. On travelling days the farig is moving by 6:00 or 6:30 a.m. and travels for usually three hours, though perhaps as many as 4-6 hours. After the day's distance has been made a campsite is found and women construct a temporary hut with newly cut saplings and the coverings which are carried. Sometimes the farig

will spend more than one day at the site. A longer stopover might be made to allow the young men to scout for grass and water, or for camp members to go into a market town. Movements northward will not be made unless there is reasonable certainty that rains have produced sufficient grazing.

By mid-August (late kharif) the fariq should have reached the northern-most end of the trek. As in the south, there are traditional rainy season camping areas to which fariqs usually return year after year. Most Hawazma fariqs converge on the area fanning out around El Obeid and other market towns in the area, such as Abu Haraz and El Ibanolia. In this area the campsites are on goz soils. Water sources are standing pools and pools in seasonal stream beds.

Fariqs usually do not spend more than two months in the rainy season camp. Often the period is much shorter as the southward trek must be underway before the rains stop completely and water sources along the way are depleted. Therefore, the southward trek may begin by late September and almost certainly before mid-October.

Tables 4-9 summarize the Hawazma annual cycle.

Table 4. Hawazma Annual Cycle: Deret (Mid-October to Mid-December).

<u>Weather & Ecological Conditions</u>	
Very hot, getting cooler and drier. Sunny.	
Soil Types and Water Resources	Cracking clays serve as main sites for camps and for livestock grazing. Water used for livestock is drawn from surface pools and swamps. Human water, from river beds and shallow wells.
Transhumant Movements	Camp groups travel south via their cultivation area. In Nuba Mountains area, temporary camps are set-up near surface water and grazing. Dry season camps established by late October or early November.
Livestock Management Practices	Livestock grazed daily near surface water sources on crop residues and standing hay forages. Livestock spend nights in camp.
Livestock Epidemiology	High plane of nutrition due to abundant forages. A period for high rate of conception. Livestock diseases; epidemic in goats.
Livestock Offtake and Marketing	Low rate of market sales due to movements and distance from market towns. Some small livestock sold for cash needs; women sell milk.
Cropping Activities	Harvest season. Household men and women work in fields, but only men perform threshing. Grain transported by camel to storage areas. Communal work parties (<u>nafirs</u>) used in grain harvest.
Housing Locations/ Construction	Mobile hut; sapling framework, mat covering with use of additional canvas or plastic tarps. Located on cracking clays.
Human Ecology/ Health	Problems with malaria; other water-borne diseases.
Sociocultural Events	Camps moving south visit sedentary relatives in towns & villages enroute; re-establish relationships

in South Kordofan. Tribal sections split into separate fariqs for movement south with household herds.

Consumption
Patterns

Good diet based on milk products, harvested grains and field crops, and gathered wild plants. May purchase new household goods and clothing from market towns enroute.

Domestic
Activities

Major responsibility is housebuilding at each new site, packing and unpacking household goods. Once season camp established, begin collecting materials for thatched huts.

Education

Schools are open in some areas. Children live with sedentary relatives in villages or town homes, or in fariqs near school.

Constraints
and Impacts

Livestock: Incursions on unharvested croplands along southward migration route bring heavy fines, disputes. Some range area destroyed by fires. Man-made surface water denied to livestock by sedentary farmers.

Table 5. Hawazma Annual Cycle: Shita (Late December through February)

	<u>Weather & Ecological Conditions</u>
	Cold, northwind. Sunny, dusty.
Soil Types and Water Resources	In Nuba Mountains livestock graze on dry grasses and crop residues in cracking clay area. Watered at wells, surface water and wateryards.
Transhumant Movements	People settle on cracking clays, in large thatched huts. Only herders move with livestock, if required.
Livestock Management Practices	Livestock kept at camp overnight. Taken to graze twice a day. Watered in afternoon. No supplements given except to milk cows. Mineral supplements may be given.
Livestock Epidemiology	Risk of contagious diseases. Cattle, sheep and goat epidemics common. Endemic disease due to ectoparasites.
Livestock Offtake and Marketing	Little market activity in South Kordofan. Prices very low for meat animals. Some sale of small ruminants. Milk marketed by women. Some animal slaughter for direct consumption.
Cropping Activities	No cropping activities. Men use camels to haul crops from fields for sedentary farmers. Receive payment in-kind or cash.
Housing Locations/ Construction	Mobile huts possibly through December. January move to site of newly constructed, semi-permanent dry season huts. Located on cracking clay. Household furnishings, etc., stored with sedentary relatives brought to <u>fariq</u> .

Human Ecology/ Health	Decrease in water-washed and insect water-borne diseases. Upper respiratory infections and risk of epidemic disease spread among unvaccinated, especially children. Little or no malaria.
Sociocultural Events	Weddings, visitation with relatives, funerals, and legal-political meetings by men at town courts. Voting time for transhumant local government cells. Attend court cases over disputes, blood-debt settlements by male household heads.
Consumption Patterns	Consume from own food stores, supplemented with vegetables (limited varieties) from market, especially dried okra. Some use of dried legumes (e.g., cowpeas). Rice, manufactured beverage syrups, etc. served at ceremonies.
Domestic Activities	Intensive labor expended in gathering wood and grass for house building. Other activities: gathering firewood, carrying water. Time spent on food preparation increases due to increased numbers of visitors, life-cycle ceremonies.
Education	Children attend school in villages and towns. Some stay in dormitories and visit <u>fariqs</u> infrequently. Others cared for by sedentary relatives in nearby towns with schools. Livestock sold to pay school expenses.
Constraints and Impacts	Decreasing and low quality grazing: high risk of disease in herds. Energy loss due to twice daily grazing. Burning of range grasses. Crop residues more difficult to obtain. Water points less accessible. Market prices low.

Table 6. Hawazma Annual Cycle: Seif (March through Early May).

<u>Weather & Ecological Conditions</u>	
	Very hot, dry and sunny. Low humidity.
Soil Types and Water Resources	In Nuba Mountains area livestock graze and browse on dry grasses or remaining crop residues and last growth of swamp grasses. Watered at wells, wateryards in crowded conditions. Water very scarce.
Transhumant Movements	Livestock, especially cattle, usually leave camps and are moved to areas with remaining forage and water. Camps remain stationary with milk cows and small ruminants.
Livestock Management Practices	Cattle and small ruminants grazed overnight to avoid daytime heat. Brought to water every other day or once a day. Milk cows are grazed twice a day nearer to camps. One <u>fariq</u> member may manage herds for more than one household. Women may feed supplements to milk cows.
Livestock Epidemiology	Animals subject to malnutrition and significant weight loss and their condition deteriorates. Milk cows dry up and few cows are serviced; there are few calves. Weak animals succumb to disease.
Livestock Offtake and Marketing	There is little marketing of animals, except culls, and small ruminants. Prices are low. Little surplus milk available for sale.
Cropping Activities	There are no cropping activities. Sorghum is purchased from villagers when stocks run low, as market prices are high in towns. May buy or exchange from relatives.

Housing Locations/ Construction	Continued use of thatched house types. Women may add bath huts; expanded kitched <u>rakubas</u> . Men build <u>rakubas</u> for receiving visitors.
Human Ecology/ Health	Increase in gastrointestinal diseases related to decreasing quality of water supply. Most likely period for meningitis (usually fatal), tetanus, various skin infections, typhoid.
Sociocultural Events	Weddings, funerals, circumcisions. Great deal of visiting with kin in villages or other <u>fariqs</u> .
Consumption Patterns	Fresh vegetables almost unavailable. Use dried vegetables. Fresh limes may be available. Chickens available in camp for household consumption.
Domestic Activities	Getting water may require travelling longer distances on foot. Continued visitations, ceremonies require additional food preparation.
Education	Schools closed. Children stay in <u>fariqs</u> to learn pastoral roles.
Constraints and Impacts	The main constraint is lack of forage; in areas where some forage remains, lack of water prevents use. Oilseed cake for supplementation is scarce. Veterinary care and drugs difficult to find. Market prices low.

Table 7. Hawazma Annual Cycle: Rashash (May, June).

	<u>Weather & Ecological Conditions</u>
	Very hot; increasing humidity. Temperature declines with early rains. Cloudy. Windstorms.
Soil Types and Water Resources	Main livestock herd moved to non-cracking clays and footslopes for grazing. If rains stop, herds return to permanent water points near camps or wateryards.
Transhumant Movements	Main livestock herds moved by men away from camps to find grazing near surface water. Men scout areas of non-cracking clays and hills. Women move camp from cracking to non-cracking clay areas and remain there.
Livestock Management Practices	Animals graze on dry forage and newly leafed-out trees, drinking surface water, or taken to pools daily. Weak animals left behind, young calves carried on camels. Salt fed regularly.
Livestock Epidemiology	Malnutrition and weakness are major causes of death. Parasitism of young and sick animals increases morbidity. Deaths during movement are frequent, especially among newer calves. Milk yields are low.
Livestock Offtake and Marketing	Few cattle sold, except culls. Small stock are marketed when cash needed. Prices are rising for livestock. Sick animals maybe slaughtered for meat. Milk from main herd drunk by men if away from camp; milk herd handled by women.
Cropping Activities	Land clearing for planting begins. Men visit their plots to assess which crops to grow. Purchase seeds, if needed, and prepare agricultural tools.
Housing Locations/ Construction	Move <u>farigs</u> short distance to new site on gardud soil in anticipation of rains. Construct mobile huts.

	May begin moving heavy furnishings back to storage with sedentary relatives.
Human Ecology/ Health	Increased insect population (cited as one reason for relocating <u>fariq</u> : flies, mosquitoes.
Sociocultural Events	Continued frequent visiting; some weddings.
Consumption Patterns	Some fresh foods may become available. Continued use of dry vegetables. Children given goat milk.
Domestic Activities	Begin repairing, making new items required for trek. Men reweave <u>angorebs</u> , make camel or bull saddle pads of straw. Women prepare mats and plastic tarps.
Education	Schools closed. Children in <u>fariqs</u> learning pastoral roles.
Constraints and Impacts	Main constraint is lack of fresh grasses, and erratic rainfall, leading to difficulties in watering and grazing livestock.

Table 8. Hawazma Annual Cycle: Kharif (July and August) Early Rains.

Weather & Ecological Conditions

Rainfall frequent. High humidity. Temperatures reduced. Many clouds.

Soil Types and Water Resources	Livestock graze on varying soil types (enroute to North Kordofan): non-cracking clays, mountain slopes, cracking clays, sandy soils, onto <u>goz</u> stabilized sands. Drink water from seasonal streams and pools.
Transhumant Movements	<u>Fariqs</u> pack, move baggage and household members on pack animals (camels, oxen, donkeys). Advance herd with young men, fast moving animals, goes ahead to scout for water and forage. Heavy baggage, main herd behind. Camps change every 1-3 days. Stop near cultivations, if north of dry season campsites.
Livestock Management Practices	Animals walking in morning, then watered and grazed in afternoon and evening. At route stops, animals grazed in mornings.
Livestock Epidemiology	Long trek stressful and energy consuming. Weak animals fall behind and may succumb to disease. Accidents cause some animals to fall out and may be slaughtered or left to die.
Livestock Offtake and Marketing	A few animals, especially small stock, sold enroute for cash for trip expenses and to remove weak animals from herd. Prices are rising. Much milk drunk by camp members. Buttermilk bartered at stops. Clarified buttermade from surplus milk.

Cropping Activities	Fields are opened and crops planted. Low labor inputs are preferred. First weeding is performed in early August. Sedentary relatives supervise hired laborers.
Housing Locations/ Construction	Temporary, mobile huts constructed at each new site along trek route.
Human Ecology/ Health	Increased problems with malaria. Difficult for nursing mothers and infants.
Sociocultural Events	No social events during trek. Some visiting with adjacent camps; meeting people seen only along annual trek route.
Consumption Patterns	Fresh greens gathered. Combined with high milk consumption, provides nutritious diet.
Domestic Activities	Activities related to trek. House construction, packing and unloading.
Education	No schooling for trekking children. Some schoolage children left with sedentary relatives or live in dormitories. Youths trained in skills of migration, herd control, forage finding. Adolescent girls learn to work with women on huts and baggage animals.
Constraints and Impacts	Movements limits grazing and cultivation activity. Stressful on animals and people. May be conflicts with settled farmers over encroaching animals, resulting in fines.

Table 9. Hawazma Annual Cycle: Kharif (Mid-August to Mid-October) Late Rains.

	<u>Weather & Ecological Conditions</u>
	Rainfall heavy, but dry spells possible. Increased humidity. Cloudy, cooler in south; though strong sun & heat in north.
Soil Types and Water Resources	<u>Qoz</u> sandy soils in North Kordofan. Open <u>rahad</u> and water pools. Enroute south, a variety of soils and water sources used on temporary basis.
Transhumant Movements	After camping maximum of two months around market towns, move south following water and grazing resources. May stay over at cultivations enroute, returning to Nuba Mountains later. Again, move every 1-3 days.
Livestock Management Practices	Livestock grazed morning and afternoon; watered and milked midday while in northern camps.
Livestock Epidemiology	Animals gain condition.
Livestock Offtake and Marketing	Some animals sold in market towns where prices higher. May also purchase new stock or pack animals (camels, donkeys). Women sell raw milk to seasonal cheese factories; soured milk and clarified butter in markets.
Cropping Activities	Final weeding performed. Crop stands protected by sedentary relatives with hired labor, as needed. Visits made to cultivations from north by transhumant men.
Housing Locations/ Construction	Mobile huts with tarps. Young men construct thornbrush enclosures for huts and animals.
Human Ecology/ Health	Health conditions generally good until late in season; gastrointestinal diseases may increase then.

Sociocultural Events	Young people hold dances attended by several camps. Young men stage wrestling matches; everyone attends. Much visiting with neighboring camps.
Consumption Patterns	Continued high consumption of milk. Fresh vegetables available from markets or peddlars.
Domestic Activities	Milk sales, making milk products, e.g., clarified butter. Also make mats and gourd containers.
Education	No schooling of pastoral children, unless left with relatives.
Constraints and Impacts	Some conflicts over water sources. Conditions generally good, unless rains fail.

(Tables 4-9 originally constructed with Joel Teitelbaum. Revised by author.)

Migration Routes:

There are five major migration routes between the dry and rainy season camping areas. Each tribal section tends to use a particular route. Whole camps or individual households may change routes from time. Reasons for such situational changes might be due to conflicts or ecological. The expansion of agriculture, both traditional and mechanized may also force changes in routes. The allocation of forest and pasture reserves has also brought about change (Doxiadus 1966:16).

The five routes are as follows (see Figure 6):

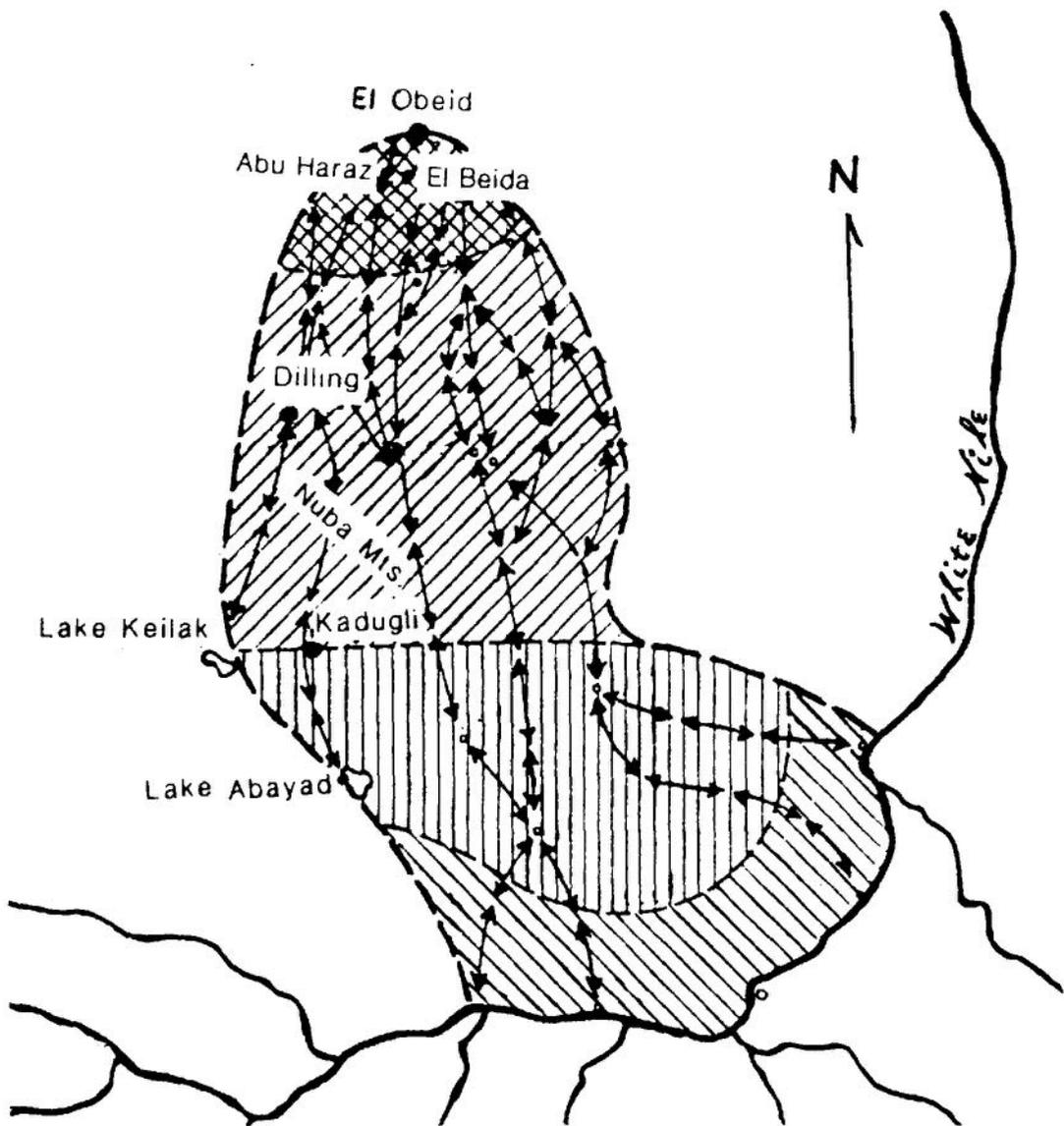
1. The Western route through Kadugli, Dilling to Abu Haraz.

2. The Central route from Talodi, through Um Heitan, Habila to Kasgeil. This route has three sub-routes: (a) Hamra, Um Dorein, Talodi; (b) El Warel, Um Heitan, Talodi; and (c) El Hadia, Fiyu, Habila, Talodi.

3. The Eastern route through Kalogi.

4. The Liri, Benjedid, Delami-Regeba route through a shallow stream valley.

5. The L'Araish Regeba route.



From: Doxiadus Associates 1966:Fig.3.

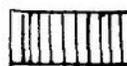
Legend



Main rainy season occupation area.



Area occupied in course of trek.



Dry-season occupation area with wells as main water source.



Dry-season occupation area with river as main water source.



Main cattle routes.

Figure 6. Hawazma Trekking Routes and Occupation Areas.

The Western route is a major route used by many of the fariqs camping for the dry season in the southern jebels region of South Kordofan. The southern branches of this route come from as far south as Lake Abayd, Talodi and Liri, with a more western branch entering from Lake Keilak via Lagowa. From Kadugli the fariqs follow the paved road to Dilling, over mountain passes. From Dilling they travel to Dubeibat where the paved road ends at the railway line. From Dilling the route goes cross-country through an area of sandy soils, toward market towns to the southwest and southeast of El Obeid, and to the environs of El Obeid itself.

The Oulad Nuba Trek Route:

The Oulad Nuba fariq under study uses the western route. While the typical pattern is to travel every other day, the pace and the distances covered vary according to a variety of circumstances. The fariq may, for example, stop over for more than one day while the young men scout for grazing and water, or so that camp members may attend a nearby market. In 1983, Ramadan, the Islamic month of fasting, began in mid-June, just after the rains began. Because of the fast the fariq did not make its first move until July 3, 1983. Even then it was a short move; only two day's travel from the dry season camp site on the Seraf el Ahmar. The fariq spent almost the entire

month of July at this site at Sha'ir, not moving again until several days after the celebration ending the month of Ramadan.

Overall the fariq spent 46 days making the trek from the Seraf el Ahmar near Kadugli to the rainy season camp site at El Beida, just to the southwest of El Obeid. Usually this fariq spends the rainy season at a site southeast of El Obeid, but scarcity of water and pasture led to a decision to try another site. Table 10 names the campsites on the 1983 northward trek, indicating the days of travel and stopover as well as the number of hours spent travelling.

Table 10. 1983 Trek Route to North

<u>Stops/Sites</u>	<u>Dates</u>	<u>on Road</u>	Hours
1. Seraf al Ahmar (Kadugli)			
2. Kolba	July 3		3
3. Sha'ir	July 4/to 23		3
4. Kuweik			
5. Keiga Keidi			
6. Kurgal			
7. Semasim	July 27/28		
8. Kerkaraiye	July 29/30		4.5
9. Hajar al Doleib	July 31(Aug.1)		3
10. Kurmali (Dilling)	Aug. 2/3/4		3
11. Ma'Dongalo	Aug. 5/6		3.5
12. Beglid el Beid	Aug. 7		4
13. Tub al Soof	Aug. 8		6
14. Jebras	Aug. 9/to 14		3
15. Jungle	Aug. 15		3
16. Kuweil	Aug. 16		4
17. El Beida	Aug. 17/to Sept. 26		2

Travelling days begin early. Women may be up by 3:30 a.m. to do milking and churn butter. Shortly after, the rest of the camp is astir. Children catch

the chickens and put them into the cage. Men bring the pack animals, check the well-being of the herds. Women dismantle the hut and pack household goods. After drinking tea with milk the fariq moves out quickly, usually by 6:00 a.m. Once the herds are moving there is no stopping until the next campsite is reached. The fariq travels for three to four hours, stopping at the new campsite by midmorning. The first tasks are to fetch water and get household goods up off the ground, safe from white ants. Camels and donkeys are hobbled or tied so they can graze, and riding bulls join the rest of the herd. Everyone has a refreshing drink of roob, or buttermilk. Then the first and main meal of the day, fitur (breakfast) is prepared and eaten. In the early afternoon people rest, except for young boys (both Hawazma and Nuba herd boys) who take the cattle out to graze and water. Women gather after fitur to chat and drink coffee, then go out to cut saplings for the hut frame and construct the hut.

After leaving Sha'ir the fariq travelled for the most part every other day. The fariq spent three days at Kurmali which is "near" (3-hours walk) the market town of Dilling. Both men and women went into Dilling on each of the two layover days, the first day walking or by donkey; the second by lorry. Kurmali is just south of Dilling. The next move was to Ma' Dangalo,

just north of Dilling, also about three hours walk away. The stopover days were again used to go to the Dilling market.

The next moves were on three successive days, with one long day of travel of six hours. The goal was to reach Jebras where the fariq could remain while scouts went out to check the condition of grass and water. The young men first went towards the usual area southeast of El Obeid. When they found a shortage of grazing and water they returned to the camp, then went out to the area southwest of El Obeid where the fariq eventually spent the remainder of the rainy season. Once the decision was made on the general location of the final rainy season camp, the fariq made a hard push to complete the trek, again travelling each of three successive days. The Hawazma speak of the trek as "going to the goz," in reference to the soil type in the rainy season campsite area. As noted earlier, the trek takes the Hawazma across several soil types and thus across several vegetation zones. From south to north the fariqs begin on the "tiin," cracking clays of the Nuba Mountains area; move to the "gardud" and on to the sandy "goz."

The fariq stayed at the El Beida campsite until the last week of September (September 26, 1983), then began the trek back to the traditional dry season campsite on the Seraf el Ahmar. The return trip took

only 21 days, travelling every day rather than every other day with only a few exceptions. The first stop over day was at a place near Dilling and its market. There was one other one-day stop over, and a five-day stop over at Gardud Yacoub. The fariq reached the Seraf el Ahmar on October 17, 1983. Table 11 lists campsites for the 1983 southward trek.

Table 11. 1983 Trek Route to South.

<u>Stops/Sites</u>	<u>Dates</u>
1. El Beida	
2. Um Ramat	Sept .27
3. Hajar Metan	Sept. 28
4. Jebras	Sept. 29
5. Hajis	Sept. 30
6. Songekai	Oct. 1
7. Metar (near Dilling)	Oct. 2/3
8. Kerkaraiye	Oct. 4
9. Gardud al Ahmar (Semasis)	Oct. 5
10. DaShein (near Kurgal)	Oct.6/7
11. Kadat	Oct. 8
12. Kuweik	Oct. 9
13. Gardud Yacoub	Oct. 10 (to 15)
14. Murtah	Oct. 16
15. Seraf al Ahmar (Kadugli)	Oct. 17

The 1984 rainy season trek was problematic both ecologically and socially. In the South Kordofan region, 1984 was the worst period of the drought affecting much of Africa. As Haj Younis said, there was no kharif, or rainy season. His fariq hardly made half of the usual trekking distance, stopping at Kurmali, just 10 miles north of Dilling. Grazing and

water were almost nonexistent north of that point. In addition to natural scarcity, other groups, particularly camel pastoralists, were pushing down into Kordofan from areas both further west and east and north. While groups from these areas do utilize these grazing areas at some times of the year, their movement into the area at a time of overlap with the Hawazma was unusual, and was due to the severity of the drought in their areas. There were both ecological and social pressures which resulted in a shortened trek, at least in terms of distance.

A split in the camp also affected the 1984 trek and campsites. Hamid Hanai's segment had already partially split from Haj Younis' fariq before the trek began. Another satellite segment, joined by one household from the main fariq, had gone a short distance south of the Seraf el Ahmar shortly before the trek began and so did not start with the others, though all these households later caught up with and joined Haj Younis. Part of Hamid Hanai's contingent (two unmarried sons, a daughter and a daughter-in-law) took the herd and began the trek on July 10, 1984. Two days later the rest of Hamid Hanai's contingent (his wife and a married daughter) left the Seraf along with Haj Younis and the households in that fariq segment. Hamid Hanai and Haj Younis travelled together as far as Sha'ir, where they separated and

Table 12. 1984 Trek Route to North.

<u>Stops/Sites</u>	<u>Dates</u>
A. Sheikh Younis Mohamed	
1. Seraf al Ahmar (Kadugli)	July 10
2. Sha'ir	July 11/to 17
3. Gardud Yacoub	July 18/to 23
4. Keiga Juro	July 24
5. Hajar al Doleib	July 25/26
6. Da Shoon	July 27/28
7. Semasim	July 29/to Aug. 22
8. Hajar al Doleib (Dilling)	Aug. 23/24
9. Kurmali (Dilling)	Aug. 25/to Sept. 22
B. Hamid Hanai	
1. Seraf al Ahmar (Kadugli)	July 10
2. Sha'ir	July 10/11
3. Chelab	July 12/13
4. El Rigil bi Najla	July 14/15
5. Kurker	July 16/to 24
6. Ad-Dashool	July 25/to 28
7. Kerkaraiye	July 29/30
8. Hajar al Doleib	July 31/to Aug. 8
9. Kurmali	Aug. 9/to 18
10. Ma'Dongalo	Aug. 19/20
11. Selagim	Aug. 21/22
12. Tub al Soof (just N. of Dilling)	Aug. 23/to 31

went at a different pace, stopping at different sites, though often not far from each other. Table 12 gives the campsites for Haj Younis and Hamid Hanai, respectively. Both units moved northward slowly, spending several long periods at one site. For Hamid Hanai, nine or ten days at several sites; and for Haj Younis, a long period of 25 days at Semasim. By the end of September both Hamid Hanai and Haj Younis had begun moving southwards. The exact campsites and arrival date back at the Seraf el Ahmar are unknown as I left the field before they arrived.

Chapter III

Health and Disease

Health, as defined by WHO in 1946, is: "...a state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity" (Leowski 1978:3). In overall terms, Sudan has tremendous health problems. A number of tropical diseases are endemic; malnutrition exists in many areas; and modern health services are limited. Infant mortality, conservatively estimated at 140 per 1000, is high. Twenty percent of the population suffers from malaria annually, with higher rates in irrigated areas. Also in irrigated areas, schistosomiasis affects a majority of children by the age of seven (Gruenbaum 1981:53). This disease picture is not a natural condition when looked at historically. Though there were many diseases in Africa, historical documentation attests to the late introduction of a number of tropical diseases into Africa and Sudan. Disease ecology in Sudan was influenced by trading, slaving, migration, pilgrimage, and population

displacement during the British colonial period (Gruenbaum 1981:53).

Health Services:

During the colonial period (1898-1956) health services available were limited to those which were administratively expedient: pacification; protecting the health of expatriates; protecting the local work force; and controlling epidemic diseases which were potentially socially and politically disruptive. Biomedical research became an important part of the colonial medical system as there were few effective treatments for tropical diseases. The need for research led to the establishment of the Wellcome Tropical Research Laboratories in Khartoum in 1903. Medical services were not established throughout the country during the first two decades of colonial rule as Sudan was seen as a strategic holding rather than for economic exploitation. During this period medical services were limited to the main towns or military installations (Gruenbaum 1981:53-54).

Changes in economic and political policies led to important changes in medical policies in the 1920's. One change was a decision to eliminate Egyptians from the administration of Sudan. Another decision with far-reaching (and continuing) effects was that to develop the Gezira Scheme, an economic development

plan to grow cotton to supply the British textile industry. These two decisions, but particularly the Gezira economic development plan, had significant effects both on the health of the Sudanese population and the expansion of health and medical services.

One concern was the possibility of detrimental effects of endemic diseases and epidemics on economic projects. Another concern was that economic development itself would result in adverse effects on health; for example, intensification of malaria, and the introduction of schistosomiasis into the irrigation canals of the Gezira. As Gruenbaum notes (1981:55-56), it was not long before these predictions were realized. Malaria was greatly increased, and schistosomiasis was introduced by Egyptian construction workers. Within ten years schistosomiasis was out of control. The increase of disease was not limited to the Gezira.

The seasonal influx of laborers and their families in and out of the Gezira accelerated the spread of epidemic diseases like louse-borne relapsing fever, smallpox and cerebrospinal meningitis. Migrants easily became infected with malaria and schistosomiasis while living in the extremely poor temporary housing in the fields and using canal water for domestic purposes. They then carried these diseases home to outlying areas where new disease reservoirs were established in watering pools. The nutritional ill-effects of limiting cultivation to cotton, grain (sorghum), and fodder (which at first was grown only on a limited scale until it was found to be useful in renewal of soil fertility for cultivation of cotton), without providing adequate sources of vegetables, fruit and grazing for milk production, were

significant, though not recognized until the 1950's (Culwick 1951). Health effects of the heavy use of agricultural chemicals not subject to safety regulation have never been investigated. (Gruenbaum 1981:56)

Expansion of health and medical services, and the establishment of training schools for Sudanese midwives, medical assistants and doctors followed the political and economic decisions referred to earlier. The training program for village midwives was established in 1920 (Sakal 1984:Annex III). And, the Kitchener School of Medicine, the first comprehensive medical school in tropical Africa, was established in 1924 (Bayoumi 1979:166). Though these were positive moves which established a pattern in place today, the economic importance of the Gezira Scheme is reflected in the fact that by 1938, the Blue Nile Province (which includes the Gezira) had 27% of all the rural dispensaries in the country. Half of these were located in the scheme, which also had more hospital beds than any other area in the Sudan (Gruenbaum 1981:57).

Health services in Sudan are found at many levels, with emphasis placed on community-level services. As noted above, many of these services, and their training programs, have been in place since the early 1900's. Today, Sudan is one of the pioneers in Primary Health Care (Suleiman 1983:1). A Primary Health Care Plan was prepared by the Ministry of

Health, with WHO and UNICEF, in 1975, to cover the period of 1976-1984. The plan involves the development of a low-cost health system, founded on community self-help. The system integrates the treatment of simple illness and injury, maternal and child health care, nutrition, immunization and communicable disease control. The Public Health Care program is based on two categories of health workers: (1) the community health worker, who provides general health services; and (2) the village midwife, who attends to maternal and child health care. Both the community health worker and the village midwife are selected by their communities for a 9-month training course. Each is to provide services for up to 1000 persons. The community may build a clinic hut, and the district council pays their salaries. The community health worker receives technical support and supervision from a medical assistant in a dispensary serving approximately 2000 persons. The health visitor provides support to the midwife. At the next levels are the rural health centers and provincial hospitals. In addition, an Expanded Programme of Immunization was begun by the government in 1976, with the cooperation of WHO and UNICEF. EPI centers are in most larger towns throughout the country, and in 1981, the program was extended to cover rural areas.

Hospitals are found at the national, provincial and district levels. In South Kordofan there are eight provincial hospitals. The main hospital is in Kadugli, with others found at Abu Jebaiha, Talodi, Abeyei, Lagawa, Babanoosa, Muglad and Dilling. The urban and rural health centers which support health care at community levels include dispensaries, dressing stations, and primary health care units.

Trained medical personnel range from doctors, nurses, health visitors, midwives, public health officers, sanitary overseers, and traditional birth attendants. The following tables illustrate the facilities and personnel available.

Table 13.
Sudan Ministry of Health: Total manpower 1980

Doctors	2122
Nurses	12871
Health Visitors	366
Midwives	3858
Public Health Officers	143
Public Health Inspectors	81
Sanitary Overseers	293
Assistant Sanitary Overseers	1144

(Suleiman 1983:Table 2)

Table 14. Health Facilities:

	Kadugli Dist.	S. Kordofan
Hospitals	8	1
Health Center	1	5
Dispensaries	20	50
Old Dressing Station w/nurse	9	30
Old Dressing Station w/CHW	15	55
New Sedentary CHW's	38	132
Nomadic CHW's	6	55

Table 15. Public Health Personnel

	Kadugli Dist.	S. Kordofan
Nurses		546
Health Vistors	11	13
Midwives	60	143
Community Health Workers	60	
Medical Assistants	22	
Traditional Birth Attendants	40	
Public Health Inspectors	4	9
Sanitary Overseers	2	9
Assistant Sanitary Overseers	12	27
Mosquito Men	30	73

(Sources: Sakal 1984:7; Suleiman 1983:Table 3; Zins 1982:1-2)

The Baggara make use of these medical services, at several of the available levels, as well as traditional healers. The discussion of their approach to health care will be elaborated later. It will be useful to focus on one program here, the Traditional Birth Attendants, as a case study of several points: (1) the sorts of "grassroots" training and service being undertaken in Sudan; (2) Baggara participation in the training; and (3) the impact of both the training and the service on Baggara gender roles as well as health.

The Traditional Birth Attendant training program was an outgrowth of the success of the program for Village Midwives. As noted, training for village midwives was begun in 1920, to encourage pre- and post-natal care for both mother and child. Initially

most of the trainees were illiterate women. Now there are 23 Village Midwife training schools in Sudan, with each province having at least one. One school is located in Kadugli. Communities wishing a trained midwife choose candidates for training, usually a young, unmarried woman, 18-25 years of age (Sakal 1984:Annex III). Once the woman receives the training the Rural Council is responsible for paying her salary of LS 15-35 per month.

The training curriculum uses local materials as well as UNICEF teaching aids such as anatomical pregnancy charts, models of an open abdomen, and an "infant" with an umbilical cord. The method is to teach by repetitive questions and answers as well as a practicum. It also teaches the midwives to use their senses of taste and smell to recognize the medicinal products they use. In addition to the classroom setting, each trainee participates in practical work, including 20 supervised deliveries. The classroom training lasts seven months, and the practical component, usually eleven months. Most Village Midwife Schools have now introduced literacy classes, sewing lessons, and handicrafts.

Though a study shows that 20% of deliveries are by a trained Village Midwife, in South Kordofan it is estimated that 83% of children born are delivered by a traditional birth attendant or a relative (Sakal

1984:2). The idea for a training program for these women came with the recognition that it would take many years to provide enough trained Village Midwives to provide services to the entire population. In 1980, the Ministry of Health, in conjunction with UNICEF, proposed seeking alternative means to strengthen traditional health services to supplement the Village Midwife program. The alternative chosen was to provide a relatively short training course for traditional birth attendants, and in 1981, the project was begun in the Kordofan Region. By April 1982, forty Traditional Birth Attendants had completed the first course, and in 1984, a second group was trained.

While these women are usually the older, trusted members of a community, with a great deal of practical experience, they have little knowledge of hygienic delivery techniques and no connection to the formal health system. Following the pattern established in the Village Midwife program, the TBA's receive training on hygiene; pre-natal care; delivery techniques; post-natal care; birth registration; childcare; child spacing; local remedies; nutrition for mother and child; and consideration of the health issues of female circumcision. Besides new techniques the training supports the continuation of traditional practices such as boiling "habil" (*Combretum hartmannianum* Schweinf. or *Combretum cordofanum*

Engler. & Diels.) leaves for use as an antiseptic; the use of locally available foods for weaning; and the control of diarrhea with a drink made from tebeldi (*Adansonia digitata*) fruit pods.

The site of the Traditional Birth Attendant training center is the village of Kuweik, just north of Kadugli. The training compound has two large, rectangular huts for classroom, two smaller rectangular huts for tutors' quarters, and twenty-five round huts to accommodate 3 trainees each. The trainees live at the compound for the duration of the course, which initially was for three months. An evaluation of the program recommended that the training period be reduced to three weeks, and this was done for the 1984 training session. There were 27 Arab women, 6 of whom were nomads, and 13 Nuba women in the first course. All of them were 40-55 years of age. At the end of their training there was a graduation ceremony and each woman received a certificate and a midwifery kit.

This program has had a number of impacts on local communities. While the occupation of birth attendant is not a new one, women who receive TBA training now have an occupation enhanced with new status. Being trained means they can ask a bit more for their attendance at a birth, and so these women are able to increase their income. Payment for

attendance at a birth is LS 3.00 for a girl, and LS 5.00 for a boy. In addition, a TBA will receive 1 litre of cooking oil, 1/2 K. of sugar, tea, or coffee (or a combination), and 1 or 2 bars of soap.

In terms of improved maternal and child health, it appears that the program has had a positive impact. According to interviews with members of town councils, since their TBA received training there have been fewer infant and child deaths. As in many developing countries, two of the main causes of infant mortality are diarrhea and neonatal tetanus. The TBA program evaluation team checked records at the Kadugli hospital for cases of infant mortality in communities with a trained TBA. Records for 1981 (before the course), 1982 and 1983 (after TBA's returned to their communities) were reviewed. Deaths for infants less than five months of age were as follows: (1) 1981 - 1 fatal case of neonatal tetanus in Um Battah; and (2) 1982 - 1 fatal case of neonatal tetanus in Tesseh Abdel Sala'am. In 1983, no hospitalized cases of fatal neonatal tetanus from villages with a trained TBA were recorded. Records for Kadugli and villages on its immediate outskirts show that in 1981 there were 6 cases; in 1982 4 cases; and in 1983 7 cases of fatal neonatal tetanus.

An Oulad Nuba (Hawazma) Midwife:

Hakmula Mohamed decided to attend the training course for Traditional Birth Attendants at Kuweik in 1984. Prior to attending the course she had been serving as a midwife. Several visits were made to Kuweik during the course of the training to observe the instruction she received.

Much of the instruction was carried out by simulating the birth procedure. After having learned the various procedures (scrubbing, boiling water, sterilizing scissors, razor blades, etc.) the women took turns going through the procedure while the others watched and listened to comments from the instructor. The women all wore white scarves and sat on low stools. Each step was done as realistically as possible. There was a cut-away model womb and birth canal, a life-size doll with an umbilical cord, and a placenta. The woman giving the demonstration put on a face mask, scrubbed her hands and arms, and boiled water which she used for sterilizing implements and bandages and for use in cleaning both "mother" and "infant." As she worked, the instructor asked her questions and had her give explanations of what she was doing and why. The "baby" passed through the birth canal, was cleaned and had its umbilical cord cut and tied. The instructor particularly emphasized the importance of sterilizing the cutting implement

and the relation of sterilization to the prevention of neonatal tetnus. The placenta descended and was checked. The "mother" was cleaned and the necessary cuts stitched. (A piece of rubber sheeting was cut and stitched for this part of the demonstration.)

On another occasion the women were observed preparing cotton balls and gauze bandages. After the cotton was rolled into balls and stuffed into cloth bags, the women were shown how to sterilize them. Then the instructor brought out her midwife's kit (similar to the one the TBA's would receive) and reviewed the identification and use of the various medications. One by one she brought out the various bottles of salt, soda, vitamins, or whatever and asked a woman to identify it and tell what its use was. All this instruction and practice was by sight and smell or taste.

The graduation ceremony was an important event. The importance was heightened by the arrival of the UNICEF Assistant Program Officer for Health, from Khartoum. She was the main speaker, along with a number of local officials, including people from the Kadugli UNICEF office and the doctor who was Head of Health Services in South Kordofan (resident at the Kadugli hospital). Preparations were elaborate. The new TBA's swept the compound and set up rows of chairs for the dignitaries and their own families and friends

who came to watch them graduate. The UNICEF midwife kits each woman would receive were set out on a table. A generator was set up to provide electricity for lights, microphones, and a movie projector. When the preparations were completed the graduating TBA's came to sit in front of the audience on a row of low stools, each wearing her freshly laundered and ironed white headscarf. As was befitting to the occasion, there were many speakers, culminated by the UNICEF Health Program Officer. After the speakers each woman was presented a certificate and received her TBA kit. Then a UNICEF movie was shown and the ceremony was over. The women remained at the compound several days more, then returned to their homes. In addition to their kits they received a covered pot for sterilizing and a tea kettle.

About two weeks after having completed the TBA training, Hakmula attended a birth for a woman in her farig. The child, a boy, was born during the night. The next morning Hakmula was back at the mother's hut to care for the infant and mother. She had water boiling for various uses. She had her headscarf over her face while she changed the dressing on the baby's naval. She gave the baby a sponge bath and gave it a mixture of sugar, salt and water in a coffee cup as she had been taught. Hakmula washed the previous gauze dressing and hung it up for the mother to use again.

As she worked she gave the mother, who has four other children, lots of instructions on caring for the baby. In the middle of these operations, another woman served breakfast. The mother's hut was so cluttered and crowded it was difficult for Hakmula to be really sanitary about her work, but she did the best she could. After caring for the baby Hakmula sent everyone outside so she could help the mother bathe. Then, several other women arrived to give their congratulations, which meant tea was served. Everyone chatted, then left. Hakmula returned home, carrying her UNICEF TBA kit on her head. At home she carefully wrapped the kit in plastic and stored away.

Epidemiology of Savanna Zones

Epidemiologists recognize that disease can only be understood by relating it to the environment in which it occurs. However, most epidemiological studies have focused on a particular infection and have attempted to determine the environmental or ecological factors influencing its prevalence. Desowitz (1980:457) suggests an alternative approach: to select a global ecosystem and try to discover the conditions of health and disease within it, but says this approach is largely neglected. Each major ecosystem, Desowitz notes, has at least one primary attribute which can be identified as a principal

influence on the pattern of infection within it.

One of the most important characteristics of tropical savanna zones influencing epidemiological-ecological interactions is seasonality, that is, alternating dry and rainy periods. Weiner (1980:421) lists five stressful conditions which may be found in savanna environments: (1) nutritional deficiencies; (2) fluctuation in the availability of energy; (3) endemic diseases; (4) excessive heat load; and (5) fluctuations in the availability of water. These conditions result from the tremendous fluctuations in savanna climate. Seasonality influences vegetational, animal and water resources; the amount of work needed for survival; the behavior and bionomics of disease vectors and reservoirs; and the thermal environment.

While Desowitz' approach of identifying disease patterns in particular ecosystems has the advantage of being more holistic, there is still a danger of oversimplifying. Characteristics such as those identified by Weiner may exist in savanna environments, though not necessarily in toto. What seems to be only cursorily recognized (if at all), in the literature are the important interactions of cultural variables with the environmental conditions. The impact of any particular potential environmental condition may be more influenced by economic subsistence type, social organization, or man-made

environment than determined by "natural" environment. For example, it cannot be assumed that settled agriculturalists and pastoral nomads living in the Sudanic savanna zone are affected or respond to Weiner's five conditions of savanna environments in the same way. One of the questions which needs to be addressed by further research is that of the differential health profile between nomadic and sedentary populations co-existing in the same savanna environment.

Seasonal nutritional deficiencies are a case in point. Much of the literature reports that savanna populations are subject to a "hungry" period when stored food supplies are short and the next crop is not ready to be harvested. Observation suggests that agriculturalists and pastoralists are not affected by the savanna agricultural cycle in the same way, though both populations are dependent on grain as a food staple. Agriculturalists may sell some grain for cash soon after harvest, but by the time of the "hungry period," there is no stored grain for eating and no alternative source of cash to purchase it. Pastoralists, on the other hand, may produce a small portion of their grain requirement, but are accustomed to purchase most of the grain they need throughout the year. During the hungry period market grain prices rise, but there is generally a supply to be purchased

if there is cash. Pastoralists have a source of cash: cattle and milk, which they can sell to purchase grain or other goods. This was particularly evident during the drought in Sudan. In 1984, which was the peak of the Sahelian drought, crops failed and farmers were without grain to sell or eat. Prices for grain, imported from other areas, escalated 600-700%. Still, the Hawazma were able to purchase grain for whatever price the market demanded because they had cattle to sell to obtain the necessary cash. Though they complained of the high cost, their consumption of the sorghum staple was not affected. In this case nutritional status in South Kordofan was influenced more by cultural rather than environmental factors.

This is not to say that nutrition does not vary seasonally for pastoralists as well as agriculturalists. Availability of foods (vegetable plants, especially) varies seasonally. Milk production and therefore, consumption drops during the dry season. However, even that can be controlled to some extent by the purchase and feeding of feed supplements to ameliorate the effects of lower quality and quantity of grazing on milk production.

Another question which arises, particularly in discussions of the pros and cons of settling nomads is that of nutrition. Those favoring sedentarization attempt to make a case for better health in villages

because of better nutrition and sanitation and access to health services. Lobban (1982) presents another point-of-view in terms of nutrition and environment; the correlation of malnutrition with the process of urbanization. Malnutrition is a direct contributor to diseases like kwashiorkor and marasmus, and has a synergistic interaction with diseases like malaria, gastroenteritis, dysentery, pneumonia and measles. As Lobban notes, nutritional deficiencies are fundamentally tied to social realities such as nutritional education, resource distribution, and domestic budgets (1982:10), as well as environmental conditions. Several factors contribute to declining nutritional status with the process of urbanization. Traditional foods with high nutritional value may decline in importance due to prestige or availability. Foods with less nutritional value, such as refined white flour and sugar, may be given added social prestige. There are also other contradictions in urban life. (1) Employment is available, but wage labor is obligatory to support domestic units. (2) The best health facilities tend to be clustered in urban areas, but these urban areas often present the worst health environments. (3) Water supply may be cleaner and more regular, but gastroenteritis may increase as a result of urban squalor (Lobban 1982:11).

Wheeler (1980:446) notes that there are few studies of the nutritional status of pastoralists. Nor has their response to seasonal dietary changes been documented. She suggests that:

A generalized description of the nutritional status of pastoralists would be that they are lean and slightly underweight by Western standards, and liable to suffer subclinical seasonal vitamin deficiencies; but that there is no evidence of severe malnutrition or nutrition-related disabilities in those who survive infancy. (Wheeler 1980:446)

Case:

I first saw Miriyam in November 1982 with her mother, 'Aisha Konduka, who was visiting in the fariq. We were at Zeinab's house and several women, including 'Aisha Konduka, had come from the hamlet of Um Batah. My notes make special reference to Miriyam who was then about two months old. I was impressed with her plumpness and the care her mother lavished on her. She looked healthy, well cared for, and clean. While we visited 'Aisha Konduka nursed her and put oil on her head and body.

Though I saw the relatives from Um Batah once in a while over the next few months, the next time I was really aware of 'Aisha and her daughter, Miriyam, the child's health had changed drastically. It was the first week of July, and the rainy season trek had begun. 'Aisha Konduka and her three daughters, including Miriyam, had joined the fariq for the trek. Miriyam was clearly suffering from severe marasmus.

Her limbs were tiny and hung with loose folds of skin. Her belly was distended, and her neck could not support her head which looked large and out of proportion. Her hair was sparse and had a reddish cast. Though she was about 10 months old, she was so weak she could not sit by herself. She was fussy and cried frequently. I was told that Miriyam had had diarrhea and had been in the hospital in Kadugli for fourteen days and had been given "glucose." She seemed so ill that it did not seem possible that she would survive.

One of the women on the Project, who had an infant daughter, suggested we take 'Aisha Konduka some baby cereal and powdered vitamin-fortified formula. We also took a jug of water from the station well, which had been boiled. At the farig we demonstrated how to mix the cereal with the formula and the boiled water, stressing that this was a supplemental food, not a substitute for nursing. One of the common problems with weanlings in a country like the Sudan where the staple is a bulky food like sorghum, is that it is not a satisfactory weaning food and, even in healthy children, may cause gastorintestinal problems due to malabsorbtion. For a child like Miriyam who had suffered severe diarrhea, the problems of the adult diet were increased.

Within a month of having joined the farig, Miriyam's health improved tremendously. She began gaining weight and filling out. She was less fussy and could hold herself up. She had begun crawling and pulling herself up to stand holding onto something, though she didn't yet walk. She was then about one year old.

'Aisha Konduka had ostensibly joined the farig because her husband went to Saudi Arabia for wage labor, and while he was away she was to be under the protectorship of her husband's brother who was sheikh of the farig. (Another woman joined for the same reason and was under the protectorship of her father-in-law.) In 'Aisha's case there was not a clear need for her protector to be a farig resident. Her husband's other wife remained in the hamlet of Um Batah, under the protectorship of another brother of their mutual husband.

The Hawazma have a strong value for camp life; it is a life-style they aspire to, even though they may be living in a village like Um Batah. They say life is better in the farig. People are more healthy because "the air is better," there is less crowding, the farig is cleaner because they can move away from the cattle dung, and milk is plentiful. Considering these beliefs, it is possible to suggest that in the case of 'Aisha Konduka, the reason she moved from the

hamlet to the farig was to restore the health of her daughter.

Water Quality and Availability:

There is a clear association between the prevalence of water-related diseases (malaria, diarrhea, typhoid, communicable eye and skin diseases), which account for the major infections of savanna peoples, with an inadequate or contaminated water supply. In Kordofan, as in other savanna zones, these endemic diseases account for a major portion of both morbidity and mortality. Since water (supply and quality) and endemic diseases, two of Weiner's stressful conditions of savanna environments, are so closely interrelated, a look at water supply will put the discussion of disease in context.

In one study (El Karim et al 1985), it was determined that there are 244 hafirs; 242 bore holes with engine pumps; 227 hand pumps; and 5 water treatment plants in South Kordofan. In terms of the total area of South Kordofan, which is 130,460 sq. km., there are very few constructed water sources. For example, assuming an even spatial distribution, there is one hafir for approximately every 535 sq. km.; and one hand pump for every 575 sq. km. In reality most of these water sources are concentrated in and around towns and larger villages, leaving most

of the population to seek water from shallow hand-dug wells, khors (seasonal stream beds), or ephemeral pools. Of the existing hafirs many are in poor repair and do not retain the water as they should.

The quantity of water used by each household is related not only to family size, but also proximity to the source. El Karim (1985:395) reports that 50% of the families surveyed in South Kordofan have to go more than 2 km. to reach a water source. One third of the respondents spent 2-3 hours in one trip to a hafir, with 67% making more than one trip per day, on foot. Some people, mostly women and girls, spend more than two hours, and in some cases more than five hours, per day carrying water. Another study carried out in five villages near Kadugli (Nawai 1983:4), reports that 82% of the households surveyed use 5 gallons or less water per day per compound. The result is a per capita usage averaging 1 1/4 gals. per day - for cooking, drinking, washing, bathing, and watering some animals.

These quantities reported by Nawai correspond to observations of water use in the farig studied. Women or girls usually fetch water twice a day; sometimes three times if there is heavy usage for washing clothes, for example. Women and older girls can carry a maximum of four gallons of water per trip. Younger girls, six to nine years of age, are also sent to

fetch water, but they can carry only one or two gallons at a time.

Observed quantities of water used by each household in the farig and "required" water consumption (for drinking alone) as noted by Weiner (1980:434), vary significantly. For example, according to a graph (Weiner 1980:434, Fig.6), a person doing moderate work in the sun in dry season savanna temperatures (40 C), requires 12.5 litres or 3.2 gals. for drinking per day. At this rate a household of five persons would require a minimum of 16 gals. of drinking water. There would be an additional requirement for washing and cooking, perhaps amounting to 4-8 gals., resulting in a daily water requirement of 20-28 gals. per household. With a carrying capacity of 4 gals. per trip, this rate of water usage would require five to seven trips per day to the water source; more, if young girls were fetching some of the water. In terms of an entire camp, with an average of 10 households, daily water usage would amount to 200-280 gallons per day. This raises a further question, since this example is based on Weiner's stated requirements for dry season temperatures. The question is, even if the women were capable of carrying this amount of water daily, what is the probability of a camp being located "near" a

water source which could sustain this rate of consumption for a minimum of three months?

Water quality is also a problem. Nawai reports that in his survey, one-half of the households use the same source of water for both humans and animals (Nawai 1983:5). The situation is the same for the fariqs. This means that livestock water directly from hafirs and pools, contaminating the water that is also used in the household. Water from handpump sources is also subject to contamination. Suitable sites for wells with handpumps are generally at the bottom of the footslopes where the watertable is highest. Communities often develop around a well and higher than it, with resulting washing and contamination. Water quality also varies by season, with quality decreasing with the advance of the dry season. While most people recognize the relationship between water quality and disease, scarcity leaves them no choice except to use whatever water is available.

People recognize that drinking "bad" water may result in a variety of intestinal diseases. The condition of the water supply is seen as "good" or "bad," depending on whether the water is clear or murky. Since water quality is defined on the basis of sediment, people generally do not believe that it is possible to contract giardia, for example, from clear water. Also, while it is recognized to be

undesirable, there does not seem to be a clear connection made between using as a source of drinking water the same pool used to water livestock, and increased potential for human disease. Even if the undesirability of shared human and animal water sources is recognized, the reality of an environment in which water is scarce offers no alternative.

Water which has a lot of sediment may be treated to clarify it. Of course, clarification is primarily an aesthetic treatment, not affecting the bacterial content. One method of treating such water is to add the pounded bark of the shrub kursan (*Boscia senegalensis*), to the container. After about 15-20 minutes the sediment precipitates out and settles to the bottom. The clear water can be poured off into another container or dipped out for use. One problem, however, is that this shrub grows only in the North Kordofan region, utilized by the Hawazma only in the rainy season.

Another method of collecting clear water is also used during the rainy season when pools form in the intermittent stream beds. A small hole is dug a short distance from the standing pool in the sandy stream bed. The water percolates up into the hole, at first somewhat muddy. This water is dipped out, allowing the hole to be refilled with clear water. Water gathered by this method is called mashaish.

The quality of the water used in the household may depend on the distance to a clear water source (if there are alternative sources), or who collects the water. If there is a choice between a relatively distant clear source and a nearby, heavily sedimented source, women will often choose the nearest water, even though they may describe that water as "bad." In terms of workload the choice is reasonable.

Women collecting water from a pool can manage to dip it out with a minimum of sediment. Women wade out into the pool and dip carefully from water near the surface, taking care not to disturb the bottom. Young girls sent for water invariably return with water with a higher sediment content. They splash out into the pool and dip with abandon, turning the chore into a game.

Sometimes one container of "good" water may be brought from a more distant source and reserved in the household for drinking and cooking. Lower quality water, brought from a nearer source, will then be used for such purposes as washing clothes or bathing, or, washing vegetables in food preparation -- even though those vegetables may be eaten raw.

Diseases:

When people are asked which diseases they consider to be the most problematic the list

consistently includes: malaria, diarrhea, eye and skin diseases, and schistosomiasis. These diseases are endemic and people are infected repeatedly. Other diseases, such as typhoid, meningitis, and measles occur seasonally and may be epidemic. Dr. Abdel Karim at the Kadugli hospital listed a number of other common diseases and conditions: diphtheria, whooping cough, chicken pox, hepatitis, bronchitis, helminthic infections, guinea worm, gastrointestinal infections (gastroenteritis, giardia, amebiasis), enlarged liver or spleen (primarily from malaria). Another common condition affecting infants is neonatal tetanus. Complications from pregnancy and childbirth are also common, and women in childbearing years are at high risk.

Hygiene and Sanitation:

Washing is an integral part of everyday sanitation and hygiene. In Islam a person must wash in a prescribed manner before each of the five daily prayers. The ritual ablutions include washing the face, ears, nostrils, mouth, arms, legs and feet. Since most Hawazma adults pray, this aspect of hygiene is a part of their daily routine. Upon rising in the morning each person, child and adult, washes at least his face and mouth. Before eating, a jug of water is passed around and everyone washes at least the right

hand, which is the hand used to eat. Everyone washes again after eating; both hand and mouth. People also wash themselves after urinating or defecating.

Total body bathing is done probably only once a week. Sometimes the bath is taken inside the hut, but more often a bucket of water is taken off into the bushes, or bathing is done at the water source. Soap is used for these baths, but the technique is a "sponge bath" rather than immersion. Children usually get arms and legs washed everyday, and get thoroughly soaped and scrubbed perhaps every three or four days. Adults also wash arms and legs after finishing some work, before going to visit someone, or after returning from a journey. Cleanliness, of both person and clothing, is valued and people spend a considerable amount of time and effort maintaining it.

Eating and cooking utensils are also washed carefully. If utensils have been washed and stored, they are likely to be rinsed again before serving food in them. If there are not enough tea glasses to serve everyone at the same time, they are always washed out before being refilled for the next person. Sometimes soap is used for dish washing, but not always. The use of soap depends largely upon its availability, though there are individual variations in the level of sanitation maintained.

Animal dung, while concentrated in the center of the fariq where the animals are kept at night, is found in most areas. Most women keep an area directly in front of their house swept and clear from dung and other debris. People urinate and defecate well away from the camp circle. Young children may defecate almost anywhere, but mothers are quick to scoop it up and deposit it away from the hut. No attempt is made to bury or otherwise cover fecal matter, but in an arid environment it rapidly disintegrates or is destroyed by a variety of beetles and flies. Since camp population concentrations are low as compared to villages, and since the camp changes sites, there never seems to be a problem with an accumulation of human waste.

There are contradictions in hygienic behavior in terms of a Western health model. A baby may be bathed and then swaddled in a soiled cloth. Tea glasses may be washed and then stored on a tray under the bed where chickens run and dogs sleep. Human waste is at a distance, but animal dung is everywhere underfoot. Despite these apparent contradictions, overall health and sanitation appears to be better in camps than in the villages where some members of the kin groups live. The Hawazma themselves, settled or nomadic, assert that life in camp is more healthy. They say, the air is better; conditions are better because fewer

people are crowded into one area; nutrition is better because camp members have access to more milk; and that if there is too much dung, the camp can move to a clean place.

A study by Swift (1977) indicates that crude death rates are lower among pastoralists than settled farmers. These low mortality figures might indicate a better state of health and nutrition among pastoralists. Little (1980:496) says:

Among East African pastoralists that have been investigated, levels of physical fitness were good or excellent; growth of stature and weight were equal to or greater than settled farmers; nutritional input tended to be high in protein; and impressionistic observations in the literature suggested that pastoralists appeared quite healthy and were not troubled by excessive disease. On the other hand, studies of physical fitness were conducted on small samples only, growth surveys were few in number, and an adequate dietary survey has never been conducted on a pastoral population. Furthermore, Jelliffe and his colleagues (1964) observed signs of malnutrition, high frequencies of malaria parasites in the blood, extensive skin disease, and signs of "heavy infant mortality" during an extensive survey of Karamajong children in Uganda. Much remains to be done in studying the health of pastoralists.

Barth (1960) also notes better health conditions among nomads than villagers.

...a comparison of the circumstances of life in villages and in nomad camps as they have been up till recently reveals a number of differences between these two, all suggesting a higher natural growth rate among nomads than among villagers. The diet of nomads is better balanced, containing a higher fraction of proteins than that of the villager; the sanitary and climatic conditions under which the nomads live are far better; and the lower density makes the nomad population less susceptible to epidemics (Barth 1960:350).

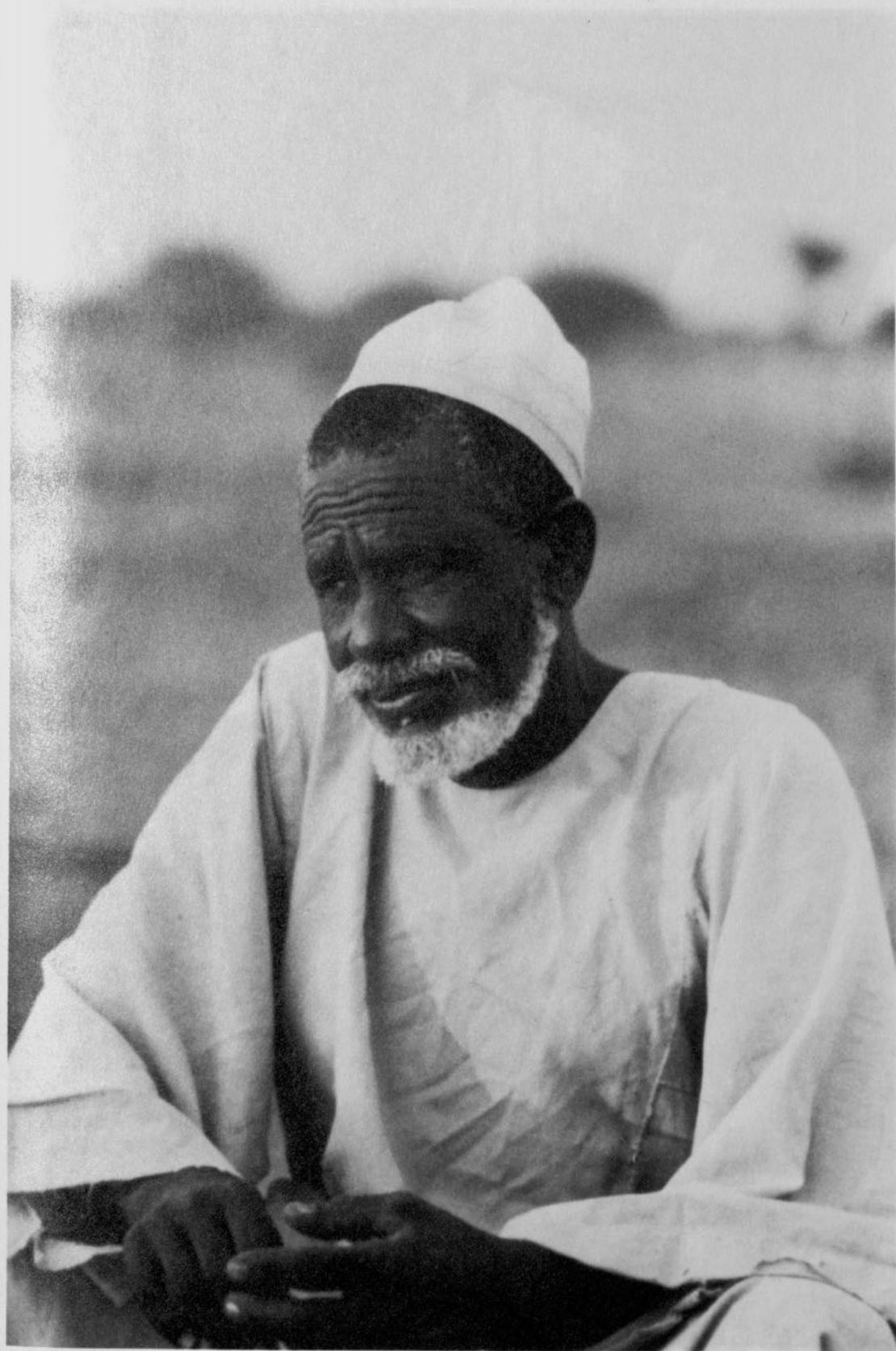
He notes further:

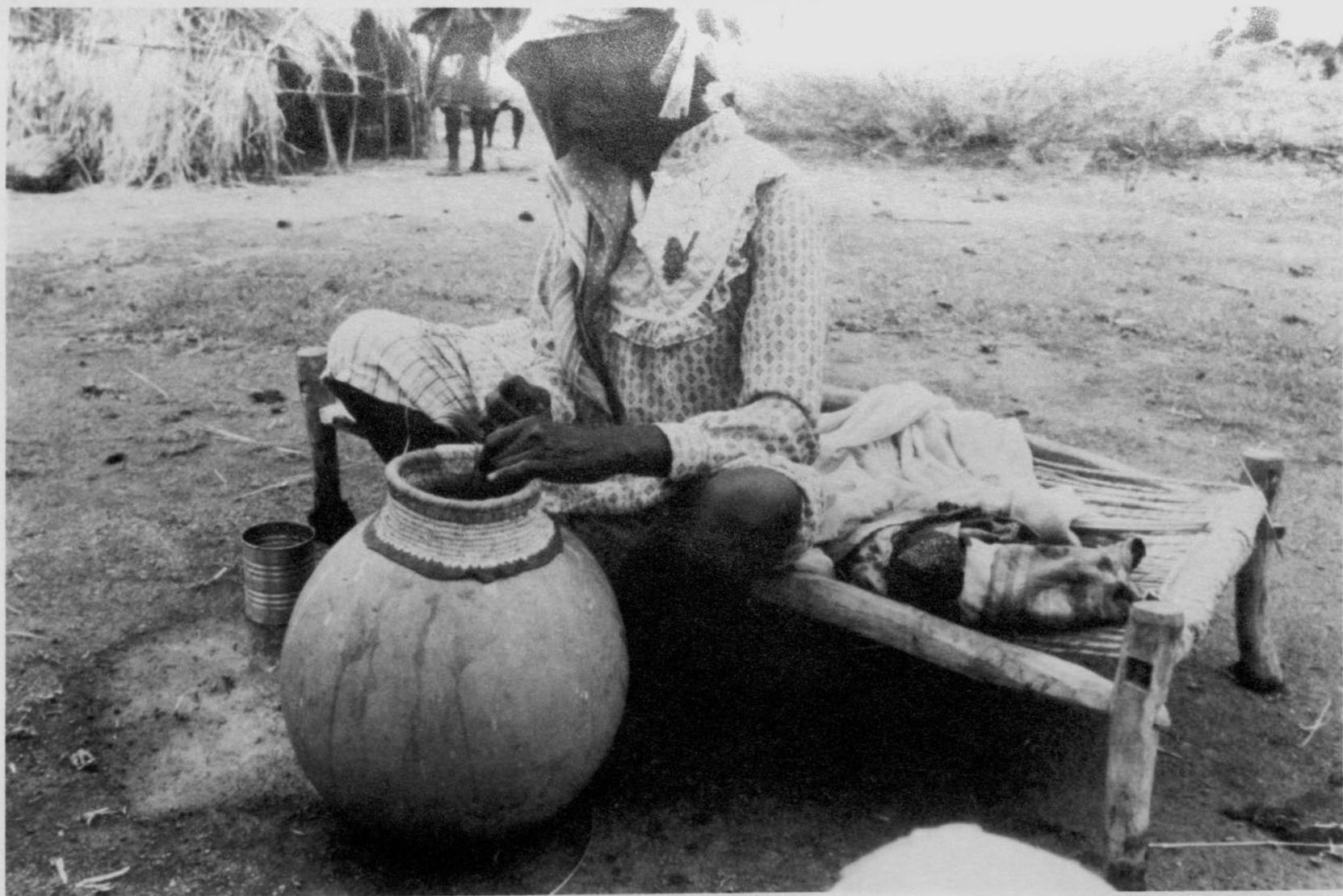
A comparison of nomadic and settled communities in their present forms reveals a clear difference in the average standard of living in favour of the nomad camp. Even in spite of recent great advances in public health in the villages of the region, the diet, hygiene, and health of all but the poorest nomad communities is better than that of most villages (Barth 1960:353).

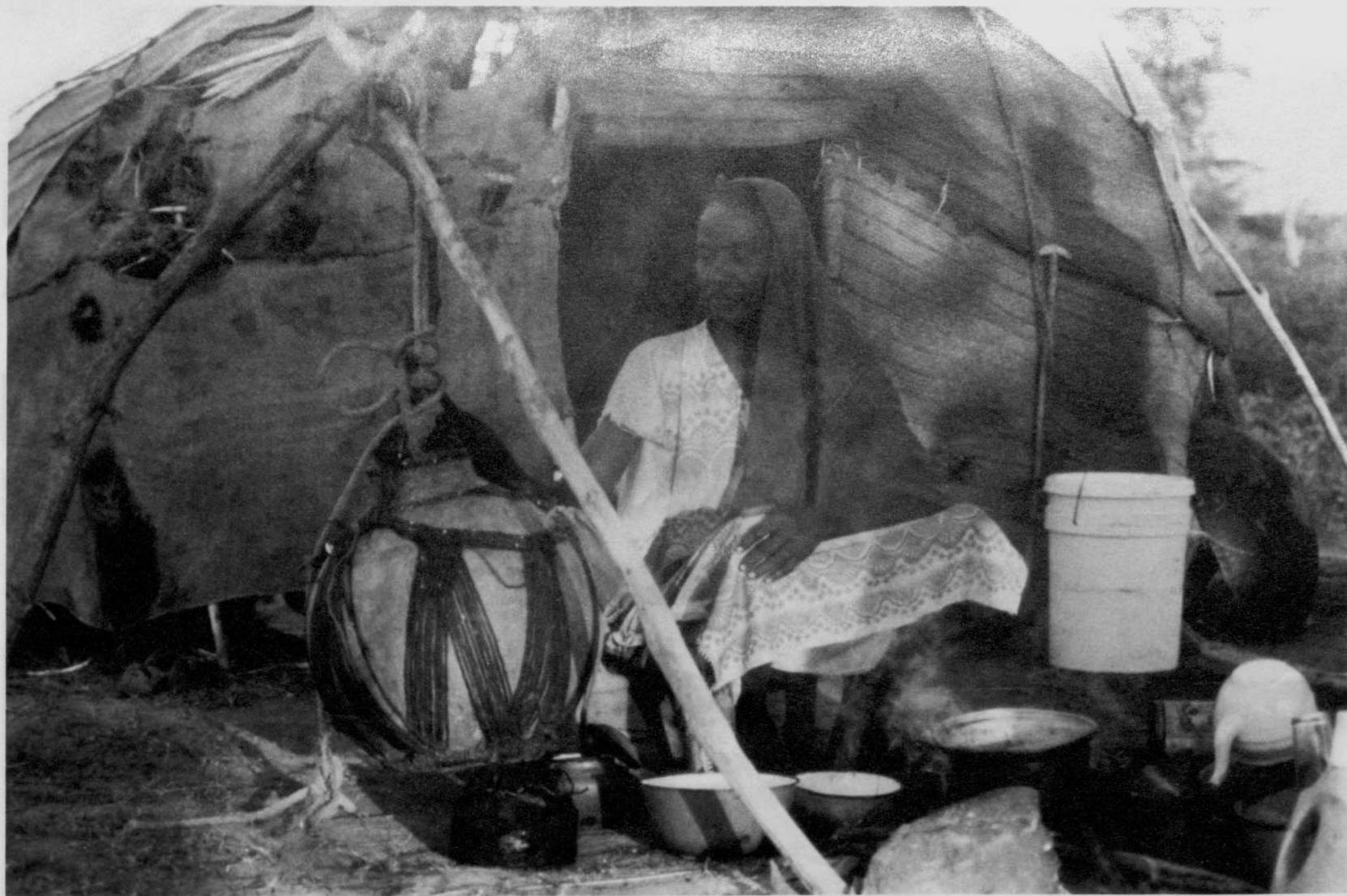
Observations in the Hawazma fariqs seems to follow what these authors have suggested; that health and standards of living are higher in nomadic camps. The issues of health, nutrition, fertility, child mortality, birth and death rates certainly merit further study.

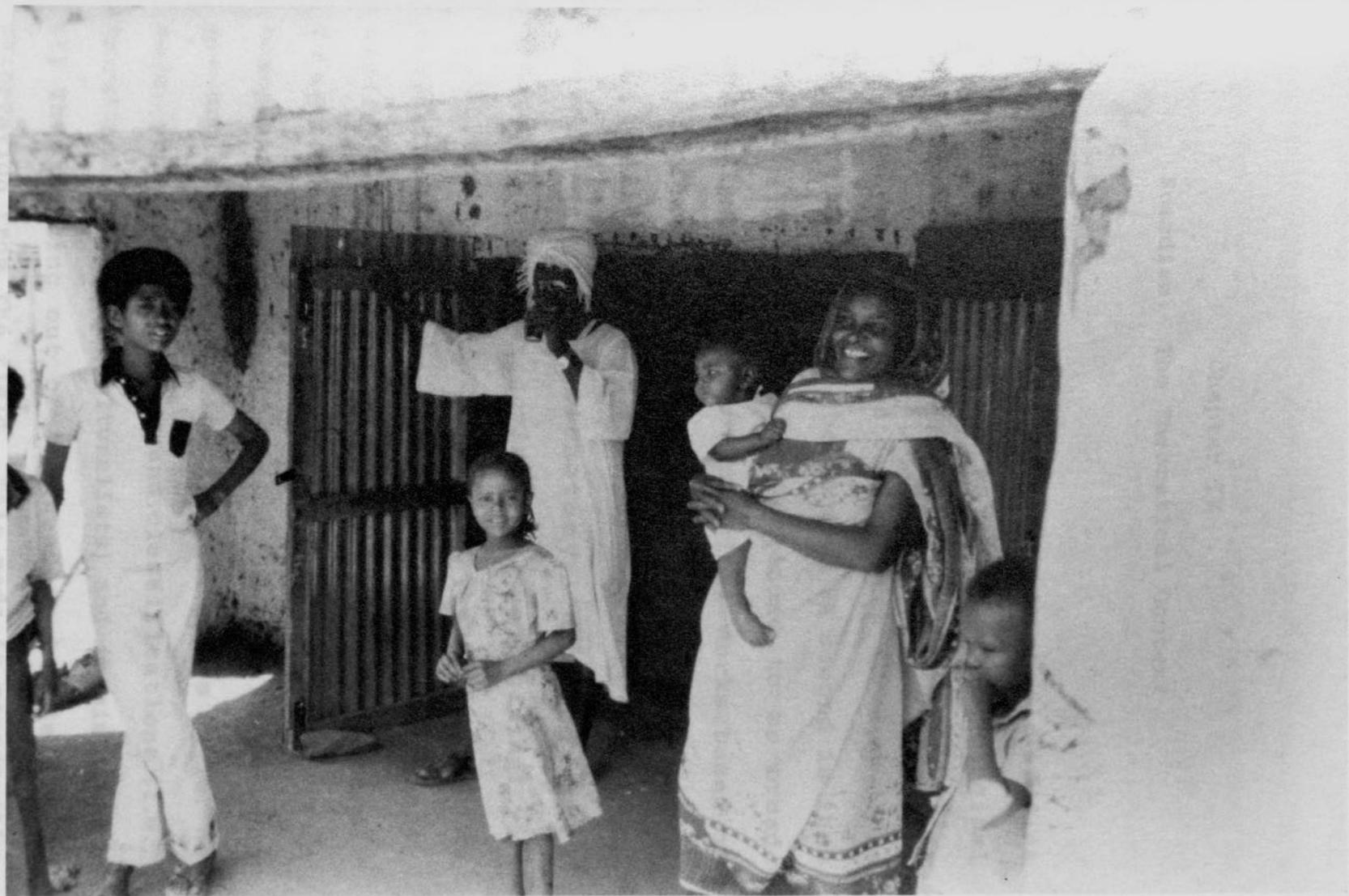












Chapter IV

Nomadism: The Theoretical Context

Dyson-Hudson (1972) has said that nomadic studies have not advanced as much as other anthropological studies. One reason for failure is that they have not fully utilized or carried on from such works as those of Robertson Smith of the 1800's. A second is that nomadic studies have also continued to be broad, "homogenizing" works or analytical works based on insufficient, second-hand data. A third problem is that they have remained too tied to the nomadic/sedentary dichotomy, environmental determinism, and categorizing or typologizing.

Dyson-Hudson (1972) suggests that there are two radically different styles of thought in nomadic studies: (1) That stemming from the need to handle fragmentary data by categorizing and homogenizing procedures, whereby the units of analysis are not societies but 'ideal types.' This style, he says, produces typologies and classifications (i.e., 'pure' nomadism; agriculturalists) and is simplistic. (2) That arising out of the need to handle direct observation from the field. This mode is permanently

concerned with specificities; of time, place, number, frequency; duration, identity, intent, option. This style produces an analytic description of variables in a system, whereby general patterns are indicated through describing and inter-connecting particular instances.

Dyson-Hudson, in contrast to Peters, suggests that we should cultivate assumptions of variability, contingency, and individuality (1972:9). Since contingency and variability are the essence of pastoral nomadism, the kinds of units we should be aware of are more likely to be pragmatic rather than formal: networks rather than corporate groups. This stance also differs from Peters who insists that lineages must be corporate groups. Dyson-Hudson points out that J. Clyde Mitchell has suggested that establishing the social reality represented by network links allows us to extract corporate groups from them, and that these will be corporate groups as they actually operate, not just as they are ideologically perceived. To go beyond the cultural ideology of corporate groups to effective social practice is not as simple a logical progression as the reverse (Dyson-Hudson 1972:9).

Another point Dyson-Hudson makes is that the structural concepts prevalent in social anthropology have not always been as productive as they might in

explaining the essentially pragmatic conditions of nomadic life. In this respect Barth's suggestions about boundaries, transactions and allocations as concepts, and his concern with social processes, organizational realities, and individual operations helps us to overcome this. Rather than focusing on bounded groups, for example, we should focus on the boundaries themselves and ask: What is their nature? How and how far are they maintained? with what effects?

Dyson-Hudson notes that nomadic studies suffer from attempts to construct mechanical models of the 'whole-society' type. This is particularly non-productive since these are not even based on descriptions of total societies, but are pieced together as ideal types from disparate records. He suggests that our concept of nomadism obstructs analyses.

Nomadism has two distinct parts: (1) livestock rearing, and (2) spatial mobility. Each of these sets of phenomena embrace conditions beyond the generally accepted sense of 'nomadism.' In fact, nomadism is actually the area of overlap of the two. Putting the two sets of phenomena together has facilitated the erroneous assumption that nomadic movement is caused simply by environmental factors. Separating them

allows us to see social and political causes for the movement as well.

Dyson-Hudson stresses that we are dealing with variables; and that as soon as we break 'nomadism' into even its immediate constituents of herding and movement, and choose one, we must deal with dozens of variables which are capable of infinite recombination. Until we possess precise knowledge on such matters he says we cannot claim adequate knowledge of a single nomadic society, much less 'nomadism' as a general form of human experience.

Salzman blames structuralism in anthropology for leading us to see social organization as rigid and permanent; disallowing change. But why should this be so? Societies without structure would be chaotic. On the other hand, it seems unreasonable to assume rigidity and inflexibility to be implicit in structure. Societies may be more or less rigid or fluid but they still have structure. Nomadic societies, as we have seen from evidence in many historical and geographical contexts, can be characterized as fluid; capable of adapting and maximizing their structures.

Another problem we have faced in understanding pastoral nomadic societies is whether or not we are dealing with dichotomies: (1) segmentary vs. hierarchic; (2) nomadism vs. sedentarization; (3)

stateless vs. state societies. M.G. Smith has shown how we can reconcile this problem by looking not at dichotomies, but at continuums. We should also be aware, as Dyson-Hudson noted, that all pastoral nomadic groups cannot be amalgamated into one homogeneous description. Different groups will be found at different points along the continuums, and, it should be emphasized, will themselves move along it in varying degrees at different points in time.

Another question to be raised is whether or not the concept of segmentary lineages should be kept as a part of anthropological analysis. Lancaster says that he does not use the term 'lineage' in discussing the process of segmentation because the groups under consideration are not lineages in any strict consanguineal or kinship sense. This seems a useful approach to clearing up confusion about these groups, and leaves the concept of segmentation without the burden of burden of implicit kinship. From "the natives" point-of-view they will continue to fuse and fission groups according to genealogical rules, and as analysts, we will be freed from the obligation to attempt the reconciliation of political genealogies with genealogies which describe actual blood relationships. This is not to say that families, for example, are non-political, but it allows us to be aware that in different contexts we may be looking at

different structures, or at one structure with multiple functions. We can thus be concerned with looking at the areas of overlap.

At this point it will be useful to examine the issues which seem to appear consistently in the literature on pastoral nomadic societies.

Segmentary Opposition:

The principle of segmentary opposition is often said to characterize the social organization of pastoral nomadic societies. However, the concept has led to much debate. Several anthropologists (Evans-Pritchard 1940, 1949; M.G. Smith 1956; Sahlins 1961; Lancaster 1981) have found the principle of segmentary lineages and complementary opposition to be a useful analytical model. Others (Peters 1967; Salzman 1978) have raised what are, in their view, serious problems with the concept of segmentary lineages. The concept of segmentation is not limited to lineage organization, and Lancaster (1981), for example, discusses how the concept, particularly its characteristic of complementary opposition, permeates other sectors of pastoral nomadic life. These include, among others, the division of the society into public and private domains, and segregated gender roles.

Evans-Pritchard's work provides one of the earliest elaborations of the theory of segmentation. He developed his ideas out of his work on the Nuer (1940) and the Sanusi (1949). However, we can find the seeds of his ideas in the work of W. Robertson Smith (1885). Robertson Smith's works (The Religion of the Semites, and Kinship and Marriage in Early Arabia) preceded Evans-Pritchard's by some fifty years. His work was, perhaps, obscured by speculation arising from his interest in demonstrating that kinship in Arabia was matrilineal before coming to patrilineal principles. But he made a number of perceptive points which retain validity. One point was that genealogies were manipulated. Orientalists of his time expended a great deal of effort on verifying genealogies, but Robertson Smith noted that fictional names were often inserted into the genealogy to give lineal continuity or to provide correct generational depth (Robertson Smith 1885:11).

Robertson Smith suggested that it was only within the tribal section or hayy that genuine consanguineal kinship was to be found, but that membership in the hayy was not limited to blood kin. The hayy was a heterogeneous unit because its members were not only blood kin but were also recruited from groups too weak to remain independent. Thus, the hayy was a political and social unity, not a blood unity. The hayy was

significant because (1) it was composed of people sharing a common nurture; (2) it was divided into groups; and (3) it used male descent for identification because food resources were male property. Robertson Smith said the hayy was a corporate group because it controlled the production and distribution of resources, had its own homeland, and was organized for the defense of that homeland. The hayy could be further defined as that group within which there was no blood feud.

Another focus of Robertson Smith's analysis was on the role of women. He noted that the use of female names in the genealogies made it possible to distinguish paternal half-brothers. He was also aware of the importance of a woman retaining her kinship with her natal group and noted that without this, marriage would not constitute a meaningful link between groups. He saw marriage as a transfer of wealth; primarily wealth in rights. One of these, crucial to the maintenance of the group, was that the right over a wife's progeny was transferred to her husband. Women were given control over the tent. This meant that they had the right to perform or the privilege to withhold their household labor, giving them not only what appeared superficially to be drudgery, but also a measure of power.

Robertson Smith made another observation which later came to be elaborated by Evans-Pritchard as the concept of fission and fusion. He noted that groups divided; that tribal sections split, forming groups between whom blood feud was possible. He suggested that this process was a function of competition for resources. He also noted that groups came together, even temporarily, for the purpose of opposition to like segments.

Evans-Pritchard was the next major theorist to pick up the threads of Robertson Smith's ideas. He began working out the concept of segmentary lineages in his work among the Nuer between 1930 and 1936. In his book on the Sanusi Evans-Pritchard tested his concepts in another cultural setting and gave anthropology an elegant analysis of a segmentary system, seen in an historical context of change which provided a classic example of the process of a society's development from a stateless to a state society.

Evans-Pritchard defined the lineage as a group of agnates, dead or alive, between whom kinship can be traced genealogically. He said lineages are political systems and differentiated between lineage groups and other groups (families, households, joint families) which he said are not part of the segmentary system. He considered these groups to be of what he called a

'kinship order' and not political. As we shall see, this point regarding the removal of domestic groups from the political sphere has led to some major problems in lineage theory.

Evans-Pritchard characterized a tribe as having (1) a common name; (2) a common 'sentiment;' (3) a common territory; (4) a moral obligation to unite in war; and (5) a moral obligation to settle feuds by arbitration. He said, further, that a tribe was segmented and that there is opposition between segments. He noted, however, that the tribe might be cross-cut by other social structures such as age sets. He said that segmentary societies could be seen as an ordered anarchy, pointing out that authority is found at every point in the tribal structure, that it is not absolute, or vested in a single individual.

Emrys Peters' work among the Bedouin of Cyrenaica followed closely upon that of Evans-Pritchard, being carried out during twenty-seven months between 1948 to 1950. In his analysis, however, he came to some quite different conclusions than Evans-Pritchard regarding the validity of the theory of segmentary opposition. In fact, he concludes that the lineage model is not a sociological one and should be abandoned.

"...however, it is...necessary to reflect on the significance of the fact that the arrangement of the material in terms of what is usually called the lineage structure coincides with the Bedouin ordering of the same details. It is, of course, important to note that the account is not based on mere hearsay

evidence. Each statement made can be documented...and to this extent the model that has been used is consistent with reality. The model, nevertheless, can only be a representation of what a particular people, the Bedouin, conceive their social reality to be; it is a kind of ideology which enables them, without making absurd demands on their credulity, to understand their field of social relationships, and to give particular relationships their *raison d'etre*. But...it would be a serious error to mistake such a folk model for sociological analysis." (Peters 1967:270).

Peters objects to lineage theory on four grounds.

(1) The basis of lineage theory is the concept of balanced opposition. Thus, bifurcation (equal numbers of segments at any particular level) is necessary if the theory is to make sense, but bifurcation is not manifested. (2) In lineage theory groups come together to constitute larger segments in opposition to like segments, but since there is a lack of instituted authority, it is not possible for all the sections at one level to unite because there is no one to assume leadership. (3) All the segments at any particular level should be fairly equal in numbers of people and economic resources, but that this is not true. (4) In lineage theory women can only belong to the domestic and kinship realms and links through women interfere with agnation or cut across lineage affiliation, thereby invalidating lineage theory. Peters also raises several further objections to lineage theory., He says that the existence of contingencies invalidates the model. The use of the lineage concept would entail the building up of

segments to encompass the total society. His final objection is that analysis on the basis of the lineage concept would exclude any possible comprehension of change.

These, then, are the main, sometimes opposing, views of lineage theory as seen in the work of Evans-Pritchard and Peters. Other anthropologists have also written on lineage theory giving us a variety of other perspectives and elaborations. The following section will compare and contrast these views, examining in greater detail the various problems raised in an attempt to derive the most useful model.

Arguments and Counter-Arguments:

One of the major criticisms of Evans-Pritchard's model is that he excluded 'domestic' groups (families, households, joint families) from the realm of politics. He gives the following definition:

"Faced with the initial difficulty of defining what is political we decided to regard the relations between territorial groups as such, taking the village as our smallest unit, for though a village is a network of kinship ties it is not a kinship group, but a group definable only by common residence and sentiment. We found that the complementary tendencies towards fission and fusion, which we have called the segmentary principle, is a very evident characteristic of Nuer political structure. (Evans-Pritchard 1940:263)

He goes on to say that each political unit shares political values and that:

"By political values we mean the common feeling and acknowledgement of members of local communities that they are an exclusive group distinct from, and opposed, to other communities of the same order, and that they ought to act together in certain circumstances and to observe certain conventions among themselves. (Evans-Pritchard 1940:263)

He says further:

"Can we speak of political behavior as a distinct type of social behavior? We have assumed that certain activities, such as war and feuds, may be called political, but we do not consider that much is gained by so designating them. It is only on the more abstract plane of structural relations that a specific sphere of political relations can be demarcated. The behavior of persons to one another is determined by a series of attachments, to family, joint family, lineage, clan, age-set, and by kinship relationships, ritual ties, and so forth. These strands of relationships give to every man his sphere of social contacts. His field of actual contacts is limited; his field of potential contacts is unlimited. We distinguish a man's social sphere in this sense from structural space, this distance between social segments, which are groups of people who compose units in a system. We do not therefore say that a man is acting politically or otherwise, but that between local groups there are relations of a structural order that can be called political. (Evans-Pritchard 1940:264-5)

Radcliffe-Brown offers another definition of political. He suggests that politics refers to (a) the territorial rights of groups; (b) the maintenance of order by means of either personal or group action; (c) supernatural sanctions and/or processes of adjudication; (d) the accepted and prompt use of violence; and (e) a set of rules dealing with the functions of each of the former. However, Cohen (1970:486) notes that this definition breaks down when political analysis is attempted on groups in which the organized control of coercive force is not

present, or where there is no continuing sense of territoriality.

Smith (1956:44) compares these two definitions and notes that rather than finding political behavior in the structural relations between groups, like Evans-Pritchard, Radcliffe-Brown suggests that political relations are an aspect of social relations. It therefore follows that: "...political relations or organization occur within groups as well as between them; and that Evans-Pritchard's definition of structural relations and political system in terms of one another is mistaken, and rules out a large body of the relevant data from the study of political organization."

When we consider that anthropology in Evans-Pritchard's time was largely concerned with structures and structural relationships, it does not seem so surprising that his definition of politics failed to include intragroup as well as intergroup relations. As Evans-Pritchard himself says: "The task of exploring new country is particularly difficult in the discipline of politics where so little work has been done and so little known." (Evans-Pritchard 1940:266). Even in his work on the Sanusi Evans-Pritchard did not make his definition of politics or political relations more inclusive. Perhaps it was because he was dealing with political processes at a higher level of segmen-

tation that he did not perceive political action in groups smaller than the minimal lineage. What seems important in critiquing this flaw in Evans-Pritchard's analysis is that the 'mistake' does not refute his model; the data he provides is still correct. Rather, the segmentary processes he described are to be extended to a further level than he considered. M.G. Smith (1956) provides a number of insights into how the concepts of kinship, lineage, corporate group, government, political system, social structure, descent, segmentation, and territorial organization can be refined, and how they may be seen as units in a system of interconnected definitions (Smith 1956:42).

It is useful at this point to look at several of M.G. Smith's definitions. He says:

"Government is the process by which the public affairs of a people or any social group are directed and managed. (Smith 1956:47)

"A political system is simply a system of political action...The nature of political action (emphasis his) defines the nature of political units. Action is political when it seeks to influence the decision of policy. (Smith 1956:48)

And therefore,

"The units involved in this competition to influence and control policy decisions are the political units of the systems involved, whether they be lineages, lineage segments, official cadres, political parties, religious groups, firms or individuals. Policy decisions define a programme of action, implicitly or otherwise. The execution and organization of this programme is an administrative process. (Smith, *ibid.*)

Smith says that political action seeks to influence policy decisions by competition for power. Political action is inherently segmentary and is expressed through the contraposition of competing groups or persons. If power is segmentary, administrative action is inherently hierarchic and is defined by authority. These two, political and administrative action, may involve different structures or, as in the case of stateless or acephalous societies, belong to the same structure in different contexts. Administrative functions in a segmentary lineage system have a hierarchic authority structure, while at the same time, relations between co-ordinate lineages at any level are segmentary. The relations in marriage, ritual, inheritance and succession are latently political; in feud, manifestly political.

Therefore:

"Segmentary lineage structures, in the current sense of this term, represent the coincidence and interrelation of these administrative and political principles of action and organization in units recruited on the basis of unilineal descent. (Smith 1956:54)

Lineage structure may be characterized as having two aspects: the hierarchic and the contrapuntal. These are distinct but closely related. The hierarchic aspect is seen in the genealogical pyramid, while the contrapuntal aspect is seen by the fact that there are collateral segments at every level of the system which are defined by co-ordinate relationships, i.e.,

'balanced opposition.' Smith (1956:43) sums up the definition of segmentary lineages in this way.

"We can therefore say that the fundamental concepts of segmentary theory centre about the definition of a system of political relations, and on the basis of this, differentiate lineages from other kinship groupings in terms of segmentary principles and structures which reflect and discharge political functions...it therefore seems that the foundation of segmentary theory consists in a combination of two basic concepts, segmentation as a structure and process on the one hand, and political organization on the other. Where these conceptions are combined with unilineal descent groupings, segmentary lineages exist; otherwise they do not."

Smith suggests that the appropriate method of analysis is to first study marriage, kinship, and lineage as a total system, and then to investigate specific political and administrative structures, considering these principles in relation to particular contexts (Smith 1956:77).

Complementary Opposition:

We have noted earlier that the segments in a segmentary system are related to each other in a system of balanced or complementary opposition. We must now look more closely at what that means.

A segmentary tribe is divided into several primary sections. Primary sections split into secondary sections, and secondary sections into tertiary sections. At any level the groups see themselves as being jurally equal and are said to be in 'balance.' Groups at any particular level are 'complementarily

opposed' to each other. In other contexts these groups coalesce or 'fuse' to oppose groups at the next higher or more inclusive level. Evans-Pritchard said, in regard to the Bedouin of Cyrenaica:

"A tribe is divided into several, generally two or three, primary divisions, or sub-tribes, which own well-defined portions of the tribal territory, in most cases running in strips unbroken by intrusive elements. These primary divisions are of the same pattern as the tribe of which they form part. Each division has its watan,,,,,, which its members own and defend collectively. They believe that they are descended from a common ancestor,...Primary tribal divisions split into secondary divisions, and secondary divisions into tertiary divisions, and so on. Each of the smaller divisions is a replica of the larger ones and has the same preferential and exclusive rights in its lands, an encroachment on which by another division will lead to fighting...The members of each division also consider that they are descended from a common ancestor who, in his turn, is descended from the ancestor of the larger division of which they form a section. (Evans-Pritchard 1949:55)

One of Peters' objections to lineage theory is on the point of balanced opposition. He says, "...bifurcation is necessary if lineage theory is to make sense, because if at any order there are more than two segments, then combinations can occur which are not comprehended by the theory" (Peters 1967:271). He notes that at the various levels there actually are more than two segments. In looking back at Evans-Pritchard's diagrams of Nuer segments (1940:140-41) and those of the Bedouin of Cyrenaica (1949:58) we see that the sections are not consistently divided into two or even four evenly-paired groups. He notes that there are not even

numbers of sections; that there may be three or five. About the Nuer, he says that he has not attempted to list all the sections of each tribe, but has "... merely tried to indicate the mode of segmentation so that the relation between tribal division and lineages may be more clearly understood..." (Evans-Pritchard 1940:142)

Peters is not clear about how he arrived at the criteria of bifurcation but it seems that to impose the notion of the necessity for one-on-one division of segments is to misunderstand the concept of balanced opposition. The balance here is not to be found in equal numbers of groups but rather in conceptual or logical balance. Evans-Pritchard says:

"A man is a member of a political group of any kind in virtue of his non-membership of other groups of the same kind. He sees them as groups and their members see him as a member of a group, and his relations with them are controlled by the structural distance between the groups concerned. But a man does not see himself as a member of that same group in so far as he is a member of a segment of it which stands outside of and is opposed to other segments of it. Hence a man can be a member of a group and yet not a member of it. This is a fundamental principle of Nuer political structure. Thus a man is a member of his tribe in its relation to other tribes, but he is not a member of his tribe in the relation of his segment of it to other segments of the same kind. Likewise a man is a member of his tribal segment in its relation to other segments, but he is not a member of it in the relation of his village to other villages of the same segment. A characteristic of any political group is hence its invariable tendency towards fission and the opposition of its segments, and another characteristic is its tendency towards fusion with other groups of its own order in opposition to political segments larger than itself. Political values are thus always, structurally speaking, in conflict. One value

attaches a man to his group and another to a segment of it in opposition to other segments of it, and the value which controls his action is a function of the social situation in which he finds himself. For a man sees himself as a member of a group only in opposition to other groups and he sees a member of another group as a member of a social unity however much it maybe split into opposed segments. (Evans-Pritchard 1940:136-7).

Evans-Pritchard says that Nuer lineages are not corporate groups (1940:203) but he recognizes the conceptually corporate character of lineages. Smith says that in making the distinction between the type of corporateness of local and lineage units Evans-Pritchard recognized the distinction between the ideological and organizational aspects of social units, and therefore the difference between corporateness observed in group action and conceptualized corporateness (Smith 1956:60). He says:

"The corporate character of a segmentary lineage is thus its administrative structure viewed as a unit in a system of political relations. (Smith 1956:64).

Peters raises another objection to lineage theory which has to do with authority. Since there is no institutionalized authority it is not possible for all sections at one level to unite because there is no one to assume leadership (Peters 1967:271). However, this seems a weak argument. It is not necessary for leadership to be institutionalized for it to exist. Evans-Pritchard says, about the Bedouin of

Cyrenaica, that authority is found at every point of the tribal structure and that political leadership is limited to situations in which a tribe or a segment act corporately (1949:59). Each segment has its sheikh but that his position is unformalized and that his status is defined in terms of a complicated network of kinship ties and structural relations. Sheikhs are respected but not regarded as superiors.

In his book on the Rwala Bedouin Lancaster provides one of the most cogent discussions of the concepts of segmentation and complementary opposition. He also discusses what he calls the 'generative genealogy' and the division of Rwala social order into spheres of public and private. Other authors have discussed each of these concepts, though usually separately. Lancaster, however, does what Smith (1956:77) suggests and gives us an elegant analysis of Rwala social order as one comprehensive system.

The Rwala view their system as groups ultimately descended in the male line from a common ancestor. There are four terms used to describe or classify groups: kabila and ashira referring to the minimal section. (Lancaster says that he prefers to refer to the divisions as sections rather than lineages because membership is based on other factors besides consanguinality, and genealogies are manipulated.) Above the level of the minimal section the genealogy

takes a segmenatary form. The truth of the genealogy is relative to the pragmatic needs of the group, and as political and economic motives change in time, the genealogy changes to accommodate changing assets and options. Thus, Lancaster (1981:35) says that Rwala society generates the genealogy through which it explains the present, and uses it to generate the future.

Since each marriage is a new departure point in the generative genealogy, and therefore the future, the choice of spouses is carefully considered. The reputation of the respective families is the measuring stick of the appropriateness of a marriage.

A man's reputation is public and based on the virtues of honor, bravery, generosity, political acumen and mediatory abilities. A woman's reputation is private but equally important because the Rwala say that honor comes through women. Reputation for women centers primarily on sexual honor but includes all female virtues, such as the ability to run the household economically and efficiently, obedience, cheerfulness, hard work and loving upbringing of children, generosity and bravery. In addition a woman must aid in promoting her father's, brother's or husband's reputation for generosity and hospitality (Lancaster 1981:44). Women have no jural identity but

are equal partners in determining the direction of the generative genealogy.

The five generation ibn amm has a dual function. First, it is necessary so that the subgroups which compose it can fit into the overall Bedu system genealogically. Second, it is, in theory, the same as the vengeance unit. There are two ways of aligning the two functions. One (which is what the Rwala say they are doing, but actually are not) is to keep the ibn amm strictly patrilineal. The other way is by amnesia; forgetting the intermediate ancestors. One problem is how to choose from five groups of cousins which one to cooperate with and which ones to discard. The choice has to be justified in genealogical terms so it must be manipulated to fit reality. The easiest way is to change one relationship into another (e.g., son becomes brother) but since the genealogy is public there must be a private means of manipulating the genealogy. This is only possible through the women. The marriage partner which fulfills all the conditions is the f.f.b.s.d. which is the preferred pattern.

One of the primary features of Rwala society, as well as of other pastoral societies, is the division into public and private spheres. Public life means life beyond the three generation ibn amm. Public life is characterized by impression-management. And, in this setting where principles and positions are

stated, self-importance is flaunted, and honor is invoked, violence is likely to erupt. Thus it seems reasonable to the Rwala to keep women out of public life since they are the biological and genealogical reproductive assets of the whole group.

Lancaster says (1981:62) that placing women in the private sphere is not motivated by the idea that they are the weaker sex; it is because they are the means of survival of the group. If there is no bint amm (f.b.d.) a man would marry his bint khal (m.b.d.), and tensions would increase, resulting in the greater likelihood of division and dissolution of the group. In the private sphere women cannot have their own jural identity or hold jural responsibility since that is a function of the public sphere.

Lancaster stresses that this is the structure, but there are many examples of women going against the principles of the system. If no men are available women can act as men; they can entertain, give protection, and make business or economic decisions. Sometimes women come into public life in its more violent aspects. These women, who kill unwanted husbands, seek protection from an unhappy marriage, commit suicide, or beat off raiders, are acting in situations concerned with honor and reputation. As victims of dishonorable men they take public action to draw attention to them.

Women's social networks bolster or cut down men's reputation in other, non-violent ways as well. The women's knowledge of a man's feasts, his women's clothing, his private acts of generosity, bring a sense of reality to his impression-management. Women also participate in impression-management, demonstrating their husband's regard and trust by displaying clothing and jewelry given them.

Women are largely responsible for the education of children. The method is modeling rather than coercion, because individual autonomy is extremely important and the concept of equality extends to children. Thus, in what may seem a harsh regime, children are responsible for their own reputations from an early age. This harshness is compensated for by giving the child total, unconditional security which has nothing to do with good behavior. The result is individuals with a great deal of self-confidence who take their autonomy seriously.

Lancaster suggests there are two primary themes in Rwala society. One is the principle of complementary opposition, with balance, assets and options being the practical side of segmentation. The second theme is individualism and autonomy. He says that individualism is real and that it is fundamental to the Rwala version of the segmentary system, and that segmentation continues down to the single, autonomous

individual (1981:151). The segmentary system is based on genealogy.

He says that the Rwala see genealogy as starting in the present and receding into the past. The main point of a genealogy is to provide a framework for legitimizing present political relationships between groups. The Rwala also see the genealogy as spatial rather than temporal; in terms of continually expanding inclusive groups of people, depending on the context. In a structure where the in-group is constantly changing, complementary opposition is a mechanism whereby the in-group is always balanced by the out-group to which it is in opposition.

The Rwala have a clear conceptual image of society divided into complementary, equal, opposing segments at every level (except at the level of the tribal section). However, there are two factors which mediate apparently divisive forces. (1) People rarely think at one level at a time. (2) All groups at all levels are cross-cut by relationships through women.

Lancaster then suggests that there is another aspect of segmentation. This is a balance between public and private. The public assumption is that the official genealogy balances, but privately everyone knows that it is out of balance. Thus in private life balance is redressed by using female links. Public assumptions are balanced by private reality; or stated

in another way, the public is complementarily opposed by the private.

It seems that Lancaster's extension of the principles of segmentation and complementary opposition to include the relationship between public and private, male and female, offers a solution to Peters' dilemma of how to account for the women in a segmentary system. Peters says that according to the segmentary lineage theory women can only belong to the domestic and kinship realms and that links through women interfere with agnation or cut across lineage affiliations, therefore invalidating the theory (Peters 1967:272). If we change 'domestic' and 'kinship' to 'private,' Peters and Lancaster seem to agree on the facts but disagree on the consequences. Peters also represents an either/or position; while Lancaster, whose argument seems better founded, shows that the system depends on both the segmentary principle and the cross-cutting relationships of women.

Lancaster also says that the obvious opposition of dominance/male/public and subservient/female/private cannot be made. He says that dominance is an aspect of maleness because dominance is related to public life (1981:158). Similarly, there is no equivalent of the genealogy in the private sphere; genealogy is a public statement and therefore must be male. Another

aspect of the balance between public and private is that it is used to maintain two opposing forces that are incompatible: individuality and consensus. He notes that in many affairs the end is achieved without any general consensus being reached. This stress on decision-making by consensus and individual autonomy seems to be a reasonable explanation for the lack of institutionalized authority and to explain, contrary to Peter's view, how groups can act without institutionalized leadership.

This need for balance is evident in many ways. Brother and sister names are paired, derogatory remarks are balanced by positive remarks, tents have male and female sides (public and private), and seating is usually in a circle--the most balanced and egalitarian of shapes. Total balance is ideal because equality is ideal. This is impossible to achieve so life is a constant tension between the ideal and the real. Lancaster says this is also balanced because reality modifies the ideal through demography and the inequality of achievement, while the ideal modifies reality through the mechanisms of reputation and the generative genealogy (Lancaster 1981:161).

Bourdieu, a French anthropologist, presents a model of balance and opposition which can be usefully applied to nomadic societies as well as the Kabyle village he describes. Though he speaks of the

polarity of the sexes (rather than complementary opposition) being expressed in the division of the system of representations and values into two complementary, antagonistic principles, he has made essentially the same point as Lancaster (Bourdieu 1979:120). While it would seem more accurate to perceive the two sides of the model as tensional rather than antagonistic, his point is that the social structure cannot be seen in terms of dominance or subjugation, but must be seen in terms of balance and complementary opposition.

One of Bourdieu's articles (1979b) discusses the game of honor. The second article (1979a) details the symbolism of the Kabyle house. His description of the Berber house differs from previous descriptions as he sees both objects and actions as parts of the symbolic system (Bourdieu 1979a:133-4). He carried his analysis beyond the house to demonstrate how the house is not only a system of opposition but is itself opposed to the external world; which equates to the opposition between public and private, or male and female. Aspects of this symbolism, as will be described, apply as well to the Baggara camp, which is divided into male and female domains and is related to their conceptions of public and private space.

These concepts: segmentation as a process; complementary opposition; continuums rather than dichotomies; and variability, are central to the discussion in Part II.

Chapter V

Gender Roles and Interactions

Somehow the anthropological study of gender seems to focus on women, and not just on the subject of women, but in recent years, on subject women (Ortner 1974; Oakley 1981). This approach has been plagued with problems and has dead-ended in polemic. The focus on women to the exclusion of men is rather curious, particularly when some of the analysts (who are women) claim to be applying a Levi-Straussian model which is based on oppositional pairs, where half of one pair is "female" and the other half "male" (Ortner 1974; Schlegel 1977).

Another analytic model, a descriptive one, has not been fruitful either. While the descriptive model has included both men and women it has produced only an ethnographic archaeology of trait lists which are static (and stagnant) and do little for furthering our understanding of sociocultural dynamics. A further problem plagues the descriptive model. Lists representing the sexual division of labor, for example, are neat and often interestingly complementary until a female task crosses over into

the male list and vice versa. Then the "structure" breaks down and the analyst is at a loss for explanation or understanding.

Both approaches are plagued with some problems in common. Ardener (1973:1) says the "problem of women" (not "gender?") is in two parts: (1) technical and (2) analytical. He says that at the level of observation (the technical aspect) women are well reported. This would seem debatable on the basis of the second problem he notes, i.e., the use of male models by informants (both male and female), and by ethnographers (both male and female) analyzing the data. If we accept that both informants and ethnographers are operating with male models, it would follow that women are not well reported, even by women anthropologists.

This penchant for feminist polemic has resulted in a perversion of Levi-Strauss' structural model. A further result has been a failure to understand gender roles as more than two-dimensional paper representations of men and women. Richards notes (1974:4) that it is the duty of the field anthropologist to distinguish clearly between what shocks her (him) and what shocks them. The application of Levi-Strauss' model offers some exciting possibilities for transcending heretofore mundane considerations of gender and role.

If gender studies in general have suffered from a lack of insightful analysis, such studies of pastoral nomadic societies have suffered even more. This has been particularly true of Islamic or Islamicized groups. First of all, some of the public trappings of Islamic culture have offended our Western (and feminist) sensibilities, resulting in perceptual and interpretational bias. Secondly, ethnographers have labored under the misapprehension of sweeping commonalities in all Islamic societies; urban or pastoral nomadic. This has resulted in obscuring significant differences.

On the other hand, the segmentary nature of pastoral nomadic societies seems to offer an excellent vehicle for comprehending the models of complementary opposition, dual organization, public and private, as applied to gender and role. Also, the application of these models should elucidate the function of gender roles in pastoral nomadic societies. The next sections will examine the literature upon which gender role theory is based.

Nature and Culture:

The analogies made between female and nature, and male and culture is one that occurs in perhaps most cultures. This concept is often embedded in the mythology and finds support in the reproductive and

nurturing roles of women. In anthropology the nature:culture, female:male oppositions figure prominently in Levi-Strauss' thinking, and have been pursued by a number of anthropologists, particularly women, in an attempt to understand gender roles. One of these is Ortner whose article (1974) is frequently cited in the literature on gender. The problem with Ortner's interpretation of Levi-Strauss is that she asserts that in addition to women being identified with nature, every culture considers nature as being a lower level of existence. She says (Ortner 1974:72) that if nature is "low" and women are viewed as closer to nature, women are therefore perceived as "low." Ortner says that the secondary status of women is "...one of the true universals, a pan-cultural fact" (1974:67). While she states that biological determinism is not valid, she proceeds to say that "...this absolute physiological fact," i.e., the 'natural' procreative function specific only to women, has significance at three levels (Ortner 1974:73):

1. Women's physiology is seen as closer to nature.
2. Women's social role is seen as closer to nature.
3. Women's psyche is seen as closer to nature.

She says that many parts and processes of the female body are irrelevant for the health and stability of the individual (such as breasts), in contrast to the male. While the female "...creates only perishables--human beings," the male creates technology and

symbols, which are lasting, eternal and transcendent. In turn, women's physiological functions have "universally" limited their social movement and confined them to the domestic sphere, "...due to her lactation processes" (1974:76). She says that women probably do have a different psychic structure than men, and claims that women nearly universally accept their own devaluation. She claims that Levi-Strauss equates domestic/public with nature/culture. Despite her disclaimer, Ortner's argument is biological reductionism, as MacCormack notes (1980:16).

Levi-Strauss begins Les Structures elementaires de la parente (1949) with a chapter on nature and culture, and elaborates the discussion in Structural Anthropology (1963). His ideas on the complementary oppositions of nature:culture (and others, e.g., sacred:profane; raw:cooked; central:peripheral) are found in his discussion of dual organization. He gives an example of two groups of Winebago informants, each of which described their village plan differently. The first group described a circular plan with an imaginary diameter separating the two moieties. The second group described an arrangement whereby a smaller circle within a larger one represented all the lodges in the center, encircled by an area of cleared land, further distinguished from virgin forest surrounding the whole (Levi-Strauss

1963:133-34). Levi-Strauss says that each description corresponds to a description of a complex organization which cannot be described by a single model. He calls the first a "diametric structure," and the second a "concentric structure" (1963:135). It is within these models that we find oppositions like sacred:profane; public:private; male:female illustrated. These models are not mutually exclusive and may exist together (dualism).

We can represent the Hawazma in a concentric structure as in Fig. 7. At the center is the primary group, an independent unit, but at the same level of organization is a set of other camps enclosed by a circle whose area represents the iyal rajul, or sub-lineage in the segmentary system. At the next level are the larger units which stand further outside, but which also are composed of iyal rajul and camp units. The area encompassed by this ring and the one previous are both Hawazma, a sub-tribe of Baggara. In the next ring, again related to the prior one by complementary opposition, are circles representing other Baggara sub-tribes. Beyond the last Baggara ring is one encompassing non-Baggara groups or tribes. As we move outward through the concentric rings the depth of the lineage groups in complementary opposition is greater, and the lower level delineations disappear. Alliance is represented by a disappearing boundary. Relations

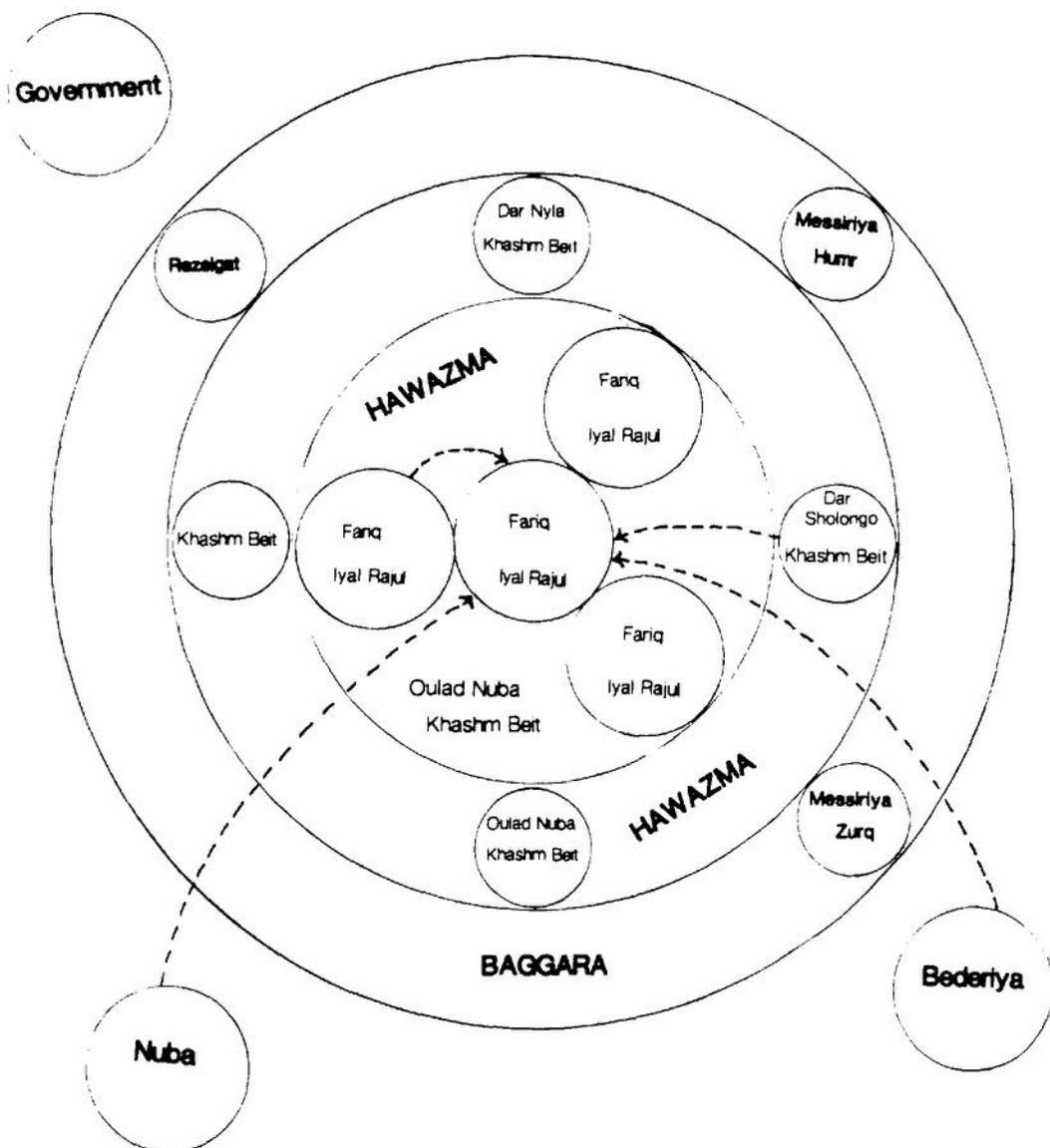


Figure 7. Hawazma Concentric Structures.

between the levels are mediated by women (through marriage) moving reciprocally between the various bounded groups. Within the Hawazma categories, movement is multidirectional.

Lancaster diagrams a Rwala ego-centered genealogy as a concentric structure (1981:153). Actually it is a model of Rwala segmentation. The concentric circles, as they move toward the center, represent more inclusive groups. He says that, "The arcs of the concentric circles should be independent within each segment, contracting and expanding in accordance with ego's intentions and purposes."

Levi-Strauss notes the transformational nature of the concentric model, so that in some pairs of oppositions, one side may be transformed to the other. For example, raw to cooked; children to adults; nature to culture, etc. MacCormack (1980:7) suggests that Levi-Strauss stresses not only transformation, but domination, citing The Elementary Structures of Kinship (Levi-Strauss 1969). While it is true that he does mention the domination of culture over nature (which has been extrapolated by Ortner, et al, to the domination of male over female), MacCormack cites the English edition (Levi-Strauss 1969:479). She apparently overlooks the fact that the original publication date is 1949, and that Levi-Strauss elaborates his ideas in subsequent publications, as in

Structural Anthropology (1963) in his discussion of dual organization, where there is no mention of domination or subordination. He does say that higher and lower status is represented in the diametric model.

MacCormack presents a diagram (based on Leach 1976:25-7) which she says illustrates paradigmatic associations or metaphoric transformation (Fig. 8). According to MacCormack, we follow the transformation as we read from top to bottom (1980:7-8). She points out that if gender is added to the set (Fig. 8b), the result is a non-sequitur. Female cannot be transformed to male. Inserting the female:male

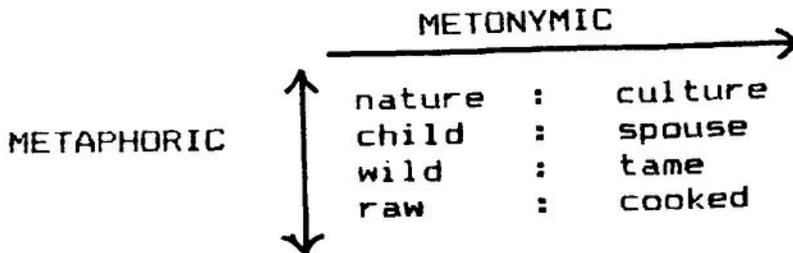
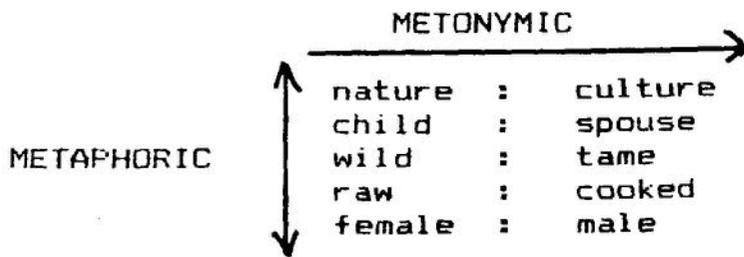


Figure 8. A. Metaphoric Transformations



B. Metaphoric Transformations with Gender Added.

From: MackCormack 1980:7-9.

Figure 8.

opposition into such sets is the flaw we find in arguments like that of Ortner.

While I agree with MacCormack that inserting gender results in a non-sequitur, it seems to me there is a problem with the direction in which MacCormack says transformation occurs. From my understanding of Levi-Strauss, it would appear that the transformation occurs along the metonymic axis, as can be seen in a diagram of his concentric structure. In fact, the use of the term "metonymic" causes logical problems MacCormack probably did not intend. The definition is: "Use of the name of one thing for that of another associated with or suggested by it" (Webster's New World Dictionary, 1957). According to the definition, one side of a complementary opposition represents the other, with the result that:

nature	=	culture
private	=	public
raw	=	cooked
female	=	male

We would not accept any of these equations as true.

MacCormack makes another point, again following Levi-Strauss (MacCormack 1980:9). Rather than placing women in nature, both men and women might be more accurately placed in a position of mediation between nature and culture. Continuing this idea in terms of transformation, I would suggest an elaboration. In complementary opposition, pairings like those below

are valid:

male	:	female
public	:	private
culture	:	nature
tame	:	wild
spouse	:	child
cooked	:	raw

In some pairs transformations are possible; some are one-way while some may be two-way transformations. In those pairs which represent possible transformations male:female becomes superordinate, because either gender can effect the transformation. In some cultures the transformation process may be the exclusive domain of one or the other gender. In other cultures a particular transformation process may be shared or gender-interchangeable. In some cases situational context or status may define the transforming gender.

For example: In the Hawazma view the various animals they husband can be ranked according to higher or lower status or value.

High

Cattle (Bulls)
Sheep
Goats
Chickens

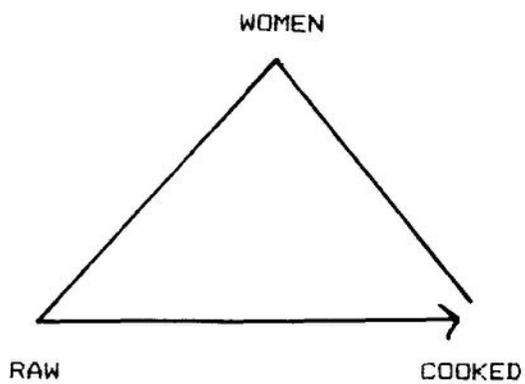
Low

Men slaughter bulls, sheep and goats for public occasions. Women slaughter chickens for private meals. Men butcher bulls and women butcher sheep, goats and chickens. Women cook sheep, goats, and

chickens, whether the occasion is public or private. Both men and women cook beef, usually concurrently, for public occasions.

Thus, men slaughter animals of all statuses, except the lowest; butcher only the highest status animal; and share cooking of the highest status animal. Women slaughter only the lowest status animal; butcher the low- and mid-status animals; and cook the meat of all animal statuses. Both butchering and cooking include distribution rights. The transformations in this example can be diagrammed as in Fig. 9.

Another example from the Hawazma is the complementary pair nomadic:sedentary (Fig.10). This pair can represent a number of different contexts. Here it is the household. The mediator is not just "Male," but a particular category, "Husband." Both "nomadic" and "sedentary" are represented by women, i.e., "Wife." This diagram is much more complex as it shows not only Husband's mediation between polygynous marriages, but also mediation between two economic modes and the division of labor between each woman and her children. Movement and exchange of specialized products can also be seen. In addition, it must be noted that the wives themselves can move along the base of the triangle from nomadic to sedentary and



Sheep

Goats

Chickens

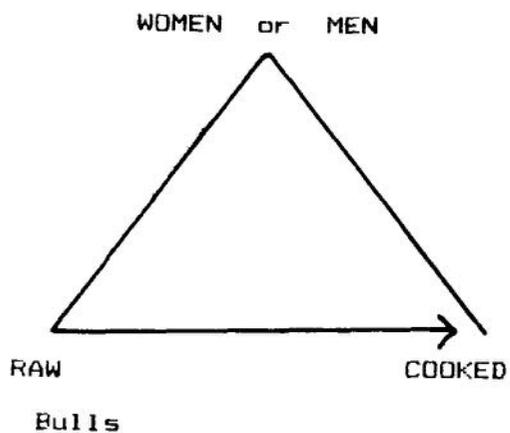


Figure 9. Gender Roles - Slaughtering, Butchering, Cooking.

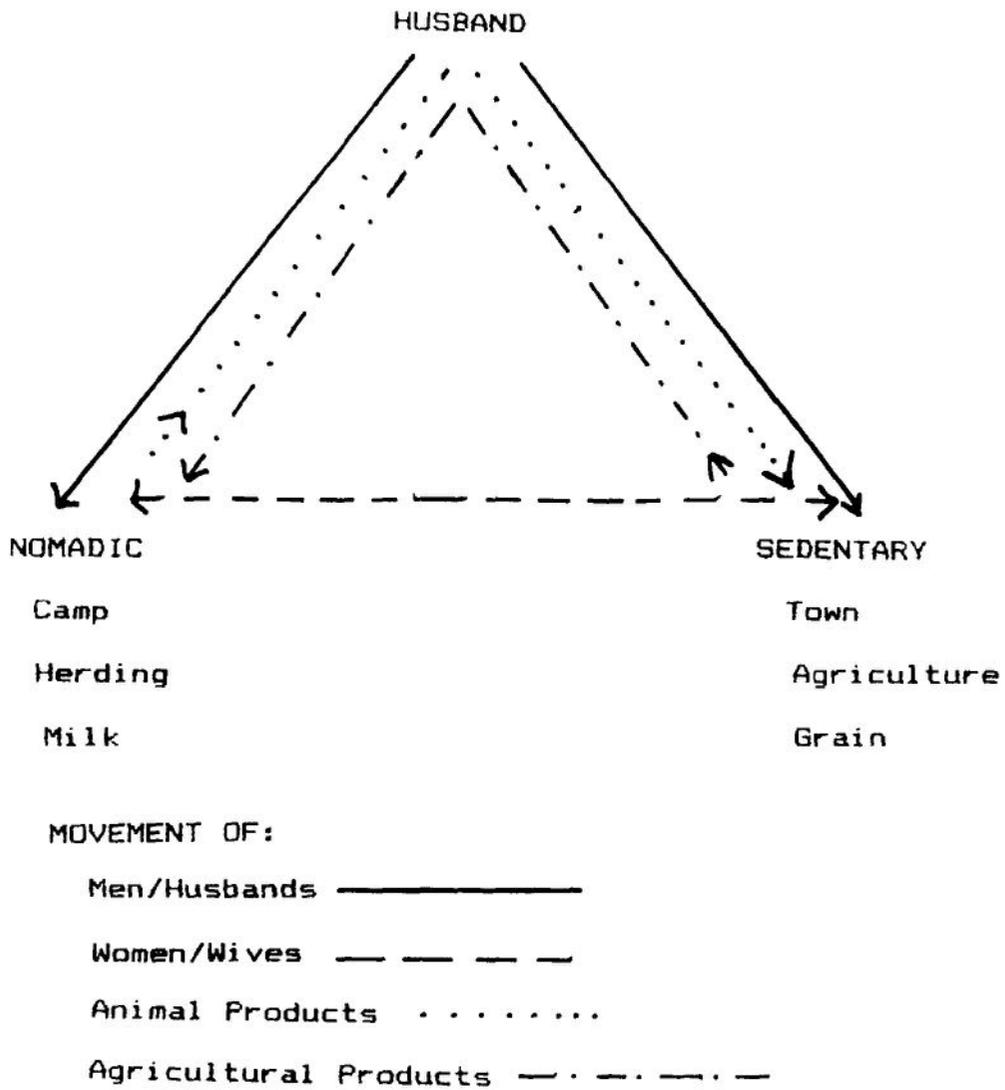
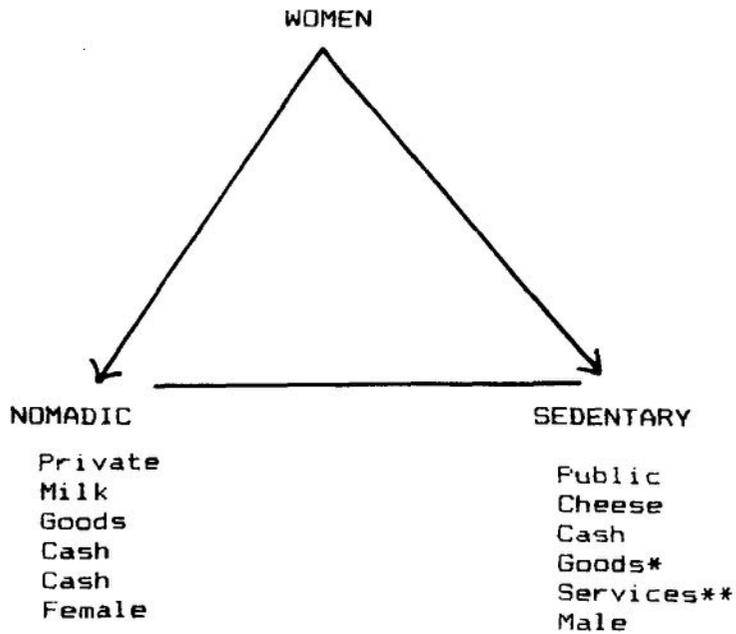


Figure 10. Reciprocity Model

vice versa. Rather than being a diagram of transformation, this is a model of reciprocity.

In the third example (Fig.11), a woman mediates between nomadic:sedentary. However, in this case, "nomadic" represents the private sphere of the camp; while "sedentary" represents the public sphere of the wider society. Women transform goods into cash, and cash into goods and services. Complexity is introduced as a particular woman is essentially mediating between the female and male world.

The usefulness of the Levi-Straussian models is that they clarify relationships in complementary oppositions, provide a means for testing the validity of transformations, and illustrate the flow of reciprocity. The nature:culture concept is valid, as long as it is not seen as deterministic. We will see how men and/or women can be mediators, and that which gender acts in a particular role may be more related to cultural context than gender. The gender of mediators may change over time or as a result of the domestic family or individual life cycle stage. Status may be a part of the models, but the models do not inherently imply either status or domination and subordination. An important aspect of these models is that they are dynamic.



*Food, clothing, luxury goods, medicines, animal supplements.
 **Health care, lorry travel, tailoring, tattooing.

Figure 11. Women Mediators.

Public and Private:

The concept of public and private, as it applies to segmentary pastoral nomadic societies, is part of a set of complementary oppositions which can be said to characterize the social organization of such societies. The public/private "dichotomy" orders relationships in the camps and between the camp and various aspects of the outside world. The concept of public and private also regulates the use of culture space. As an analytic model the concept has sometimes led to a misinterpretation of segmentary societies, particularly when the pair has been included in a set such as follows.

Public	:	Private
Culture	:	Nature
Male	:	Female
Dominant	:	Subordinate

Nelson (1974) examines the literature which discusses the political significance of women in the larger Middle Eastern society, of which pastoral groups such as the Baggara and Rwala are part. She notes that along with the assertion of the existence of public and private worlds come the description of the public world as political, broad, and expansive, while the private world is described as domestic, narrow, and restricted. Imbedded in the view of public:private is the concept of power, but

discussions of power are influenced by Western categorizations, particularly as they relate to female gender roles. The problem is further complicated by reputation and what Lancaster (1981) calls "impression-management." Perhaps one of the greatest difficulties anthropologists have faced in attempting to understand pastoral nomadic societies has been the collision of male ethnographers with the values and behaviors subsumed in the segmentary principle of public:private. Western male anthropologists, until recently the majority in pastoral nomadic studies, have extremely limited access to pastoral women. Even in the public sphere, information gathered may represent only a part of the total picture because there still remains the opposition between "insider" and "outsider" (for example, see Mason 1975). Lancaster says:

What visitors seem never to have realised is that much of what they saw and heard was designed to be reported--it was impression-management. One of the problems for any investigator dealing with a segmentary society is that he is always outside that society by definition and therefore in opposition to it. Thus dealings with him are part and parcel of impression-management. In a sense the outsider sees himself...much overt behavior towards the outside has little relation to reality; it is a political statement and it must be recognised and analysed as such. (Lancaster 1981:119)

Ardener (1973) discusses the difficulties in relation to studies of women, and says: "The problem of women has not been solved by social anthropologists...With rare exceptions, women

anthropologists, of whom so much was hoped, have been among the first to retire from the problem" (1973:1). Ardener goes on to suggest that there are two problematic areas. One is that ethnographers, even women ethnographers, have a bias towards a male model which male informants provide. The second is that women informants are "...made inarticulate by the male structure" (Ardener 1975:21). Therefore, women ethnographers as well as male, are unable to elicit female models from their women informants. It seems that Ardener has only partially understood the problem. While there is probably truth in the statement that anthropologists work with male-oriented models, it is incorrect to state that women informants are inarticulate. The solution lies in understanding how the private/public spheres function.

One of the primary stumbling blocks to the study of gender roles (particularly of women) is the assumption that a female anthropologist will automatically have access to the private sphere, simply on the basis of her gender. Two factors are overlooked: (1) the way the anthropologist is perceived; and (2) the nature of the principles underlying the segregation of society into public and private spheres.

The biological fact of an anthropologist's female gender may have little bearing on how informants

relate to her. Even though she associates primarily with women, she may be given the male/public model because she is perceived as a stranger (public sphere) and a social male. Awareness of this factor can work to the advantage of the female anthropologist if she can break down the stranger barriers in relationships in the private sphere, and maintain the role of social male in the public sphere. It then becomes possible to achieve greater observational balance of the whole society.

The second factor relates to the function of the public and private sphere and how that relates to the data it is possible to elicit. It is not that, as Ardener suggests, women are inarticulate, but that ethnographers ask questions which have both public and private answers. Women, who can give both sorts of answers, have to support the male, or public response unless the context or the level of rapport makes giving the female or private response safe or appropriate. This factor operates not just in interaction with the anthropologist, but in the social interactions the anthropologist is there to observe.

The idea of public and private domains is at first glance an elegant way to explain gender segregation in segmented societies like those of many pastoral nomads. However, careful consideration uncovers a number of problems with what, upon further

study, appears a simplistic euphemism for male and female, and a parcel of connotative baggage which includes concept pairs like dominance and subjugation, political and domestic, expansive and restricted. The problem is not with the concept of public and private domains. Those two domains exist behaviorally in segmented societies. One question is whether or not the public and private domains can be assigned gender. Another problem is to understand how these concepts are operationalized at several different levels, depending on social, temporal, physical, and symbolic contexts. As suggested earlier, the use of the public:private model as an analytical tool has led to misinterpretation when applied to segmentary societies, particularly when the complimentary oppositions of public and private are included in a set with other oppositional pairs such as culture:nature, male:female, and dominant:subordinate. Since a public:private model appears to permeate much of Hawazma (and other pastoral nomadic) society, one task of this part of the dissertation is to examine the simultaneous multilevel functioning of the model. Another task is to examine how both Hawazma men and women operate in both the public and private domains.

A case study from the Oulad Nuba (Hawazma) will provide the basis for an elaborated description and analysis of the topics in this section.

The Case of the Cow:

Oneday two young men came to me and asked me to bring a truck to take Naima to the hospital as she was very ill. One of the young men was her brother. I got the truck and went to Naima's dwelling in the camp. I had asked what was wrong with Naima and the young men told me they didn't know. Naima had been alright in the morning, but now she was very ill. All the people in the camp were gathered around the house. The only conspicuous absence was Naima's husband. The sheikh, Naima's father-in-law (and MB) was in charge.

While he organized people to go to the hospital, I asked the women what was wrong with Naima. They said, "Do I know?" Their faces were solemn and emotionless. Naima was lying on her bed, comatose and feverish. Some of the young men carried her and put her in the cab of the truck. The sheikh and his wife got in beside her. Most of the women and four or five young men got into the back. Although it is typical for a group of people to accompany someone to the hospital, the number accompanying Naima was somewhat indicative of the perception of the crisis. At the clinic Naima was carried in. Finally the nurse-practitioner came and put her on the examining table. He asked what seemed to be the problem. The sheikh told him a cow fell on her. Naima's hali (MZ) didn't agree, disagree, or speak. This was the first

explanation of Naima's condition. It seemed an unusual accident, but not implausible. No one could get any response from Naima and the nurse-practitioner didn't know what to do. Finally he went to look for a doctor, but warned it was unlikely one was around; it was after hours and the doctors were on strike. There was another factor in the lack of service; the opposition of nomad and townsmen. Naima was still unconscious (now for about two hours) and when I checked her pulse it was slow and irregular. Then, one of the women, the sheikh's wife, suggested he go for one of their relatives, another nurse-practitioner in charge of a nursing station across town. Since it was now late afternoon we went to his house-- the sheikh, the young men, and most of the women.

At the nurse's house the contingent broke into two groups, men and women, though both groups were in sight of one another, and a certain degree of hearing was possible. In spite of the urgency of the visit the hospitality rituals were followed. The purpose of the visit was not brought up until after everyone had drunk water and chatted - about the general health of everyone in the camp. The sheikh explained to the nurse, who then came to the women and asked again about what had happened. Again Naima's aunt said she didn't know, Naima was just sick. Visiting and explanations over, we returned to the hospital.

The nurse (their relative) gave Naima injections and finally she came to. She finally came out of the examining room, moving painfully and slowly. Naima was helped into the truck and we took her to her house in the camp. Once there she was helped onto her cot outside her hut, and all the women and children gathered to drink tea and chat. (This "women's vigil" is a typical pattern when a woman is ill.)

The next afternoon I went to call on Naima but she was not in the farig. There was only one old woman in the camp and she said she didn't know where Naima was, but that she had gone to the hospital for another injection. She told me the sheikh was visiting in the hamlet of Um Batah, where the sedentary relatives live, and perhaps he would know where Naima was. No one in Um Batah had seen Naima. The sheikh said he would go with me to the hospital to look for her. He was obviously worried. As we were driving into town he elaborated on the story of the cow.

There had been an argument between Naima and her husband (the sheikh's son, her MBS). Naima's husband hit her. The sheikh told me he had invented the story of the cow at the hospital so that Naima could get treatment and there wouldn't be any trouble with the police.

We didn't find Naima at the hospital. The sheikh said we should go to Naima's sister's house in another hamlet where other relatives lived. Naima wasn't there either. Now a new set of people (relatives) were introduced into the situation. At Naima's sister's house the sheikh again sat with the men, and I sat with the women. Again, both groups were within sight and sound of each other. The sister's mother-in-law plied me with questions about Naima's condition and what had happened. The group I was in was clearly a women's solidarity unit (in this context) so I told as many of the facts of the "cow" story as I knew. She expressed her dismay. Shortly, the sheikh called her over to discuss what had happened. She went over to the men's group, standing (some would say, submissively), listening to the sheikh and responding quietly.

Not long after she returned to the women's group, a neighbor woman (not a relative) came over to visit. As we drank our tea this older woman told the neighbor Naima's whole story, elaborating and embellishing a bit. In a loud voice, clearly audible to the sheikh and the men's group she berated a man who would cause his wife such suffering. She deplored the fact that Naima had been hit, and now, no one knew where she was. After we'd finished our tea, the sheikh and I left. On the way back to the camp we stopped at the

hospital again so the sheikh could search the women's wards. We also stopped at Um Batah to tell the relatives there we still hadn't found Naima. It was dark by then and we had been looking for Naima for about three hours.

Back at the camp the women had returned and they told us Naima was there, though not at her own house. She had left her house (i.e., her husband) and taken her young daughter to her aunt's (MZ) house. (The aunt is the sister of both Naima's mother and the sheikh.) Since both of Naima's parents are dead this aunt is the closest elder-generation relative beyond the in-law argument with whom she could take refuge. The "refuge" aunt's husband is also Naima's paternal uncle, because his brother's son is Naima's father. An additional complication was that the paternal uncle and two other attached households (a married son's and a married daughter's) had recently semi-detached from the main camp over an argument between the sheikh and the paternal uncle.

The next morning I went to visit Naima at her aunt's house. The aunt had gone (she had entered a midwife's training program) but the other women there were all very angry. They told me that the aunt would have left, not knowing Naima had been hurt, if by chance one of them had not gone over to the other part of the camp to visit. They and the aunt had been the

one's to insist Naima needed medical attention. Then, the day after the incident, when they had gone out in the bush to gather wood, they had found Naima and her daughter "outside" (i.e., out of the social group) where she had run away from her house. Naima said she would not go back to her husband, that she would ask him to divorce her.

Within the next few days I learned more of the story from two other men; the sheikh's younger brother who owns a shop in Um Batah, the sedentary hamlet, and the paternal uncle where Naima took refuge. The sheikh's brother initiated the conversation. He said that if a wife was "bad," or "lazy," or "talked too much" (complained or caused problems by gossip), a man should divorce her, but not hit her. He said women are weak and men are bigger and stronger, so it is not right to hit them as they could be badly injured, like Naima. He said in this case it was particularly wrong, because Naima's husband (his nephew) was wrong. Naima had refused to cook for him, but that was her right, particularly when her husband had been off somewhere for two or three days at dances and parties, and had come home after the meal had been cooked and eaten. He told me he had given his nephew a good lecture about his inappropriate behavior. He felt particularly responsible for Naima because when her father was dying he had asked him to look after his

children. Naima's father had put the request to both the sheikh and this man, who were brothers. Naima's father had no brothers of his own.

Naima's paternal uncle told me that he had wanted to take Naima to the police to register a complaint. However, he decided he could not, because I had been in on the "cow" story at the hospital and he was afraid I would get into trouble with the police also.

After several days Naima went back to her house. Her husband did not divorce her.

Analysis:

According to Ardener (1975a:2), women, relegated to the private domain, can be seen as inarticulate. However, as the narrative of the "cow" illustrates, the women operated within either the public or private model (as did the men), and were articulate or not as the situational context demanded or permitted. The women's refusal to speak at the hospital, at the nurse's home, or to me, and their giving noncommittal answers was because of the public story the sheikh had told. They did not verbally support the story they knew was false (and about which they had strong feelings), but neither did they refute a story required by the public context. In this incident, camp = private; and hospital (town) = public.

Even though at this time in the field work I was usually considered an insider, I was outside enough to

initially be given the public story. The sheikh was the first person to tell me the private story, once the immediate public context had been dealt with. If I had found any of the women on the second day (other than the one older woman) I would have been told the private story in some woman's house - one level of the private domain. This would have been true especially if I had visited Naima's aunt's house. Instead, I saw the sheikh first. He gave me a private domain version of events, but it was not the same as the private domain version the women told.

At some points in the events there was opposition between the women in the sheikh's section of the camp and the women in Naima's aunt's section. For example, on the first day the women in the sheikh's section did not take the initiative to inform the women in the other group of what had happened. Still, the two groups of women coalesced to accompany Naima to the hospital, an indication of solidarity as opposed to the wider public context or domain. After bringing Naima back to camp they remained united around her, now in opposition to the men of the camp. (Here it was, Private/women:Public/men.) The next day the two groups of women were again opposed when Naima left one group and went to stay with the second group.

As shown in the sheikh's visit to Naima's sister's mother-in-law, a woman can have a great deal

of influence in sanctioning behavior (in this case, male behavior) and in affecting a man's reputation and honor. This mother-in-law was definitely not inarticulate. She loudly and vociferously sanctioned the sheikh's son. Though she was speaking from within private or female space, her high volume voice was meant to be heard by the sheikh and other men in their public or male space. Her vocal sanction had a wider ranging impact because she told the story to a neighbor woman who was unrelated, a woman who represented a wider public domain. Such gossip was bound to make its way around the neighborhood and to possibly have an impact on the wider reputation of both the sheikh and his son.

Women can wield considerable public and private influence. And, they hold considerable power. In societies where there is a sharp sexual division of labor the gender in total control of a particular occupation has a powerful sanction (Richards 1974:8). As Naima's uncle in Um Batah pointed out, she had the right to refuse her husband food. When Naima left her house to stay at her aunt's house, her leaving symbolized a break-down in social relationships; not just a marriage, but also within the extended set of kin which included her uncle (MB and father-in-law) and the households in his section of the camp. It was also a total withdrawal of wifely services and thus a

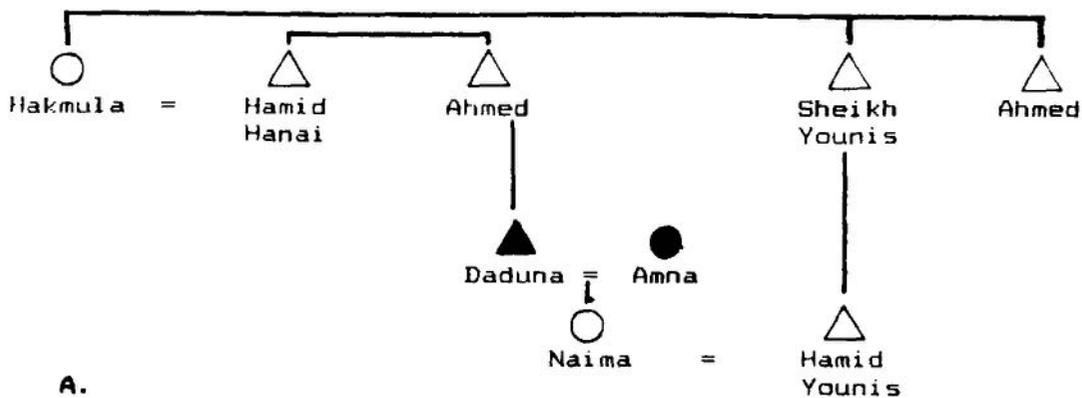
public sanction of her husband's behavior. His only recourse during Naima's absence was to be fed by his father's wife, who was in this case not even his own mother. This is a humiliating situation for a young married man, particularly when, even in the intra-camp setting, food is a powerful symbol of hospitality and reciprocity. For some days his wife, and thereby his household and he, made no contributions to the common meals the men shared at their tree.

The Hawazma bilateral kinship structure has several ramifications in this complex incident of the cow. In general the endogamous bilateral kinship system creates overlapping and multiplex relationships which function to strengthen the solidarity of the group. For women the multilevel relationships are a sort of insurance of protection, especially when they leave their natal family at marriage. In most cases, because of the bilateral system, they might be said to be exchanging one father for another, especially when they marry FBS. The use of classificatory kinship terminology supports this. When a woman marries MBS, another preferential marriage partner, her uncle becomes father-in-law, (as with FBS) also reinforcing an existing kinship bond. For men, cousins become brothers, and nephews become sons. As Lancaster (1981) elucidates so well, patrilineal genealogies regulate

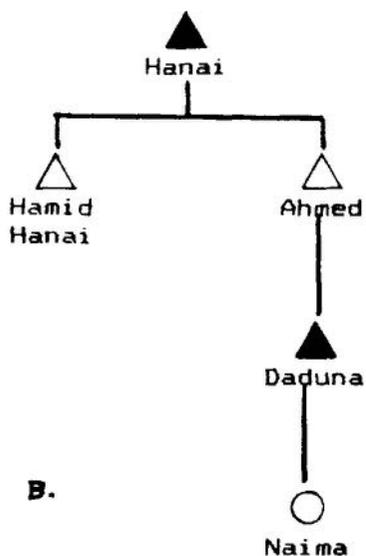
relationships beyond the camp (private domain, at this level), in the public domain.

While bilateral kinship links generally strengthen the group, the multiplex ties can also be points of tension. A closer look at the incident described, in terms of kinship interactions will clarify the behaviors. Fig. 12 graphically represents the various links. A semi-split in the camp increased the complications. As shown:

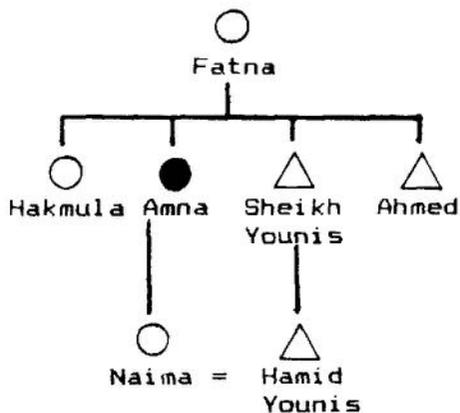
1. Naima is the daughter of Amna (Sheikh Younis' sister) and Daduna. She is married to her cross cousin, Hamid; her MBS.
2. Hamid Younis is Sheikh Younis' son.
3. Sheikh Younis is Hamid's father; Naima's matrilineal uncle and her father-in-law. He is brother to Amna (Naima's mother), Hakmula (whose husband partially split from the sheikh's camp section), and Ahmed (who lives in the village of Um Batah). He is also tied to Daduna (Naima's father) by his dying request for the sheikh to look after his family. In addition, he has that responsibility in the form of an obligation to look after his widowed sister, Amna (who outlived her husband by 4-5 years and had only recently died). He also has the generalized responsibility for the whole camp because of his position as sheikh. As might be expected, several of these overlapping roles are potentially



A.



B.



C.

Figure 12. Bilateral Kinship Links: Case of the Cow.

conflicting. For example, father who should support son; and uncle who should support his niece, are in conflict in this case.

The incident also underscored the rift between the two camp sections; the sheikh's and Hamid Hanai's. This rift had already caused some distancing from his sister Hakmula. When Naima went to stay with Hakmula the rift was again highlighted, as the sheikh, in his role as father, needed to support his son in getting his wife (Naima) to return. He was then in a double conflict situation due to a previous disagreement, and now, a run-away daughter-in-law.

4. Hamid Hanai is Hakmula's husband, and thereby, Naima's uncle. He is also Naima's classificatory grandfather, because his brother is Naima's father's father. He strongly supported Naima in her protest against her husband's behavior because of his kinship relation to her, and also as it could be viewed, a political statement in regard to the previous disagreement he was having with the sheikh.

5. Hakmula is Naima's maternal aunt; sister to Sheikh Younis and Ahmed; and wife of Hamid Hanai. Since Naima's mother died, Hakmula has fulfilled some of the "mother" roles. She was always in a position of classificatory mother.

6. Ahmed is brother to Sheikh Younis, Amna (Naima's mother) and Hakmula. He is also Naima's maternal

uncle, and like Sheikh Younis, has "protector" responsibilities for Amna, his sister (until her death), and Naima, his niece. In addition, he accepted the role of male protector of Naima and her siblings in response to Daduna's dying request. As sheikh Younis' brother he has conflicting roles as supporter of his brother's actions and as brother and uncle to support Naima's mother and Naima. Ahmed is also Hamid's paternal uncle and so has additional support roles in this relationship.

Part A of Fig. 12 shows all the above relationships together; Part B, relationships through men, and Part C, relationships through women.

In each of the following sections the purpose is not to provide a detailed description of the category (for example, a patrilineal kinship system). These are well described elsewhere and references will be made to the literature. Rather, the purpose is to provide a basic general description, elaborated or illustrated with specific examples or cases from the Oulad Nuba, in order to elucidate the public and private aspects of each. This explication will lead to an understanding of gender roles among the Hawazma, and thus, to a reexamination and refinement of gender role theory.

Kinship and Descent

The Hawazma are a patrilineal society. They are (normatively) endogamous, and the preferred marriage partner is one of the close cousins, either patrilateral or matrilateral, parallel or cross cousin. The preferred close cousin marriage pattern creates bilateral, multiplex kinship links, which, in general, serve to strengthen group cohesiveness. Genealogies are reckoned to a depth of five or six generations, with naming practices reflecting the importance of ancestors. Both men and women are given personal names in a naming ceremony seven days after birth. This name may be unique, though, in any group of siblings, many will be given names of a grandparent, father's brother, mother's sister, etc. In addition to the personal given name, a person is known by his/her father's and grandfather's names. Each referential name is equivalent to a widening arc of kinship, and thus, person's can be linked to ever-widening kinship groups.

These kinship arcs move outward from Ego to define units in a segmentary lineage system. The first segment to which a person belongs is the Iyal rajul (sons or children of a man), a minimal lineage of about three generations depth, and which forms the basis of the camping unit or fariq. Minimal lineages

form major lineage segments known as akhashm beit, which literally translated, means "mouth of the house." This term, khashm beit, refers to several levels of lineages (see Fig. 13). One means of delineating lineage levels is whether or not the groups (in complementary opposition) can demand or are liable for blood-debt payments between them (see Teitelbaum 1984:66-67, Cunnison 1966:72-73f). Blood-debt payments are not made for a death occurring between members of minor lineages.

As noted, the iyal rajul forms the basis of the camping unit, or farig. While the predominant relationship within an iyal rajul or farig is considered to be a patrilineal one, cognatic ties reinforce the solidarity requisite to what is essentially an organization of mutual assistance. Thus, the membership of a farig is made-up of brothers or first patrilineal parallel cousins. Fissioning, as is characteristic of segmentary societies, takes place as camp membership and herd sizes grow unwieldy. The camp tends to split along the lines of patrilineal kinship, with new groups being formed by a father and his sons, or brothers and their father's brother.

The next step is to say, that while the foregoing does describe Hawazma social organization, it does so at only one level, the public. And, while real people, related according to the genealogical system

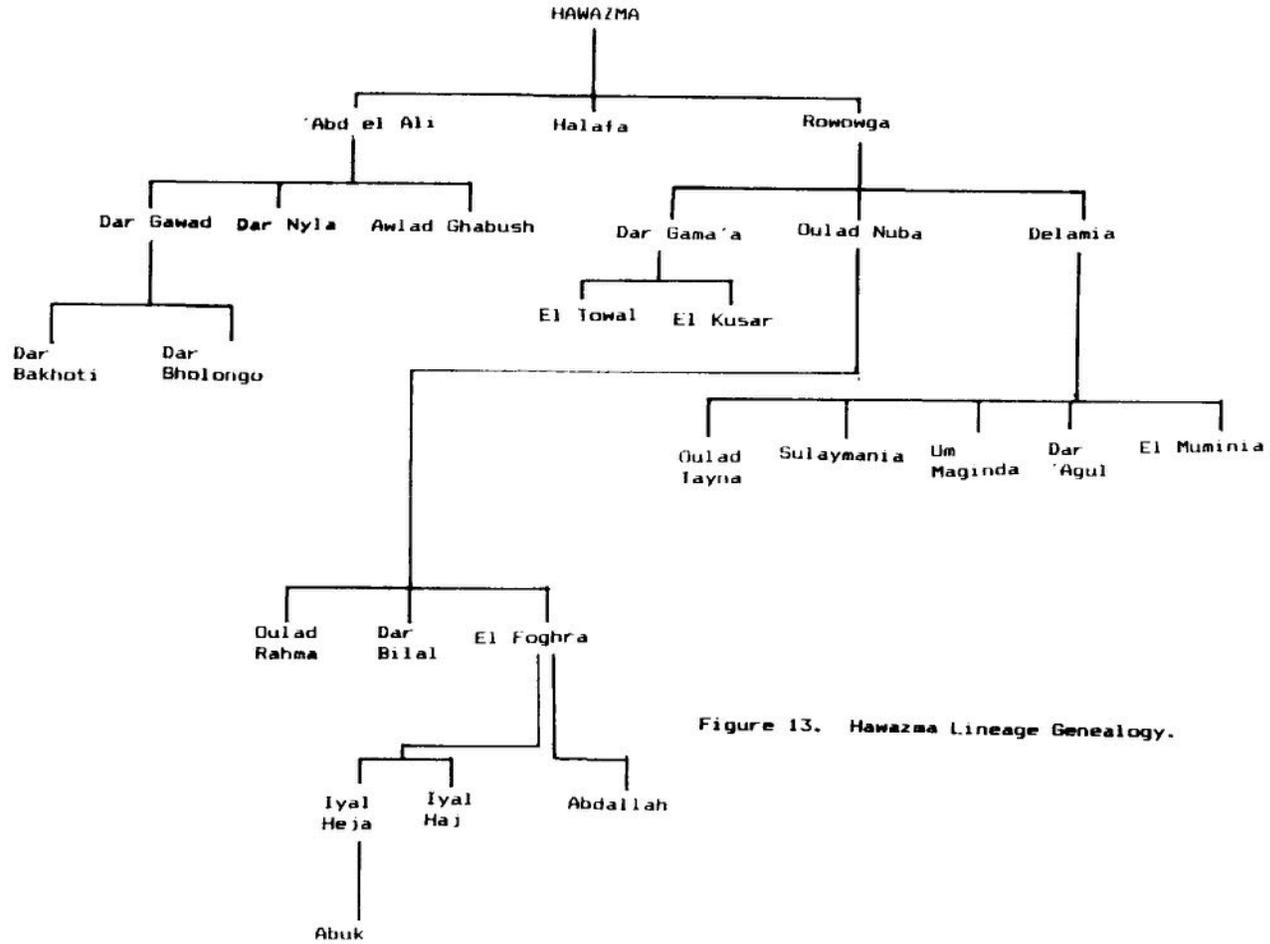


Figure 13. Hawazma Lineage Genealogy.

From: MacMichael 1967:149-150.

described, do form the core of Hawazma social groups, another model, the private, must be taken into account in order to understand the entirety of Hawazma social organization. Here we can begin to see one aspect of the relationship between Hawazma public and private models and how they are operationalized simultaneously. We should also keep in mind the question of whether or not public and private can always be assumed to refer to male and female.

On one hand, genealogies are manipulated and even generated. (See works by Robertson Smith, Evans-Pritchard, Lancaster.) Manipulated or generated genealogies are nonetheless real, as they order relationships within the public domain and justify the formation of operational social units. On the other hand, the private domain must also have genealogies, whereby group members can place each other and order behavior according to the kinship ideology.

Classificatory kinship terminology assists in reinforcing group solidarity and cohesion as perceived in the public domain. Brothers share a greater obligation for each other's welfare, and so, cousins become brothers. Within the private domain classificatory kinship terminology also reinforces relationships and underscores responsibilities for mutual welfare. Reference to one's father's brother as "father" is both a sign of respect, and a symbolic

means of eliciting the sorts of support which might be expected from a father. To ask a Hawazmi to name his brothers results in a list including a wide array of brothers, half-brothers (i.e., same father, different mother) and cousins. In fact, the list may include persons with whom there is no blood relationship at all, but only a "feeling" of brotherhood. In order to elicit only agnatic siblings it is necessary to specify ahuk tawali, meaning only the offspring of the same man and the same woman.

Again, we see both public and private aspects of the same concept. We might say that descent is public, and kinship is private. In this sense, it might be said that since descent is patrilineal, it is male, implying that public is male. However, the other part of the oppositional pair - kinship - cannot be equated to female, even though it is private. Obviously, it is both male and female, indicating and stressing that the public:private opposition cannot be exclusively one or the other. It may be either or both.

Fariq Kinship Networks:

Now that the normative public model has been described we can examine, using the Oulad Nuba fariq studied, how well this public model correlates with the private, behavioral model. Members of Sheikh

Younis' farig asserted that they were all brothers or cousins. Figure 14 illustrates actual relationships, as present during the 1982 dry season. The farig consisted of 10 households, with an additional one added late in the dry season (by a new marriage), for a total of 11. There were 8 male heads-of-household or protectors. One man had two wives living in the farig, and one household, managed by a widow, was under the protectorship of a brother, who also headed his own household (Table 18). There were three Oulad Nuba minimal lineages (iyal rajul), two khashm beits, (Oulad Nuba and Dar Sholongo) and one Showabna (non-Hawazma) household. Actually, three khashm beits were represented, as the Dar Sholongo man is married to a Dar Nyla woman. Links between the Oulad Nuba minimal lineages are bilateral. Figure 14 also illustrates the preference for close-cousin marriages and the resultant multiplex links. Most of the marriages, especially first marriages, among this group of Oulad Nuba were within the preferential pattern of FBD or MBD. With continued endogamous marriages, relationships are generated which can, by the use of classificatory kinship terminology, be considered brothers, or at least cousins. What is clear is that the public claim for strict patrilineality does not exist, and that many of the relationships are generated through women.

The ties between the grafted Dar Sholongo/Dar Nyla and Showabna members and the Oulad Nuba members were tenuous and proved to be fragile to the point of fissioning off. Permanent links to the Oulad Nuba could have been created through marriage, so that within several generations "genealogical amnesia" would have resulted in the grafted members being redefined as full Oulad Nuba. In fact, the Showabna household was moving in that direction, although it was leaning towards establishment as a sedentary unit rather than nomadic. One daughter of Yahya married into the sedentary segment of the Oulad Nuba.

Marriages also create links between khasm beits. For example, Nur (Figure 14), who is married to Fatna, has a second wife in a Dar Sholongo farig. Another of Hamid Hanai's daughters was married to a Dar Sholongo man from the sedentary segment of the same farig as Nur's wife. This marriage was described as a sort of exchange - an Oulad Nuba woman for a Dar Sholongo woman. The members of the farigs involved in the marriage exchange considered themselves friends. The two marriages (and probably others) reinforced the bond. Oulad Nuba (Hawazma) men may also marry Nuba women, though Oulad Nuba women may not marry Nuba men. This is according to Islamic law which sanctions Moslem men marrying non-Moslem women, but not vice a

versa. One such marriage in the farig studied was that of Nail, who's wife, Rabha, is Nuba.

As noted in the previous section, when farig membership becomes too large, herd sizes are unmanageable, or there are unresolvable personal or political differences, the farig begins to fission. Ideally, the fissioning is along patrilineal lines, with the ideal patrilineal kinship group replicating itself, and forming two similar but smaller units. The Oulad Nuba camp studied provides a case study of how fissioning may actually occur.

Case Study: A Split in the Camp

When I arrived in the field and began visiting Sheikh Younis' camp I noticed that several households were set-up a short distance away from most of the others. As will be elaborated in a following section on Culture Space, the separation was visible by observing the placement of the dwellings. All the members of the farig seemed to participate in activities, all the women visited each other, and the men sat together. Still, social distancing was evident, for example, when daily meals were served and not all the men ate together. As I became more of an accepted presence, I began to hear certain grumblings. The households which were somewhat separate from the main camp unit were those of Mahdi (those of two

wives), a son-in-law, and later, a married son. In the public context the split was covered up. I never learned the exact cause of Mahdi's distancing, although I did learn that it was of about seven-years' duration and had something to do with a disagreement about leadership, between Mahdi and Sheikh Younis.

The split continued rather benignly until after the 1983 rainy season trek and the return to dry season pastures and camp. Then, in December, the farig split into three segments, at the time of year when the camp often makes a short-distance move to escape accumulated cow dung and to be on cooler tiin soil during the hot, dry season. This time the split was clearly over the premarital pregnancy of one of Mahdi's daughters, a girl of about 13 years of age.

According to Hamid Hanai's daughters, "everyone" knew the girl was pregnant before the rainy season trek, but they had waited to do anything until they were "sure." Now, they said, she was about nine-months pregnant. Ahmed Sultan's son was accused but he denied responsibility. If he had said he was responsible for impregnating the girl, his father would have paid her father a sum of money, and, probably, after the baby was born, they would have been married. But the son denied responsibility and his father refused to pay compensation. So, the girl and her mother went to the police, filed a complaint,

and the young man was imprisoned for six days. As soon as he was released he and his parents left the fariq and went to a small, settled community on the north edge of Kadugli.

Then, Sheikh Younis and Hamid Hanai disagreed about how the problem was handled. Sheikh Younis said the girl's mother should not have gone to the police and had the young man put in jail. Hamid Hanai, and, Younis' brother in Um Batah, did not agree with Younis. The disagreement was underscored when, one morning without informing Hamid Hanai, and when he was away from the fariq, Sheikh Younis moved his associated households to a new campsite a short distance away. While such a move is typical for the season, it is not typical for participation in the decision to be withheld from some camp members.

Though Younis is her brother and sheikh of the camp, Hakmula could not join in the move since her husband was away and had not been informed. Neither could a married daughter, so those two households were left behind. In some activities, such as trekking, or moving camp, there is a high value on group togetherness, so to withhold information from some members with the consequence that they could not participate in a fariq (here, with the meaning of the social group) activity was serious. Deciding to move camp should be a joint decision; one in which women

can also participate. Once made, the sheikh, or group leader, gives the "order" to actually move. However, it is still the prerogative of each male head-of-household to comply or not. Since Hamid Hanai had been left out of the decision, Hakmula did not know if he agreed to comply. She could not move until Hamid Hanai told her.

When Hamid Hanai returned to the farig and learned what had happened he told me that perhaps Sheikh Younis was angry with him. The evidence was that Younis had moved the farig without telling him. Hamid Hanai said he was not angry with Younis, but he would not be the one to make the first move; he would not go talk with Younis. Hamid Hanai and Younis had still not talked the day after. When I asked Hakmula why the rest of the farig had moved away, she said they just moved, "sakat," for no reason. She said there was no problem, and told me that soon her household would move also -- to get away from cow dung. The next day Hamid Hanai's households did move. While they moved towards Younis' farig, they formed a separate circle. At this move the two households (Hakmula's and Fatna's) were joined by Hakmula's son's wife. With the addition of her dwelling, there were three households in the new circle. Mahdi maintained the separation between his farig and the others. Now, there were three separate farig circles, though they

were still close enough together, and there was frequent interaction (primarily by women), so that in terms of social organization, they continued to form one unit.

Several days later, when I visited Zeinab, Younis' wife, I asked her about Maryiam's pregnancy. Zeinab said Ahmed Sultan's son was not the father of the child, which was born four days after the move. She claimed that Hamid Hanai had been responsible for sending Ahmed Sultan away. Zeinab told me that people (i.e., kinsmen) should try to stay together, and that if someone did something wrong, he should be told, but not sent away. When I asked her if she had any idea who the father of the child was, she said that perhaps it was someone from the Western Sudan Agricultural Research Project research station, which was only a short distance away from the farig.

Over the next few months, (the dry season), various interactions continued between the three farig segments. In fact, the incident of the "cow," described earlier, occurred during this period. The women visited back and forth. Hamid Hanai and Younis went places together. Karamas or feasts held for occasions such as weddings included everyone. However, I observed that Hamid Hanai didn't go, nor did he seem ever to go sit with the men at their tree

in Younis' farig. Younis, on the other hand, did sometimes come to Hamid Hanai's farig.

In mid-March Mariyam was married to an old sheikh from another farig. The wedding was no big affair. The sheikh's contingent came to Mahdi's farig for a karama. Then, about a week after the wedding, Mariyam was sent to her husband. Since Ahmed Sultan's son would not accept paternity it appeared that Mariyam's child, a son, was in limbo in terms of patrilineal connections. However, I was told that the child would take his name from his MFF, that is, he became 'Aris Ma'tok (see Figure 14). In terms of how this will appear on the genealogy in the future, 'Aris and Mahdi, his MF, became part of the same generation, and essentially brothers.

When the rains came and the trek began, the three farig segments became even more independent from each other. Here and there along the route Hamid Hanai and Younis came within close proximity of each other, sometimes camping only short distances apart. Mahdi, though, frequently was separated by greater distances. And, even Hamid Hanai went somewhat farther north than Younis, and spent differing numbers of days at particular campsites. I don't know the configuration of the farigs back at the dry-season campsite, as I left the field before they returned.

It appeared, however, that the split would become permanent.

An interesting aspect of the events is that a group of kinsmen fissioned over an argument caused by a household, from another khashm beit, which was grafted onto the Oulad Nuba farig. The grafted household had joined the Oulad Nuba farig because the male head-of-household chose to escape problems in his farig. The problem, ostensibly, was a blood feud between his and his wife's lineages, though he apparently had a reputation for "talking too much;" or, in other words, causing dissension.

In a public context all the members of the Oulad Nuba farig asserted common kinship. However, in the private context, it is clear that many of the kinship links are fictive, or are bilateral, rather than strictly patrilineal. Group membership may change by necessity or convenience. Farig membership also changes by movement back and forth between nomadic and sedentary segments of the kin group.

Gender Role Segregation and Personal Autonomy

One of the common assumptions recurrently expressed in the literature on pastoral nomadism, particularly those societies which are Islamic or Arabized, is that of male dominance and female subservience. The various sorts of sexual

segregation, in the division of labor as well as spatially, and behaviors falling into either public or private spheres, where, superficially at least, public is equated with male and private with female, lend weight to interpretations of male dominance and sexual stratification. The problem in looking at societies like that of the Hawazma is to determine which, if any, of these observable sexually segregated roles are "real," and which are simply a part of impression management required by the world view which defines the public and private spheres.

Social stratification has three dimensions, according to Schlegel (1977:3):

- 1.Relations of rewards
- 2.Relations of prestige
- 3.Relations of power

Stratification (i.e., a hierarchy) exists when access to rewards, prestige or power is differentiated in a systematic way. Returning to Ardener's argument, he suggested that the relation between exploiting or dominant and exploited or suppressed is one of relative articulateness (Ardener 1975:21). He says that the dominant structure is articulated in terms of a male "world-position" and that women are made inarticulate by this male structure. In his view dominance occurs when one structure blocks the power of actualization of the other so that it has no freedom of action (Ardener 1975:25). It would seem to

follow that in societies like the Hawazma, even where sexual role segregation exists and the concept of public and private regulate behavior, that the test of dominance or subservience is whether or not the female structure can be actualized. The pitfall is that male and female structures are cross-cut by public and private structures and it is incorrect to assume ipso facto that female "subordination" in the public sphere means female subordination in the private sphere; or that apparent public domination reflects an inherent devaluation of women. As noted earlier, the public sphere is one of posturing and impression management, typical of the behaviors analyzed by Goffman (1959). Therefore, in the public sphere women may be defined as dominated, but in reality, the dominance may be situational.

Sexually segregated roles may also result in a great deal of personal autonomy. Among groups like the Rwala and the Hawazma a high value is placed on individuality and personal autonomy. Lancaster notes that Rwala society is directed by two primary themes: complementary opposition and individualism and autonomy (1981:151). Child rearing patterns stress the learning of responsibility for oneself from an early age.

This emphasis on personal autonomy is expressed a variety of ways. The combination of sexually

segregated roles and the value of autonomy gives people, but particularly women, freedom of movement in the public sphere in situations which are contradictory to sexual segregation, particularly when it is (incorrectly) interpreted as being equated with dominance or subservience. Apparent incongruities in the specific allocation of tasks may also be understood in terms of individual autonomy rather than as simply gender-crossing roles.

Roles in Hawazma society tend to be highly gender segregated. Roles may also be defined or may change according to a person's age and status. Gender segregation of roles has the advantage of making quite clear who is in charge of decisionmaking in particular categories of activities. The result is a great deal of personal autonomy for both men and women. Among the Hawazma, as will be seen, this has led to an assignment of roles that allows optimization of economic opportunities in the wider society.

In general, Hawazma women are in control of the household. They own the dwelling and the goods needed to operate the household. A woman's mother makes or purchases her a basic set of household goods at marriage, paid for with a part of the bridewealth. These items are hers, even in the event of divorce. Once married, women either augment or replace the original household goods by purchase or by

fabrication. Women control foodstuffs and other goods, such as soap, once they come into the household, whether or not they are the purchasers.

Women build and dismantle the dwellings. In both dry and rainy seasons, they collect the saplings required to construct the framework of the dome-shaped dwellings. In the dry season, they collect the long grass used for thatching the roofs of the dwellings. They also make the large mats used to cover the mobile dwellings used in the rainy season. Women also build the sun-shelter structures (rakubas) used for kitchens during the dry season and at the final rainy season campsite.

Women fetch water and gather firewood, cook and serve the daily meals, and sometimes gather wild foodstuffs. Women milk cows (and goats) and process the raw milk into butter and soured buttermilk. Women make some of the household goods, primarily mats and gourd containers. Women pack and load household goods during the transhumant trek.

Men's activities focus on the herds and farming, if any. Men decide where to graze the herds and when to move. Animal husbandry is primarily a male responsibility. Men watch for disease conditions which need control or treatment, treating diseases or injuries themselves or arranging for government

veterinary services. Men purchase both veterinary services and medicines.

Each man decides individually whether or not to grow any crops, as well as which crops and how much to plant. Men decide if hired labor is required for either cropping or herding, and carry out the negotiations to secure it, usually from Nuba villagers.

Political decisions and negotiations involving other Hawazma groups or non-Hawazma are part of the male domain. For example, men negotiate blood debts between lineages, or payment of fines to Nuba farmers when Hawazma cattle encroach on Nuba crops. Men are also the primary negotiators in marriages and in inheritance allocations.

Both men and women participate in childrearing, though women are the primary caregivers. Women are responsible for most of the day-to-day attention given to children--attending to clothing, feeding, bathing, and healthcare. Both parents share discipline and teachings, including skills, cultural manners and mores. While men usually make major decisions regarding children--e.g., whether or not to send them to school, medical care involving high expenses or long distances--women also make some of the decisions in these categories. Women often take children, young ones especially, to a clinic to be treated for small

injuries or infections, such as colds or diarrhea. Decisions to place a child in a hospital for treatment, for example, are made by men.

Some role activities are allocated on the basis of age or status rather than simply by gender. Boys assist with husbandry and girls assist with household tasks as appropriate to their adult counterparts. Girls rarely assist with herding activities, though they may occasionally assist with drawing water for the animals. Young men and boys do most of the herding. Young men also build the thornbrush corrals (zaribas) for the animals. Girls assist in carrying water, gathering firewood, and with childcare. Younger boys may also help by minding younger siblings. Actually, people of all ages enjoy playing with small children and babies and are quite affectionate with them.

Some tasks perceived by the Hawazma as individual responsibility are done by either gender. One example is clothing care and laundry. With few exceptions, each person, even a young child, is responsible for laundering and mending his or her own clothing. Older men and even older women can ask a daughter to do this task. Men buy the soap to be used for their laundry, even if they delegate the task.

Older men may be elected to the role of sheikh. Older women may become midwives. Men slaughter all

domestic animals, though women may slaughter chickens. Men butcher cattle, the higher-status animals; women butcher sheep and goats. Both men and women can decide to sell an animal of which they are the owner, though only men can actually go to the animal market to make the sale. Women can sell chickens or perhaps a goat in the women's area of the market, where they also sell milk or milk products.

Superficially, some task allocations appear inconsistent with the normative rule that women are in charge of everything having to do with households, and men are in charge of everything to do with herds. Carefully examined, however, these inconsistencies appear to be best understood in terms of personal autonomy. Regularly I observed, to elaborate an example already mentioned, men and boys washing and ironing their own clothes. Boys and men also mended their own clothing. Girls and women also do these tasks. The question is whether this behavior represents an area of "domestic" (private) tasks where gender divisions are somehow blurred, or whether another interpretation is more likely. Observation indicates that age categories play some part in whether or not men care for their own clothing. Boys and young men appear to do these tasks up through the age of early marriage status. There does not seem to be a direct relationship between married status (with

the implied availability of a wife to wash clothes) and self-care of clothing. The switch from male self-care to wife's or daughter's care comes at the mid-life stage in the developmental cycle. Perhaps at this stage in a man's life, when his individual autonomy is well established, such as in his control and management of herds, his need to demonstrate self-autonomy in some tasks (e.g., clothing care) can be traded for status, as represented in being able to delegate a task to wife or daughter.

Parallels in the male domain of role and task allocation support this view. Young married men continue to be actively involved in herding tasks, accompanying boys with the herds when they go out to graze, for example. Once they reach midlife, when they have both demonstrated competence in animal husbandry and likely have older sons, they begin to delegate many of the day-to-day, more strenuous tasks to their sons or hired herdboys.

There are male/female tradeoffs in such task delegation. Men demonstrate status not only by delegating clothing care to women, but also in delegating such (male) tasks as herding to sons. In this trade-off, rather than being "forced" into subservience by washing men's clothing, women gain increased control over valued goods such as soap and bluing. Men continue to purchase the soap and bluing

used in their clothing, but turn it over to women. Once an item, whether it is food or soap, goes into household stores, women have absolute control of its use and distribution.

Women also delegate tasks once they reach the status of midlife. They, too, ask daughters to wash clothing, and expect increased assistance with such tasks as food preparation. Rather than going themselves to sell milk to door-to-door customers or to a cheese factory, women send older daughters. Being able to delegate tasks allows women (and men) more personal freedom. Women might be able to travel longer distances to visit relatives without being concerned for the daily operation of the household. With a teenage daughter to prepare meals, her husband cannot complain too much about her absence. Personal autonomy is, then, demonstrated in both age and gender categories of role assignments.

Assignment and observance of gender roles is also contextual. What is acceptable in the private domain may not be acceptable in the public. Referring back to the incident of the "cow," an example is women's refusal to discuss the real facts of the events in the hospital, or public context, and their vociferous censuring of behavior in the farig, or private context. In another example, Hakmula left the Dilling souk (market) carrying a heavy load on her head - a

bucket filled with food items, several long lengths of mat strips; and her husband rode his donkey which was carrying only the supply of flour. Once we were out of the market and on the path back to the farig, Hamid Hanai stopped and loaded everything Hakmula was carrying onto the donkey.

An added dimension in gender role segregation is that of situation. Within a farig men and women observe gender separation in many of their daily activities. In ritual situations, such as marriage ceremonies, these interactional separations are ignored, and men and women do more things together, as opposed to tandomly. Men never participate in building everyday dwellings, but men and women work side-by-side to build the wedding hut. Women prepare and cook all the regular meals, but men cook some of the meat at weddings or other karamas.

Another means of circumventing gender role segregation is through symbolic ignorance of one's complementary domain. One day we were transporting a number of people from one farig to another. One woman got into the truck with more than a dozen chickens suspended from a long pole. Her father, the sheikh, told us she was going to sell them in the women's market in Kadugli. We asked if she ever sold chickens elsewhere (we had seen her peddling them to the cook at the research station). He said, no, that

it was inappropriate for her to sell them anywhere except in the women's market. It is unlikely that he did not know how she disposed of the chickens. However, whether or not his ignorance was real or feigned, it is clear that sometimes it allows behavioral freedom, whereas, cognizance would restrict the same behavior. In any case, "ignorance" leads back to personal autonomy, where personal autonomy violates normative gender role segregation, especially in the separation of public and private domains.

CHAPTER VI

Households

If nomadic studies have suffered from typologizing and homogenizing, so have studies of households. In earlier anthropological studies households were typologized and linked to evolutionary stages seen to move from undifferentiated extended kin groups to nuclear groups. In this approach household forms were the result of marriage rules and residence. Again, as in analyses of nomadic societies, this approach has led to viewing households as bounded groups.

Netting (1984:xviii) suggests that a more profitable view of households is as a process rather than an institution. In order to do this it is necessary to separate the concepts of "household" and "family" so that households are seen as task-oriented residence groups, and families as kinship groupings which are not necessarily localized. He says we should look at how norms and material facts are systematically related. That is, the relationship between household form and function. Another aspect which must be considered is that of the household as a conceptual unit.

An important contribution to the study of households was Goody's development of the model of the developmental cycle of domestic groups (Goody 1958). In this model there is a single general form for each society with residence patterns being a reflection of the point reached in the developmental cycle. While this model is still a useful analytical tool, a limiting factor is that internal variation is seen as a result of the developmental cycle (Netting 1984:xviii). This leads to a view of developmental cycles as static and integrated sequences within a system.

Netting notes another problem in the study of households, which is that the analysis must be flexible enough to accommodate households where coresidence is absent. This is particularly relevant to studies of nomadic households where household form varies not only with the domestic developmental cycle but also, for example, seasonally.

Since households may represent the action of cultural values such as gender constructs, they are fundamental social units. Households are the primary loci for the expression of kinship, socialization, age and gender roles, and economic cooperation. Therefore, it is more profitable to observe the behaviors of people who are members of a

household, rather than examining only the form of the household itself.

Nomadic and Sedentary Units

The Oulad Nuba lineage is scattered over a fairly wide area of the Nuba Mountains region, with members living in several fariqs and village enclaves. This study focused on one fariq, that of Sheikh Younis based on the Seraf el Ahmar near Kadugli, and a closely associated hamlet of Kadugli, called Um Batah. While there are many interactions with the entire kin group in all of its various locations, the most intensive interaction for members of Sheikh Younis' fariq is with kin in Um Batah.

Households and household clusters are defined in Figures 15-19 (Chapt.VII). Composition of individual households is shown in Table 3 (Chapt.I). As noted, each is best defined by determining the female manager and owner. Once the household is defined on the basis of its female head, the array of associated members varies considerably. There must be a male protector (see Table 16). If a woman's husband is present, he is the protector. If he is absent, a protector is appointed. As noted earlier in the discussion, the protector may be a husband, brother, brother-in-law, or some other close male relative. Also, the male protector may or may not be resident in the household,

Table 16. Special Protectorship

A. Woman/Household No.	No.of Depends	Protector	Relationship
3. Khadija Nail	6	Younis Mohamed	Husband's Cousin
4. Amna Mohamed	5	Younis Mohamed	Brother
5. Fatna Hamid Hanai	5	Hamid Hanai	Father
10. Ajara Mahdi	1	Mahdi	Father
12. 'Aisha Konduka	3	Younis Mohamed	Husband's Brother
14. Hawa Daduna	3	Younis Mohamed	Mother's Brother
15. Halimo Mohamed Abbas	2	Hamid Hanai	Father-in-Law

B. Tabulation by Season

Protector	1982 Dry	1983 Rainy	1983 Dry	1984 Rainy
Younis Mohamed	6	15	15	4
Hamid Hanai	0	6	9	3
Mahdi	0	2	0	0
Totals	6	23	24	7
% Total Pop.	8.95%	43.40%	40.67%	13.2%

even if he is the husband. For example, Nur (Table 3, Household 5) is husband and male protector of Fatna. He has a second wife in another fariq, and so is male protector of two households. Most of the time, except for the year he spent in Saudi Arabia, he resides with Fatna, and visits his second wife occasionally. Table 17 shows the distribution of responsibility of male protectors.

Composition of the dependent group within a household also varies considerably. The main dependents are the children of the female head. Also included, depending on season, life stage of particular individuals, or other factors, may be grandchildren, half-siblings of the woman's own children, related orphans, pregnant daughters, or Nuba herdboys. For example, grandchildren are apparently "borrowed," sometimes for a period of several months. This was the case with Um Khalthum (Household 8), whose granddaughter spent the 1983 rainy season trek with her. Early in the dry season Amna had a pregnant daughter resident in her household. If possible, a pregnant woman returns to her mother's household one or two months before she expects to give birth, and remains for a period of 40 days after the birth. When Amna died, her unmarried daughter, Hawa, took over household management and care of three brother (one older, two younger), but the youngest sibling, a girl,

Table 17. Distribution of Protector Responsibility

Protector	1982 Dry		1983 Rainy		1983 Dry		1984 Rainy	
	No. of persons	% Total pop.						
Younis Mohamed	14	20.89	24	48.97	24	40.68	15	28.30
Hamid Hanai	13	19.4	10	20.40	15	25.42	7	13.21
Mahdi	13	19.4	12	24.48	12	20.34	14	26.42
3 men above responsible for:	40	59.69	46	93.85	51	86.44	36	67.93
Mohamed el Ahmar	7	10.44	--	-----	--	-----	7	13.21
Ahmed Sultan	2	2.98	3	6.12	2	3.39	--	-----
Ahmed Said	4	5.97	--	-----	--	-----	--	-----
Yayah	3	4.48	--	-----	--	-----	--	-----
Nur	--	-----	--	-----	--	-----	6	11.32
Men above responsible for:	16	23.87	3	6.12	2	3.39	13	24.53

Deviation in percentage totals due to protectors of several persons (pregnant women, children, unmarried male) residing in fariq being in Um Batah.

became a part of her married sister's (Naima's) household.

This pattern of household composition is essentially the same in the sedentary enclaves of the Oulad Nuba. Most of the Oulad Nuba kin group lives in one quarter of the hamlet, neighbors to enclaves of other lineage groups such as the Dar Sholongo and the Dar Nyla. Within the Oulad Nuba quarter, households are clustered, with closer relatives being in one compound or adjacent compounds. However, though the houses are permanent structures, the residents often change.

As with dwellings in the fariq, houses in Um Batah belong to women, and are managed by women. Women in Um Batah are also likely one of two or more wives (usually not more than three) of one man. Here the reverse of the fariq situation may apply, with a woman's husband residing with her in Um Batah, or with another wife in the fariq. The husbands of several women in Um Batah were absent (for reasons other than herding), for example, to take part in wage labor in Saudi Arabia. These women also had male protectors assigned. One woman (Household 12) moved to the fariq when her husband went to Saudi Arabia; his second wife remained in Um Batah.

Both adults and children move back and forth between fariq and hamlet. Children, whose mothers

reside in the fariq, go to stay with a relative (often father's second wife) for the academic year which coincides with the rainy sseason trek. Otherwise sedentary children go to spend all or part of the dry season in the fariq. Women also frequently move back and forth between nomadic and sedentary life. Their moves often coincide with life stages such as marriage or pregnancy.

Reproductive and Productive Units

Household units are formed when a woman marries. Along with the household goods that she brings to the marriage (as a part of her bridewealth), a woman acquires control over her dwelling. In the fariq a woman constructs the dwelling herself. In a village hamlet men build the mud-brick houses. A newly married woman takes up residence in her husband's fariq or hamlet. Since marriages are preferentially to first cousins, this does not always mean a change in place of residence for the woman.

Women typically begin their reproductive careers within the first year of marriage. Women often marry around the age of 14 years, and usually by age 17-19. Child spacing is preferably based upon what is considered to be the desirable period of nursing: 2 1/2 - 3 years for girls, and 1 1/2 - 2 years for boys. It will be noted that the longer length of time

devoted to nursing female children is the reverse of most other Islamic societies, where male children are suckled longer. Indications from the data are that Hawazma women's fertility ends fairly early, at between ages 32-39. Completed family size varies from 5-8 children. Women in polygynous marriages do not appear to have fewer children than women in monagmous marriages.

As might be expected, the childbearing years are high risk for women. During the two-year period of fieldwork, two women in the Oulad Nuba kin group died during childbirth. If women survive these years they often live to a fairly old age, frequently, it appears, to the seventies or eighties.

Divorce does not appear to be frequent, though several elderly men had divorced one or more wives. One woman (Household 10) had been previously married and had one child in that marriage, in addition to those of her second marriage. The child of the first marriage remained with the husband or his kin group, a practice typical of Islamic societies.

Both elderly, widowed men and women tended to reside in a sedentary hamlet. Elderly women usually continued to maintain their own household. Since the households are clustered - in hamlets, within a common compound - they were thus able to retain independence and have a ready support group. Frequently, elderly

men and women spent the trekking season in a village hamlet, and the dry season in the fariq. In the fariq they were attached to the household of a daughter-in-law or daughter.

Households must also be studied as units of economic production. The primary economic mode is pastoralism, based on cattle. Even sedentary household units, who may be involved on a day-to-day basis in cropping or other pursuits, such as shopkeeping, invest heavily (or as much as possible) in herds.

In general, men are the owners of the herds. Although Islamic law allots some of the inheritance to women, they often forfeit their animals to brothers or husbands in exchange for benefits of male protection. With ownership comes the right of disposal and, thus, disposal of animals is ordinarily a male right. Women sometimes own cattle. As owners, they have the right to decide upon disposal of their animals, though they usually consult a brother or husband, who must carry out the actual transaction. Men are interested in building herd numbers, because a man's wealth and, to some extent his status, are reckoned by the size of his herd. However, men sell animals when there is a need for cash, and the market is primarily for beef animals. Cows are usually not sold until they are old and thus nonproductive and nonreproductive.

The primary herd product to which women have access is milk. This access has come to women through one of the roles to which they have been assigned. Milking is women's work, and women are allocated sufficient lactating animals to supply household needs and some surplus. Along with the task of milking has come the right of distribution. Generally this has been a decision of household distribution --who drinks how much milk, how much milk to allocate to butter and buttermilk production.

It is tempting to categorize Hawazma households as nomadic or sedentary. As with other categorizations or typologies, the categories may be more apparent than real. Households resident in the spherical, sometimes mobile, dwellings, arranged in a circle outside the limits of any town or village, with cattle an integral part, seem clearly nomadic. Households resident in round, mudbrick houses with conical, thatched roofs, in village clusters or as a part of a town, seem clearly sedentary. A census of the members of either group would seem to provide information as to which specific people are either nomadic or sedentary. Over the short term, such data might be accurate. However, over the long-term, that is, a period representative of one or more annual cycles, it becomes clear that it is impossible to categorize any given household as either nomadic or sedentary across

its entire domestic life cycle. For the Oulad Nuba extended kin group studied it is meaningless to attempt to categorize households as nomadic or sedentary. The conclusion reached is that they are all nomadic, but that some (or even many) of them participate in a sedentary economic mode at some time during the domestic developmental cycle.

How to define Hawazma households is a complex undertaking. They are not strictly nuclear in the usual sense of the term. Nor are they clearly compound or extended family groups. Households may behave in any of these forms, but structurally, they cannot be labeled by these terms.

Marriages are usually polygynous, and since the wives in a polygynous marriage share a common male protector, it would appear that a man and his wives make up a single household unit. However, as described earlier, the wives are not united in a single household, or even in a single compound. Moreover, the typical pattern is, at any given time, for one wife to live a nomadic lifestyle, while the other lives a sedentary lifestyle.

Since the house and its contents belong to a particular woman, it would appear logical to define the household on the basis of its female manager and the characteristics of the economic pursuits of that household. In this view, particular wives, then,

apparently define the type of household, i.e., nomadic or sedentary. In a synchronic view, this may be true, but again observations show that any given woman may spend part of her life cycle in a nomadic household and part in a sedentary household.

One way, then, to look at Hawazma households is through the domestic developmental cycle. While this is an area which merits further research, enough data are available to understand how households vary throughout their developmental cycle. There are several parameters which change. The beginning of a household cycle may be considered to be its establishment upon a woman's marriage. Various stages in the cycle follow, not only a social pattern, but also a biological one, with the birth, rearing, and independence of children. Another parameter to be considered, especially for nomadic populations, is a seasonal one. As discussed, both the form and composition of a household may vary between the dry season and rainy season mobility. A third parameter which changes, sometimes as many as three times, is that of economic mode, i.e., nomadic or sedentary.

Thus, the parameters which define Hawazma households and their domestic developmental cycle are interactions between biological reproduction, economic production, and ecology. One of the main points to be made here is that the Hawazma are pastoral nomads,

even though (and even when) some households are involved in sedentary economic pursuits. There are several reasons for making this assertion. (1) The Hawazma continue to hold a high cultural value for the pastoral nomadic way of life, and define themselves as "rihali," or nomads. (2) Linguistic evidence supports their holding this "world view," in usages such as, referring to their sedentary enclaves as "fariqs," and to identical hamlets inhabited by traditionally settled groups as "hela," or village. (3) Sedentary residence is not viewed as typical or permanent, and changes, perhaps several times, throughout a person's life cycle. (4) Interactions between nomadic and sedentary households, and the use of income or products of sedentary pursuits, indicates that the purpose is to support a pastoral nomadic existence.

Discussion of the interactions of biological reproduction, economic production, and ecology, also necessitate consideration of these interactions in the public and private domains. Again it must be stressed that gender cannot be assigned to these categories. That is, in household activities devoted to economic production, for example, women as well as men operate within the public domain. In the public domain Hawazma households appear to be male dominated, and male headed, in a manner congruent with the normative rule of patrilineality and patriarchy.

However, in the private domain, consideration of the economic activities of households suggests that they are both "male" and "female," as management of production is shared, even though each household has a male protector, who ostensibly, is the final authority.

Chapter VII

BEHAVIOR AND SPACE

Culture space in a Baggara fariq, as in other cultures and societies, may be marked off physically, symbolically or situationally. How those culture spaces are defined and how people move in and out of them says something about social organization and roles.

A Hawazma fariq is more than a group of grass and mat huts. Its arrangement reflects Hawazma values and social organization. The general shape of a camp is circular, a shape which has no beginning or end, and no visibly higher or lower position. It is a symbolically egalitarian shape. A sheikh does not have a privileged place for his hut. It is simply one of many within the circle. His may not even be the largest one in the camp. The doors of the huts face inward toward the center of the circle. The focal point of the camp in the dry season is the shajara (shade tree). Here the men meet and receive male visitors from other camps. The circular shape and the inward-facing huts also symbolize the value the Hawazma place on regular social interaction and on the reciprocal solidarity of the group whose members are

tied to each other by multiplex links of descent and marriage or friendship. A farig group may incorporate new members who become attached to it in a number of ways. These "outsiders" are inserted into the perimeter of the camp circle, and hence, into the social order.

The space encompassed by the camp may be seen as a series of concentric circles. The first circle, forming the outside perimeter of the camp, is the housing ring. Each woman's compound is located within a particular arc of this circle, relative to other households. Arcs belonging to particular households may be clustered according to closer kinship, common male protectorship, or friendship.

Inside the ring of huts are the zaribas, or corrals, constructed of thornbush and also circular in shape. Each household has its own zaribas for cattle, calves and donkeys. The innermost circle is the site of the shajara (tree). Men spend a great deal of their daylight hours at the tree talking and taking their meals, or early morning tea and milk, while sitting on angorebs (cots) or mats arranged in circles.

There may be a small rakuba (shelter) built just outside the outer ring of huts. It is built as a mourning shelter or a place for special meetings. Both the shajara and these rakubas are clearly defined as male space, especially when there are visitors to

the farig. Women carry out most of their activities within the space defined by the huts and their contiguous hosh (courtyard), an area of swept, hard-packed earth in front of the hut.

The only other structure constructed outside the ring of huts is the oval wedding hut, a temporary hut for a newlywed couple. It is placed just behind the hut of the bride's mother with the door facing away from the cluster of huts. Thus, the farig is more than a physical arrangement of huts and households. It becomes a symbolic arrangement in which household groups are joined in solidarity and linked by interaction, radiating around the center of their lives.

The relative position of each hut along the perimeter of the circle is apparently fixed with reference to the sheikh's household. During the rainy season, at the end of each day's trek, the sheikh dismounts at the place where his wife will build her hut. All the other women then know where to place their own quarters. Along the perimeter of the circle the huts are more or less close together, depending on the relationship between the respective households. Close relationships do not depend solely on close kinship ties. Closeness may also arise on the basis of friendship. In the layout of rainy season camps is another indicator of ties between

households. Thornbush fences (zaribas) are built to keep animals in and to keep thieves out. For each household young men build several zaribas; one for cows, one for calves, and an enclosure for donkeys and camels. The enclosure for donkeys and camels also surrounds the associated hosh area. When there is a close relationship between households (kinship or friendship), this enclosure may encircle both huts. Women organize this fence so that they may move easily from one hut to the other, sometimes sharing activities.

A woman builds and is in charge of her hut (the minimal household unit) and its immediate surrounding area. The hut, partly used for storage of household goods, is where a woman, her adolescent daughters and young children sleep. If possible the hut is built large enough to allow her husband to bring his angoreb (cot) inside in case of rain. Otherwise, the male head-of-household and sons over 9-10 years of age sleep on angorebs somewhere in the open within the compound enclosure. All the family members keep their clothing in the hut and have free access to it. However, foodstuffs stored there (both human food and animal feed supplements) are controlled by a woman and her older daughters.

Although the hosh is most frequently women's space, men are not excluded. Any male farig resident

may visit a woman in her compound whether or not her husband or sons are there. Such visits appear casual and open. The male visitor will likely be invited to sit on an angoreb under the rakuba and will be served tea. The only sign of distancing is that the woman will make sure her head is covered, even if perfunctorily. (Head covering is necessary for any woman or girl from about the age of 10, in most contexts outside her own compound or in the presence of men.)

Non-resident male guests may also visit a woman in her compound, though they are usually accompanied by her son or another male resident. When guests arrive, they call out greetings, and at first approach only to the opening in the zariba or to just within the swept area of the hosh. These male visitors may be invited to sit, if they are close relatives. More likely, there will be a short stand-up conversation and exchange and then the visitor will be taken to the men's tree. There he will be served tea, prepared by the woman he first visited. A nonresident male visitor is not likely to come to the house immediately upon his arrival in the farig unless he sees that there are no men at the men's tree. Male visitors go directly to the men's tree; likewise, female visitors go directly to some woman's hut.

Non-resident women visitors are usually shown into the hut rather than being invited to sit under the kitchen rakuba. Being ushered into the house is a sign of hospitality and respect. One is usually not "allowed" to sit outside unless the visitor status has been relaxed.

The hut is also the place where women's ceremonial visits take place. Mourning ceremonies are an example. The bereaved women, closest in kinship to the dead person, sit on mats in the back center of the hut. Women visitors enter the hut and perform the ritualized mourning. In some cases the women visitors may be the bereaved, as when a married woman no longer resident in her father's farig returns upon his death. Then the bereaved woman is shown into another woman's hut where she received mourners as though she were in her own hut. On such ceremonial occasions co-resident women of the farig will also sit inside the hut. However, they will move in and out in order to provide hospitality for visitors.

The area of the hut compound, or hosh, is where most of the day-to-day activities of women take place. Women do most of their household work in this outside area. A woman placed her hearth fairly close to the door of the hut. In the dry season (more permanent camps) the hearth is placed under a rakuba. At the doorway women cook, churn butter, clean grain, weave

mats, groom each other's hair, visit, drink tea or coffee, and eat. There are usually one or two angorebs for seating, though much of the work is done while sitting on mats on the ground.

Eating is an activity in which women and men are spatially separated. Women prepare the meals and serve the men's portions which are carried to the men's tree by a son or daughter. Women eat their meals under the rakuba, or occasionally inside their hut. A woman's husband may eat his meal (usually an evening meal) in the compound. However, even if his wife is eating at the same time they will not share the same dish nor even sit next to each other. Sometimes when there is no rakuba or any other barrier such as a zariba to indicate the hut compound (for example, when a meal is eaten shortly after arrival at a new camp site after a day's trekking), the women will put up some sort of screen themselves from the sight of the men at their tree. This screen may be a mat or simply a tobe (the woman's sari-like outer garment) tied to the branches of a tree. The screen, fluttering in the wind, is more of a symbolic separation than an actual barrier to view. Women are separated spatially and visually from even male co-residents when eating, or, for example, when they visit in groups and drink coffee. Men eat their meals

and drink tea in groups at their tree. But they do not make any effort to be out of view.

Women move freely from compound to compound. The path from one to another may take them through the center of the farig alongside the men's tree. There is no restriction on such movement unless there are non-resident male visitors, when women will avoid going too near. Women may greet the men (or vice versa) as they pass by the tree. In this case the only distancing is that the woman wears a tobe, though if going to an adjacent hut (likely closes by kin) she may not. If a woman is moving about the farig on work activities (milking cows, rounding up calves, lighting sticks from cattle smoke fires), a woman does not usually wear her tobe as it is cumbersome and restricts her movements. She will, however, have a scarf over her head.

In the farig setting it is almost impossible to have total physical privacy. Thorn fences are low and do not totally block one's view. In dry season camps zaribas do not surround the compound. Inward facing huts are deliberately open to view across the circular farig, allowing people to view activities in one another's households. Also, since any compound has other compounds fairly close on either side, one hears one's neighbors. A woman just out of sight in a rakuba may interject comments into a conversation her

neighbor is having with visitors. In a farig everyone knows almost everything socially recognizable about any household. This visual and aural closeness has several functions: (1) It allows neighbors, women in particular, to maintain close, friendly relationships. Women (and men) call across to each other to chat or to exchange some piece of information. (2) It leads to sharing and to a more equitable redistribution of some goods. Women know who gives what to whom. A woman known to have purchased tea may be requested by another to lend some. (3) It contributes to social control. Loud arguments can be heard, and are avoided as shameful. A man can be seen hitting his wife. People will know immediately if a woman allows a non-resident man to make inappropriate visits to her when she is alone.

One way to obtain and give privacy in a farig is to behave as though one or the other party is nonexistent. Thus, someone finding it necessary to cross directly through another's compound (or near it) will symbolically respect privacy by keeping his eyes directly ahead and by offering no greeting. In this way also, people sometimes find privacy for excretory functions, grooming or baths. Most times women seek the shelter of trees or bushes, but there is always the possibility of someone inadvertently coming across them. When that happens privacy is maintained by

deliberately avoiding eye contact or any other visible sign that either has knowledge of the other's presence. Men create a private space for urinating simply by squatting with their back turned to others around them, including women. The jelabiya (long nightshirt-like garment) serves as a screen.

Exclusive male space in the fariq is the shajara, or tree. Though women may pass by, they avoid the tree and do not sit on an angoreb there, regardless of whether the men gathered are fariq residents or non-residents. If the men expect large numbers of male visitors (for political meetings or funerals, for example) they will usually build a rakuba outside the perimeter of the fariq circle. Then male visitors can come freely to the rakuba without intruding on women's space. Bereaved men (one whose close agnatic kin or affines has died) may spend most of the 40-day mourning period at such a rakuba, hardly ever moving from its shelter. It is here that a man receives visitors who perform the ritual mourning fatha.

Another structure outside the fariq circle, mentioned earlier, is the wedding hut. Its placement outside the circle, just behind the bride's mother's hut, is probably symbolic of the new bride's separation from her natal fariq. Its position also gives the new couple and their visitors privacy.

The wedding hut is built on the second day of the wedding ceremony, cooperatively by men and women of the two families. This is the only time men participate in building a hut, and one of the few times men and women work side-by-side on some project. On the last day of the wedding celebration both bride and groom are brought to the wedding hut. However, the groom is brought in an exuberant public ceremony, while the bride is brought quietly after dark. The couple spend the first 15 days of their marriage in this hut. In relative seclusion they can begin to build a new relationship and test its suitability before moving into full membership in the husband's fariq. Adults may visit the couple (if the newlyweds are young) in the wedding hut, but when they do they usually do not stay long. They go mainly to congratulate the new couple. If the couple is young, the wedding hut is a gathering point for young people. It is one of the places where unmarried boys and girls (age 14 and up) can mingle more or less freely. The wedding hut interior is divided into two sections by a mat hung vertically from the top of the hut. The front section has the bed. During the day the couple sits in the rear section on a mat. The bride's girl friends usually sit with them, while the groom's friends sit on the bed or mats in the front section.

The bride's mother cooks for them and provides tea for any visitors to the wedding hut.

A celebration such as a wedding is a situation in which gender space within a farig is temporarily suspended. Though men tend to congregate in one place, and women in another, there is a great deal of free movement throughout the farig. One reason this is possible is that the participants are closely related. Also, the joyous nature of the occasion seems to break down some of the barriers. Men may spend time joking and chatting with the women at the cooking fires. They come, with no signs of restraint, to carry food or return tea trays. Men and women intermingle at the site of the all-night ceremony where praise songs are composed and sung. Men and women may also gather in a close group for other special activities, such as looking at a collection of family photographs. Young people are also free to be together. They gather for dancing or around the groom at the future site of the wedding hut, or with the bride in her hut. One the night of the henna party when the bride's hands and feet are decorated, all the young people, except the groom, crowd into the bride's hut to watch and sing. After dark young unmarried adolescents (aged 14-22) may be seen standing just outside the circle of light of the cooking fire, or at the edge of the dance grounds talking intimately,

sometimes holding hands, and then slipping off quietly together. For young people such occasions are opportunities for courting. For all farig members interactions can be less restrained and are more fluid, giving people the opportunity to reaffirm or realign relationships within and between farigs. The wedding ceremony itself asserts Hawazma values for appropriate male/female relationships, and in that more or less protected situational space, people are able to ignore daily sex-segregated role expectations.

Within a Hawazma farig culture spaces which are predominantly male or predominantly female can be observed. For co-residents of the farig, these defined spaces are somewhat restraining, but not confining for either men or women. Men and women each have their respective and complementary roles in this society. Women, who spend a great deal of their time managing households, also participate in the management of milk herds, and so move products and property into space also used by men who have other herd management roles. Men reach many of their herd management decisions in discussions at their tree where they also negotiate their political relationships. Men also discuss their activities (conditions of herds, children's educational needs, etc.) with their wives at home, receiving women's views on certain issues and sharing information. Many

of the spatial boundaries seem designed to maintain orderly relationships within a group living in close physical proximity. On certain occasions and in certain contexts, these boundaries are disregarded. The Hawazma believe that the inward facing circle of huts expresses group solidarity. Positioning underlines the value placed on multiplex interaction and interdependence, as well as egalitarianism. At one level the entire farig circle represents group solidarity, especially when viewed by strangers or nonmembers. At another level relatives or friends who are close in sentiment demonstrate that by placing their huts close together or within the same zariba enclosure, within the larger farig circle. These physical arrangements, then, represent both internal and external solidarity.

Social (and political) fissioning, or a breakdown of the solidarity of the farig may also be mirrored in the physical layout of the farig. Fariqs may split for a variety of reasons. There may be too many households or cattle herd numbers may be becoming too large for efficient management and movement. There may be disagreements or shifting political alliances. Households may move abruptly from one farig to another, or to a settled village. Or, the fissioning may be gradual, reflected in the gradual physical

separation of one or more households or household clusters from the primary farig.

Shifting farig membership was discussed earlier in terms of social organization and kinship networks. It is possible to see many of the changes, alliances, or disagreements mirrored in the physical layout of the farig. Figures 15-19 illustrate the changes which occurred during the twoyear fieldwork period.

In the 1982 dry season, the farig was physically organized in one primary circle, with a satellite unit (Fig. 15). Households 9 and 10 had apparently formed the satellite unit for at least seven years. The distance separating the two parts of the farig required several minutes walk, but the dwellings of either unit could be seen from the other. There were 8 households in the primary farig. Households 3 and 4, and 5 and 6 were relatively closer to each other than to other dwellings. The cluster formed by 3 and 4 was one of friendship between the women, while and cluster of 5 and 6 was mother and daughter. Even though households 9 and 10 formed a separate unit, when Kosha died, her husband built a rakuba, in which he stayed for the 40day mourning period, just outside the perimeter of the primary farig circle. Before the dry season ended, Amna (Household 4) died from typhoid. Amna's household was reconstituted as Household 14 (Fig. 16) when her daughter took charge

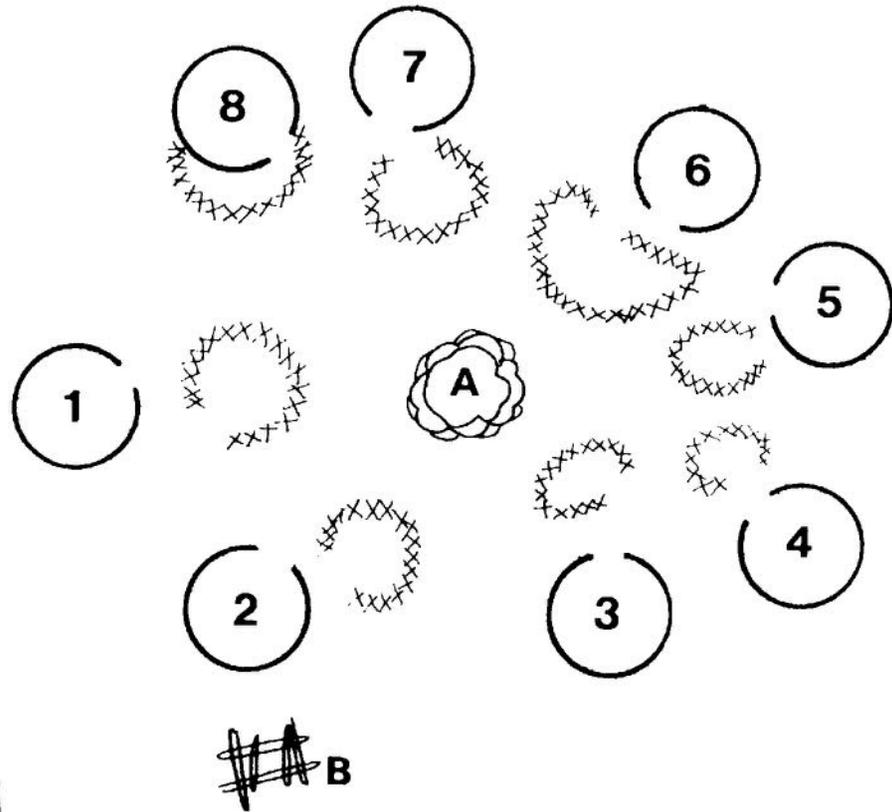
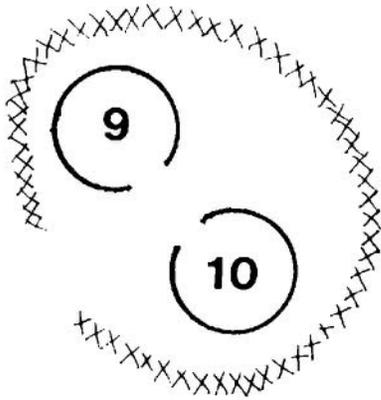


Figure 15. Fariq Spatial Arrangement: 1982 Dry Season.

of the household and its belongings, as well as the tasks involved in caring for one older and several younger siblings. Contrary to practice reported for the Humr (Cunnison 1966:44), neither the dwelling nor the belongings of the dead woman were destroyed or sold.

Figure 16 illustrates the 1983 rainy season configuration of the farig. Household 2 left to transhume with another farig. Household 7 stayed behind in the hamlet of Um Batah and sent the cattle under the charge of an unmarried son. Kosha, owner of household 9 had died and left no unmarried daughters, so her dwelling was dispersed. However, Household 11, a newly married son's wife added her dwelling to the satellite farig, along with Household 10. Two other households were also added to the farig; numbers 12 and 13. The husband of woman/Household 12 had gone to Saudia Arabia and since she was left under the male protectorship of Sheikh Younis (her husband's brother), she moved from the hamlet of Um Batah to join the farig. Naima, female headofhousehold 13 had been living in the farig, but had been with her mother, Amna (dry season Household 4) during the latter part of a pregnancy. Once the pregnancy was completed, she again established her own household.

Clusters of households were more defined during the rainy season, partly because of the necessity for

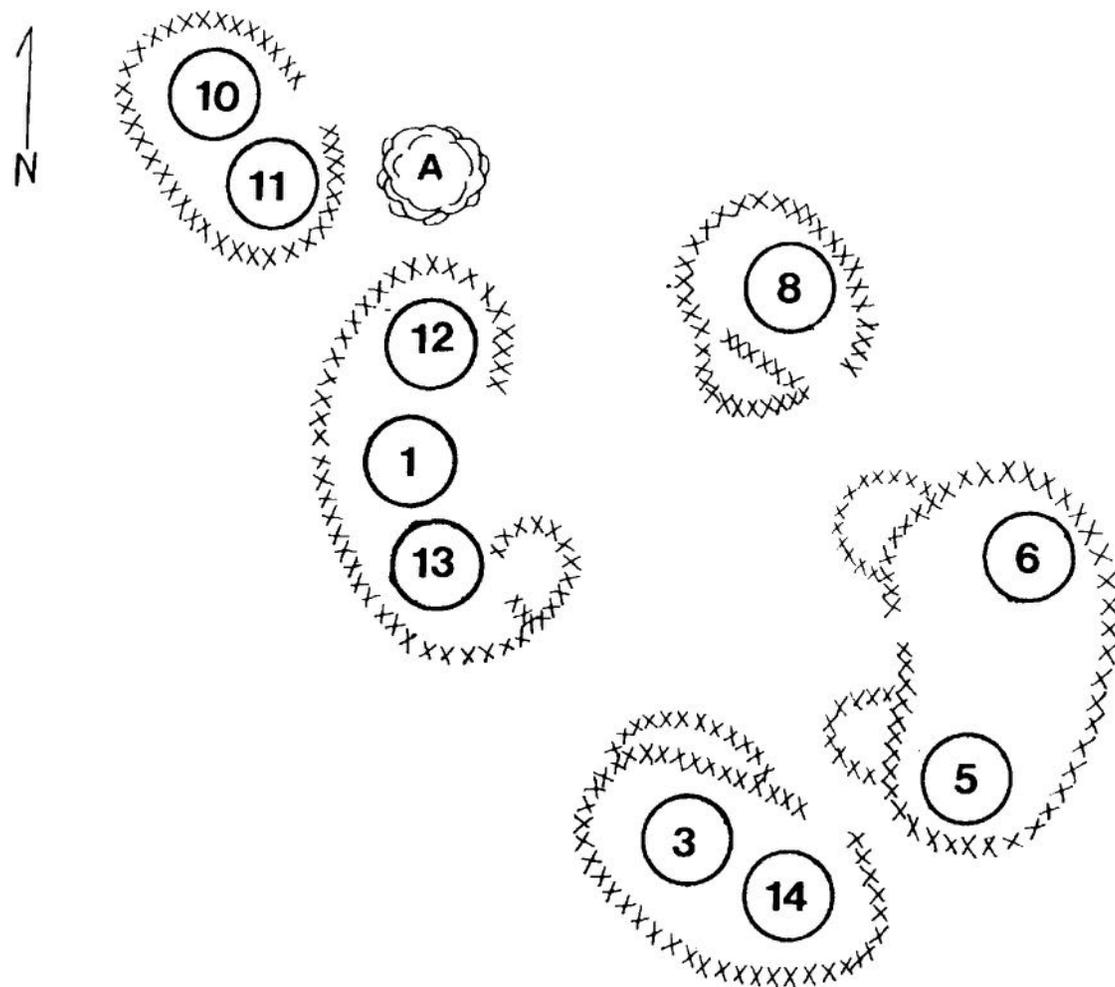


Figure 16. Fariq Spatial Arrangement: 1983 Rainy Season.

thornbrush fences around each compound. As noted, households which were more closely associated built the fences to surround all the households in a cluster, rather than around individual households. Households 3 and 14 formed a friendship cluster. Households 5 and 6 were a close kinship cluster. Households 1, 12 and 13 were united by kinship and/or assignment of male protectorship. As can be seen, male protectorship does not necessarily define household clustering, as Households 1, 3, 12, and 14, all had the same male protector. Household 8 was that of the farig members from another lineage, the Dar Sholongo. During the 1982 dry season the two "outsider" households (7 and 8) were relatively close together (Fig. 15), however, the decision by Household 7 not to make the trek left Household 8 somewhat alone.

The beginning of the dry season 1983 (Fig. 17), saw two further additions to farig membership. One, Household 15, was added to the primary farig in the cluster of 5 and 6. The male head of household for 15 (son of 6) was also in Saudi Arabia, so Halima was under the male protectorship of Hamid Hanai (Household 6). The second household (16) was added to the satellite farig; a married daughter of previous Household 9.

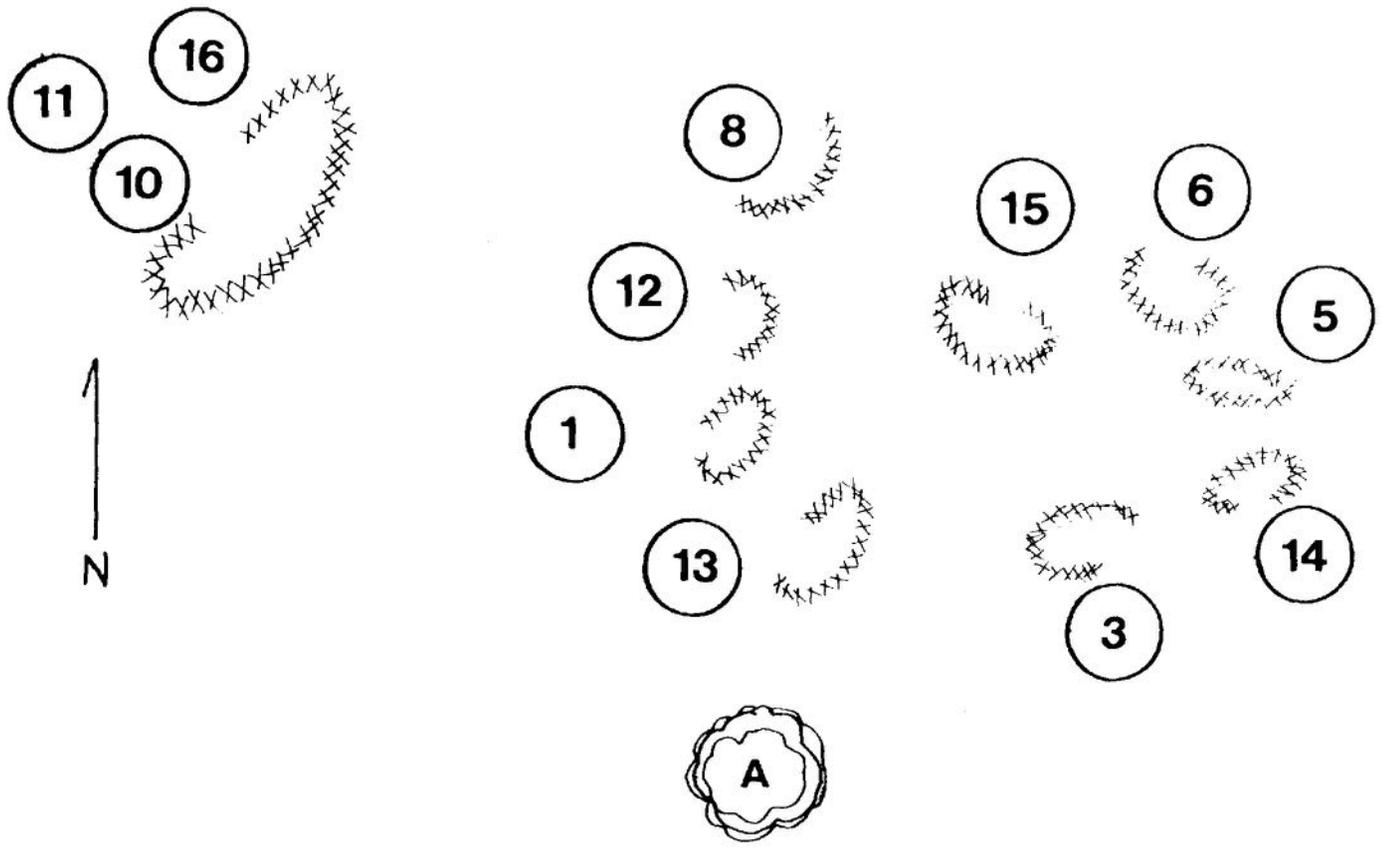
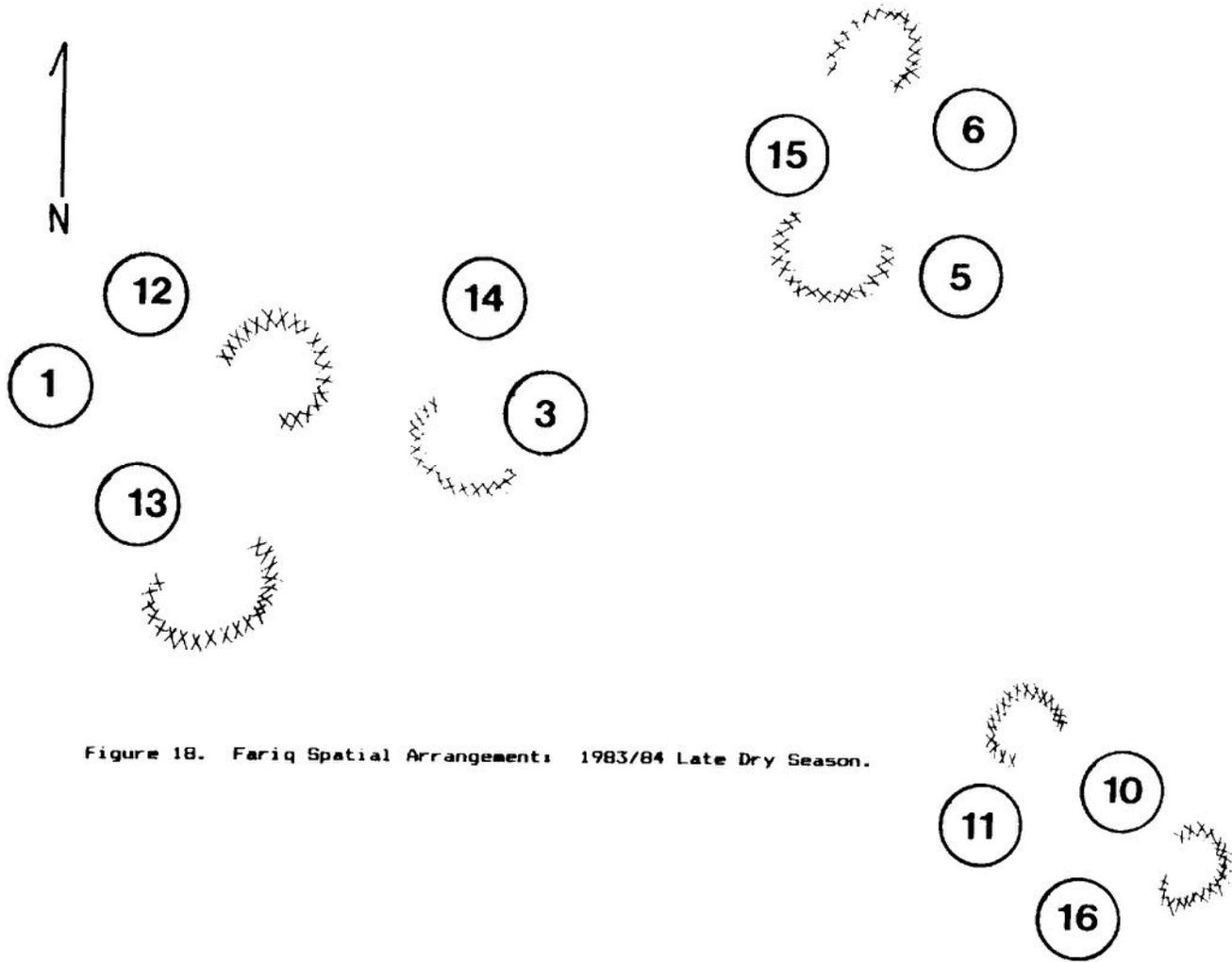


Figure 17. Fariq Spatial Arrangement: 1983 Early Dry Season.



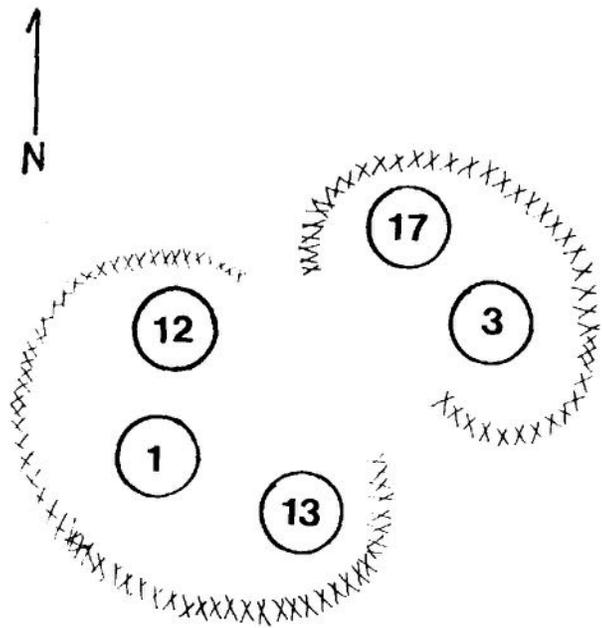


Figure 19. Segmented Fariq: 1984 Rainy Season.

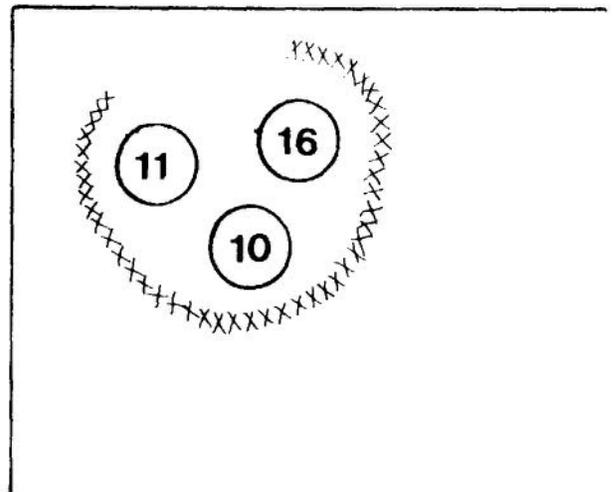
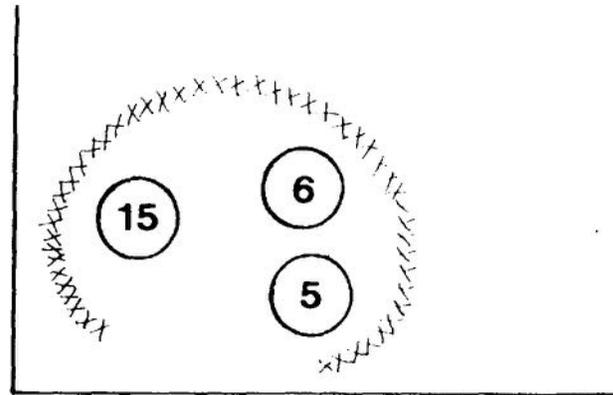


Figure 18 illustrates the physical configuration of the farig after the disagreement over the premarital pregnancy of the daughter of Household 10. The farig at this time became separated into three segments, though all still camped within sight of each other. Household 8 left the farig. Household 3 and 14 shifted position somewhat so that this segment of the farig better formed a circle. Households 5, 6, and 15 also faced inward, along the perimeter of a now separate circle. These were the households left behind when Sheikh Younis moved the farig to gardud soil without informing the male headofhousehold 6.

During the rainy season of 1984, each of the three segments essentially became separate trekking units (Fig.19). While the three units started out together, they moved throughout the trek at differing paces, camping at different points, usually a considerable distance from each other. Sometimes this was a reasonable walking distance; sometimes it would have meant one or two day's trek. Just before the trek began Hawa's brother (Household 17) was married. His new wife joined the farig, from Um Batah, and Hawa left the farig to stay in Um Batah.

Chapter VIII

Economic Strategies and Roles

Milk Production:

In general, men are the owners of the herds. Although Islamic law allots some of the inheritance to women, they often forfeit their animals to brothers or husbands in exchange for benefits of male protection. With ownership comes the right of disposal and thus, disposal of animals is ordinarily a male right. Women sometimes own cattle, though. As owners, they have the right to decide upon disposal of their animals, though they usually consult a brother or husband, who must carry out the actual transaction. Men are interested in building herd numbers, because a man's wealth and, to some extent, his status are reckoned by the size of his herd. However, men sell animals when there is a need for cash, and the market is primarily for beef animals, not milking stock. Cows are usually not sold until they are old and thus nonproductive and nonreproductive.

The primary herd product to which women have access is milk. This access has come to women through one of their traditional roles. Milking is women's work. Women are allocated sufficient lactating

animals to supply household needs and some surplus. Along with the task of milking has come the right of distribution. Generally, this has been a decision of household distribution; of who drinks how much milk or how much milk to allocate to butter and buttermilk production.

The amount of milk available for distribution depends upon several factors. In the first place, milk production is highest during the rainy season and lowest during the dry season. The amount of milk available for human consumption is also dependent on how much milk the calves consume. Here, human male and female interests in herd products come into potential conflict. Men recognize that milk is important to calf nutrition and well-being. Healthy calves that reach maturity mean an increase in herd size. Women do the milking and distribute the milk, but men sometimes decide whether or not certain cows can be milked, and if so, how much can be taken for human consumption and how much must be left for the calf.

If there is no demand for milk external to the camp, men and women easily reach an agreeable compromise that allows each to satisfy his/her own goal in terms of herd productivity. I should point out that men also value milk consumption and thus wish to have enough available in the household. Assuming a

typical herd size and normal milk productivity, there should be enough milk to meet the demands and needs of both calves and households. However, there is an external demand for milk and milk products in the wider society. This means that men's and women's interests, while not truly in conflict, must be negotiated. One outcome of this negotiation among the Hawazma is that 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 external disposal. In other words, Hawazma women have the right to sell surplus milk and control the proceeds.

Herd productivity depends not only on livestock health and well-being but also on herd composition. The uses of the herd, whether for beef or milk or both, affects its composition. Table 18 from Bunderson et al (1984:44), indicates herd size and composition in several Hawazma camps in South Kordofan sampled between December 1981 and February 1982. Each herd shown is owned by one individual. Herds 4,6, and 8 were owned by men of the Oulad Nuba camp studied. Though not all herds in the Oulad Nuba camp were tabulated, the figures shown are characteristic. I should note that obtaining the sorts of data reported here as well as other economic data is extremely difficult. Table 19, also from Bunderson et al.

Table 18. Sizes and Age-Sex Composition of Hawazma Cattle Herds by Household (December 1981 - February 1982). (from Bunderson 1984:44)

Household Number ^b	0 - 12 mo		13 - 24 mo		25 - 48 mo			4 - 6 yr			7 - 9 yr			over 9 yr			Total Herd Size
	F	M	F	M	F	M	C	F	M	C	F	M	C	F	M	C	
1	15	12	8	5	14	9	-	38	14	11	10	2	3	3	-	-	144
2	18	17	11	9	21	12	1	32	8	4	20	3	4	22	-	1	183
3	23	14	12	7	27	11	-	59	12	10	37	3	1	24	4	1	245
4	2	4	3	1	7	2	-	5	4	5	10	-	-	7	-	-	52
5	3	4	6	3	19	9	3	34	9	6	6	-	-	-	-	-	102
6	7	11	6	3	9	4	-	9	3	-	11	9	-	40	1	-	113
7	5	4	5	5	7	9	-	5	8	1	16	4	6	11	1	1	88
8	3	7	2	1	3	2	-	17	1	-	6	1	-	12	-	-	54
9	12	8	7	4	10	4	-	12	5	-	8	-	1	10	1	-	82
10	8	4	3	3	4	5	-	15	6	-	5	-	-	16	-	-	69
11	4	3	2	2	4	4	-	8	1	-	3	1	-	4	1	-	37
12	4	11	5	6	16	12	2	17	4	4	12	-	-	-	-	-	93
13	12	12	10	6	20	19	-	43	14	-	22	4	6	16	-	1	185
14	13	11	7	4	7	4	-	16	4	-	14	1	5	20	-	1	107
15	16	15	12	16	19	11	-	25	8	3	39	5	6	9	-	-	184
16	9	11	6	3	10	8	-	22	11	2	26	5	4	7	-	-	124
17	7	6	4	2	9	6	-	15	7	1	13	2	2	3	-	-	77

^aC = Castrated and is in addition to animals recorded under M (male).

^bNumbers 4, 6, 8, are from the Oulad Nuba camp I studied.

The table represents an availability sample, i.e., herd owners who were willing to assist in examination of the herd and to provide details on age and breeding history.

Table 19. Composition and Productivity of Hawazma Cattle

(from Bunderson 1984:45)

Sex	Age Group	N	Percent Total
Calves (male & female)	12 months	317	16.3
Females	12 - 23 months	109	5.6
Males	1 - 2 years	80	4.1
Females	2 - 4 years	206	10.6
Males	2 - 4 years	137	7.1
Females	4 years	833	43.0
Females that have calved	over 4 years	651	33.6
Males (total)	over 4 years	247	13.3
Castrates	over 3 years	96	5.0
Total cattle		1,939	
Number of households		17	
Mean cattle/household		114	

Aggregate Production Characteristics

Age at 1st parturition	4 - 5 years
Calving rate (annual)	48.7 percent
Mean parturition interval	20 months
Number offspring/life time of breeding female	3 - 6
Percent breeding-age females	43.0 percent
Percent females that have calved	33.6 percent
Percent breeding-age males (uncastrated)	8.6 percent
Pre-weaning mortality (annual)	10 - 15 percent
Adult mortality (annual)	15 - 20 percent
Ratio of adult females to adult males is 3.2:1	

(1984:45), summarizes herd composition and productivity. Hawazma herds have a high percentage of castrated and non-castrated males which serve as a walking bank account. Castrated animals are also used for riding and as besats of burden, particularly on the trek.

Another factor affecting herd productivity, especially milk production, is seasonal variation. During the dry season, animals steadily lose condition due to scarcity of both grazing and water. They must often walk long distances for both. By the end of the dry season, all animals will have lost considerable weight, and cows, which often calve just before the onset of the rainy season, will be giving very little milk. Table 20 presents the milk production data that I collected at the peak of the 1983 dry season and towards the end of the 1983 rainy season, after the animals had had the benefit of better grazing and water. Since 1983 and 1984 were affected by the peak of the Sahelian drought, the figures are not necessarily representative of typical conditions. Nevertheless, they show the relative effects of dry season versus rainy season conditions on milk production.

The figures in Table 20 represent the amounts women collected, whether for consumption in the household or for sale. Even though in most cases all

four teats were milked, the amounts given do not represent the total production of any given cow. Always, some milk was left for the calf.

For the study tabulated in Table 20, 16 cows were selected by 8 owners. My intent was to sample each cow in both the dry and rainy season in order to compare individual production. As indicated in the table, several of the animals originally selected did not make the trek to rainy-season pastures and so were unavailable for data collection there. The plan was to measure milk for two periods of 7 days each. However, due to varying levels of household participation, measurements for every cow selected for every day of the measurement period were not always available: a cow was not milked on a given day, the calf drank all the milk, or the milk was poured into the household container before I recorded the amount. At each milking I went from household to household, recording the amount as soon as the milk was brought. The women reserved the milk from each of the selected cows in a specially calibrated container until I could record it. Typically, a household has at least three and perhaps 5-6 cows available for milking. During the dry season, cows are milked twice a day--around 4:00 a.m., before they go out to graze, and about 5:00 p.m., when they return to the campsite. During the rainy season, the cows are taken out quite early for

Table 20. Daily Milk Production of 16 Cows of Oulad Nuba Camp, in Liters,
 Dry Season 1983 and Rainy Season 1983^a

Cow	Age (years)	Months in Milk	Dry Season Supplemental Feeding ^b	PRODUCTION PER MILKING, IN LITERS ^c		
				Dry Season ^d		Rainy Season ^e
				Morning	Evening	Midday
1	6	4	0	.650	.520	2.40
				.270	.380	2.50
				.400	.375	2.40
				.500	.500	1.40
2	6	7	0	.300	.250	1.60
				.270	.270	1.30
				---	---	1.20
3	7	4	X	1.25	.750	---
				1.00	.950	---
				.670	.760	---
4	7	3	X	.675(2)	.750(2)	---
				.750(2)	.730(2)	---
				.740(2)	.750(2)	---
				.750(2)	---	---
5	7-8	7	0	.500	.270	2.20(3)
				.370	.500	1.70(3)
				.500	.350	1.60(3)
				---	---	1.00(3)
				---	---	1.60(3)

6	8	2	X	.500(2)	.520(2)	---
				.500(2)	.760(2)	---
				.520(2)	.500(2)	---
7	8-10	5	0	.250	.425	2.39(3)
				.300	.300	1.60(3)
				.250	.250	1.80(3)
				.250	.375	1.10(3)
				.250	.300	---
				.420	.250	---
				.250	.125	---
8	8	5	0	.320	.475	2.20
				.470	.500	2.20
				.500	.500	2.40
				.500	.500	2.10
9	9	3	0	.520	.650	1.90
				.600	.750	1.40
				.520	.680	1.60
				---	---	---
10	10	3	X	1.25	1.120	1.80
				1.175	1.175	2.80
				1.00	1.225	2.90
				1.00	1.250	---
				1.25	1.00	---
				1.40	.980	---
				1.00	1.112	---

11	9-10	3	X	1.00	1.37	1.40(3)
				1.00	1.25	2.10(3)
				1.00	.820	1.70(3)
				---	---	2.20(3)
12	10	6½	X	.740(2)	.650(2)	1.30(2)
				.750(2)	.620(2)	1.20(3)
				.620(2)	.750(2)	1.70(2)
				.750(2)	.750(2)	---
				.500(2)	.500(2)	---
				.740(2)	.600(2)	---
				.750(2)	.520(2)	---
13	10	10	0	.520	.475	2.20
				.520	.500	1.60
				.620	.500	1.70
				.520	.475	
				.500	.520	
				.500	.480	
				.520	.650	
14	10	5	X	1.35	1.30	
				1.00	1.20	
				1.25	1.25	
				1.50	1.52	
				1.50	1.25	
				1.60	1.50	
				1.75	1.50	

15	11	3	0	.370	.475	1.70
				.450	.450	1.20
				.270	.250	1.80
16	12	4	X	.375(2)	.425(2)	
				.450(2)	.500(2)	
				.375(2)		

^aData collected dry season May 23 - June 1, 1983 near Kadugli, and rainy season September 14-16, 1983 near El Obeid.

^bThe supplement is usually purchased sesame cake (otherwise it might be flour and salt mix or peanut plant tops). 0 = absent, X = present.

^cOrdinarily, all four teats were milked. If fewer than four were milked, though, I have shown that number in parentheses following the figure for milk production.

^dCows are milked twice per day during the dry season but only at midday during the rains.

^eDashes mean measurements unavailable. Cows Nos. 3 & 14 did not trek. Cows Nos. 4, 6, & 16 trekked with another camp. Other dashes mean cow was not milked on a given day and milk was left to calf.

grazing without being milked. At midday they are brought back to the camp to be watered and milked, then taken out to graze again. Usually, cows are milked only once a day during the rainy season.

Interpretation of Table 20 must take into account that milking is done twice a day in the dry season and once a day during the rainy season. Since rainy-season production is generally much higher, more milk is left for calves--essentially, one milking's worth. Therefore, in order to compare total daily production per cow across seasons, we would need to assume that, if cows were milked twice a day during the rainy season, total amounts would be approximately double those reported for the single midday milking. Even so, on balance, rainy-season daily production is higher for one milking than dry-season production is for two milkings.

Allocation of milk for its various uses (in tea, for children, to make butter, to sell) is the prerogative of the women. In making the allocations they must take several factors into consideration, for example, household size, cooking or hospitality requirements, and the desire for cash income. Milk is an important dietary item, especially in the rainy season, when more is available. Each morning and almost every evening all family members have one or two glasses of heavily-sweetened milk with tea. This

is the only food consumed in the early morning. The first meal is not eaten until 9:30 or 10:00 a.m. in the dry season and during the trek, not until about noon, after the day's travel. Buttermilk (roob) is also highly valued and almost always available. It is served to guests; as a refreshing drink after trekking or other travel; and is used in a variety of recipes.

Whatever milk remains after household needs are met is available for sale. The form in which it is sold depends on the location of the camp relative to a market. During the dry season, there is not much surplus to sell. If a camp is not too far from a village or hamlet, women typically develop a group of customers to whom they make door-to-door sales immediately after the milkings. These customers generally agree to take a given amount of milk in the morning, the evening, or both times. If the camp is not close to potential customers, women make butter and buttermilk. Once the butter is churned, it is clarified and put into liter bottles or other containers. It can be stored in this form for up to one year and taken to market when there is an opportunity. Buttermilk and clarified butter (semn) continue to be made during the rainy season, both for household consumption and for sale, depending on the market situation. On the trek itself, buttermilk is an important item. One the days that the camp is not

travelling, women take the buttermilk to hamlets or small markets to barter for grain or flour. In this way they maintain the household larder without having to carry large quantities of grain. Once the camp reaches the rainy-season campsite, women prefer to dispose of milk surpluses by selling raw milk to seasonal cheese factories.

Milk Marketing

Context and Incentives:

With respect to the Humr, another sub-tribe of the Baggara, Cunnison (1963:27) mentions that women "may make quite a bit of money by selling liquid butter in the market." Neither there nor elsewhere does he specify how much milk or milk products women sold or their specific economic contribution to the household. What we do know is that some incentive for selling milk and that activity's definition as appropriate for Hawazma women have been present since the 1930's, when seasonal cheese factories were established in Kordofan by Greek and Syrian cheesemakers. What is new is the level of the urban demand for milk and milk products (particularly cheese) and the level of marketing activity due to a proliferation of cheese factories--some permanent structures and many mobile operations. Since the greatest part of the Sudanese national cattle

population is found in Kordofan, this province supplies cheese to most of the country's urban centers.

One of the first cheese factories in Kordofan was established by a Greek, Nicola Antonakis. The date is not certain, though one informant told me that, prior to 1979, when he purchased the cheese factory from Nicola, Nicola had been making cheese for about 50 years. Nicola's cheese factory was in Abu Haraz, one of the market towns just to the southwest of El Obeid where Baggara camps congregate during the rainy season. Another cheesemaker, Benuti Kokarez, whose factory is in Kasgeil (in the same area as Abu Haraz) told me he had studied cheesemaking in Greece in 1936. In 1938-1940 he worked with Nicola in Abu Haraz; in 1941-1942 he served in the war; and in 1946 he returned to Sudan and established his own cheese factory.

The Sudanese Veterinary Department began operating cheese factories between 1960 and 1963. The first was the El Obeid creamery, which made cheese and butter. There were a number of problems, but the primary difficulty was transporting the raw milk to El Obeid without refrigeration from camps widely scattered in an arc southwest to southeast of the town. One solution was to establish cheese factories near the camps. The Veterinary Department now

operates five cheese factories, four with permanent buildings and one mobile operation.

There are now about 40 privately-owned cheese factories between El Obeid and Dilling. Some have permanent locations with rudimentary buildings, basically, sheds. Some consist of tents and follow the pastoralists from location to location along the north-south trek route. The cheese factory used by the Oulad Nuba during the 1983 rainy season was a moderate-sized operation at a permanent location slightly southwest of El Obeid. It was owned by Hamid Mekki, who had established it about 1975 with a loan from the Sudanese Agricultural Bank. His fixed capital amounted to LS 6,250-7,250--for his shed, 10 barrels, cutting table, tins for packing cheese, and a vehicle--while his circulating capital for purchasing milk from producers amounted to LS 3,000-4,000 (LS 1 = US \$0.50 in 1983). Hamid Mekki had six employees and a driver. A functional cheesemaking operation actually requires little more than the barrels and cutting table.

Whereas these rudimentary factories are profitable and proliferating, an attempt to establish an elaborate milk processing plant has been abandoned. In 1962 a proposal was made to build a factory to process milk at Babanousa, a town at the western edge of South Kordofan. The objectives were: (1) to

provide "opportunities" (i.e., incentives) for nomads to settle on 44 potential ranch sites; (2) to provide a regular supply of milk to the Babanousa milk processing factory to stabilize the market and provide additional income for nomads; and (3) to serve as a nucleus for other agropastoral activities and for such central services as schools and health care (Thimm 1979:27). An ecologist with the United Nations Food & Agriculture Organization advised that grazing in the area was inadequate for the project, but it went ahead with Soviet aid. A milk processing factory with a daily capacity of 50 tons of fresh milk was built. On the first day it opened, in 1967, four gallons of milk were available. In the first rainy season, the amount of available milk increased to three tons per day. Between 1968 and 1971, the amount of milk available reached five tons per day for the 3-4 months of the rainy season--the only time of year the pastoralists were in the area. That amount of milk was equivalent to only 10 days per year of operation at full capacity (Adams 1982:277). In 1973 the project was abandoned. Now, during the dry season, the milk factory is used for drying roselle and gum arabic.

Producer Prices:

Prices paid for raw milk are fairly standardized. Just how the price is determined is not certain, but word spreads quickly from factory to factory and camp to camp. Women are particularly knowledgeable of price variations among factories. There are some complaints from both women and cheesemakers. Women sometimes feel cheated at the cheese factory, particularly if they believe milk measurements and thus, payments are not accurate. Girls taking milk to the cheese factory for their mothers are especially subject to mismeasurement and underpayment. On the other hand, cheesemakers complained to me that women added water to the milk, though I never observed any of the women in the Oulad Nuba camp doing so. As Table 21 shows, prices paid for raw milk rose tremendously between 1941 and 1984. The figures were obtained in interviews with cheese factory owners. There is a marked difference between 1974 and 1984. The rise cannot be taken at face value, however, as the worth of the Sudanese pound has dropped significantly. The 1984 market prices or exchange rates for other milk products were as follows:

Buttermilk	LS 0.20 per rutl (1 pint)
Clarified butter	LS 4.00 per liter
3pints buttermilk	1/4 milwa of grain or flour (4.125 liters)

Table 21. Raw Milk Price Paid per Safiha at Cheese Factories.^a

Date	Place	LS ^b
1941	Abu Haraz	0.07 - 0.08
1959		0.30
1974	Abu Haraz	0.50
1982	Jebras	4.00
1983	Jebras	5.00
	Abu Haraz	5.00
	El Beida	5.00
	El Obeid	15.00
1984	Abu Haraz	6.00
	Kurmali	7.25
	Kasgeil	8.00

^a1 Safiha = about 18.184 liters (4 British Imperial gallons).

^bIn 1984, LS 1 = US \$0.50.

HOUSEHOLD EXPENSES AND INCOME

Estimated Annual Budgets:

Household budgets and income figures are difficult to collect accurately. While Hawazma keep track of market prices for a wide variety of goods, they do not record day-to-day or monthly expenditures. People do keep a sort of mental tally of what they and others buy, though. For example, any woman in a group of women shopping together would probably be able to recount the purchases the others made. Part of this mode of accounting has to do with Hawazma concepts of reciprocity. If it is known that a person has bought tea, another will know from whom some can be borrowed, or alternatively, that it is possible to get back what has been loaned. Thus, the mental notations have more to do with the intracamp allocation of goods than with the Western concept of a household budget.

In interviews with the women of the Oulad Nuba camp, I was able to compile a composite list of monthly household food requirements (Table 22). This list represents staples. Individual women vary the list, especially with the addition of several varieties of fresh vegetables and greens, some of which may be collected seasonally and some of which must be purchased. Some women also occasionally use dried cowpeas or macaroni. Meat is not included in

Table 22. Annual Necessary Food Purchases for a Hawazma Household of Five Adults (or Five Adult-Equivalents)^a

Item	Average Monthly Purchases		Annual
	Amount ^b	Cost (LS) ^c	Cost (LS) ^c
Sorghum	1 sack (84.9 kg)	18.00	216.00
Dried okra	2 milwa (8.25 liters vol.)	6.00	72.00
Tea	2½ rutl (1.13 kg)	9.00	108.00
Coffee	2½ rutl (1.13 kg)	5.00	60.00
Sugar	60 rutl (27.22 kg)	33.00	396.00
Hot pepper	¾ rutl (336 g)	1.08	12.96
Onions	60 bulbs	3.75	45.00
Oil	30 rutl (14 liters)	33.00	396.00
Rice	4 kg	5.20	62.40
Salt	4 rutl (1.8 kg)	0.60	7.20
Dried tomatoes	1 rutl (½ kg)	2.00	24.00
Bread	6 loaves	0.78	9.36
Peanuts	1 milwa (4.125 liters vol.)	1.20	14.40
TOTAL		118.96	1423.32

^aExcludes meat (see text for explanation), a variety of fresh vegetables and greens (only some of which are purchased), and dried cowpeas and macaroni (used only occasionally).

^bActual quantities bought are listed first, followed by (parenthetical) conversion into quantities more familiar to the reader. A milwa is measured in a cylindrical container equivalent to 4.125 liters. A rutl is both a measurement of weight (1 rutl = ½ kg) and volume (1 rutl = .473 liters).

^cCosts are stated in Sudanese Pounds (LS). In 1984, LS 1 = US \$0.50.

Table 22 because it is not usually among the purchased items and because it is used sparingly in the daily diet. On special occasions, such as religious feast days, visits from distant relatives, or an infant's naming ceremony, a goat or sheep is slaughtered. For larger celebrations, such as marriages, a bull will be slaughtered. At these times, a great deal of meat is consumed and another portion cut into strips and dried for later and more sparing use. If meat is required in the daily recipes, it is usually this dried meat (sharmut) or chicken. Chickens are raised in the more permanent dry-season camp and are then a relatively frequent source of meat protein.

Apart from food purchases, the average household has to purchase clothing, tools, and household utensils, and it has other expenses for medicines (for both humans and animals), supplemental livestock feed, and school fees. Over the year each person probably requires 2-3 purchases of major clothing items: dresses and tobés (sari-like garments) for women, jelabiyas (long shirt-garments) for men, similar items for children, shoes for all members of the family, and tailored western-style pants and shirts for boys and young men. Responsibility for purchasing clothing is divided between men and women. From their own incomes, women are responsible for purchasing clothing for themselves and their unmarried daughters, young

sons, and infants. Men purchase clothing for themselves and older sons. Some clothing is also purchases, apparently by women, for Nuba herdboys as partial payment for their labor. Clothing is also an item in social exchange (gifts and reciprocation). For example, men returning from the pilgrimage to Mecca and a year spent in wage labor there give most of their relative (men, women, and children) at least one item of clothing or fabric.

Household goods or tools beyond a basic inventory are highly individualized and an indicator of wealth. Some households do not have enough tea glasses to serve all members of the family at the same time; others have many extras, which may be displayed on a high storage table in the dry-season dwelling. The same goes for cooking pots, serving trays, laundry basins, and many other items. Households usually have an axe and perhaps an adze. There may be some agricultural tools, and a man usually has at least one spear and perhaps a sword or a gun. Luxury items include iron bedsteads, cotton mattresses, wooden tables, camel riding-saddles (in addition to pack-saddles), and battery-powered radio-tape players. While many of these items are desirable or to some degree necessary, they are difficult to deal with in compiling a household budget, as ownership is not universal and they are not replaced on any regular

schedule. Furthermore, tools may be owned by one person and lent to other households in the camp.

Other variable expenses include school fees and payments for human health or veterinary services. Many families now typically have at least one child in school. Men are responsible for the cash required for the school fee (about LS 25/year/student). Both men and women may pay for health services for themselves from their own resources. Women pay health expenses for infants, young children, and unmarried daughters, unless the expenses are large or involve hospitalization. Men pay for medical services for older sons. Men pay for medical services for older sons. Men are responsible for veterinary expenses, but women frequently purchase sesame cake from their milk sales income to feed to the cows they are milking during the dry season.

Table 23 tabulates one woman's expenditures for one week during the rainy season. I chose this woman because I was attached to her household. Her expenditures for food items are fairly representative, I think. The high expenditures on clothing reflect the seasonal availability of ready cash from milk sales. Table 23 gives some idea not only of cash expenditures but also of shopping patterns. During the week that the record was kept, the camp was located at its rainy-season site some distance from El Obeid.

Table 23. One Woman's Expenditures During One Week in the Rainy Season of 1983.

Item	Quantity	Cost (LS) ^b
FOODSTUFFS		
Dried Tomatoes	¼ rutl (.125 kg)	0.50
Onions	4 or 5 bulbs	0.25
Peanuts	¼ milwa (1.03 liters)	0.30
Chewing gum	1 package	0.50
Sugar	3 rutl (1.5 kg)	1.65
Salt	1 rutl (.500 kg)	0.15
Hot pepper	1½ wagia (56.16 g)	0.18
Dried okra	¼ milwa (2.06 liters)	2.00
Coffee	¼ rutl (.125 kg)	0.50
Tea	¼ rutl (.125 kg)	0.90
Peanuts	¼ milwa (1.03 liters)	0.35
Dried okra	¼ milwa (1.03 liters)	1.00
Onions	4 or 5 bulbs	0.25
Sugar	2 rutl (1 kg)	1.10
	SUBTOTAL	9.63
CLOTHING		
Undershirt (for eldest son)	1	3.00
Rubber clogs (for youngest daughter)	1 pair	3.00
Shopping bag	1	2.00
Dress (for youngest daughter)	1	18.50
Shirt (for herdboy)	1	6.00
	SUBTOTAL	32.00
	TOTAL	41.63

^a Actual quantities bought are listed first, followed by (parenthetical) conversion into quantities more familiar to the reader. 1 wagia = 37.44 g (see Table 6, note b for other equivalencies)

^b Costs are stated in Sudanese Pounds (LS). In 1984, LS 1 = US \$0.50.

Travel to the El Obeid market required at least a half-hour's walk to a point on the road where a lorry could be hailed and then about a 45-minute ride into town. A woman usually does not go into town just for shopping but takes buttermilk (roob) or clarified butter (semn) to sell on the same trip.

Estimated Annual Income

This section will deal primarily with women's income. I assume that the gap between women's incomes and household requirements will be provided by men, mainly from the sale of livestock. Men may grow sorghum, but often the yield is only 1-2 sacks, about one-sixth the annual need. Some cash expenditures are reduced by the exchanging of products between pastoral and sedentary segments of the Hawazma. As noted earlier, a man will often have one wife in a pastoral camp and another in a settled community. In such a case, part of the crop produced by the sedentary family will be exchanged for milk and animal products produced by the pastoral family. Cows in milk may also be sent to the sedentary family and rotated back to the camp when they go dry.

Women want to live in a camp rather than a village so that they will have access to milk, not only for their children's welfare but also in order to

have the income from the sale of milk and milk products. As I have pointed out, an urban demand for these products in the wider society has stimulated increased participation in their marketing. Women sell milk throughout the year, though amounts available for sale vary considerably by season (see Tables 20 & 24).

Table 24 tabulates raw milk sales by four Hawazma women of the Oulad Nuba camp to one cheese factory during the rainy season of 1984. In 1982 the camp had 12 households, but in the 1984 rainy season only four households (those tabulated in Table 24) remained in the sheikh's camp. The figures for the amounts sold are probably low, as 1984 was the driest rainy season in a succession of drought years. Grazing and water were so scarce that the Oulad Nuba camp went only about half the usual distance for the rainy season trek; grass and water were not available in the traditional rainy-season area just south of El Obeid, and the camp was forced to spend the rainy season just 15 km north of Dilling. The amounts of milk sold were calculated from the daily record I kept of the payment each woman received and the known price per unit of raw milk.

Table 24. Raw Milk Sales to One Cheese Factory by Four Hawazma Women of the Oulad Nuba Camp during Two Weeks of the 1984 Rainy Season

Woman	Week	Amount Sold (rutls) ^a	Income (LS) ^b
Zeinab	Week of 9/6/84	91.47	20.75
	Week of 9/25/84	123.48	28.00
	Total for both weeks	214.95	48.75
	Weekly mean	107.48	24.38
	Projection for 8-week rainy season	859.80	195.00
Konduka	Week of 9/6/84	55.58	12.60
	Week of 9/25/84	69.44	15.75
	Total for both weeks	125.02	28.35
	Weekly mean	62.51	14.18
	Projection for 8-week rainy season	500.08	113.40
Muna	Week of 9/6/84	34.62	7.85
	Week of 9/25/84	61.74	14.00
	Total for both weeks	96.36	21.85
	Weekly mean	48.18	10.93
	Projection for 8-week rainy season	385.44	87.40
Khadija	Week of 9/6/84	51.14	11.60
	Week of 9/25/84	137.13	31.10
	Total for both weeks	188.27	42.70
	Weekly mean	94.14	21.35
	Projection for 8-week rainy season	624.64	141.68
	Total Combined	624.60	141.65
	Combined mean	312.31	70.84

^a1 rutl = .473 liters

^bIn 1984, LS 1 = US \$0.50

Amounts of milk sold by individual women vary considerably. Three factors are involved: (1) number of cows available for milking, (2) productivity of the cows, and (3) decisions on the use distribution of milk. Table 24 averages the sales for all women and for individual women in order to provide an indicator of potential rainy-season income from raw milk sales.

As mentioned earlier, women also sell milk door-to-door in towns in the dry season. Table 25 is based on information from three women who estimated the milk they sold that way during the early and late dry season. The table on milk production shows that the amounts available for sale dwindle rapidly as the dry season progresses (see also Table 20).

The potential annual cash income derived from Tables 24 & 25 is LS 345 (US \$172.50): LS 141.68 for the rainy season, and LS 204 for the dry season. These figures do not take into account additional income earned from the sale of buttermilk and clarified butter. The figures as tabulated suggest that women can contribute at least a fourth of the annual household budget (see Table 22) through the sale of raw milk. When income from other milk products is included, the women's potential contribution increases to a third or more.

Table 25. Raw Milk Sales House-to-House Estimated by 3 Hawazma Women

of the Oulad Nuba Camp, Comparing Early and Late Dry Season, 1984.

Dry Season Period	X Daily Sales		X Monthly Sales		X Income (LS) ^b Period
	rutls ^a	income (LS) ^b	rutls ^a	income (LS) ^b	
Early (October through February)	5	1.00	150	30.00	150.00
Late (March through May)	3	0.60	90	18.00	54.00

^a
1 rutl = .473 liters

^b
In 1984, LS 1 = US \$ 0.50.

As the number of cheese factories increases, more Baggara (and other) women will have access to income from milk. Interviews with cheesemakers indicate that average total production at their own factories has dropped over the years. However, if aggregate figures were available from all cheese factories, almost certainly total production of cheese would be seen to have increased.

Production for Use Versus Production for Sale: Implications for Gender Roles

Milk versus meat. Women's incomes versus men's incomes. Are these the issues at stake in the economic exploitation of Hawazma cattle herds? Is the critical question one of who controls what and, thus, of which gender gains dominance? Or are the issues simply the tensional ones evident in any sort of household economic decision making and allocation of resources? Clearly, the control of resources brings both rights and responsibilities and, in a gender-segregated society, the control of a major economic resource is a potent tool for negotiating personal autonomy. Hawazma women living in camps have great freedom of movement as compared to their sedentary women kin, though their range of movement varies. Usually the camp women are free not only to

travel to markets to sell their milk products but also to travel sometimes long distances by lorry to visit relatives in other camps or villages. For example, one woman in the Oulad Nuba camp decided to attend a four-week training course for Traditional Birth Attendants, sponsored by UNICEF. She simply announced that she was going and left a teenaged daughter to manage the household for her husband and son. On the other hand, women from another camp could take their milk to the women's market in a town but not to the cheese factories. In that camp, one or two boys were assigned that task by the sheikh and they transported the milk from all the women wishing to sell to the cheese factory.

Men claim that income from milk sales all goes into "one pocket," implying that the family pocket is theirs. In reality, just as the milk is handed--even by a man who may assist in milking--in the milking bowl across the hearth to the woman houseowner, who pours it into the gourd containers she has made, so also the cash income from milk sales is "handed" directly into the tea can and, symbolically, into the female domain. While most of the income goes into running the household, that is, in purchasing food and other goods, women are clearly managers and decision makers, as are men.

Not all the income goes toward running the

household, though. Women purchase extra quantities of such items as coffee, tea, and sugar for their own use. They also purchase such things as perfumes, jewelry, or an iron bedstead for a daughter about to be married. One woman told me she was saving to purchase a large radio/tape player, an item usually reserved for male ownership. Another woman paid for a pilgrimage to Mecca for herself and her mother, and they travelled unescorted by plane from Khartoum. Women also purchase sesame cake to feed to milk cows during the dry season and make the decisions about which animals' feed to supplement and how much. Since husbandry decisions are traditionally a male prerogative, women's independent decisions regarding milking animal husbandry are another indicator of a satisfactory mutual agreement between men and women on the best use of the herd.

Choosing the migration route and the location of campsites is another category of decision making traditionally in the normative male domain. However, women do influence these decisions and can exert a great deal of pressure on men to locate in an area near a cheese factory, a water source, or a town.

Along with rights come responsibilities, and the expectation that women (or men) fulfill certain responsibilities also indicates a high level of acceptance of the rights. A clear example can be

drawn from the 1983 trek. One morning about 40 head of cattle were missing. Cattle often wander off during the night to graze and then return to camp, but these had not returned. Several of the men set off to look for them. Some time later the men returned, accompanied by several farmers who had impounded the animals for trespassing on their fields. Under provincial law, farmers who find nomad's cattle in their fields can impound the animals and collect a fine from the owners. In this case, the men spent much of the day negotiating the amount of the fine. Once an agreement was reached, the Hawazma men came to the women for them to pay the required money. Only one man was required to pay a fine, and that, on only one animal. This one animal was a bull; all the rest of the intruding animals were cows. The explanation I received was that men should be responsible for bulls, but that women, because they receive the income from the milk of the cows, should accept (or claim) management responsibilities for cows, including payment of fines on cows encroaching on farmers' fields. Women's payment of the fines seems also to symbolically validate their right to control the income from milk sales.

Hawazma men and women both recognize the value of exploiting herds for both milk and meat. Modern "scientific" husbandry would hold that overall herd

productivity would probably be improved if production focused on one product or the other. However, in terms of optimizing tenuous environmental conditions while looking after the welfare of family members, Hawazma producers are apparently making the best use of their herds. Furthermore, men and women have apparently negotiated a satisfactory arrangement for exploiting traditionally male-controlled and female-controlled products. The important change that has occurred in terms of Hawazma pastoral production has been an increasing market demand for milk and milk products. The wider society has changed in such a way that milk is a highly marketable commodity. This is reflected in a proliferation of seasonal cheese factories. Because Hawazma women rather than men have traditionally been the milkers and the controllers of all goods coming into the household, including milk, they now control the marketing of milk and the distribution of cash obtained from these sales. We have here, not so much a change as an interesting continuity in women's roles.

Wage Labor and Labor Migration

While milk marketing is the primary economic area in which women participate in the wider society, wage labor, including labor migration is one of the main

economic connections Hawazma men have with the wider society. Again, the pursuit of this sedentary activity appear to be another strategy to support pastoral nomadism. This section will examine wage labor not only in economic terms and its consequences for group maintenance, but also in terms of its effects of social structure, social networks, and gender roles. While internal labor migration, such as service in the army or seasonal employment on mechanized farming schemes, is one type of wage labor exploited by the Baggara, the focus will be on international labor migration, which is primarily to Saudia Arabia. Seeking employment in Saudia Arabia in a variety of unskilled labor situations is usually combined with the pilgrimage to Mecca.

It is not unusual for Baggara herdsmen to seek temporary or seasonal wage labor. It is a common strategy to acquire investment cash and may also enhance a man's social position. Internally the sorts of employment available include the army, agricultural labor, working as a gaffir or guard, or helping out with a shop which might be owned by a relative. Such employment does not interfere greatly with a man's animal husbandry responsibilities if it is undertaken only during the dry season when the camp is semi-permanently located at one site, and when young men or hired herdsboys are available to shoulder most of the

tasks. Employment as an agricultural laborer or joining the army does interfere. The former takes place concurrently with the time of the seasonal trek from dry season to rainy season pastures with a break, perhaps, between the growing season and the harvest which takes place in January and February, four months into the dry season and after the southward trek back to the dry season camp site. Joining the army requires an investment of two to three years.

There are other disadvantages to undertaking internal wage labor. The primary disadvantage is the salary level and the potential of being able to save sufficiently in order to invest in cattle or small stock purchases. On the other hand, there are some advantages. Internal labor migration requires little economic risk in terms of "up-front" cash investment. The army provides housing, both for a man and his family, some clothing, and often an opportunity for education.

In contrast, international labor migration involves higher risk but also has a higher potential for earning substantially more over a one- or two-year period. One risk is the investment for going to Saudia Arabia. Cattle must be sold on the speculation that travel costs plus an investment surplus will be earned. Another risk is a legal one. Baggara men intent on labor migration to Saudia Arabia go there as

pilgrims on the Haj. They would probably not be eligible for work permits in other circumstances. Thus, they manage to enter Saudia Arabia as pilgrims, and remain there, illegally, for a period of one to two years. Remaining illegally is also risky. The men may be fined substantial amounts, jailed, and deported, losing everything they invested. Even if they elude immigration officials, they may not find work as readily as they imagined. Another risk involves the herds at home, left to the supervision of someone else.

If they can avoid immigration problems and if they find work, their gain can be substantial. From one perspective, it might be possible to suggest that whether or not a man earns sufficient cash to invest in cattle or other goods, since labor migration is tied to the pilgrimage, he will gain. Even if he comes home empty-handed, he will be a Haji, and that status itself is investment capital. So, though he might not be able to increase his herds, he will still be able to increase his social position. Those men who are able to both achieve Haji status and save cash earnings have a great deal to gain from their initial investment.

Before discussing the impact of labor migration on the Hawazma, it will be useful to look at it in the national context. As might be expected the data are

difficult to find. According to Department of Labour Statistics figures, in 1969 Libya ranked first as a receiver of Sudanese labor, and Saudi Arabia second (Birks and Sinclair 1978:47). In 1968/69, of the recorded 934 Sudanese workers who left the country, 300 went to Saudi Arabia. The number of work permits issued since 1969 has increased tremendously, with 12,475 being issued in 1975/76, and an additional 1,464, between July and December, 1976 (Birks and Sinclair 1978:51). In 1977, the Department of Labour Statistics estimated there were 22,000 Sudanese working legally in Saudi Arabia. The provisional International Migration Project estimates are placed at 25,000 legally employed Sudanese in Saudi Arabia. In reality there are many more Sudanese in the Saudi Arabian labor force, as many work without permits. Birks and Sinclair (1978:55) say that one estimate is that 70% of the Sudanese going to Saudi Arabia for work are illegal. According to International Labour Project estimates there are 35,000 to 45,000 Sudanese living in Saudi Arabia, with 30,000 to 40,000 being economically active (Birks and Sinclair 1978:58). The value of remittances calculated by the Bank of Sudan is also increasing rapidly. In 1975/76 the value was less than D1 million; in 1976/77, D10 million, and predicted to reach D300 million in 1978/79 (Birks and

Sinclair 1978:67). Again, the total value of remittances may not be fully reported.

With this brief background it is now possible to look more closely at what took place when several Oulad Nuba men decided to go on the pilgrimage to Saudi Arabia and to remain to seek wage labor. The discussion focuses on changes between the dry season and the rainy season. This is appropriate for the years (1983 and 1984) under consideration as the time of the Haj (pilgrimage) fell rather neatly between the two seasons. Another point to make here is that changes in camp composition typically occur before or after the trek to northern pastures for the rainy season. Therefore, not all of the changes to be noted in this case are a result of men deciding to seek wage labor. As discussed earlier, change, rather than stability, in camp composition is the rule, with households moving in and out of a particular camp for a variety of reasons. Households may move from camp to camp for convenience or as a result of shifting kin alliances. They may also move into a camp representing a different lineage than their own. Households may move from camp to village or vice versa. In other words, change is the rule and leaving for wage labor is only one of the many reasons. However, the impact of wage labor can be expected to

be different than that of other causes of change in fariq composition.

In terms of the whole group, one of the major impacts of men being absent is on the decision making/management structure of the camp. While Hawazma men begin participating in decisions by about age 18, it is men from about age 40 who have the most authority. Age is not the only factor, so that men in this age category, but who are not related to the lineage, or who are nomadizing Nuba or Shanabla grafted onto the lineagae (even after several generations), for example, cannot exercise as much authority in decision making. The primary responsibility for the camp and the herds falls to men age 40 and above, who are full-fledged members of the lineage.

In considering the age-sex composition of the camp in relation to the age category of men responsible for decision making, Figures 2 and 3 show 7 males of 40 years plus were resident in the 1982 dry season; and 4 during the 1983 rainy season. In the 1983 dry season there were 5, and in the 1984 rainy season, 3 men of 40 years plus. Keeping in mind that the rainy season was the period when several men left for Saudi Arabia, it would appear that the ratios of men in this age category remained constant (10.4%, 8.1%, 8.5%, and 5.6% of the population respectively).

But these figures do not adequately convey the impact of labor migration on this decision-making age category.

Table 3 specifies each household present either in the dry season or the rainy season camp. It also indicates the presence or absence of the male head-of-household. In the dry season there is one household without a male head. This is the household of a widow. In the rainy season there are 4 households without male heads, all of which are absent because of wage labor. Three male heads were in Saudi Arabia; one was in the army, stationed in Khartoum. As noted earlier, whatever the reason for the absence of a male head-of-household, no female-headed household is left without a male protector.

Figures 15-19 show household clusters by season. Comparison of the clusters with Table 16 listing male protectors, will show that the male protector is not always in the cluster. For example, in Cluster II the male protector for Household 12 is in Cluster I,1. Cluster II (Households 3 and 14) is comprised of households both lacking males. While both have the same male protector (Cluster I,1) there is considerable physical distance between Cluster I and II.

Women under special protectorship, the male protector, and the number of dependents are identified

in Table 16. As can be seen, one male protector serves that role for 4 households. Also, it can be seen that for 6 female headed households, only 2 different men serve as male protectors. One woman (Household 10) was not head of a household, but was living with her mother. Husbands in four cases had gone to Saudi Arabia; two husbands were serving in the Army. The remaining woman was a widow.

Male heads of households who will be absent from the camp for any long period of time always appoint another man to fulfill the role of protector of his wife and family. Table 16b tabulates the number of persons under special protectorship during each season. Table 17 looks at the responsibility of Head of Household/Cluster/Protector in terms of total numbers of persons each is responsible for. Eight men are shown to have this sort of authority and responsibility. While there were other married men in the camp who qualify as heads of households, their authority is subject to one of the eight men listed because of age or because their herd remains a part of the parental herd. It is here that we can see the impact on the decision making/authority structure of the camp due to men being absent for wage labor. Of course, the impact would be the same whether the absent men are in Khartoum or Saudi Arabia.

Table 17 shows that in the 1982 dry season, three of eight men qualifying for Head of Household, Head of Cluster, or Protector, are together responsible for 59.69% of the total camp population. Four other men are responsible for 23.87%. However, in the 1983 rainy season, these same three men are responsible for 93.85% of the total camp population, with the one remaining man (in the same age category) being responsible for only 6.12% of the total camp population.

That one man is not a member of the camp lineage. He joined the Oulad Nuba camp to escape problems in his own lineage, and though he is in the right age category to have earned respect and authority, he is not in a position to claim either in an "alien" camp. Therefore, in the rainy season, though he is one of four men in the right age category, his authority and responsibility are pretty much limited to his own family.

In the 1983 dry season, the same three men continue to be responsible for most of the population: 86.44%. When several of the men return from wage labor in the 1984 rainy season, the percentage of the population under their charge drops, though they still hold protectorship of 67.93% of the farig population. In terms of overall responsibility, some men resident in the farig are also protectors of sedentary

households. For example, Younis is protector for a wife in Um Batah; Hamid Hanai, for a wife in Um Heitan.

While we can, from one perspective, look at households in terms of who is the male protector, from another perspective we must keep in mind that in many respects households are run by women. Women are fairly autonomous in making household decisions whether or not their husbands are present. This autonomy includes control over household expenses and earnings from the sale of milk and milk products, as discussed in the previous section. While men contribute to the household budget by selling cattle or by growing sorghum, women also have sources of income which enable them to be somewhat independent from male budget contributions. The result is that households operate in much the same manner, whether or not husbands are present. It also means that a husband working in Saudi Arabia does not need to be overly concerned about the economic situation of his household. If he is able to send remittances to supplement his wife's income that is good, but if not, the household will probably be able to manage and his regular contribution (as opposed to a future investment contribution) to the household budget will resume upon his return to the camp. The requirement for a male protector is primarily a social one, rather

than economic, which protects the integrity of women as viewed from the public sphere. In terms of everyday life the role of male protector is somewhat limited in the private sphere, whether or not the protector is an appointed one or a husband. An appointed protector would only make outright financial contributions to a household in dire straights. Otherwise, other forms of reciprocity, primarily between women, would ensure the welfare of households whose male head was absent. In comparing the dry and rainy season camps, we see that there was only one female-headed household (that of a widow) in the 1982 dry season; while four out of eleven rainy season households were headed by women.

Protectorships, while not typically functioning in the day-to-day household activities, actually become important in terms of herd management. Women with absent husbands carry on much as usual, calling on male protectors only in instances where male decisions are typically required, or, being activated by the male protector himself or the social group in cases of inappropriate female behavior. The role of male protector is defined as supervisor of households, i.e., women and children, though in actual fact, that role is primarily concerned with the management of the herds left behind by the absent husband.

It may be noted here that in all the cases known in this study, only married men went to Saudi Arabia for wage labor. While speculative, there are several possible reasons. Going to Saudi Arabia is tied to the pilgrimage to Mecca, which is usually considered appropriate to a person with a certain degree of age status. Probably the most important is that, as noted earlier, going to Saudi Arabia requires considerable initial investment, an investment that typically cannot be accumulated by an unmarried man with no herd of his own.

In terms of impact of absent males on camp organization and function, it would appear that the greatest impact is in the area of decision making regarding herd management. All male camp members from about age twenty upwards participate to some degree in decision making, though the opinions of males age forty and upwards carry the most weight. In the camp described in this study, during the 1983 rainy season when some men first left for Saudi Arabia, three men were left to make most of the decisions for ten households. There was another man present who fell into the appropriate age category. However, he was linked to this Oulad Nuba camp somewhat tenuously since he was from a different lineage group. While he participated in general camp decisions, he was not in

a position to act in the role of male protector on behalf of any of the absent men.

Labor allocation for the actual task of herding was not much affected by the absence of the men who went to Saudi Arabia. Typically it is the younger married men and unmarried boys and men from about age 10 upwards who are primarily responsible for the day-to-day herding activities. As seen in the tables and charts, males in these age categories remained in the camp, with the result that there was no labor shortage while some men were away engaging in wage labor.

From the perspective of the women changes occurred, though it is difficult to say that the absence of men for wage labor had a major impact. Of the three female-headed households whose husbands were in Saudi Arabia, two had already been resident in the camp. One had been resident in Um Batah and had moved to the camp when her husband left for Saudi Arabia. She was one of two wives left behind; the other remaining in the village under the supervision of a different male protector. (It is interesting to note that the absent husband and the two male protectors are all brothers.) This woman remained resident in the camp even after her husband returned from Saudi Arabia.

This is not to say that male/husband absence puts no strain on a household. Cash may be short because a woman cannot decide to sell cattle (unless she owns them). Certain decisions may be postponed, for example, to circumcize a son or daughter who reaches the appropriate age while the male parent is absent. A woman is not likely to make the decision to send a child to school. A cash-flow problem is likely to be the most crucial problem a woman would face. And, in this area, she can call on her male protector, or activate a variety of other social networks to call in accumulated reciprocal obligations.

The next question to consider is the profitability of international wage labor for Hawazma herdsmen. As noted earlier, going to Saudi Arabia for the pilgrimage and the intention to remain to seek wage labor involves considerable initial investment. There are relatively high risks, even though the risks are calculated. Table 26 tabluates the cattle sold in order to purchase tickets to travel to Saudi Arabia for the pilgrimage. The men travelled to Khartoum by lorry, and flew from Khartoum to Saudi Arabia. Each man invested approximately LS 1000.00 to the venture.

Collecting data on actual income earned and specifically how it was spent was difficult, therefore, detailed data on all the men who went to Saudi Arabia is incomplete. One informant was willing

Table 26. - Investment in Labor Migration

Man	Animals Sold	LS Value ±
Mohamed El Ahmar	3 Bulls	750.00 - 900.00
Abdullah Hamid	3 Bulls	750.00 - 900.00
Mohamed Daduna	5	750.00 - 1000.00
-----	2	500.00 - 600.00
-----	2	500.00 - 600.00

Table 27. - Expenditure of Wage Labor Earnings (1 Informant)

	LS Value
3 Cows (2 + 1 calf)	500.00
1 Cow	230.00
1 Cow	225.00
1 Bull	250.00
1 Bull	80.00
1 Bull	67.00
1 Donkey	170.00
	<hr/>
TOTAL	LS 1522.00
12 Head Cattle @ av. LS 169.00	2028.00
12 Sheep @ av. LS 40.00	480.00
1 Camel	400.00
	<hr/>
GRAND TOTAL	LS 4430.00

to provide those details. Table 28 provides the data from this informant. He told me he earned more than LS 6000.00 in the year he was in Saudi Arabia. As can be seen, he spent approximately LS 4430.00 on livestock. In addition, he purchased gifts for many people in the extended kin group, both in the camp and those resident in the village. Many of the gifts were clothing or fabric. If a person received fabric, he also received cash to pay for the sewing. He bought some consumer goods, such as a radio/taperecorder, a Saudi Arabian cloak and headdress, a camel riding saddle, suitcases, an attache case, and a variety of blankets and mats. Upon his return he purchased at least two sacks of sugar to contribute to the feasts for the returnees. In addition to the earnings spent on gifts and feasts, he sold two bulls (older ones of lower value) to cover the costs.

The other returnees also purchased cattle and gave gifts to a wide range of kin. Some of the men had also been able to send remittances to their families once or twice during the year. One man financed a younger brother's wedding. Two men who had worked in Saudi Arabia and one (a shopkeeper in the Um Batah enclave) who had not, invested together to establish an abattoir and butcher shop. Even in simple economic terms, the year spent in wage labor in Saudi Arabia was highly profitable. A man working

locally as a guard could not expect to earn more than LS 30.00 per month; probably much less. Even at rate of LS 30.00 per month, the total year's earnings would amount to only LS 360.00, as compared to LS 4000-6000 realized through wages earned in Saudi Arabia.

In addition to the tangible profits, the men who worked in Saudi Arabia also realized several social profits. First of all, since they participated in the pilgrimage, they earned the title of "Haj" and its accompanying respect. So, even if they had not been able to earn as much as they had anticipated, the role of Haj would have earned them an increased social standing. Though gifts were expected and the returnees had to diplomatically allocate them, gifts are a kind of social investment. Giving and receiving gifts strengthens bonds and create reciprocal obligations. Therefore, the gifts can be viewed as a type of social insurance which has the potential to be used in a variety of social ways.

Labor migration is one of several sedentary economic enterprises among many strategies undertaken in order to attain the primary goal of achieving maximum success in the pastoral nomadic economic mode. Labor migration is not undertaken to escape an unprofitable economic mode. It is not undertaken as a last resort by failing husbandry men. Its purpose appears to be to achieve maximum herd increase with

minimum investment. While the investment is relatively high risk, investors stand to gain in the range of 600%. Potential cash earnings from Saudi Arabia equal in one-year's time what it might take 16 years or more to earn locally.

Negative social impacts in terms of families left behind appear to be minimal. Women appear to be capable of managing and maintaining their households at about the same level possible if their husbands are present. Hawazma women can also expect to benefit directly or indirectly from their husbands' wage earnings. If their husbands purchase cows they will likely have access to the milk, and any increase in herd size potentially increases their economic base. Because of the system of male protectorships and a strong social network system, women are assured of assistance should there be any emergencies.

As shown, the greatest impact on the people wage laborers leave behind seems to be in increasing herd management responsibilities for men in age category of 40+ years. Labor allocation for herding activities does not appear to be adversely affected. Most of the day-to-day labor is done by boys or young men between the ages of 10-25 years. Social gains are also important. Wage laborers in Saudi Arabia have the coveted opportunity to participate in the pilgrimage. Indeed, the pilgrimage is the means of gaining access

to wage labor. Even though large portions of earnings may be spent on gifts, these are a valued social investment. Overall, the indications are that participation in international wage labor is a successful strategy for the maintenance of the primary economic mode of pastoral nomadism.

Chapter IX

Utilization of Services and Goods

Milk marketing and wage labor are sedentary pursuits by which the Oulad Nuba gain income to support their pastoral nomadic system. There are also other aspects to their participation, or utilization, of the wider society. Among these are the use of a variety of government services -health, education, veterinary- and the consumption of a wide range of manufactured goods. The scope of the services available has been discussed in Chapter 2. The discussion in this section will focus on how people actually make use of the services, fitting them into a framework which includes traditional practices. It will also provide another view of the interaction between the public and private domains, and cases of gender-associated behavior in action.

Health Services:

The most commonly used health service is that provided by nursing stations. These are the small clinics, scattered in villages, and operated by a nurse-practitioner. Medical skills and supplies are limited. While the Hawazma (and others) tend to regard the nurse-practitioner as a "doctor," diagnosis

is within a limited range of illnesses and is usually based on physical symptoms rather than laboratory tests. Some tests, such as urinalysis or blood smears are used to diagnose malaria, for example. Typical treatments available at these clinics are for illnesses such as malaria (chloriquine injections), viral infections (penicillan injections), skin infections, infant diarrhea (oral rehydration formula), dysentary, or injuries. Nurse-practitioners may also perform male circumcisions, or assist with difficult childbirth.

People near larger towns, such as Kadugli or Dilling, also have access to hospitals. Doctors are available for consultation at hospitals, though a person usually must first get a referral from the attached outpatient clinic. Very ill persons may be hospitalized for treatment, or women may choose to give birth at the hospital, attended by a trained midwife.

Services at nursing stations or clinics and at the hospitals are free. Sometimes medications are also available without cost, but frequently the clinic and hospital pharmacies face major shortages and so must send patients to commercial pharmacies to purchase medicines.

Many Hawazma appear to be quite attuned to using available medical services. However, there is often

an inexplicable mix of utilizing the services for small problems, while putting off treatment for potentially serious conditions. Seeking medical treatment is very individualistic, with a person generally being responsible for himself. This is congruent with the Hawazma ideal of personal autonomy and therefore, personal responsibility, for self care. Mothers are quite concerned about their children's welfare and often seek medical attention for them. Some cases of health service utilization will illustrate.

Mesar's infant son was suffering from an infected and enlarged navel. It was swollen to at least 1" in diameter and 1" high, and he was fussy and sleepless. She "coped" for several days, but finally took him to a clinic where he was given a penicillan injection and liquid penicillan to be given orally. The treatment was effective and the navel returned to normal. Infection of the navel is a common problem among newborns, often the result of using an unsterilized razor blade or knife to cut the umbilical cord. It often leads to hernia or neonatal tetnus and is frequently fatal.

Mohamed El Ahmar took his son to the hospital where he was admitted, suffering from a high fever and inability to turn his head or move his neck. It was the peak of the dry season, 1983. The child seemed to

improve one day, but then died suddenly. The diagnosis was meningitis. Another child in the camp died a few days later, suffering the same symptoms. Treatment was not sought in her case, perhaps because she already suffered other health problems. Though she was about four years of age, she couldn't walk and appeared to be retarded.

About two weeks after the deaths of these two children a public health team came from El Obeid with an injection "pistol" and meningitis vaccine for a mass inoculation of people in the affected camp, another camp nearby, and the enclave of Oulad Nuba kinsmen in the hamlet of Um Batah. In the Oulad Nuba camp, Amna, a respected older woman, took the responsibility of making sure everyone came to be vaccinated and that all the children, especially, were vaccinated. Both in the camps and in Um Batah it was almost a festive occasion, with everyone watching how others responded and rounding up others to participate. Some children were frightened and their mothers had to restrain them. But in general, each person made sure they got their turn, even a venerable old woman who came hobbling with her walking stick.

Not too long after, Amna was taken to the hospital, critically ill, where she died. She was diagnosed as having typhoid fever and died from renal failure. Though she had urged others to seek

preventative treatment from meningitis, she put off seeking treatment for her own illness until it was too far advanced, also neglecting to tell the doctors that she had not urinated for four days prior to being taken to the hospital. The source of the typhoid was never known, but an infected water source was a possibility as the dry season had severely reduced water quality.

I was visiting at Amna's house when Ajwa called me over to her house and showed me a wound on her neck. She said a barbed spear had fallen out of its storage place in the roof of her kitchen shelter and had hit her in the neck, causing a puncture wound. She hadn't cried out (we were within hearing when it happened), but had just pulled the spear out. She asked if I would take her to the hospital. At the hospital we first had to go to the outpatient clinic where Ajwa was given a "paper" to see a doctor for a tetnus injection. At first we couldn't find any doctors in their offices. Finally we found someone who seemed to be in charge and explained to him what was needed. A nurse there said no tetnus vaccine was available, but sent us to a storeroom to check. At the storeroom a man looked through a decrepit refrigerator where various ampules were thrown helter-skelter. Many no longer had labels. The only ones identified were snake anti-venom. We went back and

found three doctors. One looked at Ajwa's wound, then wrote a prescription for penicillan and tetnus. I asked where to get the tetnus injection, as I'd been told there was none. He said the Project Research Station clinic had some (it often was better supplied than the clinics in town), but another doctor said, no, the hospital had already taken all of it. Before we left Kadugli we stopped at the Catholic church clinic, which often had otherwise unavailable medications. The Sister in charge said their clinic was not allowed to give tetnus injections, but she had the penicillan. She gave Ajwa an injection and some tablets for pain and dressed the wound.

Iqbal, a girl about ten years old, heard Ajwa and I discussing taking Ajwa to the hospital. She announced she was going with us, and washed herself and changed her clothes in preparation. She had been complaining that her eyes hurt and decided to seek treatment. She was sent to the eye clinic. At the eye clinic she was checked, had her eyes washed and eyedrops put in. She was given the remainder of the drops with an explanation for their use. Iqbal handled the whole process herself, explaining what was wrong and listening to the explanation of the treatment. Back home she explained to her father that she was to use the rest of the drops before the end of

the day, and the interval at which they were to be administered.

I met Ahmed, a boy about 9 years old, coming back to the camp from the Station clinic. He said he had gone there because he had "boul al dem," or schistosomiasis. He said there was no medicine and asked if I could get some for him. I told him we should be sure of the diagnosis, then I'd try. The Project veterinarian said he would check a urine sample, so Ahmed went to him. He was clearly infected. There was no medicine for schistosomiasis in Kadugli, so I asked a Project teammember in Khartoum to try to find it. Then Ahmed brought four other boys to the station who were also complaining of the same symptoms. They were each checked and diagnosed as having schistosomiasis. When the medication arrived I went to the camp to find Ahmed and the other boys to begin treatment. I discovered that their parents had no knowledge that the boys were ill or had sought treatment.

Observations suggest that the decision to seek treatment is usually made by the individual, even if the individual is a child. Both men and women freely seek treatment. Women do not need to ask permission from their husbands before going to a clinic either for themselves or their children. Men, however, would typically decide whether or not to allow a child to be

admitted into the hospital. It is difficult to determine the criteria used to choose various sorts of medical treatment or non-treatment. Some people seek treatment at government clinics for all sorts of minor problems. On the other hand, I also encountered a child of about ten years who had been burned and who had not been taken for treatment. Adults, also, often simply tolerate illnesses or injuries. Some people first seek treatment by traditional practitioners, or allocate treatment of certain conditions to either traditional practitioners or government clinics.

The location or the situation may also be a determining factor in where to seek treatment. Pastoralists are often far away from any clinic. For example, I encountered a young boy in a camp some distance from the nearest town and clinic who had broken his arm. His father had set it with a traditional splint binding. In another case, a man whose arm had been broken by a bull, went to a hospital in town and had his arm set in a plaster cast.

What is clear is that pastoralists utilize whatever health care is available. If they are near government clinics, they apparently use them frequently. Women's free use of health services is another indication of their autonomy and ability to interact on their own behalf in the wider society,

i.e., the public domain. In some Muslim societies it is necessary for a male protector to be present when a woman is receiving medical treatment or being examined, especially as medical personnel are usually male. This is not the case among the Hawazma. Women can not only make an independent decision to seek treatment, but can also go by themselves.

Education:

Sending children to school appears to be, in some respects, another strategy for diversifying resources. The general pattern, for those families who educate some of their children, is to train the eldest son exclusively as a herdsman. Younger sons, and sometimes daughters, may be sent to school. Many more children attend elementary and intermediate school than complete secondary school. Though some, particularly boys, do complete their secondary school education. Completion of a secondary school education allows the graduate to work, for example, as a clerk in a government office.

Since the academic year includes the period of the rainy season trek, children who attend school must be left behind when the camp moves north. Elementary school children usually stay with a female relative in town, often their father's second wife. Intermediate

and secondary school students often attend schools which include boarding facilities.

School fees are in the range of LS 25.00 per year per child. Hawazma men are responsible for paying the fees from their cash resources. This may require the sale of an animal. Women may want their children to attend school, but it is the child's father who makes the decision to send him to school or not. However, once the decision to permit a child to attend school is made, the child may decide whether or not to continue. Hamid Hanai's thirteen year old son made that decision for himself. The camp had moved north for the rainy season trek and Abdel Rahman had remained behind to attend school. When I went back to Kadugli from the rainy season camp to visit, I found him in Um Batah. He asked me to take him with me when I returned to the camp. When I asked about school, he said he had decided not to attend that year. He told his father his decision when we returned to the camp, and spent the rest of the rainy season herding cattle. The next academic year he took an entry exam for intermediate school and entered classes the next term.

Statistics on educated Baggara are nonexistent and so any statement is subjective at best. While it is probably fair to say that most Baggara are illiterate, it must also be said that many, in a wide range of age categories, are literate. Some, both men

and women, have only attended school for a few years. Others have completed secondary school, and others have continued their education in technical schools or universities. It appears that more and more young children are being sent to school. But it is also apparent that eldest sons of herding families are still only being educated in traditional husbandry, and that boys attending school outnumber girls.

Several young Oulad Nuba men had completed secondary school. Some of them had returned to the camp and taken up animal husbandry. One or two had gone off to one of the larger towns to look for employment, not too successfully. It appears that the educational system often presents young Hawazma adults with more of a dilemma than with any useful skills. While they can facilitate their kinsmen's participation in the wider society with their knowledge of reading and writing they are likely not well enough prepared to really enter a literate society. The educational program is geared to urban students who pass through the system systematically and without breaks. Even if Hawazma students complete secondary school, it is likely that attendance continuity will have been broken to accommodate the pastoral cycle. These graduates, though they are bright and capable, find it difficult to compete for employment with graduates from an urban environment.

They may, for all practical purposes, turn their backs on their education, or may, as in the case of the young man mentioned above, find themselves betwixt and between the pastoral and urban worlds. Unfortunately, their education has not really prepared them to participate in an urban setting, nor has it provided them with knowledge which could improve herding practices.

On the other hand, some pastoral students do very well for themselves in the educational system, and enter positions from which they can provide significant assistance to their kinsmen. For example, one of Zeinab's brothers was attending an agricultural training institute in Khartoum. In another lineage-group camp I met Mohamed Juma Didan, an accountant at a teacher's institute, who activated a number of important linkages between the wider society and his pastoral kinsmen. I also met Taher el Sanousi, who holds an important position in the Army Corps of Engineers, and who returned to the camp of his Dar Sholongo kinsmen to assist in the negotiations of a blood debt. And, there is Babo Fadlalla, fellow teammember on the Western Sudan Agricultural Research Project, who holds a Ph.D. in animal nutrition from a British university. There are women also, like Hakmula Mohamed, who completed the UNICEF training

program for Traditional Birth Attendants (see Chapter 2).

The point is not that these people are somehow unusual and have "broken out" of a marginal pastoral existence. Rather, they are further evidence of how Baggara pastoral nomads manipulate and maximize the various options and opportunities, not only of their society, but also of the wider society of which they are inevitably a part. As this chapter continues, how that happens will become clear.

Veterinary and Agricultural Services:

The Government of Sudan Veterinary Department and Plant Protection Department have offices in the larger towns such as Kadugli. These offices provide a variety of services available to pastoralists as well as townsmen. The Hawazma utilize these services, particularly those of the Veterinary Department.

Both veterinary treatments and preventatives are available. During the 1982/83 dry season there was an outbreak of bovine pleuropneumonia which severely threatened herds in the Kadugli area. Both the Oulad Nuba camp with which I worked, and a Dar Sholongo camp nearby, acted swiftly to take advantage of veterinary services to prevent an epidemic. The Oulad Nuba camp arranged with the veterinarians to come to the camp to vaccinate the animals against bovine pleuropneumonia.

A thornbrush enclosure was built and it was arranged that the veterinarians would visit the camp on a particular day to administer the injections. By turns, each man herded his animals into the enclosure, where, working with the veterinarians, each animal received three different injections. A price per injection was negotiated, and each man paid according to the number of animals injected. All the men of the camp shared the cost of paying the veterinarians for the service.

The Dar Sholongo camp had moved about 20 miles away to lessen the possibility of infection by contact. They also arranged with the veterinarians to come to their new camp from Kadugli. However, they purchased the veterinary medicines as a group, then hired the veterinarians to administer the injections. Altogether they paid about LS300.00 for the medicines alone, some indication of the value the herdsman place on veterinary services to maintain the health of their herds.

Some people also purchase agricultural inputs. The most common, perhaps, are seed treatments, both pesticides and fertilizers.

Military Service:

Military service for Hawazma men is somewhat comparable to wage labor. A man who volunteers for an

enlistment period of three years receives a number of benefits, both for himself, and his family, if he is married. An enlistee receives a salary, housing, food allowance and education. A married man can have his family, perhaps even including a widowed mother, living with him. His children would also receive an education. While there is some risk that he might be sent to active service, for the most part, his enlistment would be spent fairly comfortably, with a number of both economic and social benefits.

One of the main drawbacks of military service as a mode of wage labor, as opposed to other forms, is that it requires a longer-term commitment. As noted earlier, other internal wage labor, such as seasonal agricultural work, can be integrated into the pastoral cycle. Military service is year-round and necessitates temporary absence from pastoralism. As compared with international wage labor, as described, the returns are far less. However, there are advantages in terms of the services and goods available to enlistees.

Manufactured Goods Consumption:

As in other categories of pastoral-sedentary interactions, an inventory of material culture provides an indicator of Hawazma integration into the wider Sudanese society. The main point is that the

Hawazma do not simply aspire to consume "sedentary" goods. They have the economic ability to purchase a wide variety goods, though they do so selectively.

Manufactured goods purchased are of two types; those produced locally, and those which are machine-made and imported. Some manufactured goods are utilized year-round, while others are used only in certain seasons.

Women have a great many manufactured items in their household inventory. Important to the household are the utensils - cooking pots, food serving dishes, milking bowls, buckets, wash basins, and iron griddles. Some cooking pots are manufactured in Egypt, while enamelware is imported from China. A wide variety of enamelware is available and utilized.

Clothing for men, women and children, is purchased. Many of the basic garments are made locally by tailors who have shops in the markets, or sometimes, at the site of a cheese factory. Sometimes cloth is purchased by an individual who then contracts for the sewing of a particular garment. Sometimes the tailors make an inventory of clothing which is available for purchase. Some clothing is manufactured and imported. Children's clothing especially -shirt and pant sets, dresses- may be ready-made in China. Some adults also purchase imported ready-made clothing. One of the main items in this category is

the tobe, or sari-like garment women wear. While some are made in Sudan or Egypt, the most desirable ones are imported from Japan.

In the dry season, when the camps are located in one place for a rather long period, all sorts of manufactured goods appear. Women bring out a large inventory of aluminum cooking pots, serving trays, drinking glasses, tea glasses and coffee cups. People may use iron bedsteads and cotton mattresses. Various items constructed from wood also appear, such as tables and clothes-storage racks. At the end of the dry season, the household inventory is again pared to a minimal amount necessary and portable for the trek. All the other goods are stored with relatives who are living in sedentary situations.

A variety of luxury goods may also be purchased. Perfumes, mirrors, radios, flashlights, toys, are among such items. Some people might also purchase bicycles. Some manufactured foods are also purchased, such as canned tomato paste, pastas, orange-drink syrup, candies, or biscuits. Also high on the list of purchased food items are coffee, tea, and sugar, which are used in large quantities.

Chapter X

Tactical Sedentarization

Sedentarization, that is, the pursuit of sedentary economic activities, is one of a number of pastoral nomadic strategies. Sedentary activities are undertaken much the same as the pastoralists undertake some cropping, with the income being invested in either pastoral capital -herds- or social capital in the form of gifts and feasts for kinsmen.

The primary Hawazma sedentary strategies are women's milk marketing and men's international migration for wage labor. In this chapter nomadic and sedentary network interactions will be analyzed at two levels: (1) within the kin group, and (2) between the Hawazma and the 'wider society.' Nomadic and sedentary interactions will also be considered in terms of gender roles, and as another aspect of the complementary opposition of the public and private domains.

Ibn Khaldun was one of the first scholars to analyze the relationship between "the desert," and "the sown." He looks at the process of sedentarization as cyclical and suggests that a sedentary culture is the goal of Bedouin life (Ibn Khaldun 1967:285). While he says that pastoral and

sedentary peoples depend on each other's products, he also discusses how sedentary dynasties arise from the desert. Ibn Khaldun's description of nomadic and sedentary interaction is both in terms of symbiosis and process.

Present-day literature on pastoral and sedentary relationships is framed in the same terms. This relationship is viewed as symbiotic (Barth, Swidler), or as a process of social change (Salzman 1980:1). Where the relationship is described in terms of symbiosis it is viewed as a relationship between two ethnic groups, or at least, two groups pursuing different but complementary economic goals. Even though both the nomadic and sedentary groups may have common roots in pastoralism, once a segment is sedentarized the tendency is to view pastoralists and agriculturalists as distinct groups. A variation on the symbiotic relationship is one Swidler calls "intersecting economies," in which agrarian and nomadic labor needs complement each other (Swidler 1980:29). In this case seasonal wage labor by nomads provides resources which maintain nomadic households. Swidler suggests that this sort of interchange indicates a greater integration of pastoralists into the regional economic system.

Sedentarization and nomadization are also both regarded as processes of social change (Salzman

1980:1, Barth 1981:1878-197, Swidler 1980:21-22). Generally, sedentarization is regarded as the predominant process, with nomadization occurring, but on a smaller scale and with less "success." Barth (19xx:350) suggests that nomadization can only balance sedentarization when there is administrative collapse and agriculturalists suffer crop and land loss.

Before looking at several specificities of nomadism and sedentarism it will be helpful to consider notions of socio-cultural change. One assumption about socio-cultural change is that it is irreversible, directional and cumulative. By irreversibility it is meant that the change cannot be undone; that a return to a former state is impossible. Directionality implies that change goes in one particular direction and continues in that direction, sometimes at an accelerating pace. Previous changes are seen as having an impact on all later change, and each new change feeds into following developments, leading to the notion of change being cumulative. These ideas stem from 19th century ideas of progress, which discount the idea of cyclical movement or alternating phases. Salzman see these ideas as restrictive (1980:1).

A second assumption about change is that it is discrete and absolute. By discreteness is meant that something changes from one thing to another and that

it is clear that each state is something else. A boundary is crossed and identity is changed. The idea of absoluteness suggests that the object of study is characterized in only one way; change sees this nature disappear and a quite different one appear.

Salzman says these ideas about change cause problems in looking at socio-cultural change. One problem is that of specifying the level at which the differences exist or the unit of analysis which manifests the differences that can be said to be absolute. Another problem is in understanding the shift from one socio-cultural unit to another. Assuming the discreteness of phases militates against understanding processes of transition.

Social scientists often assume society is an integrated system. This causes difficulty, especially in the study of change. If everything is closely integrated it is difficult for any part to change. Change would require a major force coming from outside. Society is also seen as having a specific structure. In the view of structuralism, Salzman says (1980:3), society must be characterized and understood in terms of its primary structure. He says that structuralism can give no explanation of change and has no approach whereby it can be comprehended.

Rather than thinking of society as tightly integrated, we should think of it as fluid and variable, loosely integrated, flexible and adaptable. Salzman suggests (1978, 1980) that societies have institutionalized alternatives. While sociocultural change may sometimes be non-repetitive, directional, and cumulative, it also sometimes takes the form of repetitive cycles of alternating phases.

Marx (1977) found two mechanisms for institutionalizing alternatives among the Bedouin of southern Sinai. These alternatives were in response to the alternating conditions of political security or insecurity, and economic opportunity or lack of opportunity. He calls these: 'operational generalization,' and 'asserted ideology.'

Operational generalization may be seen in the combining of subsistence and market activities. A large part of the household income of the Sinai Bedouin comes from men who engage in migrant labor outside their home territory (Marx 1977:37). But each household also maintains a small flock of goats or sheep, cared for by women, and a garden for fruit and vegetables. This local productive activity is not profitable but is maintained as a resource should circumstances of wage labor change.

In the Sinai men get economic assistance from their lineages, and rights of access to grazing and

wells comes from tribes, so there is a need to maintain relationships with tribal and sub-tribal groups. One mechanism for maintaining these ties in the face of separation due to work outside the territory is ritual reinforcement of social ties and group membership. The date harvest provides one such opportunity when Bedouin return to their tribal territories and visit with their relatives and friends (Marx 1977:40). In reunions and verbally, Bedouin assert the value of tribal and kin relationships.

Complementing these occasions are the collective pilgrimages to shrines and saints' tombs. Marx says that the saints' cults should be viewed as the link between local societies and the "wider society," however that is conceptualized by the group in question. He suggests that communal pilgrimages develop in response to situations in which an economically undifferentiated group depends on external forces (natural forces, or an external state and economy) over which they can exert little influence. He says that a society which largely controls its affairs will not resort to communal pilgrimages.

The main point Marx makes is that saints' cults reinforce the ideology of tribalism. First, saints' cults reinforce the ideology of the agnatic relationship and loyalty. Secondly, they reinforce

the conceptualization of the tribe as a unit in a larger membership encompassing the region, the universality of Islam, and thereby, all the external world. The saints are clearly associated with God and intercede on behalf of a particular tribe, but also on behalf of individuals from other tribes. The saints represent both restrictions on the use of resources in favor of some people, and access to the remaining resources to others.

The saints' cults appear to be one of the mechanisms by which the tribal organization is maintained. Shrines are found near wells or on migration routes and the shrine building itself symbolizes the territorial rights vested in the tribe. (Tribesmen have exclusive rights to build a house on tribal land.) The saint is an emblem of the tribe, though he may not be an acknowledged tribal ancestor. Finally, the pilgrimages bring together all or a large number of the tribal members who participate in both tribal-wide activities (e.g., communal meals) and kin group activities (e.g., camping together).

Sedentarization is another process of social change. The sedentarization process, Barth suggests, may take one of three forms: (1) military conquest, whereby the nomadic tribe becomes a new landwoning elite; (2) capital investment in land by wealth pastoralists who become landlords; and (3)

impoverishment. In the first two forms the nomad moves into the sedentary population at the upper level of the economic and social scale. In the third, the nomad moves into the sedentary population at the lower end of the economic and social scale. Salzman (1980:12) discusses four models of sedentarization. The first three, (1) drought and decline; (2) defeat and degradation; and (3) failure and fall-away, are similar to Barth's. In the first model pastoralists are vulnerable to the extremes of climatic variation; they lose their animals and therefore their economic base. In the second model pastoral peoples are forced by military action or forcible settlement by governments to leave nomadic life. In the third model, individual pastoralists who do not succeed in making a viable household productive unit leave the pastoral sector, entering sedentary agriculture and seeking employment. The converse model of "succeed and surpass" occurs when individuals build such large herds that they cannot be properly supervised, and who convert their wealth in livestock to wealth in land. These people move into the settled elite. However, Salzman suggests that these models over-generalize, giving a a perception of sedentarization as irreversible, while in reality pastoralists may move back and forth between nomadization and sedentarization. Barth (1960, 1961) also discusses

the process as multi-directional so that settled nomads, for example, can recoup and renomadize.

In order to overcome the problems he sees with these three models, Salzman proposes a fourth model, that of 'adaptation and response.' He points out that most economies depend upon production of various types using diverse resources. Most nomadic peoples engaged in pastoralism also engage in farming. On the other hand, settled nomads do not lose the knowledge, skill and ability to pursue nomadic life. Crucial social organizational frameworks, such as tribal membership, continue to exist. He says that the assumption that nomadic and settled people are wholly distinct is not accurate, as many tribes have both nomadic and settled members, often consciously seeking the division of labor to be found in multiresource economies (Salzman 1980:14). The adaptation and response model stresses options and the institutionalized resources that define the options and make them possible. Here sedentarization is seen as a shift from one available pattern to another in response to changing pressures, constraints, and opportunities, both internal and external to the society.

Salzman (1980:106-109) suggests that one consequence of sedentarization is the decline of lineage corporateness and solidarity, expressed in a decline of coresidence, and mutual economic and

political support. Marx (1977) however, describes several mechanisms by which the pastoral nomadic tribal organization is maintained though members may be participating in a variety of pastoral and sedentary economic pursuits.

The point to stress again here is that all of the models discussed above implicitly or explicitly define sedentaries and nomads as two separate and distinct groups. At this level, nomadic and sedentary interactions take on the character - when viewed from the perspective of the pastoral group- of interchange between nomads and some sort of "wider society." While this level of interaction certainly exists, it is not the only one. I suggest that all of these models overlook another possibility; one which is neither symbiosis nor process. As stated at the outset, I assert that the pursuit of sedentary economic activities, is one of a number of pastoral nomadic strategies.

Nomadic-sedentary interactions occur at several levels in both the public and private domains. These interactions, as noted, may be between nomadic and sedentary segments of the Hawazma. Depending upon the context, even these interactions between nomadic and sedentary kin may fall within either the public or private domain. When these interactions are between the Hawazma and the 'wider society,' from the

sociocentric view of the Hawazma, they represent the private domain, and the wider society represents the public domain. These interactions have been examined in terms of residence (Chapter VI). Though residence may be a reflection of a variety of social ties, it is in economic behavior that the nature of nomadic-sedentary interactions becomes clear.

At the beginning of this chapter I asserted that Hawazma participation in sedentary economic activities is not symbiosis or process in the terms in which sedentarization is described in the literature. Rather, participation in sedentary economic activities is a pastoral nomadic strategy, undertaken to increase pastoral capital -herds- or even to maintain a pastoral nomadic lifestyle, free from control of a sedentary wider society. In some ways it would appear that participation in these activities demonstrates the validity of arguments by Salzman, Barth and others. Milk marketing, as described, would appear to be a symbiotic activity whereby pastoral products are exchanged for agricultural or manufactured products. The case of wage labor might also be forced into either the symbiotic or processual model. However, there are subtle, obvious, and critical differences which suggest these models are not applicable to the Hawazma.

There are several questions which can be posed in order to check the validity of models such as Barth's or Salzman's as applied to the Hawazma. (1) Is there evidence that the Hawazma are becoming long-term sedentaries, settling out at either the top or the bottom of the economic scale? (2) What is the economic goal to which income from sedentary activities is applied? (3) Is there evidence of a decline in lineage corporateness and solidarity demonstrated by a lack of coresidence, or mutual economic and political support? Each of these questions will be considered in turn, and alternative models for the pursuit of sedentary activities as a pastoral strategy proposed.

In regard to the first question, it is clear that the Hawazma are not settling out at either the top or the bottom of the economic scale. Large herds are not being exchanged for capital holdings in land. Wage labor is not being undertaken by impoverished herdsmen who need cash for their families to subsist. Rather, wage labor is being undertaken by men who can afford (i.e., have up-front cash) to invest in a highly speculative venture in order to reinvest in cattle; to artificially stimulate the natural capital gains reflected in increased herd size. Not only do they have cash which can be invested in the venture, they are in a socioeconomic situation strong enough to

withstand the absence of a major segment of prime male labor.

As stressed previously, the income from sedentary economic activities, particularly wage labor, is not required to simply maintain pastoral households. Implicit in at least some of the literature on nomads' participation in wage labor is that it is undertaken by households whose survivability is threatened in order to supplement and diversify a flagging pastoral economy. The Hawazma case of participation in international wage labor indicates both a high level of investment and of risk in the enterprise. Neither the investment nor the risk would be possible for a faltering economy.

Marx calls this combination of subsistence and market activities 'operational generalization' (Marx 1977:37). However, there is a significant difference in the situation he describes and that of the Hawazma. He notes that the traditional pastoral activities are not profitable, and that the major source of income has become wage labor, that is, a shift in emphasis from pastoral to sedentary activities.

Among the Hawazma, the wages are in excess of the household budget requirements. This fact enables the nomadic wage laborer to invest his earnings. If the intent were to become sedentary, that cash would reasonably be invested in land or other sedentary

activities in the wider society. While some of the Hawazma men did invest in shops or other businesses, it is possible to demonstrate that even this was done as a strategy to support a pastoral economy as these were undertaken within the kingroup. The primary purpose to which wage labor earnings was put, was to increase capital in animals, as shown in Table 27.

The demographics of the Oulad Nuba camp studied and its complementary village of Um Batah perhaps offer some of the clearest evidence in support of sedentarization as a strategy. A survey of the camp and the village would indicate a large segment of the kingroup appears to be settled. The presence of one wife of a polygynous marriage residing in a village might also be taken, at one level, as an indicator that attempts were being made to move toward a sedentary life. Further evidence might be seen in the eagerness to educate children from both camp and town.

Periodic demographic surveys over a period encompassing several seasonal cycles would provide evidence of a different sort. Also, in order to understand the actual dynamics it is necessary not only to make population counts, but to identify the movements and residence of specific persons. Even across time the population in camps and villages may appear stable in terms of numbers, but statistics hide the fact that the residence of individuals is

constantly shifting. Evidence of this "shifting sedentarization" may be seen in Tables 18 and 19. The dynamics of this movement will be more closely examined in the following section on interactions between pastoral and sedentary Hawazma.

The solidarity of lineage corporateness can also be demonstrated. Even though there is not continuous coresidence in camps, there is a high level of mutual economic and political support. This support system encompasses relationships strictly within a camp; between a camp and various sedentary village enclaves; and extends to kin firmly established in the wider society. The case of a blood debt negotiation will illustrate this.

Two men had been killed, first, one from the Dar Nyla lineage and then, one from the Dar Sholongo. The blood debt being negotiated was for the killing of the Dar Sholongo man. The first killing (involving an argument about a betrothed woman) took place in early 1982. The second killing occurred in early April 1983. Though revenge killings are traditional, it was generally believed that this second killing was outside the acceptable kinship range in which to carry out revenge, as the dead Dar Sholongo man was only a distant relative of the 1982 killer. The case is interesting because of the activation of the entire Dar Sholongo kin group in an effort to solve the

problem, and the involvement of the wider society through the court system.

The Dar Sholongo offered to pay the blood debt (for the 1982 killing), but the Dar Nyla refused it until February of 1983. The Dar Sholongo also suffered a further punishment in that the killer was sentenced to fourteen years in prison. Shortly after receipt of the blood debt payment, a Dar Nyla man killed a Dar Sholongo man, in a situation which was apparently contrived and indicated that a revenge killing had been planned for some time.

Dar Nyla women also were apparently quite influential in inciting the young men to seek revenge. According to stories, which I heard not only from the Dar Sholongo, but other external sources, the women composed songs relating the events and advocating that their young men should defend their honor. This sort of song composition and public circulation of them is traditional (See Carlisle 1973), and, in fact, is a role which women play in public affairs. A new twist in this case was that the songs were recorded on cassettes and circulated widely around the countryside. These women's songs caused so much disturbance, even before the second killing, that the Dar Sholongo sought and received a restraining order against the further circulation of the songs and the women's singing of them. The order stated that should

the women continue singing the songs they would be subject to arrest, a serious consequence in an Islamic society. From the information I have it appears that the songs were composed by Dar Nyla women resident in an enclave in Um Batah. This enclave, at least, was the source of the recorded songs, and those "sedentary" women were the ones subject to the restraining order. Because of the adjacent spatial location of Dar Nyla and Dar Sholongo enclaves in Um Batah the songs could be heard by both sides in the dispute and had the potential of inciting violence from either side. The proximity of the two groups in Um Batah perhaps gave the songs a potency they would not have had were they sung in camps a greater distance apart.

An interesting point to underscore in this case is that in the dispute no distinction was made between nomads or townsmen. The first killing occurred in Kadugli where the dead man was a student. The women actively involved in inciting a traditional solution to the killing were sedentary. The young men whose loyalties they stirred, were nomadic. And, the revenge killing took place at a watering place, where the young men of the Dar Nyla and Dar Sholongo camps involved had brought their animals at the same time.

Despite the attempts to control the situation, both by the two lineages and the government

authorities, the second killing was effected. Then began a series of meetings and other actions. The first was a meeting of the Dar Sholongo and the Vice Commissioner at Kadugli a few days after the killing. The Vice Commissioner extracted a contract from the Dar Sholongo stating that they would refrain from further violence or be subject to payment of 1000 head of cattle. In comparison to a blood debt payment which is 61 head of cattle, this number is indicative of the restraint the Vice Commissioner wished to enforce.

Fifteen days after the killing a meeting was held at the dead man's camp. This was a multipurpose gathering. First, a "funeral" and sacrificial meal is held both 15 and 40 days after a person's death. Secondly, and in this case foremost, the meeting was held to build solidarity and plan strategies for dealing with the killing. The Commissioner from Kadugli was expected to come and to communicate any decisions he had made regarding the case, but he did not arrive. Time had been short to circulate notice of the meeting, but still, there were more than 50 men present.

One of those was Tawir El Sanosi from Khartoum, a Dar Sholongo whose position was Brigadier in the Military Survey Unit of the Sudanese Army Engineer Corps. He arrived with appropriate pomp in a military

jeep, accompanied by several officers. It should be noted that it is unlikely that news of events was transmitted to him by telephone. Communication by this mode is difficult in Sudan. Other factors which indicate the significance of Sanosi's connectedness are that it takes at least two days to drive across the desert from Khartoum to Kadugli, and that doing so involved the ability to secure extremely scarce resources in the form of a vehicle and gasoline.

Both Sheikh Juma and Tawir Sanosi gave speeches going over events and advocating solidarity. Juma is a powerful and influential political leader among the DarSholongo and an eloquent speaker. Sanosi gave precedence to Juma, but shared the limelight. Sanosi's influence was also evident, due to his high-ranking government position. (He told us that in a few months he would be travelling to Washington, D.C. to negotiate cooperation in preparing new maps of the Sudan.)

While it was never clear exactly what Sanosi contributed to the negotiations, his presence is indicative of the sort of corporate solidarity that can be mustered in such cases. As an individual he is very much a member of the wider society, beyond the Hawazma. And yet, he, and his kinsmen, continues to view himself as a Dar Sholongo. At one level he was responding to a bond of kinship which brought him to

assist his lineage solve a blood debt problem. At another level his position was one of mediator and facilitator between the Dar Sholongo (his kinsmen) and the wider society to which they had to appeal in order to solve the problem facing them. His presence alone asserted some sort of influence in dealing with regional government officials. His presence is also indicative of the continuing value placed on the pastoral ideology, and the range of social networks which can be activated for a variety of purposes.

On the second day of this meeting a representative of the Regional Government from El Obeid, Selman Sulieman, came to tell the assembled group that while there was no decision as yet, he would return in seven days to tell them of any decisions. The Dar Sholongo had requested that the killer's family (iyal rajul) be made to take a different migration route in the upcoming rainy season in order to minimize contact between the Dar Sholongo and the Dar Nyla. The Dar Sholongo were prepared to take their petition as far as necessary - through the Regional Government to the President of the Sudan.

Ten days after this first large meeting, a second was held at Sheikh Juma's camp near Kadugli. Over 200 men representing all sections of the Dar Sholongo came, including men from camps in the surrounding area as well as from the town of Dilling, some ninety miles

distant. The most important man at this meeting was Musa Abohim, the Dar Sholongo omda (a tribal official in a system of native administration). Another important person attending was Mohamed Juma Didan, an accountant at the Teacher's Institute in Dilling.

Again, the purpose of this two-day meeting was to formulate demands to the Commissioner and to plan strategies. It was decided not to wait for the Commissioner to come to them, but rather to take their demands to him immediately. Mohamed Juma wrote several letters stating Dar Sholongo requests and typed them at the WSARP office at the research station nearby Juma's camp. A delegation of men then took the letters to the Commissioner in Kadugli. The Commissioner agreed with the Dar Sholongo request to require the iyal rajul of the Dar Nyla killer to change migration routes, and also, to move their residence (even the settled members) from Kadugli to the town of Um Serdeba.

There were several other meetings with the Commissioner in Kadugli. There were also several formal court hearings for which the Dar Sholongo hired well-known attorneys to prosecute the killer. The money for the attorneys' fees, several thousand Sudanese pounds, was collected from all the Dar Sholongo membership. At the last court hearing, in May 1984, the Dar Nyla killer was sentenced to be hanged.

This sentence was imposed in accordance with Sharia' law which had recently been instituted in the Sudan. The convicted man was taken to the prison in El Obeid to await the processing of the orders to carry out the sentence. The procedure was for all death penalty decisions to be reviewed by President Nimieri, who would make the final decision on whether or not to carry out the sentence. Mohamed Juma told me that the man probably would not be hanged, but would receive a long prison sentence. About this same time, the Commissioner in Kadugli sent lorries to move the Dar Nyla people to Um Serdeba.

The final decision on the sentenced Dar Nyla man had not been reached before I left the field in October, 1984. Also, the Dar Sholongo continued to refuse to accept payment of the blood debt. This meant that even though the event was reaching closure in terms of the wider society, it was not concluded in terms of traditional Hawazma practices. Mohamed Juma told me that the Dar Nyla would not return to the old migration route for several years. In an ironic twist, at the time Sharia law was instituted, Nimieri decreed that most prisoners incarcerated at the time be released, the purpose being to begin with a clean slate. Among those released was the Dar Sholongo killer who had received a 14-year sentence. Another well-respected Dar Sholongo man told me that though

they were glad for a settlement, the Dar Sholongo were grieved by the death penalty meted out to the Dar Nyla. He said that meant both the Dar Sholongo and the Dar Nyla would lose a man - one by murder; one by law - and that was not good.

This case illustrates the activation of a mechanism which Marx (1977:40) calls 'asserted ideology.' He describes several means by which the Bedouin of the Sinai assert the value for pastoralism as expressed in tribal and kin relationships. These ritual reinforcements of group membership included reunions and communal pilgrimages to saints' tombs. The outcome of the Hawazma blood debt negotiation is comparable to the case Marx describes. The Dar Sholongo held a reunion which drew participation from a wide network of kinsmen, both nomadic and settled. They contributed to a common cause, a case of one lineage against another, with moral, verbal, and financial support. The collective action reasserted and reinforced the ideology of lineage solidarity. In other words, lineage corporateness is strong, even with the absence of total coresidence.

In his study of Fur and Baggara ethnic identity, Haaland (1969:67) makes the point that: "There are ethnic groups that maintain their unity despite the fact that their populations are distributed over niches that imply just as radical differences in life

situations as that between sedentary and nomadic Fur. Arabic nomads, farmers and townsmen is one such case."

From the foregoing discussion it is concluded that Hawazma participation in sedentary activities cannot be described by the models presented by Barth, Salzman, or any variations of them.

The Hawazma Sedentary Pastoral Strategy:

Barth's (1981) discussion of nomad-sedentary relations offers a good point from which to begin to understand the Hawazma sedentary strategy. Barth suggests that where the pastoral and agricultural sectors are monopolized by discrete ethnic groups, the pastoral group will have the advantage over agriculturalists (Barth 1981:193). This inequality between pastoralists and agriculturalists is due to the continuing effect of an inherent growth potential of pastoral production, tied to a self-perpetuating group. Thus, he says, there is a tendency for income flow to be from the agricultural to the pastoral sector (Barth 1981:193). Additional agriculturalist resources are siphoned off to urban elites through taxes or rents, with population growth and household division further dissipating any small surpluses.

The specific characteristics of pastoral and agricultural production lead to the results Barth notes. In part, these have to do with the nature of

pastoral and agricultural capital.

Pastoral capital is primarily in herds. Saving and investment is necessary as herd capital is perishable and must be replaced. However, such investment is possible without the benefit of economic institutions since one of the main products of herds is calves. Pastoral capital increases automatically, without direct cost.

Agricultural capital is not self-reproducing. Land is essentially imperishable and cannot be consumed by a management unit, except through elaborate economic institutions that facilitate its conversion (Barth 1981:189). Also, land cannot be increased by investment of its products, i.e., crops, except where, again, economic institutions exist to effect the conversion.

Thus, in pastoralism there is always the possibility of rapid growth or decline, regardless of the existence of public economic institutions. This is because the product of a herd is automatically a capital gain, unless diverted (by decision or disaster) from reinvestment. Agricultural production does not have access to such a ready means of growth. Unless there are public institutional facilities for conversion, the agricultural sector will stagnate from a lack of investment opportunities (Barth 1981:189).

Peasant households also suffer from debt burdens to middleman entrepreneurs. This is certainly the case for farmers in the Nuba Mountain region, who find themselves caught in a system of credit lending (see Reeves and Frankenberger 1982:102). In the savanna ecological zone where both Nuba agriculturalists and Hawazma herdsman are found, agriculture is a more risky enterprise. Even in years when rainfall is fairly good, agricultural households are faced with an annual hungry period. Caught without access to cash to purchase their needs, either for food or manufactured goods, farmers become indebted to various middlemen for their subsistence - even for the means to produce the next year's crops.

Pastoralists, on the other hand, can readily convert animals to cash or other goods. They also profit from the sale of by-products -milk, hides, manure- for which there are not really any agricultural equivalents. Unless there is a major disaster, pastoralists have more subsistence options. They can convert animals or milk to cash or goods. They can subsist on purchased grain, or emphasize milk and milk products in their diet. Hawazma response to the recent drought situation in the Sudan illustrates.

The period between 1980 to 1984 saw an increasing drought situation and increasing crop failure in the Nuba Mountain region, as in other parts of the Sudan

and Africa. In 1983, in much of the region crops failed entirely and farmers faced a critical food shortage. Cattle herds were not in good condition but they survived fairly well, and the market demand for meat continued. Between 1982 and 1984 grain prices for the sorghum food staple escalated 600-700%. The Hawazma grumbled about the high costs, but they were able to purchase the grain they were not able to produce. Farmers could not. Towards the end of this period Nuba farmers began to converge on towns such as Kadugli, seeking access to government grain distributions.

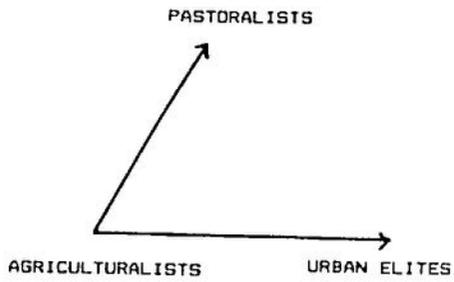
It should be pointed out that the environment impinges to make even pastoral survival precarious. As discussed earlier, in 1984 the Hawazma were unable to traverse more than half of their usual rainy season trekking distance due to the lack of water and pasturage. And, just into the ecological zone about 200 miles north of Kadugli, which also demarcates the typical extent of the Hawazma trek, pastoralists suffered severely from the drought. However, it seems to be true that pastoralists can maintain their resilience to the exigencies of their environmental niche much better than agriculturalists utilizing the same zone. Herds survive better than crops.

Barth's model for nomadic-sedentary interactions describes relative levels of economic well-being for

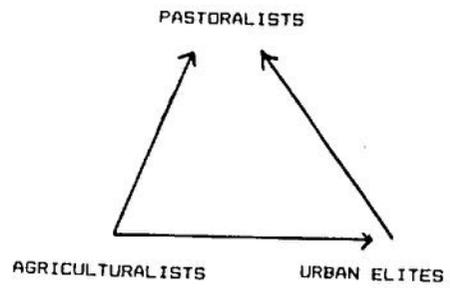
each group in a system of symbiosis. If, in a symbiotic relationship, pastoralists are economically dominant, what happens if pastoralists manipulate the situation so that their system includes pastoral and sedentary activities? In this case, pastoral and sedentary cannot be described as being two distinct ethnic groups (e.g., Hawazma and Nuba, or Hawazma A and Hawazma B). Rather, pastoral and sedentary represent activities, encapsulated by one ethnic group, the Hawazma, into their pastoral system.

Graphically represented, Barth's model would appear as in Figure 20a. In the social context which includes the Hawazma, the model might better be represented as in Figure 20b. Even in this simple, symbiotic model Hawazma pastoralists are capable of drawing economic flow both from agriculturalists and urban elites. The reason for this is that in the Sudan, pastoralists -Baggara and others- monopolize the national supply of meat. Cattle from the Nuba Mountain Region, for example, from the Hawazma, Dinka, and Shilluk, are funnelled through the Kadugli livestock market to Dilling, El Obeid, and even to Khartoum.

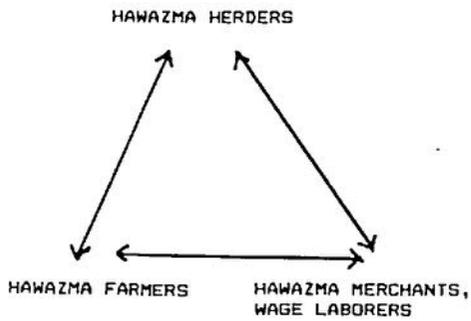
Pastoralists also monopolize the national supply of milk. The potential of this market activity has been described earlier. While fresh milk from Hawazma cattle in Kordofan cannot be shipped to Khartoum,



A. Barth's Model.



B. Hawazma Sybiotic Model.



C. Tactical Sedentarization Model.

Figure 20. Nomadic-Sedentary Interactions.

cheese can. And, much of the cheese to be found in Khartoum markets originates in the mobile cheese factories of Kordofan, made from milk from the herds of Hawazma suppliers.

As Barth suggests for nomads in general, Hawazma pastoralists in a symbiotic relationship with the wider Sudanese society are in a position of relative economic strength. By including many sedentary production activities in their pastoral system the Hawazma have further strengthened their economic position. When the Hawazma undertake sedentary activities as a pastoral strategy, the model can be represented as in Figure 20c. While the Hawazma appear to be emphasizing this sedentary strategy model, it is not the sole model, and the symbiotic model also continues to describe some of their relationships in the wider society. Traditional pastoral economic flexibility was found in movement from herding to hunting and gathering activities. (See Cunnison 1958 in regard to such activities among the Humr.) Here, the Hawazma are demonstrating continuing flexibility, but are moving into sedentary sectors, the only ones still remaining open to them. There are several aspects of the sedentary strategy model which should be noted.

One of the most important aspects is that the economic product flow is kept within a close-knit kin

group. This circumvents the drain from wider society middlemen. One of the best examples from my fieldwork is of an abattoir and butcher shop venture in which several Oulad Nuba men cooperated. Two of the men had been among those going to Saudi Arabia for wage labor. After they returned they invested, along with Ahmed Mohamed in building a butcher shop in Um Batah. Ahmed already owns a grocery shop in Um Batah, where he is also branching out into tailoring. Their butcher shop is the only one in the hamlet of Um Batah, and is located not too far from Ahmed's grocery. Another of the men, Mohamed Daduna (Ahmed's sister's son) had already been establishing himself as a livestock broker, buying from herd owners some distance from the Kadugli market, and selling there.

The butcher shop will provide an outlet for the cattle herd-owning members of the Oulad Nuba may wish to sell. Selling directly to their kinsmen will effectively eliminate the middleman at the Kadugli livestock market. This will enable the herd owner to realize a higher profit: that on meat per kilo rather than the on-hoof market price. Neither the butcher shop nor the Oulad Nuba herd owner will be engaged in a totally self-contained kinship arrangement. The butcher shop will undoubtedly seek other sources of supply. The herd owner may wish to sell animals destined for some other purpose than meat. However,

this enterprise allows both the Oulad Nuba shop owners and herdsmen to tap into resources in a way which would not be open to them if they were solely in the sedentary wider society (as sedentarized nomads a la Barth and Salzman) or solely pastoral nomads, and were members of two distinct ethnic groups. By containing the economic activities within the kin group, both shop owners and herdsmen will have more investment cash which can be put into increasing herd size - herds which both sedentary and nomadic Oulad Nuba own.

Another aspect of the sedentary strategy is that each segment of the Hawazma specializes in producing certain requirements. The pastoral Hawazma, often technically labelled "transhumant," because they have traditionally grown some crops, cannot expect to produce much more than about 1/6 household sorghum requirement. A herder who plants is an opportunistic agriculturalist; sowing, and reaping whatever survives while he is on the trek. Completely sedentarized persons do not have access to their own milk, but must purchase it from pastoralists whenever they are camped nearby. However, with in-group economic specialization each sector supplies the other. Pastoral households are supplied with most of their grain needs by their counterpart agricultural households. Sedentary households are loaned a milk cow by a kinsman in the pastoral sector. When it goes dry it is returned to

the herd and exchanged for a fresh one.

Often this specialization and exchange takes place between the female-headed households of a polygynous marriage. As discussed in Chapter IV, a common pattern is for a man to have one wife resident in a nomadic camp, and another resident in an agricultural village or town. Often the families are evenly matched in size so that each provides a significant labor force. The predominantly sedentary family specializes in producing crops, while the predominantly pastoral family specializes in producing livestock and milk products. Rather than either family purchasing the products it does not produce, there is an exchange. While the needs and the produce available for exchange, for either family, are not always balanced, the transactions significantly reduce the need to obtain subsistence goods from the wider society.

All sorts of goods and services move back and forth between the economic sectors of the Hawazma. If these were not available from kinsmen, they would of necessity be sought from the wider society. For example, in addition to the food staple, sorghum, Hawazma sedentary families often produce sesame. Sesame is a cash crop which can be sold as-is, or converted by the household to oil and a by-product, sesame cake. Both the oil and the sesame cake can be

sold. However, the pastoralists use sesame cake as a cattle-feed supplement, primarily to stimulate milk production in the dry season. If it were not available from their kinsmen, they would purchase it from the market. But it is more beneficial to both pastoral and sedentary Hawazma to keep the economic flow within the kin group.

There were at least two sesame presses owned within the Oulad Nuba kin group. One was in the village of Um Heitan, where Hamid Hanai's first wife resided and her sons farmed. There was another, owned by Amna Mohamed's son, in Um Batah. Hakmula, Hamid Hanai's second wife, purchased sesame cake from his sedentary wife or from her nephew in Um Batah. The press in Um Batah also supplied sesame cake to Sheikh Younis and others residing in the camp. In 1984, when the camel used to operate the press in Um Batah died, no sesame cake was produced, and Younis did not purchase it elsewhere.

Labor can also be effectively allocated between the nomadic and sedentary sectors of the Hawazma. If, for example, the sons of a man's sedentary wife are not required to assist with agricultural tasks, they may live and work temporarily in the camp to assist in herding activities. Sons who are primarily herders might go to assist with the harvest, which

occurs in December or January at a slack period for pastoral activities.

Sheikh Younis Mohamed had no sons by his wife who resided in camp. His wife who was residing in Um Batah, has seven sons. The eldest is married and resides in the camp. Each of the next four sons assists with pastoral activities when they are not in school. The youngest of the four lived in camp most of the dry season and helped his father by herding small stock. The other three assisted when extra manpower was required in such activities as vaccinating the herds. Once they had completed their secondary education they joined the camp for the rainy season trek.

As illustrated in Figure 20c, the economic flow is multi-directional. Since another aspect of the exchanges is the kinship ethic, the flow back and forth between the economically specialized sectors of the Hawazma is mutually supportive. This dimension of mutual support and solidarity is not a part of Barth's symbiotic model. In fact, the interactions represented in Barth's model are motivated by self-interest. The interactions represented in the sedentary strategy model are motivated, at least partially, by concern for group cohesion and viability.

Since the concept of mutual support and solidarity is present transactions between the various economic sectors may involve something other than products or labor. The Hawazma are inserted at many points in the wider society. While individuals may be primarily concerned with earning a living at a wide variety of occupations, they maintain an interest in the pastoral ideology. Thus, they are often in a position to assist their nomadic kinsmen to gain access to goods, equipment, services or information otherwise available only to full-fledged members of the wider society.

Mohamed Juma, for instance, who is employed as an accountant, has contacts through which he can gain access to a tractor and benzine. He and his pastoral kinsmen have rights to a large area of contiguous fields, and together they prepare the land and plant the crops which will supply both sedentary and nomadic households. Another Dar Sholongo man, Shefia, who lives in Um Batah, is a sheep merchant at the Kadugli livestock market. He buys and sells for his relatives and advises them on market conditions and prices.

Previous sections have discussed how the Hawazma have no hesitation about utilizing whatever they find valuable in the wider society. And, they are very astute in doing so in a manner which supports their pastoral nomadic mode of life. But when they

undertake sedentary occupations and activities themselves, they greatly strengthen their position. There are several results from this strategy. (1) They are less dependent on the wider society infrastructure. This is a crucial factor since the infrastructure is often ineffectual and provides few avenues or incentives for agriculturalists from other ethnic groups to make any economic gains. (2) They do not need to deal with middlemen. (3) By containing the economic flow within their own society they circumvent the drain described by Barth. (4) Any surpluses, whether from agriculture, pastoralism, or wage labor, are more readily converted to capital in herds.

The Place of Gender Roles in this Scheme:

One of the important mechanisms which facilitates Hawazma participation in both the pastoral and sedentary economic modes is the polygynous marriage. While some men have more than one wife residing in a camp, and one Oulad Nuba man had wives in two different camps, the predominant pattern is for one wife to reside in camp, and another in a village. Even though the Hawazma are a patrilineal society, I would assert that the most important link which enables participation in both pastoral and sedentary economies is through women.

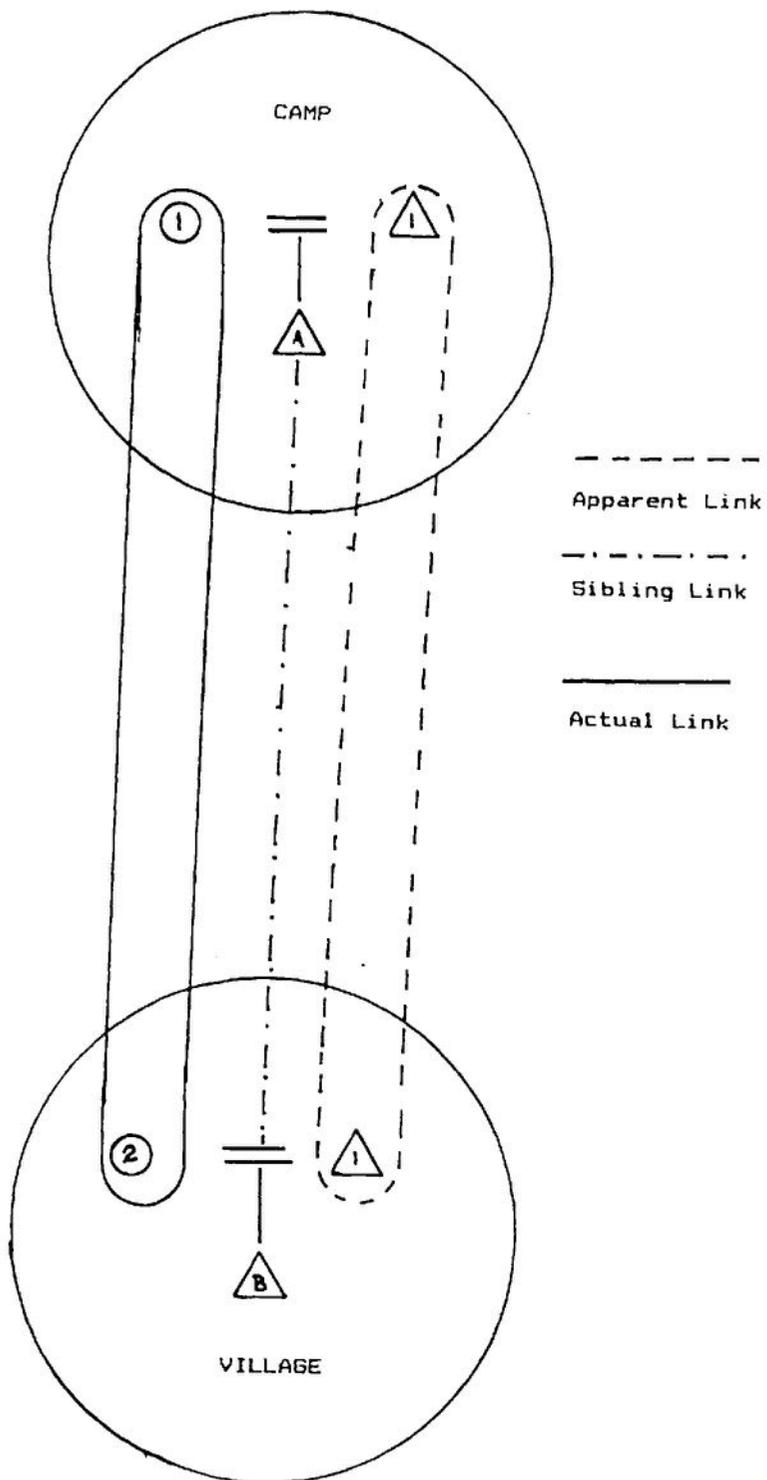


Figure 21. Noadic-Sedentary Link Through Women.

Diagrammatically the links between camp and village can be illustrated as in Figure 21. Since the society is patrilineal and the person who figures in both the pastoral and sedentary households is the male head-of-household, it would appear that for any Ego, the link is Father. Closer examination reveals something quite different.

First of all, the Hawazma use a system of classificatory kinship terminology, so that:

F/FB	=	F
M/MZ	=	M
Ego/Cousin	=	B or Z
B/1/2B	=	B

Secondly, the preferred marriage pattern is for one wife to be FBD and another to be MBD. Because of the classificatory kinship system, these women are classificatory sisters.

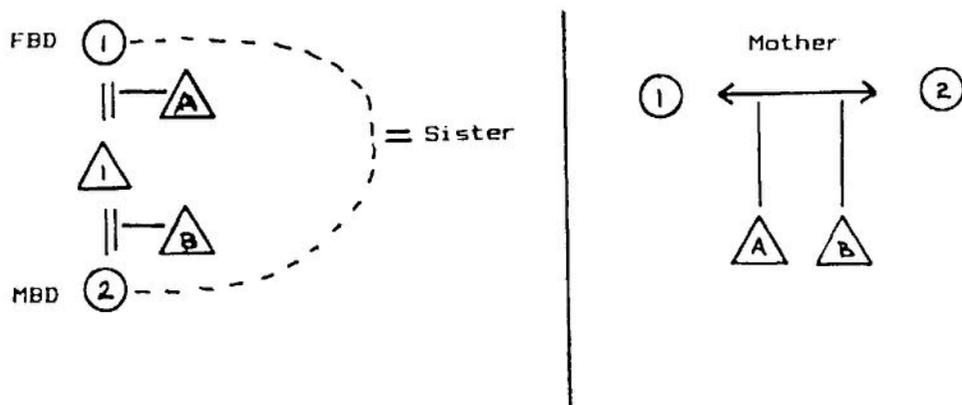


Figure 22. Classificatory Kinship Terminology Linking.

Thirdly, even if the marriage pattern is not the preferred one, the classificatory system makes the women equivalent. Thus, any wife of Ego's father is addressed as, and considered to be Mother.

Classificatory kinship terminology blurs the distinction between relationships: mother=stepmother; son=stepson; brother=half-brother, for example. The result is that the actual nomadic-sedentary link resides with the women who are both Father's Wives. Therefore, if Father is nomadic, the nomadic-sedentary link for any Ego is Mother.

Chapter XI

Conclusions

Several goals were set out in Chapter I: (1) to describe the native Hawazma Baggara normative model; (2) to relate observed behavior to the normative model; and (3) to test, clarify, and expand several anthropological concepts, including those of gender, household, production unit, nomadism and sedentarization. Each of these concepts has been examined in terms of both the literature and an analysis of field observations. In summary, a number of points can be reiterated.

At the outset it was suggested that segmentary societies appeared to be an excellent vehicle for better understanding the sorts of complementary oppositions found in the literature on gender role theory. Segmentary societies are themselves based on complementary oppositions, and are characterized by divisions into public and private domains, supported by segregated gender roles. Understanding the nature of these complementary oppositions and how they are operationalized in social behavior has been a recurring problem in the literature. Levi-Strauss'

models have provided a useful analytical tool for solving some of these problems.

Using Levi-Strauss' models it has been possible to demonstrate that inserting the oppositional pair, male:female, into a set of oppositions such as culture:nature, or public:private, results in a nonsequitor. Rather, both men and women can mediate between nature and culture, or public and private. In this sense, the mediating gender may transform one aspect to another. Some transformations are one-way, and some are multi-directional, underscoring the ideas of context and reversibility or change. In a transformation model, such as those described in Chapter V, male:female becomes superordinate, because either gender can effect the transformations.

In such transformations there are several possibilities. The transformation process may be the exclusive domain of one gender or the other. The transformation process may be shared, or, it may be gender interchangeable. The situational context and/or status may define the transforming gender, or even age category as a subset of gender.

Complementary pairs, for example, public:private, or nomadic:sedentary, can represent a number of different social and behavioral contexts. Shifts (or transformations) of an individual from nomadic to sedentary, or vice versa, may be related to that

individual's stage in his life or family developmental cycle. A shift may also reflect a strategy decision.

Status may be a part of the models, but the models do not inherently imply domination and subordination. As shown, even when "sedentary" represents the public domain, women can be mediators between nomadic:sedentary. This ability of women to be mediators between these domains demonstrates that women in segmentary societies are not subordinate, but that the appearance of subordination in some public contexts is impression management as an expression of group solidarity. Since the public domain is often one of posturing and impression management, it is incorrect to assume ipso facto that female subordination (or the appearance of it) in the public domain means female subordination in the private domain -or other public domain contexts- or any cultural devaluation of women.

The appearance of female subordination in the public domain may itself be posturing, demanded by Hawazma perceptions of in-group solidarity. This can be tested behaviorally by identifying examples of public/female/subordination as well as public/female/dominance. Such examples have been discussed in the case studies of milk marketing; women going to the police in the dispute over a premarital pregnancy; and women's purchase and management of feed

supplements for milk cows. Further support can be found in counterpart tests of male behavior.

The public and private domains both exist behaviorally, conceptually, and ideologically in segmented societies. However, these domains cannot be assigned gender. Particular knowledge or behavior may be assigned to either the public or private domain. Although, as context or situations shift, some areas of knowledge and behavior may appropriately move from one domain to another. In this view the structural models are dynamic.

Classificatory kinship, that is, the use of classificatory terminology, may be the transformer in the public or private domains. This usage creates the illusion of obligation and/or solidarity where otherwise there might be none. However, the illusion can become reality and be acted upon. In a public context this may be particularly useful, though in a private context, such terminology may strengthen multiplex kinship bonds by underscoring affection or respect.

Another conclusion from this study is that Hawazma households cannot be categorized as only nomadic or sedentary, particularly if they are viewed over an entire domestic life cycle. Rather, the Hawazma households studied are nomadic, but some (or many) participate in the sedentary economic mode at

some stage in the domestic developmental cycle. Also, households are best defined by their female manager/owners, rather than by their patriarchal male protectors.

The examination of Hawazma economic activities and gender roles elucidates the concepts discussed in the chapters on gender, the public and private domains, and households. Milk production and marketing, and international wage labor provide in-depth case studies to support those prior arguments.

Another conclusion reached from the study of economic activities is that: Sedentarization, or the pursuit of sedentary economic activities is a pastoral nomadic strategy, undertaken to maintain pastoral nomadism. Here again is seen the multi-level nature of the models. Nomadic:sedentary may, in some contexts, be equivalent to private:public, even in interactions between kin. In other contexts, the nomadic:sedentary complementary opposition may be solely contained within the private (i.e., Hawazma) domain.

The sedentary strategy keeps economic product flow within a close kin group. It circumvents drain from wider society middlemen, and strengthens the pastoral nomadic position in the wider society. The sedentary strategy also results in more available

resources which can be readily converted to capital in herds.

Hawazma participation in both the pastoral and sedentary economic modes is facilitated by polygynous marriages. It is asserted that the strongest link for participation in both economic modes is through women.

Publically, and at some levels, privately, the Hawazma normative social model is patrilineal and patriarchal. However, this analysis has demonstrated that behaviorally, the social models are fluid and egalitarian, for both men and women. Further, the dynamic, mediating nature of gender roles facilitates an economic system which enables the Hawazma to maintain a viable position in the wider Sudanese society.

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Glossary of Arabic Words

akhuk tawali	full brother	أخ طوالي
(Standard Ar. is: shaqiq	شقيق	
angoreb	bed, cot	عنقريب
Baggara		بقارة
bint khal	Mother's brother's daughter	بيت خال
bint amm	Father's brother's daughter	بنت عم
boul al dem	schistosomiasis	بولك الدم
bugar (buqar)	cattle	بقر
'Eid	feast	عيد
deret	dry season (beginning)	
fariq	camp	فريق
(In standard Ar. means group)		
fatha (fatiha)	"opening"	الفا تحة
(The 'opening' or Exordium of the Koran, a commonly recited prayer. Used by Baggara as part of the mourning ritual-recited to bereaved.)		
fitur	breakfast	فطور

gaffir	guard	غفير
(Standard Ar. is: khafir		خفير
gardud	non-cracking clay soil	قردود
hafir	waterhole	حفير
haji	pilgrim to Mecca	حاجي
hamar	hut	حمار
(Refers to thatched dome-shaped dry-season hut.)		
hayy	tribe, lineage	حي
hela	village	حلة
(In standard Ar. means way station, stopping place.)		
(Standard Ar. is: qaryah		قرية
henna	henna (plant dye)	حناء
hosh	courtyard	حوش
ibn amm	cousin	ابن عم
jahoba	hut	جحوبة
(Refers to thatched oblong dry-season hut.)		
jebel	mountain, hill	جبل
jelabiya	man's long shirt	جلابية
karama	sacrifice	كرامة

khali	(my) uncle mother's brother	خالِي
kharif	rainy season	خريف
khashm beit	lineage	خشم بيت
(Standard Ar. is: nasab		نسب
khor	watercourse, stream bed	خور
(Synonym is: wadi		وادي
mashaish (mashisha)	waterhole dug in bed of khor	مشيشه
milwa	4.125 liter (dry measure)	ملوة
nisba	attribution, reference	نسبة
(Same Ar. root as nasab - lineage.)		
qabila (kabila)	tribe, lineage, family	قبيلة
qoz	stabilized sands	قوز
rakuba	sun shelter	راكوبة
Ramadan	Islamic month of fasting	الرمضان
rashash	early rains	رشاشي
rihal (ruhal)	trek (roving)	رحال
rihali	nomad	رحلي
roob	buttermilk, soured milk	روب

rutl	1 lb. approx.	رطل
sakat	by itself, alone	ساكت
	(In standard Ar. means silent, refuse to tell.)	
self	summer	صيف
semn	clarified butter	سمن
shajara	tree, men's place	شجرة
sharia'a	Islamic law	شرعية
sharmut	dried meat strips	شرموط
	(From Ar. sharmata - to shred	
sheikh	leader	الشيخ
shita	winter	الشتاء
tebeldi	baobob tree	التبادي
tin	clay (soil)	طين
tobe	woman's sari-like clothing	ثوب
wagiya	37.44 grams	أوقية
zariba	thornbrush enclosure	زريبة

