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THE DENI

OF WESTERN BRAZIL

Lingenfelter THE DENI

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Gordon Koop

THE DENÍ OF WESTERN BRAZIL

A Study of Sociopolitical Organization and Community Development

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SIL MUSEUM OF ANTHROPOLOGY

PUBLICATION 7

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THE DENÍ OF WESTERN BRAZIL

A Study of Sociopolitical Organization and Community Development

Gordon Koop
Sherwood G. Lingenfelter

SIL MUSEUM OF ANTHROPOLOGY

DALLAS, TEXAS
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We are greatful to Jim Wheatley who made the initial arrangements for the study, to Tom Crowell who has patiently supported its completion, and to Arne Abrahamson, John Harmon, and the support staff at Porto Velho who greatly facilitated our work there. We owe a special debt of thanks to William R. Merrifield whose critical comments were most helpful in the preparation of the final draft of this monograph and to Lynne Taylor who gave many hours of her time typing the original manuscript.

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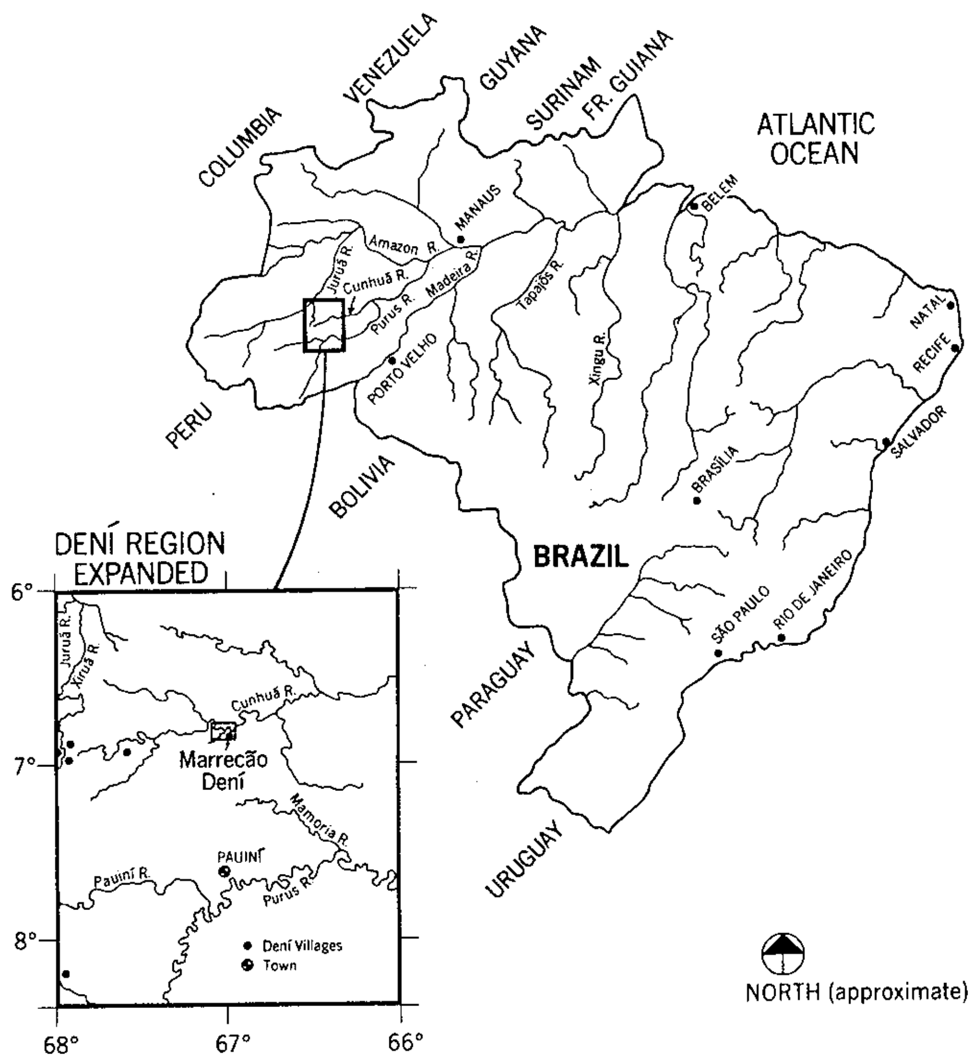

1. *Introduction*

Dení is the name given to the people in the southwestern portion of the State of Amazonas, Brazil, who speak mutually intelligible dialects of a language of Arawakan stock. The Dení inhabit small settlements scattered across a vast area from the headwaters of the Purus River to the headwaters of the Xiruá and extending east as far as 66°W between the Purus and the Juruá (see map on p. viii). Rodrigues (1967) has classified Dení as a member of the Aruá trunk of the Arawak language family. Other members of the Aruá trunk living in Brazil include the Jamamadí, Paumarí, Jaruara, and Culina.

The Dení constitute a tribe only in the sense of sharing a common language. The Dení of each local region have a specific name with which they identify themselves. For example, the Upanavadeni are those people from the Upanava (Mamoriá) River, and the Dimadeni are those from the region where the Mamoriá empties into the Purus. Two other local groups, Kamadeni and Tamikurideni, originate in the contiguous regions on the headwaters of the Mamoriá. Dení report the existence of many such groups, and in fact, I visited one such group, the Shivakuadeni, far away on the Inauini River, and found that their language is mutually intelligible with Upanavadeni and others living near the Cunhuá (Tapuá).

Because epidemics such as measles have within the last forty years substantially reduced local populations, the survivors have often joined together and formed new local communities. The particular village on the Marrecão (7°S, 67°W), a small tributary of the Cunhuá, that furnishes the subject for this study is one such composite group. The ancestors of the Marrecão Dení are primarily Tamakurideni, Upanavadeni, Varashedeni, a group originating on the Aruá. Genealogies collected in the Marrecão village included people from another village of Upanavadeni, currently located on the Igarapé do Indio of the Cunhuá and a village of Kunivadeni and Varashedeni located on a tributary of the Xiruá. I (GK), subsequently interviewed the chief of the Igarapé do Indio village, verifying the Marrecão information, and supporting the conclusion that people from these groups

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had intermittent contacts, and occasional intermarriages. Some women in the Marrecão village said they originated from groups other than those named above, indicating an even wider range of contact and intermarriage in the recent past.

The primary objective of this report is to describe Dení social and political organization as observed in the Marrecão community. Since previous studies of the Dení are either unreported or nonexistent, this work fills an important gap in the ethnography of Arawakan speakers in Brazil. At the same time, the authors were seeking an understanding of Dení political process and procedures for decision making, particularly as they applied to a program of community development already under way in the Marrecão village. The description of Dení family, kinship, community, political process, and decision making furnish the subject material of chapters 2 through 6; chapter 7 presents the subsequent analysis of the community development project with its specific implications for the Dení; and chapter 8 raises some questions of broader concern for community developmemt in small-scale societies.

To present an historically accurate portrait of the origins of the village of Marrecão is nearly impossible. No historical records were available to the authors, if indeed any exist. The sketch which follows was compiled from oral accounts by living Dení of places and events that were important in their lives. The chronology is relative, with only approximate dates prior to 1965. I estimate that the oldest person in the village is approximately fifty years of age. None of the events described occurred before the birth of that person.

The oldest people in the village remember living above the mouth of the Mamoriá on a small tributary of the Pauiní River. The time period was approximately 1930, and Brazilian traders had recently penetrated the area in search of rubber. Two Brazilian *patrões* bought rubber and hides from Marizanu, the village chief and father of the oldest man in the present village under study. One of the Brazilians had intercourse with a Dení woman, and she conceived a daughter who is one of the two widows in Marrecão.

The village near the Pauiní was evidently small, with only one field. Within a couple of years the people moved to a site on the Mamoriá River. Soon after that they contracted measles and after some people died, they fled to the headwaters of a tributary of the Cunhuá called the Aruá. On the Aruá they joined another group and established a large village with many fields. Several years later two Kamadeni men from the Mamoriá came to this village and killed one of the chiefs named Zukuvi, shooting him with both shotgun and bow and arrow. Some time later measles swept through the population again killing many, and once more the people fled their village. Marizanu's group separated from the others and made a series of

moves over the next few years from one to another tributary of the Cunhuá until they settled on the Ziara River around 1945. Measles found them again and they moved twice in the next five years upstream on the Ziara to escape these epidemics. About 1950 Marizanu died and the group split into two clusters that moved to successive locations downstream on the Igarapé Pretinho, a tributary of the Cunhuá. Accidents caused people to abandon sites before fields had matured. One man was killed and partially eaten by a jaguar. Another accidently shot himself with a shotgun and died. The people felt the spirits were bad and moved to other places.

About 1955 several clusters joined to form a large (15–20 households) village on the Igarapé Pretinho. Over several years they developed seven fields, then disaster struck. First, a Brazilian named Sabrão poisoned one of the chiefs to steal his wife (the woman with a Brazilian father). In spite of this, the woman refused to go with Sabrão. Then another measles epidemic killed many men, women and children, and the people quit their village for another site further downstream toward the Cunhuá, where they remained until about 1962.

In 1962 they established a new village near the Cunhuá named Maraviza where Hima, the founder of the present village, became chief. The village had fourteen households and developed six fields over several years. It was at this place that these people made contacts with the two Brazilians, Chico Serveiro and Adriano Lopez, for whom they have worked periodically since that time. In 1965 a member of the Summer Institute of Linguistics, Paul Moran, began linguistic research in Maraviza. In 1966 one of the villagers went to trade on a tributary of the Xiruá and was shot to death by Dení from another area. The people at Maraviza, fearing further attack, fled deeper into the forest to a tributary of the Igarapé Pretinho. Paul Moran found them living at a place the Dení call Kuhu where they stayed for only two years, after which they resettled closer to the Igarapé Pretinho.

In 1971 the village split again and six households moved far down the Cunhuá to the Mosego River where they could work for Chico Serveiro. Another eight households moved to the tributary Marrecãozinho north of the Cunhuá. Two households moved near Adriano Lopez on the Cunhuá and selected the present village site.

The recent history of these people shows a number of salient facts. At no time have they lived longer than five or six years in any given location. They move often and suddenly, provoked either by conflict with outsiders or by fear of local spirits which have caused accidents or sickness and death. They tend to divide into small villages rather than to continue population expansion in a single area. These small villages may recombine from time to time to form larger villages if local conditions seem favorable. These facts are helpful in understanding the origin and growth of the present village on the Marrecão.

2. *Village Social Organization*

Village Composition

The Marrecão village of Dení has existed at its present location since about 1973. The first settlement was just a small hamlet of four families. They cleared and burned a field the year before with the help of local Brazilians who furnished the cuttings for planting the field and took much of the first harvest. The four families built houses in a small clearing near this field early in 1973. With the help of a visiting family they cleared and planted a second field that year. In 1974 the fifth family built a house in the village, although they spent most of the rainy season collecting latex *(sorva)* with Brazilians on the Cunhuá. That same year they cleared a third field, and other relatives assisted with possible intentions of moving into the community.

In 1975 I (GK) arrived in the village under the auspices of the Summer Institute of Linguistics to begin study of the Dení language. At that time seven families had established households in the village. I initiated clearing for a small airstrip that summer to facilitate outside communication with the village. Late that year six additional families established residence there, and other individuals stayed in the village occasionally. Payment in trade goods for work on the airstrip seemed an important factor in their decision to settle. By June 1976 the people had cleared three new fields around the village. A 600-meter airstrip was completed in August of 1976, permitting access to the village by single-engine aircraft.

In 1977 the village had sixteen resident households (Figure 2) including sixteen married couples, two widowers, two widows, and their children. Of these families, four have been there four years, three for three years, and the others have lived there two years or less.

The people in this village have had extensive contact and experience with Brazilian settlers and traders on the rivers in their territory. All but four of the men in the village work for Brazilians for at least short terms during the year. Many regularly emigrate during the rainy season to collect latex to pay their debt to traders (Table 1). Other jobs offered by Brazilians include

FIGURE 1. SKETCH MAP OF MARRECAO DENÍ VILLAGE AND REGION.

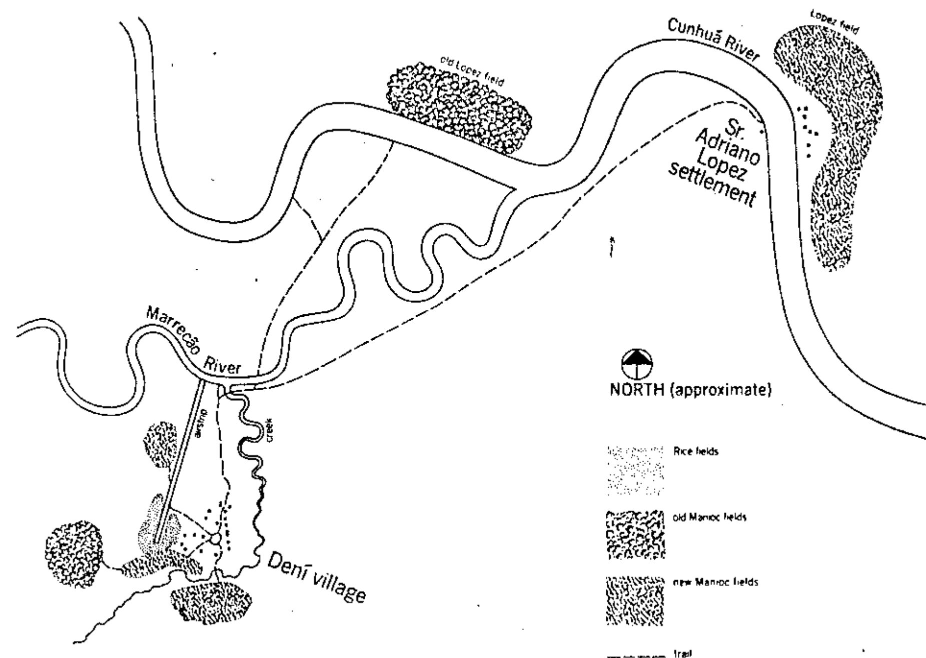
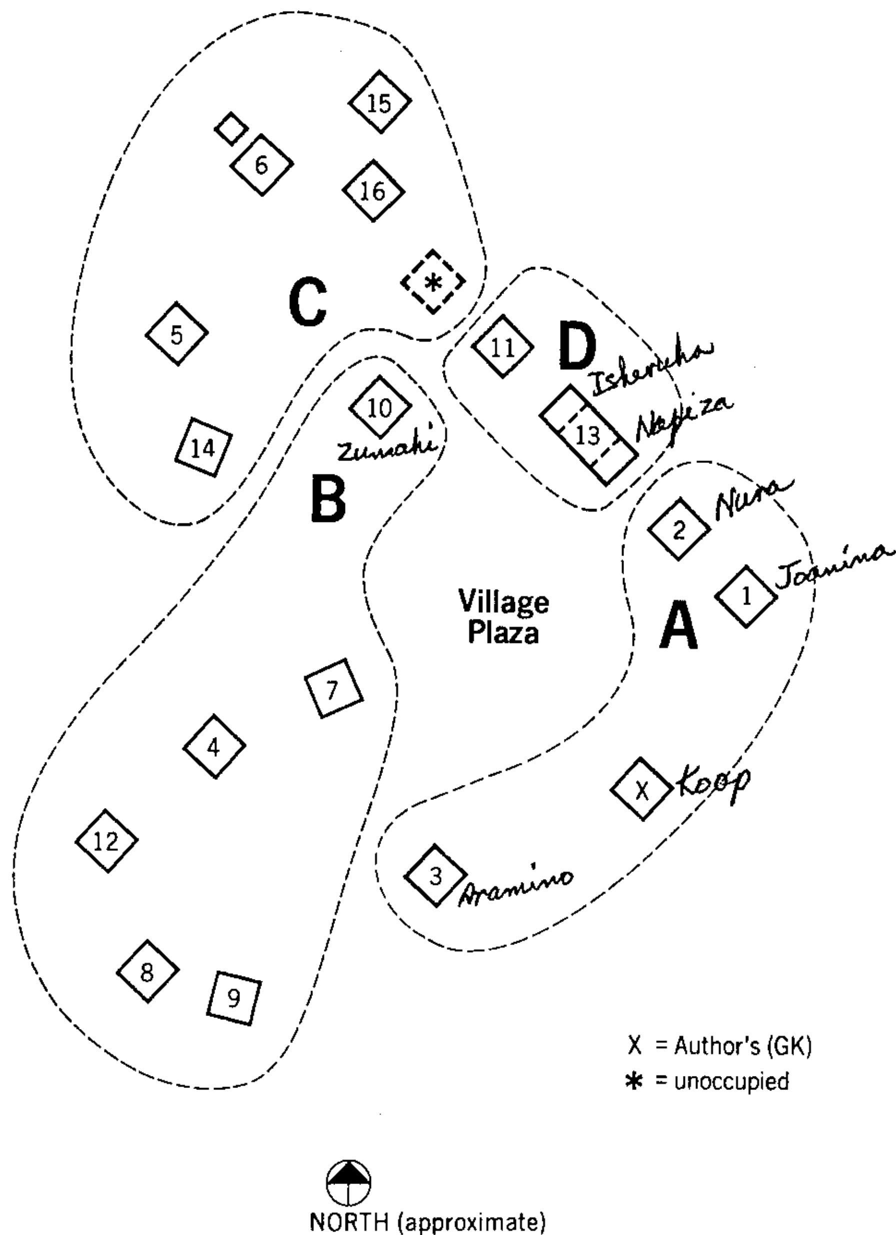


FIGURE 2. SKETCH MAP OF VILLAGE FAMILY CLUSTERS.



clearing land, hunting, making manioc flour *(farinha)* or working as a servant on a trading boat. Several men emigrated in 1977 for logging to supply timber for the new saw mill opening in Manaus in 1978. All of the men speak some Portuguese and many of the younger men who have lived with Brazilians speak colloquial Portuguese fairly well.

TABLE 1. VILLAGE POPULATION AND RESIDENCE PATTERN, APRIL 1977.

Residency	Male Adults	Female Adults	Male Children	Female Children	Total
Permanent	4	5	8	8	25
Occasional Emigrant[1]	8	6	4	7	25
Seasonal Emigrant[1]	8	7	8	5	28
Seasonal Visitors[2]	4	2	1	1	8
Totals	24	20	21	21	86

1. The women and children in these catagories may or may not go along, depending upon the type of work available and whether the Brazilians will permit Dení wives to accompany them.

2. These people have no house in the village, but may spend some time in the village during the dry season and have helped clear and plant fields.

At the time of this study seven of the married men were absent part or all of the time working for Brazilians, while their wives and children remained in the village. Two other men were away working with their families during this period. The composition of the community, then, is in a continual state of flux as people's felt needs and obligation to outsiders change. They move in or out according to their perceptions of how they can best achieve their wants at any given time, and according to the demands of the Brazilian *patrão* to whom they are in debt. (There is no adequate English translation of Portuguese *patrão,* which combines the idea of landlord, employer, boss, and guardian—with both negative and positive connotations.)

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Households

The basic social and economic unit of the village is the nuclear-family household. Most of the Marrecão Dení live in simple, single-family houses, constructed from poles, thatch, and the split trunk of palms *(pachuba)*. A house is generally rectangular, with a moderately-pitched gable roof, partial walls and a split-palm floor raised about five feet off the ground. Each house has a ladder leading into it and a thick mud firepit built up on the floor, or on a small covered platform extending out from the main house. The only other furnishings are a hammock next to the fire, numerous sleeping hammocks enclosed in a mosquito net, a metal water container and several cooking pots purchased from traders. All of the people in the village wear some form of clothing which they have either made from purchased cloth or bought from outsiders. Extra clothes are hung over the rafters and supporting beams of the house. Dried corn and baskets of cotton are also strung up underneath the roof. Knives, machetes, axes, shotguns, and other basic tools are tucked into nooks and cracks under the thatch. Other trade goods such as ladles, spoons, a flashlight, or a kerosene lamp may be sitting on the floor.

Of fifteen households in the village, ten are nuclear families, two are comprised of a parent and unmarried children, and one includes a widowed mother, her daughter, her daughter's husband and their child. Only two extended-family households are present in the village. One includes two brothers and their wives; the other is a household in which an older man gave a younger sister to his wife's younger brother and they reside together. In the fraternal extended household, each nuclear family has a separate portion of the house and separate fire platforms. Each wife is responsible for preparing food separately for her husband. Since one of the brothers spends lengthy periods working for Brazilians, the common household discourages other men from visiting his wife. The other extended household seems only a temporary arrangement until the young married couple decide whether they will stay married or not.

The focal dyad of Dení households is that of husband and wife. Marriage confers upon these individuals the rights to sexual relations, children, and the labor and produce of the marriage partner. The division of labor in the household is defined in terms of economic transactions between a husband and wife. The man's domain is the forest, while the woman's is the household. Men hunt and fish and bring home the meat to their wives. The wife is then responsible for distributing any excess to neighboring kin, and cleaning and cooking the remainder for the family. The men of the village cut the forest, burn large fields, and divide them among the families for their respective gardens. A husband obtains a parcel for his wife and gathers the

cuttings for planting. His wife plants, with or without his help, and then harvests the produce and prepares it for her husband. The men say their wives should bring their food to them, prepared and ready to eat on a plate. Other details of this basic pattern of production and exchange are summarized in Table 2.

The husband/wife relationship is often filled with tension created by sexual jealousy and frequent extramarital affairs. Several informants described young married men as in rut *(hazirade)*. They are extremely jealous and afraid to let their wives out of their sight. Some newly married men refuse to allow their wives to wash clothing, get firewood, or do anything alone away from the house. Some men go so far as to beat their wives for any appearance of flirtation.

In spite of this early possessiveness, sexual liaisons appear commonplace. One man said that such affairs are fine if the husband doesn't see you, but if he does he will want to fight. He caught his own wife in such an affair and decided to leave her. She was pregnant, however, and his father had a long talk with him and told him it was his responsibility to stay and take care of his child. His father told him to let his wife do her job without harrassment, and to let her laugh and even play around with others. Then they would have a peaceful relationship between them without arguments and fighting. The informant said he returned to his wife, listened to his father, and has had a good marriage since that time.

After a couple have children, their relationship becomes more permanent. Although they may fight and leave one another temporarily, the responsibility for children is not taken lightly. Most parents return and try to smooth over their marital difficulties. The long absences of husbands to work for Brazilian traders, however, produce heavy strains on a marriage. Women left alone for a month or more seek companionship, and the only men around are already married. This not only angers the husband who is away, but upsets the other married women in the village as well. The fighting precipitated by these affairs disrupts both the immediate family and the whole community.

The woman in the household has primary responsibility for the nurture and training of the children. The father is frequently out in the forest or away working for Brazilians. Girls begin at an early age learning the role of women. Their mothers send them to carry water, get firewood, or pound berries in the community mortar and pestle. Children often accompany their mother when she washes clothes or goes to the field for manioc. Soon the girls wash clothes, pull manioc, pound corn, cut bananas, and do most women's tasks. Boys, however, are not asked to do women's work, except for helping carry heavy loads of manioc.

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TABLE 2. ECONOMIC TRANSACTIONS OF HUSBAND AND WIFE.

Men's		Women's	
Activity	Contribution	Contribution	Activity
Hunting, fishing[1]	Meat	Cooked	Distribution, preparation
Clearing fields[2]	Land, cuttings	Cooked vegetable	Planting, harvesting cooking
Getting palm fruit	Fruit	Cooked fruit or fruit soup	Cooking, pounding, sieving, mixing
Felling wild fruit trees	Access to fruit	Raw or cooked fruit	Gathering, cooking
Building and repairing houses	Shelter	Hammocks, mosquito nets, clothing	Sewing, repairing and washing
Gathering forest produce	Trade goods	Trade goods	Domestic chores for non-Indian local residents
Harvesting manioc for salable manioc flour[2]	Trade goods		
Making artifacts for sale	Trade goods	Trade goods	Making artifacts for sale

1. Fishing by poisoning fish is a community activity. In that case men pick up and prepare the poison and throw it into the stream, then everyone participates in catching the dead fish by hand and carrying them home. The women clean and cook the fish.

2. These activities are often joint cooperative efforts including both men and women, although responsibility resides with one sex only.

Fathers sometimes take their sons fishing with them in a canoe when they are only five or six years old. By the time they are eight years old, boys may make independent fishing expeditions to the river. Boys may also go along with their fathers hunting when they are old enough to keep up on foot. They carry only a knife or a bow and arrow, however, and do not hunt with a shotgun until they are past puberty and physically mature. By the time they are twelve most boys have learned how to butcher meat, harvest fruits, fell trees, and do most of a man's work in the forest.

The Dení emphasize relative age in the relationship between siblings. Older siblings are called *azu* (elder brother) or *adi* (elder sister), while younger siblings are addressed by the same terms used for son *(shuvi)* and daughter *(inu)*. Elder siblings learn easily the responsibilities of parenthood, since their parents place their younger siblings in their care. If older daughters or sons fail to keep a younger child from mischief or injury, the parents will scold or beat them. As the older children near puberty they are given almost total responsibility for younger siblings while the parents are out getting food. This parental role is carried into adult life; younger siblings often turn to older ones for support and assistance in marital and other problems and show the same respect for them as for their parents.

Family clusters

The original village of Marrecão had only four houses in a tiny hole in the jungle, where its seventeen houses stand scattered in various clusters around a central plaza. Although the houses are built around this plaza, the Dení have no formal organization for locating them there. There are no moieties or unilineal descent groups in either the Marrecão village or in the village on the Igarapé do Indio.

From information given to us, and from the example of the village on the Igarapé do Indio, it appears that Dení villages in the past were not much more than large family clusters made up of a core of male agnates, their wives, daughters, sons-in-law, and sometimes a few other relatives. Upon occasion two or more clusters have decided to live together. Our informants said that Vareshedeni and Kunivadeni were living together near the Xiruá and had become fathers-in-law to each other *(hedituhari)*.

A similar aggregation of agnatic clusters has occured in the Marrecão village. The Tamakurideni have formed two family clusters (A and C), although they still classify each other as siblings (their deceased fathers were brothers), and do not intermarry with each other or with the other clusters in the village. Only one of these sets of agnates, however, has formed a family cluster (D) (Table 3). The other has been absorbed into three of the

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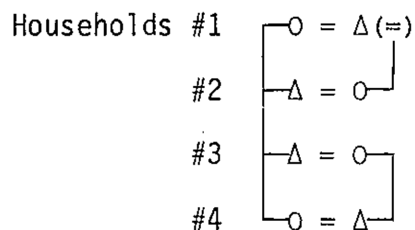
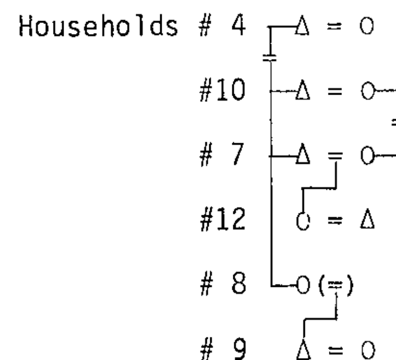
four clusters in the village. This is not to say that these men will not form a residential cluster at some future date. At this time, however, only one senior man has a wife, and two young men are sons-in-law to Upanavadeni men.

The internal organization of the village is thus based upon temporary aggregations of siblings, which form loosely-structured family clusters. These clusters change in composition, size, and focus as new people settle in the village, as young people marry and establish households, and as older residents die or emigrate to other places. The earliest settlement in Marrecão contained only one family cluster, the core of which remains today as Cluster A (Figure 2). The original Cluster A was composed of the households of two brothers, their full sister, and a female parallel cousin (sister), with their respective spouses:



The male heads of Households #1 and #3 were founders of the village, organizing the clearing of fields and the construction of houses. Since the head of Household #1 had been a chief, however, and one of the two brothers in #2 and #3 was his son-in-law, this man served as head of the cluster and chief of the village.

When new families began to arrive in 1974 and 1975, Clusters B and C formed in succession over a period of a year. Households #5 and #6 (Figure 2) formed the base for Cluster C. Shortly thereafter, Households #7, #8, #9 and #10 arrived to form Cluster B. At this time, Household #4 separated from Cluster A and the male head aligned himself with his newly immigrant "brothers" (FBS) in B. The marriage of a daughter from B to a son from C formed Household #12 as the son-in-law took up residence near his wife's parents and began working for them. This marriage resulted in the expansion of B to its present state:



In the meantime, Cluster C had also expanded through marriage. A son of the chief in A married a daughter from Household #6 and moved in with his father-in-law in C. After three or more months living with him in the same house, the young couple established Household #11 (at that time located near Household #6 in Cluster C).

Cluster A was also growing. The chief's sons by a previous marriage came to live with him in this village, establishing Household #13. One son had married a daughter of Household #6 several years earlier. The other, upon taking up residence in A, married a younger sister of his father's wife and of the other men in A. In January of 1976, the chief became ill and died. His two oldest sons, angry at the spirits, left the village and moved downriver with the Brazilian. His widow had her house torn down and moved over twenty feet because the spirits were bad. Her daughter and son-in-law moved in with her at the new location.

A few months later, some of the men of the village asked the brother of the head of Household #6 in Cluster C to come live with them and become the new chief. This man had been living with his father-in-law at another location where together they formed an independent family cluster (E). The man liked the idea of being chief and shortly moved into the village, establishing Household #14. He brought with him not only his own wife and children, but also his younger half brothers and half sister. Shortly thereafter, his father-in-law (Cluster E) died, and the surviving children, his wife's siblings came to live in this village. The youngest children stayed in Household #4 with their FFBS, and the two older children married the half brother and half sister of the new chief, thereby consummating a sister-exchange marriage. The chief's half sister and her husband remained in the new chief's household. His half brother established Household #15. Finally, another half sister of the new chief and her husband joined Cluster C, making its present composition:

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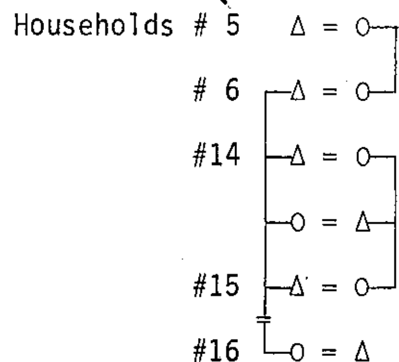
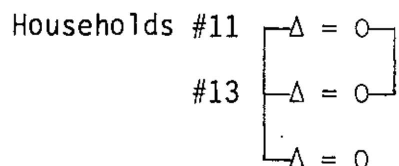
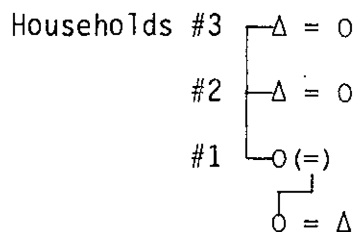


After the sons of the old chief had completed their period of mourning, they returned and reestablished residence in the village. They did not come back as members of Cluster A, however, but built a new double house (#13). Their younger brother tore down his old house, moved away from his father-in-law in C, and built a new house next to that of his brothers (#11). Together they formed a new cluster, D:



Through the developmental cycle of the village, Cluster A has gradually expanded, split, and contracted. At present, three of the four original households remain in the cluster and a son-in-law is living with his wife's mother in Household #1. The son-in-law is currently constructing his own house near his father in cluster C. The present composition of Cluster A is thus as follows:



From this historical analysis, it becomes obvious that the crucial structural ties in family clusters are those between male siblings or between father-in-law *(hedi)* and son-in-law *(hirubadi)*. The agnatic principle furnishes the foundation of Dení social organization. Men who share a common father, or whose fathers shared a common father, constitute a cluster of kin who generally live close together, share cooperative labor, and arrange the marriages of their daughters and sons. If a cluster contains three or more mature adult men with wives and children, they may build their houses close together and form a residential group, or family cluster.

Family clusters rarely contain only male agnates and their wives and children. As soon as a daughter approaches puberty, the men generally arrange her marriage, with the new couple taking up residence in the house of the girl's father or immediately adjacent to it. For three lunar months the son-in-law receives nothing from his wife except love play. He, on the other hand, must hunt, fish, and cut forest fruits and bring all of this to his mother-in-law *(mashudini)*, except the little that he takes to his own mother. After the three-month period, his wife begins to cook for him. He then divides his hunting or fishing catch, bringing part to his wife, part to his mother-in-law, and a little bit to his mother. His wife cooks for him and brings the food to him on a plate as his mother-in-law had done before.

The son-in-law generally lives near his father-in-law for a year, and often much longer. During this period, he works with his father-in-law on most major projects, such as house building or field clearing, and also hunts and fishes with him. It is possible for a son-in-law to move away if the father-in-law agrees. The wife's parents are particularly concerned about their daughter's welfare. If the son-in-law beats her, or is frequently angry and has affairs with other women, the father-in-law may take his daughter back. The young man in Household #11 lost his wife on one occasion for just this reason.

When a son-in-law does move away, it is often after his wife has one or more children and he wants to join the family cluster of his brothers. By this time, he is bringing all his fish or game to his wife except for the small portion he continues to take to his mother. His wife continues to give some meat to her parents, and he still assists his father-in-law when asked.

Sometimes a man stays with his wife's brothers even after his father-in-law dies, continuing as a member of their family cluster. He may not have enough mature brothers of his own to form a cluster, or he may be satisfied with the way things are.

A widowed sister may return to live with her brothers so that they will provide her with meat. Her daughters often remain in her brother's custody, who serves as father-in-law to the men who marry them. Presumably, the

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woman's brothers could marry their sons to her daughters, but we found no cases of this in the population studied.

Seniority is the basic principle of organization in a cluster. Younger men address older men either as father *(abi)* or elder brother *(azu)* and older men address their younger agnates by the term *shuvi* (YB,S). The senior men are chiefs *(patarahu)* to the younger men and often give orders to them to "bring this" or "do that". The closer men are to each other in age, the less bossing the elder one does. Sometimes a more assertive younger brother will exercise leadership in the cluster.

It is important to note that local labels of identity used by Dení, as Varashedeni or Upanavadeni, are subject to change. If a man stays with his wife's cluster and his children grow up there, they will be identified by the name of that particular local group, rather than by the father's place of origin. They will not, however, become part of their mother's agnatic cluster; rather, they will form their own cluster and exchange wives with their generation peers in their mother's group. Local labels, therefore, have nothing to do with formation of family clusters or the regulation of marriage.

TABLE 3. COMPOSITION OF DENÍ FAMILY CLUSTERS.

Cluster	Agnate households	Brother-in-law or son-in-law households	Widowed sister households	Other
A. Tamakuredeni	2		1	
B. Upanavadeni	3	2[b]	1	
C. Tamakuredeni	3	1(1[a])		1[b]
D. Varashedeni	3			1[b]
E. Upanavadeni[c]	4	(4[a])	1	1

a. Residing in Household of *hedi* (WF) or *vambumi* (WB).

b. These men constitute a second agnatic line of Varashedeni, but to a residential cluster.

c. Constitutes a separate village located on the Igarapé do Indio.

In fact, it has happened that two family clusters consider themselves agnates and do not intermarry, yet have different identity labels, while others with the same identity labels exchange sisters freely. The agnatic clusters, then, are the primary units for regulating ḍ marriage.

Marriage and kinship

The basic rule for Dení marriage is that individuals may not marry anyone in the following kinship catagories:

atuvi	(grandfather)
atizu	(grandmother)
abi	(father)
ami	(mother)
adi	(older sister)
karipene	(younger sister)
azu	(older brother)
khabu	(younger brother)
da'u	(son)
tu	(daughter)
hinudini	(grandchild)

The minimal extension of these terms includes all members of one's agnatic cluster, but some terms may be extended to include members of other agnatic clusters to which a known agnatic relationship exists. For example, the senior men in Marrecão clusters A and C, and in the Igarapé do Indio Cluster E, classify each other as elder brother and younger brother because their deceased fathers were brothers. They do not, therefore, exchange daughters or otherwise intermarry.

Dení genealogies are very shallow, however, and agnatic ties are soon forgotten. The men of Clusters A, C, and E do not remember the names of their father's father. Further, they find it convenient to ignore distant agnatic ties because by doing so the number of clusters available for obtaining wives becomes larger. One informant said that his father had called a man from Igarapé do Indio elder brother *(azu)*, but referred to his daughters as sister's daughters *(hirumadini)* rather than by the "correct" term for FBD, *karipene* (youger sister). The relationship was said to be so far away that they did not remember it any more. The significant fact in this choice is that my informant's sons could not properly marry his younger sisters, but they could marry his sister's daughters. It is also significant to note that these

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men do not apply grandchild terms to the grandchildren of their "brothers" outside of their own family cluster.

Dení men and women may marry anyone whom they classify as a potential spouse *(avini)*. The term *avini* may only be used between people of the opposite sex. For a man, the term refers to his FZD, MBD, WZ and any woman in his own generation who is not *adi* (FZ) or *karipene* (YZ) to him. For a woman, the term refers to her FZS, MBS, HB and any man in her own generation not *azu* (EB) or *khabu* (YB) to her. A man refers to men in these same catagories as *vabumi* (brother-in-law) and women refer to like women as *karadi* (sister-in-law).

The pattern of Dení marriages recorded for the Marrecão Dení show no MBD or FSD marriages, although a sister exchange in this category is in the planning stages, according to village gossip. The closest known marriage was to a MFBSD; all other marriages were between distant classificatory cross cousins. At the same time, Dení showed a preference for sister exchange when it could be arranged. Six of twenty-one marriages were sister exchanges between two agnatic clusters. Dení men marry off their daughters before their first menses, and unmarried women are very scarce. Exchanging daughters is one way to make sure your son gets a wife.

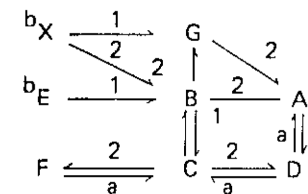
Dení say it is also possible to marry one's *hirumadini* (MBSD, WBD, etc.). We have recorded one marriage of a man to his *hirumadini* (BWZD) after his first wife died. This case suggests that widowers have difficulty replacing their wives and must look to a new generation of women to find a wife. One recently widowed man in the Marrecão village, Cluster B, wants to remarry but cannot find a wife. He had promised his ten-year-old daughter to a young man in Cluster A, and the man had actually moved into his house to begin the marriage. After his wife died, he asked the men from A if their widowed sister would marry him, but she refused. At that he took his daughter back from the young man and told him that when he found a wife to cook for him, the young man could have his daughter back. With a marriageable daughter, he has a better chance of finding a wife for himself, even if it is a girl the same age as his daughter, i.e., his *hirumadini*.

Some Dení men have also married their *mashudini* (FZ, MBW) or *ami* (MZ, FW). Such marriages are convenient arrangements between older women who are widowed and have no husband or sons to hunt and fish for them and young men who cannot find a wife. Sometimes these marriages are fairly long term and produce a couple of children; sometimes they are only temporary until the man can find a young wife. We have recorded two such marriages in our genealogies. The men and their children are still living, but the women died several years ago.

Dení marriage exchanges between agnatic clusters show no patterned regularity. The primary objective is to obtain a wife, and the groups are

small enough and demographic distribution of the sexes variable enough that formal direct or indirect exchanges (Levi-Strauss 1969) prove too constricting. The kinship system serves to keep open as many avenues toward finding a wife as possible. The pattern of exchange (Figure 3) as observed for the Marrecão Dení shows each agnatic cluster involved in transactions with at least three other clusters, except for D and F in which the men are all very young and their daughters are still infants or very small children. Cluster B, in contrast, is much more mature, having sons-in-law in residence with their daughters, and has had transactions with at least five distinctive agnatic clusters. It is of interest to note that when the senior men of B and C married, they were living near a group of Kunivadeni (X) and obtained some of their wives from them.

FIGURE 3. WIFE-GIVING AMONG KNOWN DENÍ AGNATIC CLUSTERS.



1. One woman given to the other group.
2. Two women given to the other group.
a. Sisters exchanged.
b. These agnatic clusters reside elsewhere and complete data on marriages was not available.

The agnatic clusters and their residential counterparts, then, furnish the internal structure for village social relations. Any extra household activity is affected in one way or another by cluster alignments. A given cluster will mobilize its members for labor. Members will come to the support of one another in intravillage disputes. Further, clusters furnish the primary base of

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support for leaders who exercise influence in village activities. At the same time the residential cluster is a very flexible unit, expanding or contracting at the whims of individuals and households within it. Families remain in a cluster, not because of any corporate identity, but rather because of mutual interests bonded in the ties of siblingship and marriage. When an individual feels his interests are no longer attainable in the cluster or village, he is free to move elsewhere on the river and join other kinsmen or work for Brazilians. Many have done this in the past, and will continue to do so in the future.

3. The Dení Kinship Model

The Dení terminological system in its primary signification is an ethnographic example of Dravidian cousin terminology and the bifurcate merging pattern for avuncular terminology (Table 4). Parallel cousins are classed with siblings, and cross cousins are given distinct terms *(abuni, avini, karadi)* which vary with the sex of the speaker. Father's brothers are classified with father *(abi)*, mother's sisters with mother *(ami)*, and mother's brother *(hedi)* and father's sister *(mashudini)* are classified with separate terms. For the male speaker, brother's children are merged with a male ego's own children *(da'u, tu)*, and sister's children are distinguished *(hirubadi, hirumadini)*, while the pattern for a female ego is the mirror opposite. If first cross cousin marriages and sister exchanges were more pervasive, the Dení might have developed a Dravidian-type system of kinship and marriage. The fact is the Dení have not done this, but have made other adaptations which make their kinship system of particular interest.

The terms listed in Table 4 define the universe of Dení social relations. All Dení speakers are classified within this system, but the terms are extended in such a way as to increase rather than restrict marriage options. To understand Dení kinship usage it was necessary to determine the extent to which Dení relied upon genealogical logic for terminological extension and the extent to which other principles supplanted the genealogical basis of the system.

The Genealogical basis of Dení kinship

The basic social fact of Dení kinship is the relationship between progenitors and progeny. The terms *ime'i* and *ime'eni* mean literally *genitor* and *genitrix* respectively and are used to describe progeny/parent relations between animals as well as humans. When I asked informants to explain why individuals were classified in particular ways, they most frequently referred to a particular line of kin through whom they traced the tie. Disagreements about relationships often centered around disputed paternity of children, and the validity of asserted sibling ties. Without doubt, the core

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TABLE 4. SIGNIFICATION OF DENÍ KINSHIP TERMS.

REFERENCE:	ADDRESS:	PRIMARY SIGNIFICATION:
atuvi	tuvi	FF, MF
atizu	tizu	FM, MM
ime'i	vava	F
ime'eni	a'a	M
abi	abi	F, FB
ami	ami	M, MZ
hedi[2]	kuku[2]	MB, WF, HF
mashudini[2]	ashu[2]	FZ, WM, HM
azu	azu	EB, EFBS, EMZS
adi	adi	EZ, EMZD
khabu	shuvi	YB, YFBS, YMZS
karipene	inu	YZ, YFBD, YMZD
vabumi	abuni	♂ FZS, MBS
avini	uvini	♂ FZD, MBD, ♀ FZS, MBS
karadi	karadi	♀ FZD, MBD
bedi	shuvi	S
bedini	inu	D
da'u	shuvi	S, ♂ BS, ♀ ZS
tu	inu	D, ♂ BD, ♀ ZD
hirubadi[3]	tati[3]	♂ ZS, ♀ BS
hirumadini[3]	mashi[3]	♂ ZD, ♀ BD
hinudini	hinu	SS, SD, DS, DD
makhi		H
panadi		W
nebude	nebude	divorced spouse

1. Persons in the specified catagory will always be referred to by the specified term, regardless of alternate genealogical links to ego.

2. Applied only if alter is older than ego. For persons younger than ego the terms *tati* and *mashi* are used for males and females, respectively.

3. Applied only if alter is younger than ego. For persons older than ego, the terms *kuku* and *ashu* are used for males and females, respectively.

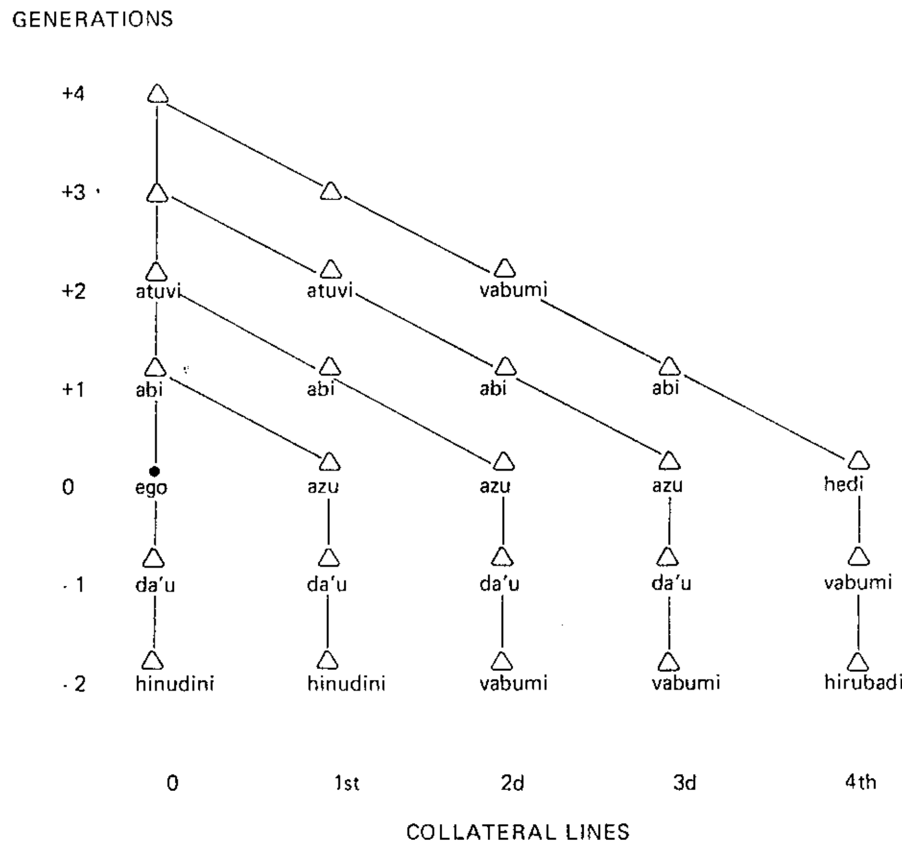
of Dení kinship is genealogical, and the extension of terms beyond their primary signification is restricted in part by the scope of Dení genealogical knowledge.

A key variable of the kinship system is the agnatic line, skewing genealogical reckoning to include agnatic kin, but ignoring equally close nonagnates. This principle was most clearly demonstrated by the difficulty informants had in remembering the names of agnates' sisters and mother's brothers in the first and second ascending generations. Most elder Dení (male and female) remembered only their father's parallel cousins in the first ascending generation, and only their father's brothers in the second ascending generation. The few women recollected by informants were generally wives to these men.

The maximum lineal depth observed for Dení agnatic lines is two ascending generations, and the maximum collateral extension of agnatic ties is through the first descending generation in FFB's agnatic line (or the third collateral line following Atkins 1974:10). Dení have no terms for great-grandparents or great-grandchildren, and we had difficulty getting informants to suppose the existence of people in such categories. This is not surprising given the relatively short life span of recent Dení populations. We estimate that no one in the Marrecão village was over fifty years of age. One man and two women were already widowed, and only the two widows and another couple were grandparents. All of the grandchildren were under five years of age at the time of the research. The Igarapé do Indio village had only one widow who is a potenial grandmother.

Many informants could not even remember the names of grandparents (FF, FM, MF, MM) because they had either never seen them or were very young when they died. Consequently, Dení do not know kinsmen and disregard genealogical ties beyond full or half siblings in the second ascending generation. The ramifications of this are twofold. First, the grandchild terms are extended only to the descendants of ego's full or half siblings, thereby excluding the second descending generation of FB and FFB's agnatic lines (Figure 4), and placing them into a marriageable catagory. Second, the fourth agnatic line to ego, who were third collateral and ineligible for marriage exchanges in father's generation, become distant marriageable kin. Dení men adjust their terminology by calling their male and female patrilateral parallel cousins of the fourth degree of collaterality *hedi* (MB) and *mashudini* (FZ) if they are older, or *hirubadi* (ZS) and *hirumadini* (ZD) if they are younger. This places the women into catagories where they are potential spouses for male ego, and their children are viable candidates for marriage exchanges. Skewing then occurs at the point where genealogical knowledge fails and social considerations in the developmental cycle of agnatic lines take precedent.

FIGURE 4. AGNATIC LINES AND COLLATERAL EXTENSION OF KIN TERMS



In addition to those lineal and collateral restrictions on the extension of terms, the Dení show priority to agnatic ties by restricting the extension of parallel kin terms to known agnates and to the agnatic descendents of maternal half siblings and matrilateral first parallel cousins (MZS). This bias is again a function of genealogical memory in which relations through women are forgotten more rapidly than those through men. These agnatic priorities may be expressed by the following rules:

1. In the first ascending generation terms for agnates, *abi* (F) and *mashudini* (FZ) are extended to include all descendants of males to the fourth degree of collaterality, and father's maternal half siblings and matrilateral first parallel cousins (FMZS, FMZD). All other cognates in this generation are classed with *ami* (M) and *hedi* (MB). The logic for extending these terms to the fourth rather than to the third degree of collaterality is not genealogical, but social. A Dení man explained that he called a man in the fourth collateral *abi* because he heard his father call him *azu* (EB). However because he didn't know the "line" to this man he wouldn't refer to his children as siblings.

2a. In ego's generation, sibling terms are extended to agnates to the third degree of collaterality and to ego's maternal half siblings and matrilateral first parallel cousins (MZS, MZD). Children of FMZS, FMS, may be classed either as siblings or skewed with fourth patrilateral cousins to cross-kin of −1 or -1 generation. Cousin terms are extended to include all cognates in this generation.

2b. Skewing occurs in ego's generation where kinship links are terminological rather than genealogical, i.e., where ego knows that the parent of alter is classed by ego's parent as sibling but the precise relationship is unknown. In these cases (FMZS, FMS) alter is merged with cross kin in the first ascending or descending generations in the same pattern described earlier for fourth collateral patrilateral parallel cousins.

3. In the first descending generation terms for agnates, *da'u* (S) and *tu* (D) for a male, *hirubadi* (BS) and *hirumadini* (BD) for a female, are extended to include all descendants of males to the third degree of collaterality and descendants of male maternal half siblings and male matrilateral first parallel cousins (MZSS, MZSD). All other cognates in this generation are classed by males as *hirubadi* (ZS) and *hirumadini* (ZD), and by females as *da'u* (S) and *tu* (D).

It must be stressed that it is impossible to draw a fixed line of Dení kinship. These rules are subject to the idiosyncracies of each Dení genealogy

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and each person's social history of residence and contact or lack of contact with people in these categories. The less contact one has with a consanguineal kinsman, the more likely it is that the genealogical particulars of relationship will be lost, and the tie redefined to a more distant marriageable category. This pattern of truncating consanguineal ties in favor of affinal ties parallels Basso's (1975:211) description of Kalapalo kinship, suggesting a wider distribution of this phenomenon. Finally, the relative age of alter to ego is always significant and no term denoting seniority to ego may be applied to persons younger than ego, or vice versa. Individuals older than ego but genealogically of the first descending generation are classified either with senior members of ego's own generation or with the first ascending generation. Terms of address give particular stress to relative age to ego. The terms *shuvi* and *inu* are used both for younger siblings and children. The terms *kuku* and *ashu* connote distance and respect and are never used for a younger person. Sometimes a man will call his brother-in-law *kuku* rather than *abuni* if he is significantly older. Persons who genealogically are *kuku, ashu, ami,* or *abi* to ego but younger in age are addressed as *tati, mashi, inu,* or *shuvi* respectively.

Marriage and Dení kinship terms

The extension of Dení kinship terms beyond the genealogical knowledge of any given individual in order to define the total universe of social relations cannot be understood without careful consideration of Dení marriage practices and strategies. To Dení, marriage is a fundamental necessity in life, and getting a wife for oneself or for one's son is a matter of primary importance. The extension of kinship terms reflects this primary concern.

Rules of affinity. All Dení who are not ego's agnates, parallel cognates (Extension Rules 1-3), or classificatory grandparents are classified as *avini* (potential spouse), *vabumi* or *karadi* (cross-cousin-same-sex) in even generations, and as *hedi* (MB-father-in-law) or *ami* (M) in the first ascending generation. Some informants restricted the application of terms of reference to known genealogical kinsmen, while others applied them to all persons known. Some Dení frequently answered questions about relationships to people in genealogically-unrelated agnatic lines by saying, *unaru* 'I say to him', and giving a term of address. We were not able to identify any consistent pattern in this variable use of terms of reference and address. However, the terms *vabumi, hedi,* and *mashudini* were used by informants on only rare occasions; most responses for people in these categories (genealogical or otherwise) utilized the terms of address *(abuni, kuku, ashu).* In fact, I had nearly finished collection of kinship data before I discovered the terms *hedi* and *mashudini.* In subsequent checking, Dení insisted *hedi* and *kuku* were the same. However, we suspect that *hedi* has a more

restricted usage, referring primarily to MB, HF, WF, and their full or half siblings of the same sex, but our evidence is inconclusive.

To the first descending generation men apply the terms *hirubadi* (ZS) and *hirumadini* (ZD), and women apply the terms *da'u* (S) and *tu* (D). An illustration of the regular pattern of terminological extension to related and unrelated agnatic lines is shown in Figures 5 and 6.

The significance of this rule is that all women outside a man's agnatic line, and the line of his FFB, excepting his grandmother and MZ become potential spouses to him, particularly if they are in the same generation or younger generations. While it is obvious that a man cannot marry more than one or two of the women, the system greatly increases the chances of obtaining a wife in a society where every girl is married as soon as she nears sexual maturity. The system also increases the number of women with whom one may have sexual relations, and many men and women take every opportunity open to them.

Following Kaplan's (1972, 1973) study of the Piaroa, one might propose from these data that Dení cousin, aunt/uncle, and niece/nephew terms denote affinal rather than consanguineal categories, although Scheffler and Lounsbury (1971:92-97) present a rather convincing and a propos argument to the contrary. While the Dení do not, to the best of our knowledge, have a distinct concept of affinity, they make it abundantly clear that the focus of their relationship toward people in these categories is marriage and sex. The Dení data add further support to Basso's (1975) contention that affinity is far more crucial in the study of kinship, deserving more attention than many have heretofore acknowledged.

Irregular marriages and terminological choice. In cases where marriages occur between individuals who are related to ego in ways other than the logical pattern of the system, the children of that marriage are classified according to ego's classificatory relationship to the father, unless the mother has a closer genealogically-known consanguineal relationship.

By irregular marriage we mean a marriage between persons whom ego classifies as either unmarriageable (brother and sister), or across generations (uncle/niece), or both (father/sister). It should be emphasized that in most cases these are not irregular between the married individuals. Rather, the occurrence of some cross-generation marriages, the variation in genealogical ties created by half-sibling relationships, and the diversity of marital alliances between agnatic lines produce multiple ways of calculating kin relations and individual choices. These choices produce situations of conflicting relationships, such as when a man's *azu* (older half sibling, same father) marries his *adi* (older half sibling, same mother), yet the couple stand as *avini* (potential spouse) to one another. Such a marriage requires ego to make choices in classifying the children of the marriage. In the case cited, if

FIGURE 5. REGULAR PATTERN OF TERMINOLOGICAL EXTENSION TO RELATED AND UNRELATED AGNATIC LINES (MAN SPEAKING).

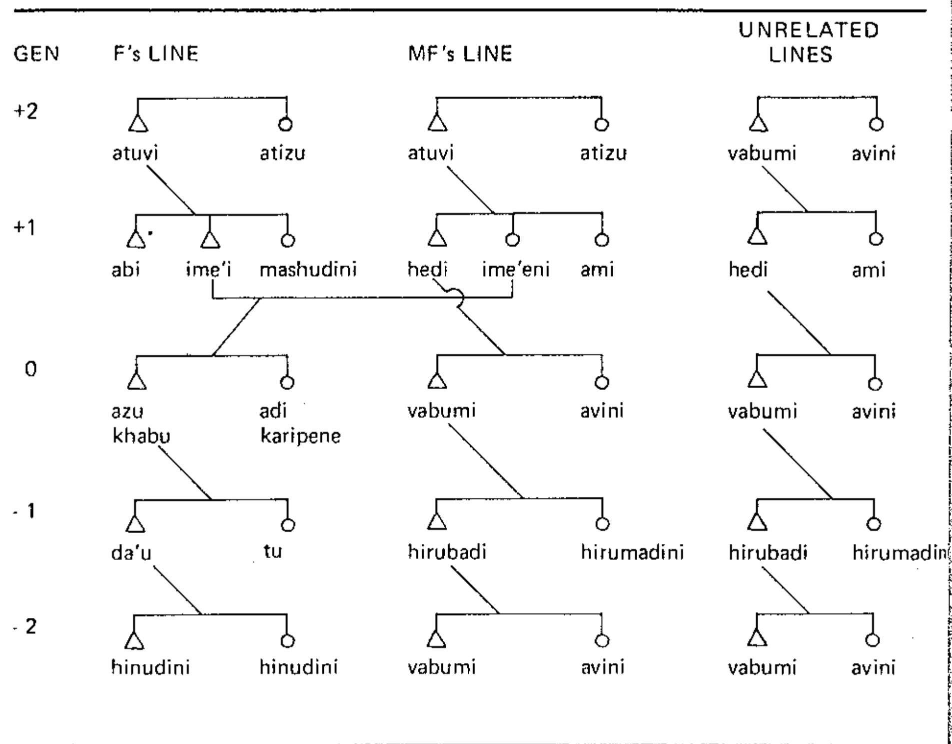
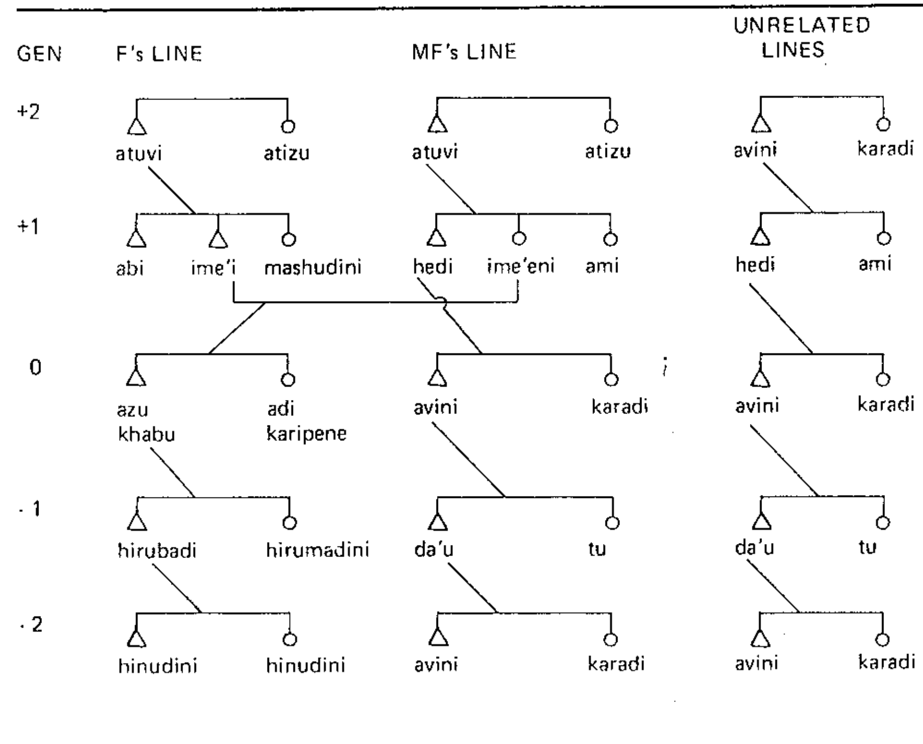


FIGURE 6. REGULAR PATTERN OF TERMINOLOGICAL EXTENSION TO RELATED AND UNRELATED AGNATIC LINES (WOMAN SPEAKING).



he chooses the relationship to his *azu*, the children will be *da'u* (S) and *tu* (D); if he chooses the relationship to his *adi*, the children will be *hirubadi* (ZS) and *hirumadini* (ZD).

Dení solve most of these problematic relationships by giving precedence to the male genealogical tie over that of the female tie. In the case above, the informant classified the children as his own son and daughter. The cases illustrated in Figure 7 show similar patterns.

In some situations, however, Dení are forced to choose between the precedent of agnation and close consanguineal ties to the woman involved. For example, when male ego's *hedi* (MB) marries his *ami* (MS), both of which are distant classificatory relationships, the children are classified *vabumi* (MBS) and *avini* (MBD). However, if *ami* is ego's mother's full sister, and *hedi* has no known genealogical link, the children are classified as siblings *(azu, adi, khabu, karipene)*. Other cases (Figure 7) show that known genealogical ties to women may counter agnatic precedent when the relation to the male is beyond genealogical reckoning.

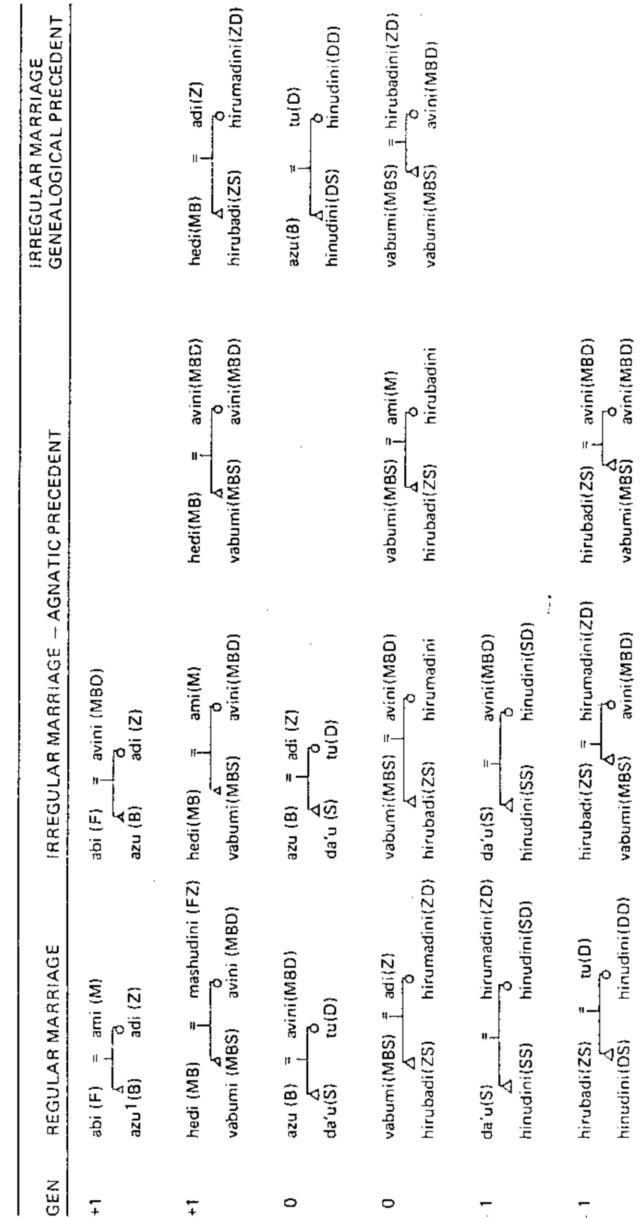
Some methodological considerations

From the analysis of Dení kinship it has become evident that the irregularities in the system are nearly as significant as the regularities. For it is on the periphery of an individual's kindred where he evaluates alternatives and makes choices that we find the total dimension of kinship behavior drawn into play. From the analysis of irregularities we achieve a description of Dení kinship based upon a congeries of factors in the kinship domain.

We must confess that our initial predispositions were not so. After examining a select sample of genealogies from the community we found what we thought was a symmetrical, bilaterally-extended Dravidian kinship system. Admittedly we encountered a few anomalous details on the fringes of our genealogies, but initially, we dismissed them as due to problems of informant competence or genealogical facts of which our informants were no longer cognizant. Then to crosscheck our analysis we turned to a second corpus of data, lists of village residents for which individuals had given appropriate kinship terms. Suddenly the "discrepancies" became almost as common as the "pattern", forcing us to completely reconsider our analysis with the results presented above.

In retrospect, it seems that the impulse to dimiss seemingly minor discrepancies in our data was rooted in our analytical biases for formal and structural analysis, predisposing us to seek out regularities in the system at the expense of ignoring irregularities. Our biases were compounded by the limitations of genealogies as a basic source of kinship data. We suspect that these methodological shortcomings may be more widespread in kinship studies than kinship analysts are ready to admit.

FIGURE 7. IRREGULAR MARRIAGE AND THE CLASSIFICATION OF KINSMEN (MAN SPEAKING).



1. This figure uses only terms for elder sibling for the sake of brevity. The term khabu (YB) and karipene (YZ) also apply where azu and adi are used.

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We do not question the use of genealogies as a basic data-gathering tool for kinship studies, but only an undue reliance upon them. Indeed Dení kinship cannot be understood without a thorough understanding of Dení genealogical reckoning. At the same time, other systematic methods of data collection, such as eliciting terms from a census list, identifying kin in factions or cooperative groups, or recording the use of terms in daily or special events, are essential for a comprehensive and accurate analysis.

Careful consideration of discrepancies and irregularities in field data may show that the problem lies not with the data but with the method of analysis the anthropologist is applying to them. While either a formal analysis or a structural analysis hangs precariously on the reef of Dení kinship data, Dení behavior is systematic and can be described adequately when due consideration is given to goals, alternatives, and choices for kinship behavior. To achieve such a description, one must begin with the assumption that kinship is part of a larger cultural framework which defines means to certain ends and that variation and choice are fundamental attributes of human behavior.

4. *Village Politics and Leadership*

People in the village of Marrecão recognize four men as having special authority and power. Two of these men are called *patarahu* (chief); two are *zuphinehe* (shaman). The concept of chief may be borrowed from the Brazilian *patrão;* but if so, the people now do not remember when they first had chiefs. The innovation, if it is indeed such, has become institutionalized. The chiefs reside in Households #13 and #14, and are also the *de facto* leaders of Clusters D and C, respectively. The shamans are also *de facto* leaders of their family clusters A and B. One resides in Household #3 and the other in #7. The shaman in Cluster B is active, while the shaman in Cluster A appears to practice very little, if at all.

Village chiefs

Case #1

When the chief in Household #1 died, the people in the village asked an elderly man in the village (Household #6) to be chief. The people explained that his father had been a chief; therefore, he could be chief also. After a short time, however, the people began to complain that he did not call enough feasts. They said this man was *kurumi* (worker, customer), not *patarahu* (boss, leader). Very shortly the man declared he did not want to be chief. He went to his younger brother who lived on the north side of the Cunhuá River and told him to come live in this village and be chief. The younger man decided he would like to be chief, so he moved to this village and to Cluster C (Household #14), and shortly thereafter began exercising his new authority by organizing feasts.

Case #2

Chief #13 from Cluster D said that his father talked to him before he died and told him to come back to this village and be chief. When his father died, he was very angry at the bad spirits in this place and he went away for a long time. While he was gone, the people accepted a new chief (#14) from Cluster C.

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When he came back to the village he said that some people came to him and told him to be chief. They said that the chief (#14) didn't call enough feasts and didn't tell people to go get lots of food to eat together. They said that being without a chief is very bad, so they encouraged him to be chief.

He knew his father was chief and he felt someone in his family should take his father's place. He talked about it with his brothers, but they couldn't be chief because they didn't have children who were running around yet, even though one brother was older than he. He talked about it with the other men in the village and he talked with the other chief. They all agreed that the village would have two chiefs, so everyone was satisfied.

These cases suggest several things about Dení chiefs. First of all, the overt criteria for selecting a chief are that the candidate be (1) a mature man with children who are old enough to run, (2) a man whose father had been chief, and (3) a man who wants to be chief. However, these factors alone do not make a chief. The individual must act like a chief. If he does not display the personal qualities and exercise the kind of leadership expected, people say he is not a chief at all.

It would be an error to assume from the cases cited that Dení chieftainship is a hereditary position. In fact the weight of the evidence leads us to the opposite conclusion: that achievement is far more important than heredity. People expect that a chief's sons will inherit or learn the personal qualities that make one a leader, but if he does not have them, he has no right to be chief. This is clearly illustrated in the cases above. The two men (#6, #14) from Cluster C who became chief did not act enough like chiefs to satisfy all of their constituents. The oldest man (#6) dropped out completely. The younger man (#14) continued to act like a chief, but suffered from lack of support and often expressed ambiguity about his continued tenure as chief. In case #2, the eldest of the three brothers deferred to his younger brother who had older children and was much more assertive.

Assertiveness is a key factor in Dení chieftainship. It is rather obvious in the daily routine of village life that the Chief (#13) in Cluster D has eclipsed Chief #14 of C. Chief #13 is both very progressive and aggressive. He works frequently for Brazilians and carries coffee, candy, milk, and cookies home and shares them with the people. He dresses in good clothing and cultivates an image of success in spite of the fact that he has only one arm, having had the other amputated after suffering gangrene from a poisonous snake bite. He and his brother have built an extra large house, and they sponsor Brazilian dances in the evening using a battery-operated record player.

When this man is in the village, it is he who speaks to the village in the early morning; he calls the public feasts; he calls the people to work. From field observations, it is clear that Chief #14 is only effective in the absence

of this man. Part of this may be due to the fact that three of the men in Cluster C are often away working with Brazilians, thereby depriving him of support. Much is also due, however, to people's evaluation of his performance.

Assertiveness cannot be directed primarily to self-interest. A chief must demonstrate that the interests of the people are his interests. The success of a chief depends largely on how people evaluate his "talk." Chief #13 tells the people he doesn't want anger, bad talk, and fooling around. Rather, he wants to see full stomachs, laughter, and singing. He complains about their constant gossip and disputing in the village, and encourages them to feast, sing, and dance instead. Chief #14, in contrast, complains that the women whose husbands are away have been taking advantage of his generosity, and tells them to go get their own fish, cut their own berries, and collect their own tar for making artifacts. One woman said that Chief #14 had a lot of bad talk, and Chief #13 had only a little bad talk. She had doubts Chief #14 would remain as chief very long.

A chief's primary core of support comes from his family cluster and from agnates who are resident in other family clusters. Chief #14 has the largest core of support, including the five households in Cluster C and two households in B who are agnates to men in C but residing in their father-in-law's cluster. Chief #13 is young and has a very small core of agnates (two brothers). The key difference in their leadership, then, is the effectiveness with which they mobilize external support.

One strategy that Chief #13 has adopted is the *patrão* system. By working hard he has established good credit with three Brazilian *patrões*. Using this credit, he has purchased quantities of trade goods which he has then "sold" to others in the village. These sales are not cash transactions, but rather extensions of credit which is repaid in labor or other service. Using this strategy, he has placed the shamans #3 and #7 in his debt, and thereby gained the support of their family clusters (A and B) of which they are the respective leaders.

Another means of exerting influence and gaining support is through one's sisters and daughters who marry into other clusters. The present chiefs in the Marrecão village are both too young to have marriageable daughters; however, both rely upon sisters to expand their network of support. Chief #14 has one brother-in-law living in his house and working for him as if he were son-in-law. Another brother-in-law lives in his cluster, and lacking other local agnatic kin, gives his full support to Chief #14. Chief #13 has one sister married to the younger brother in A, and through her obtains the support of that household.

All of these stategies are tempered, however, by a follower's willingness to follow. Leadership within the village or within a family cluster is based

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primarily upon the consensus of followers to be led. If people refuse to cooperate, the only recourse a chief has is to retaliate in kind. He has no authority to coerce people to accept his decision or to give him support.

The *patrão* strategy of Chief #13, however, has the potential for adding to a chief's coercive power. By applying threats of external intervention, he may coerce people to pay their debts. To the best of our knowledge this has not as yet occurred. One problem that has emerged from the *patrão* strategy is the fact that Chief #13 and his workers must leave the village from time to time to work for his Brazilian *patrão*, leaving his resident supporters without their chief. To counter this obvious disadvantage, he is grooming his older brother to become a chief and to take over his authority in his absence.

Leadership and decision making

The public forum for decision making in the village occurs in the predawn darkness. Sometime after the first rooster crows, often as early as 4:30, the chief or anyone else who has something on his mind will begin speaking in a clear loud voice from his hammock. After he is finished, comments and discussion echo back and forth across the village plaza as individuals voice their opinions from their hammocks. Generally only mature men, those who have children old enough to run and who participate in sniffing a tobacco-like drug they call *shina*, speak in these early morning meetings. As consensus emerges from the discussion, dissenters may voice their disapproval, or merely be silent and avoid participating in the planned activity.

Decision procedures vary with the type of problem confronting them. One of the most common practices is public suggestion based upon new information, followed by discussion, consensus, and action. This may occur at any time. For example, a man hears wild pig in the forest and calls for his brothers. Most men will drop what they are doing, grab their shotguns, and follow. Or a man mentions that he saw a good tree for making bows. The next morning the chief calls from his hammock and says, "You show us the tree and we'll all go get wood to make bows." Others chime in that they will go, and so it is agreed upon and nine of the thirteen men currently in the village go out to cut wood for bows.

When a chief is confronted with complaints and suggestions, he often conducts preliminary discussions before the morning forum. A man may ask when he will call a feast. A woman may complain that he is not acting like a chief and never has feasts and dancing. Under such pressure, the chief will talk to various men in the village and see if they are willing to feast on a given day. If he finds the necessary support, he will announce a feast early in the morning before dawn. At that time they will decide which men will go fishing, which will cut fruits, and which women will furnish the manioc.

A third procedure is for the chief to make a proclamation. This generally occurs at the predawn discussion, but he can also do it any other time by standing at the top of the ladder to his house and shouting across the village. For example, he may decree that everyone should come to the author's house to get worm medicine. Or, he may tell the women whose husbands are away working to go fish for themselves. Many people will support such proclamations with similar comments or repetition of the statement. Others may disagree and refuse to cooperate. In the latter case, people say there is nothing they can do; some people just don't cooperate.

From this discussion, it is obvious that the chief's primary role is to lead, not to command. If he is a capable leader, people will follow him. One of the basic prerequisites of his leadership, however, is that he find out and respond positively to what people want. He is foremost the initiator and coordinator of public activities.

The most important public activity of a chief is the calling of feasts. This is usually done before dawn on the day of the feast, but can also occur several days in advance. Sometimes he may call a feast in response to a successful hunt in which a tapir or several wild pigs were killed. More often, however, a feast day means that most men will have to go fishing to furnish the meat. Feasting is the most important social event in the village, and people expect to have feasts frequently.

A chief is also expected to admonish people to behave properly. Sometimes he will begin the day by reiterating the complaints that people have made to him. He will tell people to stop behaving this way, and he will admonish the whole village to stop their gossip and have good talk.

The chiefs say they can also call people to work on joint community projects. They will tell the people to go "catch our fish, hunt our game, get our manioc and fruits" for an upcoming feast. A chief has no right to ask people to fish or get manioc for his personal use. Further, he has no right to decide what is a valid community enterprise. The people just agree that a project is worthwhile, then the chief can call them to work on it. Aboriginally, feasting, field clearing, and hunting appear to be the only community-wide enterprises; field clearing was initiated by individuals rather than by the chiefs.

In the present situation, the people have been confronted with a number of new alternatives for joint communal labor. As part of a general program of community development, the chiefs called people to work on the clearing for and construction of the airstrip near the village. The incentives were economic, and included hand-operated machinery, tools, and trade goods that people wanted. Most of the men and many women worked substantial periods of time on the strip; but each individual felt free to work when it was convenient, rather than when the chief called. The chiefs have been

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effective, however, in mobilizing labor to clear grass off the airstrip in my absence, again with the incentive of payment.

The chiefs have not traditionally had responsibility for overseeing the distribution of goods. The Dení had little in the way of surplus food or property that warranted communal distribution, and when they did, the individual responsible for the surplus distributed it, rather than the chief. With the implementation of community development projects, including public work on the airstrip, planting of rice and maize, and the introduction of a treadle sewing machine, manioc grinder, and rice huller, the chiefs have acquired new responsibilities. Part of the rationale for chief #13's large house is that the sewing machine and rice huller are kept there out of the elements. The house then serves as a community sewing room, as well as the place for Brazilian dancing. The manioc grinder and a sharpening grinder are located in Household #3, which is leader of Cluster A. The chief (#14) from C and the shaman (#7) and leader of Cluster B have taken custody of the two manioc-flour toasting plates (iron plates four feet in diameter). All of the people in the village have access to these items, but cluster leaders and the chiefs have taken responsibility for them.

One of the chief's new responsibilities has proved somewhat distasteful, the distribution of trade goods in payment for labor. After Chief #13 mobilized the people to clear grass from the airstrip, he was given the task of distributing gunpowder and cloth to pay those who had worked. After the distribution, some people complained that they had worked, but did not receive payment. The chief said he would buy some more gunpowder himself and pay three men who complained. The three women who complained were promised nothing.

The expanded duties of a chief in mediating between the villages and outsiders has not so far increased his importance or influence in the community. He remains a leader among equals, without any greater access to or control over important community resources. He has, however, become more active as a coordinator of community activities. Chief #13, in particular, enjoys this role and has taken such responsibilities as holding back rice for seed, which he plans to distribute for planting at the end of the next dry season.

The village shaman

The Dení shamans were reluctant to talk about their personal careers, thereby hindering our getting an inside view of their role. Others in the village, however, were more willing to talk about the subject and to answer questions. Several men in the village indicated that they had been asked when they were boys if they wanted to become shamans. They refused, saying that they were happy to remain the way they were. At the time of

this writing, one three-year-old boy is being prepared for a future career as a shaman. His father said that the boy's maternal grandfather had chosen him to be his successor just before he died.

The critical difference between shamans and other people is the presence of a substance called *katuhe* in their bodies, and an ability to have personal communication with spirits *(tukurime)*. *Katuhe* is a hard, yellow wax-like substance extracted from bees' nests in the forest. A shaman chews this substance before having visions and communication with the spirits. The chemicals in it make him quite sick at the stomach, but after a period of up to two weeks of chewing, vomiting, and sleeping in his hammock, he is said to fly on wings to the sky where he listens to the *tukurime*. The father of the three-year-old novice said his son already has some *katuhe* in his body, but he does not yet have contact with spirits.

The current village shaman (#7) is responsible for training this young novice. The child's father said that when the boy is mature (about fourteen years old), he will accompany the shaman into the forest. At that time he will listen to the shaman talk with spirits, and then he will receive two of his own spirits. This, however, is only the beginning. As he learns to get his own *katuhe*, he will also have more and more spirits.

The primary role of the village shaman is to seek visions and communication with the spirit world to explain sickness and death, and to determine what action people should take to prevent further calamities. There are many spirits in the forest, and the shaman often goes into the forest to talk with them. Sometimes, however, the spirits get hungry and go up to the sky to eat. The shaman generally waits until they return to talk with them. When a person dies, the shaman seeks to communicate with the departed soul to determine the cause of death. To achieve this he chews *katuhe* until he has a vision in which he grows wings, flies to the sky, and sees the souls *(abanu)* of Indians and the spirits who are dangerous. By listening to their talk he learns what has happened to the soul of a deceased person or what has caused trouble for the people. From this information, the people decide whether they should move to another place or take other action to avoid further calamity.

The shaman also treats people who are sick or bitten by snakes. In one instance when a pregnant woman in the village began to feel labor pains before her time, the shaman came to the author's house with request for help. He said she had seen a hunter carrying in a dead wildcat the day before. That was bad luck. If she didn't get medicine, the baby would die. He then prescribed strong coffee and sugar, which he asked the author's wife to furnish. She did so, and the mother gave birth to a healthy baby girl late that afternoon.

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Snake bite is especially feared because it is fairly common and is often deadly. The shaman (#7) explained that people's souls are fat like tapir, and that snakes kill and eat them if they can. When a man dies from snake bite, the snake has consumed his soul. To prevent this, the shaman pursues the snakes into the jungle, scatters them by beating with a stick, and then retrieves the soul of the afflicted person. He returns, places the soul on the person's head, and blows it back into his body. If he is successful, the person survives.

The shaman also has secular leadership responsibilities. He is like a chief in that he may call feasts for the whole village. If a chief is present, however, the shaman will usually go to the chief and say, "I need a feast. Would you call it?" Each shaman is also the economic leader of his own family cluster. His most important public duties are singing at feasts and initiating marriage ceremonies.

The shaman is a specialist in songs. Although every man has his own songs and may lead on given occasions, the shaman is the village singer. After an evening of feasting, the men gather in the village plaza and link elbows with the shaman near the center. After the women line up facing the men, the shaman begins each song and the others join him, singing, dancing, first forward, then backward around the circle.

The shaman also leads in public ceremonies of marriage. When it has been determined by the families that a couple will marry, the chief calls a feast and the shaman calls all the people together after the feast to dance until morning. On one particular occasion which Koop observed, they danced all night, and then at dawn the shaman accounced that X had given his sister to Y two weeks earlier, and now Y must give his sister to X. After the proclamation, two men (#4, #15), painted black beards on their faces, went to the houses of the young man and his twelve-year-old wife-to-be, untied their hammocks, and paraded around the village with them. Amidst a great deal of joking and horseplay, they hung the hammocks together in the wife's older brother's house where the couple would take up residence. The men and the women then engaged in a general free-for-all wrestling match, in which the men brought in a large bundle of fruit and the women attempted to take it from them and tear out the fruit. Over a three-hour period, the women were allowed to beat the men and take away the fruit. Everyone, including the shaman, participated in the game, which symbolized, at least in part, the competitive character of Dení married life.

The final responsibility of the shaman in Dení marriage is to plant the spirits of the yet-to-be-conceived children in the womb of the new wife. Shortly after the couple is married, the shaman sniffs the drug *shina* and then ritually "cures" the new wife. At that time, the woman can request the kinds of spirits she wants for the child and the shaman will give them to her.

When he is finished with the ritual, all the spirits of the children that a woman conceives are in her and after repeated intercourse with her husband, she will become pregnant. Children are sometimes named after the particular spirit their mother requested for them.

5. *Community Resources and Leadership*

Property

Two basic principles govern Dení concepts of property. First, undeveloped resources such as the forest, the land, and the streams are open to anyone who wants to use them. They are public domain. Secondly, anything that has been developed becomes the property of the individual who developed it. The village owns no communal property except the sandy plaza where feasting and dancing are held and the area of the stream where the people bathe, soak bitter manioc, and get fresh water. Even these areas are public in the sense that anyone has access to them who wants it. Usage is restricted, however, so that one cannot bathe or defecate upstream from the place where drinking water is gotten, and one cannot build a house in the village plaza.

The products of human labor belong to the person who did the work, or when others contributed labor, to the person who initiated the project and carried it through to completion. Baskets, bows, arrows, blowguns, and canoes belong to the individuals who made them. Shotguns, ammunition, pots, pans, knives, machetes, and axes belong to the individual who paid for them with labor or produce. A house is owned by the man who planned it and organized the construction, even though others may have helped.

The man who starts the field may choose not to divide it. One man in the village had six other men beside himself and his son clear the trees from his field. When it came time to plant, he said he would not divide it, but would plant it himself. The people did not complain, saying he would supply manioc for feasts, and everyone would eat from the field then.

The rule of property regarding cultivated crops and trees is that the person who plants is the owner of the produce; therefore, even though a man is given a parcel of land, if others plant it, the produce is theirs. The Dení plant manioc just before the rainy season begins, digging holes with hoes and placing the cuttings in the soil. The women and children are responsible for planting fields, although men often help. The produce is the property of the woman and consumed by her household. The man who said he would

not divide his field planted it with his wife, his two daughters, his son, and the son's wife. He gave his son one section and a daughter another section, so they all take food from the field.

Property use is another matter. If an individual asks the owner, he may be given the use of any item of property, provided the owner does not have other plans for it. For example the chief (#14) used manioc from fields he did not plant for a whole year until his own fields began to produce. The head of Household #4 got angry with everyone in 1974 and decided not to plant, even though they gave him a parcel of land. In 1975 he went around asking for food because his gardens would no longer feed him. Some people gave it, but some refused him because he didn't plant. Since it is humilating to continue to ask for food, very few people are tempted to live by this standard.

Asking for the use of tools, shotguns, ammunition, canoes, or other hunting gear carries no stigma, and these items are freely loaned, with the expectation that they will be returned. If a man kills an animal with another's shotgun shell, the choice inner parts go to the owner of the shell for consumption or distribution. Only items of clothing are not generally loaned from one household to another.

The village does not work as a unit for productive activities. There are no communal hunts. Even poisoning fish tends to be a cluster activity rather than that of a village. Men who plan projects count on their brothers, sons, and sons-in-law to help. Others who wish to join are welcome and receive a fair share of labor or produce in return. Even feasting, which is a community-wide effort, rests upon the independent efforts of individuals getting fish, berries, and manioc and then contributing them at the feast.

Family clusters furnish the locus for cooperative labor in the village. A man may call upon his sons, his sons-in-law, and his brothers to help him at any time. His sons and sons-in-law owe him their service, and work whether or not he gives them a share in the product or reciprocates with labor at a later time. His brothers expect reciprocity at a later time, but only in a general way. Together these men constitute the core of any cooperative work group such as for house building or clearing fields. The other men in the village, his brothers-in-law and their sons (with whom he and his sons exchange sisters for wives), he repays in accord with the amount of work they have done. If a brother-in-law gives one day to help cut his trees, he will work one day cutting trees on that man's field. Each man who helps with the cutting gets a portion of the field to plant, the size of which is prorated according to the amount of his labor. This exchange follows a pattern of balanced reciprocity.

The development of a field is the largest cooperative venture among the Dení, and the laborers may be paid in land parcels rather than in reciprocal

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labor or produce. One man, with members of his household, usually initiates the clearing of a field by cutting the underbrush in a section of forest. He will notify the other people in the community long before he begins to clear that he intends to make a field in that area. He may announce in predawn meetings his intention to work on the field from time to time, and those who wish to have parcels in the field may join him in clearing underbrush. Elderly women and prepubescent girls often help at this time.

After the underbrush is cleared, those who want parts of his field will offer to help him fell the trees. This is heavy work and takes several weeks with many men participating. When the cutting is finished and the rains stop, the men let the brush and timber dry for one to two months. Then they burn the field and distribute the land in parcels to the people who made significant contributions of labor.

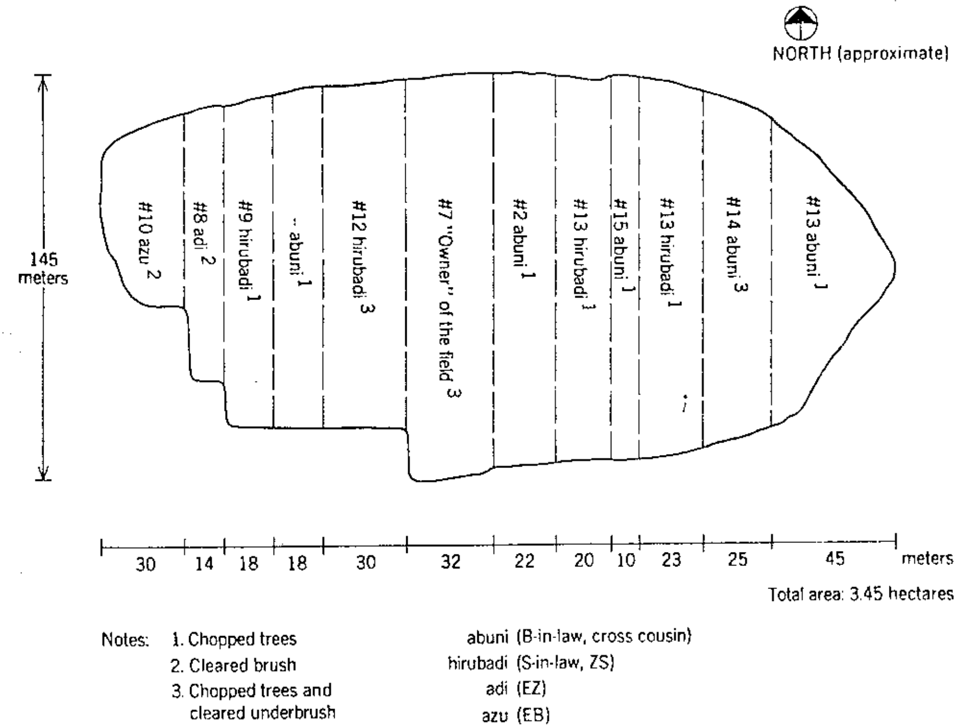
The field is referred to by the name of the man who starts the clearing, e.g., Bizu's field. He also receives the largest central section of the field, across its widest part. The field is then divided into portions relatively equivalent to the proportion of labor expended by the people who worked to clear it (Figure 8). The boundaries are marked with small burned logs placed in a straight line across the field or with a planted row of pineapple.

Three fields were cleared in 1976. One was cleared by the shaman (#7) who is head of Cluster B (see Figure 8). Five of the six households in B participated and received parcels, with an extra-large parcel going to the son-in-law (#12). This was an extra-large field, and the chief (#13b) and his brother (#13a) from D, son-in-law to the shaman (#7), participated and received large parcels. The chief is also *patrão* to the shaman. Five other men, brothers-in-law to the shaman, felled trees and received parcels in the field. The chief (#14) and his brother (#16) from C received parcels, as did two men from A who have no permanent household in the village. The other man (#2) has commercial ambitions and requested an extra-large parcel of the field, which he received for his labor.

Another field was cleared jointly by men from Clusters A and C who are classificatory brothers. Six of the nine plots in this field went to households in these two clusters. The other three went to men who were brothers-in-law. One (#13a) of these men had a sister-exchange marriage tie with the men of A, another (#10) had just given a daughter in marriage to a son of A, and the third (#4) was full brother to the wife of the head (#3) of A. The field is named for the head of Cluster A.

The third field was cleared by the senior brother (#6) in C, his son, sons-in-law, brothers, and two brothers-in-law. As discussed earlier, he decided not to divide his field, saying these men cut only one tree each (meaning that they had notched many young trees, and then had cut the large one in the center which knocked all the others down). He repaid one brother-in-law

FIGURE 8. CLUSTER B'S MANIOC FIELD (DIVISIONS IDENTIFIED BY HOUSEHOLD AND BY KINSHIP TIES TO "OWNER").



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(#17) by cutting one tree on his field. It is not clear whether he considered the other brother-in-law (#4) paid from earlier gifts of food. His brothers and sons-in-law need not be paid in parcels or in any equivalent exchange. They did not complain.

A word of caution is necessary at this point to the reader who contemplates doing field work in ethnology. If we had used data from 1974 only upon which to base our analysis, we would have reached the erroneous conclusion that the village constitutes the primary residential and cooperative unit. For at that time, the village, consisting of seven households, worked together to clear one large field which was then divided into ten parcels. Six of those parcels were allotted to members of Cluster A in its original composition, and four to the two men and their respective sons around whom Cluster C would form. Data gathered since 1974 added to the historical picture of the transience and relatively short life for any Dení settlement leads us to the conclusion that the family cluster, rather than the village, constitutes the primary residential and cooperative unit. Each cluster may expand by attracting nonagnatic households to take up residence with it, as occurred when Households #5 and #6 joined Cluster A. Marital ties through sisters furnish the primary justification for such moves as is evident in the composition of the original Cluster A. Such expanded clusters, if they continue to grow, ultimately split along agnatic lines, as we have already described for the development of this village community. Joint labor remains localized in the clusters, rather than in the village at large.

Food production and distribution

Food production is primarily an individual and household activity. Each household plants and harvests its own fields. The staple crop is bitter manioc *(pu)*. Women pull up the manioc for its roots, which are soaked for three days in pits along the stream and then squeezed to remove the poisonous juices. The flesh of the root is then toasted in flat pans and served with fish, meat, or palm-fruit soup. Other crops supplementing the manioc diet include sweet manioc, bananas, potatoes, sweet potatoes, squash, papaya and pineapple. As part of a recent community development project, some households have planted maize, rice, and onions which also supplement their manioc diet.

Each household consumes its own produce, and people do not ordinarily request or take food from another's fields. Exceptions occur when a household depletes its own manioc resources, or when a new family settles in the village. These families must ask kinsmen in the village before they harvest from their fields. Otherwise, they are said to be stealing. There are no common fields, either for the village or for family clusters.

The productive labor of men is subject to different rules for distribution. If a man finds a fruit free in the forest, with more fruit on it than his household

can use, he will tell his wife and announce to the village his intention of cutting it down. Any interested women in the village, then may go with him and his wife to collect the fruit.

When a man catches fish or kills an animal in the forest, he takes his catch home and gives it to his wife, with the exception of a small portion that he may give to his mother if she is living. His wife then distributes the meat or fish according to the quantity available and the needs of people around. If the quantity is only adequate for her household, she will keep it all unless someone comes specifically and asks for a portion. If there is an obvious surplus she will distribute it to others in the family cluster or to her mother and sisters who may belong to other clusters.

When men hunt together, or kill a large animal such as a deer, wild pig, or tapir, they butcher the animal in the forest and divide it among the hunters or among the men who will carry it back. The man who kills the animal has first choice of the meat, unless he has used another man's shotgun shell. If he uses another man's shell, that man has first choice. In all cases, the meat is taken by the men involved and given to their wives who then complete the distribution. Every household in the village receives some portion of the meat.

Feasting

The ideals for which Dení strive were summed up by the chief (#13) who said, "I am chief and I want good talk, laughter, and feasting. If you want that too, I'll announce a feast." Feasts are the occasions when people try to set aside all the conflicts, hostilities, and shouting matches which permeate village life, and unite around good food, laughter, and dancing. Feasts are held as frequently as people feel inclined to have them, given the limitations of the food resources. During the months of February and March, 1977, they held feasts six times, with intervals between them of as little as two days and as much as three-and-a-half weeks. A successful feast requires ample quantities of meat and fish, and great quantities of manioc. Without ample meat the feast collapses.

The preparation for a feast begins with the chief's announcement in the predawn village forum. At that time the men decide how they will divide responsibilities, if at all, and what special things they will do for the feast. On one of the feast occasions observed, the old men went fishing and the young men went to cut palm fruit that the women pound and make into fruit soup. On another occasion all the men went fishing. On a third occasion, the men and women switched roles. The women went fishing, and the men toasted manioc and took care of the children. That was an especially hilarious feast as people laughed at the role reversing. On all these occasions, however, food gathering is primarily an individual task. Men fish alone or in groups of two or three; women get manioc alone. The only

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village-wide effort described by informants is a large five-day feast in which the men of the village leave for a ten-day hunting trip, smoking the meat as they kill it, and then returning with an abundant supply for the long feast. Even for this, men separate into smaller groups for the hunt.

Games begin when the men return from fishing or hunting. Sometimes the men will tie fish on a string and hang it from their pole. Women, young or old, will run out of their houses when the men walk into the plaza, and snatch the fish from them. The men bathe and go to their houses, whereupon some woman in the village other than his wife will bring a man a bowl of fermented palm soup which he will down in one gulp. As quickly as it hits his stomach he throws it all back up again and continues to vomit until his stomach is completely empty.

At some feasts, a few men will reverse roles and bring out a bowl of manioc for the women to eat. The women hoot, laugh, and come out to eat small amounts, all the while making remarks about men for all to hear. Finally, when the preliminaries are finished, the chief brings a large aluminum platter, a kettle of manioc, and a bowl of meat or fish to the center of the plaza. After pouring his manioc into the platter, he calls the people to feast. One by one, each household brings manioc and fish or meat. Men and boys gather in one circle, women and girls in another. Each person has his own bowl or plate which he uses for his portion of manioc and meat. The mature men and women engage in a ritual of generosity, passing meat or fish from their plates to others of the same sex. Often a piece of meat will pass to several people before it is eaten. Each takes manioc by the handful from common platters.

Usually the eating begins in the early evening and continues until darkness makes it necessary to clear out the platters and kettles for the dancing which follows. At each feast, the shaman or another specified man leads the singing and dancing which may continue through the night until morning. On the morning after the feast, men and women will often tussle in the plaza. The women frequently struggle to take fruit or sticks of sugar cane from men. Sometimes, however, the women challenge the men. The event concludes with everyone dirty and tired, but generally happy. They bathe and go on to another day's work.

6. *Disputes and Dispute Settlement*

Sources of conflict

Conflict is a fundamental aspect of the daily fabric of Dení life. The sound of angry voices across the village plaza is a daily occurrence, despite the expressed ideal for good talk and laughter. Disputes focus on violations of property rights, sexual affairs, and other types of antisocial behavior. Both men and women complain about theft of food resources such as bananas and other fruits, and about the disappearance of tools. They rail at children for shooting arrows into papaya, or at their sons-in-law for destroying their daughter's things in a fit of anger. They shout at each other about taking a canoe or other's property without first talking to the owner and getting his permission.

Perhaps the most continuing and aggravating source of conflict is that surrounding extramarital sexual affairs. Joking about sexual relations with other women or other men is commonplace, and men are constantly asking women and even prepubescent girls to have relations with them. At the same time, men and women get very angry if they think their spouse is having relations with another person. Such affairs are not infrequent, occurring when women go to the fields for manioc, to the forest for firewood, or during the all night dancing at a feast. The innovation of Brazilian style dancing has furnished a new arena for liaisons, or at least suspicions of liaison.

The absence of several men from the village at any given time to work for Brazilians further exacerbates the problem. Their wives go on the prowl, and other women whose husbands remain in the village become fierce in their attempts to keep their husbands from being taken away. In one incident observed, a woman (#16) whose husband was away announced to anyone within hearing that a man (#1) she had danced with was big and she wanted to leave her husband and marry him. Needless to say, a social storm followed.

Sexual affairs are not, however, the only source of disruptive behavior. Disputes erupt when people fail to fulfill obligations to their kin. It may be

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that individuals continually ask for food, fish, or materials used to make artifacts without ever providing something in return. Or a man or woman may consistently refuse to give labor assistance, but expect others to work for him or her. Reciprocity is important, and consistent failure to meet this obligation results in disputing. Finally, antisocial behavior, such as excessive complaining, expressing anger, or tormenting young children, generates anger and bad feeling among others.

Conflict management

The first act in Dení disputing is public accusation. If the aggrieved person does not know who committed the injury, or if numerous persons are at fault, the accusation is made in the predawn public forum. If an individual is upset, he will speak for himself, declare what injury has been done to him or his property, and then threaten what he will do if recompense is not forthcoming or if such behavior is repeated. If more than one person is aggrieved, the chief may speak for the village in a general way, announcing the grievance and public expectatons for compensatory behavior. Individuals who support the chief will echo their sentiments when he is finished speaking.

When the aggrieved knows the aggressor(s), however, he will accuse him in the open daylight. The general method is to sit at the top of one's ladder entering the house and begin speaking in a loud voice to the whole village, detailing the grievance. The person accused will then address his reply from wherever he is sitting or working. The speeches fly back and forth. The accused often denies any implication in the matter, especially if the accusation is of a sexual relationship. The aggrieved is not content with denials, however, and continues to explain his accusation. The argument may continue intermittantly for several hours, and sometimes over several days.

During these arguments individuals in the village may offer support to one or the other of the litigants. The most common form of support is repetition of what has been said by the favored party; but an individual who lives on the opposite side of the plaza from the person he supports may leave his house to sit on the ladder with that person, thereby showing his position. On one occasion, when the men had a dispute with the women in the village, the men all gathered in the house of the chief (#13) and stood behind him while he presented their case against the women. If an individual is angry at someone in his own house, he will leave and sit down on a ladder of a house across the plaza and address his grievance from there. If those people do not support him they will turn their faces away or leave the house. The following cases give further insight into the process of conflict management and resolution.

Case #1

The morning after a feast and all-night dance, an old widow (#8) went to her ladder and began accusing her daughter-in-law (#9) of having intercourse with the chief (#13). She told the young woman that she was worthless and that her son would tell her to leave when he came back from working with Brazilians. At first, the young woman denied the whole thing; but the mother-in-law persisted in her berating until the young woman became very angry. She then stopped her denials and told the old woman that her son was no good, she didn't want him anymore, and she was going to run away. At that point, the shaman (#7) and brother to the old woman, spoke and told her that if she was going, at least she should take her three-year-old son, instead of leaving him for the father to care for as she had done the last time.

The young woman paid little heed and began her preparations. She packed her clothing into a bundle and then went to the field to get food. On her way, she called to the other chief (#14) and his brother's married son (#1) to follow her. They went together into the field and she reportedly had intercourse with both of them. Then she returned, prepared her food, collected her belongings, and, amid the continued verbal abuse of her mother-in-law and other angry wives in the village, she left without her son. She walked to the river, appropriated a canoe and paddled down to a Brazilian settlement.

The following morning, the man (#2) who owned the canoe came out to his ladder and addressed the chief (#14) who owned the only other canoe in the village. He said that the young woman was wrong taking his canoe without talking to him. He needed it today, and it was gone. Since the chief (#14) had been part of the trouble, the chief should not go to the river today, but rather let him have the other canoe to go down river. As he talked, the shaman (#7) came over and sat on the step with him, casting accusing looks at the chief and making supporting comments. The chief denied implication with the young woman and said he was going to the river nevertheless. Then he turned angrily and left the village with his glowering wife right behind him. One of the authors (GK) called him to take an unrelated message to the Brazilians on the Cunhuá, but he refused to stop. When Koop ran after him and caught him, the chief's wife repeated everything the author said, expressing support for the author and disapproval of her husband's general behavior.

That evening the chief and his wife returned quietly to the village. The next day, the runaway wife and mother slipped back to her house and began to care for her son as if nothing had happened. The mother-in-law offered no further provocation and the man whose canoe had been taken was happy again. For several days the young woman kept close to her house, except

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when getting food, to avoid the public hazing that followed her around. Gradually she resumed normal contacts in the village.

Case #2

A crippled man (#3) who lived with his sister and her husband had served as a language teacher for the author (GK). With the pay he received for his work, he bought a radio which he proceeded to play day and night in the village. His sister was angry at him because, although she and her husband fed him daily with meat, fish, and manioc, he had spent most of his wages for himself. Further, although he was able in a limited way to fish, cut small trees and brush with a machete, and plant crops, he planted only a few bananas and rarely did other things.

The women in the village criticized him publicly for his laziness, and he fought verbal battles with them daily in the village plaza. When they complained about his radio, he played it louder, longer, and later into the night. Finally, the shaman (#7) got so angry that he told the crippled man he would shoot him if he didn't get rid of that radio and stop all his bad talk. The crippled man got very angry and told the shaman to come to his house. He then handed the shaman his radio and said, "Chop it up." The shaman got his shotgun and blasted the radio to pieces.

The crippled man continued to argue with his sister, however, until she told him he couldn't stay there anymore. He moved in with the chief (#14) for a couple of days and then went to his sister to make peace. He told her he wasn't angry any more and that he didn't want to fight. He wanted to have good talk again. He also went to other women with whom he had been fighting and told them the same thing. Shortly, he moved back with his sister. One of the other women washed his clothes. The shaman offered to give him two feather headpieces which he could sell, and to make others for him to pay for his radio. He refused, saying that he told him to chop up the radio. Still, he did not go fishing or do other tasks, and soon his sister was complaining again.

Conflict resolution

There are no formal mediators or arbitrators for Dení disputes. People confront each other, observers take sides or remain neutral, and then the litigants challenge each other's wills and the strength of public support. If a litigant feels he has the upper hand, he may destroy or attempt to destroy his opponent's property as did the shaman in Case #2. Men often resort to this tactic in disputes with their wives. Fathers-in-law are just as quick, however, to threaten sons-in-law with physical violence, or to take their daughters back. Since unmarried women are extremely scarce, the latter

tactic is a sure winner and brings most sons-in-law to their knees. Most disputes, however, are not so readily resolved.

Some people exert pressure by refusing to render ordinary services. A husband may refuse to bring meat to his wife, or a man may refuse to help another on his house or field. A woman may refuse to give her husband manioc, or to give another woman meat from her husband's kill. The threat of running away and denying all service is illustrated in Case #1. After two nights with a crying child, the aged mother-in-law was happy to have even a wayward daughter-in-law back again.

In sexual conflicts, unless the couple has been seen together by one of the injured spouses, they publicly deny everything. If they get caught, however, a fight is almost impossible to avoid. One informant said his brother caught him with the brother's wife, and grabbed a knife to kill him. The offender said he would fight if the brother wanted to do so. His brother backed down, then, saying if it had been anyone else, he would have stabbed him.

Threats of physical violence to persons or property are not uncommon. If the dispute is serious enough, the threatened know they are in danger and leave the village. Fights between families and family clusters were not uncommon in the recent past, and are one of several causes of the flux in local communities and the transience of families among the Dení. Informants still remember people who were shot and killed because of serious disputes.

Reconciliation does occur as both cases illustrated. The first part of reconciliation is the putting aside of anger and bad talk. The young woman achieved this merely by returning to the village. She came back quietly because she wanted to return; no one forced her. In Case #2, the man went to his antagonists and told them he was no longer angry and did not want to fight. Turning away one's face is a sign of anger; facing others is a sign that bad talk is over.

The second part of reconciliation is the resumption of normal social ties and the fulfilfment of one's obligations toward those with whom he has fought. The young woman returned to resume her duties as mother and respectable daughter-in-law again. She also stopped, at least for a time, dancing with and seducing other women's husbands. The crippled man, in contrast, failed to fulfill even moderate expectations for assistance, and so reconciliation was short lived.

Some disputes never reach the state of reconciliation, and continue indefinitely. As long as the people involved can vent their displeasure publicly and obtain some measure of community support, they continue to haggle and coexist. This is particularly true among women who face each other day after day, and whose contentious voices are heard daily ringing through the village as they vent their frustrations. The men have a much lower tolerance of bad talk. They frequently chide the women for their continual bickering.

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Although men dispute with men, it is rarely for long, because they either fight or get out of the village into the forest alone to hunt or fish and to let their anger dissipate there. If men did not have these outlets, the incidence of violence would in all probability be much greater.

7. *Socioeconomic Change and Development*

The Marrecão Dení have not yet undergone the extensive acculturation reported for other Arawak groups located on the Purus and its tributaries (Chapman 1974). Part of the reason for this is the Dení preference for living inland, away from the main rivers and the regular traffic of Brazilian traders and settlers. This preference not only isolated them from outside contact and pacification expeditions on the rivers, but also delayed the period of intensive contact until the early 1960s. As a consequence, Dení culture and society remain relatively cohesive and intact, in spite of rather extensive depopulation within the last thirty years. The primary impact of depopulation appears to be a drastic reduction in the number of scattered, cluster-size villages, and the consequent aggregation of surviving families into the villages known today.

The probability of this state continuing, however, is open to serious question. The new generation of Dení men are so firmly committed to wage labor for Brazilian *patrões* that much more extensive acculturation is inevitable. The primary question is not whether the Dení will change, but rather *how* they will change.

With regard to settlement pattern the Dení have shifted from precontact, small-group, fissioning settlements characteristic of tropical forest adaptation (Carneiro 1961) to concentrated, river-oriented settlements close to their Brazilian *patrão*. This alteration in settlement pattern has social, economic, and ecological consequences. More densely-populated settlements place a very heavy strain on traditional mechanisms of social control which rely primarily upon the pressure of public opinion and the alternative of leaving to join another group not far away. Further, the larger groups place heavier demands on the local ecology to continually supply meat and fish. The Marrecão Dení have already begun complaining about the scarcity of game. The extent to which these problems will increase depends primarily upon the degree of permanence of the Marrecão community, the rate of population increase, and the expansion of Dení alternatives for both food and cash production.

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In the area of leadership, the Dení have already begun to innovate. Although the people still expect the nondirective style of leadership characteristic of tropical forest groups (Levi-Strauss 1944) and value generosity and the preservation of harmony (Goldman 1963), their needs demand a more aggressive style of leadership. The success of the young chief who has borrowed strategies from the *patrão* system to expand his base of support and political power is a good case in point. Although Dení do not particularly like to be bossed, they are turning to leaders who boss in order to obtain more of the economic goods they desire. The Dení case adds support to Kracke's (1973:465) hypothesis that aggressive leadership is more successful under conditions of socioeconomic pressure. For the Dení, that pressure will continue to increase as people turn more and more to the limited alternatives of the local cash economy to meet their newly-acquired needs and expanding wants.

In 1975, the Summer Institute of Linguistics recognized the technological and sociopolitical limitations confronting indigenous communities such as the Marrecão Dení who sought manufactured goods and participation in the wage economy. As part of their larger program of linguistic research and literacy, the Institute personnel began to consider the implementation of small, community development projects. The general goals of these projects were to provide Indians with the basic technology, skills, and knowledge that would enable them to develop greater autonomy and self-sufficiency in situations where other Brazilians were rapidly encroaching upon the Dení aboriginal territory and drawing them into the cash economy. Author Gordon Koop was given the responsibility of administering one such project for the Dení; his co-author, Sherwood G. Lingenfelter, was commissioned to work with him, directing the collection and analysis of data on Dení social organization with its implications for the community development project.

This project was funded by the Canadian International Development Agency as part of a larger grant to SIL Brazil for various indigenous communities. The Dení project designated the expenditure of $2,500.00 for sewing machines, manioc-toasting plates, lumber-cutting saws, tools for gardening, carpentry, and small farming projects.

Before spending these funds, Koop discussed the various aspects of the proposal with the Dení. They expressed a definite interest in making manioc flour for sale as well as for local consumption, but realized they would have to expand their fields considerably since they were already running out of food. Only one woman had previously used a sewing machine owned by Brazilians, but they all said they wanted to learn. Both men and women expressed interest in expanding the variety of fruits and staples cultivated by the village. As their contribution to the project, the Dení agreed to clear land for an airstrip to facilitate communication with the community and to clear new fields in preparation for expanded manioc and maize production and an experimental plot of upland (dry) rice.

When the Dení began work clearing land, Koop found their tools woefully inadequate. Their machetes had no handles or had broken blades. The number of axes for cutting and hoes for planting were far fewer than the number of people willing to work. In short, the people needed basic tools before they could begin clearing larger fields and planting. Part of the project funds were expended for these items.

Over the next two years, the Dení cleared 600 meters for an airstrip and cleared and planted three fields totaling 6.8 hectares. During the same period Koop introduced the following items:

1 sewing machine
cloth, sewing notions
2 manioc-toasting plates
1 manioc-grating machine
3 lumber-cutting saws
clearing and gardening tools
carpentry tools
1 corn grinder
1 rice huller
rice seed (10 kilos)
maize seed (5 kilos)
28 grafted orange, tangerine, and avocado trees

The sewing machine was an instant success. After two weeks of instruction in use of the machine, six women were sewing quite well. Clothing is a necessity on the Marrecão because of the incessant plague of biting gnats and mosquitoes. The gnats are particularly bad in the village, open fields, and on the rivers. Clothing does give protection against the gnats and Dení wear anything they can get to cover their bodies. The machine gets daily use either for repairing and remaking old clothing, or for making new items from purchased cloth.

The mechanical manioc grater is used almost daily by the women in the village. Men and women also periodically used the steel pans to toast manioc for domestic consumption, and as new fields began to yield adequate amounts, for commercial production.

The experimental rice plot was an outstanding success as far as the Dení were concerned. They liked the rice so much that some had difficulty keeping enough seed to plant again for the coming year. Problems of soil utilization, crop rotation, and long-term fertility have yet to be studied, however, and given the limited fertility of local soils, the viability of rice as a supplement to manioc remains an open question. The Dení also expanded

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their planting of maize, with similar results and ecological questions. The fruit trees are growing, but not yet producing fruit.

The tools introduced have been used extensively by the Dení and, per dollar spent, have had the broadest impact on Dení adaptation thus far. A grindstone is used daily to sharpen machetes, knives, and axes. Using the carpentry tools, Dení have made significant improvements to their houses. The lumber-cutting saws have been the least utilized because of a lack of technical knowledge and experience in sharpening them. The corn grinder was a technical failure because of poor manufacturing quality. The rice huller has been effective through the first harvest.

The carpentry tools introduced in the Canadian Development project have directly stimulated the building of dugout canoes. Historically, Dení used bark canoes with a life span of about one month. Dení men have watched Brazilians manufacture dugout canoes, but lacked the tools to make their own. Since the CIDA tools were delivered, Dení men have constructed five dugout canoes which they use for fishing and for transportation to work and to trade with Brazilians.

Two aspects of the project were still pending at the time of the research: (1) the introduction of hogs, and (2) the introduction of cattle. With project funds, Koop had purchased two yearling heifers which were being pastured at the SIL experimental farm in Porto Velho. It had been proposed that the first calves be taken to the Dení after they were weaned and established on pasture, probably early in 1978. It was also proposed that hogs be introduced as early as June, 1977.

In the remainder of this chapter we will reevaluate Dení needs and the real and potential impact of the community development project for meeting those needs. In particular, we will explore the relevance of Dení culture and social organization to the resolution of specific problems in the projects implemented and pending. Finally, we will conclude with recommendations for further community development among the Dení.

The community and its needs

The Marrecão village appears to be a departure from the historical pattern of Dení settlement. By their own admission, the Dení were not inclined to stay long in any one place. Today, however, their economic links to their *patrão*, and the advantages of communication with the outside world via the airstrip have changed that. Although they frequently complain about bad local spirits and the incessant plague of gnats, they increasingly invest time and labor toward establishing a more or less permanent community. The airstrip is very influential in this regard. Individuals have told Koop on various occasions that if he did not continue to return to the village in the plane, they would leave. Some say they would return to their old territory

up the Cunhuá: some say they would live closer to their Brazilian *patrão*. However, as long as the airstrip continues to furnish a direct link to medicines, trade goods, and other contacts with the outside, they remain in the village.

This link has also created a *patrão*-like dependency relationship between the linguist (GK) and the Dení. The Dení say, "You bring us medicine; you bring us trade goods; you hire us to work on the airstrip; you sell our artifacts. You are our *patrão*." While Koop does not view such dependency as ideal, it nevertheless exists, and to deny it causes the Dení to laugh, expressing disbelief. For them, the free medical care alone is enough reason to stay. But beyond that, they have a market for traditional crafts, meat, and labor which they could not sell at all, or not as readily to traders on the river. The relative pay for work in the village as opposed to emigrant labor is substantially greater because living expenses are minimal. When they emigrate to work for Brazilians, the cost of their food consumes much of their wages, leaving little for extras. The *patrão* on the Cunhuá may grant ample credit, but the end result is a revolving debt which seldom is completely paid up.

Unless these incentives are removed, the Marrecão Dení have settled in a more or less permanent village. Such a settlement, however, will have numerous unforeseen implications. The problems arise from basic Dení strategies for adaptation. These strategies are geared to short terms of residence, usually not longer than five or six years. For example, split palm *(pachuba)* is used for Dení house flooring and walls. After three or four years this palm decays and will not support the weight of adults. They throw away the old floor and cut new. The supply of pachuba palm in this area is fairly limited, however, and the people have cut very young palms for flooring. They generally give little thought to conservation, or substitution of this resource. Past experience says that when resources are depleted, you move to another place where they are plentiful.

Dení farming strategies also reflect this short-term orientation. Dení do not weed fields in any systematic way. Rather, manioc is replanted as it is used until planting becomes impractical. These fields, also planted in sweet potatoes, maize, sugar cane, bananas, pineapple, and papaya will be harvested over a period of three to ten years. After the third year, the field is usually overgrown so thickly with brush and new growth it is largely abandoned except for occasional visits to harvest pineapple, bananas, and papaya. Such planting practices are ecologically sound, allowing rapid reforestation of the land and conservation of soil nutrients. They are predicated, however, upon a low density population with high mobility.

Wild game is the resource most rapidly depleted. Long before the Dení have cleared the forest immediately around them, they have hunted out the

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game to the point where their hunger for meat cannot be adequately satisfied. In the area around the Marrecão, the Dení have an abundant supply of fish from about January through June, but the supply of game has dropped sharply in the last year. Koop has observed periods of up to two weeks when the men have failed to kill anything at all. Before taking up residence on the rivers near their *patrão*, the Dení had repeatedly moved to better hunting territory. The new interest in trade goods and labor commitments to Brazilians to pay for these goods has restricted this freedom of movement. Their present orientation toward a 600-meter airstrip has an even greater restriction and permanence about it.

At the same time that the Dení are establishing more permanent residence, their population is growing sharply. A major part of village growth is due to immigration. The population in the village, however, is also very young. Using the maximum population figure of 86 persons, 53 (61.6%) are under twenty years of age, 24 (27.9%) are under forty and still bearing children, and only 9 (10.5%) are over forty. These young people have already become accustomed to wearing Brazilian clothing, carrying water in aluminum pots, cooking and eating in aluminum pans, hunting with shotguns, working with steel tools, dancing to Brazilian music on records, and talking by the light of kerosene lamps.

The needs of the Marrecão Dení, then, must be defined both in terms of their perceived wants, and in terms of the unperceived consequences of pursuing those wants either by working for Brazilians or by selling produce, artifacts, and labor to me. The need for trade goods is the most obvious. The Dení have become dependent upon knives, machetes, axes, and other steel tools for food production. Pottery manufacture is defunct and parents no longer teach children the manufacturing skill. Cooking utensils, therefore, are also essential. The plague of gnats and mosquitos makes clothing and mosquito nets basic items, as well as soap with which to clean the nets periodically. The shotgun has also completely supplanted the bow and arrow and blowgun for hunting, requiring a continual supply of powder and shot, or shells. In addition to these needs, the Dení want motors for their canoes; candy, cookies, sugar, and coffee for their families; and record players, records and radios for their entertainment.

The second area of need defined by the Dení is that of health care. They are particularly interested in curative rather than preventive medicine. Malaria, worms, amoeba, tuberculosis, colds, pneumonia, infections, and snake bite are constant problems among the Dení. Koop had daily requests for a variety of medications and treatments while he was in residence in the village. At the same time, the Dení have no comprehension of preventive health care, and the value of improving community and household sanitation. Treatment often furnishes only temporary relief as people are rapidly reinfected because of poor sanitation.

Another area of increasing concern to the Dení is mental health. The larger the village has become, the greater the frequency of internal conflict and strife. The periodic absences of men to collect latex or to do other work for Brazilian traders causes severe social strains in the village. Their absence places greater strain on the men in residence to furnish an adequate supply of meat, and causes tremendous friction among the women because of real or suspected attempts by the temporary widows to have sexual relations with other women's husbands. The men, in particular, complain about the constant bad talk in the village. As the size of the village and the number of absentee husbands increases, the potential conflict, anxiety, and intravillage hostility also increases with an obvious toll on the mental wellbeing of community members.

Dení have also expressed concern for a more secure food supply. Toward that end they obtained chickens from Brazilians, and several Dení women now have substantial broods of chickens. The care given to these birds, however, is minimal. The women place them in tight log shelters to protect them during the night, but during the day they are left to scratch for their own feed. The Dení have also obtained such cultivated plants as onions, peppers, squash, gourds, and a citrus fruit called *lima*.

A survey of the Dení diet over a period of seven days suggests that manioc is far and away the major source of food. Among people from ten households questioned, all had manioc at least twice and sometimes three times a day. Only one family supplemented their diet with rice. On two days in seven, some people indicated they had no meat at all and supplemented the manioc with fruit soup or corn sauce. On three days, most had fish once a day. Game was scarce until the final day of the survey when the men went on an extended hunt for a feast and killed several monkeys, a wild pig, and a wild turkey. The Dení claim that they need more meat seems substantiated by this survey.

To meet these expanding needs and wants, the Dení have already been induced to make changes in their way of life. These changes—wage work, more permanent settlements, larger communities—provoke new problems which the Dení are not equipped to solve. They have not developed agricultural and animal husbandry strategies which will support long term, densely populated communities. They have not developed practices of sanitation and preventive health care which would minimize the potential for epidemic disease in such communities. They have not yet sensed a need for selective exploitation and conservation of potentially scarce resources. Finally, their past mechanisms of social control and conflict resolution are inadequate to deal with large numbers of only marginally related people.

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The goals of community development for the Dení must, then, confront both the problems of Dení needs and wants, and the problems generated by the socioeconomic changes necessary to create the means to achieve those ends. The latter problems are more difficult to resolve than the former because they require changes in fundamental social and cultural strategies. Careful consideraton of the sociocultural framework from which Dení generate present strategies is therefore a necessary prelude to any program of innovation and change.

The Cultural Context for Dení Community Development

Motivational factors. The central focus of Dení social life is feasting. They plant large fields so they will have abundant supplies of manioc, *macaxeira,* sweet potatoes, and sugar cane for feasts. They hunt large animals so they can feast on the meat and boast before the whole community about the exploits of their hunt. They make new clothing so they can decorate their bodies at feasts and impress others in the village with their handsomeness or beauty.

It is not an overstatement to say that Dení live in anticipation from one feast to the next. If a week goes by without a feast, people begin to complain to the chief, "Why haven't you called a feast? You are not a good chief. You don't call enough feasts!" The women, in particular, look forward to feasting, because it is their only break from the humdrum existence of village life; but it is no less important to men. Happiness is equated with the good talk, good food, horseplay, singing, and dancing which are all part of the feast. The Dení concept for feasting *(ima amusinaha)* literally means prolonged good talk.

Given the primacy of feasting in the Dení view of the good life, community development proposals should address themselves specifically to this issue. Dení are positively inclined toward projects that promote their feasts even if a great deal of hard work is required. For Dení men and women, hard work for feasts is energy well spent.

Another very important aspect of Dení culture is marriage. It is inconceivable to Dení that a girl approaching puberty should not get married and begin to have children as soon as she is able. Such marriages are remarkably stable. Of forty individuals who had been married in the Marrecão village, only fourteen had ever been divorced. Two of those fourteen had been married for only a few days, and one had been a very young, second wife whose father had taken her back. This means that 72 percent of the married individuals in the village have had long-term, stable marriages, in spite of the fact that extramarital sexual affairs are common. The scarcity of marriageable women is one critical factor in this stability. A man who divorces his wife may be a long time in finding another. Another factor is

that Dení are deeply concerned for the welfare of their children, and once children are born couples rarely consider divorce.

The problem of community and family stress due to labor emigration has already been discussed. I have observed that recent divorces have been precipitated by the long-term absence of men from their wives. Economic opportunities that do not require seasonal separation from wife and family are preferred, but are not generally available to most Dení.

A third motivational force in Dení culture is the men's love and lure of hunting. Among men, hunting is the primary topic of conversation, and is the focal element of the man's role in the society. If, for some reason, a man cannot hunt and is confined to the village, he loses the respect of men and women alike. Dení say a crippled man who can't hunt is like a woman. He stays constantly around the village, gets involved in women's talk and arguing, and soon is a source of contention and dispute. Hunting is the man's way of escaping the turmoil of domestic life. In the forest, he is alone in the vast solitude to pit his wits against wild animals, rather than against his brother and friend. When men are angry, or grieve the death of a parent or child, they disappear into the forest. Women, in contrast, shout at each other in the village, or wail in chorus to express their grief.

Community development proposals that demand new economic roles for men must come to grips with these different orientations for men and women. Men are neither accustomed to nor want to spend their days in or near the village where women and children are constantly present. They weary quickly of the gossip and arguing that is routine in the lives of the women, and seek the escape and solitude of the forest. New roles that fail to allow for this basic need of men may precipitate increased internal conflict and prove more destructive than developmental to the fabric of community life. In the past, women have released their agressions in their shouting arguments with each other and in the wrestling and hair pulling with men. Men, on the other hand, have either fled into the forest or engaged in combat resulting in killing and blood feuds. Dení men still remember past hostilities, and at times have prepared their weapons at the news that some former enemy was in the neighborhood.

Division of labor. The basic division of labor in Dení society follows the male/female, forest/village dichotomies. The domain of men is the open forest and their economic role is to extract from that domain. Men and women work together on some tasks, such as housebuilding, clearing underbrush for fields, and planting crops. Beyond that, domestic duties are the domain of women. Women produce children, raise vegetable foods, and prepare the food to nurture their families. Women care exclusively for the chickens in the village and consider them their own. The women even claim the dogs, but let their husbands use them for hunting.

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Since much of the community development program proposed for the Dení relates either to agriculture or animal husbandry, this traditional division of tasks is of fundamental importance. Men are accustomed to and willing to clear land, build buildings, and even to plant, but feeding animals, carrying water, and nurturing the young are women's tasks. Particular attention must be given to division of labor and to the competitive relationship existing between men and women. New roles should be allocated as they approximate accepted Dení practice, yet allowing both men and women to maintain relatively equivalent productive exchanges.

Concepts of property and ownership. In the course of administering the Canadian International Development Agency project for the Dení, I (GK) designated some items, such as the large manioc-toasting plates, or the manioc grater, as village property. A short time later Dení men asked who owned these items. I reiterated that everyone owned them; they belonged to the village as a whole. The people laughed and shook their heads incredulously. Sometime later, a village shaman said he was going to take one of the manioc toasters as his. One of the two village chiefs said he was taking the other. The other chief said he was taking the sewing machine and the rice huller, and so on. In short, the idea of village ownership is completely foreign to Dení concepts of property.

Since any item for which a man or woman has exerted productive labor belongs to that person, the tools introduced in the community development project are no different. Because people contributed labor for building the airstrip and other community improvements, they felt entitled to personal ownership of community tools. I also found that tools not owned by a specific person were generally not given adequate care. Community saws were left in the rain to rust, and other tools were frequently misplaced. Community ownership was completely ineffective among the Dení. The implications here for further development planning are obvious. People who labor for a project expect personal ownership of some parts of the produce. Conversely, in the absence of ownership interests, people will not expend energy to care for or to maintain property.

Community organization and leadership. Planning for community development must build upon the basic organization of the village and accepted procedures for decision making. Traditional Dení planning is very short term, and rewards are immediate. The largest term plans are those made for clearing fields, an activity which covers several months. A senior man in a family cluster initiates the project by declaring in the predawn forum that he intends to clear a particular section of the forest for his field. From time to time he may call for assistance from people in his cluster and others in the village, but they do not participate in planning the work. The owner of the field organizes the clearing. When the time comes to cut the

trees he tells the village his plan and announces that anyone who wants a parcel of the field, or help from him on their field, should come to work.

We learned that community development planning should follow this basic model. Projects should be owned and organized by an interested senior man in a family cluster. These projects should be fairly short term and offer fairly immediate returns. For example, a field begins to yield manioc in about eight months. If cooperative labor is necessary, the labor must be rewarded by reciprocal labor at minimum, or by a specified share of the produce (Figure 4).

Long-term planning (beyond a year) and total-project planning is alien to Dení practice. Individuals plan their household activities, except for clearing and planting, on a day-by-day basis. The chiefs plan feasting activities one or two days in advance. Brazilians have instituted longer-term planning for collecting latex or for lumbering, but Dení often alter these plans as other activities catch their attention.

To have a successful program of community development, we found that it must be designed as a series of short-term activities with immediate objectives and rewards. By implementing short-term projects, it should be possible to develop a longer-term overview. This is not to say that planners need look only at the short term. Quite to the contrary, it is absolutely essential to do long-term planning. One cannot expect Dení, however, to take such plans seriously until they have been educated to do so through short-term activities and new experiences.

The Dení informal pattern of decision making may prove most practical for initiating and implementing projects. Using this method, project planners would conduct several informal discussions of proposals with the senior men in their respective family clusters. These men would continue the discussions among themselves for a day or two, and then report to the planners what they have decided to do. Further discussion of technical aspects of the plan may be necessary, and the predawn village forum should prove useful in this regard. It is important to emphasize again that the family clusters, not the village, constitute the forums of cooperative decision making, labor, and distribution.

The Dení have become accustomed to learning from outsiders. They have borrowed numerous ideas and techniques from the Brazilian *patrões* for whom they work. They have not learned these things, however, in classroom-type situations. Their learning has been in the practical experience of day-to-day work relations. Dení are receptive to people with new ideas, but are skeptical of new techniques until they see some practical reason for accepting them. It is essential that external advisors work with Dení in introducing new technical skills, and guide in repeated application of the techniques until Dení have mastered them and can do them

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independently.

The network of external relations. The relationships between the Marracão Dení and their Brazilian *patrão* persist today and have continuing impact in the routine of life of these people. Community development proposals that do not take into account the debts, obligations, contracts, and interests that comprise the network of external relations will certainly be ill conceived.

The most important set of obligations and interests are those between a *patrão* employer and his *fregues* (customer/employee). Of the twenty-four Dení men living in the Marrecão region, only three do not have a direct *patrão* relationship. Each of the others has incurred some debt by buying trade goods on credit, and is thereby obligated to work for the *patrão* sometime during the year to repay that debt. The *patrões* in turn make contracts with traders on the river who supply them with manufactured goods in return for so much latex, lumber logs, or other forest products.

The network of trading relations is complex. A Brazilian *patrão* to the Dení may have several of his own *patrões* to whom he is indebted. He is therefore dependent upon Dení labor to meet his own debt, as well as to supply Dení with the goods they want. As a consequence, *patrões* need to keep Dení men indebted to them. This is not difficult since Dení wants far exceed their ability to buy. Further, since much of the work takes Dení men away from their homes and fields, they must buy their food from the *patrão* when they work. They thus consume in food much of the income they earn by their employment.

The Dení use the *patrão* system as much as the *patrões* use it. Fifteen of the Dení men have two *patrões* to whom they are indebted, and one man has three. The Dení man who has three is a *patrão* himself and has five other Dení men who are indebted to him and who work for him. One other Dení man is a *patrão* to two men in his employ and debt. The Dení run up their credit as high as their *patrão* will allow, and then pay as slowly as they can. Many work to pay their debts so they can buy more, but some refuse to work until the *patrão* threatens to send for the police.

The primary disadvantage of this system for the Dení is their complete lack of understanding of money and its role in defining the relative value of goods and services, often making them victims of it. They do not comprehend how much of their wage has been spent for food, the magnitude of their debt, or the length of time or amount of latex that will be needed to pay it off. Even the Dení *patrões* lack the fundamental knowledge of addition and subtraction or the understanding of relative values to handle their own accounts. They depend on Brazilian *patrões* to do such accounting for them.

One basic need for the Dení community development project, then, is training in simple mathematics and the use of money. Without this knowledge, the production of manioc flour or other cash crop for market will not result in greater self-determination but only increased consumption and debt.

Several traders with large boats make regular trips up the Cunhuá and offer one alternative to the *patrão* system. These traders sell to the Dení on a cash basis. If a Dení has manioc flour, latex, or cash, he can buy an equivalent value of trade goods. Very few Dení have cash or marketable products on hand, however, and buying on credit from a *patrão* better serves their wants and needs.

Community development proposals should be subject to the limitations of periodic absence of Dení men working for their *patrão*. Further, this development program for Dení should not aim to supplant the *patrão* system unless it includes their immediate Brazilian *patrão* whose relative state of poverty is not much less than that of the Dení. Rather than supplant the *patrão* system, a more functional objective would be to expand Dení alternatives within it and to educate them in basic monetary values and exchange in order to allow them to properly evaluate the extent of their obligations and modify that if they wish. If Dení economic independence becomes a viable, long-term objective for the community development program local Brazilians should be included in both its planning and its implementation so that the regional community can evolve new patterns of economic interdependence.

One further aspect of the Dení external network merits consideration, namely, the relation of Marrecão Dení to other communities of Dení. The Marrecão Dení are not unique in their relative transience. Our informants indicate that Dení do not generally stay in one location for longer than five or six years. Further, permanent residents in a village may suddenly leave, and temporary residents may soon become very permanent. This Marrecão village has existed in its present composition for less than a year. The chance that it will continue in its present form for another year is unlikely. Two households have indicated they plan shortly to travel five days up the Cunhuá to visit another village of Dení for a couple of months. Such visitors sometimes become permanent residents. On the other hand, the visitors may attract more Dení households to settle here on the Marrecão.

It is too early to tell if the immigration into the Marrecão village will continue. The pull of the airstrip, however, is strong. In late March, the chief of the Dení village on the Igarapé do Indio arrived at Marrecão and requested a medical flight to Porto Velho for his son who had fallen out of a tree fifteen days before and seriously injured a hip. After he and his son have returned from Porto Velho, it is entirely possible that his experience will encourage some people to move down the Cunhuá to be closer to such emergency medical aid.

The transience of Dení creates a number of problems for the community development program. First, population figures are subject to rapid fluctu-

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ation as people come and go, almost at will. Secondly, these projects may be left without local personnel, or trained personnel may leave taking skills and equipment with them. Thirdly, the village as such is merely an aggregation of family clusters without any inherent unity in itself. Even the chiefs are primarily leaders of their clusters and not of the village as a whole. Our present evidence suggests that the Dení village on the Igarapé do Indio has only six households constituting one family cluster, which in fact is how the Marrecão village began.

Community development planning, therefore, must anticipate transience as a fact of Dení life and incorporate strategies to cope with a fluid population. The chance of the Marrecão village dissolving entirely is almost negligible, but the fact that its population will continue to fluctuate is inevitable. Some of the residents appear more permanent than others, and these might furnish the core upon which such projects could focus.

Canadian International Development Agency projects reexamined

Manioc flour marketing. The production of manioc flour for marketing to *patrões* and traders is now well established. This was not accomplished, however, without incident. Chief #14 refused to set up a permanent structure for his toasting pan. After someone else helped him set it up in return for use rights, he let it rust under a leaking roof. People were very critical until one man declared that he would put up a new roof and clean out the rust, but thereafter the pan belonged to him. By January 1978, the new owners of the pans and grater, and others anxious to use them, had constructed a manioc flour house, set up the press, graters, and pans, and were producing surplus flour.

Several observations about Dení behavior in this project are worthy of comment. First, Dení did not invest labor until rewards were imminent. Only after the manioc was ready did they begin serious work on the flour house. Secondly, it was not a Dení chief who mobilized the community for the project, but rather specific individuals with interest in selling the flour. The ownership of the toasting pans finally fell to the men who organized the construction of the flour house and fire pits. This in no way restricted the usage of these pans, since Dení may obtain use of any property merely by speaking to the owner.

A similar strategy might be applied to the ownership and use of lumber saws. A man who wants to cut lumber, and builds the platform to do it, should be given ownership of the saws and taught the technology for care and maintenance. He then could produce lumber not only for his own use, but for sale to others if he so desired.

Rice and maize production. Rice and maize production have proven to be viable agricultural alternatives after one year of production, yet a number of difficulties have been observed. The production of maize was restricted the

first year, and yields were moderate. The production of rice was more extensive and the plots yielded a higher return in usable grain for the amount of labor expended. The harvesting of rice was sporadic, however, and considerable grain was left on the stalks in the field. Some people expressed fear that others in the village had failed to retain an adequate supply of seed, but this proved false. Those who wanted to plant again managed to reserve enough seed for their own needs.

Since the Dení have no prior experience with the production of grains, more training in both production and harvesting is essential if this project is to be a success. One problem is the high soil nutrient requirement for production of grains, and the rapid nutrient loss that occurs in cleared tropical fields. Another is the vulnerability of grains to rain and wind damage. Some experimental testing in the Marrecão area is necessary to determine the most viable production and conservation strategies for the total Dení agricultural program.

Two alternatives worthy of further testing are crop rotation and flood-plain agriculture. First, the Dení might experiment by planting a new field completely in rice and maize for the first year, and then with manioc, bananas, and sweet potatoes the second year. This would diversify the yield and nutritional returns from a field before it is allowed to return to forest growth, and yet continue the production of manioc which takes less from the soil and is harvested over a period of two years.

Secondly, portions of land adjacent to the Marrecão are under water for several months during the rainy season each year. A section of this land must be cleared as part of the airstrip approach area. Experimental plots of rice could be planted just before the rains begin, and plots of maize immediately after the flood waters subside. If these crops produce well and can be harvested completely before the area floods in the next rainy season, the soil fertility should be partly restored each flood season. If this is practical, flood-plain farming would allow at least small areas to be intensively farmed with rice and maize. Both crops have market as well as subsistence value.

Citrus fruit trees. The production of citrus fruits is premised on long-term residence. Most of the trees planted will not begin bearing significant amounts of fruit until after their first five years of growth. Because Dení are transient, and are likely to move the village site when their fields are too far from their houses, these trees may hardly begin bearing before the village is relocated elsewhere. At that point there is a real danger that these trees will be swallowed up in new jungle growth.

One way to prevent the loss of fruit trees would be to turn the old village location into goat pasture, which would serve to keep down the jungle growth around the trees and ensure continued access and production from them. Cattle grazing is impractical, however, because of potential damage to

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the trees. An alternative, if flood-plain agriculture is successful, would be to plant trees at the edges of these fields, above the flood waters, yet adjacent to areas that are permanently cleared. A third possibility would be to use cleared areas next to the airstrip and allocate sections to families for planting.

Hog production. The introduction of pigs is one of the most practical and urgent aspects of the CIDA program. The Dení need for meat is expected to expand rapidly as wild game becomes increasingly scarce. The Dení have long killed wild pigs, and like pork fat as well as the meat. Further, pigs reproduce quickly and—given adequate feed—grow rapidly, furnishing a steady supply of meat. Pigs are also small enough that they can be transported and sold before being butchered.

In August, 1977, after obtaining authorization from the regional National Indian Foundation office (FUNAI) one male and two female pigs were introduced. For ten days, the community development staff helped the Dení men construct sturdy shelters and log corrals to protect the pigs from bats and predators. They gave Dení men ownership of the animals and instructed them in their feeding, housing, and simple veterinary care. A month later, I (GK) returned and found that only one pig was growing well. The other two showed very poor growth, so I urged the owners to feed their animals more carefully. At my last visit, one pig had died and the others appeared in very bad condition. Continued supervision of the project was indefinitely postponed by government restriction on SIL tribal activities in December of 1977, an event unforeseen by community development personnel (Mann 1978:3-4).

The failure of the pig project illustrates well the critical importance of working within the cultural constraints of an indigenous community. Only one man caught on to the idea that daily, faithful work produces a healthy pig. He carefully secured his pig from the threat of bats and both he and his mother fed the animal faithfully. The other two men followed exactly the pattern predictable from their usual division of labor. They delegated pig feeding and care to their wives and daughters who only reluctantly carried this out. The women had not been trained by development staff and had no ownership interest in the animals. The men even refused to treat sickness, saying animals can take care of themselves. This behavior reflects Dení male scorn for domestic activities, and the general lack of interest in maintaining another's property.

To improve Dení participation in this project, women should own the pigs and be trained to care for them. Further, tethering pigs rather than building pens requires less initial labor and in the long run may be more practical. If pigs are accustomed to being tethered they can be easily moved to different locations to forage, reducing the labor required to feed them. Further, if the

village is relocated in a few years, the moving of tethered livestock would require much less labor than that required for moving or building pens. Tethering also allows a wider distribution of ownership and responsibility. Even children can own and feed a tethered pig, while pens require centralization, and their use places a larger burden of the work on fewer people. Pens will certainly become necessary if individuals begin to raise large numbers of pigs, but that is not likely for at least several years.

Cattle and goat production. Cattle production is the only one of these projects that offers men a viable alternative role to hunting. The raising of beef is primarily a man's job, requiring an extensive investment of heavy labor in preparing enclosed pasture, and numerous maintenance tasks which demand male strength and take men away from the village. Cattle production, however, requires so much preparatory labor and technical training that it seems inadvisable to proceed with this project as scheduled for the Dení. The first objection is that Dení have absolutely no idea of how to develop enclosed pasture. The second objection is that, given the heavy time-and-labor investment, the rewards remain five years away before the first animals might be killed for meat. The third objection is that cooperative labor is necessary, but ownership must reside in individuals. The owners of the cattle will have nothing for several years with which to repay their laborers.

Goats offer an immediate alternative that would also train Dení for the larger tasks of cattle development. Goats have a number of advantages. Goats can be tethered, do not need enclosed pasture, and can eat leaves as well as grass. Goats reproduce quickly and can be slaughtered in a year's time. Goats produce milk, which provides an opportunity to introduce Dení women to the procedures of milking and the uses of milk. Goat meat is similar to deer, to which Dení are accustomed, and can be sold to Brazilians without being butchered. With goats, Dení men can begin building livestock shelters, clearing and planting pasture, and learning general skills of animal husbandry while seeing relatively early meat rewards for their effort.

The development staff introduced two male and five female goats over a period of three months. After the ten-day training period, the Dení decided on their own to allow the goats to roam freely in the village. The goats with a natural self-sufficiency generally did very well, growing fat and healthy, with only minor problems. One male died after two days of vomiting, probably caused from eating leaves of the plant used to poison fish. Also, roaming freely, the goats have destroyed some young maize and rice so that tethering may become necessary. The Dení are very enthusiastic about goats, however, primarily because of the little work required.

The response of the Dení to pigs and goats prompted the development staff to postpone indefinitely plans for introducing cattle. By their own

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admission, Dení are not prepared to do the fencing required to either create pasture or to keep cattle out of their manioc, rice, and maize fields. Further, since cattle cannot survive on the rough plant leaves that goats thrive on, the development of pasture would be essential. All of this is beyond the Dení interests and capabilities at this time.

Conclusions

Given the modifications discussed above, the Canadian International Development Agency project provides Dení with valuable economic alternatives to meet their wants and needs. At the same time, some very important considerations have not been a part of that program. Community development is not merely an economic problem. It is necessary to consider the total context of the community in both its internal and external dimensions.

The most important question for the Marrecão Dení is one which they have never even thought to ask: Who owns the land they are living on? The law of the Brazilian frontier says the man who gets there first owns the land. Under those rules, the land the Dení live on belongs to one of their *patrões*. The law of the nation claims the same territory is owned by the government. The significant point is that by either standard, the Dení do not own anything.

This casts a pall over any program of economic development, because the Dení have no long-term security in the territory. When the nation begins to build roads into this region, which is inevitable, a flood of settlers and land speculators will grab territory and the Dení will have no legal ground upon which to fight. A rich investor with influence in the government could displace them with ease, and the years of investment in a permanent settlement would be dissipated rapidly. The settlement of the land question is therefore the most urgent item for a development agenda. If this question cannot be resolved with FUNAI and in the legal framework of the nation, the total community development program and the economic security of the Dení are in jeopardy.

The second area of cultural need is community education. The Dení are already participants in a cash economy they do not understand. They need a crash program of adult education in which they are taught basic numbers, addition, subtraction, and the value and use of money. Without these skills they will always be handicapped in their external economic transactions, whether they work for a *patrão* or are economically independent.

Another important educational need is in the area of public health. Dení are very concerned about their own health and the health of their children, but have little idea of how to prevent many of their diseases through careful sanitation and other measures. Training in preventive health care is essential. Dení are receptive to external advice, and would be more so if some of

their own people were trained as medical specialists, thereby reinforcing the opinions of outsiders. One good candidate for the paramedic role is the village shaman. He is already recognized as knowledgeable in health matters, and people respect his opinion. He has already cooperated with me (Koop) on various matters and has publicly reiterated some of my advice on dealing with intervillage conflict. I have carried the burden of medical care to date, and when I am not in residence, the Dení have nothing. A trained paramedic with an available supply of medicines would be invaluable to Dení, and release the linguist when he is in residence from much of the routine medical work.

Education in the utilization of resources would also be of long-term benefit to the Dení. As long as the Dení continue their cycle of shifting settlement, their methods of exploitation are not ecologically disastrous. Cutting down fruit trees to harvest the fruit does not wipe out the species because settlements are far apart. These same methods, however, employed around a permanent settlement have disastrous long-term consequences. The Dení, and local Brazilians as well, need to learn selective techniques of resource exploitation and strategies to conserve and replace consumable resources. Lumber for example, could become an important Dení industry, if the timber cut were replanted. Current strategies are only to extract. If and when Dení obtain title to their own restricted territory, these principles will be even more important.

Finally, the expanding population of the Marrecão village and the increasing permanency of the settlement have resulted in social tensions and conflicts which in the past often led to warfare. Dení social organization has operated in the past on the fission principle. As communities became large and internal conflicts increased, family clusters split off and established a new village elsewhere in the jungle. The aggregation of clusters into larger villages counters this principle of conflict resolution and strains the society's ability to control antisocial behavior.

The future of Dení sociopolitical organizaton is difficult to predict, but some areas have already proven adaptive to change. Dení agnatic clusters show potential for becoming corporate groups, as members share not only mutual labor and support, but also new economic resources and joint responsibility for paying *patrão* debts. The pattern of marriage exchange between agnatic clusters appears as strong as ever, and the scarcity of marriageable women will likely perpetuate the system for a long time to come. Within agnatic clusters, the competitive opposition of the in-marrying women to their husbands who are brothers does not appear likely to diminish. The contest between men and women for both economic and social goals is not only a matter of occasional sport, but a daily characteristic of Dení life. Finally, the father/son, elder-brother/younger-brother authority

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structure seems fairly secure. This pattern is also common among Brazilians on the rivers and should continue unless potential opportunities for education and literacy are restricted to the younger generation, thereby undermining the pattern of authority and respect.

Over the long term, community development should make some attempt to help Dení build upon their present social organization, and evolve institutions and procedures to better define community interests and expectations and resolve interpersonal conflicts. At present, the village of Marrecão Dení is not a community at all, but rather an aggregate of family clusters. The obvious goal for community development, then, is to help the Dení create a genuinely viable community in which they can cooperate toward common goals and live at peace with one another.

8. Community Development: Some Cultural Questions

Sherwood G. Lingenfelter

The theoretical perspective taken in this monograph is that the culture of a community is comprised of the sum of the ideas and choices of the individuals who are its members; and that they make decisions and choices based upon historical precedents known to them: beliefs and standards which they share in common with others in the community, real and perceived ecological constraints, and the expectation of payoff for their behavior in terms of fulfilling needs, obtaining wants, and achieving personal goals. From this perspective, I have concluded that effective community development requires serious consideration of (1) the ecological constraints of the community setting, (2) the historical strategies employed by the members to adapt within those constraints, and (3) the sociocultural constraints that define the structure and goals of social relations and appropriate means to achieve individual needs and wants within the community setting. The results of this research suggest a number of questions of more general importance for development in rather small-scale communities that exist as isolates or ethnic minorities on the margins of complex urban-industrial societies.

A study of local ecology is particularly appropriate for community development among rural, subsistence-oriented communities. Questions of soil fertility, temperature, and local flora and fauna are essential when prescribing new cash crops or new technology to improve production of existing crops. It is false, however, to assume that innovations in transportation or manufacturing do not have ecological constraints and consequences, and development planners, regardless of project, should research and seek viable answers to the following questions:

1. What are the limitations of the natural environment for supporting a growing, permanent community (i.e., soils; plant and animal resources; water, temperature, and climatic variation; insects, parasites, and diseases affecting humans, plants and animals)?
2. What are appropriate alternatives for development projects, given the limitations of the local ecology?
3. How will proposed projects alter the use of and adaptation to the local environment?

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In the Dení case, local wage work and the airstrip project presume a more or less permanent community, which in turn places long-term demands upon the environment for food production and cash crops or other marketable resources. The initial selection of alternatives for Dení community development were made without fully understanding the ecological limitations of the region. For example, the introduction of grains and livestock proceeded without study of the limitations of soils or the potential sources of livestock feed. As a consequence, community energies and funds were diverted to enterprises whose value over a long term were questionable.

To attempt to design development projects without consideration of adaptive strategies employed historically by the people in that region is also error prone. Yet the very nature of development predisposes planners toward generating new ideas rather than toward analyzing current and past behavior in the community. The Dení case suggests that development must build upon existing structures and strategies which may be discovered by researching the following questions:

1. How has the community dealt with environmental constraints in the past?
2. How have those strategies been modified or changed?
3. What are the ecological and cultural consequences of those changes and their implications for community need and development?
4. To what extent can existing strategies be continued or modified to meet new community needs?
5. To what extent are new strategies essential for future adaptation?

For example, a brief historical study of the Dení showed a pattern of frequent shifts in the locations of villages. These shifts, made for reasons other than ecology, served to limit overexploitation of limited game and technological resources. However, their more or less permanent settling on the Cunhuá for wage work and proximity to the airstrip, without adjustments in hunting and other technology, resulted in increasing shortages of meat and building materials. Thus the change in settlement pattern has precipitated a number of new community needs.

To help the Dení resolve these problems, the community developers proposed both modifications of existing strategies and new techniques. With regard to the former, the Dení worked to expand their manioc production from subsistence levels to a marketable surplus, with the assistance of new steel tools and toasting pans, but no new knowledge. They also adopted maize and rice readily, following traditional planting strategies. They experienced more difficulty, however, with the livestock projects that required totally new techniques and knowledge. The Dení case suggests that the more new techniques are developed within a historical framework of action, the more readily members of the community accept and implement the changes.

The process of community development will be most successful if the leaders of the community are able to mobilize people for cooperative activity, and if the members of the community are motivated to participate and take the necessary steps to learn new skills and procedures and execute these consistently over time. The most common impediment to achieving these basic requirements is the developer's lack of understanding of the standards for appropriate behavior in the community. Planning, training, and project implementation beyond the parameters of these cultural constraints will result in a series of strategic blunders, communication breakdown, and sometimes abortion of the project. To avoid these pitfalls it is essential to investigate the sociocultural life of the community with particular attention to the following:

1. What are the focal concerns of the community which are viewed by the people as necessities for "the good life," and how can these concerns become an integral part of the community development plan?
2. What is the current division of labor in the community, and how should new tasks be introduced and allocated to achieve the most effective execution of these tasks?
3. What are the community definitions of property, and of rights and obligations of ownership and usufruct; and how should new tools, technology, and project rewards be allocated, given these standards?
4. What is the nature and scope of leadership and authority in the community, and what are the procedures for decision making through which a program of development can be planned and implemented?
5. What are appropriate development alternatives, given these cultural constraints?

After completing the study of the sociocultural characteristics of the Dení community and then working from an understanding of that cultural framework, the project administrator was able to point out and reduce a number of the difficulties. For instance, his research on concepts of property and ownership explained why "community" tools had been appropriated by individuals. By using data on the cycle of work and payment or reward, he restructured the allocation of tasks and payments to reflect the Dení pattern of individual initiative and ownership. An analysis of leadership and decision

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making demonstrated why chiefs had been ineffectual in mobilizing labor and distributing payments, and at the same time suggested alternatives for achieving these ends.

To determine whether one should (a) introduce cattle or goats, (b) give instruction in person-to-person or classroom situations, (c) train males or females, or (d) utilize individual or community labor, cultural data are absolutely essential. For example, studying Dení work habits convinced me very early that cattle require far too much labor and yield returns much too slowly to furnish a viable alternative to wild game and fish. Goats and pigs, in contrast, seemed to better fit the limitations of labor and reward patterns. An understanding of the Dení division of labor suggested that men would care little for domestic animals that remain in the village, and that women should be trained to care for these animals. A study of the pattern of property ownership and use showed clearly that individuals, not families or groups, should own and care for these animals. Without this cultural knowledge, development projects are at best a comedy of errors, and at worst a disaster for both the community and the project sponsors.

Up to this point, the questions have focused primarily upon the indigenous community. A community never exists in complete isolation, however, and consideration of these external links and ties raises the following questions:

1. To what extent are people in the community linked to outsiders by reciprocal economic or social obligations?
2. How will these links obstruct or facilitate achievment of community development goals?

For the Dení, their mutual interdependence with Brazilian *patrões* was of primary economic and social importance. The fact is that long after the project has ended and the administrator has gone, the Dení and the Brazilians will continue their relationships. Indeed, the Dení will be completely reliant upon Brazilians to supply their demands for manufactured goods. Successful development for the long term must then be predicated upon continuation of existing external ties, without excluding new alternatives for access to the larger market economy.

Perhaps the most difficult factor to control in community development is that of one's own cultural assumptions as they interfere in the planning and implementation of a project. My final concern then is to ask: How are the cultural expectations and standards of the community developers generating interference in the process of intracultural modernization and development?

In spite of the fact that the results of this research clearly indicated that Dení men would not give attention to domesticated animals, the project staff trained and equipped men, rather than women, in the techniques of pig and goat husbandry. The results have been exactly as predicted. The goats run

wild, surviving on their own ingenuity, and only one pig is healthy and well fed. The only reasonable explanation for this staff error is the interference of staff cultural orientations, orientations which made working with and teaching women nearly impossible for them.

It should be evident from these brief illustrations that the study of the sociocultural aspects of the Dení community generated a series of practical applications and strategies for community development. Further, it is clear that several actions taken by the developers *without benefit of*, or *in spite of*, the conclusions of the study resulted in Dení rejection of the new technology. It should be obvious that adoption of technology is the key issue in measuring the success of development efforts. It is my conclusion from this study that development decision making and technological innovation based upon a firm understanding of the community's historical strategies and ecological and sociocultural constraints will have a far higher rate of technology adoption than those that procede upon the understanding, experience, and cultural biases which developers bring with them.

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