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Chapter 3:

"Wakuenai Ecology"

Introduction

The most distinctive feature of Wakuenai ecology is its dual emphasis on fishing and agriculture. For the Wakuenai, fishing is a basic source of protein and other nutrients that complements agricultural activities but that does not surpass them in importance. Hunting and the collection of wild fruits are occasional activities that add to the variety of local diets during some seasons, but they do not serve as a steady, reliable food source on a year-round basis in the same way as fishing and agriculture.

The equal importance of fishing and agriculture in Wakuenai ecology contrasts with the ecological orientation of Tukanoan-speaking groups of the Northwest Amazon region towards only one of the three basic subsistence activities, hunting, fishing, or agriculture. The Tukanoan groups classify themselves according to this tri-fold scheme of subsistence activities, even though all groups practice a mixture of the three.

"The classification, from the point of view of the Desana, is as follows: The Desana are hunters; the Pira-Tapuya, Uanano, Tukano, and Siriano are fishermen; the Tuyuka, Miriti-Tapuya, Karapana, and all Arawakan groups are horticulturists" (Reichel-Dolmatoff 1971: 17).

The Wakuenai do not classify sibs and phratries according to subsistence activities in this fashion. There are some minor economic specializations among Wakuenai phratries and sibs, such as the

reputation of Wariperidakena sibs as makers of the finest manioc grater boards and that of Adzaneni sibs as the best ceramists. However, fishing and agriculture are everywhere of equal importance among the wakuenai and no attempt is made to evaluate either one or the other of these two types of activity as more important.

Daily Subsistence Activities Agricultural and fishing activities take up roughly equal amounts of time in daily life, and the products of agriculture and fishing form the basis of the daily diet. Early in the morning, men go fishing to catch some meat for the mid-morning communal meal. Women arise even earlier to start cooking fires and prepare hot yucuta (hamuka, or 'hot' in waku; mingau, Yeral), a type of manioc porridge made by dissolving manioc flat breads in boiling water. The women sometimes leave with their infant children and unmarried daughters to get an early start on their work in the manioc gardens but in general wait for the men to return with the morning catch of fish so that they can work on fuller stomachs. By mid-morning, women have finished cooking the fish brought in by their husbands, and each family contributes some fish or, in its absence, some manioc flat breads to the communal meal. Participation in the communal meals is an important expression of unity in the village. Anyone who does not share his family's food with the rest of the village is quickly labeled as stingy. Conversely, refusal to share in communal meals in the headman's house is a highly visible and tangible way of stating discontentment with the village leadership or with the community as a whole. The spatial arrangements of communal meals highlights the unity of household headmen in the village. The adult men sit or squat in a circle around a large bowl of hot-

peppered, boiled fish near the center of the house, while women and children do the same at the rear of the house or around the periphery. At the end of the meal, the men often spend a few minutes smoking, discussing daily activities, and telling stories or myths.

In spite of the intense heat of the late morning and noon hours, this part of the day is when men and women are most likely to work in their manioc swiddens. Fishing becomes very unproductive in the hottest hours of the day, so the men usually wait to fish again until mid to late afternoon. Women process manioc and other foods, clean house, and care for infants during the late afternoon hours. They prepare a second communal meal in the early evening, just after sunset. Another, usually longer round of smoking and conversation follows the evening communal meal before everyone returns to their separate family dwellings to sleep for the night. Nowadays, men occasionally go fishing or hunting forest animals from their canoes at night with flashlights and headlamps.

Everyday social life for the Wakuenai revolves around the productive activities of cultivating and processing manioc and fishing and the economic activities of consuming, sharing, and exchanging manioc and fish products. Hunting, gathering wild forest products, communal work parties, house construction, craft and tool making, sexual intercourse, social visiting, and all other daily activities elaborate upon this simple pattern of agricultural and fishing activities. The dual emphasis on fishing and agriculture in Wakuenai ecology provides a fairly broad range of viability within which individual families can engage in other activities without jeopardizing their own well-being. The ideals

of sharing and reciprocity augment this adaptive flexibility by allowing generous individuals to temporarily rely on other families for basic nutritional needs while engaging in other activities<sup>2</sup>. A household headman who chooses not to participate in the ideology and practice of food sharing and exchanging or who gives the impression of taking more than giving loses adaptive flexibility that accrues to those who more faithfully honor the principle of reciprocity.

### Ceremonial Food Exchanges

The exchange of fish and manioc products is also central to the cluster of Wakuenai ceremonial activities known as pudali (see Chapter 9 for greater detail on Wakuenai ceremonies). Pudali ceremonies are no longer important as food exchanges because migratory and social changes engineered by missionaries have greatly altered the traditional pattern of relations among sibs and patratries. Nevertheless, many Wakuenai continue to perform music of the maczerunai (dance-music of pudali) genre, and older people still remember the sequence of events that made up traditional pudali ceremonies. Viewed strictly in terms of food exchanges, pudali was an exchange between two local groups of smoked fish in return for manioc products. The exchange of fish for manioc was ideally realized between affinal relatives, although in practice any two local groups could agree to hold a pudali together. In the formal speech of offering the smoked fish to the hosts, the headman of the visitors, called the owner of the ceremony (pudalimnali), addressed the host headman's wife as 'my younger sister' (nuwecua), regardless of whether or not she actually stood in such a relationship to him<sup>3</sup>. The gift of fish had to be repaid with gifts of grated manioc pulp in a subsequent pudali ceremony

in which the roles of guest and host were reversed. The owner of the second ceremony was the woman (pudalimnaru) who had formally received fish from her 'older brother' (ruperri) during the first pudali.

### Sexual Division of Labor

The pudali ceremony gave expression not only to the balanced importance of agricultural and fishing activities in Wakuenai ecology but also to the complementarity of male and female roles in maintaining both kinds of subsistence activity within viable ranges<sup>4</sup>. In everyday social life, the division of labor between the sexes with respect to agricultural and fishing activities is one of complementarity and interlocking sets rather than a rigid distinction between male and female roles. Men are responsible for cutting and burning new gardens, both men and women participate in planting and weeding, and women harvest, replant, and process manioc and other crops (see Figure 1). Unlike many other Amazonian societies, the Wakuenai do not place a higher value on fishing, hunting, and other predominantly male subsistence activities than on agricultural activities. In fact, men are still judged in their capacities as household headmen by their execution of agricultural activities, in spite of the demise of the traditional custom of briceservice.

On first look, fishing appears to be more sharply divided between male and female roles than agriculture. Men capture and kill the fish, whereas women cook and distribute it within the family and the village. Yet even here the division of labor is blurred, since girls prior to initiation, widows, and women past menopause often do some fishing with hooks and lines, although not with traps, spears, or bows and arrows. Also, fishing with poison

Fishing w/ traps	w/ spears, bows and arrows	w/ hook & line	w/ poison	Smoking, salting, boiling fish
men	men	men, girls, widows, old women	men & women	women

Figure 2. The sexual division of labor in fishing activities among the Wakuénaí

Cutting	Burning	Planting	Weeding	Harvesting (replanting)	Processing
men	men	men and women		women	women

Figure 1. The sexual division of labor in agricultural activities among the Wakuénaí

in the dry season is a cooperative activity in which both men and women harvest the stunned fish floating on the water's surface (see Figure 2). "In general, fishing is an activity for both men and women, though youths and men are more likely to spend whole days at it than women" (Wright 1981: 22). The extra time that men spend fishing balances the amount of time that women devote to processing, marinating and cooking fish. In summary, both men and women provide significant labor inputs into the activities of fishing and agriculture, although men tend to spend more time on fishing and women on agriculture. No rigid boundaries divide male and female roles in fishing and agriculture, and both kinds of subsistence activity are equally valued for their contribution to domestic and public economic domains.

#### Seasonality

Fishing and agricultural activities are also complementary in terms of the annual succession of wet and dry seasons. The heaviest inputs of male labor into agriculture consist of cutting, burning, and planting, activities that take place during the short dry season of September to November, the long dry season of January through March, or just at the end of the long dry season in early April. These three periods are also when fish are relatively abundant, and men can catch sufficient amounts of fish to feed their families and to share at communal meals in far less time than they need to spend on fishing in the wet seasons (cf. Stocks 1982). Average monthly rainfall (see Figure 3) and the height of the river are key ecological variables for agriculture and fishing, respectively. Total annual rainfall in the Upper Rio Negro region of Venezuela is approximately 3600 mm, and it is distributed fairly evenly throughout the twelve months of the year.

In some years, the amount of rainfall in 'dry' season months can be equal to or even greater than rainfall in the wet season months (K. Clark, personal communication). The Wakuenaí refer to such natural anomalies as 'bad years' or 'years without dry seasons'<sup>5</sup>, and they are keenly aware of the problems that such years pose for their subsistence activities.

Wakuenaí men cut new gardens during the short September to November dry season so that the felled trees will have as much time as possible to dry out prior to burning and planting at the end of the long dry season. A variety of criteria help the Wakuenaí to determine the appropriate time to begin cutting new gardens. The water level of the river, which reaches a peak in late July, remains fairly high throughout August and early September, a period of frequent thunderstorms. Around the middle of September, the river begins to steadily recede for two months. The level may go down almost 4 m, about half of the 7 m vertical drop between highest and lowest annual levels. The drop in river level is perhaps the most important natural indicator that the summer (karuika) has arrived, and the greatly improved fishing that accompanies the drop in river level allows men to devote more time and energy to agriculture. Two constellations are associated with the short dry season: Makwapidania (untranslatable) and Kemedapani ("Big Head" of an anaconda; Scorpio<sup>6</sup>). Gusty winds that often accompany the relatively dry weather of these two months are another indication that it is time to cut new gardens. According to myth, the winds are a manifestation of Kaali, a younger brother of Inapirrikuli and originator of gardens and all cultivated plant species, who arrives during Makwapidania to help the men knock down the forest. Although strong or sudden winds can in practice



be very dangerous by blowing down partially cut trees on top of a man working on the forest floor, the Wakuenai men believe that the work of cutting proceeds more safely and with less effort if they work in synchrony with Kaali during the short dry season rather than postpone the work of cutting until the long dry season.

The importance of the drop in river level, constellations, and dusty winds as signs of the proper time for cutting new gardens is perhaps greater than in the past for Wakuenai groups living along the lower Guainia in Venezuela, since the most important natural phenomenon traditionally used to indicate the proper time for agricultural activities throughout the year is a species of frog (molitu) which is said to abound along the Isana and upper Guainia but which does not exist along the lower Guainia. The molitu frog is referred to as one of Kaali's children (Kaali-ieni) and is also the name of an important musical instrument played in Kwapani ceremonies (see Chapter 9)7. The high-pitched singing of the molitu frogs provided the Wakuenai with a year-round schedule for agricultural activities. It sings in September and October, 'telling' the men to go cut new gardens. It stops singing in November and does not start up again until late March and April, when it is believed to tell people to go burn and plant in the gardens. It stops singing during the heavy rains of late April and May until the slightly drier months of June and July, when it is interpreted as telling people to go weed and clean their gardens. In August, the molitu frogs stop singing until the beginning of the short dry season in middle or late September. According to traditional beliefs, when people work in synchrony with the 'orders' of Kaali's son, their agricultural activities proceed smoothly and quickly, but if they ignore the mythical calendar of

the molitu frog's singing their labor is slow and difficult.

#### Selection and Preparation of Garden Lands

With migration to the lower Guainia of Venezuela, the Wakueraí also lost the most important plant-soil association for deciding which soils to cultivate. The large trees known as mori that grow in pockets of relatively fertile, yellowish soils along the middle Isana and upper Guainia do not grow in any of the soils along the lower Guainia in Venezuela. The preferred soils for manioc cultivation along the lower Guainia are black (e.g., 10 R/1.3/1.8, Japanese Soil Color Chart) or brownish black (e.g., 7.5 YR/2.2/1.7) in color and are composed of sand mixed with some clay and a high percentage of organic matter<sup>8</sup>. Prior to cutting, these blackish soils support 30 m tall stands of yebaro, jiqua, jaboá, and other hardwoods. After clearing and burning, these soils are suitable for the cultivation of bitter manioc, pineapple, hot pepper, tupiro, mapuey, cashews, and in some cases sweet manioc. However, other crops that the Wakueraí formerly cultivated on their native lands grow either poorly or not at all in the highly acidic, nutrient-poor soils located along the lower Guainia. Such crops include maize, watermelon, squash, sweet potato, white potato, yam, and beans. Village clearings are cultivated with plantains, lemons, temari, lechosa, pijiguao, quama, cucurito, and a number of other fruits.

After choosing and cutting new garden sites during the short dry season, there is a temporary lull in agricultural activities during the short, one-month wet season. This period of relative inactivity (roughly mid-November through mid-December) is named after the constellation of the white heron (maari), called Maarínai. The name also refers to the flocks of migratory white

herons which begin to fly south down the Rio Negro during the short rainy season. The river level returns to within a meter or two of its highest annual level during Maarinai, and fishing becomes less and less productive, requiring greater labor inputs for smaller returns.

The long dry season begins in late December as the river level begins to steadily and more rapidly decline and the constellation called Zurunai appears in the evening sky. The second half of the long dry season is marked by the appearance of a constellation called Dzaaka (crayfish) and lasts from early February through mid-March. The Zurunai-Dzaaka months are a period of relative abundance in fishing, and whole villages often travel up the Casiquiare River or the Cano San Miguel to fish with spears, hook and line, or barbasco fish poison. Although new gardens are most often cut during the short dry season, they are sometimes cut in January at the beginning of the long dry season. More frequently, men cut extensions of old gardens at this time of year, since these smaller clearings naturally tend to dry out faster because of their greater exposure to sunlight than new gardens surrounded by high forest.

#### Main Planting and Fish Spawning Runs

Both agriculture and fishing activities come to an annual climax during the period known as Wariperihnume (the month of Wariperi; the period immediately preceding the Pleiades). Wariperihnume lasts from late March to mid-April and is the time of the main planting, an activity in which all adult men and women of each village participate either collectively or as separate husband-wife teams. In their native territories along the Isana and upper Guainia, the Wakuenai performed spells in newly-cleared

and burned gardens prior to the main planting.

"Well before the heavy rains begin (in the time of the Pleiades), an elder (father or mother of the garden-owners) begins planting a small patch of manioc in the garden middle, turning the earth and reciting spells, invoking Kaali (who began manioc) who will ensure the growth of the new gardens" (Wright 1981: 19).

The Wakuenai groups living along the lower Guainia in Venezuela no longer practice ritual spells at planting time as well as other magical techniques designed to increase garden productivity through the association of human agricultural labor with the mythical power of Kaali. Migration into an extremely poor, oligotrophic environment which lacked certain natural phenomena seen as manifestations of Kaali (or his children) and removal from sacred ancestral homelands must be counted as primary 'emic' factors that have contributed to the secularization of Wakuenai agriculture along the lower Guainia.

The main planting that takes place in Wariperihnume requires the harvesting of large amounts of manioc tubers from one or two-year old gardens in order to accumulate a sufficient number of manioc shoots for planting in new gardens. In an agricultural cycle dominated by bitter manioc cultivation<sup>10</sup>, the time of main planting is also when the largest harvest is reaped. Wariperi (the Pleiades), the period in April and early May immediately following the main planting, is considered the ideal time to hold traditional pudali ceremonies. However, since harvesting and replanting manioc is a continuous activity throughout most of the year, pudali ceremonies can also be held at other seasons when fish are

relatively abundant. Pudali ceremonies are most clearly associated with agriculture through the story of the origin of madzerunai, the genre of dance-music performed in pudali. In the myth, Kaali trains the youngest of his sons (Kaaliēni) to be the first master musician (madzeru) so that he would know how to properly ask for food and drink through singing, dancing, and playing the various musical instruments of the madzerunai genre. Thus, in one sense, pudali celebrated a periodic abundance of manioc following the rain planting as a consequence of the synchronization of human productive and economic activities with the mythical timing of Kaali and his children.

Pudali also celebrated the abundant supply of fish that begins in the Zurunai-Czaaka dry season and culminates in the spectacular spawning migrations of bocachico species in the transition from dry to wet seasons. The rivers usually begin to rise in late March during Wariperihnume, and the first wave of migrating fish arrives soon after the rising waters flood over to form shallow lakes along streams. The first species to migrate is the red-tailed bocachico (dupari), followed by the spotted bocachico (dume) and later by the white bocachico (taari) during the period of Wariperi. The timing of bocachico migrations usually proceeds according to this order but is susceptible to changes in years when river level rises too abruptly or when the dry season has been unusually rainy. The locations of bocachico spawning grounds are highly site-specific and regular. On the lower Guainia, bocachico spawn in a shallow lake along a stream called "Bocachico". The mouth of the stream is blocked off with large facuri fish traps after a wave of fish has passed into the lakes upstream. Swarms of fish are captured when they attempt to return

to the river's main channel on the following day. Bocachico are the most highly-prized fish for eating because of their high fat content and excellent flavor, and the Wakuenai who live near the Cano Bocachico gorge themselves on the surplus of fish. In addition, they prepare for the long wet season by smoking, salting, and grinding surplus fish with a mortar and pestle.

### Fish Runs in Ceremonial Symbolism

In pudali ceremonies where male owners (pudalimanli) offered large quantities of smoked fish, the Wakuenai performed a series of dances named after the three main species of bocachico. The dances are performed to the accompaniment of large, trumpet-like instruments known as kulirina which make a deep, bass sound that is believed to recreate the sound of a stream filled to the brim with bocachico fish. The guest men and women performed the three bocachico dances (taari, dume, and dupari) during the early stages of pudali while the heap of smoked fish was still out on the village plaza prior to its ceremonial offering to the hosts' headman and his wife (pantimnali and pantimnaru, "house-owners"). The construction of kulirina trumpets and the symbolism of their usage in pudali dances is a complex subject worthy of independent attention in another context (see Chapter 9). Here I want only to point out those features of kulirina construction and performance that most directly contribute to an understanding of Wakuenai ecology and its uniqueness within the Northwest Amazon region.

The kulirina trumpets, known as surubi in Yeral, are named after a species of large catfish (kulirri) that is referred to in Spanish as raiaa (striped) because of the large black band that runs down the sides of the fish. The tubular, slightly bell-shaped resonators (see Figure 4) are made by weaving strips of tirita.

(pwaaapwa) around a balsawood frame and then covering the exterior with a melted resin (maini) to seal off airholes. A short tube made of mawj palmwood is inserted into the barrel by lashing it into a rim of vine (ozamakwapi) that fits snugly into the interior walls of the woven barrel. The closing of the head or mouth of kulirina trumpets is a sight forbidden to women, since the wakueraí believe that to witness this process of sealing and closing could cause women to die in childbirth. The union of male and female elements in the construction of kulirina trumpets (see Chapter 9) is paralleled in the bocachico dances by the formation of chains of male trumpet-players and female dancers. Upon the completion of construction, the kulirina is a shiny black instrument shaped rather like a large catfish with a long, projecting mouth or proboscis. The men decorate them with red and white paint and feathers. On the white areas representing the belly of the catfish, two types of design are painted in red color made from kerawiczu, a cultivate plant: 1) an emblem standing for the phratric name of the instrument's maker (nowadays the phratric name is written out in capital letters; e.g., DZAWINAI) and 2) the pattern of lines sketched on manioc grater boards that serves as a guide for the insertion of the stone teeth (Figure 5). At the end of pucali, the guest men who had offered a display of smoked fish to the hosts gave their kulirina trumpets to the hosts. No other class of musical instrument or ceremonial regalia were exchanged during pucali. The emblem of the phratric name of the instrument's maker and the manioc grater board designs acted as symbols of the hosts' duty to return the offering of fish in a later pudali in the form of manioc products.

Kulirina: A Paradigm of Wakueraí Ecology

The kulirina trumpets are quintessentially Wakuenaí artifacts and symbolize in highly condensed form the interconnectedness of fishing and agricultural activities in Wakuenaí ecology as well as the interdependency of male and female in the maintenance of these subsistence activities. Nimuendaju intuitively grasped the cultural importance of kulirina trumpets among the 'Baniwa' of the Isana River and cited them as one of the most distinctive differences between Tukanoan and Arawakan groups of the Northwest Amazon region.

"... the large "surubi flutes" and the high development of ceramic arts is only found among the Baniwa of the Isana; the masked dances and manufacture of low benches characterizes the Tukanoan family" (Nimuendaju 1950[1927]: 164-65, translation mine).

Kulirina performances and the larger ceremonial context of pudali have all but disappeared in the wake of missionary interventions aimed at the obliteration of indigenous culture and the disruptive effects of forced migration out of native territories along the Isana and upper Guainia. The construction of kulirina trumpets requires far more time and energy than any of the other traditional instruments of the madzerunai genre, and this fact probably contributed to the discontinuation of kulirina dances.

In response to my curiosity about traditional pudali ceremonies, the headman of one village decided to construct a set of five kulirina trumpets. Although originally designed as a demonstration for the anthropologist, the trumpets became a topic of general interest to young men in the village and to a large number of people in the region who had heard about the instruments

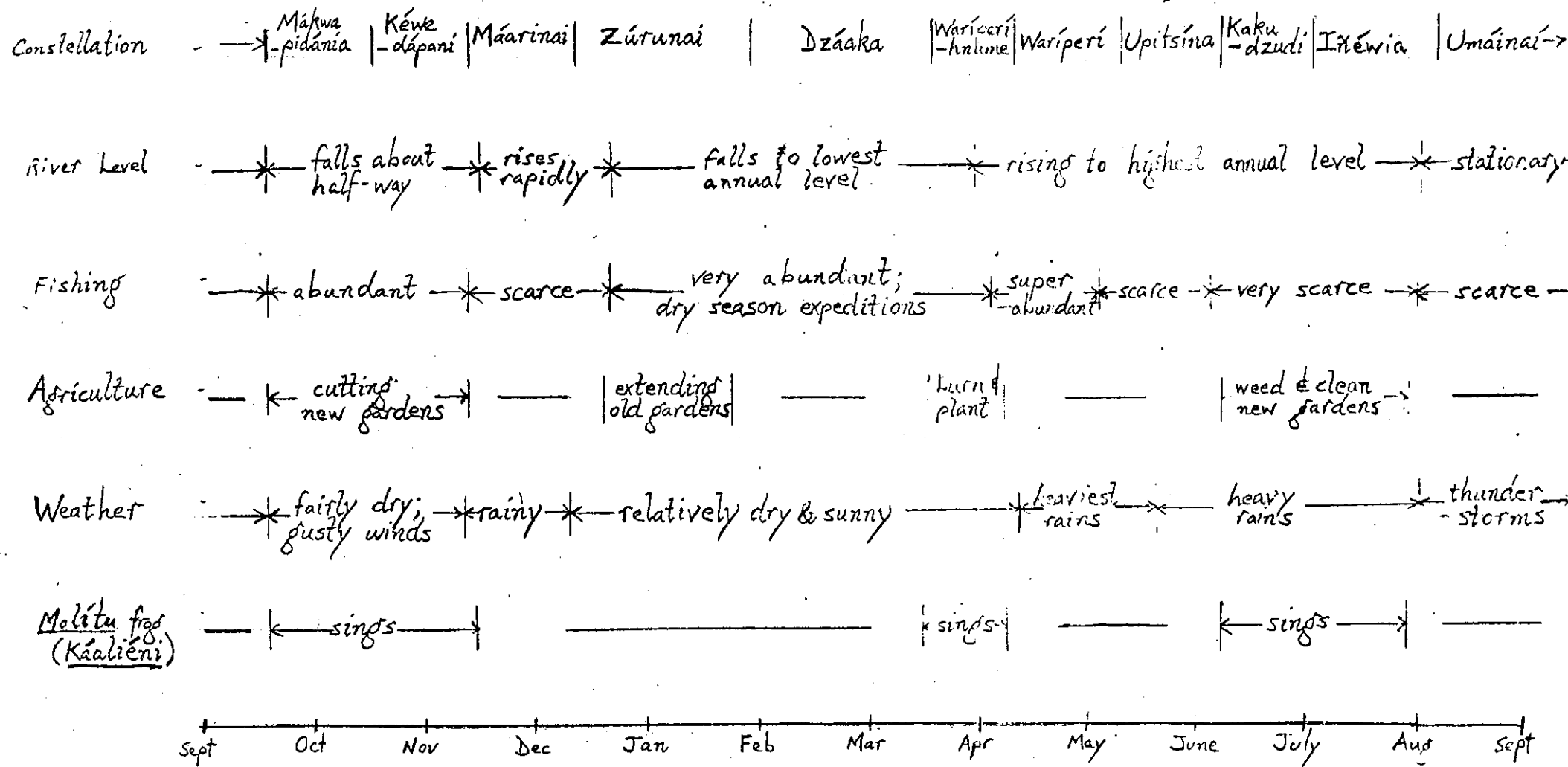


but had never actually seen how they are made and used. By the time the local men had finished constructing and decorating the kulirira, a number of young men and visitors had learned how to make kulirina trumpets and over 150 visitors from five villages had assembled to observe the bocachico dances. The visiting parties included members of other Arawak-speaking groups such as Baniwa, Guarecuena, and Yerali, in addition to Wakuenai from nearby villages. This spontaneous outpouring of interest in kulirira trumpets testifies to the instruments' importance in traditional Arawakan cultures of the Northwest Amazon region and their potential value as a focal point in cultural revitalization.

#### The Long Wet Season: Scarcity

Agricultural and fishing activities simultaneously culminate in the annual main planting of new gardens and the trapping of migrating schools of bocachico during the Wariperihnume-Wariperi period. The double abundance of food resources in the early wet season is in stark contrast with the period of increasing scarcity that begins in May and continues until the river reaches its annual peak in late July. The Wakuenai divide the long wet season into three sections following the commencement of heavy rains and the rising of the river in Wariperi: Upitsina (a constellation resembling the type of small conical fish traps called upitsi), Kakudzuci (a bright star first seen in July), and Inewia (the constellation of the otter). Fishing becomes extremely poor in these months and only slightly improves during the August-September month called Umainsi (constellation of the pirana fish, umai). Everyone looks forward to the beginning of summer in Makwapidania. In Figure 6, I set out the entire calendar of Wakuenai 'months' together with parallel seasonal changes in weather, river level,

Figure 6. Annual cycle of fishing and agricultural activities; seasonal changes of important natural phenomena



the relative abundance of fish, the singing/silence of mollu frogs, and the major agricultural activities.

#### Hunting and Wild Fruit Collection

The importance of hunting and wild fruit collection in subsistence is secondary to that of fishing and agriculture. Game is scarce near main rivers, probably due to overhunting since the introduction of shotguns coupled with the low natural productivity of the region. Nowadays, all adult men among the Wakuenai own shotguns in the majority of villages along the Lower Guainia in Venezuela. Hunting with bow and arrows is no longer practiced, and the use of blowguns for hunting birds, monkeys, and other arboreal animals is rapidly disappearing. The high costs of shotgun shells, lead shot, powder, and detonators often prevent Wakuenai men from hunting. Nevertheless, the Wakuenai are avid hunters and spend whole days tracking animals through the forest if given the opportunity.

Two species of peccary, the white-lipped (apidza) and white-collared (ozamurito), are the most highly sought after game animals and are the only large forest animals that are killed with any regularity at all. Small groups of men sometimes track herds of peccary with the aid of dogs. Peccary herds of a hundred or more animals travel over great distances in the forest and leave a very evident trail of diggings, footprints, feces, and chewed vegetation. Most hunters are opportunistic and prefer to wait until a herd is spotted in the area of their village rather than spend days in pursuit of a distant herd. Peccary herds generally stay well clear of main rivers where there are human settlements except at the end of the long rainy season. When the rivers stop rising, the herds move closer to the water's edge and on occasion

within easy range of hunters. In August, 1980, for example, a herd came down to the water within a village clearing and the men clubbed to death seventeen animals that were in shallow water. In August, 1981, the men of another village captured two young peccaries that were swimming in the main channel of the river. In most cases, however, hunting peccary is a far more time-consuming pursuit that requires a good deal of tiresome walking and running through the forests. Adult peccaries weigh 30 kg or more, so the job of carrying slain animals back to a canoe is hard work.

The only other animal for which Wakuenai men hunt in a semi-organized manner is lapa (dapa, Curricarro; paca, Portuguese). They kill these large rodents at night from their canoes, especially in the dry seasons when the animals come down to eat mossy plants that grow along the banks of streams. Aside from peccaries are lapa, hunters occasionally kill deer, tapir, monkeys, anteaters, jaguars, pumas, armadillos, alligators, curassows, and large ferrets. A hunter who kills any animal of substantial size is obligated to share the meat with other families in the village. Smaller animals and birds are not usually shared in this manner but are eaten by the individual hunter and his family. However, in extremely lean periods, even these smaller prey are boiled into a soup which everyone shares in a communal meal.

Unlike the Tukano-speaking Desana who invest hunting activities with a great deal of sexual and religious meaning (Reichel-Dolmatoff 1971), the Wakuenai do not focus much ritual attention upon hunting<sup>12</sup>. The replacement of traditional hunting technology with shotguns might have slightly contributed to the relatively pragmatic attitudes and behavior of Wakuenai hunters, since there were a number of dietary prohibitions that surrounded

the preparation of curare poison for hunting with bow and arrows and blowguns. Already in the early years of this century (Matos Arvelo 1912: 55), the traditional taboo against killing and eating animals of the totemic species of the local group had not been observed for many years among the Wakuenai, Baniwa, and Guarequena of the Lower Guainia. Although hunting was more firmly embedded in dietary taboos in the past than it is today, the Wakuenai have apparently never developed a system of sexual and dietary restrictions for hunting activities that approaches the magnitude and complexity of such systems among the Tukano-speaking groups of the Northwest Amazon region.

The collection of wild fruits is most heavily practiced in the long wet season, a period when many tree species flower and bear fruit as the rivers and streams overflow their banks to form large areas of flooded forest. Beginning in the time of the Pleistocene, the Wakuenai harvest several species of wild fruit. Among the most common of these fruits are manaca (manake), seje grueso (gunana), piasawva (maramada), yuku (hinirri), cucuritu (wetirru), guaco (awiya), and yuri (gumarri). Most fruits are made into manioc drinks, but some are boiled (cucuritu) or roasted (guaco and yuri) and eaten separately. Due to the phenomenon of mast fruiting (see Jansen 1974), the trees of the entire region fail to bear fruit every third or fourth year. Such barren years contribute to the general scarcity of food during the long wet season, but the Wakuenai do not speak of hunger as directly resulting from a lack of wild fruits. Instead, they bemoan the effects of the lack of wild fruits on hunting, since they perceive a direct connection between the abundance of wild fruits and the stock of game animals.

While most species of edible wild fruits ripen in the long wet season, a few bear fruit in the dry seasons. The hardwood tree called jaboa (dzaoua) flowers during the early part of the short dry season (wakwapidania) and bears fruit later in the same season. During the long dry season, the palm fruits known as seje (puperi) ripen. The ripening of wild fruit species tends to follow the general schedule outlined here, and the Wakuenai associate different points in this schedule with definite constellations in their annual calendar. However, the timing of wild fruit species does not always and everywhere conform to this ideal pattern, and there is a good deal of local variation due to microenvironmental differences. At a time when no particular species of wild fruit is ripe along the rivers, a relatively abundant supply of seje or maraca might be ripening in some remote area of the forest. Wakuenai hunters observe such local variation, and if they come across a grove of ripening fruit trees while hunting and are unsuccessful in their pursuit of game animals, they harvest the fruits before returning to their village so as not to come home empty-handed.

Both hunting and wild fruit collection are exclusively male activities, but in myth and ritual it is the activity of wild fruit collection rather than that of hunting which serves as the model for the division of labor between the sexes. The symbolic value of wild fruit collection rests on a high/low distinction that is in turn applied to the male/female opposition in ritual contexts. Only men climb high trees to harvest wild fruits. Women can only harvest low-lying fruits that they can reach from the ground or cultivated plant species, such as hot peppers (aati) and bitter manioc (kaini), that grow either close to the surface of

the ground or below it. The symbolism of wild fruit collection and the male/female opposition are intricately wound up in Wakuenai initiation rituals and kwepani ceremonies. Without an abundance of wild fruits to harvest, the Wakuenai say that they cannot hold any of these sacred rituals or ceremonies. However, there is no immediately clear connection between the everyday activity of wild fruit collection and its symbolic value in ritual and ceremonial contexts.

Earlier in this chapter, I have shown how the double abundances of manioc products and smoked fish are directly represented in traditional pudali ceremonies through musical instruments and performances, such as the kulirina trumpets and their use in the bocachico dances, which are attributed to Kaali, the mythical originator of gardens and cultivated plant species. In contrast to the madzerunai genre of dance music performed in pudali, the musical performances and instruments of kwepani ceremonies, male and female initiation, and other sacred rituals are not at all directly related to everyday subsistence activities but are based on sacred conceptual principles which I will describe in the next chapter and continue to elaborate upon throughout the dissertation.

Chapter 3 -- Footnotes

1. Matos Arvelo (1912: 184-85) describes a custom of mutual aid through long-term visiting that is not frequently practiced today. Visitors on long trips were given use of their relatives' manioc swiddens for several months. When the visitors saw that their hosts' garden was nearing depletion, they invited their hosts to return with them to their village where their own manioc plantings had had time to ripen.
2. The adaptive flexibility of sharing and exchanging surplus foods within the village is vulnerable to the effects of epidemic diseases that undermine the ability of entire villages to carry out daily subsistence activities. When the total adult population of a village is bedridden for weeks at a time, as was the case in many villages during the measles epidemic of early 1980, people are almost as likely to die from lack of food as from fever or other symptoms of the disease itself.
3. This practice suggests that pudali ceremonies served to classify sibs of different phratries according to the kin/affine distinction. Such classification could have the effect of initiating affinal alliances between two groups which had not intermarried for the past two generations, the center of genealogical relations among the Wakuenaí. My interpretation here supports Matos Arvelo's observation that "The consequence of these dabucuris [Yeral term for pudali or exchange ceremonies] is the friendly coming together of the tribes through this commercial and social contact and through the numerous marriages that always result from such visits" (1912: 163). Alternatively, the classification of



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guests and hosts as affinal relatives in pudali could have the effect of confirming pre-existing ties of affinity.

4. Women are very active participants in dancing, drinking, and other ceremonial activities during pudali, whereas their participation in other rituals and ceremonies is more restricted. The role of pudalimnaru, or female owner of pudali, is the only formally recognized leadership role for women in Wakuenai society. Although I have never observed a traditional pudali ceremony, I have seen women play very active roles in the organizing and staging of musical performances and dancing of the madzerunai genre.

5. The Wakuenai term for year is pawaria (Curripaco dialect). The term for wet season or winter (uniya) derives from the words for water (uni) and rain (iiya), whereas the term for dry season (kamuika) derives from the word for sun (kamui, Curripaco dialect).

6. My knowledge of astronomy is very limited, and I could identify only two of the eleven Wakuenai constellations with any certainty: Kewedapani (Scorpio) and Wariperi (the Pleiades).

7. The molitu flute is unique among Wakuenai wind instruments insofar as it produces quasi-verbal messages instead of purely melodic sounds. Women who are secluded in a separate house during kuepani ceremonies ask the molitu player to tell his name, and the flute-player must name someone other than himself so as not to reveal his own identity. He 'speaks' the name through the flute, thus further disguising his identity from the women (see Chapter 9).

- f. Dr. Rafael Herrera, a soil scientist at the Centro de Ecología of the Instituto Venezolano de Investigaciones Científicas (IVIC) and co-director of the MAB-UNESCO ecology project based at San Carlos de Rio Negro, believes that these black soils are anthropogenic and indicate previous settlement and/or cultivation dating back to prehistoric times.
- g. In a myth about the origin of garden work, Kaali used a fishing line to clear forest for new gardens and had special baskets which would go about the clearings and plant manioc shoots in the soil. These magical techniques for clearing forest and planting gardens cost Kaali very little effort and almost no time. Some men and women grew curious to know how Kaali could work so fast, so they spied on him and later tried to imitate his techniques. Not only did they fail, but Kaali punished them for trying to steal his secrets. Since then, people have had to work slowly and with great effort in order to clear forests and plant new gardens.
- 10. By my estimation, roughly 95% of the total area in Wakuenai gardens is planted with bitter manioc.
- 11. The Yeral-speakers referred to here are included under the heading of "other Arawak-speaking groups" because they are mostly descendants of Wakuenai, Baniwa, or Guarequena. There are many Yeral-speakers in San Carlos de Rio Negro and farther downstream who are descendants of Tukano-speakers or non-indigenous caboclos (Amazonian mestizos), and I would not include them in the general category of Arawakan groups (see Chapter 10).

12.

The only Wakuenai ritual that explicitly deals with hunting is a genre of shamanistic songs known as iyarudati, also the name of the dark netherworld where both recently-deceased ancestral souls (liqanam) and the generic spirits of forest animals (eenunai) and birds (kepinai) are believed to reside. The shaman travels to the home of animal and bird spirits in iyarudati in order to let the animal and bird spirits outside. The shaman's music is said to cause wild tree species to flower and bear fruits that will in turn attract game animals and birds. Different versions of the same music are believed to have the opposite effect of locking up the animal and bird spirits so that people are denied access to game animals and birds.