Fishing and systems of production : The precolonial Nunu of the middle Zaïre

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ABSTRACT

In contrast to the Senegal River and the Niger Bend, where fishing was a highly specialized way of life, the precolonial Nunu of the middle Zaire River combined fishing with a variety of other productive activities. During the eighteenth and nineteenth centuries the Nunu settled a variety of distinct environmental zones : flooded forest, flooded grassland, marshlands, and riverbanks. The settlers in each of these zones developed distinct systems of production that combined fishing, agriculture, trade, and other productive activities. The choice of production systems, in turn, had important effects on population densities, the gender division of labor, and social stratification. In all of these systems fishing remained the dominant productive activity. In the late nineteenth century, however, the profits from the slave and ivory trade along the Zaire River reduced fishing to an auxiliary activity in an economy dominated by commerce.

KEY WORDS : Ecology — Systems of production — Division of labour — Related activities — History of the population.

RÉSUMÉ

Pêche et systèmes de production : les Nunu de l'ère précoloniale sur le moyen Zaïre

Alors que les pêcheurs du Sénégal et de la boucle du Niger vivent exclusivement de la pêche, les Nunu de l'ère précoloniale sur le moyen Zaïre associaient celle-ci avec d'autres activités productives. Pendant les XVIII^e^ et XIX^e^ siècles, les Nunu se sont établis dans des environnements divers : la forêt inondée, les prairies aquatiques, la terre marécageuse, et les rives du fleuve Zaïre. Les pionniers dans chaque environnement ont développé des systèmes de production qui combinaient la pêche, l'agriculture, le commerce et d'autres activités productives. Les systèmes de production avaient des conséquences importantes sur la densité de la population, la division sexuelle du travail et la stratification sociale. Dans tous ces systèmes complexes la pêche était l'activité principale. Cependant, dans les dernières années du XIX^e^ siècle, la traite des esclaves et de l'ivoire a réduit la pêche à une activité complémentaire dans une économie dominée par le commerce.

MOTS-CLÉS : Écologie — Systèmes de production — Division du travail — Activités associées à la pêche — Histoire du peuplement.

Throughout the Sahel region of West Africa, fishing is considered a task reserved for highly specialized ethnic groups. The historian Sekene Mody

CISSOKO, for example, has noted that the fishermen of the middle Niger, "... vivent exclusivement de la pêche depuis l'aube de l'histoire des Songhay" (1). This statement not only says something about the relation of fishing to other forms of production, but it also implies that this relationship has been changeless over time.

The fishermen along the middle Zaire River, in contrast, have developed much more flexible relationships between fishing and other productive activities. Although fishing is the dominant activity for the riverine populations, they also cultivate crops, raise animals, hunt, and trade. Fishing is only one element in a diversified system of production.

The relationship between fishing and agriculture corresponds roughly with the gender division of labor. Fishing is a predominantly male occupation, even though there are certain forms of fishing reserved for women and certain communal fishing activities in which men and women work together. Men who work as bureaucrats in modern cities will return home to their fishing villages during vacation periods and fish so that they can "feel like men". Farming, on the other hand, is considered women's work, even though in the forest areas men are responsible for clearing the fields and have rights to half of the produce.

There are other social divisions that are related to productive activities. Hunters of large animals, canoe makers, and blacksmiths, to cite just a few examples, belong to highly specialized occupations (though not to castes) and have skills that are not accessible to the population at large. The tasks in fishing are divided in some cases among owners of the land, who work as overseers of the fishing grounds, and clients, who do the actual work. In other cases, however, the waters are not amenable to ownership and patrons share the labor with their clients.

Because of the extreme diversity of activities in the system of production as a whole, the balance among them varies from place to place, influenced, in part, by the local environment, but also by cultural ideals and social divisions in the society. Moreover, the specific mixture of productive activities in any given place is a historically dynamic one that changes in response to population movements, technological innovation, changes in regional economies, and changes in the relative power of social groups.

In order to illustrate the ways in which the role of fishing, as an element in a larger system of production, has changed over time along the middle Zaire River, I will look at the precolonial history of the Nunu, who live about 350 kilometers south of the equator (2). This is a zone of ecological transition where the equatorial rain forest gives way to a landscape covered by a mosaic of forest and savanna. It is also an area where the wide floodplains that extend inland from the Zaire give way to high bluffs and well-defined riverbanks that mark the beginning of the Bateke plateau.

There is no way to determine when the Nunu first settled this area. The longest genealogies go back to the early eighteenth century, a time when parts of the area were already settled. The genealogies also reveal that from the eighteenth century onward the history of the region was characterized by a gradual extension of settlement to all parts of the inundated zone and to the adjacent marshlands and bluffs as well. This process of geographical expansion was simultaneously a process of ecological diversification, and it provoked a variety of changes in fishing techniques and in the balance between fishing and other forms of production. These changes, in turn, altered the nature of the social groups in Nunu society and the relationships among groups themselves.

THE FLOODPLAIN

The earliest Nunu pioneers settled in the floodplain, which was itself divided into two ecological zones. The northeastern part of the floodplain was covered with forest dominated by *Scytopetalum, Oubangia,* and *Guibourtia* trees, which could survive the annual floodwaters (3). The southern and western parts were covered with grasslands of *Vossia cuspidata* and *Echinochola pyramidalis.* These grasses had shallow roots that let go of the soil and floated upwards as the waters rose, creating vast floating prairies (4).

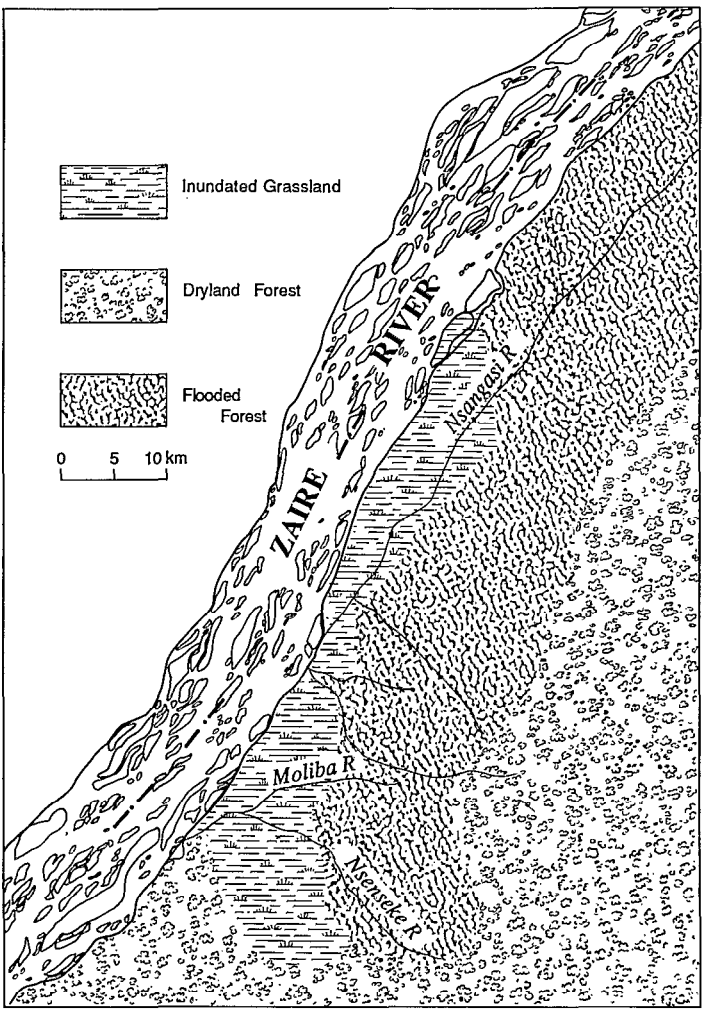

FIG. 1. — The floodplain of the Zaïre River

The ecology of both parts of the floodplain was dominated by the rise and fall of the Zaire River. Because the Zaire received water from catchment basins located both to the north and to the south of the equator, the waters followed a complex series of movements in their yearly cycle. The waters reached their lowest point in July, when the floodplains were dry and the Zaire flowed within its banks. In October the waters began a gradual rise that became rapid in November. By late December the entire floodplain was inundated except for a few hilltops and the numerous artificial mounds on which the inhabitants built their houses. In January and February the waters dropped somewhat and then leveled off until May, when they rose again, but did not reach the height of the January waters. In June the waters began to retreat from the floodplain, and by late July most of it was dry.

The fish followed the movements of the water. They entered the floodplain with the rising waters of October and November. To many of the more than 500 species that inhabit the Zaire, the floodplain was a highly desirable place to feed and spawn. In contrast to the main bed of the Zaire, which was composed of relatively barren sandy ground, the floodplain was full of vegetation, hiding places, and shade. Once they had entered the floodplain, they did not leave until June and July when the waters were getting dangerously low.

When the waters were high, fishermen in both parts of the floodplain fished using a variety of traps. Some of them had doors that could be shut by a trigger mechanism; others had funnel-like openings that were easy to enter and hard to escape. The high waters were open to anyone who wanted to place traps among the brush of the forest or the grasses of the floating prairie. Such techniques aided people in feeding themselves during the high water seasons, but they produced very little surplus.

The major fishing season came as the floodwaters were retreating. Most of the fish did not leave right away, but waited until the waters were quite low before beginning their journey back to the Zaire. It was at this point that they were most vulnerable to being caught. The Nunu devised very effective means of catching them, but the techniques differed significantly between the flooded forest and the flooded grassland.

In the forested parts of the floodplain, the most common form of fishing involved the *monsongo*, or fish pond. Ponds could be dug out of clearings in the forest, or they could be constructed by building a dam across an area where the current of the receding water flowed as the water and digging a pond behind it. The principle of pond fishing was simple : as the water went down the fish sought the deepest pools and became isolated when the water around the pond dried up. By September, when all outlets from the pond had dried up, people entered with tightly woven wicker buckets, threw out the water, and picked up the fish.

Pond fishing had a variety of social consequences. The most important derived from the fact that ponds, unlike the open waters of January, had individual owners. The head of the family that dug the pond became its owner. It was subsequently passed down in each generation to the most worthy son or nephew. Although in theory ownership of ponds passed from a man to his sister's son according to the descent system of the Nunu, the actual histories of individual ponds show them passing down sometimes according to matrilineal principles, sometimes according to patrilineal principles. In practice, there were a variety of possible heirs to each pond, and there was fierce competition among them. The ponds divided the society into three groups which related differently to the means of production : the owners of the ponds; the members of the pond owner's household, who had rights to the fish but no control over the pond itself; and the households which lacked ponds and had to work as clients of the pond owners in order to obtain fish.

At harvest time the pond owners sought to attract laborers. A large pond

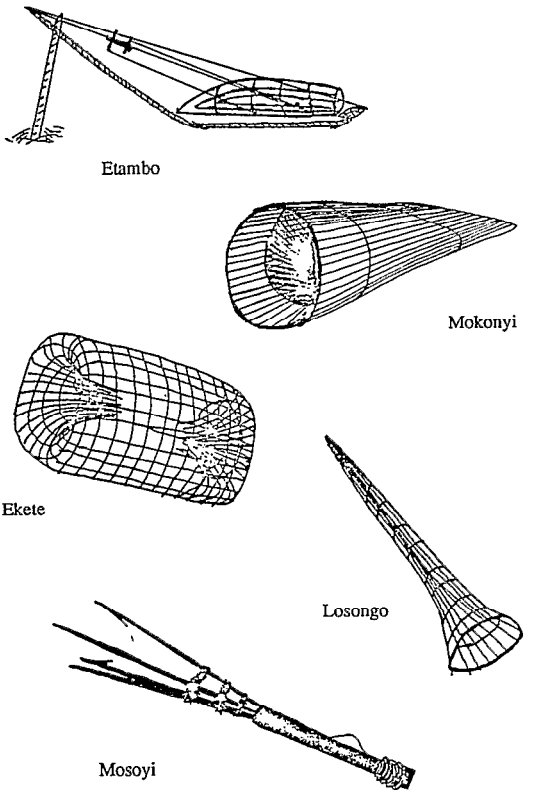

FIG. 2. — Nunu fishing equipment

could require over a hundred people who would work for over a week to empty it. Etebe, an old Nunu fisherman, described the process to me as follows :

> *The owner of the pond goes around asking, "Do you have a pond to fish now?" If the answer is "no", he tells the person to be ready on a certain day. [When the day comes] men come with their wives. They empty the pond and get the fish. Then they build smoking racks. The women gather a lot of firewood. The men stand on one side of the racks and turn the fish; the women, on the other side, add wood to the fire* (5).

The owner of the pond then marked a spot on the rack. He took all the fish on one side; the rest were divided equally among the workers, men and women getting equal shares. There was no fixed percentage that belonged to the owner. Instead, shares were determined by a process of tacit bargaining. Pond owners who were known to be generous attracted clients more easily than miserly owners, but as populations increased during the eighteenth and nineteenth centuries, clients became less picky about whom they worked for.

The second consequence of the pond as a major fishing technique was that it spread population thinly throughout the floodplain. Each pond owner wanted to make sure that all the fish in the immediate drainage area came into his pond,

and therefore he tried to prevent others from building dams too close to his own. The exact distance between ponds varied according to the topography, but if a pond owner felt that a new dam was tapping into his drainage area, it could lead to war. As a result, an area could become closed to new settlement long before its ecological carrying capacity had been reached.

In the flooded grasslands that dominated the southern part of the floodplain, the major fishing technique involved the use of low dams made of wooden poles and filled with earth. The dams were constructed in the valleys that became the major channels for the retreating floodwaters of June and July. Because the dams were low — rarely more than a meter high — fish could easily swin over them when they entered the floodplain during the high water. When the water began to recede, however, the fish did not leave immediately because they preferred the shade and food supplied by the floating grasses to the relatively barren channels of the Zaire. As the water fell, it began to flow in well defined channels along the valleys. By the time the fish began to follow the receding water, its level was below the height on the dams and it flowed through special holes that had been constructed in the earthworks. The fishermen inserted wicker traps into these holes and caught all of the fish coming through. When the water got too low to flow through the holes, the fishermen picked up the remaining fish that flopped in the shallow pools behind the dams.

The social consequences of dam fishing were very different from those of pond fishing. Whereas the harvest of a pond required a large group of people, one or two people could easily check the wicker traps each day during the fishing season. Dam fishing thus created far fewer opportunities for people who did not own land. Bampomba, a Nunu fisherman, explained the system of clientship as follows :

> *A dam must be built on your own land. It cannot be built on the land of another person. If a landless person comes along, he must beg, "I don't have a place to work ; divide your dams with me". If the owner agrees, the stranger will work that dam for that year. At the end of the season, the stranger will pay the owner a fee called* mbando. *The amount depends on the relationship between the two people* (6).

Because there were few opportunities to work as clients, landless people were often forced to migrate elsewhere in search of a livelihood.

Like the ponds, the dams were distributed thinly over the landscape. As Ekando explained :

> *If you have a dam here, the fish come to it from this area. Over there is another dam that draws fish from that region. If somebody tries to build a dam in-between, he won't get permission because he would divert fish from our dams* (7).

The distribution of dams and the lack of opportunity to work as a client kept the population of the flooded grasslands low. In 1909, when the first census was conducted, the population density was less than one person per square kilometer.

Farming was also an important productive activity on the floodplain. Unlike the lower Nile and the middle Niger, where the annual floods brought nutrients from tropical areas to more arid climates, the floods of the middle Zaire carried away more nutrients and organic matter than they brought in. The loss of humus can be seen in a comparison of soil types along the middle Zaire : the soils in stagnant swamps have a minimum of 30 % organic matter, whereas the alluvial deposits on the floodplains have an organic content of only 2 % (8).

The main crop was cassava, which had been introduced to the peoples of the middle Zaire in the eighteenth century and may have been a major factor in facilitating the settlement of the floodplain. Yet cassava, fot all its advantages in productivity over the indigenous water yams, was particularly unsuited to the

floodplain ecology. The cassava plants required a full year to reach maturity in a region where even the higher portions of the floodplain were inundated for at least two months of the year. The cassava, therefore, had to be harvested before it had reached the full extent of its growth, resulting in lower yields per hectare than were obtained in the drier areas.

Cassava fields were the work of women. In the grassland areas women dominated all phases of production from clearing the fields to harvest. In the forested parts of the floodplain the men, who would have normally cleared fields during the dry season, were busy with their ponds, and so the women migrated southward to cultivate grassland areas that they could clear themselves. When the crops ripened, men often spent time near the fields to help chase away the wild pigs, elephants, and buffalo that came to raid the gardens at night, but women carried the dominant burden protecting the crops.

The fields did not produce enough to sustain a family throughout the year, and so cassava had to be purchased from the nearby dryland areas. The inhabitants of the floodplain brought dried fish, salt extracted by women from the grasses of the flooded prairies, and pottery made by women from the clay of the swamp to markets held every four days at areas where the floodplain met the dry land. Although the households of the floodplain practiced diversified production, they were not self-sufficient. The surplus products of the floodplain — fish, salt, and pottery — had to be traded to make up the shortfall in cassava production.

The social dynamics of the floodplain were conditioned by two factors. The first was unequal access to the means of production between landowners, their kin, and their clients. Junior sons and nephews of landowners were not assured of becoming landowners themselves, and many people had no prospects other than working as clients. In both cases the only opportunity for upward mobility lay in the frontier areas of the floodplain, where a young man could build a dam or dig a pond and become a landowner himself. Genealogies of Nunu families show a continual outward movement from overcrowded settled areas toward the fringes of the floodplain.

It was at this point that the second factor intervened. Because dams and ponds had to be situated at significant distances from one another, even a relatively small population could monopolize all the best fishing spots. By the nineteenth century settlers had reached the furthers inland reaches of the floodwaters, leaving no room for future expansion. Divisions between the landed and the growing number of landless caused increasing tension in the settled areas. Wars seizing of dams and ponds, and witchcraft accusations were among the symptoms of this tension. With further opportunities for establishing independent households in the floodplain blocked, many ambitious individuals began to emigrate to the surrounding environmental zones. In the process they would adopt new fishing techniques, develop new relationships between fishing and other forms of production, and initiate new social divisions and social processes.

THE DRYLANDS

One region that attracted immigrants was Nkuboko, located just east of the floodplain. Although it was a dryland region, it had numerous small streams and bogs for fishing. The earliest settlers settled along the streams and built dams or dug ponds beside the stream and made channels to guide fish into them. Latecomers found all the available fishing spots taken, and they returned to the floodplain during the peak fishing season to help their kinsmen or patrons empty ponds and drain their dams. After the waters of the floodplain had receded, men and women alike stalked the grasslands to pick up any fish that had been left behind.

The returns from such fishing activities were meager compared to those obtained by inhabitants of the floodplain, but men could partially compensate for the shortfall by hunting or by raising goats, chickens, and pigs, animals that could not be raised in the floodplain. The major compensation for the low levels of fish production, however, came from agriculture. Cassava and groundnuts, two crops borrowed from the new world, were the staples in the nineteenth century. They were supplemented by maize, sweet potatoes, and a variety of vegetables and condiments. The surplus from the fields could be traded to the fishermen of the floodplain, and thus growing crops was an indirect way of obtaining fish.

As in the floodplain, agriculture was considered women's work, but in Nbukobo men were needed to clear the forest for fields. Forest clearing was a difficult task in that area because the dry season, which averaged 65-70 days, was too short to allow the felled trees to dry properly for burning before the rains returned (9). A second problem was that the peak season for clearing forest coincided with the fish harvest both in Nkuboko and in the floodplain, where many Nkuboko men went to work as clients. Given the choice between fishing and cutting forest, men generally chose fishing. Although the earliest settlers had been forced by circumstances to cut fields from virgin forest, the cutting of new fields diminished during the nineteenth century. Women were forced to return to fallow fields after as little as five years, when the brush was easier to cut and the twigs would dry quickly. Such fields were not as fertile as fields cut from virgin forest, and they were infested with weeds and shrubs that were absent from cleared forest. All of this diminished the productivity of agricultural labor. Even in the dryland areas, fishing took priority over agriculture.

The forms of production in the drylands of Nkuboko had social consequences of their own. In the first place, the emphasis on agriculture allowed a much denser settlement pattern than existed in the swamps. Sons and daughters could set up homesteads and clear fields near to the settlements of their parents. In the second place, the division between landowners and clients that characterized the floodplain society had little impact in Nkuboko. The dams and ponds produced only small quantities of fish, and thus landowners attracted few clients. The major form of production was agriculture, which was accessible to everybody. Because it was a woman's activity, agriculture did not become the basis of social hierarchy in the society. Indeed, trade at the foodstuff markets frequented by women was carried out almost exclusively by barter. This practice prevented women from amassing wealth from their agricultural production.

In the nineteenth century a symbiosis developed between the Nunu of the floodplain and those of Nkuboko. The floodplain had a diversified economy dominated by fishing; Nkuboko had a diversified economy dominated by agriculture. The most important markets were located at places where the floodwaters of the floodplain met the creeks of Nkuboko. Canoe transportation facilitated the exchange of large quantities of fish, cassava, and other products. The complementary economies of the floodplain and Nkuboko, in short, formed a single regional economy.

THE RIVER

The other option for nineteenth-century emigrants from the floodplain was the Zaire River itself. Just downstream from the Nunu settlements the low banks of the floodplain gave way to high sandy bluffs which defined a riverbed about ten kilometers wide. The bluffs provided easy access to the river, yet offered the agricultural advantages of living on a plateau above the level of the floodwaters. During the nineteenth century there was a steady migration from the floodplain

to the plateau, resulting in a series of Nunu fishing villages along the edge of the bluffs.

The aquatic environment of the river was very different from that of the floodplain. The river was dotted with islands in different stages of formation. Some were mere sandbanks; others were covered with mature shrubs and large trees. During the high water seasons most of the islands disappeared from view and provided habitat for various species of fish, which preferred the vegetation of the islands to the relatively barren channels of the river. When the water fell the islands reappeared, forcing the fish back into the river channels.

Because the fish frequented different habitats during different seasons of the year, the fishermen employed different techniques during different seasons. During high water periods they fished mostly on the islands, placing traps among the bushes and grasses or drifting in canoes along the edges of floating prairies with harpoons poised. Some fishermen built houses on stilts on islands so that they could stay in the area for extended periods. During the low water seasons people used nets and fish fences to trap fish in the shallow waters near sandbanks. Fishermen built fishing camps on the islands, where they stayed for weeks at a time as long as the fishing remained good. During times of rising and falling water the fishermen used a combination of fish fences and traps to catch fish that tried to enter or leave the islands.

In contrast to the individually-owned fishing grounds of the floodplain, the waters of the river were open to everybody. Fishing spots had no owners, except in cases where a person had physically altered the landscape by building levees or cutting trails for fish fences. Because the fish congregated in different places at different times, the fishermen frequently moved to new spots in search of the best fishing. They also altered their methods whenever it seemed appropriate. Some methods required a single person; others required teams of up to a dozen fishermen. Fishing teams frequently formed and broke up according to the luck of the catch and the desires of the individual members. Mobility and fluidity characterized the actions of the river fishermen.

The social consequences of river fishing were very different from those of the floodplain fishing. In the first place, there was no division between owners of fishing grounds and landless people. Everybody had equal access to fishing grounds. Patron-client relations existed in the river villages, however, but they were based primarily on ownership of canoes. Trees suitable for making canoes did not grow on the plateau, and so canoes had to be purchased from farther upriver. Poor people, most of them young, could not afford to buy canoes, and so they worked for a relative or a stranger as clients until they could purchase canoes of their own. Unlike the floodplain, clientship was usually a stage in life rather than a permanent condition. The second difference was that with all fishing waters open to everybody, the bluffs of the Zaire could support a much denser population than the floodplain. By the late nineteenth century, the population of the riverbank greatly exceeded that of the floodplain.

The relationship between fishing and other forms of production was also different from that of the floodplain. Agriculture was carried out almost exclusively by women, who cultivated fields in the savanna of the plateau. Because there was no forest to be cut, men were not needed for the preparation of fields. Because the plateau was safe from the floodwaters, cassava could grow to its full maturity. The riverbank villages therefore achieved a more equal balance between fish production and agricultural production, and between men's work and women's work, than either the peoples of the floodplain or those of Nkuboko.

Despite the relative self-sufficiency in foodstuffs, there was still opportunity for trade with the people of the floodplain. The main reason was the complementarity of seasonal tasks. In the river the best fishing season was during the high water when fish were concentrated in the vegetation of the islands. In the swamps of the floodplain, in contrast, the low water season was the best time for

fishing. Therefore, surplus fish from the floodplain could be sold to the river people during the dry season and surplus fish from the river could be sold to the floodplain during the high-water season. The trade in foodstuffs was accompanied by trade in salt, pottery, raffia mats, and a variety of other products.

A further shift in the balance between fishing and other forms of making a livelihood appeared along the Zaire in the late nineteenth century when some fishermen became specialized long-distance traders. Fishermen had long been involved in trade along the Zaire. As specialized producers, they had always maintained important trading relationships with their inland agricultural neighbors. Their canoes gave them mobility and a capacity to transport goods cheaply that was lacking along the inlands populations.

Prior to the late eighteenth century, however, commerce had been a part-time affair. It had been a part of a larger production system, not a profession in itself. This view changed in the nineteenth century, however, in response to the growing profits that could be obtained in the international commerce in slaves and ivory. The prices that Europeans on the coast paid for slaves increased 500 % during the eighteenth century. Ivory prices quadrupled during the middle decades of the nineteenth century (10). Such factors induced ambitious fishermen to become full-time traders.

The first fishing group known to become professional traders was the Bobangi, a fishing people who lived along the lower Ubangi river near the spot where it joins the Zaire (11). In the eighteenth century they began to carry slaves from the Ubangi downstream to the Alima River, from whence the slaves were transported toward the Loango coast. In the early nineteenth century, they began to establish trading settlements at key points along the Zaire between the mouth of the Ubangi and Malebo Pool, which was growing into the major market of the region. One of the settlements they established was at Bolobo, on the bluffs where the Bobangi traders lived side-by-side with Nunu fishermen.

In the second half of the nineteenth century, certain Nunu fishermen began to get into the slave and ivory trade. They copied the Bobangi methods by purchasing slaves to paddle their trading canoes and establishing networks of contacts along the river through devices such as blood brotherhood and marriage to the daughters of important chiefs. Trading was a risky business that often resulted in small wars with rival traders, but the rewards of success were high. In the late nineteenth century one Nunu trader, Mangasa, amassed nineteen wives and over a hundred slaves. Another trader, Elema, had twelve wives and over a hundred slaves (12). Whereas swampland society had been divided between patrons and clients, the commercial society of the river was divided among masters and slaves.

In some ways, commerce was a very different kind of activity than was fishing. Traders did not exploit their immediate environment, but profited from resource imbalances between distant parts of the world. By placing themselves in the middle they could profit from both ends. Moreover, fishing was an activity in which goods were produced in order to get money which was used to buy other goods, whereas traders raised capital in order to get goods to sell for more money. Nunu fishing created an economy of use values, whereas commerce created an economy of exchange values.

Success in trade did not diminish the importance of fishing, however. Slaves and masters alike needed to eat, and fish provided a necessary ingredient in the Nunu diet. Between trading trips the slaves were sent out to fish in order to feed the trader, his family, and his slaves. On trading trips the slaves fished for food. When supplies ran low, they would stop and fish for a few days before continuing their journey. Nor did trade diminish the importance of agriculture. Slave women grew large fields of cassava on the plateau to feed the slaves both at home and on trips. The economy of the long-distance traders was more integrated than that of their neighbors because it combined trade, fishing, and agriculture in a single production unit.

CONCLUSION

The precolonial Nunu effectively combined fishing with a variety of other productive activities, but the mixture of activities varied among the different environmental zones settled by the Nunu. Because different environments were settled at different times, the relationship between fishing and other forms of production underwent continual change during the eighteenth and nineteenth centuries.

The choice of fishing techniques had far-reaching social consequences. The dams and ponds of the floodplain kept population densities low and divided the population between landowners and clients. The poor fish production of the streams and bogs of Nkuboko afforded few opportunities for men to become patrons, but it also saved others from becoming clients. The open waters of the Zaire River and the flexible and diversified methods of fishing permitted heavier population densities on the riverbank bluffs, and it also afforded a more egalitarian society than was found on the floodplain.

In a similar way, the balance between fishing and other productive activities had social consequences, many of which were related to the gender division of labor. In the floodplain men were the main providers for the household because the both produced fish and traded their surplus fish for cassava. In Nkuboko, the agricultural production of women sustained the household and women traded their surplus cassava for necessary fish. Men tried to keep this productive power from becoming social power by trying to monopolize the currencies and prestige goods that represented true wealth. The people of the plateau overlooking the Zaire developed the best balance between fishing and agriculture and they consequently had the best balance between men's and women's contributions to the household economy.

Despite the different mixtures of activities, fishing clearly dominated whenever there was a conflict with other activities. In the flooded forest, men refused to take time out from fishing in order to clear fields. They thus forced the women to travel southward to the grassland to plant their crops. In Nkuboko women were forced to replant fields after short fallow periods because men preferred fishing to field clearing. Even along the riverbanks, where women had their own fields, they were often required to spend time in fishing camps where they smoked fish during the dry season instead of working in their fields. The only exception to this pattern was found in the households of long-distance traders. Because of the enormous profits generated by the slave and ivory trades, fishing became an auxiliary activity that supported the trading teams rather than being a source of wealth in its own right. However, when the Nunu were driven out of the slave and ivory trades in the 1890s, fishing reasserted itself as the dominant activity of Nunu households.

BIBLIOGRAPHIE

BULTOT (Fr.), 1971. — *Atlas climatique du bassin congolais*. Institut national pour l'Étude agronomique du Congo, 3 vols, Kinshasa.

CISSOKO (S.M.), 1975. — *Tombouctou et l'Empire Songhay*. Dakar.

CURTIN (Ph.), 1975. — *Economic Change in Precolonial Africa*. Madison, Wis.

CURTIN (Ph.), FEIERMAN (St.), THOMPSON (L.) and VANSINA (J.), 1978. — *African History*. Boston.

EVRARD (C.), 1968. — Recherches écologiques sur le peuplement forestier des sols hydromorphes de la cuvette congolaise. Institut national pour l'Étude agronomique du Congo. *Série Scientifique*, nº 110, Kinshasa.

GERMAIN (R.), 1956. — Les biotopes alluvionnaires herbeux et les savanes intercalaires du Congo équatorial. Académie royale des Sciences d'Outre-Mer. *Sciences naturelles et médicales, n.s.*, vol. 15, nº 4, Brussels.

HARMS (R.), 1967. — *Games against nature : a eco-cultural history the Nunu of Equatorial Africa*, New York, 1987.

HARMS (R.), 1981. — *River of wealth, river of sorrow : the Central Zaire Basin in the era of the slave and ivory trade*. New Haven, Conn.

Notes

(1) Sekene-Mody CISSOKO, *Tombouctou et l'Empire Songhay*, Dakar, 1975, p. 127.

(2) Fieldwork among the Nunu was carried out in 1975-76 under a grant from the Social Science Research Council and in 1981 under grants from the Centrer for International Studies and the Whitney Humanities Center, both at Yale University. For a detailed discussion of the Nunu, see Robert HARMS : Games against nature : an eco-cultural history of the Nunu of Equatorial Africa. New York, 1974.

(3) C. EVRARD, Recherches écologiques sur le peuplement forestier des sols hydromorphiques de la cuvette centrale congolaise. Institut national pour l'Étude agronomique du Congo, *Série Scientifique*, nº 110, Kinshasa 1968: 121-130.

(4) R. GERMAIN, Les Biotopes alluvionnaires et les savanes intercalaires du Congo équatorial. Académie royale des Sciences d'Outre-Mer, *Sciences naturelles et médicales, n.s.*, vol. 15, Brussels, 1965: 103-129.

(5) Interview : ETEBE, Aug. 3, 1981, tape no. 15/2.

(6) Interview : BAMPOMBA, July 18, 1981, tape no. 7/1.

(7) Interview : EKANDO, July 25, 1981, tape no. 14/1.

(8) EVRARD, Recherches écologiques : 42-44.

(9) Franz BULTOT, *Atlas climatique du Bassin congolais*, 3 vol., Institut national pour l'Étude agronomique du Congo. Kinshasa 1971, vol. 2, maps 9-1, 912.

(10) Philip CURTIN, *Economic change in precolonial Africa*. Madison, Wis, 1975 : 330-31. Philip CURTIN, Steven FEIERMAN, Leonard THOMPSON, and Jan VANSINA: *African history*. Boston 1978, p. 396.

(11) For the history of the Bobangi, see Robert HARMS : *River of Wealth, River of Sorrow : The Central Zaire Basin in the era of the slave and ivory trade*. New Haven, Conn., 1981.

(12) Interviews : MANGASA, May 29, 1975, tape no. A7. ENGUTA, Aug. 3, 1976, tape A94.