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Maintaining a Life of Subsistence in the Bemba Village of Northeastern Zambia

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ABSTRACT The Bemba people, who are living in the woodland area of northeastern Zambia, have developed a unique slash-and-burn cultivation system called *citemene* system. It is now censured as the cause of deforestation and the Bemba people are faced with agricultural modernization. There are some villages where people have been maintaining a life of subsistence based on *citemene*, while other villages have introduced modern agriculture. This paper aims to provide a clear picture of the "traditional" life of subsistence and its structure in a Bemba village. Their subsistence strategies are classified into two-ways: self-sufficient strategies and cash-getting strategies. Although cash economy has deeply penetrated, several factors work to maintain the life of subsistence. Cash-getting activities remain on a small scale basis because of the limitation of finger millet, which is the main source of cash. Unstable marriage bonds cause to produce widows. Thus it is common that the widow's household and the household with a husband co-exist in one village. Difference in the household composition results in different output of subsistence activities, which may produce social disparity. However, "leveling mechanism" based on the social principle of sharing works to balance the differences, which assures the subsistence life of a community as a whole.

INTRODUCTION

This paper is based on the human ecological studies done on the Bemba in the Northern Province of Zambia. It is the second in a series called "Woodland Project" which started in 1982 (Kakeya & Ichikawa, 1983). After the first research in 1983, I conducted my research at two different times; one from April 1984 to February 1985, the other from August 1985 to November 1985.

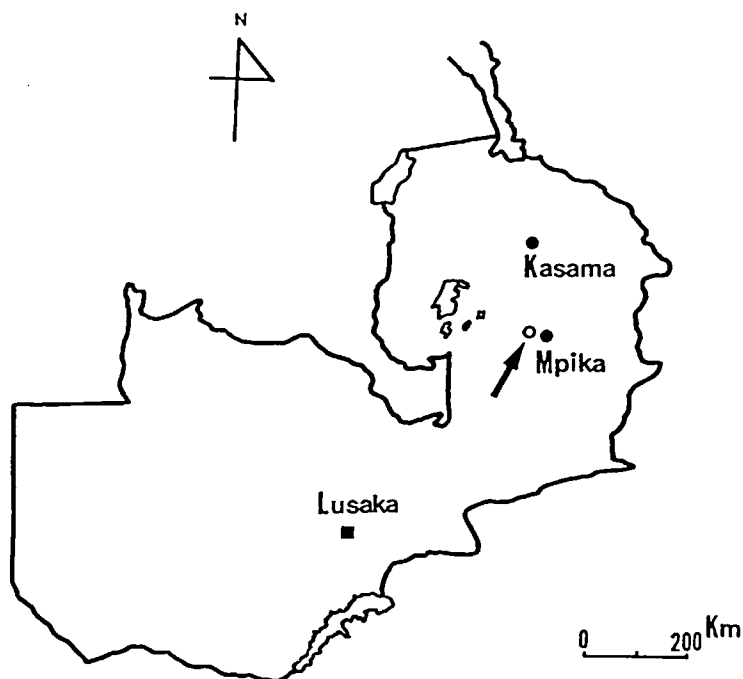
In the previous report (Kakeya & Sugiyama, 1984), we presented a general view of the socio-ecological characteristics of the *citemene* system, a unique slash-and-burn cultivation system. We provided basic data to give an understanding of the traditional aspects of the cultivation in an area in modern Africa which is faced with so many conflicts between tradition and modernization. In this second series, we took a census study as part of an extensive survey, in order to get an overview of the agricultural modernization pattern in the Bemba villages. The aim of our census was to know the degree of modernization in the agricultural sector while at the same time revealing the real picture in terms of how the woodland is utilized.

The results were very interesting. The villages can be divided clearly into two types; "the modernized type" and "the traditional type". In the villages of "the modernized type", most of all the villagers have begun cultivating permanent

fields of maize as a cash crop using chemical fertilizers. In the "traditional type" villages, however, almost all of the villagers have maintained a subsistence life based chiefly on the *citemene* system. This contrast between the two types is evident even in the adjacent villages where generally the condition appear to be the same in terms of access to information and government services. The village of Mulenga-Kapuri, which was the center for research, was one of the "traditional type" villages. By combining the results of the previous paper with that of the present study I intend to provide a clear picture of the "traditional" life of subsistence and its structure in the village of Mulenga-Kapuri. Some aspects of the "modernized type" villages will be shown in another paper (Kakeya & Sugiyama, in this volume).

THE VILLAGE OF MULENGA-KAPURI, THE STUDY AREA

The village of Mulenga-Kapuri is located in the territory of Chief Luchembe. There is an all-weather road from Mpika to Kopa which has a regular bus system¹⁾. Mulenga-Kapuri is about 26 km westward from Mpika along the bus route (Figure 1). The village is composed of 12 households whose core members are principally related to each other matrilineally. Some of the members in the villages have changed since our last report in 1984: 3 new households settled in Mulenga-Kapuri, while 3 households have moved away. The present headman's



7: Place of Mulenga-Kapri village.

Fig.1. Research area.

household has also gone out to live on a new village site (*misokoro*) which is located about 1.5 km northwest from the main village.

These cases show that the mobility of the households is relatively high and when you take into account their habit of longterm visiting with relatives outside the village, it is possible to say that the constitution of the village members fluctuates from time to time. Figure 2 shows the core members of the village of Mulenga-Kapuri. It is important to note that they have 3 widow households within 12 households.

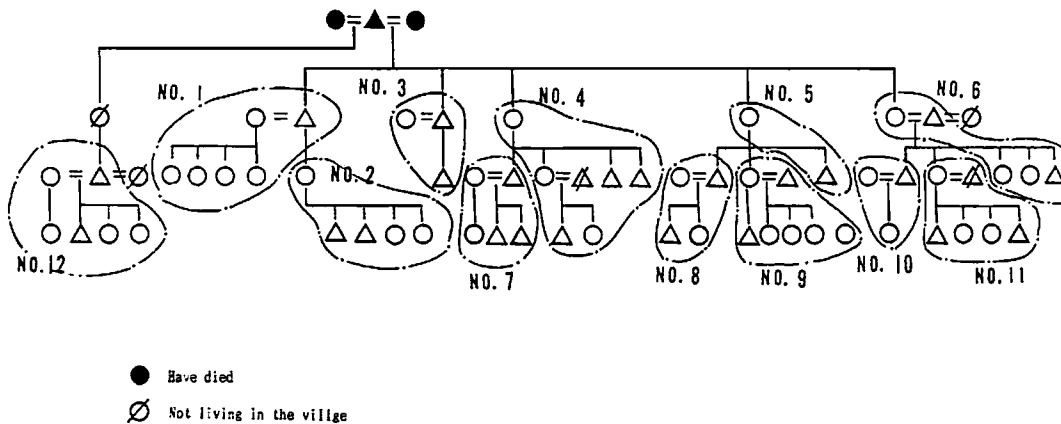


Fig.2. Kinship relations in Mulenga-Kapuri.

SUBSTSTENCE ACTIVITIES

1. *Citemene, Ibala, Mpanga*

(1). Characteristics of *citemene*

Citemene. slash-and-burn cultivation is essential to their subsistence activities. As mentioned in our previous report, the main characteristics of the *citemene* system are as follows.

(i) Cutting trees; men climb trees which are more than 15 cm in D. B. H.³⁾ and lop off only the branches.

(ii) Piling branches (*kuanse fibula*); when the branches are dry enough, women bring them on their shoulders to the center of the tree-cutting area and pile them up.

(iii) Five years' crop rotation; after burning the piled branches, cucumbers and gourds are sown along the edge, while tomatoes and other vegetables are sown in the center. Cassava is then planted in the middle of the same field. Then follows the sowing of finger millet which is harvested from May to July. In the second year, groundnuts are planted. In the third and fourth year, the cassava, which is ready for harvest, is dug up, and in the fifth year mounds are made in the middle of the fields for planting beans.

A household is a basic unit of subsistence activities. The preparation of the *citemene* field depends on clear sex divisions of labour: men cut trees, women pile the branches. Therefore, acreage of *citemene* field depends on a balance of labour

input between men and women. In 1983's data, the acreage of *citemene* varied from 23 a to 72 a, mean acreage being 43 a.⁴⁾

(2). Harvesting Finger Millet⁵⁾

Only women participate in the harvesting of finger millet. Usually they engage in harvesting as one household unit, but mother and daughter, or women who have adjacent *citemene* fields constitute a corporative working group.

When they go to harvest, each woman brings her own small knife (*muwele*) and basket (*museke*). The woman in the *citemene* field holds the knife in her hand, and cuts the stem of the finger millet about 1.5 cm under the ear. She snaps her wrist and puts the finger millet into her basket. This is done quickly and efficiently: the movements becoming one swift action from ear to basket. When the basket is full, she presses the ears of finger millet down with both hands to reduce the volume (*kushindaila*) and then continues harvesting. After twice or three times of *kushindaila*, and when her basket is full, she calls the woman who is the owner of the *citemene* field to help her to take the basket to the edge of the field and empty the basket (*kufukumuna*). The ears of the finger millet make a small heap at the edge of the field. It is only the owner of the *citemene* who is allowed to go near the heap. If the owner is busy emptying another woman's basket, the worker dumps the ears on the ground beside her and leaves them until the owner can come and gather them to bring them to the heap.

Table 1 shows the amount of the harvest of finger millet in each *citemene* field. In measuring the amount, I set 10 quadrats of 5 m × 5 m in each *citemene* and asked the women to work in one quadrat, then measured the weight of each basket. According to the results, weights of harvest per 5 × 5 m quadrat varied from

Table 1. Amount of the finger millet harvest in 1984.

Household No.	Mean per quadrat (25m ²)	<i>Citemene</i> field	Estimated harvest
1	9.3 kg	34 a	1265 kg
2	8.5	34	1156
3	8.4	23	773
4	7.5	29	870
5	7.8	44	1373
6	10.8	72	3110
7	-	-	-
8	8.7	54	1880
9	8.8	63	2218
10	-	56	-
11	-	-	-
12	7.2	28	806

mean except

No. 7, 10 and 11 : 1495 kg

5.1 kg to 11.7 kg, mean weight 8.7 kg. Therefore it can be estimated that they harvest about 1,500 kg per household from a 43 a *citemene* field.

(3). Consuming Finger Millet and the Role of Cassava

There are three different uses for finger millet. They are as follows:

(i) Finger millet is processed, mixed with cassava flour and then cooked to produce *ubwali* (hard porridge).

(ii) *Ubwalwa* (local beer) is brewed from finger millet.

(iii) Finger millet is used for the purpose of barter trade in order to obtain swamp fish. This process will be mentioned later.

According to my general observation on their daily diet, it is roughly estimated that a typical household of 6 members consumes more than 30 kg of finger millet (unprocessed) per week. Thus, more than 1550 kg of finger millet would be necessary for their diet per year. In addition to that they used more than 100 kg of finger millet for brewing *ubwalwa*. Therefore more than 1650 kg of finger millet is necessary to completely fill both their brewing and dietary requirements. Such an estimated value exceeds the mean harvest of finger millet. And more, the harvest of normal year is possibly much less than that of 1984 was because the harvest of 1984 said to be the best one which the villagers ever experienced. Thus, the actual harvest of finger millet tends to be less than what their daily requirements demand.

Actually, each household has its own consuming schedule based upon the amount of finger millet needed for each of the three usages. Usually they begin to use finger millet for *ubwali* in May just after the harvest. In the middle of December, when the finger millet is running short, they stop using finger millet to make *ubwali*, keeping a small amount for later brewing.

It is the cassava which makes their consumption schedule possible. During the period when they have plenty of finger millet, they eat *ubwali* made from finger millet mixed with cassava flour, the ratio being 2 : 1 for each meal (usually twice a day). But once the stock of finger millet begins to decrease, they begin eating *ubwali* made only with cassava flour until the following harvest. At this time of the year, people begin to heartily await next year's finger millet harvest, saying that they are getting bored with cassava *ubwali* and that they miss "*ubwali bwakashika* (red *ubwali*)", *ubwali* made from finger millet.

Richards (1939) reported that there used to be a "hunger season" in the Bemba villages from January to March. Cassava was not popular crop for *citemene* crop rotation in her time. The Bemba people had to subsist on wild plants and animals after they had finished their main crops of finger millet and sorghum. The period which Richards referred to in her report as the "hunger season" corresponds to the period when they eat only cassava *ubwali*. The "hunger season" disappeared after cassava became an indispensable crop in *citemene* crop rotation. The cassava is a stable and long lasting food to secure the Bemba's minimum level of subsistence. Also the introduction of cassava increased the flexibility in the planning and consumption of finger millet.

(4). *Ibala*. Mound Cultivation

Another activity which supports their subsistence is *ibala* cultivation. *Ibala* is a name for the gardens near the village, where they make long or round mounds to plant local maize, sweet potatoes, cassava, groundnuts, beans and other crops. Of all these crops, groundnuts and beans are more preferred because they are very

important food which can supply vegetable protein, dietary oil, and sometimes cash.

There are three types of *ibala* according to the locations and the processes of cultivation.

(i) They cultivate *ibala* at an abandoned village site (*cibolya*) and at a secondary grassland near the village.

(ii) They cultivate *ibala* at waterplace, which is called "gaadeni". It can supply green vegetables even in the dry season because it is watered regularly.

(iii) After the crop rotation is finished, the *citemene* field is abandoned. However, the cultivation is continued by making *ibala* in the same field.

The type (iii) *ibala* tends to become a *faamu* (permanent field) these days. However all the households in Mulenga-Kapuri are continuing to cultivate the traditional *ibala*. Therefore the acreage of *ibalas* are very small and their cultivation is not as important or beneficial as that of the *citemene* fields.

(5). Hunting and Gathering in *Mpanga*, the Bush

The gathering of insects such as catapillars, crickets, longicornes and the hunting of wild animals are essential activities which provide the necessary animal protein. Mushrooms, which grow in the rainy season, and several species of wild vegetables (*mulembwe*) are often gathered. Wild fruits such as *mfungo* (*Anisophyllea boehmii*) and *masuku* (*Uapaca kirkiana*) are also gathered when they are ripe and needed, usually for the childrens' diet. It is *mpanga* (bush) which provides these animal protein and wild vegetables as side dishes in their diets.

(6). Fishing

Villagers near big rivers fish several times in the dry season, using basket traps. This, however, remains a minor activity. In Mulenga-Kapuri, because of a lack of a suitable place to fish, people seldom fish but rather get fish by barter trade or by paying cash to the Bisa people who live near the Banguweulu swamp.

2. Composition of their Diet

Figure 3 shows the frequency of these foods used in side dishes from May 1984 to March 1985. This figure is based on a food diary which was recorded by a boy of 15 years. The frequency of vegetables in side dishes is relatively high. Among vegetables, the use of domesticated plants is more frequent than wild plants. It is important to note that beans and groundnuts occupies an important position. Furthermore, since groundnuts are used also for seasoning in "kusashira", cooking with pounded groundnuts, the actual frequency of groundnuts is higher than that shown in Figure 3. The balance of wild and domesticated plants fluctuates seasonally: especially in January and in July, frequency of wild plants becomes higher than that of other months because the use of mushrooms (in January) and wild vegetables, *mulembwe* (in July) increases.

Among the animal foods, wild animals are their chief source of food. They keep very few domesticated animals. From November to June of the next year, insects like catapillars and crickets occupies a large part of side dishes. Fish are eaten throughout the year although they cannot be supplied within the village and have to be bought from the Bisa people and the peddlers.

Their staple foods are supplied only by *citemene* cultivation. Their diet can be characterized by the way in which they combine the wild foods of *mpanga* with the domesticated plants of the *citemene*, while at the same time using fish which has been bought from outside of the village. Thus, although their diet is basically self-

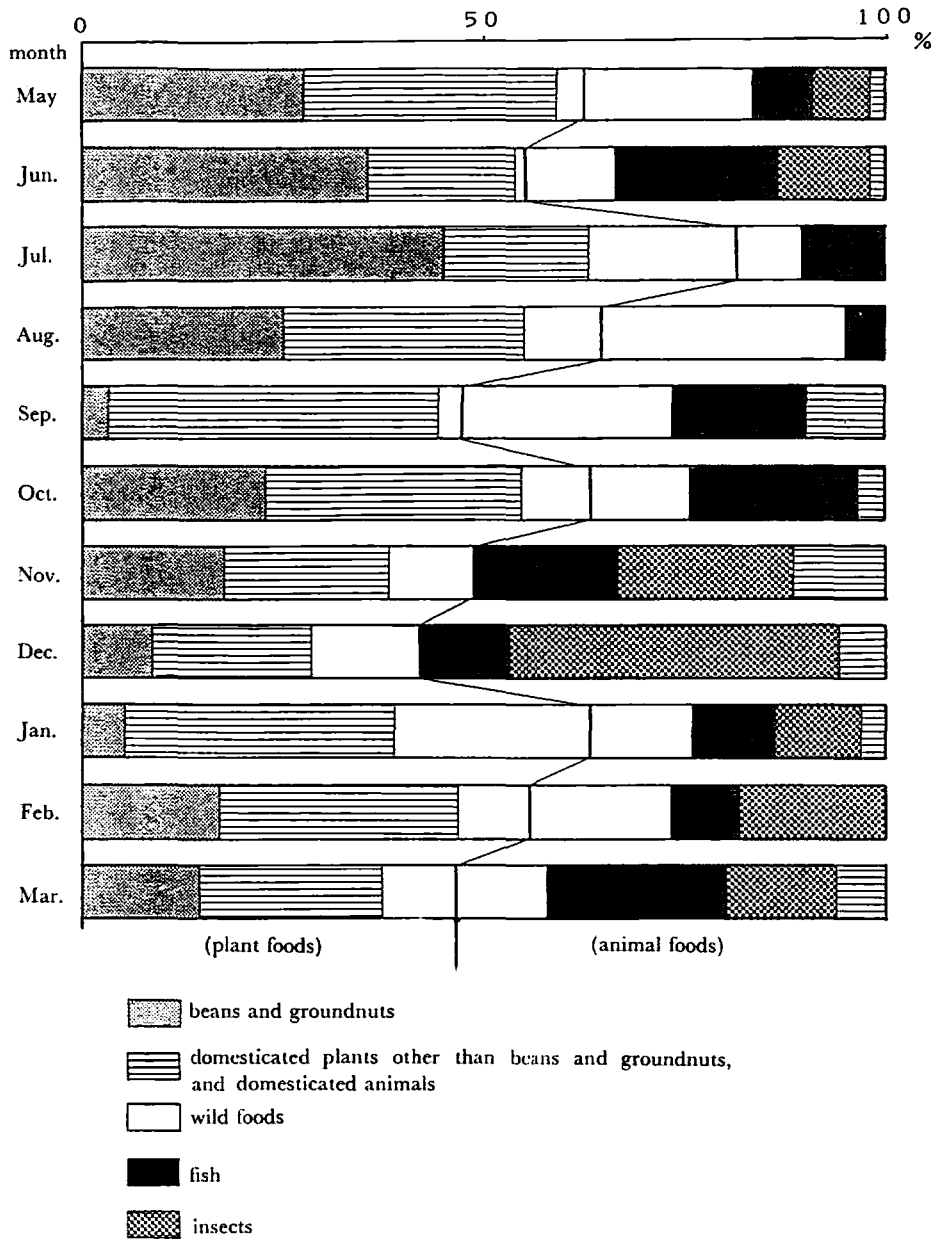


Fig.3. Frequency of use of foods in side dishes.

sufficient in providing their own food sources, the food bought with cash is also indispensable for it. Therefore it can be said that they use two-way strategies to maintain their subsistence; self-sufficient strategies including cultivation, gathering and hunting, and cash getting strategies.

There are two activities which provide cash.

(i) Peddling: Processed finger millet is taken to the Bisa villages about 50km

westward of Mulenga-Kapuri by bicycles to be exchanged with dried fish. The fish is brought to the city of Mpika or other villages along the Mpika-Kopa road and then sold. Part of the profit is used to buy clothes (*citenge*) or sugar which is later taken to the Bisa villages and exchanged again with dried fish. Young men are engaged in this type of peddling.

(ii) Brewing *ubwalwa* from finger millet: They have two kind of *ubwalwa* in the Bemba villages. One is called *cipumu* which is used for communal drinking and the other is called *katata* which is used for selling. Both of them involve similar methods of processing except within the final stages. On the occasions when *katata* is brewed, nearly half of the finger millet has to be brewed to make *cipumu* for the purposes of communal drinking to avoid "*kutana*" (withholding, not sharing with others). The profit from brewing *katata* varied from 17 kwacha to 36 kwacha per one brewing (in 1984 ~ 1985).

Both these methods obtaining cash are based on the production of finger millet which is harvested from the *citemene*. Therefore finger millet is important not only as a daily food requirement but also as a means by which they can gain money.

ROLE OF MEN AND WOMEN IN SUBSISTENCE ACTIVITIES

Table 2 shows the days allocated to the main subsistence activities of a husband and wife in one household. The data is based on their work diary and my observations. Activities for cultivation take up only 1/5 of the husband's work. In fact, men seldom engage in cultivation except when cutting trees for the *citemene*, when planting in the *citemene* and when fence-making. Cutting trees is done from June to October, planting is done in December and fence-making is done in March. Rather, activities outside of the village, which include peddling (1/4) take priority over the cultivation. Hunting & gathering (1/6) is also important activity.

In contrast, the wife's activities centre around cultivation (5/8), followed by gathering (1/14) drinking & ritual (1/13). For example, the wife's activities out of the village took up only 12 days. The wife took 9 days for her trip to her sister's wedding ceremony in Kasama about 450km from the village. another 3 days for her trip to the Chilonga Mission where her 9 year old daughter was in hospital.

To understand clearly the difference in the activities between husband and wife, let us compare the time spent on cultivation (Figure 4). Preparing *citemene*

Table 2. Days allocated to main subsistence activities (from the 20th April, 1984 to the 17th February, 1985).

Activities*	Days recorded	Cultivation	Hunting, Gathering	Out of Village	Drinking Ritual	** Others	Total
husband	267	58	48	66	45	50	267 days
wife	274	173	20	12	21	48	274 days

* When two main activities done on one day, both of them are evaluated by X0.5

** Food processing, housebuilding, etc.

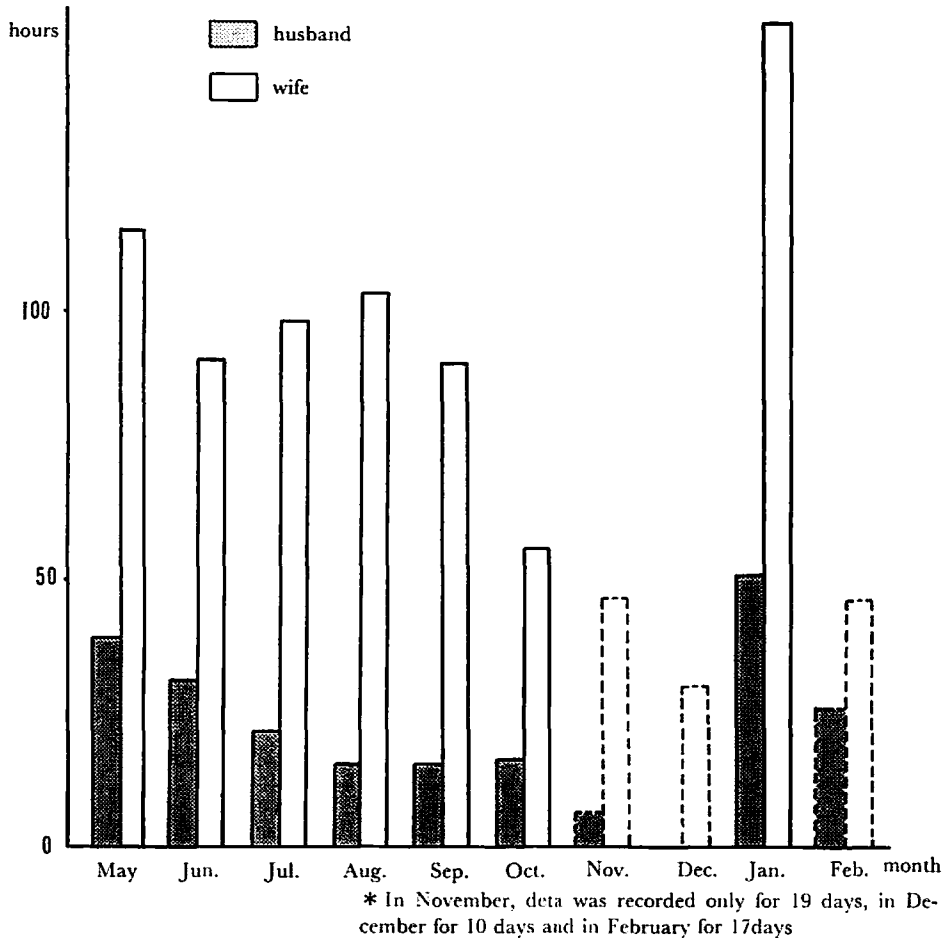


Fig.4. Labour input in cultivation.

fields, planting, and making mounds were the husband's chief activities. On these he spent about 226 hours. The wife's activities, which included preparing the *citemene* field, piling *fibura*, making mounds, planting, sowing and harvesting took about 740 hours. It is the women who support a large part of the cultivation. This tendency assures the men's chances for mobility outside of the village.

In order to make the roles of men and women clearer, I would like to analyze the widows' households. Table 3 shows the frequency of *ubwalwa* brewing and the amounts of the profit. All of the widows' households brewed *ubwalwa* 6 times, much more frequently than of the married couples' households. *Cipumu*, for the purpose of communal drinking, was brewed less frequently compared to that of the married couples' households. As for profit, it reached more than 150 kwacha in the widows' households, while the married couples' households reached only 27 kwacha. In the widow's household, they need money to employ men to cut the *citemene* fields.

Let us take an example of a widow's household. Table 6 shows how the widow opened her *citemene* fields in 1984. This year she has 2 *citemene* fields. One of

Table 3. Frequency of *ubwalwa* brewing and the profit.

Household No.	Frequency of brewing (times)	Type of household	Profit	Details
NO.4	6	widow	K.150	only for sale
NO.5	6	widow	K.163	once for communal drinking**
NO.2	6	widow	K.159	once for communal drinking
NO.3	3	married	K.27	twice for communal drinking
NO.9	3	married	K.17	twice for communal drinking
NO.6	3	married	O	only for communal drinking
NO.8	2	married	K.20	once for communal drinking
NO.1	1	married	O	communal drinking
NO.12	1	married	O	abandoned

* K.: Kwacha, Zambian currency

* * Ritual drinking is included.

Table 4. Labour and source of payment for *citemene* cutting (a widow's household.)

	Labourer	Payment	Monetary value	Sources of the payment
<i>citemene</i> 1	S (unmarried)	-	-	-
	X (unmarried)	K.5	-	profit of <i>ubwalwa</i>
<i>citemene</i> 2	S (married)	hen	K.6	her own
	ZS (unmarried)	cock	K.7	her own
	BS (married)	overalls	K.30	from daughter's husband
	ZS (married)	cock	K.7	from son in the same village
	MBS (married)	shirt	K.14	from son in the city
	X (married)	K.2	-	from daughter's husband
	youngmen of church	K.5	-	from daughter's husband
	X (married)	hen	K.6	her own
	X (married)	dress	K.25	profit of <i>ubwalwa</i>
	X (married)	dress	K.25	profit of <i>ubwalwa</i>
	X (unmarried)	K.10	-	profit of <i>ubwalwa</i>
	total	K.22	K.120	

S : son, ZS : sister's son, BS : brother's son, MBS : mother's brother's son, X : others
 K. : Kwacha, Zambian currency

them was *kakumba* (a small *citemene* field) which was first cut by her youngest son of 10 years. The other was the main *citemene* field, which was bigger than the former one.

What she spent to employ male labour and the sources of the payment were as follows;

(i) Cash; (a) from her own savings of the previous year's *ubwalwa* profit. (b) sent from her son and her daughter's husband, both of whom are living in the cities.

(ii) Clothes; (a) bought with the previous year's *ubwalwa* profit. (b) sent from her son and her daughter's husband who are living in the cities.

(iii) Cocks and hens; her own and given from her son in the same village.

The clothes and chickens, which were used to employ male labourers, when converted to a monetary value, reached 120 kwacha. In cash, the widow also payed 22 kwacha. In total 142 kwacha were spent for opening *citemene* fields. Of the 142 kwacha, 58 kwacha came from her children, the rest 84 kwacha came from selling the *ubwalwa*.

Widows' households need money so that they can purchase fish and thus get

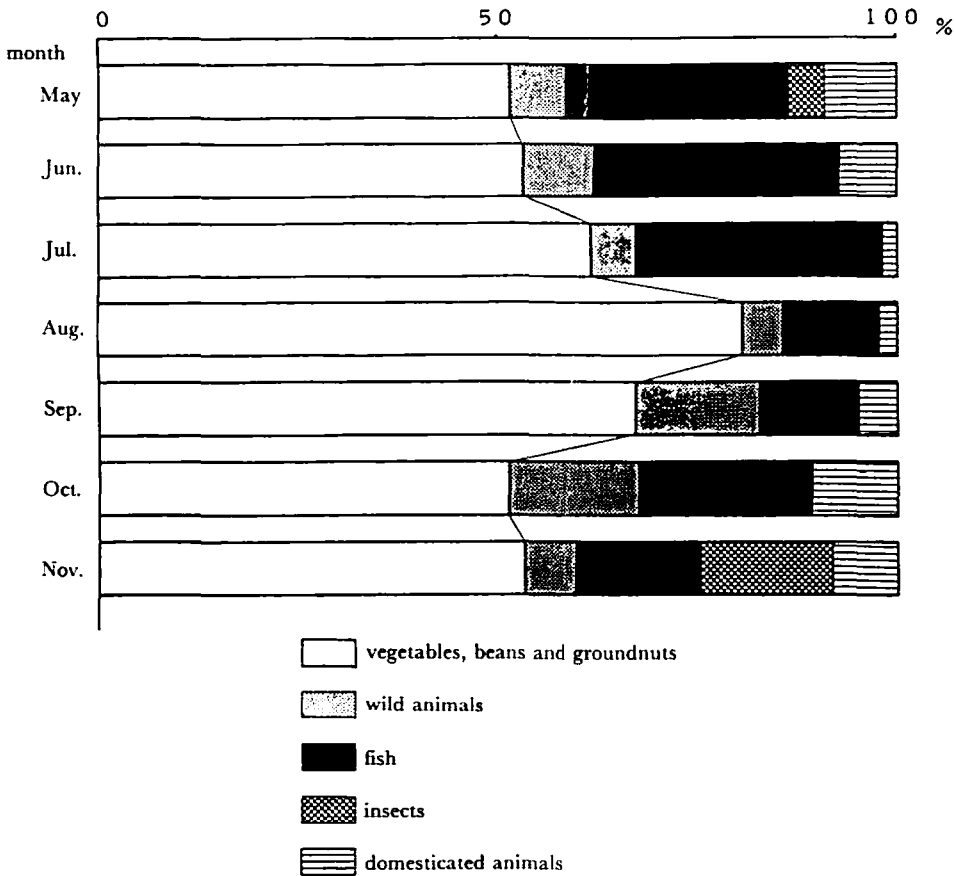


Fig.5. Frequency of use of foods in side dishes in a widow's household in 1984.

protein in their diet. Figure 5 shows the frequency of in a widow's household based on the food diary of a 15 year old boy. Animal food is much lower in frequency than that of a household with a husband, though the changing patterns in food composition are almost alike. Because of the lack of male labour, it is difficult for the widows to get wild animals through hunting. The amount of insects gathered tends to be the smaller also. As a result, fish has become the primary source of animal protein in a widow's household. In other word, cash assures a stable supply of animal protein in a widow's household through the purchase of fish.

It should be noted that in the widows' households, almost all of the cash earned by berwing *ubwalwa* is spent to open their traditional *citemene* fields and to buy fish. Thus it can be said that male labour plays a very important role in the opening of the *citemene* and in acquiring animal protein through hunting. Men also peddle to produce cash. Women on the other hand, undertake the role of getting calories and basic vegetable nutrients through various activities of *citemene* maintenance. They are more involved in the cultivation than are the men and are more responsible for diet and nutrition.

WIDOWS, DIFFERENCES IN SUBSTSTENCE ACTIVITIES, AND SHARING

1. Widows, an Important Social Factor in the Village Life

For a Bemba woman, it is not so unusual to be a widow. According to the life histories of married women in Mulenga-Kapuri, 11 out of 12 women have experienced widowhood through divorce (10 cases) or death of a husband (1 case). Such a high rate of divorce⁶⁾ is related to the Bemba marriage system which is a long and complex process.

The marriage system is as follows:

(i) The betrothal (*kukobeka*): This is the first step in the marriage system. When a young man chooses a girl to be his wife, he refers the suggestion to his parents. After the marriage is approved, a negociator has to be sent to take the betrothal payment or present (*nsalmo*) to the girl's parents. If her parents accept the payment or present, it means that they have agreed to their marriage. Then both of the young man's and the girl's relatives meet together over *ubwalwa* and some cooked food. This is the begining of the in-law relationship.

(ii) Paying the bride-wealth (*mpango*) and begining the bride-service: After taking *nsalmo*, the girl's parents decide on the amount of money for the bride-wealth. The young man begins to pay the bride-wealth little by little and to work for the girl's parents. If the girl's village is some distance away, he moves to her village. The bride-service continues for 3 to 8 years.

(iii) *Cisungu* ritual: *Cisungu* is the girl's initiation ceremony done only by other initiated women. The *cisungu* ritual is an integral part of the marrige. According to Richards (1940), there are 4 main function of the ceremony: (a) Giving the bridegroom legal rights over the bride. (b) Expressing the magic power such as magic of fertility and magic of beauty or of purification. (c) Moral teaching. (d) Initiating the girl into the rank of young married women and making her one of a local company of women of the same social grade. In the ceremony, elder women

are chosen to play the role of "banacimbusa". Under the *banacimbusa* is arranged a hierarchy of women based on rank and position in the *cisungu* ceremony. The bridegroom is not allowed to have sexual relation with the girl until the ritual is completed.

(iv) Handing over of the bride: At the beginning stage of *kukobeka*, the girl is not allowed to live with her husband but is only allowed to sweep his hut and to bring him water and food. After a certain time, her paternal aunt assumes the role of bringing her to her husband's hut to live with him. In this stage the wife is not yet allowed to have her own fireplace.

(v) The setting up of the fireplace: The girl's mother allows her a fireplace of her own, and she gives her one of the big cooking pots. From that time on the girl is allowed to cook her food and brew her own *ubwalwa*.

(vi) The birth of the first child: After the birth of the first child, another ritual takes place. The father goes to cut firewood for the baby. He brings it to the hut where the baby is. The people present begin to speak a word of blessing, while putting some money in front of the house. Then follows the communal drinking of *ubwalwa*, called *cipumu*.

(vii) Becoming a member of the in-law's kin (*kulango mulilo*): *Kulango mulilo* literally means "to show the fire". Usually this ritual would take place after the birth of the second or third child. During this ritual, there is an exchange of *ubwalwa* (*cipumu*) and cooked food between the husband's and the wife's parents and relatives. People's blessing, drinking and dancing follows this. This ritual is supposed to be the mark to tell that the marriage bonds between the husband's and the wife's relatives is completely secured.

The marriage bonds are knitted gradually through such a long and complicated process. A woman's independence from her mother's house is gradually established through every stage of the marriage process. It is a trial-and-error process in which they are able to stop at any given stage of development, and divorce if they wish.

The contradiction between the custom of polygamy and of uxori-local residence is also a cause of the frequent divorce. Before analysing this problem, I would like to examine the custom which deals with a successor's rights after a member of the village has died (*ubupyani*). This custom often allows a man the chance to be a polygamist. One or two years after the death of a man, the relatives must choose another man to be his successor, in many cases the dead man's maternal kinsman. A succession ceremony is held. He inherits everything belonging to the dead man, especially the name, and thereby it is believed that the successor inherits the soul of the dead man. The successor is thought to become the very man who died. If the dead man had a wife, the successor becomes her husband. It doesn't matter if the successor is already married, because polygamy is an acceptable practice. The successor and the widow are required to sleep in the same hut during the *ubupyani* ceremony.

However once the ceremony is finished, it becomes their own matter whether or not they wish to continue as husband and wife or not. Some of them divorce immediately after the ceremony. In the case of Mulenga-Kapuri there are two men who have been practicing polygamy (two wives for each) by succeeding dead men's wives. Their wives are residing in different villages at some distance, because they would principally practice uxori-local residence.

A polygamist must travel from one wife's village to another in order to cut trees for *citemene* when the cutting season begins. This is a big burden if the two villages are located far from each other. There are some cases where polygamy, which resulted from the *ubupyani* ceremony has produced divorce, because of the difficulty in cutting *citemene* and performing other duties. Some husbands stop cutting for one of their wives: his former wife or the widow he succeeded. One of the polygamist husbands' words are well expressing their feelings on such a condition: "You can easily be tired or sick because of the overwork if you have two wives!" After divorce the children remain with their mother on the principle of matrilineity.

With such practices as the long and gradual process of marriage, the succession of the dead, polygamy and uxori-local residence, marriage bonds become loose and unstable. More divorces occur and thus more widows are produced. As a result, in the long run, to see changes in the household members is not uncommon. Thus, in the village community, it is not uncommon that there are some widows. In the village community two kinds of households always co-exist, which differ in their composition of members; the households with husbands and the households without.

2. Differences in Subsistence Activities

The difference of the composition of household members could directly result in a difference in patterns of subsistence activities and could directly produce different output of the activities. The difference in output is evident when we see the amount of finger millet of each household harvested in 1984. The amount of finger millet corresponds to the size of *citemene* field. In 1983 bigger fields are made by the households with young husbands, while smaller *citemene* fields are opened by the elder husbands and the widows⁷⁾. For example, household No. 6 had more than 3000 kg of finger millet harvest from 63 a *citemene* field, which exceeds their daily needs. However widow's household No. 4 harvested less than 900 kg of finger millet, which is lower than the requirements. Household with a young husband tends to have "surplus" finger millet compared to the daily requirements. The household with a husband, whether he is young or not, can get cash by peddling, however the widow's household cannot. Thus, the household with a young husband is given more chance to obtain cash both in terms of labour and the source of it. In the widow's household, most of all the obtained cash is spent to employ the labour for cutting *citemene* and to purchase fish, while in the household with a husband (both young and the elder) cash is not used for such purposes. Consequently, in the household with a husband they have a chance to obtain "surplus cash"; more than what is necessary to maintain a life of subsistence. If the "surplus" is increased and stored, a kind of disparity could occur between the households in the village.

3. Sharing

The money which men got by peddling is seldom stored or invested for more profit but rather is used to buy local beer, *ubwalwa* for others. A man who gets more profit by frequent peddling would buy more *ubwalwa* to treat the others and thus share his prosperity among the households.

People look forward to drinking *ubwalwa*, which is brewed once a week or once every two weeks usually on Sundays in the village. Early in the morning on the day of *ubwalwa*, when the drum tells the people that the *ubwalwa* is ready, they go one by one with containers to buy *ubwalwa*. After tasting a small cup for free

(*kunfwa dyonko*), they buy *ubwalwa* as much as they want. Soon a beer drinking party with one's intimate friends begins. Sometimes the party is held at the very place where they have bought the *ubwalwa* and sometimes it is held at someone's house. On such an occasion people always request that the man, who is thought to have gotten money from peddling, treat his neighbours to *ubwalwa*. In such case he often buy more *ubwalwa* than the others and give a spontaneous drinking party. If he is unwilling to treat other people, they will censure him as a "batani" (one who doesn't share)", and he will gain one of the most dishonorable reputations for a Bemba can have.

The household whose member is considered to have profited much by peddling, will brew *ubwalwa* only for communal drinking much more frequently than other households. Because some part of the profit must be shared with others and *ubwalwa* drinking is considered to have an important social value in terms of sharing. No.6 household was one of such households which produced *ubwalwa* 3 times for communal drinking. If a man does not offer *ubwalwa* for communal drinking, he will also be censured as a "batani".

Just like many other African societies, it is the basic social principle to share with others in the Bemba village. This is related to the idea that one should avoid "kutana (not sharing with others)" at all times. One who has what the others don't have must share it with others when he is requested to do so. And one who has more or who has better things must share them with others, or try to return them to the others by some means.

Suckling mothers often tell their baby "Wantana mukaka" (You don't share your milk with me)". In case of begging, "Wantana (You don't share me)" is the most effective word. People are so accustomed to the word "kutana" that avoidance of *kutana* has become ingrained. This egalitarian principle, on which their subsistence strategies have been developed, fundamentally supports their life. This principle assures a strong relationship of mutual aid and survival of the community. To break the rule of "kutana" is anti-social and to be anti-social is to jeopardize the survival of the individuals as well as the community. It is this reason why the abusing word "batani" has an effective power on the people.

Refusing to share may evoke the envy or jealousy of others and eventually result in a man's misfortune such as sickness or accidents which sometimes lead to death. Others feel sympathy for the unfortunate man, but realize it to be the sanction on the man's anti-social behaviour. People with more money than others try to be thoughtful, not to stand out from their people and are able to share with others. Others try to obtain the "surplus" as their deserved share. In this way, the "surplus" money of one household is not accumulated to create social disparity but is eventually shared with other households.

The money earned by the *ubwalwa* sale goes into the women's, more predominantly the widows', pockets. It is spent to employ male labour to cut the *citimene* and purchase the fish. In short, there occurs a circulation of cash within the village community. The "surplus" cash of one household is eventually leveled into the self-sufficient life of the community as a whole.

SUMMARY AND CONCLUSION

In the "traditional type" Bemba village, people depend chiefly on *citemene* as well as small scale mound cultivation, hunting and gathering in the bush, peddling and selling local beer.

Although the foods from *citemene* are of the most importance, wild plants or animals from the bush, and fish, which has to be bought from outside of the village, also are important in their diet. Therefore, their subsistence strategies are classified in two-ways: self-sufficient strategies utilize the various environments around the *citemene* including the bush, while cash getting strategies provide fish and other needed items for the household. However, we must note that these strategies have the same foundation; finger millet. In this sense then the *citemene* is the primary source for their subsistence.

Each household is a basic unit of the subsistence activities: each member assumes his or her role throughout the process from that of production to consumption. There is very clear sex divisions of labour in each household. The roles of men and women in subsistence activities differ accordingly. Men cut trees, get animal protein through hunting and gathering. Women supply food calories and basic vegetable nutrients by continuously engaging in cultivation. This, in turn gives the men more chance to go out peddling and partake in other activities.

In the widow's household, cash is needed for the labour to cut the *citemene* and for the stable supply of animal protein. Most of all the obtained cash is spent to maintain the life of subsistence. However, the household with a husband is able to manage and sustain a life using the two-way strategies. This allows them "surplus" money. The difference in subsistence activities between the household with a husband and the widow's household may produce a possible development of social disparity, if the "surplus" cash is accumulated in the household with a husband.

However, income disparity and other differences in subsistence activity patterns are eventually restrained by several factors and are balanced out by the rest of the community. These factors are :

- (i) The main cash source is finger millet harvested from *citemene*.
- (ii) Avoidance of *kutana* is a basic social principle.
- (iii) Unstable marriage bonds cause high divorce rates. As a result, widows are produced in the community and thus the households with husbands and the households without always co-exist.

Factor (i) is directly related to the characteristics of *citemene* itself. The amount of finger millet produced from *citemene* is proportional to the acreage of the *citemene*. But as the acreage is decided by a male-female labour-input balance, it is very difficult to make such large *citemene* fields. Moreover, the finger millet harvest varies from year to year and the total amount of the harvest always tends to be short and almost inadequate in terms of the household needs.

People consider *ubwali* made of finger millet to be the best food, and the finger millet to be the best material for brewing *ubwalwa*. The people hope to eat it throughout the year whenever possible. As a result, finger millet from the previous year cannot last until next harvest. It is impossible for them to sell all the finger millet. They have to decide the finger millet consumption schedule in order to balance between the needs for their adequate diet and the needs for peddling. Therefore peddling must remain on a small scale basis.

Even if one can succeed in using more finger millet for peddling, he would face with a social restriction. He must treat the others to *ubwalwa* in order to return the earned excess money. If he doesn't do so, he would be considered as one who went against the social principle, that of avoidance of *kutana*. Therefore the cash obtained by men's peddling tends to be spent for *ubwalwa* treating and not accumulated or invested for more profit. Thus the differences between households are eventually leveled at the community level. The "leveling mechanism" works effectively in the village.

Under these socio-ecological settings, men's activities concerning cash-getting don't cause social disparity but tend to become a means by which they can fill the temporary needs of a household. The money goes into the women's, especially the widows' pockets to be later spent in employing male labour for the tree cutting and buying of fish. The differences in subsistence activity patterns is caused by the different composition of households. But the differences are gradually becoming equal in the community level. As the result of this structure, every household in the village is assured a stable subsistence life at the same time. The structure is continuously maintained and reproduced. Because of the high rate of divorce, there are always some widows' households in the village community which inevitably create different patterns of subsistence activities.

In the "modernized type" village, they cultivate hybrid maize as a cash crop, while they cultivate finger millet for self-consumption. In addition, the use of modernized instruments and the increasing male labour attached to agriculture has made it possible to produce much more than the amount needed for self-consumption. It should be noted how the leveling mechanism has worked in this process of modernization.

In our previous report, our results stressed that the *citemene* system is rather successful, given the conditions of the wide woodland and the low population density. It is true as far as the leveling mechanism works in retaining their subsistence level of life. However it is the very leveling mechanism, which accelerates the modernization, once various conditions are ready, as analyzed in another paper (Kakeya & Sugiyama, in this volume). The acceleration can produce a drastic change of life, while the principles of life remain the same. If the rash modernization will expand in the future, it may create serious conflicts among the village people and several environmental problems other than deforestation. Further study based on a socio-ecological view point would be needed to look for more "reasonable" ways of developing and modernizing.

NOTES

- 1) Bemba words will be written in italics. All the words will be given in singular form to avoid confusion. However the conventional use of plural forms is adopted as an exception.
- 2) Since February 1985, the bus service has stopped because of the road destruction caused by heavy rain.
- 3) D. B. H. means Diameter at Breast Height.
- 4) Mean acreage of *citemene* is a little bit lower than the former report (Kakeya & Sugiyama, 1985), because of different treatment of the data.
- 5) Harvesting process will be described in detail because our previous paper didn't mention it, and because it consists an important part of this paper.
- 6) Richards (1940) also reported how high the divorce rates were in her time. According to her

description the highest rate reached 44%.

- 7) This tendency is stronger in the households with young husbands who have finished bride-services. They usually make bigger *citemene* fields than others but at the same time they usually have more dependants than the elder's households.

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