# WATERSHED, WEDDINGS AND WORKFORCES: MIGRATION, SEDENTARIZATION, AND SOCIAL CHANGE AMONG THE BAAKA OF SOUTHWESTERN CENTRAL AFRICAN REPUBLIC

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ABSTRACT This brief demographic history of the BaAka pygmies of the Dzanga-Sangha Dense Forest Reserve analyses the BaAka's engagement with capital and the extent to which it influences immigration. The BaAka villages within the reserve have been influenced differently by coffee and timber boom/bust cycles. We superimpose local economic history with demographic data, then using five parameters; residence, place of origin, estimated year of birth, sex and parental place of origin, we seek to establish whether different immigration patterns are due to different local economies. Also discussed are the effects of local economies on traditional marriage migration patterns. We conclude that immigration patterns do change over time probably due to demands for labor in conjunction with preexisting marriage alliances.

Key Words: BaAka; Pygmy; Bayanga; Immigration; Migration; Labor

### INTRODUCTION

# I. Objectives

With the notable exception of Bahuchet (Bahuchet, 1985), most anthropologists, although realizing that BaAka pygmies are not Paleolithic relics, suspended in time, do not describe them in terms of historical migration patterns. Using census data collected on approximately 1100 BaAka adults living in the Dzanga-Sangha Reserve in the southwest corner of the Central African Republic, we will address three questions:

- 1. To assess the extent of immigration among the BaAka?
- 2. To investigate whether immigration varies from village to village over time?
- 3. To examine the forces behind immigration, realizing that it may be difficult among the BaAka to separate marriage migration from labor migration?

# II. Local Economic History

The traditional economy that probably existed in the area before the arrival of the French colons, the exchange of BaAka forest products and labor for *bilo* (1) agricultural products, iron, political representation has been well documented. The first migration we hear of

in oral histories is that of the *bilo* patrons coming over from the Mokala watershed in the late 1800s, accompanied by "their" BaAka (Kretsinger & Zana, 1996). Living along the Sangha "river-highway" meant that the residents of Bayanga and Lidjombo were exposed to each expatriate interest in turn- ivory, duiker skins, rubber, coffee, timber, conservation and tourism.

At first the BaAka were not independent agents in the new colonial economy; concession agents complained about having to go through *bilo* patrons to obtain ivory from the BaAka, (Kretsinger, 2002), and the demands placed on the *bilo* for rubber and duiker skins probably meant the *bilo* required more from the BaAka (Bahuchet & Guillaume, 1982). The coffee planters in the 50s and 60s began to pay the BaAka independently of the *bilo* and so did the logging companies in the 70s and 80s. Through immigration the *bilo* population swelled five-fold, if not ten-fold in Lidjombo during its coffee boom, and in Bayanga when logging was in its heyday. We wish to study the effects of these two booms on the BaAka population before 1985.

### III. Method

Since 1990 census data has been collected for approximately 1100 BaAka adults within the reserve. This is only enough for the roughest statistical analysis- since only three out of five informants responded to the question of origin.

There are multiple sources of error in conducting a census among the BaAka; defining what is a "place of origin," estimating age, determining whether the parents are actually immigrants. We will discuss them as we introduce each parameter.

We will be exploring the question of immigration through five different parameters: residence, place of origin, estimated year of birth, sex and parental origins.

### PRELIMINARY LITERATURE REVIEW

Early cultural ecological studies of forest dwellers in Africa emphasized their relationship to the immediate environment, as distinct from that of their farming neighbors (Lee & DeVore, 1968; Peterson, 1978; Turnbull, 1965). Current work, on the other hand, analyzes the range of these relationships within broader larger local and regional economies through colonization, migration, state formation, and intensifying trade (Brosius, 1997; Leacock & Lee, 1982; Solway & Lee, 1990). Cultural anthropological work on the northwestern Congo River basin features primarily ethnographic descriptions of forest-dwelling forager societies (Bahuchet, 1985, 1988; Demesse, 1980; Sato, 1992). This literature on groups referred to as "Pygmies," (a term we use here for clarity in discussions of cross-basin commonalities among hunter-gatherers) developed remarkably distinctly from historical studies of the region, which emphasize Bantu migration into the area, as well as colonial history (Vansina, 1990; Coquery-Vidrovitch, 1972).

For over a century, the forested regions of present-day Central African Republic (CAR) have been converted to plantations or exploited for timber, rubber, diamonds, and various animal products. Since colonization, shifting world markets for export products have provoked cycles of changing extractive and agricultural activities for inhabitants of CAR's

forested areas. After independence in 1960, the major economic and ecological involvement of expatriates in the Sangha area has involved logging indigenous species of tropical hardwood (particularly *Entadrophragma cylindricum*, *Terminalia superba* and *Triplochition scleroxylon*; see White, 1994; Wilkie et al., 1992). Without question, the greatest benefits from such "economies of pillage" (Bahuchet, 1985: 129) have accrued to colonizers, or other outsiders who have developed informal economic networks to exploit the region's riches. Current conservation and development efforts are spearheaded by the World Wildlife Fund (U.S. and Germany), and have entailed the establishment of a reserve and park system of protected areas. Such projects face the complex cultural mosaic described above, complicated by 20th century migrations due to successive cycles of industry. In turn, the local residents interact with increasing number of expatriates in the region, from North Africans to Germans and French, and now, Americans (Hardin & Remis, 1997).

Seen in relation to historical work on these dramatic social changes, classic monographs on equatorial African hunters and gatherers may appear somewhat synchronic, and perhaps prone to considering human ecology as a closed system (Peet & Watts, 1996: 4-5). Yet, such anthropological works are full of rich and dynamic detail, constituting an indispensable backdrop for our assertions that Pygmies, too, have been mobile and dynamic settlers of the study area. More recent anthropological studies of Pygmy groups analyze particular behavioral, ritual, or cultural practices such as parenting, dancing and singing (Hewlett, 1991; Joiris, 1996; 1997; Kisliuk, 1998). Researchers grounded in a tradition of geography, more explicitly consider the conservation process as it largely influences Pygmy social systems and ecologies (Davies, 1996; Noss, 1995; Thuret, 1995). Almost without exception, these latter speak of a "crisis" of alienation from land and forest resources among forest foragers of the Sangha River watershed area (Thuret, 1995:160). They thus strike a similar tone to that of recent press pieces on the area (Simmons, 2000), creating images of forest foragers as victims. We illustrate, as well, their resilience in the face of such change: through marriage, migration, and the cultural politics of meanings they make through performance and daily practice. But what, we ask, are the possible limits of this resilience, given current dynamics of social and environmental change that exclude Pygmies from control over the resource bases within which they have developed, and upon which they still depend?

## **RESULTS**

# I. Residence; the First Parameter

For the purposes of this paper the BaAka of the Dzanga-Sangha Reserve have been divided into four primary residential groups: Lidjombo (which includes Socambo), Yandoumbe, Massapoula and Yobe (which includes Koundapapaye). The BaAka of Babongo are not included because of *bilo* resistance to BaAka censusing. One may ask why Koundapapaye should be included as it is out of the reserve (they were residents of Yobe when the original censuses were started in 1990) or why villages originated from Bayanga (the two villages have been separate for many years and seem to have traditionally had

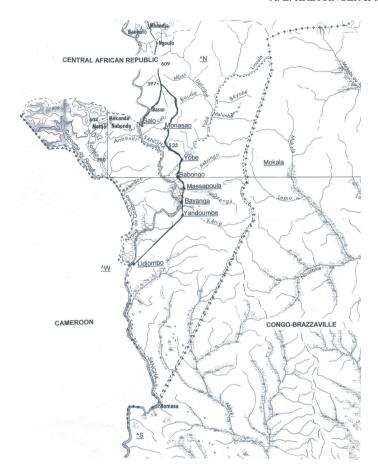


Fig. 1. Map of the Dzanga-Sangha Dense Forest Reserve showing primary BaAka villages and principal places of origin

patrons from different tribes, as well as different origins, marriage exchanges and employers). Including Socambo as part of Lidjombo is more problematic though many of the BaAka from camp Lopez in Lidjombo seem to move back and forth on a regular basis.

About 30% of the BaAka included in this study live in Lidjombo, 30% live in Yandoumbe, 30% live in Massapoula and 10% live in Yobe. Because of the smaller sample size, Yobe will be described in terms of the broadest generalizations.

As suggested in the introduction each village has its own economic history and that of Yobe is the least well known. In the early CFSO (Compagnie Forestiere Sangha-Oubangui) reports the Yobe area is described as a rich source of ivory, but many of the old maps do not included Yobe as a village. The upper reaches are pock-marked with artisan diamond mines, some of which are in the reserve, but most of the diamond traffic goes through the savanna patches near Monasao and may not affect the village of Yobe, where the censuses occurred.

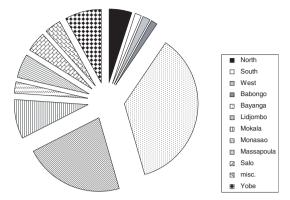


Fig. 2. Distribution of places of origin among the BaAka within the reserve

Until the 1980s, Massapoula's history was that of Bayanga. There was a *bilo* village on the current site in the 1950s, which moved to the banks of the Sangha when the road grew over. The BaAka of Bayanga moved to Massapoula independently of the *bilo* patrons. Before this they were living near the airstrip and many were working for the logging company.

Yandoumbe was founded only in the 1990s so it is only a residence, and not place of origin for the adult BaAka. Most of the BaAka are currently employed by the logging company, but less than a third of the men are hired. Do actual numbers employed as opposed to the prospect of employment affect immigration? Are there other attractions such as the variety of other economic strategies?

The importance of coffee for the BaAka of Lidjombo is two-fold. Beyond the money the BaAka received, a wave of *bilo* immigrants meant that the BaAka could pick and chose their patrons. Now that Lidjombo is a boom-town-has-been it remains to be seen what economy will emerge, as the BaAka farm, hunt and work for patrons old and new. Many of the *bilo* have emigrated but few BaAka have left- either downstream, across to Cameroon or up to Bayanga.

## II. Adding Places of Origin as a Parameter

Just as with many of us the question of origin is complex. In response to the question "where are you from?" you might describe your birthplace, where you grew up, where you went to school- often we choose the place with which we wish to be identified. The BaAka respondents have done the same in describing their own origins and the origins of their spouses and parents.

This leaves a tangled mess of over 50 origins, ranging from "the telegraph line" to "the United States," far too many to capture on a graph. They have been reduced to 12 places of origin; described below.

"Yobe" may mean the river itself, the current village site or the old village site at the confluent of the Yobe and the Sangha.

"Misc." was originally "water," a catch-all for the streams that did not easily fit into any category- Mobio, Ademou, Moyindo, Mongombe, Makoki, Moguengi, Mobio, Losi. It expanded to include "ndima" (forest), the road, the telegraph line and USA.

"Salo" is a village and coffee plantation that straddles the Sangha River north of Bayanga. Most of the informants coming from Salo are Aka rather than Bagombe (Baka).

"Massapoula," like Yobe, may refer to the stream itself or the several old village sites depending on whether the road to Bayanga was passable at that point in time.

"Monasao" literally means the "child of the Sao," an insignificant tributary of the Sao river. Since the mid-70s it usually refers to the Catholic mission station.

The "Mokala" is a tributary of the Motaba, and includes the village of Makao. Most of the BaAka coming from the East will have come from this watershed. This is the traditional origin of both BaAka and *bilo* of Bayanga in the late 19th century.

"Lidjombo" is a small village 35 km south of Bayanga, a booming coffee town fifty years ago.

"Bayanga" is the result of the many older respondents who simply said they came from Bayanga without specifying whether they came from the camp behind old Bayanga (on the Kenie river) or behind Quartier Bomitaba (airstrip). Therefore both camps and Bayanga itself are all grouped together as BY. This is the principal place of origin within the reserve.

"Babongo," once again, may mean the current village of Babongo founded in the late 70s, the river itself or the old village site at the confluence of the Babongo and the Sangha River.

"West," the "west of the reserve," encompasses Cameroonian places of origin, including Bela, Libongo, and also "Bagombe," which is what the BaAka of the reserve call the Baka from the western side of the Sangha River.

"South" indicates that informant came from either the southern tip of the reserve, which includes Salcapa, Bomanjoko, Ndakan, or even further south, from Congo-Brazzaville; Bomassa, Kabo

"North" means "north of the reserve" and includes "savannah," Kanza, Balemboke (another Catholic mission station), Nola, Bambio, even the Lobaye.

Having categorized the places of origin, one can see the extent to which the places of origin of the BaAka of Lidjombo, Yandoumbe, Massapoula and Yobe overlap and diverge.

Realizing that none of the BaAka born in Yobe and Massapoula ended up in Lidjombo one might think it was simply a question of distance- those are the two villages furthest from Lidjombo. But people have come to Lidjombo from further north; Monasao, Salo and "North." In the same manner none of the BaAka in Yobe claim to come from Monasao, which is close by, but immigrate instead from further north. Just as there are no Massapoula born BaAka living in Lidjombo, there are no Lidjombo born BaAka living in Massapoula.

Lidjombo may serve as a gateway, the end of the road, the first major village in the Central African Republic when a pirogue is coming upstream. None of the Pygmies originating down south came any further than Lidjombo, those coming from the "west" (Cameroon) have come as far as Yandoumbe. Although the Baka and BaAka themselves may not need to carry an ID card identifying them as Congolese, Cameroonian, or Central African citizens, to the extent that much of their travel across and up the river depends on a ride in a villager's pirogue, the Pygmies will also be effected by border controls.

RESIDENCE	Yobe	Misc	Salo	Massapoula	Monasao	Mokala	Lidjombo	Bayanga	Babongo	West	South	North
Lidjombo		*	*		*	*	*	*	*	*	*	*
Yandoumbe	*	*	*	*	*	*	*	*	*	*		*
Massapoula	*	*	*	*	*	*		*	*			*
Yobe	*	*`	*	*		*	*	*	*			*

Table 1. Places of origin versus residence for the BaAka of the Dzanga-Sangha Reserve

PLACES OF ORIGIN

Salo may also serve as a gateway for the Bagombe wishing to cross the Sangha River. Whether it's because of all the rivers emptying into the Sangha along the East bank, or colonial settlement policy or access to the road, there are no major villages on the West bank between Lidjombo and Salo.

The different villages seem to have clear marriage preferences- the BaAka from Yobe are more likely to marry those from Salo, those from Yandoumbe are likely to marry those from Mokala. The practice of marrying back to "the old country" is widespread, not only among the BaAka.

Further on in the paper the difficulty in separating "marriage migration" from "labor migration" will be discussed in greater detail.

Having discussed the finding that not all places of origin are represented in all villages we can now compare the distribution of the places of origins across the four villages.

As seen in Fig. 2, Bayanga is a principal place of origin for the reserve as a whole, but on the village level it is only the principal place of origin for Massapoula and Yandoumbe. Within Lidjombo, most of the BaAka are non-immigrant, coming from Lidjombo itself (69%) with only a small number (11%) coming from Bayanga. This village has the highest proportion of non-immigrants-it remains to be determined whether there is a difference in immigration according to age and whether this corresponds to the coffee boom.

Massapoula is also a village of non-immigrants- most of the informants come from Bayanga (58%) or from Massapoula itself (18%). If Lidjombo or Massapoula were smaller, one might worry about marrying cousins from the same clan but these villages are larger than the typical BaAka camps- each consisting of over 100 households.

Yobe is the one village where there are more informants who are immigrant than "Yobeborn." As stated earlier however the economic history of Yobe is largely unknown. The fact that the two principal places of origin are Bayanga and Salo may have less to do with the pull of Yobe than the push of Bayanga and Salo. In other words as these villages grew due to coffee and logging there may have been people pushed out due to increased social friction or increased competition for resources. (Just as the original "Sangha-Sangha"

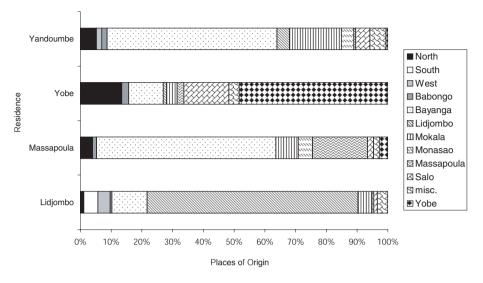


Fig. 3. Percentage of places of origins for four BaAka villages

patrons in Lidjombo moved upstream for a generation, avoiding the heyday of the coffee plantations). (Ideally any paper study immigration should be studying emigration at the same time.)

Yandoumbe has the most diverse set of immigrants, every place of origin represented except for the "South." Over half the population of Yandoumbe is from Bayanga itself (55%) and considered non-immigrant for the purposes of this paper, but Yandoumbe also has a greater percentage of immigrants from Mokala, (17%) compared to the other resident villages. Because of the historical importance of the Mokala-Bayanga immigration route and because migration is ongoing, we shall continue to focus on Yandoumbe, Mokala and also Lidjombo. Only 4% of Yandoumbe residents came from Lidjombo- but where else would Lidjombo-born BaAka go to after the coffee boom (if they left at all)?

Another way of comparing residence and place of origin is setting the twelve origins as an axis and seeing whether the BaAka born in the villages of Yandoumbe, Massapoula, Yobe and Lidjombo emigrated at all and to where they emigrated, (remembering that some have migrated out of the census zone). Those born in Bayanga generally stayed in Massapoula and Yandoumbe, but some went to Lidjombo (we'll see later if that corresponds to the coffee boom). A few Lidjombo-born left for Yandoumbe, and a majority of the Mokala-born ended up there as well.

## III. Adding Time as a Parameter

Although questions of origin are interesting treated as static generalizations, they become almost fascinating with the addition of time as a dimension. Both Bayanga and Lidjombo have been boom-bust towns-will this be reflected in the immigration patterns? Is there a constant flow of marriage partners regardless of economic climate?

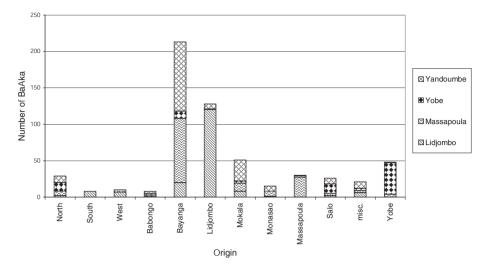


Fig. 4. Distribution of current residence of BaAka within the reserve by origin

Before bringing in time as a parameter we must discuss the greatest single source of error: determining the age of the BaAka; for the BaAka are indifferent to dates. For most adults (those born in 1985 or before) we can only guess, knowing that the older the respondent the greater the margin of error. (A five year old would never be mistaken for a fifteen year old, but it is easy to assign the age of sixty to a fifty-year old.)

It is possible to a degree to date parents by the age of their children- a grandparent is usually over thirty-five, a great-grandparent over fifty. If BaAka do not have children however, or have lost many children, they may be much older than they appear. Men sometimes wait to have a family or surrounded by a second family, neglect to mention their first. A timeline, ordering and dating events of a community's collective memory by colonial records, has not proven successful because it's not colonial politics that the BaAka remember. Age ranking, in which informants order themselves age wise, does not work when immigrants and non-immigrants did not grow up together.

Another shortcoming of the data is the lack of older informants. When it appears on a graph that 50% of the informants born in 1935 originated in Bayanga, the actuality is that one of the two informants judged to be that old was born there.

Studying immigration through demographics is studying sunlight through shifting shadows. An old man born in Mokala, now in Yandoumbe, leaves us with a 50 year span in which he might have immigrated. If we are fortunate, determining the birth sites of his children and grandchildren might help fix the decade. A peak might mean more births; but it might also mean comparatively fewer deaths, or that fewer of that particular birth cohort have emigrated. Waves of immigrants may have passed without leaving any demographic footprints- we can only guess at an absence.

With more and more elements a graph becomes increasingly difficult to read. From this graph we can see only that over the years the percentage of Mokala-born informants decreases, while the percentages of Bayanga and Lidjombo born informants hold constant. The proportion of Massapoula born informants increases towards the 1980s.

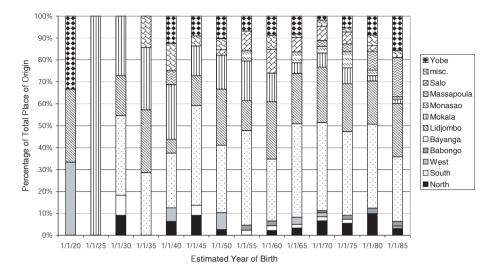


Fig. 5. Contribution of each place of origin against estimated year of the birth for the reserve

It becomes too confusing to consider residence, time and place of origin in one graph, so the contribution of each place of origin against estimated year of birth is considered separately for each of the four principal villages.

In the origin over time graphs for each village it will be observed that towards the later years, and certainly by 1985, the primary place of origin is the village itself. The reason is that adult immigrants have yet to arrive, that is by 2010 there may well be more 25 year olds moving in from outside of the village (either because of marriage or seeking work) and some of those born within the village will have moved out for the same reasons.

As Yobe has the smallest sample size speculation should be kept to a minimum and it should be merely noted that this is the only village where Salo is a primary place of origin- both in 1960 (maybe corresponding to Salo's coffee boom) and 1970 when Salo and Bayanga are both the primary places of origin.

The graph for the village of Massapoula seems fairly simple to interpret- most of the BaAka born before the mid-80s when Massapoula was "refounded" were born in Bayanga rather than Mokala. The exodus from the Mokala must have occurred at least a generation earlier. By 1985 there seem to be more Massapoula inhabitants born in Massapoula than in Bayanga, but this may include BaAka born within the Massapoula watershed instead of the village of Massapoula.

One question that has yet to be addressed is whether the hunting ranges of the 1960 resembled the current ranges for the BaAka villages. Did the BaAka from one end of Bayanga (Quartier Bomitaba) hunt along the Massapoula, while those at the other end hunt along the Kenie?

The graph for Lidjombo may correspond best to the hypothesis that BaAka immigration should reflect economic trends- that is, roughly half of the BaAka born during the 1950s, the boom time for coffee, originated from outside Lidjombo. From the 1950s to the 1980s, the percentage of BaAka born outside of Lidjombo has decreased dramatically to less than 5% (most of the BaAka of Lidjombo choose spouses from within Lidjombo).

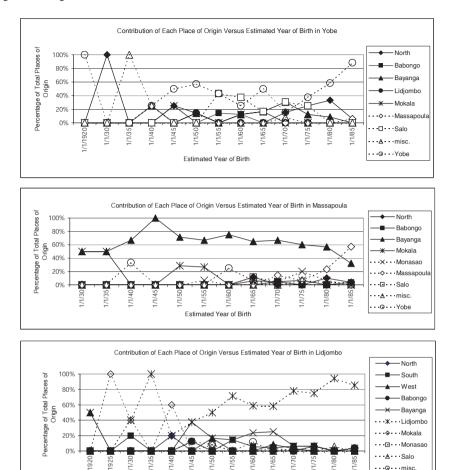


Fig. 6. Contribution of each place of origin against estimated year of birth in three villages

Estimated Year of Birth

The graph for Yandoumbe is more intriguing. Like the Massapoula graph most of the BaAka were born in Bayanga (they wouldn't be born in Yandoumbe because it wasn't founded until after 1990) EXCEPT for the 1960 cohort, of which a greater percent originated in Mokala. Is this related to the opening of the logging company in the early 1970s?

This blip must be studied more thoroughly to determine whether the informants came with their parents in the 60s and 70s, or if they came themselves in the 80s and 90s looking for a spouse or work in the logging company. Or the blip might be a combination of earlier child immigrants and later adult immigrants.

In retrospect the question of origins in the census should be expanded to include approximate age at arrival at current residence. There is a crucial difference between a youngster's immigrating due to their parent's economic decision and adults coming of their own volition following a spouse or looking for a job. If one or both of the parents

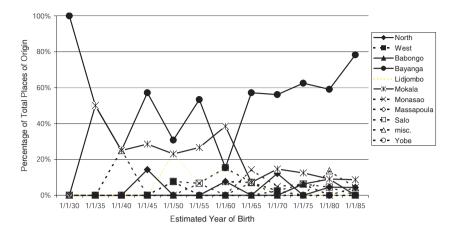


Fig. 7. Contribution of each place of origin against estimated year of birth in Yandoumbe

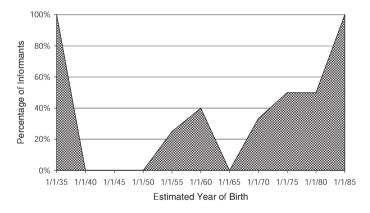


Fig. 8. Percentage of immigrants having one or more immigrant parents against estimated year of birth for Yandoumbe

are still alive and appear in the census than it is easier to assume the informants came accompanying their parents, but many informants will have lost their parents.

Whether child immigrant or adult immigrant it is important to note that this small surge of immigration occurred independently of the *bilo*. This probably is due to the international boundary that lies between Mokala and Bayanga; it is unlikely that a Congolese *bilo* would be offered a job in the logging company.

The percentage of Yandoumbe "immigrants" (those born out of Bayanga) with parents who also immigrated from Mokala to Yandoumbe (present during the censuses in the 1990s) shows a blip in 1960 as well. This suggests that some of the 1960 cohort from Mokala came with their parents.

We are supremely fortunate to be able to compare the census data from Massapoula and Yandoumbe to raw data collected by Cavalli-Sforza in Bayanga in 1968. He interviewed

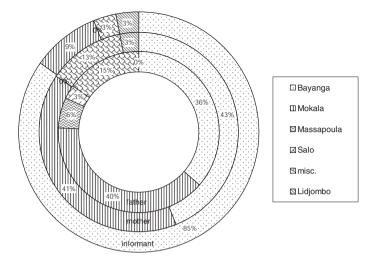


Fig. 9. Distribution of origin of informants against that of their parents in 1968 according to Cavalli-Sforza

32 adults and adolescents, wisely avoiding any guesses about age, and asked about the origins of the informant's 64 parents.

The "1960 blip" we observed in the Yandoumbe graph doesn't show in the Cavalli-Sforza's census, nor should it. If the 1960 cohort were present in Bayanga in 1968, they would have been too young to be interviewed. The majority (85%) of BaAka questioned in 1968, roughly a 1920 to 1955 cohort, claimed to come from Bayanga. It is only when questioned about the origin of their parents (who may have been born as long ago as 1880 or as recently as 1940) that we find more originating from Mokala than from Bayanga itself. This corresponds well with the oral histories that state that the *bilo* and BaAka that met the first French colons in Bayanga came from Mokala. The *bilo* continued to cross between the watersheds during the first half of the 20th century, the BaAka still do, though to a lesser extent.

## IV. Spouses- Adding Sex as A Parameter

In order to thoroughly investigate the question of economic immigration we must also consider other motives for immigration, primarily marriage. It can be difficult to establish which is the primary motive; that is if an Aka man came looking for a wife and found work as well, or if he came looking for work first and found a wife afterwards.

However, there should be three discernable differences between "marriage immigration" and "labor immigration."

 Immigration due to marriage should remain constant over time (or as constant as the "yet-unmarried" population) and not swing as wildly as labor immigration following boom-bust cycles.

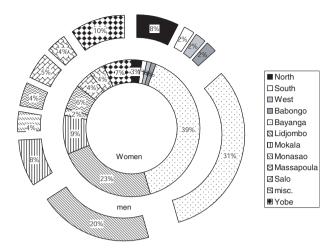


Fig. 10. Distribution of BaAka men and BaAka women's places of origin

- 2. If immigration is due to marriage, husbands and wives should have different places of origin.
- 3. In a cash economy village there will be more men coming from elsewhere looking for work (either alone or with families, unlike a patriarchal agricultural village where most wives will have come from elsewhere (sons inherit). Traditionally of course, the BaAka have not been agriculturalists, and often the sons-in-laws lived with their wives' groups for some time working off the "bride price."

We now bring up a potential source of error that perhaps should have been addressed earlier; among a traditionally mobile people when does another "camp-shift-visit-in-laws" count as immigration? As Bahuchet notes

Traditionally the dispersion of relatives, and the relationship between two families through marriage favor the visits: families leave their communities to visit their affines living in other territories...a consequence of this fragmentation process and of the visits is that every Pygmy has right of access to several territories, in addition to his or her birth-territory. (Bahuchet, 2000: 10).

For the purpose of this paper an immigrant is one who at time of census was not in the hunting-range in which he or she was born.

Another potential source of error are the Aka men and women who have been married four or five times. Only first marriages will be considered so as not to give undue weight to these choices.

There are proportionally more women born in Bayanga, Mokala and Lidjombo- is this due to the fact that the women are live longer? Would these differences show up if one added time as a factor?

Fig. 11is the most perplexing of all the graphs, in part due to a sexual bias in age estimation on the part of the census taker. In 1990, presented with fifteen year-old adolescents

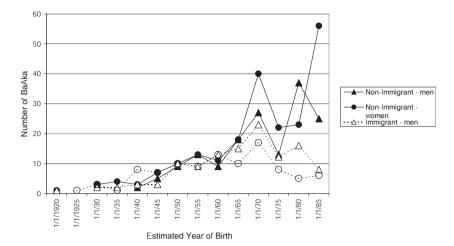


Fig. 11. Number of immigrant and non-immigrant BaAka men and women against estimated year of birth within the reserve

	BaAka Men	BaAka Women	Total Population
Immigrant	42%	32%	36%
Non-Immigrant	58%	68%	63%

Table 2. Gender bias in immigration

it is probable that many were arbitrarily assigned to the age of twenty (if starting a family-more likely with girls) or to the age of ten if they didn't seem sufficiently pubescent (more likely with boys who hit puberty later). There may also have been an increase in surviving births with the opening of the logging company in the early 70s followed by an increase in infant mortality. This might account for the dip.

But then how to account then for the 1985 cohort the sharp rise in non-immigrant females compared to males? Error in age approximation is one possibility, or maybe child mortality is higher among boys. But there is also the possibility that these young men have emigrated from the area. Only time (and follow-up censuses) will tell.

For most of the graph however the gender-immigration lines run roughly parallel. They can be summarized as follows in Table 2.

There are more non-immigrants than immigrants and it is usually the women that stay put; does this point to labor immigration? What does it mean if both husband and wife immigrate?

Exploring the first two supposed differences between marriage and labor immigration has not helped fix the nature of BaAka immigration within the reserve. There is some fluctuation but most of the immigrants in most of the villages are actually "marriage immigrants." Studying parental origins, in particular the Mokala parents of Yandoumbe residents we begin to find answers.

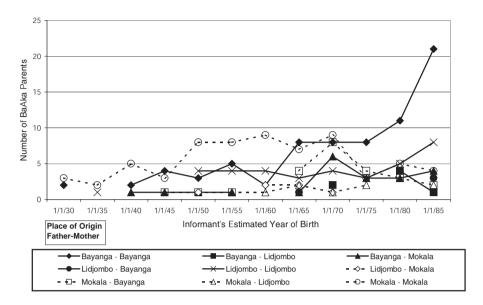


Fig. 12. Places of origin of informant's parents against informant's estimated year of birth

# V. Parents- Adding Parental Places of Origin as a Parameter

Before concluding we should quickly examine the places of origin of the parents of the informants. These places of origin should serve as a double check for any observable trends. Are immigration patterns the same for parents as for the informants? And if not, why not?

It is important to note that for paternal origins that if several informants have the same father then that paternal origin will be repeated several times

Here in Fig. 12 we meet again the "1970" surge that we saw effecting both sexes in Fig. 11 having a lesser effect on the parents. The demographic footprints of the coffee boom in Lidjombo have been almost washed away with time- it is only the Mokala-Bayanga immigration paths that are still clear enough to trace. Looking at this graph (with caution for the numbers are small) we find that there is not just an increase in the number of Mokala men immigrating and reproducing with Bayanga women. There is also an increase in Mokala women immigrating and reproducing with Bayanga men, of Mokala-Mokala couples immigrating and reproducing and Bayanga-Bayanga couples also reproducing more.

In other words there is not a "new" pattern of labor immigration- but marriage immigration patterns already created are being exploited to allow the BaAka to move closer to not just employment, cash, material goods, but all the excitement of logging company boom town.

What the two graphs in Fig. 13 powerfully reinforce is the extent to which "sameorigin" marriage peaks prevail over the "different-origin" plains. But there is a generational difference between the position of the peaks. In the parent's graph the two

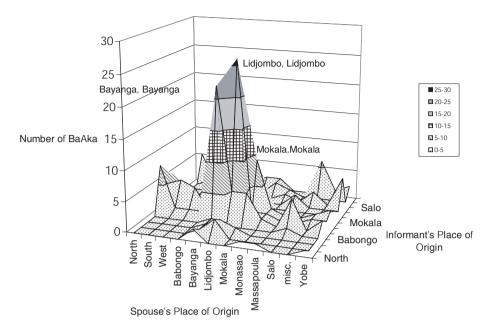


Fig. 13. Informants and spouses' places of origin compared to that of informant's parents

peaks correspond to Bayanga-Bayanga marriages and Mokala-Mokala marriages. The Lidjombo-Lidjombo marriage peak makes a distant third.

For the present generation it is the Lidjombo-Lidjombo peak that is the highest (reflecting the current lack of immigrants), followed by the Bayanga-Bayanga peak and the Mokala-Mokala peak. Although the immigration routes still exist across the watersheds, the traces are faint compared to the highways they once were. National boundaries, and the two reserves, Dzanga-Sangha and Ndoubale-Ndoki, may be blocking the old paths.

# **CONCLUSIONS**

The following results are obtained from our research.

- 1. The BaAka have immigrated and continue to immigrate into and within the Dzanga-Sangha Dense Forest Reserve.
- 2. The immigration patterns vary according to village.
- 3. The immigration patterns change over time.
- 4. It seems probable that some of the fluctuations are due to demands for labor superimposed upon preexisting marriage alliances.

Why should it matter whether the BaAka immigrate, maybe seeking work? BaAka immigration is important because of the extent to which the BaAka receive special treatment

as "original inhabitants" of the area. They are not living fossils to be protected with elephants. The immigration patterns show resilience and flexibility, but it should not lead to nonchalance on our part- the BaAka don't emigrate easily.

Entire BaAka camps and villages will move short distances quite willingly- Yobe to Koundapapaye, Bayanga to Massapoula, Bayanga to Yandoumbe. This may seem significant from an agriculturalist perspective, for new fields must be cleared. But the hunting ranges remain the same.

To immigrate, or remain, to vote with one's feet, can speak louder then words. The BaAka tend to move from forest area to forest area, usually following trails already carved out by family alliances. The BaAka behind the logging company might tell the World Bank representative they want a school and hospital like the mission stations, but there is not whole scale migration from the reserve area to the missions. In the short time since the reserve has been created we have seen the *bilo* population fluctuate dramatically, depending upon the fortunes of the logging company. Not so for the BaAka population. Although the BaAka may be drawn by an economic boom, they don't necessarily flee a economic bust. If the latest round of the "economies of pillage" (Bahuchet, 1985:129) leaves the BaAka with less forest and more *bilo* to compete against, they don't have much choice as to where to go.

### **NOTES**

(1) *Bilo* (singular *milo*) is a word the BaAka use to describe non-Aka Africans. To call the *bilo* "villagers" or "farmers" is misleading when many BaAka also live in villages and clear fields.

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