

exclusively on Arabic sources, without any direct influence from Europe. None of its members could either read or write French. Its astronomic knowledge was rather well developed because of the need to find the direction of Mecca by celestial observation, even beyond the familiar horizons. Yet, it would be erroneous to suppose that its general level reached that of a class in elementary mathematics. Only the scientific character, the quality of thinking at the Guédé school deserves our attention. Bachiru M'Backé is today, in all probability, the marabout best versed in modern scientific movements. From our conversation in the summer of 1950, I learned that atomic physics is not beyond his ken. Cheik M'Backé is by far the one among all of them most extraordinarily open to philosophical thought; his double access to both French and Arabic has even permitted him to become acquainted with Marxism.

Among the Tidjanes, with whom I am less familiar, I believe Abdul Aziz, Ahmadu Sy, Mustafa Sy, Malik Sy, and the young Cheikh Tidjane Sy are best developed in the areas of knowledge. The structure of marabout society, its present-day customs and concerns are exactly the same as four hundred years ago, as the *Tarikh es Sudan* allows us to see.

The Sudanese scholars of the African "Middle Ages" were of the same intellectual quality as their Arab colleagues; at times, they were even better. Thus, Abderrahman-El-Temini, a native of the Hedjaz brought to Mali by Kankan Mussa, was able to discover:

He settled in Timbuktu and found this city full of Sudanese legal experts. As soon as he realized that they knew more than he in legal matters, he left for Fez, devoted himself to the study of the law there, then returned again to Timbuktu to settle here.⁷

The books by Kâti and Sâdi prove that historical consciousness existed in a very definite way, with a feeling for dating events very precisely. Kâti went even further and expressed his fear of passing errors on to posterity. The *Tarikh es*

Sudan gives not only the year, month, and day, but even the hour whenever possible. Upon verification these dates turned out to be exact in almost all cases. It was customary to work from documents, to quote earlier or contemporary authors, to build oneself immense libraries at the cost of sacrificing all other needs, and to write books oneself. Kâti commented at length on a mutilated safe-conduct, considered to be a document.⁸

The writings of Khalima Diakhaté (a scholar at the court of Lat Dior, circa 1858), Amadu Bamba, El-Hadji Malik Sy, Mussa Ka, *et al.*, are merely the continuation in our own age of this powerful intellectual movement of earlier centuries. Writing was done on paper and calligraphy became an art, as in Europe in the Middle Ages.

He [Askia Daud] was the first to order the building . . . of libraries; he employed scribes to copy manuscripts and he often made presents of these copies to the Ulemas.⁹

Askia Kati's son tells of the beneficence of Askia Daud toward his father: "Then he purchased for him this copy of the Qâmûs [dictionary] at a price of eighty *mitkâls*."¹⁰

The author of the *Tarikh es Sudan* and other scholars of the period wrote, as we can see from the above, several other works, of which all traces have been lost. Also lost were the judicial and administrative archives: assistants of cadis kept minutes of the sessions. But tons of documents have disappeared. It may be that those manuscripts, of which students of the time made several copies, now lie dormant among the remains of forgotten hereditary libraries in the Sudan. It was in just such circumstances that the *Tarikh es Sudan* and the *Tarikh el Fettach* were discovered. So it is worthwhile to keep looking for such documents in the archives and libraries of North Africa, Spain, Portugal, Egypt, Baghdad, and perhaps even in Chinese annals. Our Arab scholars have their work cut out for them. They can already work on the manuscripts discovered by M. Gérincourt concerning the history of Black Africa.

These are three hundred items lying dormant at the Institute since 1900, for want of a translator. If Sâdi is to be believed, the intellectual tradition covered an enormous period, the extent of which we do not know today. After having shown that the ancients were in the habit of writing down historical events and transmitting them to future generations, he even stresses a kind of retrogression of learning in his own time (sixteenth–seventeenth centuries).

The generation which followed did not have the same concerns; none of its members attempted to follow the example of the past generation. There was no longer anyone with the noble determination to get to know the great men of the world or, if there were some individuals consumed with this curiosity, they were very few in number. From then on, there remained only vulgar minds given over to hatred, envy, and discord, who took an interest only in things which did not concern them, gossip, slander, calumny of one's neighbors, all those things which are the source of the worst of our troubles.¹¹

The author then takes up the analysis of the collapse of historical science in the Sudan:

I was witness to the ruination of [historical] science and its collapse and I observed that its gold pieces and its small change were both disappearing. And then, as this science is rich in gems and fertile in lessons since it gives man knowledge of his own country, his ancestors, his annals, the names of heroes and their biographies, I beseeched divine assistance and undertook to record myself all that I had been able to glean about the Sudanese princes of the Songhai race, recounting their adventures, history, exploits, and battles.¹²

These texts, written by a Black scholar in the seventeenth century, permit us to form an exact picture of the intellectual level of the African élite of the period and their scientific and ethical aspirations. They reveal, among other things, the historical consciousness of the author and the importance he already accorded to history in the life of a people. Since Sâdi was subsequently named Imam of the mosque of Sankoré, we

may gather some idea of the general level required to fill that office.

His work methods, like those of Kâti,¹³ which we will examine later, reveal a highly rational and deductive mind. We should not be misled by the occasional supernatural events related in these writings: according to Islam—as well as other religions—the divine world does not conform to earthly logic. This same supernaturalness is found in other Arab scholars, such as Bakri, who reports, on the basis of witnesses' accounts which he seems completely to believe, the coupling of goats with plant life. This is in the description of the impregnating of small goats in the city of Iserni on the upper Senegal.¹⁴

Kâti devotes a paragraph to the etymology of Soni (*Chî*), gives the names of the authors who are his authorities, such as Bâba Gûro, discourses on the date of the introduction of the titles of *askia* and *hi-koi*, quotes various documents and discusses them in deep detail. He had carried out an extensive inquiry into the common origin of the Sonis, the Askia Mohammed, and all those with the surname of Moï.

Meanwhile, I questioned all the people I met coming from Kanâga, Bîtu, Mali, Diâfurnu, etc., inquiring of them whether in their respective countries there was a tribe called Moï-Kâ or Moï-Nanko, and they all answered: "We have never seen nor heard of anything like that."¹⁵

The author was very conscious of his duty as a researcher:

The building of [the *kanfari's*] capital was then begun. From our research concerning the chronological history of this period, it appears that the time was the year 902 [September 2, 1496 to August 29, 1497]. The number of masons employed at the start was exactly one hundred. They were under the direction of one Uahab Bari.¹⁶

Long before colonization, then, Black Africa had acceded to civilization. It might be argued that these centers of civilization were, for the most part, influenced by Islam, and that

there was nothing original, nothing specifically African about them. All that has gone before allows us to evaluate that. Moreover, we have already stressed that Christian Europe at the time was no more original than Mohammedan Black Africa; Latin, until the nineteenth century, had remained the language of science. Gauss, "the prince of mathematicians," wrote his memoirs in Latin.

Forgetfulness of our past now becomes a tangible fact. Just as much as the documents allow, as we have done, the resuscitation, the defossilization of African history for the last two thousand years or so, just that much has the memory of it had been driven from our consciousnesses during the colonial period.

Alongside Islamized Sudan, in the region of Benin, another, strictly traditional center of civilization shone with incomparable brilliance: one can say, without exaggeration, that the "realistic" art of Ifé and the Benin, with its harmonious proportions, its balance, its serenity that makes one think of certain Greek works of the sixth century, represents African sculptural "classicism." The Yoruba had been civilized just as well as the Islamized Africans: entire studies should be devoted to that civilization.

Black Africa developed its own scripts. In the Cameroon there is a hieroglyphic script, the systematic development of which (by the Ndyuya) may be of recent date, but not so its origin. The syllabic script of the Vai in Sierra Leone and the cursive of the Bassa have been studied by Dr. Jeffreys. The Nsibidi system is alphabetical. In Sierra Leone, these scripts have even been used for the writing of some modern texts. Five years ago, an assembly was held to discuss both the means of defense against the invasion by Occidental characters, and the introduction of foreign phonemes. Thus, it is a script which still has a certain vitality.

It was customary to give to science a character of revela-

tion: this made it more prestigious. Kâti does not hesitate to attribute a goodly portion of the results of his inquiries to the benevolent genie Shamharush: he is the true revealer of knowledge. He was the one who permitted the origin of the Songhai and other tribes to be traced.¹⁷

By such thought processes, the Koran gradually was turned into a kind of Book of Thoth. The Egyptians believed that this book contained all the magic formulae the incantation of which, according to prescribed ritual, allowed for controlling the universe in all its forms. This frame of mind, which is found everywhere in Black Africa, reminiscent of the beliefs of the Middle Ages, had an influence on the Koran: recitation of a given verse would allow one to find lost objects, another verse would protect one from his enemies, or from bad luck, and so forth, because the Prophet was supposed to have uttered them in identical circumstances.

IMPORTANCE OF THE SHERIF

Along the same lines, one cannot exaggerate the importance of the Sherif, i.e., the descendant of the Prophet, in the social life of the time. When Askia Mohammed made his pilgrimage, he begged the Abasside caliph Mulay Abbas to convince one of these holy personages to go and live with him in the Sudan. It was thought, indeed, that such a person radiated blessedness all around him; the ground he walked on, his clothing, everything he touched, all assured salvation; his look, his handshake were salvatory. The inhabitants of a whole country could thus accede to paradise by associating with a Sherif living in their land. This belief explains all the consideration which Black Africa until our day has shown the Sherifs. Not only were they exempt from all the duties of citizenship (taxes, etc.), but they received gifts of impressive value. It was with a gift of one hundred thousand dinars, five

hundred slaves, and a hundred camels, if we are to believe Kâti, that Askia Mohammed greeted the Sherif sent from Mecca by Mulay Abbas. The latter did not hesitate to decree in a letter all sorts of administrative exemptions for the Sherif, as preconditions for his journey. Immediately upon receipt of this message, the Askia complied by having his secretary, Ali ben Abdallah, draw up on the spot an edict granting all these privileges throughout the whole country, which he gave to his distinguished guest. These advantages due to being descendants of the Prophet (especially in Black Africa) are the reason that most Arabs, even Muslim Berbers of Mauritania, invent out of whole cloth Sherifian family trees in Black lands where checking on their authenticity is virtually impossible. The offspring they leave here and there in large measure explain the claims of certain Africans, of more or less mixed ancestry, that they are of Sherifian origin. From four hundred years ago (the time of Kâti and Sâdi) to this day, the situation has remained unchanged.¹⁸

The Sherifs, in order to hold and increase their prestige, make consummate use of drugs (opium and hashish) which they discreetly mix with tobacco for smoking or give to their followers (the *tâlebs*) to chew. This gives rise to wonderful visions. The believer who comes back to his senses when the effects of the drug wear off is thus convinced that the gates of heaven were opened to him for a moment, and that he was thus miraculously, divinely transported to paradise. Such practices, in those days, were in common use throughout the religious Orient. Askia Mohammed fell victim to them as soon as the holy personage he had so loudly called for arrived. All others were excluded so that the two men might meet tête-à-tête, after which the Askia reported: "I saw the entire world as if transformed into a mass of water, the stars seemed to come from this water and rise toward the heavens, and birds appeared to converge around me and kill one another off . . ." ¹⁹

lu	ni	ju	ndu	ju	ya	cu
fa	fe	fe	fi	fo	fo	fu

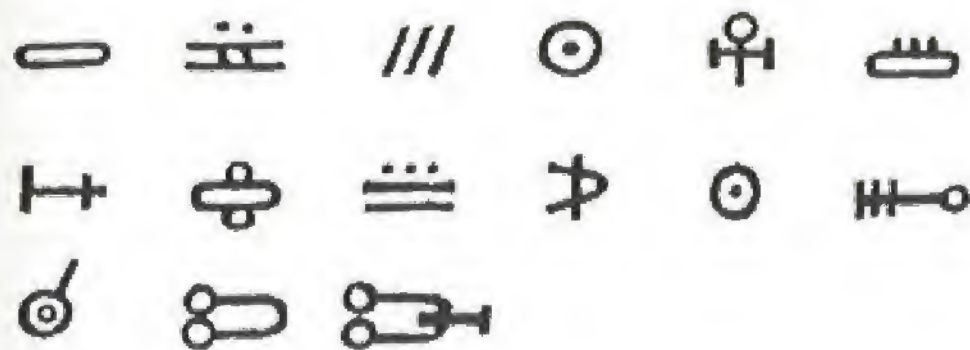
Some characters of written *vai* (from Baumann and Westermann *Les peuples et les Civilisations de l'Afrique*).

a	b	c	d	e	f
g	h	i	k	l	

Nsibidi symbols.

	to speak
	crab
	garden
	judge
	to play
	road

Bassa words.



Written characters common to *mende* and Egyptian.



Written characters common to *mowm* and Egyptian.

mowm word	meaning	1907 1°	1911 2°	1916 3°	1918 4°	phonetic value
'pwô	arm					pwô p
mi	visage					mi m
na	to cook					na n

Several examples of the evolution of *mowm* writing between 1907 and 1918.

SURVIVAL OF THE BLACK TRADITION IN EDUCATION

It is now time to examine what parts of traditional education survived the experience of Islam. The African has an apparently paradoxical conception of the formation of the individual and character-building. He believes that it is during earliest childhood, before the setting-in of noxious habits, that body and mind must be trained for both physical and mental endurance. The Koranic school in Mohammedan Africa became the place for such training: attendance begins between the ages of four and five. Outside of such large cities as Dakar, Saint-Louis, Bamako, etc., children are separated from their parents for months and even years. It is the exception for one to choose a teacher from the same village; in that case, the child would not be in the condition of material and moral isolation considered indispensable to the formation of his personality. He would be the victim of an excess of maternal affection. I was thus sent for four years to Koki, returned to Djurbel-Plateau²⁰ and then again to Ker-Cheikh (Ibra Fall).

On average, one can recite the Koran at age eleven, without being able to translate a single passage of it. One is even at that time able to write out the entire text from memory, including proper punctuation. This first cycle of study, which ends at age eleven, constitutes the primary level; next, one enters upon what may be called secondary and higher education, having as its program the study of grammar, Mohammedan law, and history—especially that of Islamized Asia—as well as the theoretically prohibited subject of the Kabbala (which is useful for making talismans). Koranic verses are also used for this purpose.

Before Islam, children were marked by the period spent with other members of their generation at the time of circumcision: this lasted approximately one month, the time it took for the operation to heal. Ordinarily one was circumcised at age twenty. This custom was altered in Muslim Africa, where

the child was circumcised as early as possible, between six and ten years of age, during the time of his Koranic schooling. However that may be, all the groups of circumcised form classes by age and are initiated into the secrets of the universe on the same day, at the completion of this ordeal. A bond of solidarity is thus established that lasts throughout life: it implies mutual support in time of misfortune, loyalty, open camaraderie, and wholesome familiarity. This bond is stronger than that uniting soldiers having served in the same outfit, for one feels a kind of religious or moral fear of breaking it, or not respecting the obligations inherent in it: one is, according to a Wolof expression, a *mbok lel*, that is, a member of the same "local." The "local" is the fortuitous establishment set up by the circumcised individuals themselves, outside the village, far from any other habitation and, especially, far from women.

An older, already-circumcised individual, having had the experience, directs all the local's activities for the whole period. Being already initiated, along with some of his coevals, he works for a month at initiating the younger group. During the day they go hunting, armed with two sticks (called *lenguê*), used to bring down poultry when they break into a village to grab supplies by main force. Tradition tolerates this kind of plunder in the circumstances. The marauders' faces are covered with ashes, making them unrecognizable; they paint their "boubous," their "Phrygian" liberty caps, sometimes even their faces. At night, they gather around the fire at the local to sing and solve the riddles of the *sélibé* (the second in command of the local). These songs are the purest variety of lay folk poetry in Black Africa: they deserve to be collected from one end of the continent to the other. They contain practically all the riddles the circumcised youth is expected to solve; he must understand and explain the significance of the allusions made in them, the true meaning of their special vocabulary. By the training the circumcised lad is given, the

discipline to which he is subjected, the local is, in more than one way, reminiscent of the army barracks; it puts the final touches to his education, is his rite of passage to maturity, and his entry into "the city," in the sense of that term in antiquity.

There is a tendency in Muslim Africa to neglect physical education, especially among the clergy. This is not a new situation: Sâdi had emphasized its drawbacks. When the scholars of Timbuktu, fleeing Sonni Ali, wanted to go on camelback to Biro (Ualata), they had the greatest difficulty in remaining on their mounts, for they were so weak and emaciated, so unaccustomed to physical exertion:

On the day of departure, one could see mature men, with full beards, trembling with fear when they were to mount the camels, then tumbling back to the ground as soon as the animals rose to their feet. It was simply that our virtuous ancestors kept their young tied to them, so that they grew up knowing nothing of the things of this life, because when young they had never played. But playing at that age shapes a man and teaches him a great many things. The parents then regretted having acted as they had and, when they returned to Timbuktu, they gave their children time to play, and relaxed the constraints they had imposed upon them.²¹

HISTORICAL REMINDER: THE MOROCCAN INVASION

We may conclude this chapter by a brief reminder of the Sudanese—Moroccan War of 1593. The Moroccan troops sent by Mulay Ahmed were under the command of Djuder. Thanks to the firearms they had, they were easily victorious over the troops of Askia Ishâq II, and seized Timbuktu. The Moroccan occupation was as short as it was violent and limited. Limited, because the actual authority of the pashas, who represented the king of Morocco, in fact never went beyond Timbuktu. Since the reign of Ishâq I, Morocco had been interested in the salt mines of Teghezza, the area which

formed the northern border of Songhai, on the Tropic of Cancer. A Sudanese governor, the Teghezza-mondzo, traditionally administered this frontier borderland, in the same way as the *farbas* of Ualata and Aoudaghast. The Tropic of Cancer, by and large, was the limit of Black Africa; beyond it lay a no-man's land extending as far as the south of Morocco and Algeria. According to Sâdi, the sultan of Morocco, after having secretly gathered all useful intelligence regarding the forces of Gao at that time, deliberately launched his troops into the country. The first commander of these troops, Djuder, was quickly replaced by Pasha Mahmud ben Zergun, because he had not been ruthless enough. The latter immediately undertook inside Timbuktu a series of roundups, massacres, and extortions of all sorts, the cruel character of which beggars the imagination—particularly when one considers that the victims were not only brothers in religion, but mainly scholars and jurists. The entire Sudanese intelligentsia were tricked into congregating in the Sankoré mosque and captured; all doors were sealed, then all those present were let out “with the exception of the jurists, their friends, and their followers.” They were thus arrested by Zergun, on October 20, 1593, without their having conspired, without any pretext whatsoever. They were divided into two columns, in order to be led away to their new forced residence. One of these columns was completely massacred en route as a result of an incident. Sâdi supplies the long list of the victims' names, all scholars and learned men, who were afterward buried in a potter's field:

Among the victims of this massacre there were nine persons belonging to the great families of Sankoré: the very learned jurist, Ahmed-Moyâ, the devout jurist, Mohammed-El-Amin, and so on, and so on . . .²²

An order was issued to Amrâdocho, under whom the massacre had taken place, to bury the corpses within his own

house. The residences of these notables were completely emptied of all their belongings:

The pasha's people carried off all they could lay their hands on, forcing both men and women to strip naked so they could search them. They then abused the women and led them as well as the men away to the casbah where they were held captive for six months.²³

At the end of this period the prisoners were deported to Marrakesh: the famous Ahmed Baba, the highly educated scholar of Timbuktu, was among them: "They thus left in a great body, made up pell-mell of fathers, children, grandchildren, men and women all together. The caravan set out on Saturday . . . March 18, 1594."²⁴

Zergun was later to be disgraced for having given the Sultan only one hundred thousand *mitkâls* out of the immense booty he had extorted from the Sudanese. Meanwhile, national resistance began to organize around Askia Nuh, who had not accepted Moroccan domination. All the inhabitants of the Gao region followed him south, to the land of Dendi. For two years, he harassed the Moroccan troops, at times inflicting bloody defeats on them, despite the inequality of arms between them. During one encounter Pasha Zergun was killed, his head cut off and sent to Askia Nuh. The Moroccans attempted to set up as Askia an individual favorable to them (Seliman), but he was never accepted by the people. Shah-Makâï studied the military tactics of the Arabs, which at the time were copied from those of the Turks. He then joined the resistance movement, harassed the Moroccan troops, and caused them great losses.²⁵

It is impossible to describe all the dramatic turns of this atrocious war waged by Morocco against Black Africa. Our quotation on page 195 gives an idea of the extent of the desolation, poverty, and ruin into which the country had fallen; people were even reduced to eating human flesh, as had occurred during the Hundred Years' War in Europe. Plague ravaged the land, as a result of a breakdown of hygiene. Kâti

and Sâdi agree in situating at this time the corruption of morals and, especially, the introduction of sodomy into Black Africa.

One could not completely enumerate all the evils and losses suffered by Timbuktu through the installation of the Moroccans within its walls; one could never exhaust the list of atrocities and excesses they committed there. In order to build boats they ripped the doors off houses and chopped down the city's trees.²⁶

Moroccan authority rapidly waned; the pashas, who were obeyed less and less even in Timbuktu, tried to distance themselves from the sultan and became local pseudo-chiefs. The Moroccan army, some of whose members were Spanish mercenaries, left in Sudan what were called "armas": these were the halfbreeds of Timbuktu, born of the occupation; the last of the pashas were chosen from among them.

It is out of concern for historical truth that we today recall these painful events.

NOTES

1. Sâdi, *T.S.*, XVII, pp. 177-178.
2. Kâti, *T.F.*, XVI, p. 316.
3. Sâdi, *T.S.*, X, p. 66.
4. *Idem.*, pp. 76-77.
5. *Idem.*, X, p. 65.
6. *Idem.*, X, p. 78.
7. *Idem.*, X, pp. 83-84.
8. Kâti, *T.F.*, VI, p. 141.
9. *Idem.*, XI, p. 177.
10. *Idem.*, XI, p. 201.
11. Sâdi, *T.S.*, Introduction, pp. 2-3.
12. *Idem.*, p. 3.
13. Kâti began writing his book in 1519.
14. Al Bakri, *op. cit.*, pp. 331-338.
15. Kâti, *T.F.*, V, p. 94 (see also pp. 67, 80, 82, 83, 88, 100, 101).
16. *Idem.*, VI, p. 123.
17. *Idem.*, I, p. 48.
18. *Idem.*, I, pp. 23-30.
19. *Idem.*, I, p. 39.
20. To Ker Gumag (the Great House, that of Ahmadu Bamba, the founder of Muridism).
21. Sâdi, *T.S.*, XII, p. 106.
22. *Idem.*, XXIV, p. 259.
23. *Idem.*, p. 261.
24. *Idem.*, p. 264.
25. *Idem.*, p. 276.
26. Kâti, *T.F.*, XV, p. 282.

Chapter Nine

TECHNICAL LEVEL

This chapter deals with the creation and development of techniques in precolonial Africa. From this viewpoint, architecture assumes special importance, judging from the remains of it found on the continent.

ARCHITECTURE IN NILOTIC SUDAN

According to all the documents currently available to us, the Sudan was one of the earliest civilizations in Black Africa: it was the Ethiopia of antiquity. Present-day Ethiopia was merely an eastern province which was not separated from it until well after the Ptolemaic era in Egypt.

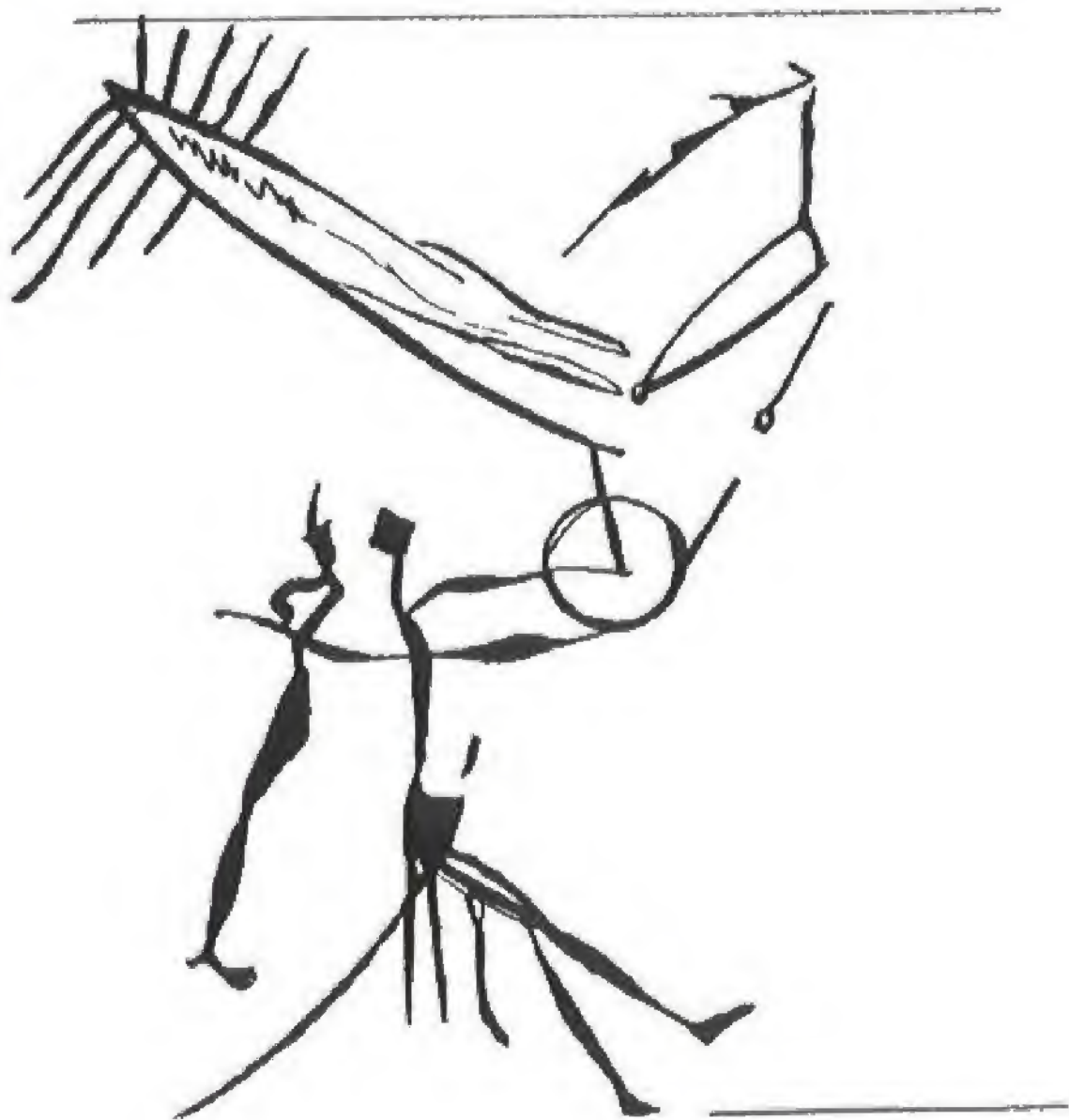
The discovery of the ancient capital of Meroë by Cailliaud, following the information given by Herodotus and Diodorus Siculus, has allowed unearthing of the sub-foundations of several ancient structures. Lepsius later discovered the foundation of an astronomical observatory there: on the walls of this edifice was found a scene representing persons operating an instrument which it might not be inappropriate to call an astrolabe (see illustrations pp. 197 and 198). There was also found a series of numerical equations relating to astronomic events which occurred two centuries B.C.

Still standing around the capital are eighty-four pyramids which, like those in Egypt, were royal sepulchers; also some temples, such as the one at Semna.

ARCHITECTURE IN ZIMBABWE

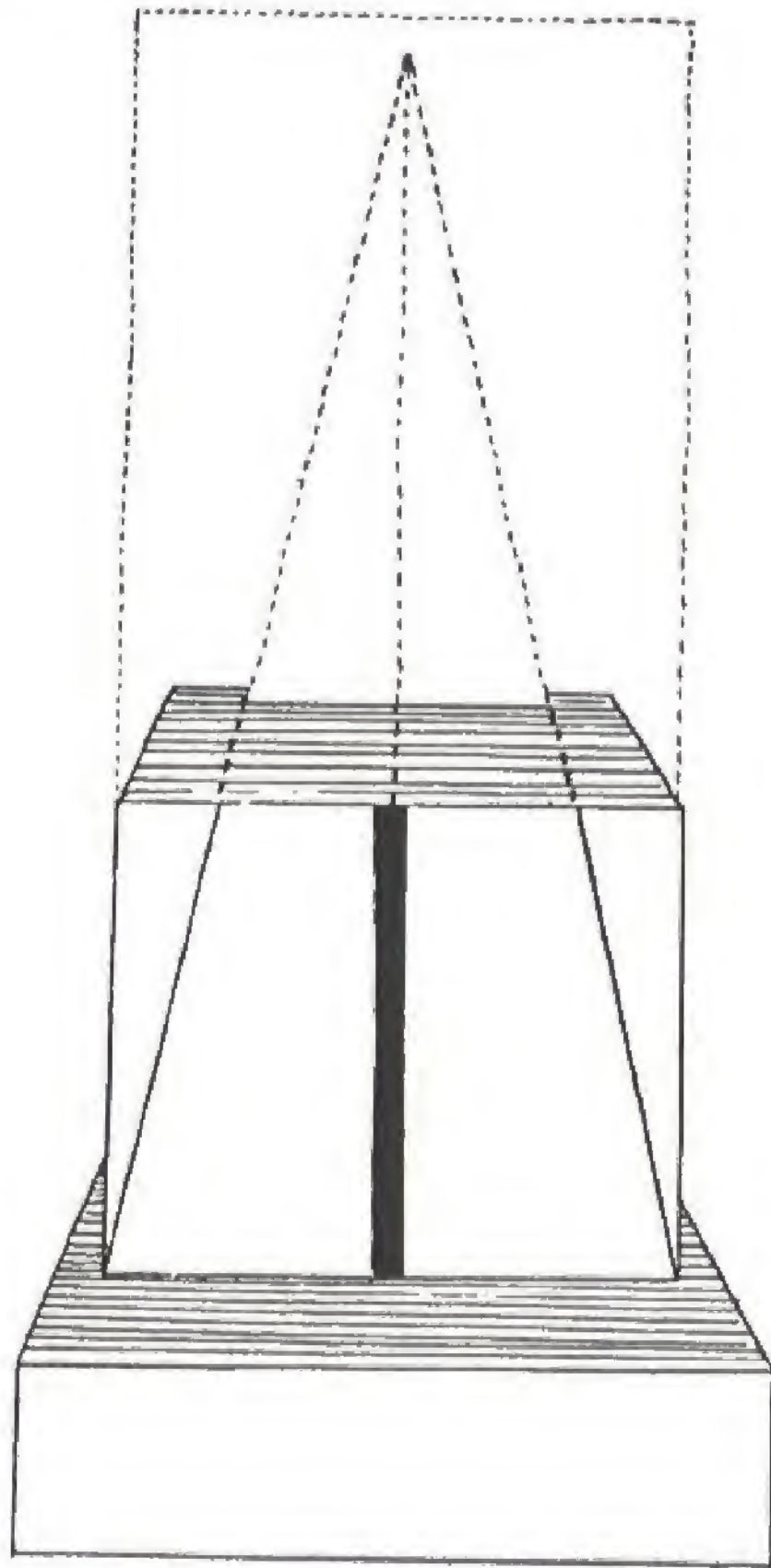
In the Zambezi River basin of Zimbabwe (formerly Rhodesia), monumental ruins, today fallen into disuse, cover a surface practically as large as France; they are almost cyclopean structures, with walls several meters thick: five at the base, three at the top, and nine meters in height.

Edifices of all types are to be found there from the royal palace, the temple, and the military fortification to the private villa of a notable. The walls are of granite masonry. De Pédrals, quoting Miss Caton Thompson, cites an opinion according to which these remains might be attributed to the present-day Ba-Venda tribe of South Africa, for the following reasons:



A scene representing persons operating an astronomical instrument (redrawn by Lepsius; see *La Science mystérieuse des pharaons*).

the peoples proved that they knew the uses of stone, as evidenced by the Dzata ruins left by them in Zimbabwe; moreover, the instruments of divination found in Zimbabwe are those of the Venda cult.¹



This instrument was used to make observations of the position of the sun on the meridian at Meroë (from *La Science mystérieuse des pharaons*).

In any case, the notion of attributing these ruins to a non-African, non-Black people (Persians, Arabs, Phoenicians, or Israelites: King Solomon's Mines) is once and for all invalidated. All of the digs carried out so far at the site have indeed yielded only Bantu-type skeletons.

It may be that these peoples found it necessary to build systems of defense against Oriental enemies coming from Asia via the Indian Ocean:

Maclver's conclusions on the "Niekerk" ruins are that "they were inhabited by a people who must have lived in perpetual apprehension of attack and therefore protected themselves behind one of the vastest series of entrenchment lines to be found anywhere in the world."²

ARCHITECTURE IN GHANA AND THE NIGER BEND

It will be remembered that, according to Idrisi, the emperor of Ghana lived in a stone-fortified castle equipped with glass windows and adorned inside with sculptures and paintings. It is said to have been built in 1116. The other houses in the capital were of stone, with beams of acacia; they were, according to all appearances, the homes of the notables; those of the common people were clay huts covered with straw roofs. On these last points, Bakri's testimony is confirmed by that of Idrisi. The digs made in this region by Bonnel de Mézières early in this century (1911-1913) support in large measure the statements of the Arab chroniclers and geographers of the eleventh and twelfth centuries. A city was discovered which is presumed to be the old capital, with vestiges of houses of several stories, nearly inhabitable but for some missing fixtures, with walls thirty centimeters thick, some metallurgical workshops, and so on. But at the height of the Ghanaian empire, there were in this region several large cities with houses and other buildings made of stone (Nema, Ualata,

Aoudaghast, and Kumbi, which was probably the autochthonous name of Ghana).

So we must conclude that in truth we are not absolutely certain that Bonnel de Mézières discovered the old capital, rather than only the location of some one of these old cities, other, however, than Aoudaghast, which was situated much farther west; it was Delafosse who identified one of the four ruined centers as Ghana.³

What was the style of this architecture? In the present state of research, that is hard to say. We can, on the other hand, infer what it might have been by comparison to the apparently more recent style known as that of Djenné and Timbuktu. European manuals ordinarily attribute this style to some North African Arab origin, introduced, it is claimed, by Es Sakali (the builder), who was brought back from the Maghreb by Kankan Mussa on his return from his pilgrimage, so that this Spanish Arab architect-poet might build him a mosque. Among the accounts which might allow for such a belief, that of Ibn Khaldun, drawn from his *Prolegomena*, is one of the most decisive: he relates as follows what was told him by one of the Arab companions of Kankan Mussa.

We accompanied him as far as the capital of his kingdom; and, as he wished to have a new reception hall built, he determined that it would be solidly constructed and overlaid with plaster, for such buildings were as yet unknown in his country. Abu-Ishac-el-Tuedjen [Es Sakali], a man skilled in several arts, undertook to fulfill the king's wish and built a square-shaped hall surmounted by a cupola. He employed all the resources of his genius in this construction, and having overlaid it in plaster and adorned it with arabesques in brilliant colors he made of it an admirable monument.⁴

On rereading this text attentively, we realize that the authors went greatly beyond what it allows us to affirm. In the first place, it deals with a reception hall and not a mosque;

while they have it that Es Sakali built a mosque, the ruins of which can still be seen at Gao. But the architectural details as revealed in the text are even more interesting when contrasted with those of the style alleged to have been imported. Khaldun is categorical: a square hall, surmounted by a cupola and decorated with arabesques. Now, these three architectural features which characterize the style allegedly introduced by Es Sakali, are absolutely not to be found in the Sudanese style. The buildings there are never square, but rather oblong: there are never any arabesques. Its soberness of line, its massive rather than frail appearance, and the absence of arabesques would seem to make it the lone Arabic art form not authentically Arabic. There are never any cupolas: in the whole area of West Africa, from the Sudan to the Ivory Coast, it is impossible to find the slightest cupola atop any one of the mosques built in this style. This is significant, in the extent to which ecclesiastical Arabic architecture has remained unchanged from that time to our own day.

By contrast, the pyramidal columns enjambed into the wall and the pointed sides that characterize Sudanese style have no parallel in either Arabic or European architecture. There is lacking any explanation of the devices by which a people might export what it does not have. It would indeed be paradoxical for a makeshift architect, an amateur (as Es Sakali was), to be able to import into a foreign country a style which did not exist in the architectural traditions of his own country. This elementary condition would have to be fulfilled for the supposition made in the manuals to become acceptable. It is more judicious to abandon this erroneous interpretation of the texts, which consists of making them say what simply is not in them out of the desire to defend one's cherished notion.

There is as much difference between the Arabic style of whatever period (including Spain) and that of the Sudan, as there is between a Gothic cathedral and a Romanesque basil-

ica. It must also be pointed out that it is in the construction of mosques that Arabic architecture is most immutable. Almost all of them are built on the same plan, growing out of the same style (cupola, minaret, etc.). So we are asked to believe that in Black Africa alone this style is not followed. On the contrary, the originality of this Sudanese art is readily apparent: a glance at a single example suffices to show that the pyramidal motif was exploited throughout. This whole architectural style is based on this principle. The general shape of the edifice clearly grows out of a truncated pyramid; all the massive columns which adorn the facade are more or less discreet recalls of the same motif. Even the architecture of the tombs of this region (called tumuli) reveals the same kinship: they are pyramids truncated through erosion, built of brick-red terra cotta, often arranged in a semicircle on an East-West axis. Their average dimensions range from 15 to 18 meters high, with 150 to 200 square meters base surface, according to Desplagnes:

These tumuli are particularly numerous in the lake region comprised between the cheerless dunes surrounding Timbuktu to the East and the great grazing plains fertilized by Lake Debo to the West.⁵

Thus, under the same latitude, from Nubia to the Sudan, interment was done under the same conditions, all the tombs having the same pyramidal shape. It would rather be to the Temple of Edfu (Egypt) with its symmetrical pyramidal pylons that one might if need be compare the Sudanese style. At the time of Kankan Mussa, Black Africa already had her own masons, organized into bodies, each with a foreman. Kâti tells of a tradition according to which, whenever Kankan Mussa passed through a village on a Friday, he had a mosque built there. Which is said to be why he built the mosques of Timbuktu, Dukurey, Gundam, Direy, Uanko, and Bako.⁶ It is hardly necessary to mention that Kâti, who relates this opinion, considers it groundless, as representing a material impos-

sibility. It belongs to that category of legends developed after the fact which often enjoy wide currency in Black Africa.

When the Askia Mohammed seized Djâga in 1495, he captured five hundred masons, with their foreman Karamogho; of these he kept four hundred, sending the other hundred to his brother the viceroy, the prime dignitary of the kingdom, the Kanfari, Amar Komdjago, to build his capital city of Tendirma, on the right bank of the Niger, not far from Timbuktu.⁷

The notion that Black Africa had no architecture of its own before the arrival of Sakali is contrary to the facts: the testimony of Arab authors themselves mentioned above, Bakri and Idrisi (for Ghana) and Battuta (for Mali), prove this point. The digs carried out by Bonnel de Mézières and Desplagnes in the Ghana region and on the Nigerian plateau confirm it. The existence of fortified cities called *tatas* (the equivalent of fortified castle or stronghold) dates back well before this time.

When Ibn Battuta visited the capital of Mali, it was already customary to lay out wide, very straight thoroughfares, flanked by trees on both sides.

At Tamberma, Northern Togo, some veritable fortified castles with peripheral towers and lookouts have been found. This architecture is all the more interesting in that its style is an extension by artful exploitation of the lines of the customary hut.⁸

In former times, the palace of the Oni of Ifé "was a structure built of authentic enameled bricks, decorated with artistic porcelain tiles and all sorts of ornaments."⁹

The houses of the Habés (the Dogons studied by Marcel Griaule) are built of stone, with several stories, cut into cliffs. Some of these buildings are partially below ground level, and thus have subterranean cellars.

The tiered attics in the shape of parallelepipedal towers are of a style directly related to that of the crenellated walls of the *tatas* and Sudanese mosques.¹⁰

Finally, despite the hiatus in jumping from recorded his-

tory to prehistory, the Saharan period before the last great drought (7000 B.C.) seems to be part of the cultural cycles of Black Africa, if we are to judge by the cave paintings brought out by Henri Lhote.

METALLURGY

From Nubia to Senegal, still along the same latitude which seems to belong to the same area of civilization, active blast furnaces produced the iron required for technological and economic activity. It is almost certain that wood was the fuel used. The use of metallurgy in Black Africa dates back to time immemorial. Mining of ore, smelting of metal, and working with it were not taught to Africans by any foreigner. In 1956, M. Leclant, director of the Center for Egyptian Studies at the University of Strasbourg, during a lecture at the *École des Hautes Études*, alluding to the British metal industry, strongly pointed out that, in classical times, Nubia (Meroë) was comparable to Birmingham in metallurgical production and distribution.

Today the blast furnaces of the Baya, Durru, Namchi, Tchamba, Wuté, Marghi, Batta, Dama, etc., are still in operation.¹¹

The appearance in bronzes of the Benin of knights arrayed in all manner of cuirasses, armored from head to toe, seems to prove that metallurgy was put to all kinds of uses, for all of this armor was, without doubt, of local manufacture. Beginning at an early period, in view of the climate, every effort was made to manufacture these items in a material other than iron, while retaining the same shape, provided, of course, that they would be sufficiently protective. That is why this armor ended up, in the final period of Benin history, appearing to be purely decorative items. Here we must recall the many knights of medieval Europe who succumbed beneath

their cuirasses on the road of the Holy Land, during the Crusades, due to the rigors and heat of the climate.

The technique of casting bronze by the lost wax process, which accounts for the beautiful realistic artworks of the Benin, was shared between this Gulf of Guinea region on the Atlantic and ancient Meroë. Goldsmithery, the making of gold filigree, which is a specialty of Black Africa, the working of copper, tin, and alloys, all had already become widespread in precolonial Africa. It will be recalled that Samory, during his resistance against France, had had European rifles duplicated by local blacksmiths. Admittedly, their efficiency was not the same, since the metal was not of the same quality. Locksmithing was also known in Africa at the time.

The repeated victories of Nubia over the Roman army (Cornelius Gallus) in 29 B.C. may perhaps give us some idea of the technological level of Nubia in this period.

GLASSMAKING

It is glassmaking, however, especially in the Benin region, which deserves our attention. On the one hand, because it is least expected, and on the other, because it had already at that time attained a semi-industrial stage, the workers having organized into veritable guilds (with community workshops, refectories, and dormitories). This industry has survived to this day, and the Nigerians often utilize as raw material, no longer sand, but shards of bottles and glasses which they blow or mold into various objects (beads, bracelets, etc.). Thus, besides beads of Egyptian, Phoenician, or Venetian origin, there are those of properly local creation.

MEDICINE AND HYGIENE

Empirical medicine was quite developed in Africa. Here, as in ancient Egypt, a family practiced a single branch of

medicine on an hereditary basis. One was specialized in the eyes, the stomach, and so on. Sâdi's brother underwent a successful cataract operation at the hands of the physician Ibrahim es Sussi in the port city of Kabara. "The doctor carried out the operation and God willed that my brother be delivered from his malady and brought from the darkness into the light."¹²

In Senegal especially, war wounds were treated by extracting the bullets or shrapnel, then cauterizing the wound with a mixture of boiling oil and clean sand, before sewing it up. It thus happened that some soldiers still had, after recovery, lumps of matter (sand) which had remained under the skin. It seems no one ever thought of removing them. That peculiar process is called *rukâb* in Wolof.

Empirical toxicology was highly developed, whence the efficacy of the poisoned arrows used in warfare. They were covered with snake venom or the sap of poisonous plants.

The use of soap, connected with the rise of urbanism, created a level of hygiene quite remarkable for the period. The soap was of local manufacture: a female slave freed by the Askia guaranteed him, as a sign of appreciation, ten cakes of soap each year.¹³

WEAVING

The treadle loom, a local invention, was known to Africa, as well as the Yoruban vertical loom; with them may be woven fairly narrow strips of fabric, variously decorated, which can then be assembled into loincloths or other articles of clothing. Cotton was the raw material, as well as a kind of wool in Sudan. Linen, silk, and broadcloth, from the time of Askia Bunkan on, were imported from Europe. But the native velvet of the Balubas was famous.

Dressmaking, an ancillary trade, assumed capital importance especially in Timbuktu where, according to Kâti, there

were master tailors who employed, in establishments known as *tindi*, fifty, seventy, or as many as a hundred apprentices.¹⁴ This would seem to suggest that there was a certain concentration of the means of production, of which presently available documents do not allow us to measure the full scope.

AGRICULTURE

Cultivation of the soil was done either with the *daramba* (hoe) or with the *hilaire* (hand plow) in Senegal. The latter tool allowed one to till the soil while standing up, whereas with the *daramba* one had to bend over. Its use, therefore, was a great improvement in places where it was impractical to use a plow. It should be pointed out that the Egyptian plow and the African hoe are identical. All the Egyptians had to do was to attach a wooden crossbar perpendicularly to the shaft to accommodate a harness: the Egyptian plow is just an African hoe harnessed to an animal.

In Black Africa, crop rotation, irrigation, and manuring of fields were all practiced.

CRAFTS

Basket-weaving, ceramics, and dyeing were highly developed crafts. The same was true of shoemaking, thanks to plants such as the *neneb*, which could be used in tanning skins, particularly goatskins.

These techniques having been abundantly studied and described in manuals, we need not enlarge upon them here.

HUNTING

The hunting of the hippopotamus, on the Senegal River, deserves to be described. We can do so, thanks to the testi-

mony of Bakri. The hunters, bunched along the bank, were armed with short javelins having rings through which passed a long lanyard the other end of which was attached to the hunter's wrist. They would patiently lie in wait for the animal; when its back came into view, all the converging javelins struck different parts of its body. It was dragged out of the water by the lanyards, after it had many convulsions which left the animal exhausted. This was how the natives of Kalenfu hunted the *kafu* (or hippopotamus).¹⁵

NAUTICAL EXPERIENCE

It is clear from the preceding that the navigable water-courses of Africa were studded with wharves and landing docks, which were at one and the same time commercial ports and, when necessary, military ones. The largest craft (*kanta*) could carry a crew of up to eighty men.¹⁶ On the Niger, in place of the inverted sails characteristic of Black Africa, the boats were covered by a mat that formed a kind of roofing against the elements. The Askia alone owned over a thousand pirogues. Each of his daughters had one for transportation or pleasure cruises on the river: just as the Pharaoh's daughters had on the Nile.

The question has often been asked whether the Africans ever left the continent by sea, whether to the West the Atlantic Ocean had allowed them, before the arrival of Europeans, to establish relations with any other country. Considering the enormous obstacles to overcome (all rivers have a bar), specialists have tended to answer in the negative: this is the point of view of Professor Théodore Monod. Yet, it seems that the Arabic documents allow us to shed some light on the matter. Muhammad Hamidullah, quoting Ibn Fadallâh Al Umarîy, shows that the Emperor of Mali, Kankan Musa's predecessor, made two attempts at exploring the Atlantic. In the first he equipped two hundred ships for a two-years' stay at sea:

only one of the captains was able to return with his vessel. The recital of the catastrophe he gave the king, instead of discouraging him, prompted him to undertake a second expedition. He is then said to have equipped two thousand ships, turned his throne over to Sultan Mussa, and embarked with the fleet himself. This time nobody returned. The author of this study puts forward several arguments to demonstrate that this fleet, or perhaps another earlier one, must surely have reached America before Columbus. In the first place, not only did Columbus's crew say they had found Blacks already there before them, but they even gave details of their lives: they stressed that the Blacks often fought with the "Redskin" Indians. The same author reminds us:

Christopher Columbus speaks of pirogues allegedly leaving from the coast of Guinea laden with merchandise and heading west. He also recounts the arrival of such vessels in the Americas. Jane (the translator of the journal of Columbus's third voyage) writes: ". . . and that he considered checking the veracity of what the Indians of Hispaniola [Haiti] said that they had come to their island from the south while the Blacks had come from the southeast, and that they had javelins with tips made of a metal they called *guanin* . . ." ¹⁷

The pirogues actually seen by Christopher Columbus prove that the bars of the rivers had been crossed, that there were indeed precolonial maritime ports, and that the Atlantic was no wall to the Blacks of West Africa. The author of the article goes further and attempts to establish that relations between Africa and pre-Columbian America were relatively constant:

Such navigators, taking to sea again from the Americas for the return voyage to Africa, would have loaded provisions of new World origin, and of these items the two that would keep the longest were sweet corn and tapioca. We thus have an explanation of the presence in Africa of two American foodstuffs before Columbus had ever made a voyage there. ¹⁸

We might mention, without however being able to determine how early it began, that the Blacks of the Petite Côte in Senegal travel from Dakar to M'Bour by coastal navigation on masted cutters of their own construction. One might also recall that it was on longboats very similar to these pirogues that the Vikings skimmed the seas for centuries. With just such vessels, they journeyed up the Seine as far as Paris, and went as far as North America, before Christopher Columbus. The African vessels, equipped with outriggers and therefore impossible to capsize, were perfectly capable of venturing onto the high seas.

Of course, there still remain many gaps to fill, but the above allows us a glimpse of the actual technical level of precolonial Black Africa. But even now, what we do know may prove quite surprising, and we may close this chapter by meditating upon the following idea of M. Leroi-Gourhan, which reads almost like a maxim:

"If there be a goal for humanism, it lies in a humanism which would not only reach the limits of mankind everywhere on the entire Earth, but also integrate the reality of material man with the reality of religious or social man."¹⁹

NOTES

1. D. P. de Pédrals, *Archéologie de l'Afrique Noire* (Paris: Payot, 1950), p. 59.
2. M. A. Jaspán, *op. cit.*, p. 207 (*Présence Africaine*, p. 151), quoting from D. R. MacIver, *Mediaeval Rhodesia* (London, 1906).
3. Leroi-Gourhan and Poirier, *op. cit.*, p. 225.
4. Ibn Khaldun, *op. cit.*, p. 113.
5. Louis Desplagnes, *Le Plateau Central Nigérien* (Paris: Larose, 1907), p. 57.
6. Kâti, *T. F.*, ch. II, pp. 56-58.
7. *Idem.*, VI, pp. 118-119.
8. Cf. Baumann, *op. cit.*, p. 411.
9. Leo Frobenius, *Mythologie de l'Atlantide* (trans. from the German by Gidon) (Paris: Payot, 1947), pp. 154-156.

10. Cf. Baumann, *op. cit.*, p. 411.
11. *Idem.*, pp. 319-320.
12. Sâdi, *T. S.*, XXXV, p. 445.
13. Kâti, *T. F.*, XI, p. 196.
14. *Idem.*, XVI, p. 315.
15. Al Bakri, *op. cit.*, "Notes sur le pays des Noirs," pp. 324-325.
16. *T. F.*, XV, p. 270.
17. *Présence Africaine* magazine, No. XVIII-XIX, February-May 1958, p. 180.
18. *Idem.*, p. 182. Since these lines were originally written, an American Black researcher, Ivan Van Sertima, has published a masterful book on the subject, which leaves no doubt about these pre-Columbian navigations: *They Came Before Columbus: The African Presence in Ancient America* (New York: Random House, 1977).
19. Leroi-Gourhan and Poirier, *op. cit.*, p. 43.

Chapter X

MIGRATIONS AND FORMATION OF PRESENT-DAY AFRICAN PEOPLES

In West Africa, one can be certain only that Neolithic remains are attributable to tall Blacks. The Paleolithic are, generally speaking, of uncertain age: some are found at Pita, in Upper Guinea. The testimony of Herodotus about the expedition of the Nasamonians, who left from Cyrenaica, and of Hanno and Satapses converges to prove that in the fifteenth century B.C., on the whole, tall Blacks had not yet peopled West Africa, despite the more or less enigmatic mention made by Hanno of "Lixist interpreters."¹ The whole continent at that time was partially peopled by Pygmies, with the exception of a few places such as the Nile basin; that is why archeologists generally consider Pygmies responsible for all Paleolithic traces found in West Africa, especially since they are usually just on the surface. Consequently, it is important to stress the fact that West African archaeology is rather special; one would be hard put to find in it any stratification of civilizations at a given spot, since most of the peoples migrated at relatively recent dates. It is therefore understandable that one should be able to hear in this region legends according to which the Blacks came from the East, from over near the "Great Water," without the latter being identifiable as the Indian Ocean. Two reasons, indeed, contradict that: when South African populations are questioned, they say they came from the North; those of the Gulf of Benin say they came from the Northeast. In antiquity, the Ethiopians called themselves

autochthons, those who had sprung from the ground. Egyptians considered themselves to have come from the South, from Nubia (Sudan, Khartoum, locations of their ancestors: the country of Punt). Nubia is the Ethiopia of antiquity.

Even if mankind did not originate in Africa, even if the tall Blacks came from elsewhere, say, from the Indian Ocean as in the Lemuric thesis, it could only have been hundreds of thousands of years before. But we have just seen that in the fifth century B.C., a very recent date, tall Blacks had not yet expanded toward the West, while we know for certain that they existed on the continent. The idea of a center of dispersal located approximately in the Nile valley is worth consideration. In all likelihood, after the drying of the Sahara (7000 B.C.), Black mankind first lived in bunches in the Nile basin, before swarming out in successive spurts toward the interior of the continent.

By an investigative method using linguistic, ethnological, and toponymic data, we will try to bring out, in a practically certain manner, the origins of the Laobé, Tukulor, Peul, Yoruba, Agni, Serer, and other peoples.

First, however, we must recall that D.P. de Pédrals mentions² the Burum who are found on the Upper Nile and in the region of the Benue in Nigeria, the Ga (Gan, Gang) who are found in the region of the Great Lakes and present-day Ghana, Upper Volta, and in the Ivory Coast, the Gula (Gule, Gulaye) on the Upper Nile and the Chari. The Kara are a nucleus living at the borders of Sudan (Khartoum) and Upper Ubangi. The Karé are near Logone; the Karé-Karé in the northeast of Nigeria, their name being nothing more than the doubling of Karé, which is made up of Ka + Ré or Ka + Ra, two Egyptian ontological notions which we will analyze below. The Kipsighi (Kapsighi) are in the region of the Great Lakes and North Cameroon; the Kissi northeast of Lake Nyasa and in the forest of Upper Guinea; the Kundu in the former Belgian Congo (Lake Leopold) and the Southern



The queen subdues a group of vanquished enemies. Méroé, Sudan, bas-relief (redrawn by Lepsius in *Histoire ancienne de l'Égypte* by Lenormant).

Cameroon, at the estuary of the Wouri; the Laka live among the Nuer of the Upper Nile and the Sara of the Logone and Northern Cameroon; the Maka (Makua) on the Zambezi and in the Cameroon; the Sango northeast of the Nyasa and on the banks of the Ubangi; the Somba (Sumbwa) in the region of the Great Lakes and Northern Dahomey.

One could extend this list and thus localize in the Nile Valley, coming from the Great Lakes, the primitive cradle of all the Black peoples today living dispersed at the various points of the continent.

It must be recalled that Kandaka (Candace), the name, or rather the title, of the queens of the Sudan, beginning with the time of Augustus Caesar, was also borne by the first kings of Kau (Gao), according to Al Bakri; they were called Kanda. The women of this region, according to the same author, in the tenth century wore wigs such as those worn in Egypt and Nubia. In antiquity there was a Nubian nome called Kau, the exact location of which has not yet been identified, according to Budge.³ The inhabitants of Upper Egypt were called Kau-Kau in the Egyptian tongue. We know that Gao is both an abbreviation and a deformation of the real name of that city: Kau-Kau.⁴ Inhabitants of the interior of Senegal even today have the name of Kau-Kau (Cayor, Baol), which those of the coast, as in ancient Libya, are called Lebou: they are the fishermen of the whole region of the Niaye (coastal palm forests).

In old Egyptian, as today in Wolof, *Kau* has the same meaning: high; and in both languages, *Kau-Kau* means inhabitants of high places, or high plateaus. It can then be presumed that, if present-day inhabitants of Cayor and Baol, living on an absolutely flat plain, still bear this name, it might be due to a geographical reminiscence explainable by migration, especially since between them and the coast, then and now, there were the Lebou. It is likely that the populations who were forced to emigrate did not have time on the way to

shed their habits: the inlanders (Kau-Kau) would have settled in the interior, and the coasters (Lebou) on the coast. It may be recalled that, until the eleventh century, the capital of Songhai was Kukia, some one hundred kilometers from Kauga (Gao); in all of northern Senegal, the various villages one finds name Koki seem to be replicas of that ancient historical city on the Niger, the more likely since the phoneme *o* does not exist in Arabic, but must be translated *u*, barring some arbitrary convention. Yet the documents that today permit us to refer to the historical city of Kukia are all written in Arabic. Bakri says that Kau-Kau (Gao-Gao) is the sound emitted by the royal tom-tom of that capital city. The Cayorians of Senegal also say that the *diung-diung* of the Damel (the royal drum) goes *gau-gau*. It would seem that we must conclude that we are dealing here with an oral etymology which does not exactly fit in with historical reality, to the extent that we find roots of the same word, beyond any possible doubt, right up into the valley of the Nile.

Having made this recall, let us look at the origins of the principal peoples of West Africa.

ORIGIN OF THE YORUBA

According to J. Olumide Lucas,⁵ the Yoruba during antiquity lived in ancient Egypt, before migrating to the Atlantic coast. He uses as demonstration the similarity or identity of languages, religious beliefs, customs, and names of persons, places, and things.

Abundant proof of intimate connection between the ancient Egyptians and the Yoruba may be produced under this head. Most of the principal gods were well known, at one time, to the Yoruba. Among these gods are Osiris, Isis, Horus, Shu, Sut, Thoth, Khepera, Amon, Anu, Khonsu, Khnum, Khopri, Hathor, Sokaris, Ra, Seb, the four elemental deities, and others. Most of the gods survive in name or in attributes or in both (p. 21).

I-Ra-Wo in Yoruba means the star that accompanies the Sun (*wo*: to rise), Khonsu has turned into Osu (the Moon). The linguistic variations are explained by the author on the basis of the phonetics of Yoruba. He reminds us that the ontological notions of ancient Egyptian, such as Ka, Akhu, Ku, Saku, and Ba, are to be found in Yoruba. He also points to the existence of hieroglyphics and expounds all these ideas at length over four hundred pages.

It may be pointed out that the "pope" of the Yoruba, the Oni, has the same title as Osiris, the Egyptian God, that there is a hill called Kuse, near Ilé-Ifé, and another of the same name in Nubia, near ancient Meroë, to the west of the Nile, in the very heart of the country of Kush.⁶ The name Kuso is repeated in Abyssinia.

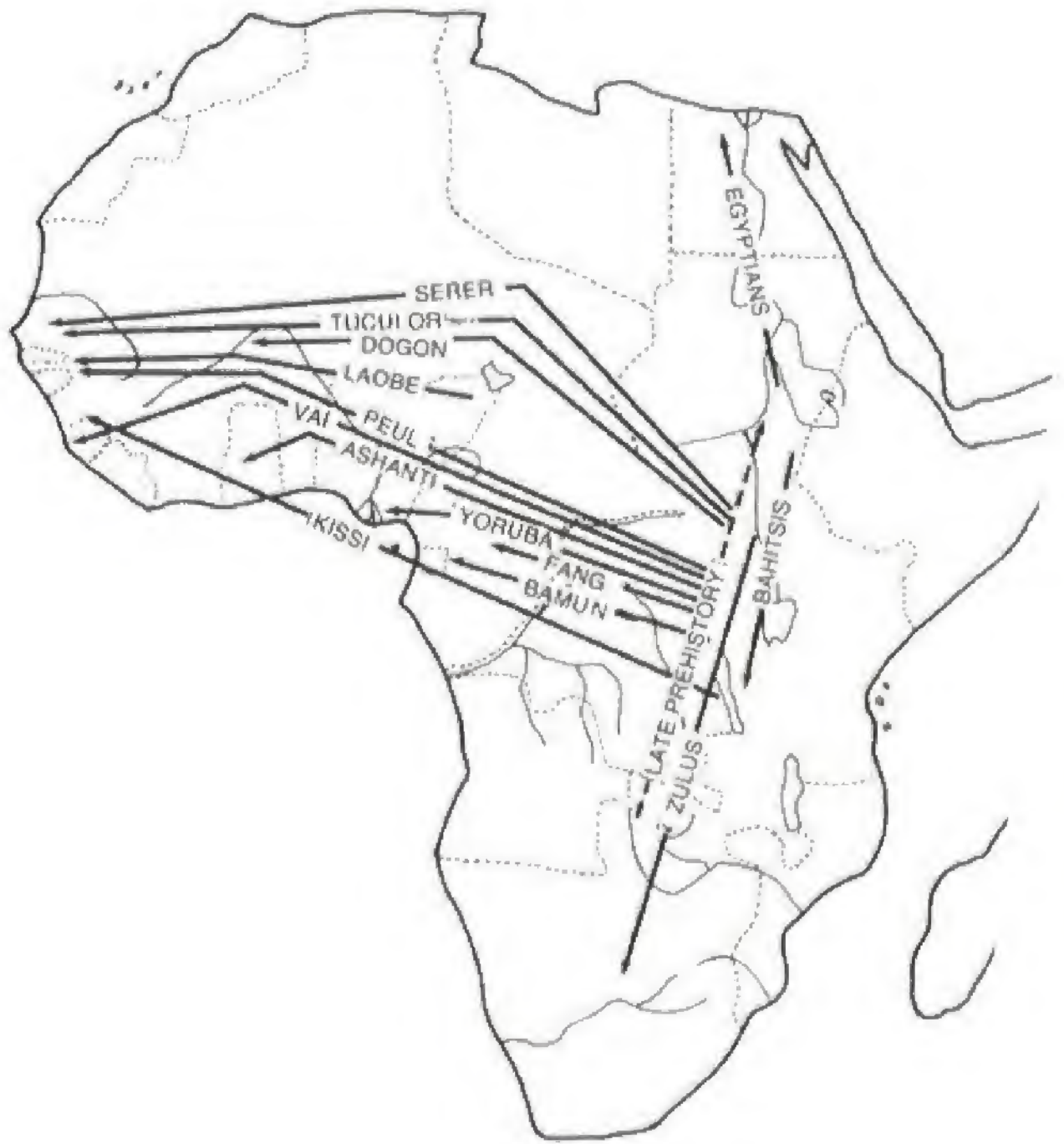
ORIGIN OF THE LAOBÉ

They would seem to be survivors of the legendary Sao people. As a matter of fact, what do we learn about the Sao from the Bornu manuscripts and the excavations of M. Lebeuf and my late professor Marcel Griaule?

These references tell us of the Sao that (1) their name was Sao, Sow, or Si; (2) they were giants; (3) they spent entire nights dancing; (4) they left innumerable terra cotta figurines; and (5) these statuettes reveal an ethnic type with pear-shaped head.

All five of these traits are found in the Laobé. Their sole totemic name is Sow, which has been mistaken for a Peul name. The only sacred object left them, the instrument with which they carve, is called a *sao-ta*. They are all giants, the women averaging six feet in height, and the men six feet six or more, very easily. They have extraordinarily handsome limbs and are always built like athletes.

Their skulls are pear-shaped, identical with those of the ethnic type seen on Sao statuettes.



Map of migrations of the peoples of black Africa
 (from *La région du Haut-Nil et des Grands Lacs*).

The Laobés' only occupation is carving wooden kitchen utensils from tree-trunks, for all other castes of African society, and not only the Peul. Laobé women make terra cotta figurines for the children of other castes. The Laobé, especially the women, love to dance; they take part in all fêtes and other local events. Their main dance, in Senegal, is the *kumba laobé gâs*.

The Laobé were wrongly considered a caste of Peul and Tuculor sculptors. This mistake comes in part from the fact that they speak the language of these two peoples. It has been overlooked that the Laobé are always bilingual, at least in Senegal. They speak Wolof as fluently as Peul; but their accent in Wolof is not that of a Peul or Tuculor, which would not be explicable if they belonged to the same ethnic group as the latter, differing from them only in caste. The Laobé seem to be a people who have lost their culture and whose dispersed elements adapt, according to circumstances, by learning the languages of the regions in which they reside. The totemic names other than Sow which they bear reflect their mixture with the Peul, Tuculor, and other groups. The reverse is also true; and that explains why some Peul have the name of Sow, alongside Ba and Ka.

The Laobé live scattered over different villages in Senegal and elsewhere. They have no fixed dwellings; it is inaccurate to say that they inhabit the Futa Toro (in Senegal) or the Futa Jallon (in Guinea), territories of the Tuculor and Peul. They form sporadic groupings within larger ethnic groups. The Laobé of Senegal can no longer pinpoint their original habitat; their social organization has completely dissolved; they no longer have traditional chiefs. The most respected member of the group rides a mule, while donkeys are reserved for others. Thus, the case of Med Sow Wediam, a very influential Laobé, but who could not properly be called a king; moreover, he owed his influence mainly to his conversion to the Muridism of Amadu Bamba. The Laobé swear on the *sao-ta*,

which is used not only to carve, but also to circumcise the young, a custom they seem to have borrowed from neighboring peoples.

ORIGIN OF THE PEUL

At first sight, one might believe that the Peul branch originally came from that part of West Africa where Semitic Moors and Blacks long remained in contact.⁷ Though the hypothesis of this crossbreeding must be accepted, the initial site where it took place must be sought elsewhere, despite appearances.

Like other West African populations, the Peul probably came from the East, only later. This theory can be supported by perhaps the most important fact to date: the identity of two typical totemic proper names of the Peul with two equally typical notions of Egyptian metaphysical beliefs, the Ka and the Ba.

According to Moret, the Ka is the essential Being, the ontological part of the individual which exists in the sky. Thus, in the texts of the Old Empire, there is the expression "to go to one's Ka," meaning to die. The Ka, united with the Zet, forms the Ba, the complete being reaching perfection and living in the sky.⁸

Zet was the part of the being that was purified in the "Jackal's Basin," according to the Egyptian religion. *Set* (there is no *z* in Wolof and it automatically becomes *s* when used in a foreign word) means clean, in Wolof. Obviously, it is not identifiable with the third totemic name of Sow, borne by some Peul.

On the other hand, Ka and Ba, these two Egyptian ontological notions, are authentically Peul proper names, the only ones they must have had in the beginning.

Ka, or *Kao*, in old Egyptian, means high, above, great,

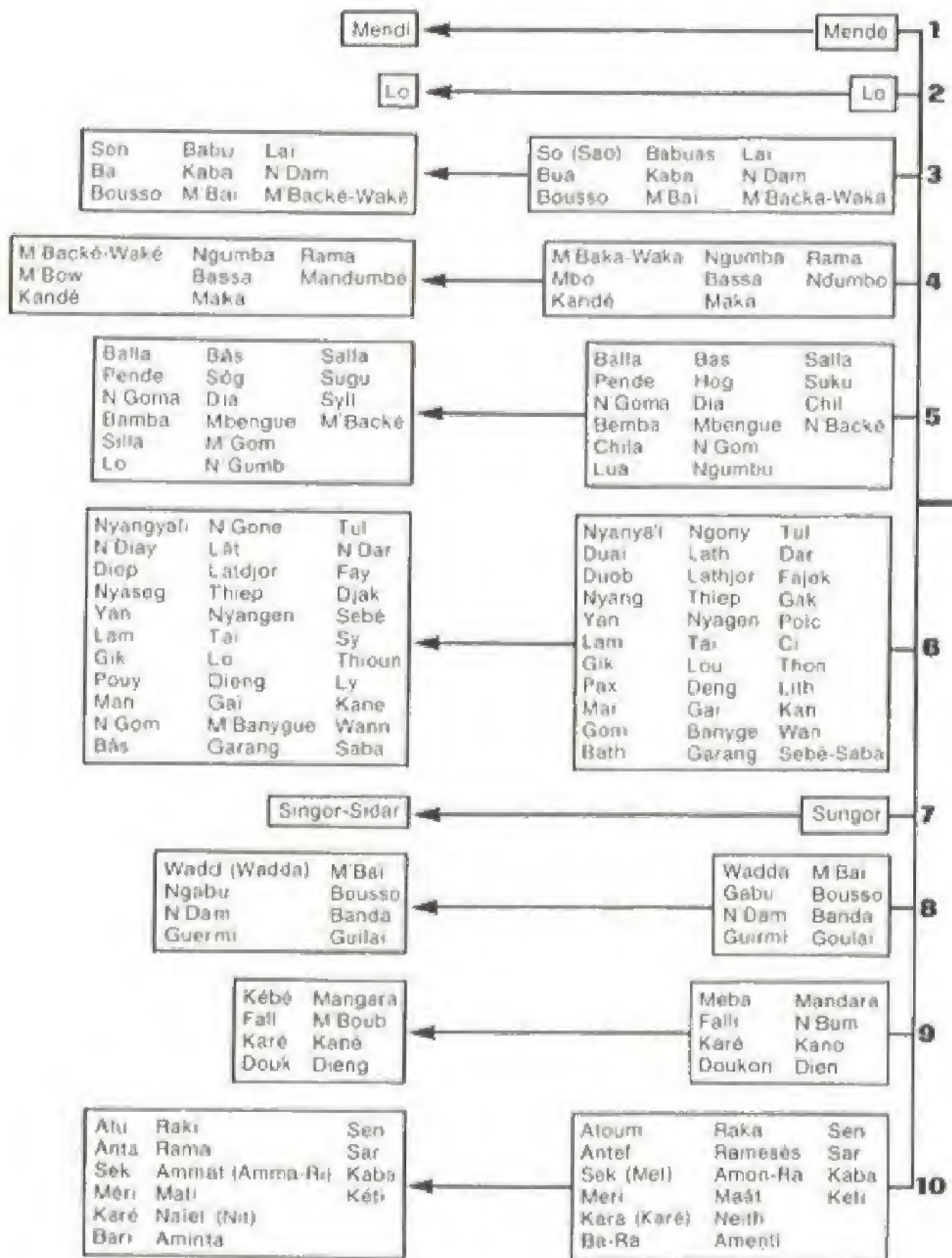
husband, standard, height—whence the description of the word by a hieroglyph made up of two arms extended toward the sky. It has the same meaning in Wolof, and one should make the connection with Kau-Kau mentioned above.

Ba, in Egyptian, is represented by a bird with a human head, living in the sky; it also is the name of a long-necked earthly bird. *Ba* in Wolof means ostrich. So it can be seen that these elements of Egyptian metaphysics underwent different changes depending on who transmitted them; whereas in Wolof the Egyptian meaning is retained, in Peul the words have become proper names. It is a known fact that, until the Sixth Dynasty, the time of the Osirian revolution (2100 B.C.), the Pharaoh alone was entitled to immortality and, consequently, fully enjoyed his *Ka* and his *Ba*; it is also known that several Pharaohs bore this name, among them King *Ka*, of the protodynastic era, whose tomb was discovered at Abydos by Amélineau. The name of the Peul branch of the Kara or Karé would then come from *Ka* + *Ra* or *Ka* + *Ré*.

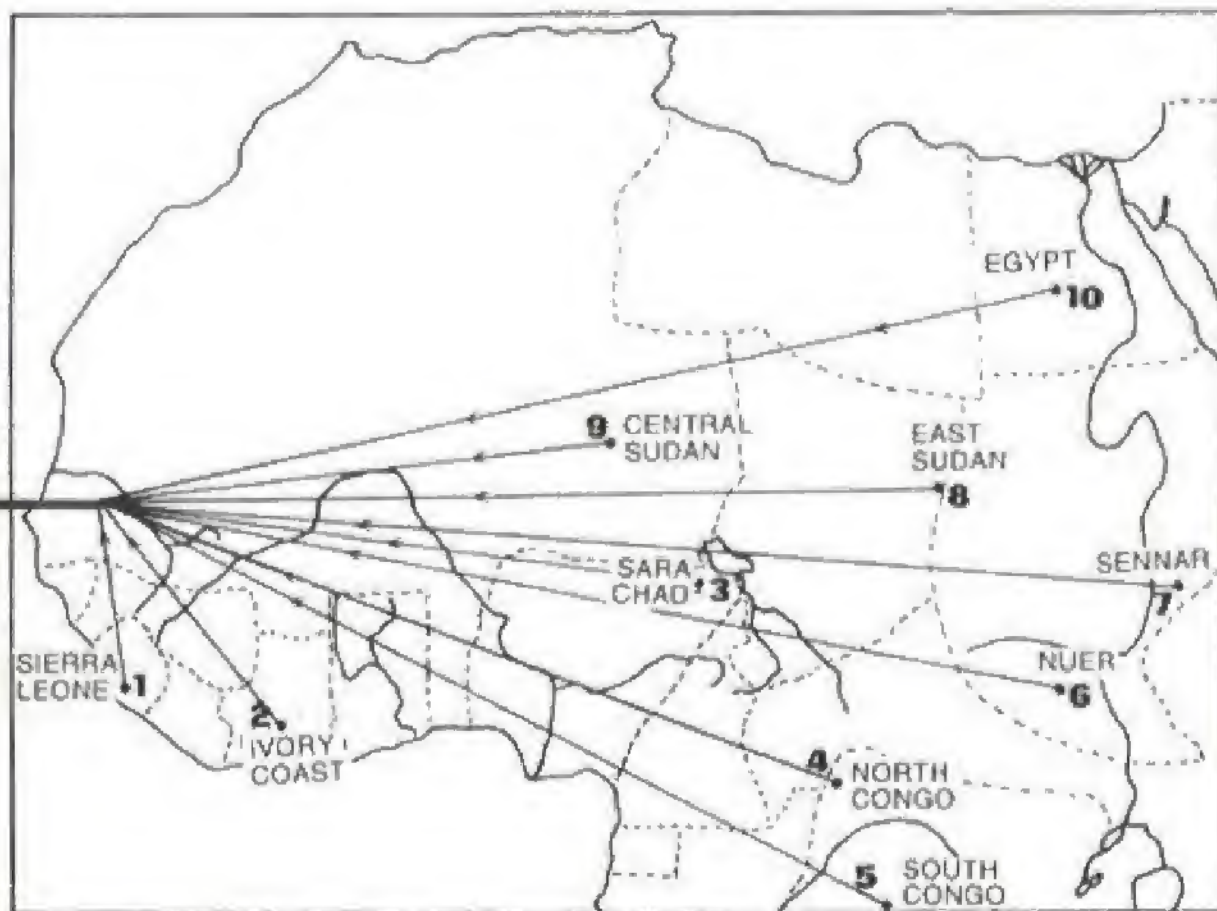
The other Peul names, such as Diallo, would have been acquired later, despite appearances. As for their language, it has a natural unity with the other Black African languages, especially Wolof and Serer, as shall be shown.

The relative hatred which existed, in olden times, between the seminomadic Peul and sedentary Africans can be explained by their different life styles: the Peul frequently took advantage of unguarded fields to let their flocks graze in them: whence perhaps the origin of the evil, for this fact is far from accidental and its importance cannot be exaggerated. But the idea of a Peul hegemony in West Africa is just a legend; it does not conform to the documents. According to Kâti and Sâdi, Sonni Ali made several expeditions against the Peul; he practically destroyed the clan of the Sangaré (*San-Ka-Ré*), the survivors being so few they could gather within the shade of one tree.⁹

Following one of these expeditions, Sonni Ali distributed



Groups of Wolof peoples, by their ethnic names. Prevalent names in various regions have been grouped by origin (1-10) in the right column. The left column shows the corresponding Wolof names.



several captive Peul women as concubines to those Timbuktu scholars who were his friends; Sâdi says that one of them was his own grandmother.¹⁰

The idea that the nomadic Peul people was feared in precolonial Black Africa is also unfounded. It grows out of a preconceived notion which tries come what may to exalt the pastoral life, for reasons peculiar to the authors. On the contrary, Sâdi stresses the lack of material or social strength of the nomads who, by the fact that they were constantly on the move, never had the chance or possibility to acquire any power that might threaten the sedentary.

ORIGIN OF THE TUCULOR

Today, among the Nuer of the Sudan (Khartoum) on the Upper Nile, one finds unaltered the totemic names of the Tuculor who live on the banks of the Senegal River, thousands of kilometers away. It must be recalled that totemic and ethnic names are identical, being the names of the clans.

<i>Sudan (Khartoum)</i>	<i>Senegal (Futa-Toro)</i>
Kan	Kan
Wan	Wan
Ci	Sy (Ci)
Lith	Ly
Kao	Ka (Peul) ¹¹

In the same region, at a place called Nuba Hills (Nubia Hills), we find tribes of the Nyoro and Toro. These two names in a way mark out the route followed by the Tuculor migration from the Upper Nile. The region between the Senegal and Niger rivers, in which the Tuculor would remain for a certain length of time, was to be known as the Nyoro; when they arrived on the two banks of the Senegal, the region would be known as the Futa-Toro. When one fraction of them went down into the Gambia, under Maba Diakhu, at the time of General Faidherbe (1865), the region would assume the name of Nyoro-du-Rip, the latter word being the old name of the region, before the Tuculor arrived.

ORIGIN OF THE SERER

They also probably came from the Upper Nile. According to Pierret's dictionary, Serer in Egyptian would mean "he who traces the temple." That would be consistent with their present religious position: they are one of the rare Senegalese populations who still reject Islam. Their route is marked by

the upright stones found at about the same latitude from Ethiopia all the way to Siné-Salum, their present habitat. This seems to be substantiated by an analysis of the article by Dr. Maes on the upright stones of the French Sudanese village of Tundi-Doro, previously discovered by Desplagnes.

Dr. Maes attributes the origin of these stones, on the basis of pure hypothesis, to Carthaginians or Egyptians. He analyzes the name of the village as follows: *Tundi* would come from the Songhai meaning stone, *Daro* from the Arabic *dar* meaning house. So Tundi-Daro would be "stone house." This analysis would be valid and acceptable only if these stones represented houses, or if one could find that, in one way or another, they suggested houses. But this is not the case; they are described as follows:

They are monoliths cut in the shape of a phallus, usually with the head (glans) well delineated, the grooves follow the lines of the glans, and the pouch is depicted by rounded bulges whose longitudinal folds resemble those of the scrotum. Other smaller stones are not phallus-shaped. Deprived of rounded protuberances, with the triangle outlined in the form of a pubis, by the union of the lower two-thirds with the upper third they seem instead an attempt to represent the female organ.¹²

The author thinks this might have been a cemetery. That would seem likely if any bones were found beneath the stones; but there are none. The author himself recognizes this problem.

The stones might rather be linked to an agrarian cult; they symbolize the ritual union of Sky and Earth to give birth to their daughter, Vegetation. According to archaic beliefs, rain was the water impregnating the Earth (Mother-Goddess) sent down by the Sky (Father-God, a celestial God who became atmospheric with the discovery of agriculture, according to Mircea Eliade). The vegetation that grew out of this union was a divine product; whence the idea of a Cosmic Trinity,

which, through a series of successive incarnations, would evolve into the Christian Trinity of Father, Son, and Virgin Mary (later replaced by the Holy Spirit), by way of the Triad Osiris-Isis-Horus. Same must produce same; therefore, they carved in stone the two sexual organs so as to invite the divinities to couple and bring about the growth of the vegetation that supported the life of the people. Thus, it was the need to insure his material existence which drove man to such practices. The vital impulse, in archaic materialism, could be expressed only in this transposed form, disguised as metaphysics.

The present inhabitants of the Tundi-Daro region are not responsible for the erection of these stones, nor are their ancestors, according to the author's research. We can therefore assume that the Serer-Wolofs, before Islamization, went through such a stage. The Serer still have the same cult of the upright stones. In Bakri's time, the inhabitants of the upper Senegal River planted pestles which were used as altars for libations and were called in the vocabulary of the times *dek-kur* (*dek* in Wolof meaning anvil, and *kur*, pestle), but *dek* could also be taken to mean altar, in the sense of a receptacle, which is indeed its basic meaning. But the analysis of Tundi-Daro in Wolof is even more interesting: *tund* = hill, *daro* = sexual union, in the ritual sense. This was euphemistic. The vowel *i* makes it plural. Tundi-Daro, in present-day Wolof, means precisely hills of union. That is so, because these rites took place on high places, mountains, or hills, considered sacred because they represented the point at which sky and earth seemed to touch; the idea of the center of the world, as in Jerusalem, the Kaaba of Mecca, the Sacred Mountain of the Mongol shaman.

This idea is corroborated by the fact that the village of Tundi-Daro does indeed stand against hills of reddish sandstone. The excavations so far done in the area confirm the idea to the extent that the tombs (*tumuli*) studied are not of too

recent date in relation to the Serer migration. The latter's funeral materials and burial rites were the same as those of the ancient Egyptians and the emperors of Ghana: the deceased was buried, more or less luxuriously depending on the wealth of the family, and laid on a bed; around him were disposed all the usual domestic objects he used in daily life, and even a rooster to wake him in the morning. He was probably even mummified in the beginning, for apart from Angola, where mummification is still practiced, we know from Sâdi that Sonni Ali, the Songhay sovereign who was closest to the old pre-Islamic traditions, was mummified.¹³

It should then be possible through further digs to find the road followed by the Serer from the Upper Nile. The sacred city of Kaôn, which they founded on arrival in the Siné-Salum, seems to have been a replica of a city of the same name in ancient Egypt. We know that there are even Egyptian hieroglyphic texts called "from Kaôn," because they came from that city. The Serer heavenly god, whose voice was the thunder, was called Rôg, which is often complemented by Sen, a national epithet, typically Serer. Rôg suggests Ra. Sar is also a widely used Serer name: it designated the nobility of ancient Egypt. A linguistic variant of the same word, San, designated the nobility of the Sudan, whence San-Koré, which was the neighborhood of the nobles in the city of Timbuktu, where the famous university-mosque of Sankoré was built. We know that some Pharaohs of the Third Dynasty had the name of Sar, whereas Per-ib-Sen and Osorta-Sen (Senwart = Sesostris) were Pharaohs respectively of the First and Sixteenth Dynasties. The Egyptians did not have family names in the present-day sense: all the added names they assumed could thus be translated, such as *Sen*¹⁴ meaning brother. But we know that modern names also derive from similar expressions which have been more or less disguised: thus, the French Dupont (du-pont) is the man from the bridge, Duval (du-val) the one from the valley.

ORIGIN OF THE AGNI (AÑI)

The name of this people as a whole is reminiscent of *Anu* or *Oni*, which was the title of Osiris in *The Book of the Dead*, the epithet constantly applied to him. Almost all Agni kings have the title or surname of Amon, the Egyptian god of humidity, which is found everywhere in West Africa, whence the significant title of Marcel Griaule's book, *Amma, Dieu d'Eau des Dogons* (Amma, Water-God of the Dogons).

Thus, there was Ammon Azenia in the sixteenth century, Ammon Tifu in the seventeenth. A son of this king was brought before Louis XIV, who treated him with distinction. Ammon Aguire, who reigned in the nineteenth century, signed a treaty of alliance with King Louis-Philippe of France. One is therefore inclined to believe that the Agni as well were originally from the Nile basin.¹⁵

ORIGIN OF THE FANG AND BAMUM

D.P. de Pédrals, in an article published in December 1951, relates that Fr. Trilles, after a series of studies, came to the conclusion that the Fang had had some contact with Ethiopian Christianity during their early migration: in the last century, they had not yet gotten as far as the Atlantic coast. So, their migration must have been relatively recent.

Similar studies by M.D.W. Jeffreys point to a connection between the Bamum and the Egyptians, Pédrals writes:

Having noted in several books on Egypt the vulture-pharaoh and serpent-pharaoh relationships, and especially the fact pointed out by Diodorus: that the Ethiopian and Egyptian priests kept an asp curled up in their hats; having also noted various examples of zoomorphic two-headed representations, particularly in *The Book of the Dead (Añi papyrus)*, folio 7, M.D.W. Jeffreys declared himself convinced that "the Bamum cult of the king derives from a similar Egyptian cult."¹⁶

These facts also bear some resemblance to the existence of the royal vulture of Cayor, called Geb, which was also the Egyptian name for Earth, the reclining god.

FORMATION OF THE WOLOF PEOPLE

In Africa, totemic clan names are, to an extent, an ethnic indication; thus, the totemic names of Fall, Diagne, Diouf, Faye, Sar, and so on, are typically Serer. If a Serer has a totemic name other than one of these, his foreign extraction leaves no doubt in the minds of his fellow Serer.

The Tuculor, although crossbred, have equally characteristic totemic names: Wane, Kane, Diallo, Sy, Ly, and so on. Peul names are essentially Ka and Ba; where Sow is more likely to be Laobé. Touré is a Songhai name; Cissé, a Sarakolé name, and so on. Yet the Wolofs have no other totemic names than these, while recognizing that they are clanic names typical of the abovementioned peoples. Beyond these names, there are other Wolof names which are of Sara or Congolese origin.

<i>Southern Congo</i>	<i>Senegal: Wolof</i>
Balla	Balla: a man's proper name
Dia	Dia
Mbengue	Mbengue
N'Goma	N'Goma
N'Gom	N'Gom
Bemba	Bamba: a man's proper name
Ngumbu	Ngumb
Chila	Silla
Lua	Lo
Suku	Sugu
Bas	Bas
Chil	Syll
Hog	Sôg
M'Backé	M'Backé

<i>Northern Congo</i>	<i>Senegal: Wolof</i>
M'Backa-Waka	M'Backé-Waké
Bassa	Bassa
Mbo	Mbow
Maka	Make: name of a city
Rama	Rama: woman's proper name
Ndumbé	Mandumbé: man's proper name
Kandé	Kandé
Nguma	Ngumba: name of a city
<i>Eastern Sudan</i>	<i>Senegal: Wolof</i>
Wadda	Wadd
	Wadda: man's proper name
Gabu	Ngabu: name of a Baol village
M'Baï	M'Baï
N'Dam	N'Dam: village name recalling a clanic name
Busso	Busso
Guirmi	Guermi: a noble, a member of the ruling dynasty
Banda	Banda: man's proper name
Gulaï	Gulaï: man's proper name
<i>Sara</i>	<i>Senegal: Wolof</i>
M'Baï	M'Baï
Lai	Lai
N'Dam	N'Dam
Kaba	Kaba
Bua	Ba
Busso	Busso
Babuas	Babu
M'Backa-Waka	M'Backé-Waké

<i>Central Sudan</i>	<i>Senegal: Wolof</i>
Keba	Kebé
Mandara	Mangara
Falli	Fall
M'Bum	M'Bub
Karé	Karé
Kano: name of a city	Kane
Dukon	Djuk
Dien	Dieng
<i>Chad</i>	<i>Senegal: Wolof</i>
So: legendary people of the Sao	Sow (Laobé)
<i>Ivory Coast</i>	<i>Senegal: Wolof</i>
Lo	Lo
<i>Sierra Leone</i>	<i>Senegal: Wolof</i>
Mende	Mendi

The original habitat from which these clans emigrated was the Nile basin. Indeed, we can find there the same proper names as quoted above: these totemic names are taken from the book, *African System of Kinship and Marriage*, edited by A.R. Radcliff-Brown and Daryll Forde (International African Institute, Oxford University Press).

<i>Totemic Clan Names of the Nuer</i>	<i>Senegal: Wolof and Others</i>
Duai	N'Diaye (which would seem to question the authenticity of the legend of N'Diadian N'Diaye)
Tiop/Duob	Diop (N'Diaye and Diop would seem to be the only authentic Wolof names before intermarriage ¹⁷)

Nyang	Nyang	}	All Wolof totemic proper names
Yan	Yan		
Lam	Lam		
Gik	Gik		
Puok			
Poic	Puy		
Tai	Tai		
Nyanyali	Nyangyali		
Mar	Mar		
Lu	Lo		
Gom	N'Gom		
Deng	Dieng		
Gak	Djak/Gak		
Gai	Gai		
Bath	Bâs		
<i>Totemic Clan names of the Nuer</i>	<i>Senegal: Wolof and others</i>		
Banyge	M'Banygue: Wolof man's proper name		
Ngony	Ngoné: Wolof woman's proper name		
Garang	Garang: Wolof man's proper name		
Lath	Lât: Wolof totemic name		
Fajok	Fay: Serer and Lebou totemic name		
Lathjor	Latjor: Wolor man's proper name		
Thiep	Thier: Baol village name		
Tul	Tul: Wolof village name		
Nyagen	Nyangen: Nyang village		
Dar	N'Dar: city name		
Thon	Thiun: Wolof totemic name		
Kan	Kane	}	Tuculor totemic names
Ci	Sy		
Wan	Wann		
Lith	Ly		

We must remember that the Nuer live in the Nilotic Sudan, in the very basin of the Upper Nile.

These two lists of comparative proper names are more instructive than many pages of literature; while very incomplete, they give an idea of how the African continent was peopled. Starting from the Nile basin in successive waves, the populations radiated in all directions. Some peoples, such as the Serer and the Tuculor, seem to have gone directly to the

Atlantic Ocean, while others stopped in the Congo Basin and the region of the Chad, with the Zulus going as far as the Cape.

The Congolese populations, Sara and Sara-kolé (who would seem to be only a crossbred tribe of Sara), would then later migrate toward the West, flowing down into the Cayor and Baol plains occupied by the Serer, and especially into the Djoloff.

The fact that in what was once French West Africa the name of the primitive totemic clan should still be borne by isolated individuals lost in a heterogeneous mass, corresponds to a relative emancipation of the individual from the primitive community. In fact, successive migrations finally disintegrated that fraction of the clan which had broken away from the mother branch.

The *Tarikh es Sudan* mentions the tribe of the Wolofs (Djolfs) and describes their virtues; it also mentions the existence of a tribe called Adior (Adjor).¹⁸

But Sâdi must certainly have related these facts on the basis of hearsay, for the Wolofs, despite what he thought, were not Peuls: the review of ethnic names proves that; so do their languages.

Likewise, the Adiors (inhabitants of the Cayor) were not Berbers: Adior and Wolof are one and the same thing, which Sâdi had no idea of. The Adior are one of the blackest peoples of Africa. Their language, Wolof, has no connection whatever with Berber.

According to the *Tarikh el Fettach*, an Israelite minority also lived in the bend of the Niger (region of Tendirma), and had made a specialty of cultivating vegetables watered with fresh well water instead of river water. This event must have been within the first millennium of the Hegira, but the date cannot be determined with precision.¹⁹

The Askias and Sonnis are of the same origin. They are neither Berbers nor Yemenites, but originate in the Upper Senegal, according to the investigation made by Kâti at the time.

The father of Askia Mohammed was named Arlum Silla and came from the city of Silla on the Upper Senegal. His mother, Kassai, was also an autochthon.²⁰ Sonni Ali also came from the Upper Senegal. Ber—his surname reminds one of M'Ber (champion) in Wolof—was the first emperor to take the title of Dali, which is the equivalent of Caesar in the African tradition.²¹

NOTES

1. The Carthaginians deliberately falsified their travel narratives so as to mislead competitors; they scuttled their ships rather than yield their maritime secrets to the Romans.
2. D.P. de Pédrals, *op. cit.*, ch. X.
3. Budge, *Egyptian Sudan* (London, 1907).
4. Al Bakri, *op. cit.*, pp. 342-343.
5. J. Olumide Lucas, *The Religion of the Yorubas* (Lagos: C.M.S. Bookshop, 1948).
6. Pédrals, *op. cit.*, p. 107 (cf. map of Africa made by Coronelli in 1689).
7. Delafosse, *Les Noirs d'Afrique, op. cit.*
8. Moret, *Le Nile et la Civilisation égyptienne*, p. 212.
9. *T. F.*, ch. V, pp. 83-84.
10. *T. S.*, ch. XII, pp. 109-110.
11. A. R. Radcliff-Brown and Daryll Forde, *African System of Kinship and Marriage* (International African Institute, Oxford University Press).
12. Dr. Maes, *Pierres levées de Toundi-Dar* (Bul. Com. Et. A.O.F., 1924), p. 31.
13. *T. S.*, ch. XII, p. 116.
14. *Hedj ak i sen* meant "favorites and brothers" in Wolof originally; with evolution, it now means "his favorites and others." *Sen* has now become the opposite of brother, a secondary character.
15. *Encyclopédie mensuelle d'outre-mer*, April 1952, vol. 1, sect. 20.
16. *Idem.*, December 1951, pp. 347-349.
17. This conforms to the fact that N'Diaye and Diop are the only *gamu* or *kol*; that has to do with the kinship resulting from marriages contracted over long periods of time between two exogamic clans.
18. *T. S.*, pp. 38, 127-129.
19. *T. F.*, p. 119.
20. *T. F.*, pp. 17, 94, 114, and 151.
21. *T. F.*, ch. V, pp. 83-84.

Postface

The French edition of this book contains an eleventh chapter entitled "Linguistic Appendix," that has been eliminated from the present edition as being far too technical to interest the general reader.

The Appendix is devoted to a presentation, without the application of any hypotheses, of certain grammatical facts. Were the formation of abstract nouns, diminutives, plurals, and so on in French not already fully studied, it would be necessary to carry out just such a study in order to complete our understanding of French grammar and elicit the genius of the language.

If, as a result of that study, it were found that the rules established recurred almost without change in other Indo-European languages in a systematic fashion, this would lead to the conclusion that there was a fundamental kinship within the language group. Such a conclusion would have been reached without requiring debatable linguistic hypotheses, simply on the basis of presentation without comment on the linguistic elements. A mere glance at the results would have been sufficient to show that we were on solid ground.

We have undertaken a similar study concerning Wolof, Serer, Peul-Tuculor, and Sara.

In attempting to complete the Wolof grammar beyond what had already been done (Fr. Guy Grand's *Grammaire* which is apparently the most complete treatment of the subject to date), we were able to establish rules for the formations of substantives, abstract nouns, diminutives, and plurals, as by the change of an initial consonant.

We also made a very complete study of the lingering question of "class languages" and their verb forms. We found that the same laws recurred in Serer, Peul (and Tuculor). Whence, rules which permit

the passage from one of these languages to the others in a systematic fashion.

But it is the study of these "class languages" that truly led to the revelation of the genius of African languages of this type. The conclusions drawn therefrom then have sociological and ethnological significance, to the extent that they allow us to use the language as a basis for understanding the mentality of the people.

Those readers wishing to delve further into this aspect of the subject are advised to refer to the revised French edition, *L'Afrique Noire précoloniale*, published by Présence Africaine, 25bis rue des Ecoles, 75005 Paris, France.

Note: The author had proposed the holding of five colloquia, within the framework of the UNESCO project of *General History of Africa*, to carry forward African research:

1. "The Peopling of Egypt"
2. "Deciphering of Meroitic Writing"
3. "Migrations, Toponyms, and Ethnonyms"
4. "Specific Causes of the Detachment of the Iberian Peninsula at the Dawn of Modern Times" and
5. "Air Cover of Africa."

The first four of these have been held.

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