The Unesco Courier



Africa and its history
A continent viewed from within



TREASURES OF WORLD ART



Mali

### Mother and child

This wooden statuette (68 cm high) of a mother and her child is the work of a sculptor of Mali's Dogon people. The Dogon, who number some 250,000, live on and around the rugged Bandiagara cliffs south of Timbuktu. Most of their sculpture is inspired by their complex religious system, a major feature of which is the ancestor-cult.

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page

### THE GENERAL HISTORY OF AFRICA

by Amadou-Mahtar M'Bow

### 7 A CONTINENT VIEWED FROM WITHIN

by Joseph Ki-Zerbo

### THE WRITTEN WORD 9

### 12 AFRICA'S DIALOGUE WITH TIME

by Boubou Hama and Joseph Ki-Zerbo

### 17 **TONGUES THAT SPAN THE CENTURIES**

The faithful guardians of Africa's oral tradition by Amadou Hampâté Bâ

### THE HAMITIC MYTH EXPLODED

A long-held theory on the peopling of Africa refuted by Dmitri A. Olderogge

### 27 **OLD MASTERS OF THE NEW STONE AGE**

### 39 THE CRADLE OF MANKIND

by Joseph Ki-Zerbo

### 40 AFRICAN PREHISTORY AND THE EVOLUTION OF MAN

### INVENTORS AND TECHNOLOGISTS OF PHARAONIC EGYPT

by Rashid El-Nadoury with the collaboration of Jean Vercoutter

### 55 THE EMPIRE OF KUSH

An original civilization of ancient Nubia by Jean Leclant

### 58 THE MATRIARCHS OF MEROE

by Ahmed M. Ali Hakem in collaboration with Ivan Hrbek and Jean Vercoutter

### 60 ARCHITECTS OF MALI'S GOLDEN EMPIRE

by Djibril Tamsir Niane

### THE SHAPING OF SWAHILI CIVILIZATION

by Victor V. Matveiev

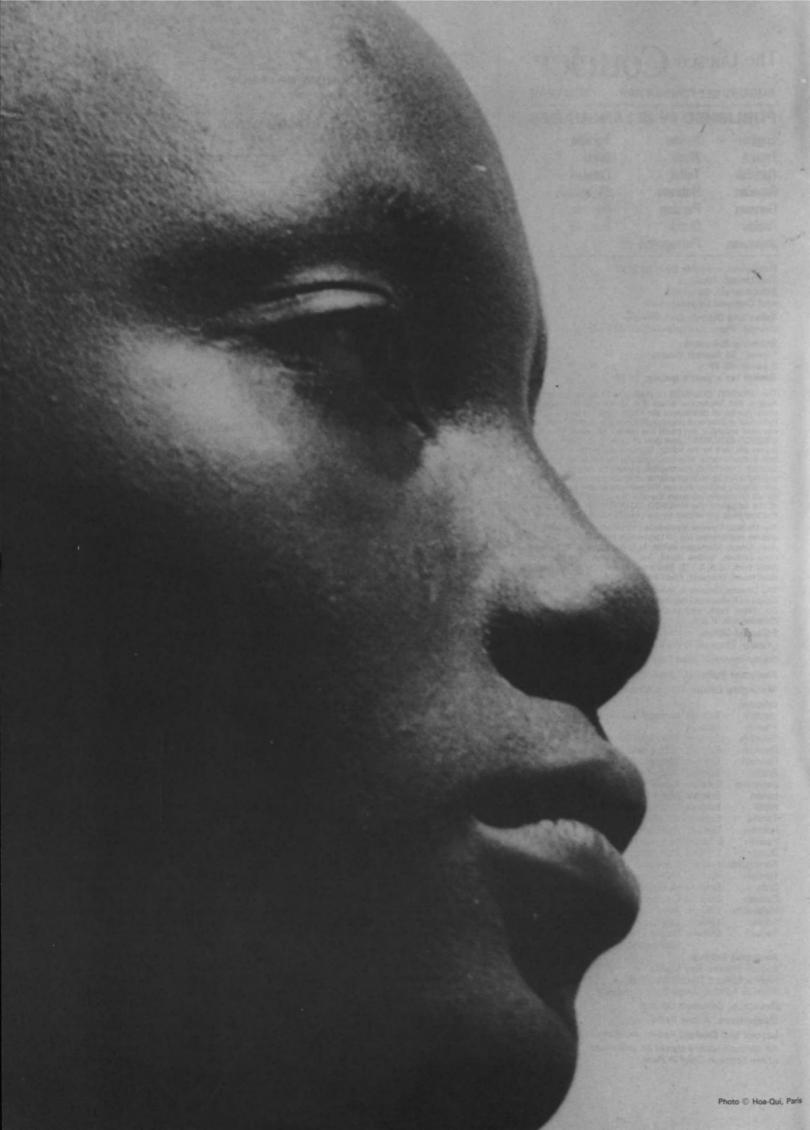
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### 2 TREASURES OF WORLD ART

MALI: Mother and child

### **FOUR PAGES IN FULL COLOUR** 35

In this issue the Editors of the Unesco Courier have set out to give readers a preview, in the form of specially chosen excerpts, of a major work of international collaboration in scholarship, the Unesco-sponsored General History of Africa (see page 5). Although it incorporates some material from a later volume, this selection is based largely on texts from vol. I, entitled "Methodology and African Prehistory", and vol. II, "Ancient Civilizations of Africa", the French and English editions of which are now in the final stages of preparation. For reasons of space alone our anthology can only reflect a handful of the many themes evoked in the early parts of the eight-volume General History. As work proceeds in this long-term enterprise, the Unesco Courier will be furnished with opportunities to focus on other important aspects of early African history. In particular, it has been necessary to postpone until a future issue publication of a study on the extraordinary expansion of Islam in Africa, since volume III ("Africa from the Seventh to the Eleventh Century"), of which this will be a major theme, is still in course of preparation. The General History of Africa will be published first in English, French and Arabic; later, translated versions are scheduled to appear in such African languages as Kiswahili, Hawsa, Fulani, Yoruba and Lingala. Also foreseen are translations into other languages such as German, Russian, Portuguese, Spanish and Swedish, and the production of abridged versions aimed at a vast international public. In cover photo, taken from a space satellite, the outlines emerge of a continent the whole span of whose history is now for the first time being "viewed from within".



# The General History of Africa

### by Amadou-Mahtar M'Bow

**Director-General of Unesco** 

HE face of Africa has long been concealed from the world by myths and prejudices of all kinds. African societies were regarded as societies without a history; in spite of major studies produced in the early decades of this century by such pioneers as Leo Frobenius, Maurice Delafosse and Arturo Labriola, many non-African scholars, wedded to preconceptions rooted in their own background, maintained that such societies could not be studied scientifically because sources and written documents were lacking. This amounted to a refusal to see Africans as the creators of original cultures which blossomed and perpetuated themselves for centuries in distinctive ways of their own which historians can only grasp by adopting new methods.

Furthermore, the African continent was virtually never considered as a historical entity. On the contrary, stress was laid on everything which might give credence to the idea of a division, since time immemorial, between a "white Africa" and a "black Africa", each ignorant of the other. The Sahara was often presented as an impenetrable expanse which completely prevented any mixing of ethnic groups and peoples, any exchange of goods, beliefs, customs and ideas between the societies established on each side of the desert. Impassable frontiers were traced between the civilizations of ancient Egypt, of Nubia, and those of the peoples living south of the Sahara.

Today it is generally recognized that the civilizations of the African continent, through the variety of their languages and cultures, form, to varying degrees, the historical contours of an ensemble of peoples and societies united by links stretching back for centuries.

Another phenomenon which has had a deleterious effect on the objective study of the African past is the existence of racial stereotypes, which appeared with the slave trade and colonization, bred contempt and incomprehension, and became so deeply rooted that they actually perverted the conceptual basis of historiography. From the moment when the notions of "whites" and "blacks" were adopted to serve as generic descriptions of the masters and the dominated peoples respectively, Africans had to struggle against a dual enslavement, economic and psychological.

Identifiable by the pigmentation of his skin, earmarked for labour in mines and plantations, one commodity among others, the African came to symbolize in the minds of his oppressors an imaginary racial abstraction, falsely infused with the notion of inferiority, which was categorized as negro. This spurious process of identification reduced the history of the African peoples to the status of an ethno-history in which any appreciation of their cultures was bound to be distorted. As for the image of themselves which the colonizers gave to the Africans, need it be said that all too often, alas, this was no more than a caricature of the civilizations whose values they were supposed to embody?

The situation has changed radically, especially since the African countries have achieved independence and now actively participate in the life of the international community and the mutual exchanges which it exists to promote. In exercising their right to take the initiative where their own history is concerned, the Africans

themselves are profoundly aware of the need to reestablish on firm foundations the historical nature of their societies.

Herein lies the importance of the eight-volume *General History of Africa*, upon whose publication Unesco is now embarking.

The specialists from many countries who have participated in this work decided to begin by defining its theoretical and methodological basis. They have scrupulously re-examined the unjustified simplifications originating from a restrictive, linear conception of history, and, whenever necessary and possible, have revised accepted positions so as to present the facts in their true light. They have made every effort to bring into focus the historical data through which it is possible to comprehend the development of the different African peoples in their specific social and cultural contexts.

Work on this immense task, made even more complex and arduous by the diversity of sources and the dispersion of documents, was undertaken by Unesco in three stages. The first (1965-1969) consisted of work on documentation and planning: the collection of oral and unpublished written sources in the field; the preparation of a Guide to the Sources of the History of Africa based on an inventory of the archives of European countries; meetings of experts to discuss questions of methodology and to trace the broad outlines of the project. During the second stage (1969-1971) international meetings of experts held in Paris (1969) and Addis Abeba (1970) confirmed the interdisciplinary character of the method chosen. The third phase is that of the drafting and publication of the work, under the intellectual responsibility of a 39-member International Scientific Committee, two-thirds of whose members are Africans.

The General History of Africa throws a new and original light on the continent's past, considered as a totality, because its authors have avoided the pitfalls of dogmatism in tackling such fundamental questions as the slave trade, which was responsible for one of the cruellest deportations in the history of mankind and emptied the continent of part of its lifeblood; colonization and all its consequences: the relations between Africa south of the Sahara and the Arab world; the process of decolonization and the accession to independence of the new African States. The General History brings into focus both Africa's historical unity and its relations with the other continents, notably with the Americas and the Caribbean islands, where the African heritage has left its imprint on ways of feeling, thinking, imagining and acting, and where the descendants of Africans have actively contributed to the fashioning of national identities.

I am convinced that the whole sense and thrust of the future draws its force from an intensely felt consciousness of history, faithfully transmitted from generation to generation through education. In Africa, as elsewhere, this consciousness is one of the essential conditions of the independence, development and affirmation of peoples. Unesco is thus serving the entire international community by helping to make known and by restoring to its proper perspective Africa's contribution to human progress.



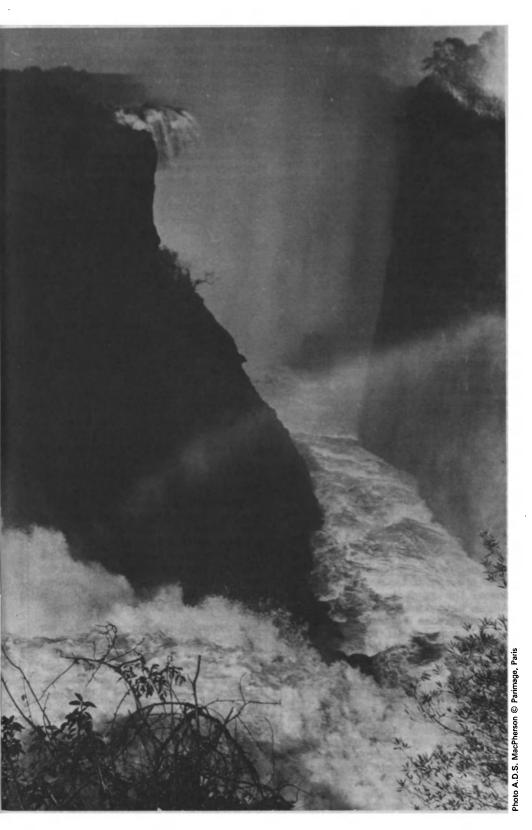
Photo Maximilien Bruggmann © La Spirale, Lausanne, Switzerland

With its shifting sand dunes (above) and rocky wastes, the Sahara, the world's largest desert, forms a climatic hiatus between the Mediterranean and the tropical worlds. Inhabited by nomads and traversed by caravan routes, it acted not as an absolute barrier but as a filter limiting the southward penetration of Mediterranean influences. The great rivers of Africa too, although important as communication routes over their navigable stretches, played a role in the compartmentalization of the continent. The cataracts of the Nile, the falls and rapids of the Zambezi, the Senegal, the Orange and the Limpopo, particularly in their lower reaches, formed virtually impassable barriers. At the Victoria Falls (right), one of the scenic wonders of the world, the Zambezi plunges 100 metres over a sheer precipice 1,700 metres wide, sending into the air a wall of spray that at times is visible up to 40 miles away.

### Africa and its history

## A continent viewed from within

by Joseph Ki-Zerbo



FRICA has a history. The time has long gone by when maps had great empty spaces representing the African continent as marginal and subordinate, and the knowledge of scholars on the subject was summed up in the cryptic phrase: *Ibi sunt leones*—here be lions.

But then came the discovery of the mines and their profits, and incidentally of the "native tribes" which owned the mines, but which like them were annexed as the property of the colonizing countries.

The history of Africa, like the history of mankind as a whole, is really the story of an awakening. The history of Africa needs rewriting, for up till now it has often been masked, faked, distorted, mutilated, by "force of circumstance" i.e. through ignorance or self-interest. Crushed by centuries of oppression, Africa has seen generations of travellers, slave-traders, explorers, missionaries, governors, and scholars of all kinds give out its image as one of nothing but poverty, barbarism, irresponsibility and chaos. And this image has been projected and extrapolated indefinitely in time, as a justification of both the present and the future.

For Africans, the history of Africa is not a narcissistic mirror nor a subtle excuse for avoiding the tasks and burdens of today. If it were an alienating device of that kind, the scientific objects of the whole enterprise would be compromised. But is not ignorance of one's own past, in other words of a large part of oneself, even more alienating?

All the evils that afflict Africa today, as well as all the possibilities for the future, are the result of countless forces transmitted by history. And just as the first step in a rational diagnosis and therapy is the reconstruction of the evolution of the disease, in the same way the first task in

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any overall analysis of the African continent must be a historical one. Unless one chooses to live in a state of unconsciousness and alienation, one cannot live without memory, or with a memory that belongs to someone else. And history is the memory of nations.

And thus we come to the formidable question of methodology.

In this connexion, as in others, we have to steer a middle course between treating Africa as too exceptional a case on the one hand, and on the other, dealing with it too much in terms proper to other parts of the world. Some people say that before we can talk of a real history of Africa we should wait to find the same kinds of evidence as in Europe, the same array of written or epigraphic documents. In short, for them, the problems of the historian are the same everywhere, in the tropics as at the poles.

In fact, the difficulties specific to the history of Africa can already be seen when one looks at the facts of the physical geography of the continent. Africa, a lonely continent if ever there was one, seems to turn its back on the rest of the Old World, to which it is joined only by the fragile umbilical cord of the isthmus of Suez.

It is to the south, amid the austral waters, that Africa thrusts her solid mass, bound in by coastal ranges through which rivers force their way by means of heroic defiles, in themselves great obstacles to penetration. The only sizeable passage between the Sahara and the Abyssinian mountains is blocked by the vast marshes of Bahr el Ghazal.

Strong winds and sea currents guard the coast from Cape Blanc to Cape Verde, while in the middle of the continent three deserts add internal barriers to isolation from without: in the south, the Kalahari; in the centre, the "green desert" of the equatorial forest with all its dangers which man had to overcome before he could make it his refuge; and in the north, the Sahara, desert of deserts, a huge continental filter, a wild sea of shifting sand dunes and rocky wastes which joins with the mountain fringe of the Atlas to separate the fortunes of the Mediterranean part of Africa from that of the rest of the continent. These ecological forces have weighed heavily on every aspect of Africa's

They have also enhanced the value of all the natural loopholes which were from the start to act as corridors in the exploration of Africa, begun thousands of millennia ago. One example is the great meridian groove of the Rift Valley, stretching from the very centre of Africa and across the Ethiopian ridge as far as Iraq. The curve of the valleys of the Sangha, Ubangi and Zaire must have acted as a corridor in an eastwest direction. It is not by chance that the first kingdoms of black Africa developed in these more accessible regions, these Sahels at once permeable from within, to a certain extent open towards the exterior,

and in contact with neighbouring regions of Africa with different and complementary resources.

These open areas, with their comparatively rapid evolution, afford, a contrario, the proof that isolation was one of the key factors in Africa's slowness in pursuit of certain kinds of progress. The very vastness of the African continent, with a diluted and therefore readily itinerant population living in a nature generous with its fruits and minerals, but cruel with its endemic and epidemic diseases, prevented it from reaching the threshold of demographic concentration which has almost always been one of the preconditions of major qualitative changes in the social, political and economic spheres.

Moreover, the slave trade, a severe demographic drain from time immemorial and especially from the fifteenth to the twentieth century after the traffic was organized on a large scale, can only have helped to deprive Africa of the stability and human dynamism necessary for all outstanding creativeness, even on the technological plane.

Neither nature nor man, geography nor history, have been kind to Africa. And it is indispensable that we should go back to these fundamental conditions of the evolutionary process in order to pose the problems in objective terms, and not in the form of such myths as racial inferiority, congenital tribalism and the so-called historical passivity of the Africans. The best these subjective and irrational approaches can do is conceal a deliberate ignorance. As for the worst, the less said the better.

It must be admitted that as far as Africa is concerned the question of sources is a difficult one. There are three main sources for our historical knowledge of Africa: written documents, archaeology and oral tradition. These are backed up by linguistics and anthropology, which enable us to elaborate and refine on the interpretation of data which may otherwise be crude and unyielding.

Written sources, if not very rare, are at least unevenly distributed in time and space. The most obscure centuries in African history are those which lack the clear and precise illumination that comes from written accounts, for example, the centuries preceding and following the birth of Christ (here North Africa is an exception). But even when such evidence exists, its interpretation is strewn with difficulties and ambiguities.

On the quantitative plane, large masses of written material, archival or narrative, have still not yet been exploited, as is shown by the incomplete inventories of unpublished manuscripts concerning the history of black Africa which are being found not only in libraries in Morocco, Algeria and Europe, but also in the libraries of Sudanese scholars and leading citizens in towns throughout the Bend of the Niger,

and whose titles suggest some promising new veins. Unesco has established the Ahmed Baba Centre at Timbuktu to promote the collection of such material. The archives of Iran, Iraq, Armenia, India and China, not to mention the Americas, must hold many scraps of African history awaiting some perspicacious and imaginative researcher.

The silent witnesses revealed by archaeology are often more eloquent than the official chroniclers. The marvellous discoveries of archaeology have already served African history well. These include articles made of iron, together with the technology involved; ceramics, with their production techniques and styles; objects made of glass; writings, and different graphic styles; the techniques of navigation, fishing and weaving; foodstuffs; and geomorphological, hydraulic and ecological structures linked to the evolution of climate.

The language of archaeological excavation has by nature something objective and irrefutable about it. Thus a study of the typology of the pottery and objects of bone and metal found in the Nigero-Chadian Sahara demonstrates the link between the pre-Islamic peoples (Sao) of the Chad Basin and cultural areas extending as far as the Nile and the Libyan desert. The living ties of the past are revived, beyond the modern landscape with its crushing loneliness and apathy, by the kinship shown in statuettes of baked clay wearing cross-belts, in the designs of the bodies of figurines, in the shapes of jars and bracelets, harpoons and bones, in arrowheads or tips, and in throwing knives.

Besides the first two sources of African history—written documents and archaeology—oral tradition takes its place as a real living museum, conserver and transmitter of the social and cultural creations stored up by peoples said to have no written records. This spoken history is a very frail thread by which to trace our way back through the dark twists of the labyrinth of time. Those who are its custodians are old men.

Whenever one of them dies a fibre of Ariadne's thread is broken, a fragment of the landscape literally disappears underground. Yet oral tradition is by far the most intimate of historical sources, the most rich, the one which is fullest of the sap of authenticity. Tradition clothes things in flesh and blood and colour, it gives blood to the skeleton of the past.

Of course, in epic the weakness of the chronological sequence is the Achilles' heel: mixed-up temporal sequences cause the image of the past to reach us not clear and stable as in a mirror, but like a fleeting, broken-up reflection on the surface of a ruffled stream. The average length of reigns and generations is a highly controversial question, and extrapolations based on recent periods have to be accepted with very great reserve, because of demographic and political changes, to name only two factors. Sometimes an exceptional and magnetic dynast polarizes the exploits of his predecessors and successors around his own person, and the others are literally eclipsed.

### The written word

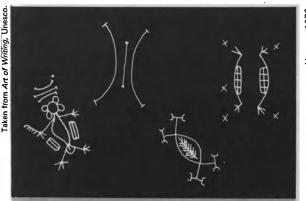
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Towards the end of the 4th millenium BC, the Egyptians invented a system of hieroglyphic writing that employs characters in the form of pictures. The signs could be read as pictures or as symbols for pictures, but they quickly acquired a phonetic value regardless of their original pictorial meaning. Many ideograms (pictorial representations) were however retained and a complicated system had be devised to prevent misreadings. Above, an Egyptian hieroglyphic taxt dating from the time of Darius the Great (550-486 BC) which reads: "The Pasha, the Count, the Royal Chancellor, the sole companion, he who lives among them", the prophet, the great doctor Udjahorresne, son of Atermitis, declares: His majesty the king of Upper and Lower Egypt, Darius, may he live for ever, ordered me to return to Egypt whilst his majesty remained in Elam; at that time he was the Great King of all the other countries and Sovereign of Egypt."



Photos © Cairo Museum

Early examples of Egyptian hieroglyphics show the beginnings of the transition from the pictorial representation of an event to symbolic use of signs. The famous "Palette of Narmer" (above) depicts king Narmer (about 3100 BC), the first monarch of the first dynasty triumphing over his enemies. The falcon (see detail above right) symbolizes the god Horus, the patron divinity of the royal house of Upper Egypt, who is seen holding a rope that binds a captive; beside him are six papyrus stems, the hieroglyphic sign for the figure 1,000. The meaning of the pictograph is thus that the king of Upper Egypt triumphed over his enemies and took 6,000 prisoners.



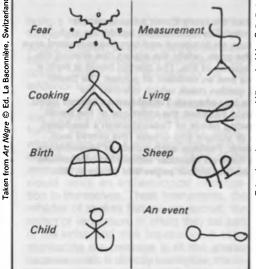
The origin of the Nsibidi writing of the Ekoi people of southern Nigeria is not known. It consists of highly conventionalized pictographs and is used chiefly by a secret society and for magical purposes. Each sign represents a particular concept or association of ideas. Above, a Nsibidi writer portrays the joys and problems of four married couples. From left to right, This husband and wite love each other dearly and embrace each other with joy (outstretched arms). The yare rich for they have three cushions and a table on either side of them. The second couple have quarrelled; they have turned their backs on each other and are separated by a cushion. The third couple belong to the Egbo tribe whose emblem is a feather. The fourth couple are separated by a river (note the canoes tied up at each bank). The crosses show, however, that they have been able to exchange messages.

Unesco, 1976.	Alphabet		Computer
[	Hieroglyphic	Cursive	transcription
	25	4	L
	B	3	М
	<b>~</b>	B	N
	<b>E</b>	1	P
	Δ	13	Q
I	.0, 0	w	R
	المالما	3	Z
Ī	3	3	T

The Meroitic language was spoken in the ancient The Meroitic language was spoken in the ancient Kingdom of Meroe (see article page 55) from about 200 BC to the 4th century AD. Surviving only in inscriptions, Meroitic was written from right to left in an alphabet derived from Egyptian hieroglyphics and in a cursive form. Although a few Meroitic words and some elements of the grammar are known, it remains largely undeciphered. Attempts are now being made to unravel the mystery of the Meroitic language with the sid of a computer. language with the aid of a computer.



Extinct as a spoken language, **Ge'ez** is a Semitic language of the same group as Amharic, the official language of Ethiopia. Unlike other Semitic languages it is written from left to right. Although Ge'ez ceased to be spoken sometime between 900 and 1 200 AD, it continues as a literary and liturgical language. Above, 16th century portrait on wood of Saint George on which his name is inscribed in Ge'ez



Vai	A Oberi Okaime
√ Nende  → Loma  ← Kpelle	H Manding
✓ Loma	/// Wolof
H° Kpelle	A Bete
AM Bassa	

Bamun writing (above left) was invented in 1895 by Sultan Njoya of Foumban (Cameroon). The first syllabary consisted of over 1,000 signs, but successive simplifications have reduced it to 70 signs. Above right, the sound "ka" as represented in nine indigenous West African languages.



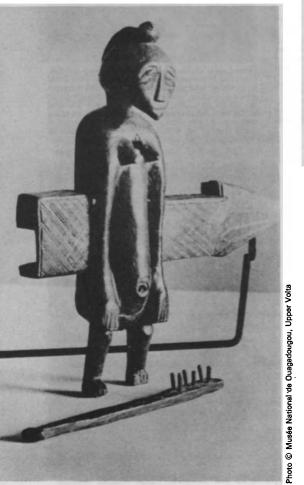
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Furthermore, an oral account taken out of its context is like a fish out of water: it dies. Taken in isolation, oral tradition resembles African masks wrested from the communion of the faithful and exhibited to the curiosity of the uninitiated. It loses its significance and life. Yet it is through that life, because it is always being taken over by fresh witnesses charged with transmitting it, that oral tradition adapts itself to the expectations of new audiences; and this adaptation relates mainly to the presentation, though it does not always leave the content intact.

Even the content of the message is often hermetic or esoteric. For the African, speech is a weighty matter—an ambiguous force which can make and unmake, which can be the bearer of evil. That is why the message is not articulated openly and directly, but wrapped up in fable, allusion, hint, proverbs that are hard to understand for the ordinary man but clear for those who possess the antennae of wisdom.

The hermeticism of this half-speech shows at once the inestimable value of oral tradition, and its limits: it is almost impossible to transfer all its richness from one language to another, especially when that other is structurally and sociologically very remote. Tradition does not stand up well to translation. When uprooted it loses its vigour and authenticity, for language is "the home of being". And many errors ascribed to tradition itself are due to incompetent or unscrupulous interpreters.

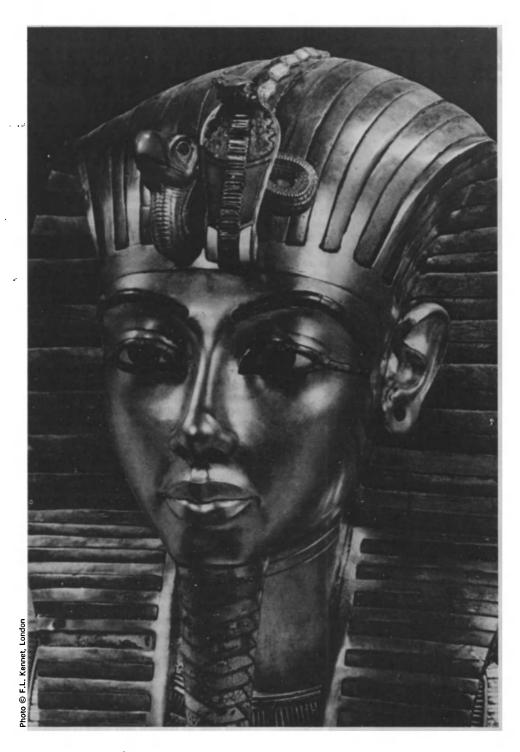
The number of different versions transmitted by rival groups—for example, by the various griots-clients of each noble protector (horon, dyatigui)—far from





Wooden mask (above) of the Ivory Coast's Baulé people represents a male divinity. The disc-shaped headdress and ornamental scarifications on forehead and temples represent rays of light projected by the gods, while the zigzag line around the face evokes rain, the source of life. The plaited beard is both a symbol of the life-force and an emblem of power. The beard resembles that on the golden mask which covered the mummified face of the boy-pharaoh Tutankhamen (above right). There is also a resonance between the striations of the Baulé headdress and the flowing bands of Tutankhamen's headgear, with its royal insignia of vulture and uraeus (the sacred asp), symbols of life and death. Perhaps such points of resemblance explain why the faces have an identical expression of absolute sovereignty (see also central colour pages and photo p. 26).

Door-lock carved in the form of a woman by a sculptor of the Samo people of Upper Volta. In black Africa artistic skills have always been lavished on the simplest household objects as well as on those used in ritual or religious ceremonies.



being a handicap, is on the contrary only a further guarantee for critical history. When accounts agree, as in the case of the Bambara and Fula griots, who belonged to opposing camps, the authenticity of the evidence is reinforced.

This rigid, formal and institutionalized oral tradition usually has its structure reinforced and supported by court music, which unites with it and measures it out in didactic and artistic sections. Some of the instruments used are so old that they would repay an archaeological investigation in themselves. These instruments, the vehicles of spoken history, are sacred, the object of veneration. In effect they are part of the artist, and their importance in communicating the message is all the greater because music is directly intelligible; the instrument becomes the artist's voice, and he does not need to utter a word.

In linguistics African history has not an

auxiliary science but an independent discipline which nevertheless leads history right to the heart of its own subject. True, much still remains to be done in this complex field—and what needs doing first is to define scientifically the languages concerned.

The descriptive approach must not be sacrificed to a comparative and synthetic one which aims at being typological and genetic. It is only through minute and laborious analysis of the facts of language, in the living experience of the speakers of a given community, that one can extrapolate backwards, an operation often made difficult by a lack of historical depth in people's knowledge of the languages concerned.

Linguistic studies show that the routes and paths of migration, and the diffusion of both material and spiritual culture, are marked out by the diffusion of related words. Hence the importance of diachronic linguistic analysis and glotto-chronology to the historian who wishes to understand the meaning and dynamics of Africa's evolution.

At any rate, linguistics, which has already done African history good service, should discard from the outset the disparaging ethnocentric attitude which characterized the African linguistics according to which the languages of the Indo-European family are at the summit of evolution, and the languages of the blacks are at the very bottom of the ladder, though it used to be thought that they were interesting in that they revealed a state near to the original state of language, when languages were supposed to be without grammar, speech just a series of monosyllables, and vocabulary restricted to an elementary inventory.

The same remark applies a fortiori to anthropology and ethnology. Ethnological discourse has by the force of circumstance а discourse with explicitly discriminatory premises, and conclusions implicitly political, with, between the two, "scientific" exercise which was necessarily ambiguous. Its main presupposition was often linear evolution, with Europe, pioneer of civilization, in the van of human advance, and at the rear the primitive "tribes" of Oceania, Amazonia and Africa. It asked the question: what on earth was it like to be an Indian, a black, a Papuan, an Arab?

Other people, whether backward, barbarous, savage to a greater or lesser degree, are always different, and for this reason objects of interest to the scientist or of greed to the trader. The ethnologist was thus delegated to be the "Minister of European Curiosity" vis-à-vis "the natives". The ethnological outlook, strong on nakedness, misery and folklore, was often sadistic, lubricious and at best paternalistic. Ethnological essays and reports usually sought to justify the status quo and contributed to the "development of underdevelopment".

Thus the whole of Africa was presented in images which Africans themselves might regard as strange—just as if, at the beginning of this century, Europe was personified by the housing conditions, table manners or technical level of certain rural communities.

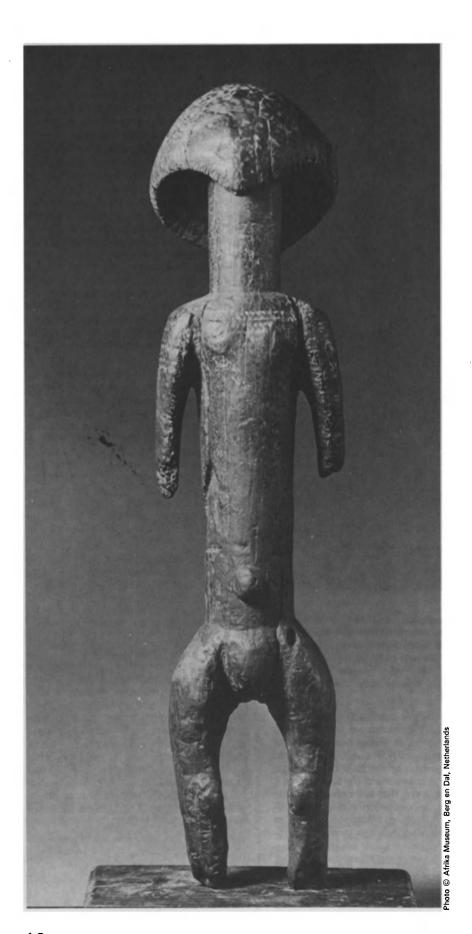
Lastly, by an implacable dialectic, the very object or "other" of ethnology gradually disappeared under the influence of colonialism. The primitive natives who lived by hunting and gathering, if not by cannibalism, were transformed into subproletariats of peripheral centres in a world system of production which has its pole of attraction in the northern hemisphere. That is why those who had been cast in the role of objects, in this case the Africans, decided to initiate an independent mode of discourse of their own, as subjects of history.

All that is necessary is to admit that while



**CONTINUED PAGE 70** 

## Africa's dialogue



AN is an historical animal, and African man is no exception. Just as everywhere else all over the world, he created his own history and his own idea of it. Yet at first glance, and even after reading many ethnological studies, one gets the impression that the Africans were submerged, almost drowned, in mythical time, a vast ocean without shores and without landmarks, while the other peoples of the world advanced down the avenue of History, a great highway marked out with the milestones of progress.

And it is true that myth, the imaginary representation of the past, does often dominate African conceptions of the development of the lives of nations. So much so, that the choice and significance of real events sometimes had to obey a mythical model predetermining even the most prosaic actions of ruler or people. Myth, in the guise of immemorial customs, thus governed, as it also justified, history. From this context emerge two striking characteristics of African historical thought: its timelessness and its essentially social aspect.

In this situation, time is not duration as it affects the fate of the individual. It is the rhythm of the collective breathing of the social group. It is not a river flowing in one direction from a known source to a known outlet. Traditional African time includes and incorporates eternity in both directions. Bygone generations are not lost to the present. In their own way they remain contemporary, and as influential as they were during their lifetime, if not more so.

these circumstances causality operates in a forward direction, of course, from past to present and from present to future, not only through the influence of bygone facts and events, but through a direct intervention which can operate in any direction. When Kanku Musa, emperor of Mali (early 14th century), sent an ambassador to the king of Yatenga asking him to be converted to Islam, the Mossi ruler answered that he would have to consult his ancestors before taking such a decision. This shows the past in direct connexion with the present through religion, ancestors acting as special and direct agents in matters occurring centuries after their death. Similarly, at many royal courts officials responsible for the interpretation

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### with time

### by Boubou Hama and Joseph Ki-Zerbo

of dreams had considerable influence on political action, and might almost be described as ministers of the future.

In this kind of suspended time, the present may even act on what is regarded as the past but in fact remains contemporary. The blood of sacrifices offered up today can help the ancestors of yesteryear. Right up to our own times, Africans have exhorted one another not to neglect offerings made in the name of their ancestors, for those who receive nothing are the poor in the parallel world of the dead, and have to live on the charity of those in whose name generous sacrifices are made.

In a more fundamental way still, some cosmogonies attribute to some mythical time advances which were made in historical time; as the latter is not perceived as such by each individual, it is replaced by the historical group memory. An example of this is the Gikuyu legend about the first making of iron. Mogaï (God) had divided up the animals between men and women. But the women were so cruel that their animals ran away and became wild. The men interceded with Mogaï on behalf of their wives, saying, "We wish to sacrifice a lamb in thy honour, but we do not want to do it with a wooden knife lest we run the same risk as our wives." Mogaï congratulated them on their wisdom and, so that they could have more efficient weapons, told them how to smelt iron.

This mythical and collective conception of time made it an attribute of sovereignty. King Shilluk was the mortal repository of immortal power, for he combined in his own person both mythical time (he was the incarnation of the founding hero) and social time, regarded as the source of the group's vitality.

Indeed, one has to go as far as the general conception of the world in order to understand the Africans' vision of time and its real meaning for them. We then see that in traditional thought, time in the ordinary sense is only one aspect of another time ex-

perienced by other dimensions of the individual. When a man lies down at night on his mat or his bed, to sleep, that is the moment his double chooses to set out and retrace the path the man himself followed during the day, to frequent the places he was in, and to repeat the work and actions he performed consciously during his daily life. It is in the course of these peregrinations that the double encounters the forces of good and evil, both benevolent spirits and the sorcerers who eat up doubles or cerkos as they are called in the Songhay and Zarma languages.

It is in his double that a man's personality resides. When the Songhays say of someone that his bya (double) is heavy or light, they mean that his personality is strong or weak, and the purpose of amulets is to protect and strengthen the double. The ideal is to succeed in merging into one's double so as to form a single entity, which thus acquires superhuman wisdom and strength. Only the greatest initiate or master (korté-konynii, zimaa) can attain this state, in which time, like space, ceases to be an obstacle.

Social time, History, experienced in this way by a group, amasses power, and this power is usually symbolized and given concrete form by some object which is transmitted by the patriarch, the chief of the tribe, or the king, to his successor. It may be a golden ball kept in a tobal or wardrum, together with parts of the body of a lion or elephant or panther. Or it may be kept in a box or chest, like the regalia (tibo) of the Mossi king. Among the Songhay and Zarma, the object is a rod of iron pointed at one end. Among the Sorko in the old empire of Gao it was an idol in the shape of a big fish with a ring in its mouth. Among those who worked in iron it was a mythical forge which sometimes grew redhot at night to express its anger.

The transfer of such objects constituted the legal transmission of power. The most striking example is that of the Sonianké,

Photo © Henri and Hélène Kramer Archives, New York

The cosmology of many African peoples includes a god of creation, invoked through secondary deities or mythical ancestors which mediate between man and the invisible world. Ancestor figures are depicted in African statuary in poses which correspond to their role or refer to an event in popular mythology. This wooden statuette (13 cm high) of the Dogon people (Mali) probably represents Dyongu Seru, a mythical ancestor, hiding his face after violating a series of taboos. The statuette is a reminder of the forbidden acts committed by Ogo, the first living creature created by Amma (God). Opposite page, wooden figure (48 cm high) of a female ancestor of the Songo people of Angola.

descendants of Sonni Ali, who have chains of gold, silver or copper, each link representing an ancestor and the whole chain representing the dynastic line back to Sonni the Great. The chains are produced from the mouths of the celebrants in the course of magical ceremonies, much to the amazement of the onlookers, and when a Sonianké patriarch dies, he disgorges the chain for the last time, and it is swallowed from the other end by his chosen successor. He dies as soon as he has passed the chain over to whoever is to continue the line—a concrete will and testament which well illustrates the strength of the African conception of mythical and social time.

Some people have thought that such a view of the historical process was static and sterile, placing the perfect archetype far back in the past, in the origins of time, and thus seeming to set before succeeding generations an ideal which consisted in stereotyped repetition of the doings and exploits of their ancestors. Myth would then be the motive force of a history which was immobile. But as we shall see, African historical thought cannot be confined to this one approach.

It must also be recognized that a mythical approach lies at the origins of every nation's history. Every history starts off as religious history. But can African time be regarded as a historical time? Some people have said it cannot, arguing that the African only sees the world as a stereotyped reproduction of what has gone before. This would make him a stubborn disciple of the past, justifying all his actions by saying "That was how our ancestors did it".

The social nature of the African conception of history itself lends it a historical dimension, for history is the developing life of a group. From this point of view, we may say that, for the African, time is dynamic. Man is not a prisoner marking time, or condemned to do the same things over and over again, either in the traditional view or according to the belief of Islam.

Of course, in the absence of the idea of a mathematical and physical time made up of homogeneous units added together and measured by special instruments, time remains something pragmatic and social. But that does not mean, in this context, something neutral and indifferent. In the black African overall conception of the world, time is the area where man can always carry on the struggle against the depletion and for the increase of his vital energy. That is the main feature of African animism, in which time is an enclosed space, a market where the forces that inhabit the world contend or conclude bargains. The ideal of both the individual and the group is to defend themselves against any diminution, to improve their health and strength and the size of their fields and flocks, to increase the number of their children and wives and villages. And this conception is undoubtedly a dynamic one.

Power in Black Africa is often expressed by a word that means force or strength. But it is not just a matter of crude material force. It is a question of the vital energy which contains various polyvalent forces ranging from physical integrity through chance to moral integrity. Ethical value is regarded as a *sine qua non* of the beneficent exercise of power. Popular wisdom bears witness to this idea in many tales which depict despotic chiefs who are finally punished, thus literally drawing the moral of history.

This vision of the world in which ethical values and requirements form an integral part of the ordering of the universe itself may appear mythical. But it exerted an objective influence on people's behaviour, especially on that of many African political leaders. In this sense one may say that while history is often a justification of the past it is also an exhortation for the future.

In pre-state systems moral authority capable of guaranteeing the conduct of public affairs or of chastising those who conducted them was vested in special, sometimes secret groups, such as the *lo* of the Senufo or the *poro* of Upper Guinea. These groups often constituted parallel powers which could be appealed to outside the established system. They sometimes ended by clandestinely usurping official power. The people then saw them as occult centres of decision depriving the nation of control over its own history.

In the same type of society, the organization into age-groups is of prime importance for establishing the people's history. This structure, in so far as it conforms to aknown periodicity, makes it possible to trace history back to the eighteenth century. But at the same time it played a specific rôle in the life of the societies themselves. Even in rural communities which knew no major technical innovation and were therefore fairly stable, conflict between the generations was not unknown.

So it had to be controlled, and relations between the generations so structured that the conflict would not degenerate into violent confrontation and sudden change. The generation engaged in action sent one of its members as a delegate to the next generation, the one that would immediately succeed it. The rôle of the delegate was not to stifle the impatience of the younger group, but to channel their reckless energy so that it was not harmful to the community as a whole and did not impair the

younger group's ability to take over public responsibility when the time came. The Alladians of Moosou (near Abidjan), for example, are still organized into five generations, each reigning for nine years, even for modern activities such as building, celebrating a diploma or promotion.

Africans are vividly aware of time past, but time past, though it greatly influences time present, does not do away with its dynamism, as is attested by many proverbs. The conception of time as one sees it in African societies is certainly not inherent in or consubstantial with some essentially African nature. It is the mark of a certain stage in economic and social development. Proof of this is the striking differences one sees even today between the timeis-money of African city-dwellers and time as it is understood by their contemporaries and brothers in the bush. The essential element in historical time is the idea of a development starting from origins which are to be sought and examined.

Even beneath the crust of tales and legends and the dross of myths, there is an attempt to rationalize social development. Sometimes even more positive efforts have been made to try to calculate historical time. This may be linked with space, as when a period of short duration is referred to as a step. It can also be linked to biology, in references to a breath, in or out. But it is often linked to factors not connected with the individual, and the references then are to cosmic, climatic or social phenomena, especially when these are recurrent. In the savannah of the Sudan, the followers of traditional African religions usually count age by rainy seasons. To indicate that a man is old, one says how many rainy seasons he has lived through, or, more elliptically, that "he has drunk much water".

More developed systems of computation have sometimes been attempted. It has been shown that the Akan (Fanti, Ashanti...) evolved a complex calendar system, with a week of seven days, a month of six weeks and a year of nine months, which was regularly re-aligned on the sun by methods that are not yet fully understood. But the decisive step will come only with the spread of writing, though the existence of a literate class is no guarantee that the whole people will

### Time and the river

Striking aerial photo of the Niger, right, shows jutting sandbanks narrowing the river's course. In the 16th century a great State, the Songhay empire, flourished on the middle reaches of the Niger. It succeeded in unifying much of the western Sudan and became the centre of a brilliant civilization. The Songhay and other peoples which constituted the empire were traders and tarmers but also included fishing peoples of the Niger, notably the Sorko. The trading cities became Muslim but the great mass of the Songhay and the peoples of the empire lived outside the towns and remained attached to their ancestral beliefs, honouring magical counterparts or "doubles" known as holés and nature spirits whose favours they sought. The Sorko, who practised animism and invoked the spirits of the air, the soil and the river, have a rich mythology featuring such ancestral figures as the gluttonous giant Faran-Maka, who devoured a whole hippopotamus at each meal and swallowed ponds of water at a single gulp. The female patron of the Sorko is Haraké, a beautiful girl with light-coloured hair who is supposed to emerge from the river's depths at nightfall and sit on the rocks to await her lover. When he arrives she leads him beneath the Niger waters to a fabulous world of glittering cities where her marriage is consummated to the sound of tom-toms and stringed instruments.



become aware of possessing a common history. But at least it makes it possible to establish certain points of reference around which that history shaped itself.

The introduction of monotheistic religions rooted in another history has served to provide the mental image of the collective past with another, parallel set of models which can often be glimpsed in the background in various stories. For example, the dynasties are often linked arbitrarily to the sources of Islam, whose values and ideals the black prophets were to make use of to change the course of events in their own countries.

But the greatest upheaval in time comes with the introduction of the world of profit, and the amassing of money. Then acculturation changes the sense of individual and collective time into the mental schemas operative in the countries which influence Africans economically and culturally.

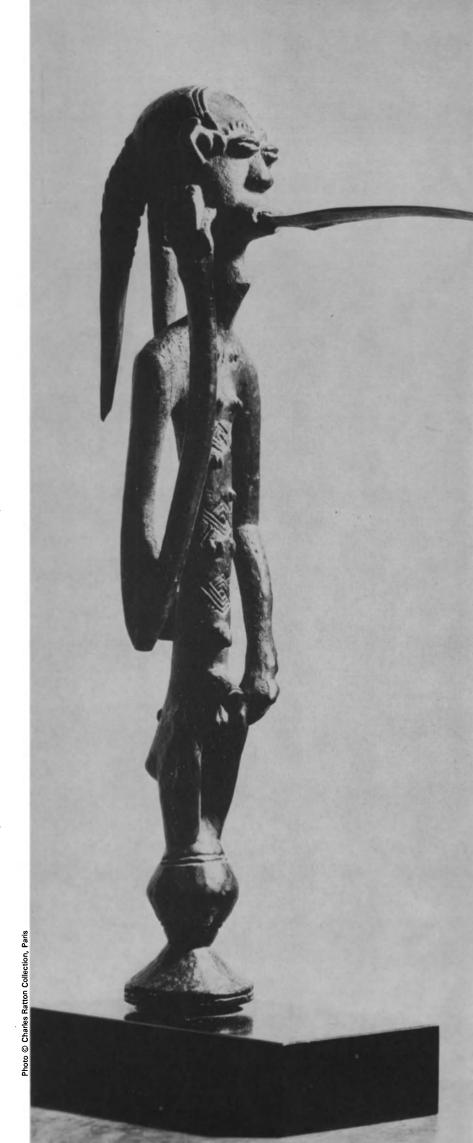
The Africans then see that it is money that makes History. African man, once so close to his history that he seemed to be creating it himself, in microsocieties, is then confronted both with the risk of a colossal alienation and with the chance of being a co-author of world progress.

### ■ Boubou Hama and Joseph Ki-Zerbo



The importance of women in African history as mothers, wives, daughters and sisters of kings is matched only by their prominence in African mythology. Photo shows a wooden statue (57 cm high) of the mother-ancestor of the Kongo people who live around the lower course of the Congo river and whose religion centres on veneration of their ancestors. The sculptor has succeeded in creating an expressive image by a combination of realism and stylization. Note how the size of the head is emphasized in relation to that of the rest of the body.

Photo © A.C.L. Brussels, Royal Museum of Central Africa, Tervuren, Belgium



# Tongues that span the centuries

## The faithful guardians of Africa's oral tradition

by Amadou Hampâté Bâ

HEN we speak of African tradition or history we mean oral tradition; and no attempt at penetrating the history and spirit of the African peoples is valid unless it relies on that heritage of knowledge of every kind patiently transmitted from mouth to ear, from master to disciple, down through the ages.

This heritage is not yet lost, but lies in the memory of the last generation of its great repositories, of whom it can be said: "they are the living memory of Africa."

For some scholars, the whole problem is whether we can place the same trust in the oral as in the written when it comes to evidence of things past. In my view, that is not the right way to put the problem. Written or oral, evidence is in the end only human evidence and it is worth what the man is worth.

What is involved, therefore, behind the evidence itself, is the actual value of the man who is giving the evidence, the value of the chain of transmission he is part of, the trustworthiness of the individual and collective memory, and the price attached to the truth in a given society. In short: the bond between man and the spoken word.

Now it is in oral societies that the function of the memory is most highly developed and, furthermore, the bond between man and the word is strongest. Where writing does not exist, man is bound to the word he utters. He is committed by it. He is his word and his word bears witness to what he is. The very cohesion of society depends on the value of and respect for the spoken word.

In African traditions—at least the ones I know, which pertain to the whole savannah zone south of the Sahara—the spoken word had, beyond its fundamental moral value, a sacred character associated with its divine origin and with the occult forces deposited in it. Superlative agent in magic, grand vector of "aetheric" forces, it was not to be treated lightly.

Many religious, magical or social factors, then, combined to preserve the faithfulness of oral transmission.

If a true African traditionalist were asked, "What is oral tradi-

POWER OF THE SPOKEN WORD is symbolized by this ceremonial carved axe of the Lelé people of Zaïre. It would be virtually impossible to overemphasize the importance of the oral tradition in Africa where, it has been said, whenever an old man dies a whole library disappears with him. In societies that have opted for oral rather than written records, it is by word of mouth that the guardians of the collective memory hand down from one generation to the next stories and legends, society's moral values and religion as well as detailed accounts of actual events of yesterday or today. Any authentic history of Africa must take the oral tradition as its raw material and approach it with the same objective rigour as other forms of historical evidence.

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tion?" he would probably be nonplussed. He might perhaps reply, after a lengthy silence: "It is total knowledge", and say no more.

What does the term oral tradition cover, then? What realities does it convey, what knowledge does it transmit, what science does it teach, and who are its transmitters?

Contrary to what some may think, African oral tradition is not limited to stories and legends or even to mythological and historical tales, and the man whom the French call a "griot"—a wandering minstrel/poet—is far from being its one and only qualified guardian and transmitter.

Oral tradition is the great school of life, all aspects of which are covered and affected by it. It may seem chaos to those who do not penetrate its secret; it may baffle the Cartesian mind accustomed to dividing everything up into clear-cut categories. In oral tradition, in fact, spiritual and material are not dissociated.

The oral tradition is able to put itself within men's reach, speak to them according to their understanding, unveil itself in accordance with their aptitudes. It is at once religion, knowledge, natural science, apprenticeship in a craft, history, entertainment, recreation, since any point of detail can always take us all the way back to primordial Unity.

Based on initiation and experience, oral tradition engages man in his total being, and therefore we can say it has served to create a particular type of man, to sculpt the African soul.

Linked with the everyday behaviour of man and community, African culture is not, then, something abstract that can be isolated from life. It involves a particular vision of the world, or rather a particular *presence* in the world—a world conceived of as a whole in which all things are linked together and interact.

African tradition conceives of speech as a gift of God. It is at once divine in the downward direction and sacred as it rises upwards. Let us look at the traditions of the savannah to the south of the Sahara (what was formerly called the Bafour and constituted the savannah zones of former French West Africa).

The Bambara tradition of the Komo (one of the great initiation schools of the Mande group of peoples of Mali) teaches that the Word, *Kuma*, is a fundamental force emanating from the Supreme Being himself—*Maa Ngala*, creator of all things. It is the instrument of creation: "That which *Maa Ngala* says, is!" proclaims the cantor, the singing priest of the god Komo.

The myth of the creation of the universe and of man which the Komo Master of Initiates (who is always a smith) teaches circumcised youths reveals that when *Maa Ngala* felt a yearning for an interlocutor he created the First Man: *Maa*.

The story of Genesis used to be taught during the sixty-threeday retreat imposed on the circumcised in their twenty-first year, and then twenty-one years were spent in deeper and deeper study of it.

On the edge of the sacred wood, where Komo lives, the first of the circumcised group would chant to a rhythmic beat:

Maa Ngala! Maa Ngala! Who is Maa Ngala? Where is Maa Ngala?

The Komo cantor would respond:

Maa Ngala is infinite Force None can place him in time, Nor yet in space. He is Dombali (Unknowable) Dambali (Uncreated-Infinite).

Then, after the initiation, the recital of the primordial genesis would begin:

There was nothing except a Being.
That Being was a living Emptiness,
Brooding potentially over contingent existences.
Infinite Time was the abode of that One Being.
The One Being gave himself the name Maa Ngala.
Maa Ngala wished to be known.
So he created Fan,
A wondrous Egg with nine divisions,
And into it he introduced the nine fundamental
States of existence.

"When this primordial Egg came to hatch, it gave birth to twenty marvellous beings that made up the whole of the universe, the sum total of existing forces and possible knowledge.

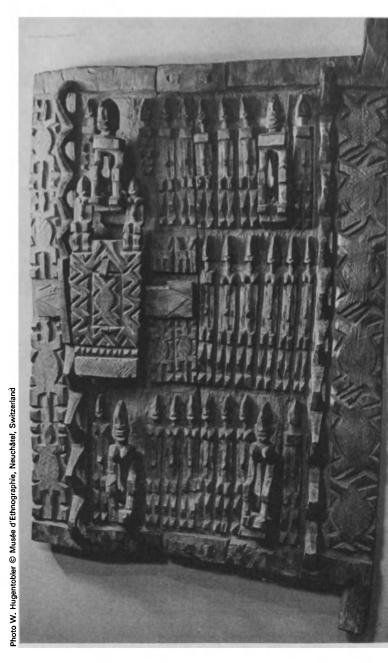
"But alas! None of those first twenty creatures proved fit to become the interlocutor (Kuma-nyon) that Maa Ngala had craved.

"So he took a bit of each of those twenty existing creatures and mixed them; and then, blowing a spark of his own fiery breath into the mixture, he created a new Being, Man, to whom he gave a part of his own name: *Maa*. And so this new being, through his name and through the divine spark introduced into him, contained something of *Maa Ngala* himself."

Synthesis of all that exists, pre-eminent receptacle of the supreme Force and confluence of all existing forces, *Maa*, Man, received as his legacy a part of the divine creative power, the gift of Mind and the Word.

Maa Ngala taught Maa, his interlocutor, the laws according to which all the elements of the cosmos were formed and continue to exist. He installed him as guardian of his Universe and charged him with watching over the maintenance of universal Harmony. That is why it weighs heavy, being Maa.

Initiated by his creator, Maa later passed all that he had learned



A wealth of cosmological meaning was carved into this granary door by a sculptor of the Dogon people of Mali. The rows of figures represent men and women from all over the world, sprung from the remotest ancestors. The lock takes the form of an altar to the ancestors, while chevrons at each side of the central panel symbolize the flow of water and of speech. The two door-posts are decorated with turtles. In Dogon lore a turtle replaces the patriarch of each family during his absence.

"The smith forges the Word, The weaver weaves it, The leatherworker curries it smooth", goes an African saving that expresses the close relationship between traditions of craftsmanship and the power of the word. According to tradition, craftsmen accompany their work with ritual chanting, while their gestures retrace the mystery of the creation. The weavers know the secrets of their looms: of the eight main pieces of wood that constitute the frame, the four vertical struts symbolize the elements (earth, water, air and fire) and the four cardinal compass-points, while four cross-pieces symbolize the four collateral points. The weaver, placed in the middle, represents the first man, Maa, at the centre of these eight dimensions of space. Before setting to work he must touch each piece of the loom, uttering words or litanies which correspond to the forces of life embodied in them. The movement of his feet to and fro on the pedal recalls the original rhythm of the creative word. Photo shows a weaver of the Dogon people (Mali).

on to his descendants; and that was the beginning of the great chain of initiatory oral transmission of which the order of Komo (unlike the orders of Nama, Kore, and so on in Mali) claims to be a continuator.

In the image of *Maa Ngala's* speech, of which it is an echo, human speech sets latent forces into motion. They are activated and aroused by speech—just as a man gets up, or turns, at the sound of his name.

Speech may create peace, as it may destroy it. It is like fire. One ill-advised word may start a war just as one blazing twig may touch off a great conflagration.

Tradition, then, confers on *Kuma*, the Word, not only creative power but a double function of saving and destroying. That is why speech, speech above all, is the great active agent in African magic.

It must be borne in mind that in a general way all African traditions postulate a *religious vision of the world*. The visible universe is thought of and felt as the sign, the concretization or the outer shell of an invisible, living universe, consisting of forces in perpetual motion.

Within this vast cosmic unity everything is connected, everything is bound solidly together; and man's behaviour both as regards himself and as regards the world around him (the mineral, vegetable, animal world and human society) is subject to a very precise ritual regulation, which may vary in form with the various ethnic groups and regions.

Violation of the sacred laws was supposed to cause an upset in the balance of forces which would take expression in disturbances of different kinds. Therefore magic action, that is, manipulation of forces, generally aimed at restoring the troubled balance, reestablishing the harmony of which, as we have seen, Man had been set up as guardian by his Creator.

The word "magic" is always taken in a bad sense in Europe whereas in Africa it simply means management of forces, a thing neutral in itself which may prove helpful or harmful according to the direction it is given. It is said: "Neither magic nor fortune is bad in itself. It is use of them that makes them good or bad."

Good magic, the magic of initiates and "master knowers", aims at purifying men, animals and objects so as to put forces back into order. This is where the force of speech is decisive.

But for spoken words to produce their full effect they must be chanted rhythmically, because movement needs rhythm, which is itself based on the secret of numbers. Speech must reproduce the to-and-fro that is the essence of rhythm.

In ritual songs and incantatory formulas, therefore, speech is the materialization of cadence. And if it is considered as having the power to act on spirits, that is because its harmony creates movements, movements which generate forces, those forces then acting on spirits which themselves are powers for action.

In African tradition, speech, deriving its creative and operative power from the sacred, is in direct relation with the maintenance or the rupture of harmony in man and the world about him.

That is why most traditional oral societies consider lying as moral leprosy. In traditional Africa the man who breaks his word kills his civil, religious and occult person. He cuts himself off from



himself and from society. It is better both for himself and for his family that he should die rather than go on living.

The cantor of the Komo Dibi at Koulikoro, in Mali, sang in one of his ritual poems:

Speech is divinely accurate, One must be accurate with it. The tongue that falsifies the word Taints the blood of him that lies.

Here blood symbolizes the inner vital force whose harmony is disturbed by the lie. "Who spoils his word spoils himself", says the adage. When a man thinks one thing and says another he cuts himself off from himself. He breaks the sacred unity, reflection of cosmic unity, creating discord in and around him.

Now we can better understand the magico-religious and social context of respect for the word in societies with an oral tradition, especially when it comes to transmitting words inherited from ancestors or elders. The thing traditional Africa holds dearest is its ancestral heritage. Its religious attachment to all that has been passed down comes out in phrases like "I have it from my Master", "I have it from my father", "I sucked it at my mother's breast".

The great repositories of this oral heritage are the persons who are called "traditionalists". They, the living memory of Africa, give the best evidence as to Africa. Who are these masters?

In Bambara, they are called *Domas* or *somas*, the "knowers", or *donikebas*, "makers of knowledge." In Fulani, they are called, according to region, *silatiquis*, *gandos*, or *tchioriknes*, words which have this same sense of "knower".

They may be Master Initiates (and Masters of Initiates) in one particular traditional branch (initiations of the smith, the weaver, the hunter, the fisherman, etc.) or may possess complete knowledge of the tradition in all its aspects. Thus there are *domas* who know the blacksmith's science, the shepherd's, the weaver's, and there are also great initiation schools in the savannah—in Mali, for instance, the Komo, the Kore, the Nama, the Do, the Diarra Wara, the Nya, the Nyawarole, and so on.

But let us make no mistake. African tradition does not cut life into slices and the knower is rarely a specialist. As a rule he is a generalist. For example, one and the same old man will be learned not only in plant science (the good or bad properties of every plant) but in earth sciences (the agricultural or medicinal properties of the different kinds of soil), and water sciences, astronomy, cosmogony, psychology, and so on. What is involved is a *science of life* in which knowledge can always be turned to practical use.

Keeper of the secrets of cosmic genesis and the sciences of life, the traditionalist, usually gifted with a prodigious memory, is often also the archivist of past events transmitted by tradition or of contemporary events.

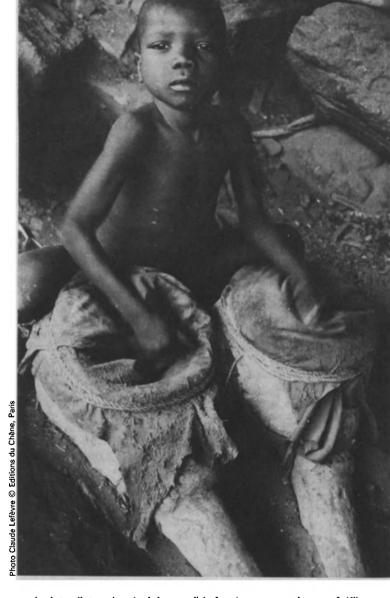
Therefore a history intended to be essentially African must necessarily depend on the irreplaceable testimony of qualified Africans. "You cannot dress a person's hair when he is away", says the adage.

Generally speaking, the traditionalists were brushed aside if not actually pursued by the colonial power, which needless to say sought to uproot local tradition in order to implant its own ideas for, as they say, "Neither in a planted field nor in a fallow does one sow". For that reason initiation usually took refuge in the bush and quit the large towns, which were called *tubabu-dugus* or towns of the whites—meaning the colonizers.

Yet in the countries of the African savannah that made up the Bafour, and doubtless elsewhere too, there still exist knowers who continue to transmit the sacred deposit to those who consent to listen and learn and show themselves worthy of receiving instruction by their patience and their discretion, basic rules required by the gods.

In ten or fifteen years all the last great *domas*, all the last old men who have inherited the various branches of the tradition, will probably have vanished. If we do not make haste to gather their evidence and their teaching, the whole cultural and spiritual patrimony of a people will go down into oblivion with them and a rootless younger generation be abandoned to its own devices.

More than all other men the traditionalist-domas, great and small, are bound to respect the truth. For them lying is not merely a moral blemish but a ritual ban, violation of which would lay them



under interdict and make it impossible for them to continue to fulfil their function.

This ritual prohibition exists, to the best of my knowledge in all the traditions of the African savannah.

More than all others, the *domas* are bound by this obligation, for as Master Initiates they are the great *holders of the Word*, the principal active agency of human life and of spirits.

A Dogon Master of the Knife from the Pignari country (Bandiagara district) whom I knew in my youth was once led to lie in order to save the life of a hunted woman whom he had hidden in his house. After that incident he voluntarily resigned his office, deeming that he no longer fulfilled the ritual conditions which would make his tenure valid.

If the traditionalist or knower is so respected in Africa it is because, to begin with, he respects himself. Inwardly in good order, since he must never lie, he is a well-regulated man, master of the forces that inhabit him. Round about him things fall into line and disturbances subside.

Given this way of looking at things, the importance traditional African education attaches to self-control can be better



As the "Master of Fire" and possessor of the secret of transmutations, the smith plays a major role in African oral culture. According to the tradition of the Bambara people of Mali, the smith's skills go back to Maa, the first man, to whom the mysteries of the forge were revealed by his creator, Maa Ngala. In the language of the Bambara the word Fan, meaning forge, is the same as that denoting the Egg from which the universe emerged at the moment of creation, for this "Primordial Egg" was the first sacred forge. Far left, a young apprentice of the Dogon people (Mali) keeps the smithy fire alive by working the bellows. The forge, like the smelting furnace and other work-places, provided the ancestors with an opportunity to transmit to the young, often through play, the group's cultural values. Left, finely carved pair of bellows from Gabon surmounted by a representation of a human head. Iron staff of office for a priest, bottom left, was produced at Ife (Nigeria). It is capped by two birds, one above the other.



understood. To speak sparingly is the mark of a good education and the sign of nobility. Very early the young boy learns to master the expression of his emotions or his suffering, to contain the forces that are in him, in the image of the primordial *Maa* who contained within him, submissive and orderly, all the forces of the cosmos.

Of a respected knower or a man who is master of himself people will say: "He's a *Maa!*" (or in Fulani a *Naddo*): that is, a complete man.

We must not confuse the traditionalist-domas, who know how to teach by amusing and by putting themselves within their audience's reach, with minstrels, story-tellers and public entertainers, who are usually of the *dieli* and *woloso* castes. The *wolosos* (literally, ones born in the house) or house-captives were servants or servant families attached for generations to one household. Tradition allowed them complete freedom of gesture and speech as well as considerable material rights over their masters' possessions. For these, the discipline of truth does not exist; and as we shall see later tradition recognizes their right to travesty or embellish the facts, even grossly, so long as they contrive to divert or interest their public. "The *dieli*", people say, "is allowed to have two tongues."

By contrast, no African from a traditionalist background would dream of questioning the veracity of what a traditionalist-doma says, especially when it is a matter of passing on knowledge inherited from the chain of ancestors.

Before speaking, the *doma* out of deference addresses the souls of former men and asks them to come to his aid and save him from a slip of the tongue or a lapse of memory that would make him leave something out.

A traditionalist-doma who is not a smith by birth but knows sciences relating to the forge will say before talking of it: "I owe that to so-and-so, who owes it to so-and so, etc." He will pay

homage to the ancestor of the smiths, crouching in token of allegiance, with the tip of his elbow on the ground and his forearm raised. Always there is reference to the chain in which the *doma* himself is but one link.

In all branches of traditional knowledge the *chain of transmission* is of supreme importance. If there is no regular transmission there is no magic, only conversation or storytelling. Speech is then inoperative. Transmitted through the chain, it is supposed to convey, from the original transmission on, a force that makes it operative and sacramental.

This notion of respect for the chain or respect for transmission means that the non-acculturated African will generally tend to report a story in the very form in which he heard it, aided by the prodigious memory illiterate persons have. If contradicted, he will merely answer: "So-and so taught it to me like that!"—always naming his source.

Beyond the traditionalist-domas' personal integrity and their attachment to a chain of transmission, an additional guarantee of authenticity is provided by permanent control by the peers or elders who surround them, who keep a jealous guard on the authenticity of what they transmit and pick up their slightest error.

Traditional education, especially when it concerns knowledge associated with an initiation, is linked with experience and integrated into life. That is why the researcher, European or African, who wants to get close to African religious facts condemns himself to remaining on the outer edge of the subject unless he consents to live the initiation that corresponds to them and accept its rules, which presupposes at the very least a knowledge of the language. For there are things that are not to be explained but are experienced and lived.

The traditional artisanal crafts are great vectors of the oral tradition.

In traditional African society, human activities often had a sacred or occult character, particularly those activities that consist in acting on matter and transforming it, since everything is regarded as alive. Every artisanal function was linked with an esoteric knowledge transmitted from generation to generation and originating in an initial revelation.

Traditional craftsmen accompany their work with ritual chants or sacramental rhythmic words, and their very gestures are considered a language. In fact the gestures of each craft reproduce in a symbolism proper to each one the mystery of the primal creation, which, as I indicated earlier, was bound up with the power of the Word. It is said:

The smith forges the Word,

The weaver weaves it.

The leather-worker curries it smooth.

The smith must have knowledge covering a vast sector of life. Since he is reputed to be an occultist, his mastery of the secrets of fire and iron make him the only person entitled to perform circumcision; and, as we have seen, the grand Master of the Knife in the Komo initiation is always a smith.

The smelting smith, who is both extractor and smelter of metal is the one who is furthest advanced in knowledge. To all the skills of the founder he unites a perfect knowledge of the Sons of the womb of the Earth (mineralogy) and the secrets of plants and the bush. Indeed, he knows what kind of vegetation covers the earth where it contains a particular metal and he can detect a lode of gold merely by examining plants and pebbles.

The craft or the traditional function can be said to sculpt man's being. The whole difference between modern education and oral tradition lies there. What is learned at the Western school, useful as it may be, is not always lived; whereas the inherited knowledge of the oral tradition is embodied in the entire being. The instruments or tools of a craft give material form to the sacred words; the apprentice's contact with the craft obliges him to live the word with every gesture he makes.

That is why oral tradition taken as a whole is something more than the transmission of stories or of certain kinds of knowledge. It generates and forms a particular type of man. One can say that there is the smiths' civilization, the weavers' civilization, the shepherds', and so on.

If the occult esoteric sciences are the apanage of the Master of the Knife and the cantor of the gods, music on the other hand, as well as lyric poetry, tales which enliven popular recreation, and often history as well, are the province of the *dieli*, a sort of troubadour or minstrel who may wander about the country or may be attached to a family.

It has often been wrongly supposed that the *dielis* were the only possible traditionalists. Who are they?

They can be divided into three categories: the musicians; the ambassadors and courtiers; and the genealogists, historians or poets (or men who are all three in one), who are usually also storytellers and great travellers.

Tradition confers a special social status on *dielis*. Unlike the *horons* (nobles), they have the right to be shameless, and they enjoy a very great freedom of speech. They may act uninhibitedly, even impudently, and they sometimes joke about the gravest, holiest things without its mattering.

They are under no compulsion either to be discreet or to hold the truth in absolute respect. They can sometimes tell brazen lies without being held to account. "That's what the *dieli* says! It isn't the true truth, but we take it as it is." This maxim shows well enough how, without being gulled by them, tradition accepts the fabrications of the *dieli*—who, the maxim adds, has "a torn mouth".

Since African society is fundamentally based on dialogue between individuals and discussion between communities or ethnic groups, the *dielis* are the natural agents in these exchanges. Authorized to have "two tongues in their mouth", they can if need be unsay what they have already said without being held to strict account. This would be impossible for a noble, who is not allowed to go back on his word or change a decision overnight. A *dieli* will even shoulder responsibility for a fault he has not committed in order to remedy a situation or save face for the nobles.

Their Bambara name, *dieli*, means *blood*. And indeed like blood they circulate in the body of society, which is cured or falls ill according to whether they temper or exacerbate conflicts with their words and songs.

I should say at once, though, that all this is a matter of general characteristics only and that *dielis* are not all necessarily impudent or shameless. Far from it. Among them there are men who are called *dieli-faamas—dieli-*kings. These are in no way inferior to noblemen when it comes to courage, morality, virtues and wisdom; and they never abuse the rights they have been granted by custom.

The *dielis* took part in all the battles in history at the side of their masters, whose courage they inspired by recalling their high pedigree and the high exploits of their forefathers. For the African, the evocation of his family name has great power. Even today one greets him and gives him praise by repeating the name of his lineage.

The secret of the *dielis'* power and influence over the *horons* (nobles) resides in their knowledge of genealogy and family history. Some *dielis* have been real specialists in this. Such *dielis* seldom belong to a household, but travel throughout the country in quest of more and more extensive historical information.

It is easy to see how the genealogist *dielis*, specializing in family history and often endowed with prodigious memories, have quite naturally become as it were the archivists of African society and, occasionally, great historians. But let us keep in mind that they are not the only persons with such knowledge. The historian *dielis* can, admittedly, be called traditionalists; but with this reservation, that theirs is a purely historical branch of tradition and that tradition has many branches.

The fact of being born a *dieli* does not necessarily make a man a historian, though it gives him a certain inclination in that direction. Nor does it make him learned in traditional matters, a knower—far from it. Generally speaking the *dieli* caste is the one farthest removed from matters connected with initiation—those requiring silence, discretion and control of one's speech.

The opportunity to become knowers is not closed to them, however, any more than to anyone else. Just as a *doma-traditionalist* (the traditional knower in the true sense of the term) can be at the same time a great genealogist and historian, so a *dieli,* like any member of any social category, can become a traditionalist-*doma* if his aptitudes permit and if he has gone through the corresponding initiations (with the exception, though, of the Komo initiation, which is forbidden him).



Photo Naud © A.A.A. Photo, Paris

A griot, or musician-entertainer, chants one of his stories to the accompaniment of the kora, a traditional instrument of the Malinke people of West Africa. The griots are among the transmitters of the oral tradition which is the very fibre of African history. Above all else they are popular performers who take liberties with words which are strictly forbidden for the other custodians of the oral tradition, known as domas, who embody the solemnity of the spoken word.

The *dieli* who is also a *doma*-traditionalist constitutes an absolutely reliable source of information, for his being an initiate confers a high moral value on him and makes him subject to the prohibition against lying. He becomes another man. He is the "*dieli*king" whom people consult for his wisdom and his knowledge and who, albeit able to entertain, never abuses his customary rights.

Generally speaking, one does not become a *doma*-traditionalist by staying in one's village. The man who travels discovers and lives other initiations, notes the differences or similarities, broadens the scope of his understanding. Wherever he goes he takes part in meetings, hears historical tales, and lingers where he finds a transmitter of tradition who is skilled in initiation or in genealogy; in this way he comes into contact with the history and traditions of the countries he passes through.

One can say that the man who has become a *doma*-traditionalist has been a seeker and a questioner all his life and will never cease to be one.

The African of the savannah used to travel a great deal. The result was exchange and circulation of knowledge. That is why the collective historical memory in Africa is seldom limited to one territory. Rather it is linked with family lines or ethnic groups that have migrated across the continent.

Many caravans used to plough their way across the country, using a network of special routes traditionally protected by gods and kings, routes where one was safe from pillage or attack. To do otherwise would have meant exposing oneself either to a raid or to the risk of violating, unawares, some local taboo and paying the consequences dearly. Upon arrival in a strange country travellers would go and "entrust their heads" to some man of standing who would thereby become their guarantor, for "to touch a guest is to touch the host himself."

The great genealogist is necessarily always a great traveller. Thus Molom Gaolo, the greatest genealogist I have been privileged to know, possessed the genealogy of all the Fulani of Senegal. When his great age no longer allowed him to go abroad he sent his son Mamadou Molom to carry on his survey of the Fulani families that had migrated through the Sudan (Mali) with El Hadj Omar. When I knew Molom Gaolo, he had succeeded in compiling and retaining the history of about forty generations.

He had the habit of going to every baptism and every funeral in the leading families so as to record the circumstances of deaths and births, which he would add to the list already filed in his astonishing memory. So he was able to declaim to any important Fulani: "You are the son of So-and-so...Each of them died at such and such a place of such a cause and was buried in such and such a spot", and so on. Or else: "So-and-so was baptized on a certain day at a certain hour by the Marabout So-and-so..." Of course all this information was and still is orally transmitted and recorded by the genealogist's memory alone. People have no idea of what the memory of an "illiterate" can store up. A story once heard is graven as if on a matrix and can then be produced intact, from the first word to the last, whenever the memory calls on it.

Molom Gaolo died at the age of 105, around 1968 I believe. His son Mamadou Gaolo, now 50, lives in Mali where he is carrying on his father's work by the same purely oral means, being himself illiterate

Everyone is something of a genealogist in Africa, and capable of going far back in his own family tree. If not, it would be as if he had no "identity card." In Mali in olden times there was no one who did not know at least ten or twelve generations of his forebears.

But today the great problem of traditional Africa is in fact the break in transmission. Fleeing the large towns, initiation has taken refuge in the bush where, because of the attraction of the large towns and because of the new needs, the old men find fewer docile ears to which they can transmit their teaching.

For the oral tradition and all that bears on it, therefore, we stand today in the presence of the last generation of great depositories. That is why the work of collecting must be intensified over the next ten or fifteen years, after which the last great living monuments of African culture will have vanished, and with them the irreplaceable treasures of a special kind of education, at once material, psychological and spiritual, based on a feeling for the unity of life the sources of which are lost in the night of time.

# The Hamitic myth exploded

Modern findings have refuted a once-prevalent theory on the peopling of the African continent

### by Dmitri A. Olderogge

ISTORIANS were long convinced that the peoples of Africa had never had any history of their own, nor any evolution that was particularly theirs. Everything in the nature of a cultural achievement was thought to have been brought to them from elsewhere, by waves of immigrants coming from Asia. Such convictions are reflected in the works of many nineteenth-century European scholars.

These views provided linguists with a basis for what is known as the Hamitic theory, according to which the development of civilization in Africa was influenced by the Hamitic peoples who came from Asia. This theory reflects the influence of the ideas of Hegel, who divided the peoples of the world into two kinds: historical peoples, who had contributed to the development of mankind, and non-historical peoples, who had taken no part in the spiritual development of the world.

According to Hegel, there was no real historical evolution in Africa proper. The destinies of the northern fringes of the continent could be said to be linked to those of Europe. As a Phoenician colony, Carthage was an appendage of Asia and there was nothing of the African spirit in Egypt.

It was in Asia, said Hegel, that the light of the spirit dawned and the history of the world began. This was considered to be beyond dispute and European scholars regarded Asia as the cradle of mankind from which emerged all the peoples who invaded Europe and Africa. Hegel's ideas exercised a considerable influence over almost all the scientific research done on Africa in the nineteenth century. The cultural and historical school of thought repudiated the theory of a uniform, overall development of mankind and advanced a diametrically opposed theory, postulating the existence of different cycles of civilization, differentiated by intrinsic elements derived from a mainly material culture.

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According to these writers, the spread of cultural achievements was due mainly to migrations. The original population of Africa consisted of dwarfish races—the Pygmies and the San—possessing virtually no elements of culture. Then, from southeast Asia, dark-skinned, fuzzy-haired Negritic peoples arrived in migratory waves; they spread all over the Sudanese savannah and penetrated into the equatorial forest, bringing with them the beginnings of agriculture, the cultivation of bananas and root tubers, the use of wooden implements and bows and arrows, and the building of round and square huts.

They were followed, so the theory maintained, by waves of proto-Hamites, also from Asia, but in this case from regions further north than those where the Negritic people first developed. The newcomers spoke agglutinative-type languages with noun classes and they taught the indigenous peoples of Africa the use of the hoe in agriculture, the cultivation of sorghum and other cereals, the rearing of small-horned cattle, and so on. The cross-breeding of the proto-Hamites with the Negritic peoples resulted in the birth of Bantu peoples.

The next arrivals were successive waves of fair-skinned Hamites, coming into Africa through the Suez isthmus and across the Bab-el-Mandeb Strait. They were said to have been the ancestors of the Fula, Hausa, Masai, Bari, Galla and Somali peoples and also of the Khoi-Khoi. They brought further elements of culture to Africa, large-horned cattle, spears, multiple uses of skins and hides, shields, and so on. These fair-skinned Hamites, it was maintained, came originally from the steppes of western Asia

The next migratory wave brought the Semitic peoples, who provided the basis for the development of the culture of ancient Egypt. They brought with them the cultivation of cereals, the use of the plough and various objects of bronze. They were followed, in Egypt, by the arrival of the Hyksos and the Hebrews and, in Ethiopia,

by that of the Habashat and the Mehri. The last to come were the Arabs, in the seventh century. All these peoples brought with them to Africa many elements of civilization that were quite unknown before their arrival.

In linguistics, the Hamitic theory began to emerge parallel with the theories of the cultural-historic shool. The founder of this theory, C. Meinhof, held that the ancestors of the present-day San were the original inhabitants of Africa, that they spoke languages with the click consonants and, in general, that they belonged to a par-ticular racial type. The Negritos, con-sidered to be the original inhabitants of the tropical and Sudanese region, spoke languages of an isolating type, with monosyllabic roots. Subsequently Hamitic peoples came into the Sudan from Arabia by way of North Africa. These newcomers spoke inflected languages; they engaged in cattle-breeding and, from the cultural point of view, were on a much higher level than the Negritos. Some of the Hamite invaders, however, traversed the savannahs of East Africa and cross-bred with the indigenous population to produce peoples speaking the Bantu languages.

In short, this pattern can be reduced to a film in four sequences. At the outset, there were the click languages and these were followed by the highly rudimentary isolating languages spoken by the Negritic peoples of the Sudan. The mixture of these languages with the Hamitic languages produced the Bantu group of languages of the superior agglutinative type. Finally, the languages spoken by the Hamitic conquerors introduced the inflected languages which were eminently more developed. The Hamitic theory, which originated in Germany, was upheld by many linguists and was widely accepted throughout western Europe and beyond.

In the period between the two World Wars, however, all these theories collapsed. The discovery in Cape Province, in 1924, of *Australopithecus* raised the first doubts. Other discoveries followed and are still constantly being made, not only in the

This black Hermes, from the mid-2nd century AD, was found in the Antonine baths at Carthage, Tunisia.

Photo W. Hugentobler © Musée D'Ethnographie, Neuchâtel, Switzerland



southern part of Africa, but also in North Africa and, more particularly, towards the east, in Tanzania, Kenya and Ethiopia. All these discoveries combined to show, without any possibility of error, that the development of man in all his racial variety took place in Africa. Thus, any theories according to which Africa was populated by consecutive waves of immigrants are untenable.

Africa is the only continent where there is evidence, in unbroken chronological sequence, of all the stages in the development of man. In fact, specimens of Pithecanthropus, Australopithecus, Neanderthal man and Homo Sapiens succeeded one another, each with their implements, from the most distant eras right through to the Neolithic age. These discoveries proved that it would be totally wrong to deny that Africa had an endogenous cultural development. In this respect, the rock paintings and petroglyphs in the Atlas mountains, in southern Africa and in the Sahara, provide striking evidence with the most far-reaching implications.

There is no longer the faintest shadow of doubt about the great age of archaeological remains, since chronology (based on the form and treatment of objects and their position in the various geological strata) has now been supplemented by absolute chronology based on such scientific methods as carbon-14 and potassium-argon dating. The picture of the pattern of the cultural evolution of the African peoples has been completely transformed. For instance, it has been found that the Neolithic era at the latitudes of the Sahara and the Sahel dates back much further than was thought. This discovery completely alters the relationship African development, between Mediterranean world and especially the Near East.

The remains discovered in the mountainous regions of Tassili N'Ajjer and also at Tadrart-Acacus in the borderland between Algeria and Libya are quite conclusive. Examination of the traces of hearths and the remnants of ceramics discovered, shows that the people were already using pottery in 6000 BC. From these findings we may

conclude that the Neolithic age in Tassili N'Ajjer and the Ennedi is apparently older than the Neolithic age in the countries of the Maghreb and is contemporary with that of southern Europe and Cyrenaica.

Of particular significance are the results of research done on the organic remains found in Lower Nubia in camps going back to the Neolithic age. From the results obtained it has been possible to draw the conclusion that people already gathered and prepared grain from wild cereals in the thirteenth millennium before our era.

We may expect that some chronological tabulations may subsequently be made more precise. However, the theory about the peopling of the Old World is completely discredited. Instead, Africa must be recognized as the centre from which men and techniques were disseminated in one of the key periods in the development of mankind (the lower Palaeolithic). In later eras we find evidence of a reversal of this trend with migratory currents flowing back to the continent of Africa.

■ Dmitri A. Olderogge



Over 3,000 years old, this portrait of a girl holding a duck and a papyrus stem is a detail from a wall painting in the tomb of Ipi at Thebes, Egypt. Figures with similarly negroid features frequently appear in ancient Egyptian effigies of persons of every rank, including those of such pharaohs as Ramses III, Khefren, Zoser and Thutmosis III.

Photo © Louvre Museum, Paris



Photo Maximilien Bruggmann © La Spirale, Lausanne, Switzerland

Horses and (possibly) antelopes disport themselves in this prehistoric painting on stone at Jabbaren, Tassili N'Ajjer (Algeria). On the next eight pages we present a selection of masterpieces incised or painted on living rock by African artists in prehistoric times. Most of our illustrations are details from the mysterious frescoes, discovered at hundreds of sites in the Sahara since the last century, which afford vivid but tantalizing glimpses of a society and its natural environment many thousands of years before climatic changes made the region largely uninhabitable.

## Old masters of the New Stone Age

Rock paintings that present a dazzling pageant of African prehistory

by Joseph Ki-Zerbo

FRICAN prehistoric art is found mainly in the high plateaus and uplands of the continent. The mountain ranges, and the depressions, river basins and forest lowlands of the equatorial zone are far less rich in this respect. In the areas where the largest number of finds occur, sites are mainly located in cliffs on the edges of the uplands.

The two most important areas are the Sahara and southern Africa. In the zone bounded on the north by the Atlas Mountains, on the east by the Red Sea, on the south by the tropical forest and on the west

by the Atlantic, hundreds of sites have been found, containing tens or perhaps hundreds of thousands of carvings and paintings.

Examples are found to the south of Oran and in the Tassili N'Ajjer area in Algeria; in southern Morocco; in the Fezzan (Libya); in Air and Ténéré (Niger); in Tibesti (Chad); in Nubia; in the highlands of Ethiopia; in the Dhar Tichit (Mauritania) and at Moçamedes (Angola).

The other main area is in the tapering part of southern Africa bounded by the Indian Ocean and the Atlantic which includes

Lesotho, Botswana, Malawi, Ngwane, Namibia and the Republic of South Africa, with particularly significant finds in the Orange Free State, the Vaal River area and the Transvaal.

As to why there should have been this flowering in the deserts and steppes, one reason is that at the period in question they were nothing of the kind. When they became so, this in itself, plus the dryness of the air, helped to preserve them and turn them into natural museums. In the Sahara, for instance, objects have been found that had lain undisturbed for thousands of years. As to why it should have occurred



### **OLD MASTERS OF THE NEW STONE AGE**

on the edges of the upland valleys, the reason is that these were the best habitats, most easily defensible and within reach of water and game.

If we are to fit prehistoric art finds into an intelligible time-scale, our first approach must be geological and ecological since the environment, for peoples without our technological adjuncts, was more of a constraint than it is today and both provided and imposed the general framework of existence.

Although some authors consider that its origins go back to the Mesolithic, African rock art dates essentially from the Neolithic. It has become customary to call the major periods of rock art by the name of an animal which thus provides a typological reference point. Four major series are thus named after the Bubalus, the Ox, the Horse and the Camel.

The bubalus (Bubalus antiquus) was a kind of enormous buffalo which, according to the palaeontologists, dates from the beginning of the Quaternary. It is depicted from the beginning of rock art (around 7000 BC) to about 4000 BC. This period is also characterized by elephants and rhinoceroses. The ox is either Bos ibericus (or brachyceros) with short, stout horns, or Bos africanus, with a magnificent lyreshaped pair of horns. It appears around 4000 BC.

The horse (Equus caballus) sometimes pulling a chariot, makes its appearance about 1500 BC. The "flying gallop" gait, whilst not realistic, is naturalistic on the western track from Morocco to the Sudan, whereas on the eastern "road" from the Fezzan it is highly stylized. By now we are well into the period of history when the hippopotamus disappears from rock painnings, no doubt denoting the end of perennial water. The camel brings up the rear of this historical caravan. Introduced into Egypt by the Persian conquest about 500 BC, it is common towards the beginning of the Christian era.

In general, where both exist, carvings are earlier than paintings. Carving was done in the softer sandstone rocks, and in granite and quartzite as well, by means of a sharpened stone struck with a Neolithic hammerstone, specimens of which have been found near the carvings.

With only this minimal equipment, the precision of the technique is brilliant. The elephant at Bardai (Chad) is delineated with a single light line. It is hardly more than a sketch, but it brings out the essentials. The elephants at In Galjeien (Mathendous) and In Habeter II, on the other hand, are deeply carved with a heavy, lifelike line, and so is the rhinoceros at Ganoa (Tibesti). The groove is either V-shaped, or shaped like a U and taken down to a depth of about a centimetre. The notches were made either with a stone axe or a piece of very hard wood, damp sand possibly being used as an abrasive.

Making these carvings must sometimes have called for distinct athletic ability. At Oued Djerat, for instance, there is an

elephant 4.5 metres high, and the beginnings of a rhinoceros 8 metres long.

In central and southern Africa, carvings with broadly incised outlines are thought to be associated with religious purposes, whilst delicately grooved carvings possibly denote an initiatory or instructional aim. Delicate effects are achieved by hollowing and highly polishing some internal surfaces to represent the shades of animals' coats or their loads. This technique foreshadows the bas-reliefs of Pharaonic Egypt. Indeed, the figure is sometimes produced by carving it entirely in intaglio, like a cameo.

The natural rock is used very appositely. For instance, a giraffe is carved on an oblong block whose shape it exactly fits (West Transvaal). Similarly in the Leeufontein area, a rhinoceros is carved on a rock with a rough surface and angular ridges that precisely reproduce the animal's carapace.

Rock paintings should not be considered in isolation from carvings. Outline carvings on certain walls suggest that the artists first carved and then painted. Here again, artistic work sometimes called for feats of athletic prowess.

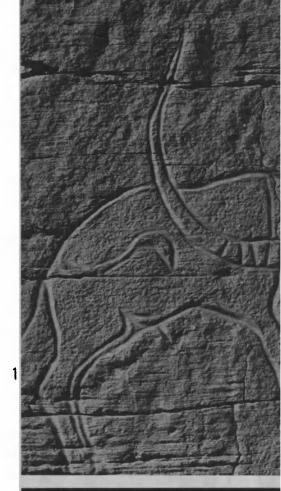
At Oued Djerat there is a Horse period painting 9 metres long on a steeply sloping ceiling, and at some of the Tassili sites, such as Tissoukai, paintings begin more than 4 metres from the ground, as though it was wished to avoid the lower levels within people's reach. This necessitated the use of crude ladders or even scaffolding. The paintings are either in monochrome or polychrome.

Traces of workshops have been found. At I-n-Itinen, for instance, little flat grindstones have been dug up along with tiny grinders to reduce the rock to powder and also little pans of paint.

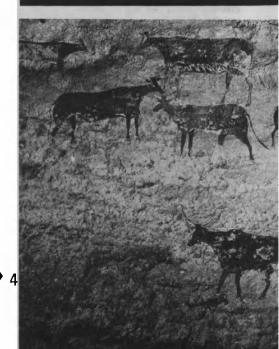
The relatively extensive range of colours is based on certain basic tones such as red and brown, obtained from iron oxide ochres, white obtained from kaolin, animal droppings, latex or zinc oxide, and black extracted from charcoal, ground calcined bones, or from smoke and burnt fat. There are also yellows, greens, violets, and other colours.

The ingredients were ground to a fine powder with a pestle and mortar, mixed together, and then made up with a liquid, perhaps milk, the casein in which is an excellent binder, dripping, or else white of egg, honey or cooked bone-marrow. This explains the brightness of the tints after all these thousands of years.

The colours were applied with the fingers, with feathers, with straw or chewed wood spatulas, or with brushes made of animal hairs fixed to sticks with tendons. They were also sprayed on by squirting the liquid from the mouth. It was this last process that was responsible for the outlines of hands still to be seen on rock faces and which are a kind of authenticating signature on these masterpieces. Sometimes corrections are made without erasing the original lines: giving oxen with



Some of the oldest works of African rock art show the tropical animals that flourished during a period of humid climate when the Sahara was a region of lakes and rivers bordered by luxuriant vegetation, rich in game and fish, grassy valleys and wooded mountain slopes. Modern scholars have named the most ancient style of this art after the Bubalus antiquus (a type of buffalo with massive horns, now long extinct) although other animals such as elephants and rhinoceroses (see next double page) are also found depicted in the semi naturalistic Bubalus style. The horns of this specimen (1) engraved in the rock at Oued Mathendous (Libya) measure 72 cm from tip to tip. Incised between them is an ostrich. (2) The giraffe, an animal found in its natural state only in Africa, is so frequently depicted that specialists believe that it must have proliferated in the Sahara in Neolithic times. The creator of





this masterwork at Enneri Blaka (Niger) made sure that the markings of each animal's coat, realistically rendered by intricate patterns of tiny dots hammered into the rock, were subtly different from those of the rest. (3) Graceful portrait of a horse, also at Enneri Blaka. Paintings of horses, antelopes and mouflons (wild sheep) are thought to belong to a later stage than the *Bubalus* style. The mouflon with powerful horns (5) at Ti N'Zoumaitak (Algeria) is surrounded by curious forms including a jellyfish-like creature (right) and a strange animal with a human nose (left). (4) By the time this tranquil pastoral scene at Sefar (Algeria) was painted, prehistoric man had learned to dominate and control livestock in a Sahara of villages and encampments. (Note the dwelling at right of painting.)

Photos Maximilien Bruggmann © La Spirale, Lausanne, Switzerland









four horns, men with three arms, and so forth.

The term "petroglyph" has been coined for rock pictures. More than any other in fact, this kind of art is a sign language, i.e. a bridge between reality and idea. It is a set of graphic symbols and to read it one needs a key. When it comes to explaining it properly, the main drawback is our ignorance of the society that produced it. That is why it is important not to make over-hasty interpretations by omitting the descriptive stage in which the sign language itself is subjected to formal analysis.

Providing African rock paintings with captions such as "Justices of the Peace", "The White Lady", "Man pulling teeth", "Josephine sold by her sister", "Martians" and suchlike, distorts them from the outset, since it superimposes an interpretation of a single observer from another civilization with quite different symbols and codes. African prehistoric art must be interpreted by reference to indigenous values and it is only when the local environment of time, space and culture fails to provide an

answer to a problem that we are entitled to look elsewhere for the solution.

To what extent can African prehistoric art be regarded as the illustrated edition of the first African history book?

In the first place, it constitutes a documentary film about the physical environment of the first societies to live on our continent. H. Lhote has found hippopotamus bones at a site at Adrar Bous, radiocarbon dated to about 3100 BC, which confirms the historical accuracy of (for instance) the group of hippopotamuses depicted at Assadien Ouan Mellen. Now this animal is an ecological indicator since it required perennial water in order to exist. The elephant which eats enormous quantities of vegetation daily is another indicator and the Sahara of the prehistoric paintings must have been a great expanse of parkland with Mediterranean vegetation, traces of which have survived to this day. This environment gradually gave way to a Sudanic Sahel biotope. In the Horse and Chariot period, some representations of

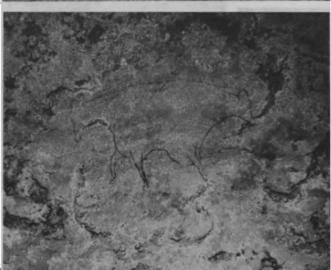
trees are found, such as palm-trees, no doubt indicating oases.

In southern Africa the northern or Rhodesian style is full of drawings of trees some of which are identifiable. Shelters in areas that are now desert are peopled with a teeming, varied fauna, like some latterday Noah's Ark or a petrified zoo. There are carvings of fish, tremendous shaggy wild animals like the extinct buffalo, with its enormous horns up to 3 metres across, felines like the cheetah and the aardwolf, guenons and baboons (at Tin Tazarift), ostriches, owls and so on. On all sides there are hunting scenes, reminders of the perennial duel between man and beast.

This profusion of hunting scenes from the Nile to the Atlantic is vivid illustration of the existence of a whole hunting civilization. Even large animals like the elephant did not escape, as witness the great hunting scenes at Upper Mertoutek. Traps are nearly everywhere associated with the symbols of hunters in a very original cultural pattern, which existed over almost the whole of Africa for tens of thousands

"This kind of art is a sign language, a set of graphic symbols", writes Prof. Joseph Ki-Zerbo, "and to read it we need a key". Photos on these pages illustrate some of the conundrums facing specialists as they try to interpret these beautiful but baffling images and explain the interplay of styles, techniques and influences which may connect them. Photo 1, sweeping curves convey the intensity of movement in this silhouette of a woman with a bowl (Sefar, Algeria). With photo 7, showing silhouetted dancers from a prehistoric site at the Tsisbab Ravine (South Africa) it draws attention to the seeming kinship between specimens of Saharan rock art and that of southern Africa whose artists also worked within a figurative tradition. In the present state of knowledge it is impossible to say whether influences were transmitted between the two regions or whether these artistic traditions evolved independently. (8) One of the most celebrated frescoes in southern Africa (also at the Tsisbab Ravine) depicts a so-called "White Lady" accompanied by figures painted yellow, brown or black. It is thought that the white colouring may indicate ritual make-up. Portraits of a rhinoceros (2, 3 and 4) bring out three distinctive techniques of representing the same animal. In (2) the essential outlines of the rhino's body are traced with a thick, heavy stroke that contrasts sharply with the fine incision delineating the animal shown in photo 4 (at Oued Djerat, Tassili N'Ajjer, Algerian Sahara). Photo 3 shows a painted rhino at Oumet el Ham (Mauritania). Such paintings, in which the pigment is applied to the rough rock with great artistry, seem to be later than engravings. In spite of differences in technique, each image shows a real knowledge of the animal and a flair for precise observation. Two puzzling images that have so far defied all attempts at explanation are the two-headed cow (Sefar) in photo 5 and the even more intriguing representation of a cow with two hindquarters and no head (Oued Mathendous) in photo 6.











of years until very late in the historical period.

These pictures also show the gradual transition from trapping animals or taking them into captivity, to feeding them and then to domesticating them. There is a man armed with a bow holding an animal on a leash, whilst at Tissoukai moufflon are being hunted with hounds. The lifelike saluki at Sefar was obviously the friend of desert man then as now. There are also sheep and goats. Even boats are depicted, including one at Tin Tazarift shaped rather like the papyrus boats of the lakes and rivers of Chad and Nubia.

There are paintings at I-n-Itinen showing men bending down using angled tools, which are reminiscent of the harvest scenes with sickles of Pharaonic basreliefs. At Battle Cave, San girls are depicted setting off food-gathering, their digging-sticks over their shoulders. The sheer profusion of artifacts depicted on rocks or found loose over enormous areas of Africa, especially those that are now

desert, gives an interesting idea of the population density in those areas.

African prehistoric art has also much to tell us about the clothing of the people of those days. As often happens in early civilizations, we find that the men were more decoratively dressed than the women, until the Ox period, when the situation seems to have been reversed.

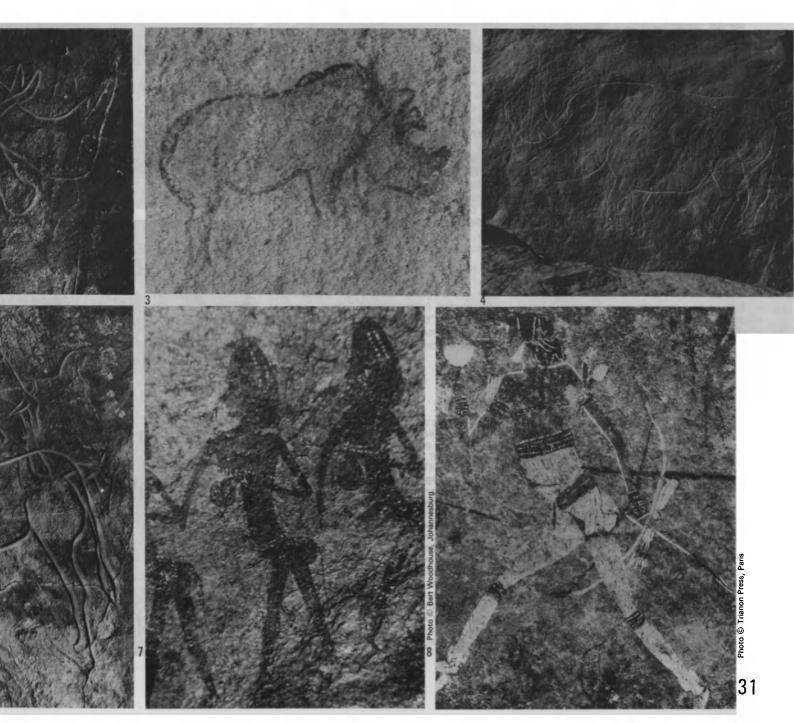
The home is often depicted schematically by hemispheres representing huts, in which furniture and also family scenes can be seen. Buxom women are seen sitting in front of the huts with their children, calves are carefully tethered in a row to a rope, whilst men are busy milking the cows.

The vast fresco at the Iheren shelter, one of the high points of prehistoric painting, shows finely caparisoned oxen, ridden by women in rich attire, passing by with waterskins hanging from their flanks. Some animals lower their heads to the water-hole, whilst a huge herd moves forward in stately fashion. Women in their finery lounge outside their homes, and men

with feathers in their hair have stopped, seemingly to greet them.

We do not know the meaning of the two-headed oxen or the oxen with two hermaphrodite bodies and but a single head to be seen at Oued Djerat nor of the magnificently carved helixes associated with many animals, as with the Bubalus at Oued Dierat. Some scholars consider that the helix symbolizes the continuity of life. As for the umbilical link to be seen between two people, as for instance one starting at the intersection of a woman's thighs and ending at the navel of a bowman out hunting, it seems as though it stands for a magical flux going from the mother (who is praying, with upraised hands) to her son, who is in a dangerous situation. Again, in southern Africa (Botswana), a rain-making animal is shown being led across the country on a rope held by a procession of expectant people. Sun motifs form part of the same religious background.

Some pictures nevertheless,. are still obscure, and they will only ever be explained by reference to a genuinely African



### OLD MASTERS OF THE NEW STONE AGE

cultural and religious context. This is what happened with regard to a scene at Tin Tazarift, previously entitled "conventionalized oxen". Because their legs seemed to be reduced to stumps, it had been supposed that they were lying down, but A. Hampaté Ba realized that in fact they had been led into the water as part of the lotori ceremony to celebrate the ox's aquatic origin.

The tendency to explain all the features of African culture by the theory of outside influence must be rejected. This does not, however, mean denying any outside influence, but simply involves defining it carefully. Franco-Cantabrian rock art, which goes back about 40,000 years, is Palaeolithic and hence earlier than African prehistoric art. (Saharan Neolithic, on the other hand, is earlier than European Neolithic). There was thus a strong temptation to argue that the inspiration of artists on the African continent came from the north, and there was even talk of a Eurafrican art with its focal point in Europe -- in fact, a sort of Hamitic theory in the field of African prehistoric art (see article page 24).

Now there is no truth in this at all. Quite apart from the fact that there is a difference of 15,000 years between the development of the two schools of art, it is accepted that the art of eastern Spain (which would have had to be the connecting link for any influence there was) has nothing in common with the art of southern Oran, the Tassili and the Fezzan. The real flowering of prehistoric art came from the Atlas, and its focal points are nothing if not African.

People have also wondered whether it was not from the east (i.e. from the Nile Valley) that this type of art radiated out to the interior of the continent. Now it is obvious that the art of the Egyptian Nile flourished much later than that of Saharan and Sudanic Africa. The Saharan representations of oxen with discs between horns are much earlier than those of the cow goddess Hathor. The magnificent ram with a sphere at Bou Alem is much earlier than the

ram of Amon, which only appears in Egypt under the XVIIIth Dynasty. The superb Egyptian-type boats depicted in the Sahara (e.g. at Tin Tazarift) are no doubt simply Saharan type boats.

Of course Egypt had a tremendous influence on the interior of Africa, though no doubt it was limited, but what is even more certain is that the prehistoric civilization of the Sahara is earlier in time. It is also true that no obstacle except distance separated the peoples of the Ahaggar, the Tassili and the Fezzan from the Nile Valley, which was for a long time (until the drying-up of the Sahara) a rather unpleasant swampy area. It was only from the so-called "historic" period onwards that Egyptian civilization achieved that splendour as a result of which everything is now attributed to it.

But where art and technology are concerned, the focal points were originally in the Sahara, in what is now the modern state of the Sudan, in East Africa and in the Middle East. Moreover, the Sahara of prehistory is itself much more indebted to the centres of the south-east than to the Middle East.

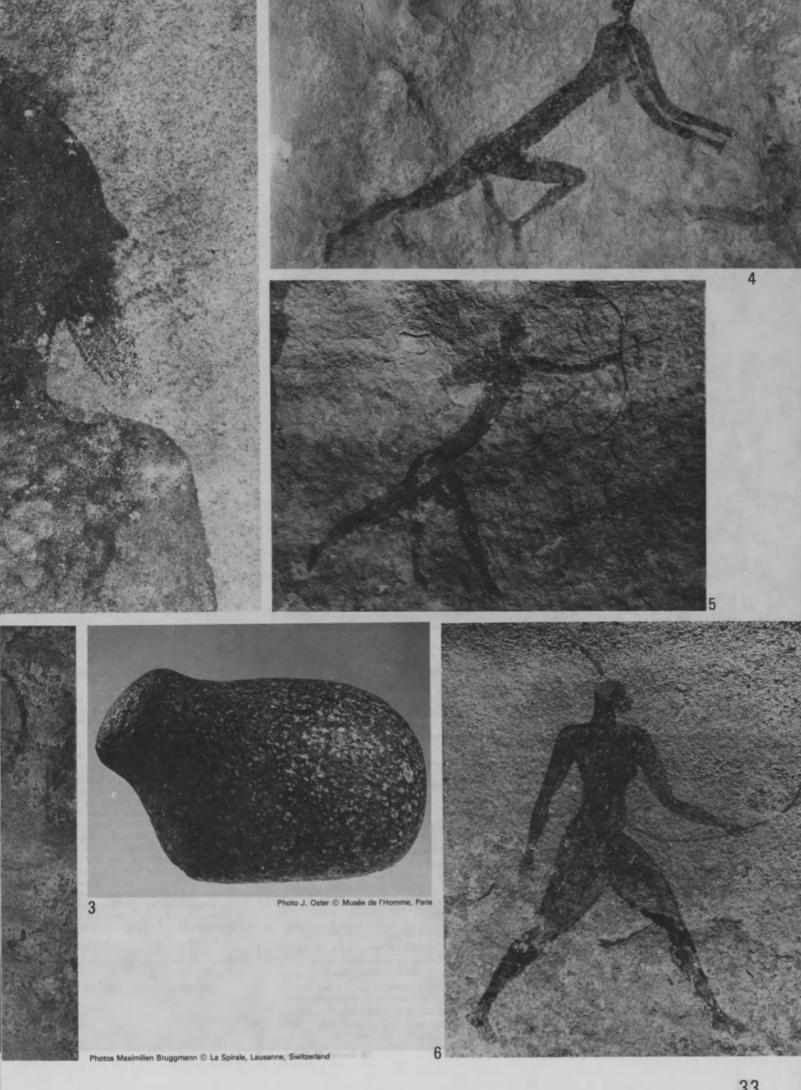
Some authors hold that the Bubalus period of rock art is to be attributed to ill-defined "Mediterranean" people, white or half-caste according to different authors. The so-called "round head" period is attributed to "negroids" whom some consider to have interbred with peoples from the Middle East and who supposedly constitute the Sudanic Neolithic tradition. The Ox period was supposedly the work of the ancestors of the Fulani. Lastly, it is claimed, the influence of the so-called Guinean tradition, further south, can be seen as far away as in the buildings of the Tichit cliffs (Mauritania).

The whole edifice of this reasoning, it must be said, remains highly precarious and gives great weight to population movements from outside Africa. People can refer to "the distinct African influence" in a Sahara rock picture. But above all, this reconstruction tends to equate concepts as

Using skilful stylization and turning to their advantage the rough texture of the rock, artists of the Neolithic Sahara could achieve subtle and expressive effects when portraying the human form. Like so many rock paintings, that of the so-called "Abyssinian of Jabbaren" (1) with his wispy beard (Tassili, Algeria) has survived the passage of time with astonishing freshness owing to the resistance of the pigment. The dynamic, willowy movements of a sprinter and two archers are captured in studies from Jabbaren (5), Sefar (6) and Tafilalet (4) in Algeria. The bow must have revolutionized life in the Sahara in Neolithic times. The portrait of the sprinting woman (4), here published for the first time, is from one of several prehistoric rock art sites discovered in the Sahara in the last few years by the French ethnologist H.-J. Hugot and the Swiss photographer Maximilien Bruggmann. (2) Curious study of a "unicorn ox". Artists depicted the horns of oxen with particular care and often used a convention whereby the animal's head was shown in profile and the horns frontally. At some prehistoric Sahara sites small sculptured figures of hares, rams and other animals have been unearthed. (3) Polished granite miniature from Oued Amezar, Algeria, is believed to depict a ruminant lying down.









Salute from prehistoric man, still visible on rock at Jabbaren in the Algerian Sahara. Probably of magical significance, the handprints were obtained by spraying white pigment from the mouth at the hands pressed against the rock.

different as race, ethnic group, life-style and culture. People refer to blacks, whites, Fulani, Africans, Capsians and Sudanic peoples without defining any of these terms—for obvious reasons.

The "white ladies" in African rock paintings, like the one in South Africa whose face only is white (reminding the Abbé Breuil of the frescoes at Knossos, and "processions of prospectors from the Persian Gulf"), no doubt represent priests, hunters or African girls coming out of initiation ceremonies, just as they are to be seen today, painted with white kaolin which denotes the death of a previous personality and the acquisition of a new status.

African prehistoric art is not dead. In the field of aesthetics proper, it is the source of inspiration for modern African art. To this day its characteristic range of colours is repeated in masks and in dancers' regalia. It lives on, if only in the unchanging placenames. A valley running into the Oued Djerat is called Tin Tehed, or "place of the she-ass" and there is indeed a fine carving of an ass there. Issoukai-n-Afella is

reputedly haunted by spirits (junun), perhaps because there is a horrible animal figure, part-fowl, part-owl, with a colossal sex organ who peers over a pile of votive stones thrown there to propitiate it.

Africans are cut off from this art-form by distance, a barrier overcome only by scholars and experts from wealthy countries, and it deserves to be reintroduced into their lives, at least through the medium of school syllabuses. It needs to be jealously protected from the various kinds of damage that threaten it daily, for it is a legacy without price. A complete register should be compiled, to facilitate comparative study.

Prehistoric art offers many pointers to aspects of the life of early African man, from his physical environment to his loftiest feelings, and the image is sometimes a sign as eloquent as writing. The evidence is, of course, ambiguous, enigmatic and needs to be supplemented from sources such as palaeontology, climatology, archaeology and oral tradition.

Joseph Ki-Zerbo

### Colour page right

This red ochre figure of an archer seems to flit like a shadow across the rock at Tin Tazarift, in the Tassili N' Ajjer area of southern Algeria, where it was painted in prehistoric times. A profusion of painted scenes cover the cliffsides of the Tassili massif, a major site of prehistoric African rock painting, where Neolithic artists created masterpieces of a beauty rarely equalled elsewhere. Hunters could survive in the Sahara during the Neolithic age (from about 5000 to 1000 BC) for what is today a virtually uninhabited desert was then a fertile region with a Mediterranean climate and abundant plant and animal life. The hunter's curious pair of 'antennae" may be feathers or some other kind of headdress.

Photo Maximilien Bruggmann © La Spirale, Lausanne, Switzerland

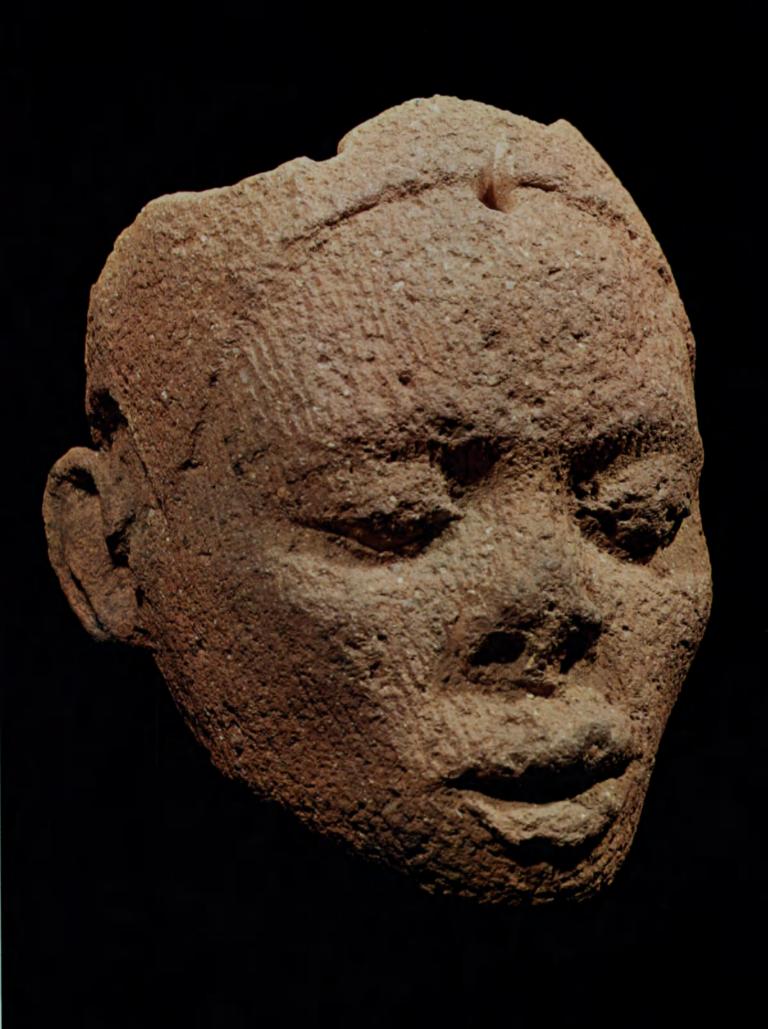
### Central colour pages

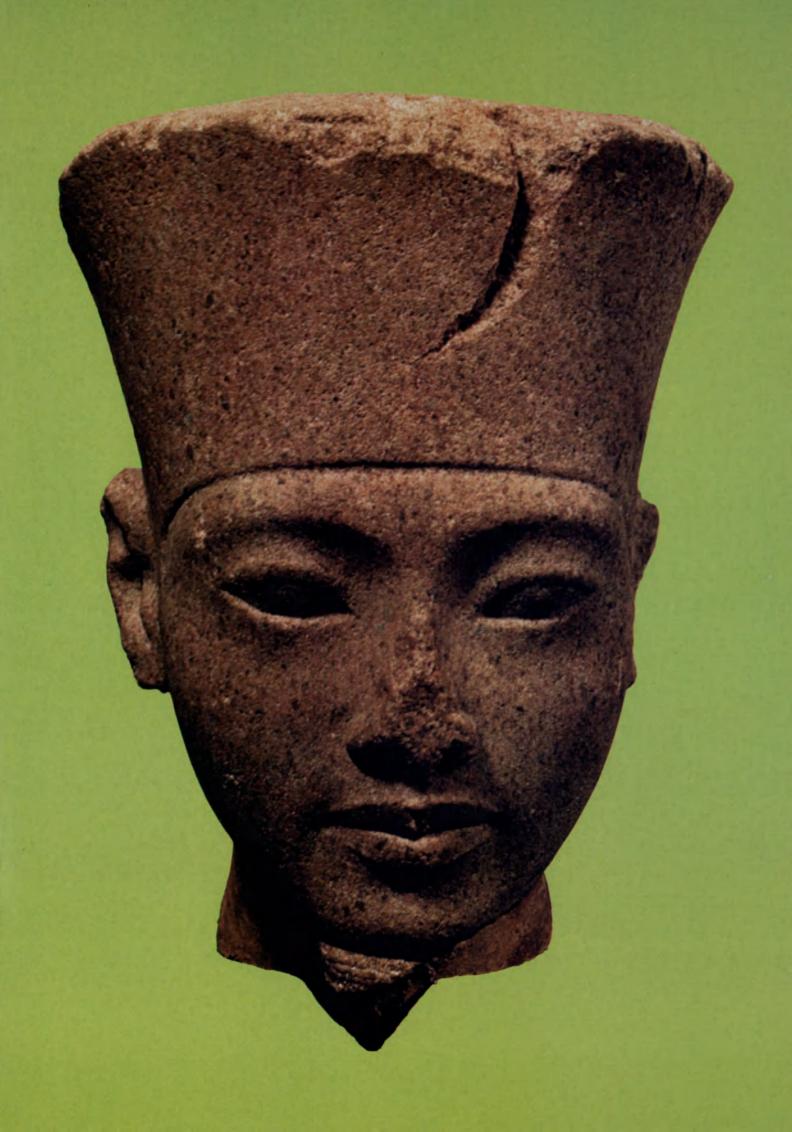
A striking affinity, spanning almost thirty centuries and thousands of kilometres, seems to exist between these two depictions of the human head. Terracotta example on page at left is from Owo (Nigeria) and was probably made in the 15th century AD. Right, pink sandstone head of the Egyptian god Amon shown with the features of Tutankhamen (c. 1350) BC). Ever since remote antiquity, even before Pharaonic times, strong ethnic, commercial and cultural currents linked Egypt not only to the rest of North Africa (above all with the expansion of Islam) but also with black Africa south of the Sahara. thus rebutting the idea sometimes advanced that Egyptian history forms part of the history of the Mediterranean world rather than that of Africa.

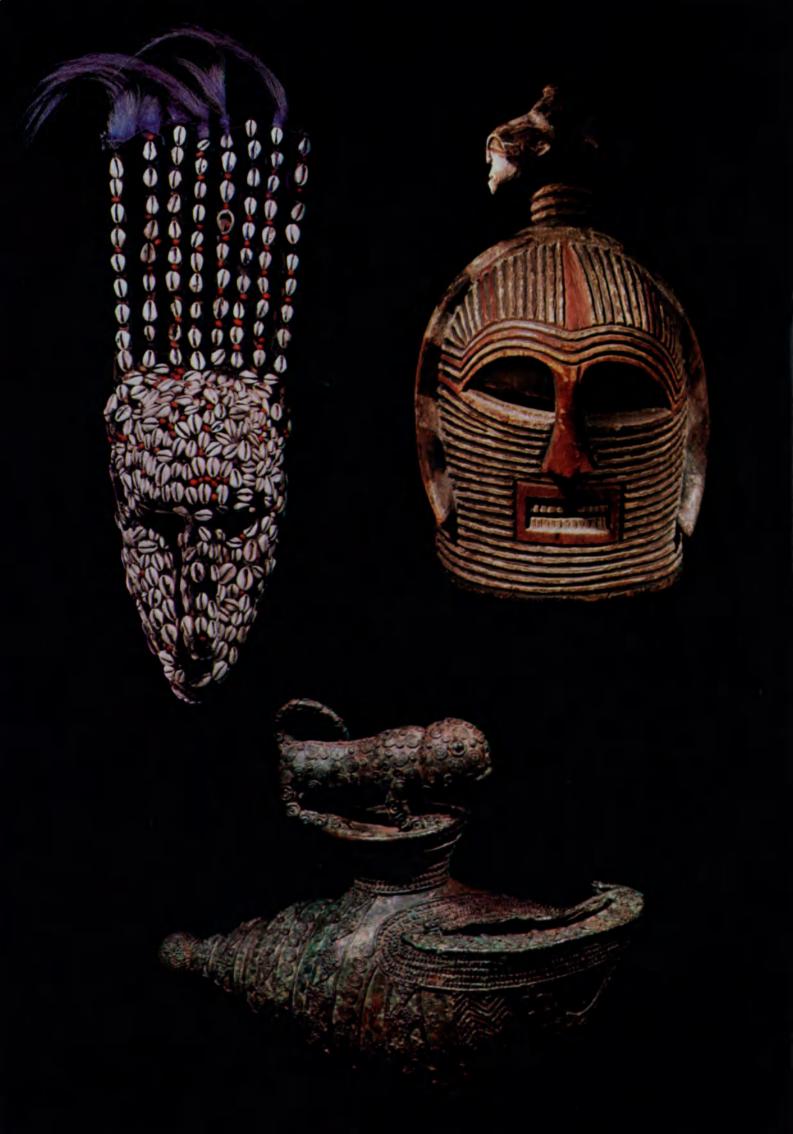
Photo © André Held, Lausanne. National Museum of Nigeria, Lagos

Photo © Arpag Mekhitarian, Brussels. Cairo Museum









## The cradle of mankind

by Joseph Ki-Zerbo

### Colour page left

The skills of African wood-carvers may be seen at their most outstanding in the images and masks which were invested with sacred meanings and used during religiousmystical ceremonies, dances and other social functions. Shown here, two remarkable specimens of the mask-carver's art (see also Unesco Courier, May 1977, pages 16-19). Mask top left was used in ritual ceremonies of the N'Domo secret society of the Bambara people of Mali. Its face and comblike horns are decorated with cowrie shells. Right, helmet mask attributed to the Tetela people of south-central Zaire. Surmounting it is a kind of crest consisting of four carved heads (two of them very small) set back to back so that the mask looks in four directions at once. Below, profusely decorated bronze snail shell from Igbo Ukwu (Nigeria) dates from the 9th century AD. Standing on it is a spotted animal which may be a leopard.

Photo © Musée de l'Homme, Paris Photo José Oster © Musée de l'Homme, Paris Photo © André Held, Switzerland. National Museum, Lagos, Nigeria LTHOUGH there cannot be any absolute certainty in the matter, if only because the history of human origins, the hidden history of mankind, is not yet entirely exhumed, discoveries so far made point to Africa as one of the great centres, if not the principal centre of man's development.

Kenyapithecus (Kenyapithecus wickeri), considered by some to be the initiator of the human dynasty, appeared twelve million years ago. Ramapithecus of Asia is but one of its varieties which probably spread to India from Africa. But Australopithecus (Australopithecus africanus or prometheus) is incontestably the first hominid, the biped explorer of the savannahs of eastern and central Africa, mouldings of whose brain case revealed a development of the frontal and parietal lobes of the brain indicative of an already advanced level of intellectual faculties.

Thereafter came the Zinjanthropes and the variety bearing the prestigious name of *Homo habilis*, all representing a new leap upward in the progression towards the status of man. There follow the Archanthropes (Pithecanthropes and Atlanthropes), and Paleanthropes or Neanderthalians, and finally the *Homo sapiens* type (man of Elmenteita in Kenya, of Kidish in Ethiopia) of whom many authors have noted the frequently negroid features in the upper Aurignacian period.

Whether polycentrist or monocentrist, every scientist recognizes that it is in Africa that all the links are found in the chain connecting us with the most ancient hominids and prehominians, including those varieties which appear never to have developed beyond the stage of manlike creatures, and were unable to make the final step in evolution to rise to the stature and status of Adam. Furthermore, Africa is where the

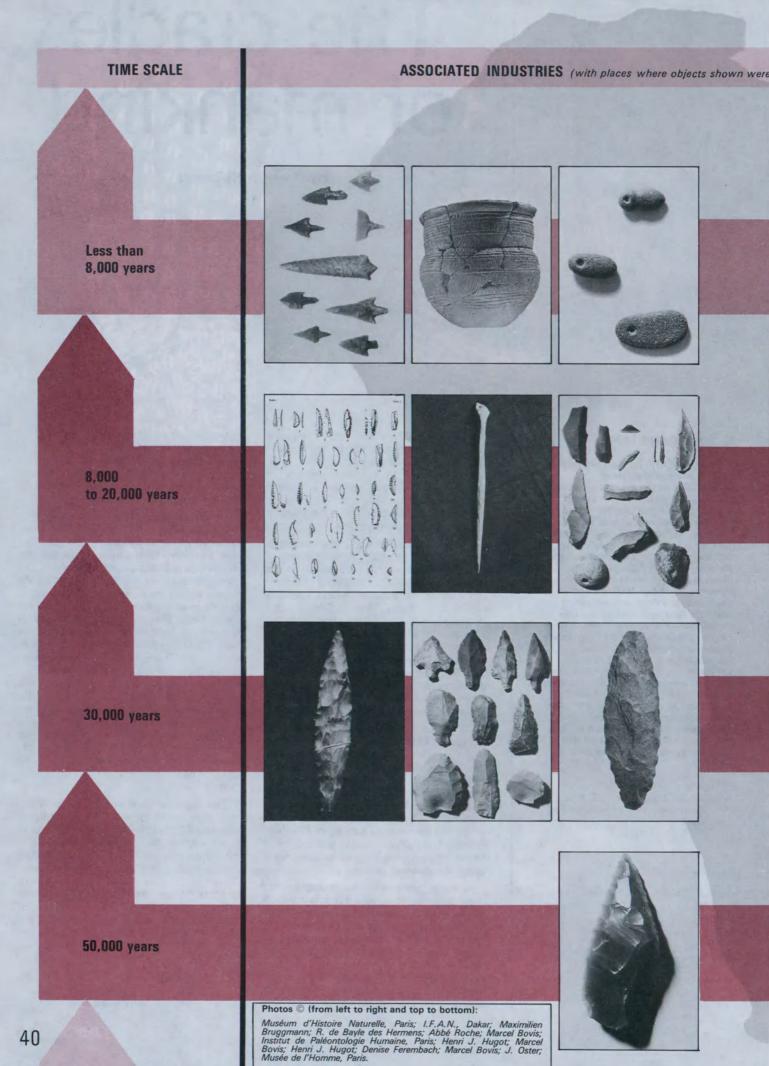
ancestors, or rather the supposed cousins, of man are still to be found. According to W.W. Howells, the "apes of Africa, the gorilla and chimpanzee, are more closely related to man than is any of the three to the orangutang of Indonesia."

And there is good reason why! Asia in its lower latitudes, and particularly Africa because of its remarkable extension into the southern hemisphere, escaped the discouraging climatic conditions of the northern zones. Thus Europe, covered by ice sheets during the roughly 200,000 years of the Kageran (a period also known as the Gunz Glacial Stage), offers no trace of early stone age implements, whereas the same period in Africa produced three successive varieties of progressively sophisticated palaeolithic tools. During that period the tropical latitudes had the advantage of a temperate climate that favoured the development of animal life. Indeed, in order to survey the influences that led to man's emergence one must first consider the geographical and ecological environment. Thereafter, technology and, finally, social development must be taken into considera-

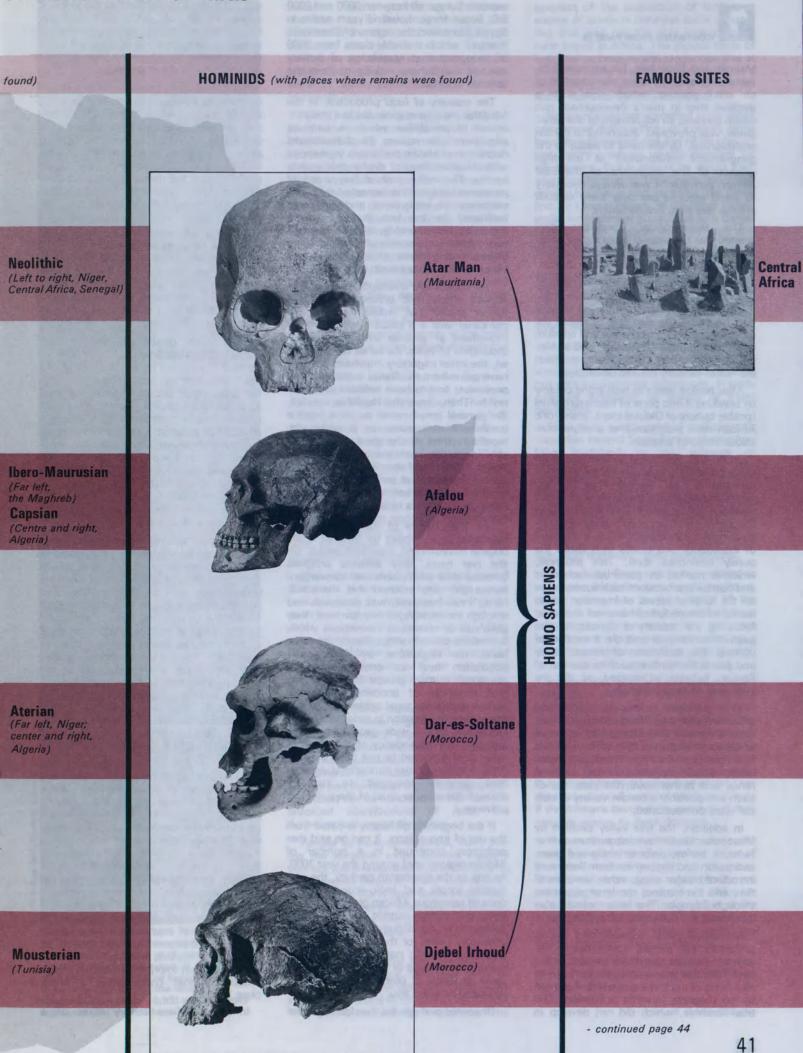
The capacity to adapt to the environment was one of the most powerful factors affecting Man's development from the time of his origins. The physical characteristics of African populations were elaborated during that crucial period of prehistory. Thus the glabrous skin, its brown coppery or black colour, the abundance of sweatglands, the expanded nostrils and lips of many Africans, the curly, crisp or frizzy hair, all stem from tropical conditions.



### **AFRICAN PREHISTORY AND**



### THE EVOLUTION OF MAN





### **CONTINUED FROM PAGE 39**

Melanin and frizzy hair, for example, protect from heat. Moreover, the adoption of an erect posture, which was such a decisive step in man's development and which involved an adjustment of the pelvic girdle, was provoked, according to certain prehistorians, by the need to adapt to the geographical environment of the high grasses, of the savannahs of the East African plateaux: it was always necessary to stand erect to see over them to stalk prey or flee from hostile beasts.

The technological conditions they created was the second factor that enabled the African hominians to feel distinct from the rest of nature and later to dominate it.

It was because he was a *faber* (artisan) that man became *sapiens* (intelligent). With his hands freed from having to support his body man was able to relieve the muscles and bones of the jaw and cranium of numerous tasks. This both freed and increased the size of the brainpan, in which the motor-sensory centres developed.

After having learnt to hew stone crudely by breaking it into parts of haphazard sizes (pebble culture of Olduvai man), prehistoric African men progressed to a more conscious stage of creation.

From the beginning prehistoric man made constant progress in the technique of tool-making; in the changes in the materials used and in the finish of tools and weapons can be seen that constant striving for greater efficiency and for adapting to increasingly complex ends which is the mark of intelligence and places man above the purely instinctive level. This progress, which is marked by continual exchanges and borrowings between techniques, takes on the form of waves of invention which led up to the period of historical antiquity, following the mastery of agricultural and pastoral techniques and the invention of pottery. The cultivation of wheat, barley and plants for textiles, such as the flax of Fayum, became widespread, as did the raising of domestic animals.

Two principal centres of agricultural selection and exploitation doubtless exerted a marked and widespread influence as early as the sixth or fifth millennium: the Nile valley and the Niger Bend. Sorghum, millet, certain varieties of rice, sesame, fonio, and farther south the yam, the oil palm and possibly a certain variety of cotton were domesticated.

In addition, the Nile valley profited by Mesopotamian discoveries, such as emmer (wheat), barley, onions, lentils and peas, and melon and figs, whilst from Asia were introduced sugar cane, other varieties of rice, and the banana, the latter doubtless through Ethiopia. The latter country also developed the cultivation of coffee.

Numerous plants domesticated during prehistory still persist, sometimes in improved forms, as part of African diet to this day. Their use encouraged the settling and stabilizing of men, without which there can be no progress towards civilization. The true Neolithic, which did not develop in

western Europe till between 3000 and 2000 BC, began three thousand years earlier in Egypt. Moreover, the pottery of Elmenteita (Kenya), which probably dates from 5000 BC suggests that knowledge of pottery reached the Sahara and Egypt from the uplands of eastern Africa.

The mastery of food production in the Neolithic must have given rise to a sharp increase in population which in turn set migrations into motion; the characteristic dispersion of certain prehistoric workshops with stone artefacts of similar style attests to this. The radius both of forays and of permanent migrations increased with the efficiency of implements and weapons, facilitated by the fact that they were becoming less unwieldy. Africa is a continent where men wandered about in every direction, as if drawn on by the immense horizons of that vast land.

The inextricable overlappings which an African ethnic map presents today is a jigsaw puzzle that would discourage a computer and is a result of this complex movement of peoples over a period of thousands of years. As far as can be judged, the initial migratory impetuses seem to have come from the Bantu in the east and north-east and to have radiated west and north. Then, from the Neolithic onward. the general trend seems to have been a southward movement, as if under the repellent effect of the giant desert. This ebb-tide to the south and east (Sudanese, Bantu. Nilotics and so on) was to continue during the historical period into the nineteenth century, when its last waves died away on the coasts of the southern sea.

The final results of these migrations, prompted by successes (or failures) in the original environment, were ambiguous. On the one hand, they assisted progress because their successive and convergent waves gradually ensured that the continent, if not mastered, was occupied, and through the exchanges they involved, they gave rise to numerous innovations which were cumulative in effect. But on the other hand, the migrations, by diluting the population over an enormous space, prevented human groups from reaching that threshold of concentration which human multitudes must achieve to surpass themselves in invention in order to survive. Dispersion over a wide geographic range increases the ascendancy of the environment, and it tended to pull back the first African clans to those dark origins whence man painfully struggled to maturity through the opaque crust of the unfeeling universe.

If the beginning of history is dated from the use of iron objects, it can be said that prehistory continued in a number of African regions until around the year 1000. As late as the nineteenth century, the productive forces and socio-economic relations of numerous African groups (and not only the palaeo-negritic groups) were substantially no different from those of prehistory, save for the use of metal implements. Even in our own century, the hunting techniques of the pygmies are the same as those of prehistoric Africans of thousand of years ago.

Obscured perhaps by the dazzling sum-

mit of Egyptian civilization and the glorious achievements of so many African kingdoms and empires, that weighty reality remains, giving body and texture to the development of African societies, and deserving to be dwelt on here.

So it is that in primitive communities, contrary to European experience (ancient and Germanic), where the private ownership of land developed from its common ownership, in Africa there is no sign of private ownership. In African village communities, the higher authority, the State, was no more the owner of the land than were private individuals. Moreover, the State generally did not undertake any major projects.

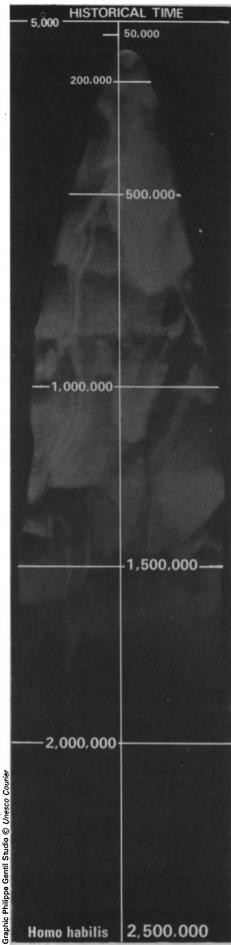
In spite of instances of sanguinary autocracy, the State authority in black Africa nearly always took the form of a limited monarchy within a framework of corporate bodies and customs, veritable unwritten constitutions, institutions most often inherited from an earlier organization or social stratification.

Even when prestigious and efficient States such as the Empire of Mali, described with admiration by Ibn Battuta in the fourteenth century, spread over immense territories, their decentralization, adopted as a deliberate choice, allowed the basic communities to function with a very real measure of autonomy. In any event, since writing was generally little used and techniques of travel were still not very well developed, the sway of the capitals was always mitigated by distance. Distance also rendered very real the constant threat that subject peoples would evade any attempt at autocracy by running away.

Moreover, production surplus to the needs of the basic communities appears to have been modest in Africa, save where there was a State monopoly of precious commodities such as gold, in Ghana or Ashanti, ivory and salt. But even in such cases, the counterpart services (security, justice, markets) provided by the chieftaincy must not be overlooked, nor the fact minimized that a good proportion of the taxes and levies was redistributed at the customary festivals, in accordance with the code of honour governing those obliged to live nobly. This explains the lavish generosity of Kanku Musa the Magnificent, Emperor of Mali, at the time of his sumptuous pilgrimage in 1324 (see article page 60).

As for production based on slavery, did it exist in Africa? In almost all the societies south of the Sahara, slavery played only a marginal role. Slaves, or more precisely captives, were nearly always prisoners of war. However, captivity did not reduce a man to the state of chattel, of property pure and simple. The African slave often enjoyed property rights. He was not exploited like an instrument or an animal. In Ashanti, to ensure national integration, it was strictly forbidden even to allude to the servile origin of anyone, and so a former captive might become a village chief. "The condition of captive, although common in Africa...did not imply the restricted role in production that characterizes a social

In places where slavery takes on a



Recent discoveries in East Africa of primitive stone tools have pushed back the estimated emergence of *Homo habilis* to around 2,500,000 years ago. If the period of prehistory is taken as being equivalent to twenty-four hours, the whole of historical time (about 5,000 years) would represent just under three minutes.

massive and qualitatively different character, as in Dahomey, Ashanti and Zanzibar in the eighteenth and nineteenth centuries, the social structures involved stem from an already dominant mode of production, which was capitalism, and were in reality the result of external economic influences.

Finally, one must take into account the socio-economic structures such as the matrilineal family system which originally so strongly characterized African societies. at least before later influences like Islam or Western civilization gradually introduced the patrilineal system. This social structure, so important in defining the prominent role of women in the community, also had economic, political and spiritual consequences, since it played a remarkable role in the inheritance both of material wealth and of the rights to royal succession, as in Ghana. Uterine kinship appears to have come from the depths of African prehistory, at the time when permanent settlement during the Neolithic exalted the domestic functions of women, to the point where they became the central element in a social entity.

Given these conditions, how then can the characteristic evolution of prehistoric African societies be described? The first thing to note is that, during this period, Africa served in intercontinental relations as a pole and a central source for the invention and dissemination of techniques. But a subordinate and peripheral status rather quickly followed that exalted role, not only because of the conflict of internal factors mentioned above, but also because of the tapping of African resources and services without any adequate counterpart, in the form, for example, of an equivalent transfer of capital and techniques.

This exploitation of Africa lasted several thousand years and had three peak periods. First, in Antiquity, following the decline of Egypt, the Nile Valley and the other Roman provinces in North Africa were exploited to become the granary of Rome. In addition to food, Africa supplied the Roman Empire with an enormous quantity of imports, including wild animals, slaves and gladiators.

In the sixteenth century the sinister era of the slave trade began. Finally, in the nineteenth century, dependence took the form of territorial occupation and colonization. The simultaneous and complementary phenomena of capital accumulation in Europe and the rise of the industrial revolution could not be conceived of without the enforced contributions of Asia, the Americas and especially Africa.

Parallel to these phenomena, even during the centuries when external rapacity was not too pronounced (from Antiquity to the sixteenth century), many internal contradictions in the African system itself constituted home-bred structural handicaps, which prevented any moves from within the societies towards more progressive structures.

The Africa of clans and villages which was still in existence, was little given to private possession of land (a common asset as widespread and as precious, but also as free, as air), and was for a very long time

ignorant of the acquisition of land as a source of conflicts between social groups. But that was not the only archaic social form found in Africa. The vicious circle of low-level techniques and production was at once the cause and the consequence of a dwindling population within a continental space that was virtually unlimited.

Natural obstacles impeded long-range commercial traffic which, as a result, never became widespread and too often concerned luxury products usually destined for the palaces. But it should be noted that, wherever barriers to trade were overcome either wholly or in part, as in the Nile Valley and, to a lesser degree, in the Niger Valley, social development blossomed as a consequence of an increase in population and private ownership.

Thus, in black Africa, apart from a few exceptions, there was neither slavery nor feudalism as they are understood in the West. One cannot even say that there were African variations of these systems as their characteristic elements were missing.

In short, Africa presents a remarkably continuous indigenous mode of production similar to other "primitive" communities but with fundamental differences, in particular its avoidance of private or State ownership.

Then there was a gradual and sporadic transition toward State forms, themselves long immersed in the network of underlying pre-State relations, but gradually extricating themselves by internal impetus and external pressure from the matrix of destructurized primitive collectivism, and restructuring themselves on the basis of private property and the growth of the State, in a capitalist mode of production, first dominant, then monopolistic.

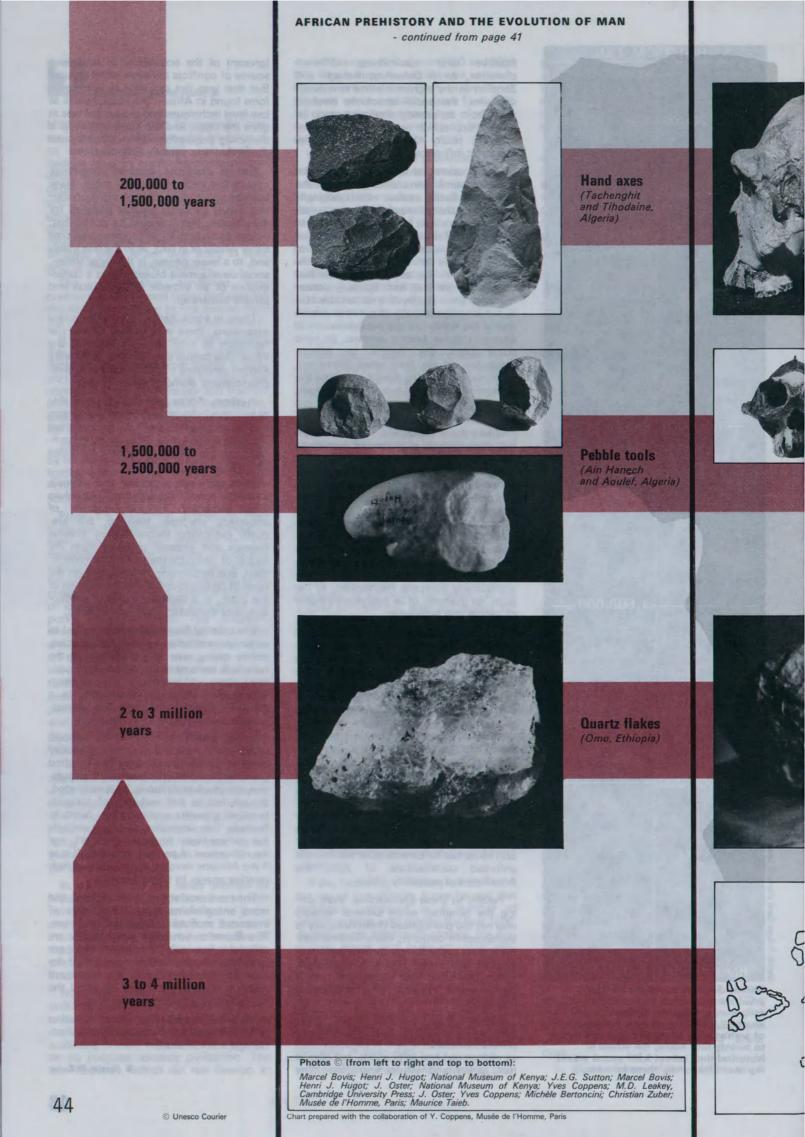
The colonial State was in fact created to administer capitalist commercial agencies, before giving way in the middle of the twentieth century to an independent capitalist State. Alternatively, the transition was from a dominant community to a dominant colonial capitalism, and thereafter to a socialist type of development.

In any case, one fact in Africa compels recognition: since the structure of society has not changed for at least five hundred years, and in spite of an increase in population, the productive forces have stagnated, though not to the exclusion of sporadic localized growths which usually failed to flourish. This stagnation does not exclude the extraordinary blossoming of art, nor the refinement of personal relations. It is as if the Africans devoted the essence of their creative energy to these domains.

The more productive forces increase, the more antagonisms sharpen the edge of interested motives and the will to power. The liberation struggles which today are still raging in certain territories of Africa are both the indicator and the negation of the attempt to domesticate the continent within a system that might be called the African mode of under-production.

In Africa, the creation, the self-creation of Man which began thousands of millennia ago still continues.

Joseph Ki-Zerbo





Homo erectus (Lake Turkana, Kenya)



Olorgesailie (Kenya)



Australopithecus boisei





Olduvai (Tanzania)



Homo habilis (Lake Turkana, Kenya)

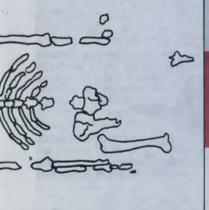




Australopithecus Africanus (Taung, Botswana)



Omo (Ethiopia)



Australopithecus Afarensis (Hadar, Ethiopia)



Hadar, Afar (Ethiopia)



Photo © British Museum, London

Photo Maximilien Bruggmann © La Spirale, Lausanne, Switzerland

### Africa's overlapping time spans

The chronology of technical development on the immense African continent has differed widely from region to region. Whereas iron working, for example, is now known to have been practised in some parts of Africa in the first century BC, in others iron objects only began to be used around 1000 AD. Rock paintings in the prehistoric tradition were still being made in the 19th century, yet as early as the first half of the 16th century artists of the ancient kingdom of Benin were producing exquisite bronzes using the sophisticated "lost wax" technique. Below, prehistoric grindstone and pestle for crushing gathered grain; its presence in the wastes of the Sahara are a reminder that thousands of years ago this was a fertile, hospitable region. Right, a smith in Cameroon tends a traditional smelting kiln. Left, 16th century bronze bust of a queen mother of ancient Benin.









Cultivated by the ancient Egyptians of the Nile Delta region, the papyrus reed was an important and versatile raw material. Its fibres were used not only to produce an early form of paper, but also in the manufacture of sails, cloth, mats, rope and sandals. Bundles of papyrus stems formed the supports of mud and wattle dwellings or protected the corners of mud-brick buildings. When construction in stone began, builders imitated the appearance of the papyrus bundles and palm-tree trunks and branches used in primitive buildings, as in these columns of the temple of Isis at Philae (above). These plant motifs were also found in many objects in everyday use, such as this princely mirror handle in the shape of a papyrus umbel embellished with gold and turquoise (left).

### Inventors and technologists of pharaonic Egypt

by Rashid el-Nadoury with the collaboration of Jean Vercoutter

RASHID EL-NADOURY, of Egypt, is professor of ancient history and vice-dean of the Faculty of Arts of the University of Alexandria. A specialist in prehistoric and protohistoric communities of the Nile valley and north Africa, he is the author of many published works including an Ancient History of the Maghreb.

JEAN VERCOUTTER, of France, is director of the French Institute of Oriental Archaeology (Cairo) and a specialist in the ancient history and archaeology of the Nile valley. HARAONIC civilization was remarkable for the continuity of its development. To succeeding civilizations of Africa in particular, it bequeathed a legacy whose importance should not be underestimated. It inherited from Neolithic times techniques which were transmitted and enriched in the pre-dynastic period (3500 to 3000 BC) and were subsequently preserved when the historical period was in full flower.

In the crafts, the ancient Egyptians' contribution can be traced in stone, but also in wood, glass, and many other materials.

As early as 3500 BC, the Egyptians, the heirs to the Neolithic period in the Nile

valley, used the flint deposits there, especially those at Thebes, to carve instruments of incomparable quality, of which the Gebel-el-Arak Knife is one example among hundreds.

This craftsmanship is also found in the carving of stone vases. Here, too, the technique of the Neolithic period carried on through the pre-dynastic period and the Old Kingdom and continued to the end of ancient Egyptian history. The Egyptian stone-carver used every kind of stone, even the hardest varieties, working with basalt, breccia, diorite, granite, porphyry as readily as with the softer calcareous alabasters, schists, serpentines and soapstones.

From Egypt, stone-carving techniques later passed to the Mediterranean world. The carvers of Cretan vases must surely have learned their skills, if not in Egypt itself, at least in a milieu that was thoroughly steeped in Egyptian culture like the Syro-Palestinian Corridor. Even the shapes of the vases of the ancient Minoan period betray their Egyptian origins.

The dexterity of the cutters of hard stones passed to the sculptors. This can be

quality of the goods produced by Egyptian weavers. Here we have a graphic example of one of the ways in which the Egyptian legacy was handed down.

Egypt contributed, if not the invention, at least the distribution of glass-making techniques to world civilization. While it is true that Mesopotamia and the civilizations of the Indus were likewise familiar at a very early time with glazing, the technique which is the basis of glass making, there is

moulded in coloured glass, were set in wood or stone to make inscriptions. The techniques of the Pharaonic glass makers were handed down to craftsmen of the Hellenistic period who invented blown class.

Alexandria then became the main centre for the manufacture of glassware, exporting its products as far as China. Aurelius levied a tax on Egyptian glassware imported into Rome. The Meroitic empire later imported some glassware from Alex-

The common unit of measure in Egypt was the cubit, a measure based on the length of the forearm from the elbow to the tip of the middle finger. The standard rule of Egyptian craftsmen was made of wood and had a bevelled edge; it measured a "short cubit", standardized at 450 mm. The "royal cubit" had a length of 525 mm.

Photo © Louvre Museum, Paris

Painter's palette of hard glazed paste, carved in the form of a human hand holding a shell, still contains traces of red paint of the type used by Egyptian craftsmen to indicate alignments and levels during construction of a building or for making a preliminary layout of wall decorations.

Photo © The Metropolitan Museum of Art, New York. Taken from *Grandes Villes de l'Egypte Antique*, by Geneviève Sée, Editions Serg, Paris

seen in the great Egyptian hard stone sculptures, from the diorite Chefren of Cairo to the large black basalt sarcophagi of the Apis bulls. The skill then passed to the sculptors of the Ptolemaic period and later found expression in the statuary of the Roman empire.

The cultivation of flax rapidly led to great ability in hand-spinning and linen making. The latter was known from the start of the Neolithic period and its beginning coincided with the emergence of civilization in the Nile valley. The women spun the linen, doing so with great skill since they frequently handled two spindles simultaneously.

For the Pharaohs, woven fabrics constituted a commodity particularly appreciated abroad. The finest cloth of all, byssus, was woven in the temples and was especially renowned. The Ptolemies supervised the weaving shops and controlled the quality of the manufacture, and their central administration, doubtless following the pattern set by the earlier Pharaohs, organized sales abroad which brought the king huge revenues because of the superior

d stone no evidence to suggest that they spread it

abroad.

It is certain that the Egyptians demonstrated their aptitude in the art of glass making in a relatively short time. The presence of glass beads seems to be attested in the pre-dynastic period, although it is not certain that they were deliberately made by the craftsman.

Glass, as such, was known in the fifth dynasty (c. 2500 BC) and began to spread from the time of the New Kingdom (c. 1600). It was then used not only for beads but also for vases in the form of fishes. They were usually polychromatic and always opaque.

Transparent glass made its appearance under Tutankhamen (c. 1300 BC). Starting about 700 BC, Egyptian polychromatic glass vases, in the form called alabaster, spread throughout the Mediterranean area. They were copied by the Phoenicians, who developed their manufacture into an industry.

In the later period, hieroglyphic signs,

andria but, above all, adopted its manufacturing techniques and spread them to the upper Nile valley.

One of the most important industries was that of the production of papyrus invented by the ancient Egyptians. No plant played a more significant role in Egypt than papyrus. Its fibres were used for boat making and for caulking, for the wicks of oil lamps, for mats, baskets, ropes and hawsers.

The hawsers which served to moor the pontoon bridge that Xerxes tried to lay across the Hellespont were made in Egypt out of papyrus fibres. When tied together in bundles, papyrus stems served as pillars in early architecture until classical architects took them as a model for their simple or clustered columns whose capitals were shaped like closed or open flowers. But, above all, papyrus was used to make "papyrus", from which the word "paper" is derived.

Papyrus was made by placing crosswise

One of the largest and best preserved temples in Egypt, the temple of Edfu (right) was built on the west bank of the Nile in Upper Egypt during the period of the Ptolemaic dynasty. Construction of the temple, which was dedicated to Horus, began in 237 BC. Even at this comparatively late date the papyrus motif still predominates at the base and on the capitals of the columns lining the great courtyard.

Photo © Henri Stierlin, Switzerland



successive layers of fine strips taken from the stem of the plant which, after pressing and drying, formed a large sheet.

Twenty sheets of papyrus joined together while they were still moist formed a scroll three to six metres in length. Several scrolls could be joined together and reach a length of thirty or forty metres.

It was scrolls of this kind that constituted Egyptian books. They were held in the left hand and unrolled as the reading proceeded. The volumen of classical antiquity is a direct heir of this scroll.

Of all the writing materials employed in antiquity, papyrus was certainly the most practical. It was supple and light. Its sole drawback was its fragility. Over a long period it stood up poorly to humidity, and it burnt very easily. It has been estimated that to maintain the inventory of a small Egyptian temple, ten metres of papyrus were required each month.

Provincial notaries, during the Ptolemaic dynasty, used from six to thirteen scrolls or

from twenty-five to fifty-seven metres each day.

Every large estate and royal palace and all the temples maintained registers, inventories and libraries, which indicates that hundreds of kilometres of papyrus must have existed at that time whereas only a few hundred metres have been rediscovered.

The papyrus used in Egypt from the time of the first dynasty (c. 3000 BC) until the end of the Pharaonic period was later adopted by the Greeks, the Romans, the Copts, the Byzantines, the Aramaeans and the Arabs.

A large part of Greek and Latin literature has come down to us on papyrus. Papyrus was, unquestionably, one of the major legacies bequeathed to civilization by Pharaonic Egypt.

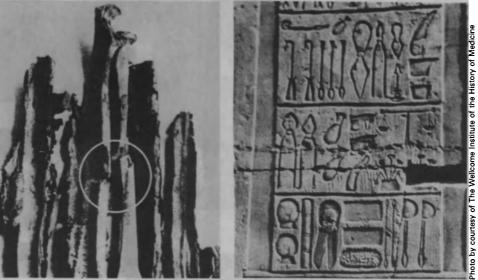
The Egyptian expertise in wood working is brilliantly manifested in their ship-building. The necessities of daily life in the Nile valley, where the river is the only con-

venient thoroughfare, made expert boatmen of the Egyptians from the earliest times.

In 1952, two great pits dug into the rock and covered with huge limestone slabs were discovered along the southern side of the Great Pyramid. In the pits, partially disassembled, but complete with oars, cabins, and rudders, were discovered the very boats used by the Pharaoh Cheops. One of these boats has been removed from the pit and restored. The other one is still waiting to be taken out of its tomb.

Cheops' boat, now in a special museum, has been rebuilt. When found it consisted of 1,224 pieces of wood which had been partially disassembled and stacked in thirteen successive layers in the pit. The boat measures 43.4 metres long, 5.9 metres wide, and has a capacity of about forty tons. The side planks are between thirteen and fourteen centimetres thick. Cheops' boat has no keel, and is flat bottomed and narrow. The most remarkable fact is that it was built without any nails: the pieces of





As long ago as 2500 BC, Egyptian physicians were famous for their ability to diagnose and treat hundreds of diseases and to perform many kinds of operations. They could, for example, reduce and set fractures using strips of linen soaked in resin or asphalt (photo above left) and understood the nature and causes of hernia, from which the bearded harvester (top photo) clearly suffered. Above right, detail from a bas-relief at the Temple of Kom Ombo in Upper Egypt is thought by scholars to represent surgical instruments used sometime during the Ptolemaic dynasty (323-30 BC).

wood are held together solely by the use of tenon and mortise joints.

Beginning with the fifth dynasty, and probably even before, the Egyptians knew how to adapt their ships for ocean-going voyages. The boats of Sahure show that for use at sea the height of the prow and the poop were greatly reduced.

In Cheops' boat, these were raised high above the waterline. This made the ship difficult to manage in the waves of the Mediterranean or the Red Sea. In addition, Egyptian naval engineers lent great solidity to the whole structure by equipping the ship with a torsion-cable passing over the bridge and tying the stern firmly to the bow. This cable also acted as a keel, ensuring the rigidity of the entire structure and reducing the danger of its breaking in the middle.

With these modifications, the Egyptian ship was capable of plying the furthest maritime routes opened up by the Pharaohs, whether on the Mediterranean in the direction of Palestine, Syria, Cyprus and Crete, or on the Red Sea towards the distant country of Punt.

The Pharaonic contribution to science and applied mathematics has left a valuable legacy.

It was, undoubtedly, the knowledge they acquired from mummification that enabled the Egyptians to develop surgical techniques at a very early period in their history. We have quite a good knowledge of Egyptian surgery, in fact, thanks to the Smith Papyrus, a copy of an original which was composed under the Old Kingdom, between 2600 and 2400 BC. This papyrus is virtually a treatise on bone surgery and ex-

ternal pathology. Forty-eight cases are examined systematically.

Several of the treatments indicated in the Smith Papyrus are still used today. Egyptian surgeons knew how to stitch up wounds and to set a fracture using wooden or pasteboard splints. And there were times when the surgeon simply advised that nature should be allowed to take its own course.

Of the cases studied by the Smith Papyrus, the majority concerned superficial lacerations of the skull or face. Others concerned lesions of the bones or joints such as contusions of the cervical or spinal vertebrae, dislocations, perforations of the skull or sternum, and sundry fractures affecting the nose, jaw, collar-bone, humerus, ribs, skull and vertebrae.

Examination of mummies has revealed traces of surgery, such as the jaw dating from the Old Kingdom which has two holes bored to drain an abscess, or the skull fractured by a blow from an axe or sword and successfully reset. There is also evidence of dental work such as fillings done with a mineral cement, and one mummy had a kind of bridge of gold wire joining two shaky teeth.

By its methodical approach, the Smith Papyrus bears testimony to the skill of the surgeons of ancient Egypt, skill which it would be fair to assume was handed on gradually, in Africa as well as in Asia and to classical antiquity, by the doctors who were always attached to Egyptian expeditions to foreign lands.

Moreover, it is known that foreign sovereigns, like the Asian prince of Bakhtan, Bactria, or Cambyses himself, brought in Egyptian doctors, that Hippocrates "had access to the library of the Imhotep temple at Memphis" and that other Greek physicians later followed his example.

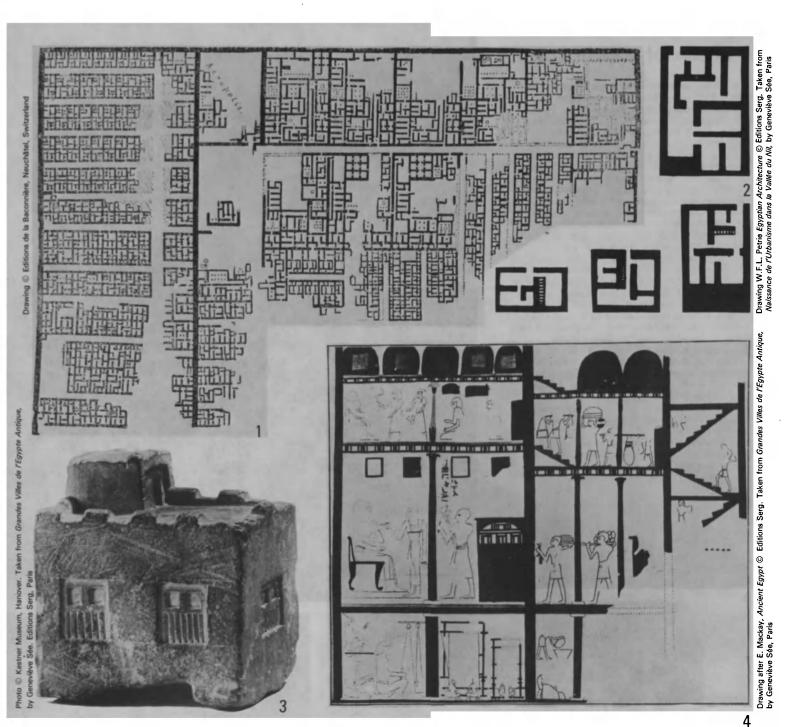
Medical knowledge can be considered as one of the most important early scientific contributions of the ancient Egyptians to the history of man. Documents show in detail the titles of Egyptian physicians and their different fields of specialization. In fact the civilizations of the ancient Near East and the classical world recognized the ability and reputation of the ancient Egyptians in medicine and pharmacology.

Among the ailments identified and competently described and treated by Egyptian doctors were gastric disorders, stomach swelling, skin cancer, coryza, laryngitis, angina pectoris, diabetes, constipation, haemorrhoids, bronchitis, retention and incontinence of urine, Bilharzia and ophthalmia.

The Egyptian doctor treated his patient using suppositories, ointments, syrups, potions, oils, massages, enemas, purges, poultices, and even inhalants whose use the Egyptians taught to the Greeks. The Egyptian pharmacopoeia contained a large variety of medicinal herbs, the names of which, unfortunately, elude translation. Egyptian medicinal techniques and medicines enjoyed great prestige in antiquity, as we know from Herodotus.

The Greek writers Herodotus and Strabo concur in the view that geometry was in-

from "The Earliest Splints" by G. E. Smith, British Medical Journal, ch 1908, with permission of the publisher



vented by the Egyptians. The need to calculate the area of the land eroded or added each year by the flooding of the Nile apparently led them to its discovery.

Egyptian geometry, like mathematics, was empirical. In ancient treatises, the task was first and foremost to provide the scribe with a formula that would enable him to find rapidly the area of a field, the volume of grain in a silo or the number of bricks required for a building project. The scribe never applied abstract reasoning to the solution of a particular problem but just provided the practical means in the shape of figures

Nonetheless, the Egyptians knew perfectly well how to calculate the area of a triangle or a circle, the volume of a cylinder, of a pyramid or a truncated pyramid, and probably that of a hemisphere. Their greatest success was the calculation of the area of a circle. They proceeded by reducing the diameter by one-ninth and squaring the result which was equivalent to assigning a value of 3.1605 to  $\boldsymbol{\pi}$ , which is much more precise

Few traces remain of the ordinary houses of the ancient Egyptians, yet archaeological excavations, plans, documents and archives that have survived bear witness to the skills of ancient Egyptian architects and town-planners. (1) Plan of the remains of the city of Kahun, built during the reign of Sesostris II (1897-1878 BC) in the present-day region of al-Fayyum, reveals the existence of five types of houses designed for the different social categories - notables, scribes, office-workers, artisans and workmen. The houses of the notables were located on the northern edge of the city while the humbler dwellings formed the workmen's quarter to the west. The house marked "Acropolis" on the plan was probably used by Sesostris himself. Despite their size—they had seventy or more rooms and antechambers-the notables' houses were built in the same style as the smaller (two to nine rooms) dwellings (see [2] detail to right of plan). (3) This "soul house", a pottery model placed in a tomb as a symbolic dwelling for the soul, was found in an 18th dynasty (1567-1320) tomb and represents a country house. Unlike the average town house it has windows on all sides and a roof terrace accessible by means of an interior staircase. Photo (4) Cross-sectional painting from an 18th dynasty tomb of an elegant Theban town house. The principal rooms have a higher ceiling than the others and receive light and ventilation from small windows placed just below ceiling height. An additional refinement is the air space between the ceiling and the upper floor. The ground floor seems to house the domestic services whilst on the roof terraces are to be seen the customary grain storage silos.



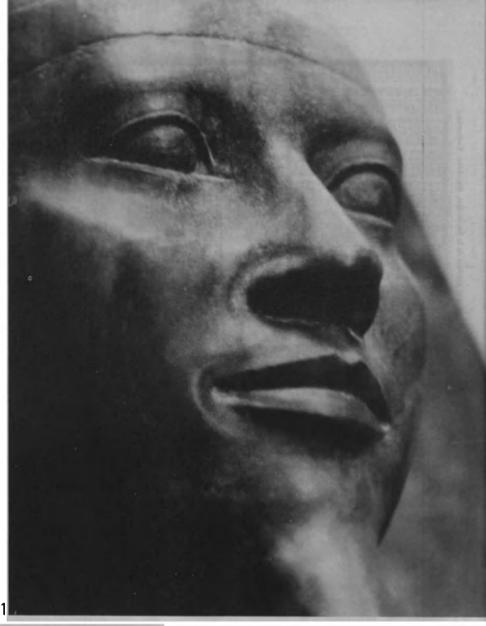
### The face of ancient Egypt

Carved out of wood and stone, four pharaohs and a high priest look out across the centuries with undiminished vitality. Photo (1): Enigmatic — Khafre, or Chephren, late 26th century BC, fourth king of the 4th dynasty, builder of the second of the three great pyramids of Giza. Some experts believe that the head of the great sphinx bears his features. Photo (2): Phlegmatic — Sesostris III, 12th dynasty king, ruled 1878-1843 BC, reformer and conqueror of Nubia. Photo (3): Heretic - Amenophis IV, reigned 1379-1362 BC. Perhaps the first monotheist in recorded history, he abandoned the old gods of Egypt, changed his name to Akhenaton and worshipped only Aton, the sun god. Photo (4): Hieratic - Kaaper, high priest from Saggarah, carved in sycamore, 5th dynasty (2494-2345 BC). When his statue was unearthed the workmen saw in his features such a striking resemblance to a local village notable that they immediately nicknamed him Sheik el-Beled. Photo (5): Charismatic -Thutmosis III, 1504-1450 BC, statesman, soldier and athlete, the greatest of all the pharaohs whose victories raised Egyptian prestige and prosperity to its highest peak.

Photos 1 and 4 Jacques Marthelot © Editions Serg, Paris, Taken from Naissance de l'Urbanisme dans la Vallée du Nil, by Geneviève Sée. Cairo Museum

Photo 2 © Cairo Museum, Taken from Naissance de l'Urbanisme dans la Vallée du Nil, by Geneviève Sée, Editions Serg, Paris Photo 5 Jacques Marthelot © Editions Serg, Paris, Taken from Grandes Villes de l'Egypte Antique, by Geneviève Sée. Cairo Museum

Photo 3 Unesco











to Medical Market of Art, him feet from feet from



than the value 3 given to  $\pi$  by other ancient peoples.

The Egyptian contribution to astronomy must be deduced from practical applications made on the basis of observations. This contribution is however far from insignificant.

The Egyptian calendar year was divided into three seasons of four months, each having thirty days; to these 360 days, five were added at the end of the year. The 365-day calendar year, the most accurate known in antiquity, is at the origin of our own calendar year inasmuch as it served as the basis of the Julian reform (47 BC) and of the Gregorian reform of 1582. Side by side with this civil calendar, the Egyptians also used a religious, lunar calendar and were able to predict the moon's phases with adequate accuracy.

Ever since the Napoleonic expedition to Egypt, Europeans have been struck by the accuracy of the alignment of structures built at the time of the Pharaohs, particularly the pyramids, the four façades of which face the four cardinal points. The Great Pyramids deviate from true North by less than one degree. Such accuracy could have been achieved only by astronomical observation.

The ancient Egyptians applied their mathematical knowledge to the extraction, transportation and positioning of the huge blocks of stone used in their architectural projects. Their tradition of using mud-

bricks and various kinds of stone went back to very early times. They first used heavy granite during the beginning of the third millennium before our era. It was used for the flooring of tombs belonging to the first dynasty at Abydos. During the second dynasty they used limestone in constructing the walls of tombs.

A new phase began during the third dynasty. This was a vital development in the history of Egyptian architecture, for if was the construction of the first complete building in stone. This is the step pyramid at Saqqarah, which forms a part of the huge funerary complex of King Zoser.

Imhotep, who was probably the vizier of King Zoser (c. 2580 BC), was the architect who built the ensemble containing the step pyramid where hewn stone was used for the first time. The blocks were small and looked very much like a limestone imitation of the sun-dried brick used earlier in funerary architecture. Similarly, the imbedded columns and the ceiling joists were stone copies of the bundles of plants and beams used in earlier construction. Thus, there is every indication that Egyptian architecture was amongst the first to use hewn stone in coursed work.

Until the Roman conquest, civil architecture continued to use sun-dried bricks even in the building of royal palaces. The outbuildings of Ramses in Thebes and the great Nubian fortresses provide a very good idea of the versatility of this material. It could be used with the utmost refinement, as can be seen from the Palace of Amenhotep IV at Tell el-Amarna with its pavements and ceilings decorated with paintings.

Another contribution in the field of ar-

chitecture was the creation of the column. This was at first attached to the wall but later became free-standing.

In developing this architectural skill the ancient Egyptian was much influenced by the local environment. For example, in arriving at the idea of a column, he was inspired by his observation of wild plants such as reeds and papyrus.

He cut the capitals of the columns into the shape of lotus flowers, papyrus and other plants, and this was another architectural innovation. The lotus papyrus palm and fluted columns of ancient Egypt were adopted in the architecture of other cultures.

The technical knowledge acquired by the Egyptians in construction and irrigation as the result of digging canals and building dikes or dams manifested itself in other fields allied to architecture.

By 2550 BC, they had sufficient skill to build a dam of hewn stone in a wadi near Cairo. Somewhat later, their engineers cut navigable channels in the rocks of the First Cataract at Aswan. By all evidence, towards 1740 BC, they seem to have succeeded in erecting a barrage on the Nile itself at Semna, in Nubia, to facilitate navigation to the south. And finally, during the same period, they built a ramp parallel to the Second Cataract, over which they slid their boats on the fluid mud of the Nile. The ramp extended over several kilometres, a predecessor of the Greek Diolkos of the Isthmus of Corinth, and ensured that the rapids of the Second Cataract never hindered navigation.

Cultural ties linking Egypt with the African interior existed during the earliest stages of prehistory as well as in historical times. Egyptian civilization under the Pharaohs permeated the neighbouring African cultures.

Comparative studies prove the existence of common cultural elements between black Africa and Egypt, such as the relationship between royalty and natural forces. This is clear from archaeological findings in the former territory of the land of Kush: royal pyramids were built in El-Kurru, Nuri, Gebel Barkal and Meroe. They bear witness to the significance of Egyptian influence in Africa.

Unfortunately, our ignorance of the Meroitic language, and of the extent of the Meroitic empire, prevents us from judging the impact it had on the cultures of ancient Africa as a whole to the east, west and south of the Meroitic empire.

■ Rashid El-Nadoury with the collaboration of Jean Vercoutter

de l'Egypte Anchenne, Vol. 3. Editors de la Baconnière, Neutralian de la Pacchailet, Switzerland

Photo © Metropolitan Museum of Art, New York. Taken from L'Histoire de la Civilisation de l'Egypte Ancienne, Vol. 3, Editions de la Baconnière, Neuchâtel, Switzerland

The ancient Egyptians developed the carving of hard stone to a fine art as witness the detailed perfection of this mythological scene incised on the lid of a priest's sarcophagus found at Saqqarah, near ancient Memphis, and dating probably from the 30th dynasty (380-343 BC). The arched body of the sky goddess Nut forms the vault of the sky. Within the inner circle can be seen the prostrate body of Shu, the god of light and air and supporter of the sky. Bordering this inner circle are the banners of the forty nomes or provinces of Egypt. Within the larger circle, on either side, stand the goddesses of East and West. Between their extended arms, on which sail the ships of day and night, passes the winged disc of the sun which is swallowed each night by the goddess Nut to be reborn each morning.

After the sack of Napata by the Egyptian pharaoh Psamtik II, in about 590 BC, the capital of the empire of Kush was transferred further south to Meroe, near the sixth cataract. Above, granite statue, over three metres high, of Aspalta (593-568 BC), the first attested Meroe sovereign. With its favourable climate and geological conditions Meroe became a prosperous agricultural, mining and trading centre.

### The Empire of Kush

An original civilization which flourished for a thousand years in ancient Nubia

by Jean Leclant

HOUGH today the region is extremely isolated behind a barrier of deserts and the difficult hurdles of the Second, Third and Fourth Cataracts of the Nile, Dongola and the adjacent basins of the Middle Nile were formerly the centre of rich and powerful political structures. In the first half of the second millennium the so-called Kerma culture marked a rich and prosperous kingdom, the Kush of the Egyptian records.

The extremely patchy archaeological prospection of this still little-known zone is quite inadequate for fixing the history of this sector after the brilliant but relatively short phase of Egyptian domination under the New Empire (1580 to 1085 BC). For nearly three centuries, the link between Africa and the Mediterranean world seems to be broken and almost total silence blankets Nubia. But from the end of the ninth century BC we get a re-awakening: excavation of the Kurru necropolis near Napata below the Fourth Cataract revealed the tombs of a succession of princes.

These were the royal ancestors of the line which effected the union of Egypt and the Sudan, known as the twenty-fifth or "Ethiopian" dynasty of Egypt.

With the illustrious monarch Peye, we enter the mainstream of history. One of the inscriptions which he caused to be carved at Napata is now preserved in the Cairo Museum and is one of the longest and most detailed texts of ancient Egypt. On front, back and sides are 159 lines of hieroglyphs describing the deliberations of the king in his palace and the phases of his campaign against the Libyan princes who were masters of Middle Egypt and the Delta.

Towards 713 BC, Shabaka, brother of Peye, ascended the throne. He brought the entire Nile valley as far as the Delta under the empire of Kush. The international

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politics of the Middle East drew the Kushites towards Asia where Assyrian pressure was beginning to make itself felt. But to begin with, Shabaka seems to have preserved good relations with Assyria. In the Sudan and Egypt, he launched a policy of monument building which was expanded under his successors, the two sons of Peye, first Shabataka (700 to 690 BC), and then the glorious Taharqa (690 to 664 BC).

Taharqa's name is found on numerous monuments throughout the whole length of the valley. He built his sanctuaries at the foot of the holy mountain of Gebel Barkal, a kind of sandstone table formation which dominates the large fertile basin of Napata.

Taharqa had accepted the challenge of war with the Assyrians. His name looms large in the Bible where the terror caused by the black warriors of the land of Kush is evident. Assarhaddon failed in his attempt to invade Egypt and it was his successor Assurbanipal who, at the head of an extremely strong army, captured and sacked Thebes in 663 BC. The Kushites withdrew southward and their dynasty in Egypt came

We shall do well to pause over this fiftyyear period during which Egypt and the Sudan combined as a great African power. The Kushite kingdom presents itself as a twin monarchy; its symbol is the double Uraeus, the two snakes which rise above the forehead of the Pharaoh and protect him. In their general style, their clothing and their attitudes the sovereigns of the twenty-fifth dynasty copy the Pharaohs of Egypt who preceded them and whose successors, if not descendants, they claim to be.

The style of their monuments is typically Pharaonic. The inscriptions are Egyptian, recalling the pure classical tradition. But the faces portrayed on reliefs and statues show marked cheekbones, heavy chins and thick lips. They also wear ornaments characteristic of the Sudan. A popular headdress is a kind of close cap fitting tightly to the neck with a sidepiece protecting the temple; a thick knotted head-band holds it in place leaving two streamers hanging behind the shoulders. Earrings and

the pendants of necklaces are adorned with rams' heads, the ram being the sacred animal of Amon.

After the retreat of the Kushites from Egypt under the assaults of Assyrians, their history is much more difficult to determine. For a millennium a State survived, becoming ever more African, the kingdom of Kush, the name of its own choice from the ancient native name for the territory.

To begin with the capital remained at Napata, at the foot of the sacred mountain, Gebel Barkal. Later, almost certainly in the sixth century BC, it was transferred much further south to Meroe near the Sixth Cataract.

A possible explanation for the transfer of the capital may have been climatic and economic considerations. At Meroe the steppes were much more extensive than in the basins around Napata, hemmed in by deserts. Agriculture was practised as well as livestock raising, cultivation being perfectly possible in this zone of summer rainfall. Enormous irrigation basins (hafirs) were dug out adjacent to the principal sites. Commerce must have been brisk, as Meroe was an ideal entrepot for the caravan routes between the Red Sea, the upper Nile and Chad.

With Queen Shanakdakhete (around 170 to 160 BC) we appear to get the accession to full power of a typically local matriarchy. It is on an edifice in her name at Naga that we find inscriptions engraved in Meroitic hieroglyphs which are among the most ancient known.

These hieroglyphs are borrowed from Egyptian but differ in their values. They are written and read in the opposite way to the Egyptian ones; this may attest a deliberate desire to be different. With these hieroglyphs there goes a cursive form of writing often abbreviated; the signs seem to be derived in part from the demotic writing used in Egypt at that period for administrative and private documents. Whatever the case may be, the Meroitic language, whose nature is still not known, and the graphic system are completely different from the Egyptian.

Thereafter a preponderant place falls to two queens, Amanirenas and Amanishakheto. Their husbands remain forgotten and we do not even know the name of Amanishakheto's. The throne was also occupied for some years by a king, the former prince Akinidad, son of Queen Amanirenas and King Teritegas. Nevertheless it is important which of these two queens or 'Candaces' came first (the word Candace is the transcription of the Meroitic title Kdke according to the tradition of the classical authors).

One of the two queens had dealings with Augustus in a famous episode, one of the rare occasions when Meroe appears on the stage of universal history. Following the sack of Aswan by the Meroites (which was probably when the statue of Augustus was captured, the head of which has been discovered buried under the threshold of one of the palaces of Meroe), the prefect of Roman Egypt, Petronius, mounted a punitive expedition and captured Napata in 23 BC.

A permanent garrison was established by the Romans at Primis (Qasr Ibrim), which held off the Meroites. In 21 or 20 BC a peace treaty was negotiated at Samos, where Augustus was staying at the time.

The Roman garrison appears to have been withdrawn; the exaction of a tribute from the Meroites was renounced and the frontier between the Roman and Meroitic empires was fixed at Hierasykaminos (Maharraqa).

This period around the start of the Christian era is one of the peaks of Meroitic civilization, as a number of buildings attest. The names of Akinidad and of the Queen Amanishakheto are inscribed in Temple T at Kawa, and a palace discovered in the last few years at Ouad ben Naga close by the river has been attributed to the gueen. Her fine tomb is still to be seen in the Northern Cemetery of Meroe. The pyramid, with the traditional eastern approach of pylon and chapel, is one of the most imposing in the old city.

Natekamani, son-in-law and successor of Amanishakheto, and his wife, Queen Amanitere (12 BC to AD 12) were also great builders, and their names are indisputably those recurring most frequently on the Kushite monuments. Throughout the major cities of the empire, these monuments speak of the power of a dynasty at its apogee. The royal couple also put in hand the restoration of Napata, devastated by Petronius' expedition, and in particular of the temple of Amon. They devoted particular attention to Naga, the great centre of the steppe-country south of Meroe: the frontal approach to the temple of Amon became a pylon whose decoration combines Egyptian influences and purely Meroitic features, while the most famous building is the Naga lion temple whose reliefs are among the most representative examples of Meroitic art.

We know very little of the last centuries of Meroe. The indigenous component in



the culture becomes more and more important. The control of the caravan routes between the Nile valley, the Red Sea and the Nilo-Chadian savannah—the economic cornerstone of this empire—was probably not easy to maintain. The royal pyramids become progressively smaller and poorer; while the rarity of Egyptian or Mediterranean objects indicates a cutting-off of outside influences.

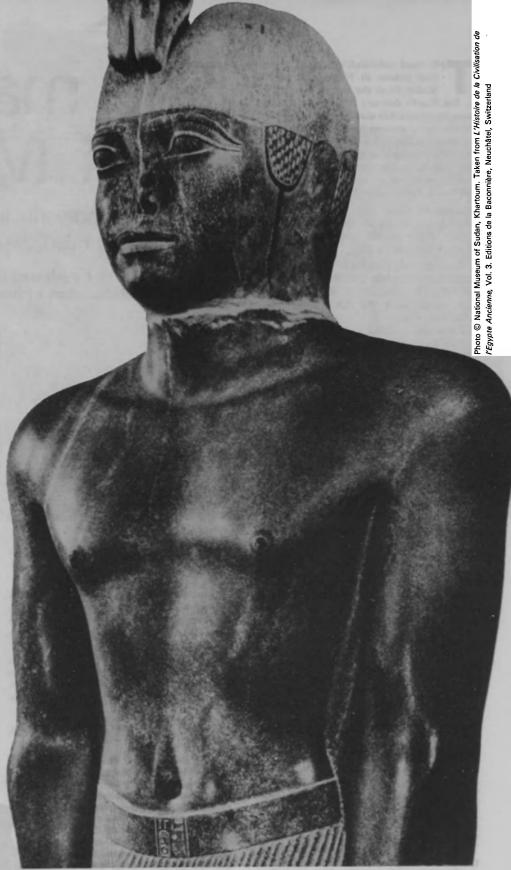
The Meroites, who until then had beaten back the raids of the nomad tribes, thenceforward became a tempting prey for their neighbours, Axumites to the south, nomadic Blemmyes to the east and Nubas to the west. It is almost certainly to this last group, mentioned for the first time by Eratosthenes in 200 BC, that the overthrow of the Meroitic empire should be ascribed.

The glory of Kush is quite surely reflected in certain legends of Central and West Africa. The Sao and the Bushongothey have legends of the bringing of knowledge by men from the east. Knowledge of techniques spread; certain peoples cast bronze by the "lost wax" method, as in the Kushite kingdom. But above all, and of vital importance, it would seem to be thanks to Meroe that the working of iron spread over the African continent.

Whatever the importance of this penetration of Meroitic influences through the rest of Africa, the role of Kush should never be underestimated: for over a thousand years, first at Napata and then at Meroe, there flourished a strongly original civilization which, beneath an Egyptianstyle veneer fairly constantly maintained, remained profoundly African.

Jean Leclant





Carved from black granite and nearly four metres in height, this powerful portrait of king Taharqa (690-664 BC) of the 25th, or "Ethiopian", dynasty comes from the temple of Gebel Barkal, near Napata. Under the *uraeus*, the emblem of royal power in the form of the sacred asp worn on the headdress of ancient Egyptian sovereigns, Taharqa is depicted wearing the typical Ethiopian skull-cap. Missing from the statue are the tall feathers, the attributes of the warrior god Onuris, with which the headdress was originally adorned.

Built during the 2nd and 1st centuries BC, this group of pyramids, fourteen metres in height, forms part of a royal necropolis at Gebel Barkal, near Napata. Although at the time they were built the capital of the empire of Kush had been transferred to Meroe, a number of rulers were still taken to Napata for burial.

HE most outstanding feature of political power in Nubia and central Sudan from the eighth century BC to the fourth century AD seems to have been its remarkable stability and continuity. Unlike many ancient kingdoms, the country escaped the upheavals associated with violent dynastic changes. Indeed one can say that basically the same royal lineage continued to rule uninterruptedly following the same traditions.

Some of these traits are significant in helping us to sketch the character and nature of the political and social structure of the empire of Kush.

One of the peculiar features of the political system was the choice of a new sovereign by election. Classical authors, from Herodotus in the fifth century BC, to Diodorus of Sicily in the first century BC, express their surprise about this usage, so different from that of other ancient kingdoms, in their accounts of the "Aethiopians", as the inhabitants of the Kush empire were then generally called.

They insist on the oracular choice of the new king. Diodorus affirms that "the priests previously select the best of candidates and from those that are summoned the people take as a king the one whom the god chooses as he is carried round in procession... Straightaway they address and honour him as if he were a god since the kingdom was entrusted to him by the will of the divinity."

An analysis of all the relevant texts shows that the office of king was hereditary in the royal lineage. In contrast to the Pharaonic or any other ancient Oriental system where the succession normally followed the father-son pattern, in Napata and Meroe the king was chosen among his royal brethren.

The initiative in choosing a new sovereign came from the army leaders, high officials and clan chiefs. Any claimant of doubtful ability or unpopular with the electors might well be passed over. The oracular confirmation was merely a formal ratification of a previous choice and had rather a symbolic character designed for the public which was persuaded that god himself had elected the new ruler.

Further it is plain that in theory the crown was to pass to the brothers of a king before descending to the next generation; from among twenty-seven kings ruling before Nastasen (d. about 310 BC), fourteen were the brothers of preceding kings. There were, of course, exceptions when this or that king usurped the throne, but in such cases he tried to justify and legalize his action.

There are also some signs that the right

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### The matriarchs of Meroe

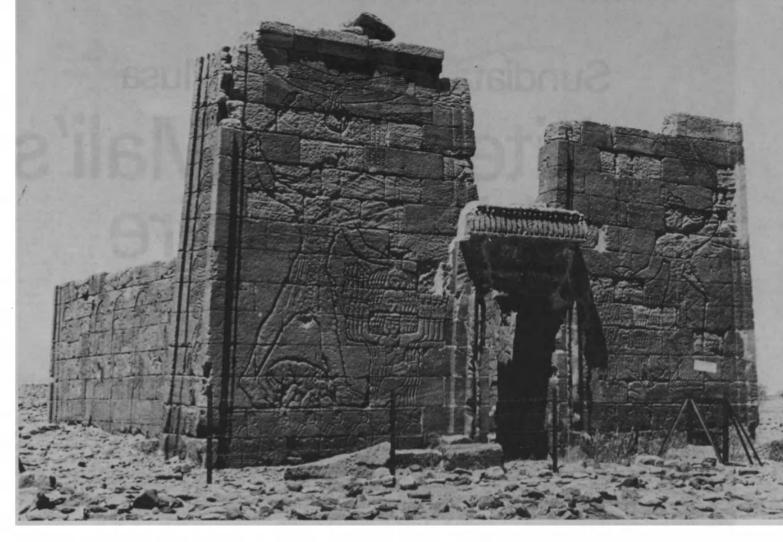
A powerful line of Queens who ruled the Kushite Empire

by Ahmed M. Ali Hakem with the collaboration of Ivan Hrbek and Jean Vercoutter

Dedicated to Apedemak, the Meroitic warrior god with the head of a lion and the body of a serpent (photo right), the lion temple at Naga, to the south of Meroe, is famous for its inscriptions and reliefs which are among the finest examples of Meroitic art. The temple dates from the late 1st century BC or early 1st century AD during the reign of king Natekamani and his queen Amanitere, depicted (above right) on the towers flanking the entrance to the temple. The importance of the role of the candaces (queens) in the Meroitic monarchical system is apparent from the fact that the sculptor has given equal importance to both figures and from the imperious gesture with which Amanitere, like her royal husband, strikes down the enemies of the kingdom. Although their attitudes and gestures and the style of the relief show Egyptian influence, clothing and ornaments are typically Meroitic.

Photos © Almasy, Paris





to the throne might depend even more on claims through the maternal line than on royal paternity. The role of the queenmother in the choice of a new king is seen from many inscriptions. Some of these traits have close parallels among kingdoms and chiefdoms in various parts of Africa.

The exact role played by royal ladies in the earlier periods is not quite clear but there are many indications that they occupied prominent positions and important offices in the realm. During the Kushite rule over Egypt the office of the chief priestess (Dewat Neter) to the god Amon in Thebes was held by the daughter of the king and gave her great economic and political influence. Even after the loss of Egypt, and consequently of this office, royal ladies continued to hold prominent positions coupled with considerable power among the temple priesthood of Amon at Napata and elsewhere.

The queen-mother's important role at the election and coronation ceremonies of her son is mentioned in inscriptions relating to the coronation of Taharqa (690-664 BC) and Anlamani (623-593 BC) in such a way as to leave no doubt about her decisive influence and specific status. She also exercised an influence through a complicated system of adoption, whereby the queenmother, designated by the title Mistress of Kush, adopted the wife of her son.

The iconography confirms the enhanced status of queen-mothers. In religious scenes on temple walls they occupy prominent positions, second only to the king himself, whereas on the walls of the pyramid chapels the queen appears behind the deceased king participating as the prin-

cipal person in the offerings presented to him.

In the later period these queens—either mothers or wives—started to assume political power and proclaim themselves sovereign, even adopting the royal title Son of Re, Lord of the Two Lands (sa Re, neb Tawy) or Son of Re end King (sa Re, Nswbit). Many of them became famous, and in Graeco-Roman times Meroe was known to have been ruled by a line of Candaces, Kandake or queens regnant.

This title is derived from the Meroitic Ktke or Kdke meaning queen-mother. Another title—qere—meaning ruler, was not used until the Meroitic script appeared. As a matter of fact only four queens are known to have used this title, namely Amanirenas, Amanishekhete, Nawidemak and Maleqereabar, all by definition being candaces.

It is noteworthy that in the royal tombs of Nuri, from Taharqa to Nastasen there is no evidence of a queen having the full burial of a reigning monarch and during this period no reigning queen is known. The earliest attested reigning queen was Shanakdekhete, early in the second century BC, and she was allowed a full royal burial. Most probably, in the beginning, the title and the office did not mean more than queen-mother. She was entrusted with bringing up the royal children.

She was thus in a position to exercise great power and influence which were manifested by her special role in the coronation ceremony and her adoption of the wife of her sbn. At some stage the queens would outgrow their sons or husbands and

take a favourable moment to assume all power to themselves.

From Shanakdekhete onwards we have a series of reigning queens, but beginning with Amanirenas in the first century BC there seems to be another development. This was the close association of the first wife of the king and, perhaps, their eldest son on many of the important monuments. This suggests some degree of co-regency since the wife who survived her husband often became the reigning candace. However, this system did not last for more than three generations and seems to come to an end after Natekamani, Amanitere and Sherkaror in the first half of the first century AD.

All this points to the internal development of a local institution which was not a copy of a foreign practice such as that of the Ptolemies in Egypt (cf. Cleopatra). Indeed we can observe how these institutions grew in complexity over the centuries.

This kingship system had some advantages over a rigid system of strict direct succession since it eliminated the danger of an unsuitable successor, whether a minor or an unpopular personality. The injection of new blood into the royal family was assured by the system of adoption. The various checks and controls inherent in this system, the prominence given to the queen-mother and the insistence on rightful descent ensured the rule of the same royal family. All this may have contributed to the continuity and stability enjoyed by Napata and Meroe for such long centuries.

### Sundiata and Mansa Musa

# Architects of Mali's golden empire

by Diibril Tamsir Niane

HE Manding historical tradition as taught by the griots forms a corpus centred on the character of Sundiata, founder of the Empire of Mali. Yet it is probable that if Ibn Battuta, in 1353, and Ibn Khaldun, in 1376, had not mentioned the great conqueror in their writings, classical historians would have gone on regarding Sundiata as a mythical or legendary ancestor, so great is the part attributed to him by oral tradition in the history of Manding or Mali.

History relates that Nare Fa Maghan, king of the Mandingo (1210-1230), had several wives, one of whom was called Sogolon Conde. She gave birth to a sickly child who did not walk until after the age of ten. This child was named Sundiata. Because of his infirmity, his life was spared by Sumaguru, king of the neighbouring Soso people, when he overran Manding.

Tradition has it that, resolved to succour his country, Sundiata called for an iron bar with which to hoist himself to his feet, but the bar bent under his weight. A member of his entourage cried out: "Give him his father's sceptre to lean on", and with the aid of this royal symbol Sundiata rose to his feet

But the harsh rule of Sumaguru continued and Sundiata went into exile. He settled at Mema where a delegation from the Mandingo clans called on him to lead the revolt against Sumaguru. At Kirina, between Bowako and Kangaba, on the left bank of the River Niger, the rebels led by Sundiata defeated Sumaguru thus laying the foundations of the great Empire of Mali.

Manding tradition attributes to the young victor of Kirina the codification of the customs and prohibitions which still

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govern relations between the Mandingo clans and their relations with the other clans of West Africa. Many things have been ascribed to this African "Alexander" which belong to a much later date. But the main outlines of the Constitution and the administrative structures are to a large extent the work of Sundiata.

According to tradition it was at Kurukan Fuga that the Gbara or Great Assembly took place at which Sundiata was solemnly proclaimed Emperor, King of Kings. Each ally was proclaimed king or governor (Farin) of his territory. In fact, only the chiefs of Mema and Wagadu bore the title of king.

The Assembly decreed that the Emperor must always be chosen from the line of Sundiata, that the princes must always choose their first wife from among the Conde clan (in memory of the happy marriage of Sundiata's parents Nare Fa Maghan and Sogolon Conde), and that in accordance with ancient tradition, the succession was to be fratrillinear. The Mansa was the supreme judge, the patriarch, the "father of all his subjects", whence the formula "M'Fa Mansa" (king, my father) for addressing the king.

The Malinke (Mandingo) and the allies were divided into sixteen clans of free men or nobles (Tonta-Djon Tanni Moro), the sixteen clans who bore quivers. The five marabout clans, the first of Sundiata's allies, among them the Toure and the Berete, who had actively sought out Sundiata in exile, were proclaimed the "five guardians of the Faith, or Mori Kanda Lolu". Men practising special trades were divided into four clans (G'hara Nani). These included the griots, the shoemakers, and certain clans of smiths.

As the tradition says, Sundiata "divided up the world". That is to say, he fixed the rights and duties of each clan. A special measure dealt with the defeated Soso: their territory was declared the property of the empire, and they were distributed among the various craft castes or clans. Some of them fled to the Futa-Djallon mountains.

This Constitution was very important in itself, and had far-reaching effects. It

reproduced the age-old pattern of the Empire of Ghana, in which the individuality of each region was recognized. But above all, Sundiata codified the system of craft clans so that professions became hereditary. It seems that in the days of the Ghana Empire every man exercised the trade of his choice, but henceforward the son had to practise the same trade as his father, especially within the four craft clans or castes.

Each province or kingdom retained a large degree of autonomy. The name Manding or Mali applied to all countries with a large Mandingo population, and the official title of the Emperor was Be Bara Mansa, "Emperor of all the peoples".

Al-Omari, adviser and secretary to the Sultans of Cairo and Damascus, has left us a list of twelve provinces and fourteen towns. They have not all been identified (Arabic manuscripts are difficult to read because most of the Arabic writers who provide the sources of the history of Mali were translated at a period when little was known about the toponymy and geography of the Sudan).

Al-Omari's town of Nyeni can certainly be identified as Niani, a little village on the borders of Guinea and Mali. Al-Omari wrote: "The town of Nyeni is the same in length and in breadth, being about one berid long and the same distance wide. It is not surrounded by a wall, and the houses stand separately for the most part. The king has a group of palaces surrounded by a circular wall. A branch of the Nile (Niger) surrounds the town on all four sides...

"The houses are built in layers of clay, like the walls of the gardens at Damascus. This is how they proceed: they build in clay to a height of two-thirds of a cubit, then leave it to dry. Then they repeat the process until all is finished. The ceilings are made of beams and reeds. They are mostly in the shape of a cupola or of the hump of a camel, like arcades. The floors of the houses are of earth mixed with sand".

Excavation of the tumuli at Niani is now providing confirmation of Al-Omari's account. The stone foundations under the accumulation of banco or beaten earth; fragments and whole examples of fine pot-

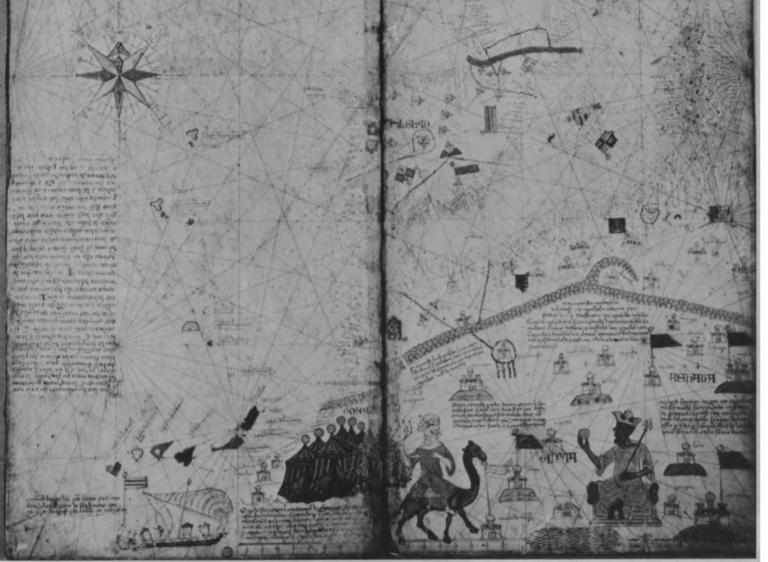


Photo © Bibliothèque Nationale, Paris

The international renown of the Mali Empire, which covered much of West Africa between the 13th and 15th centuries, is reflected in the famous "Catalan Atlas" (1375) produced by Abraham Cresques for King Charles V of France. Mali ("ciutat de Melli") is prominently shown along with this portrait of its *Mansa* (Emperor) wearing a European-style crown. The ruler is holding a large nugget symbolizing Mali's fabulous wealth in gold. In front of him is a Tuareg chief on a camel.

tery; traces of the ground plan of a mosque and of a wall round the palace—all these now make it possible for us to say with certainty that it was on the banks of the Sankarani that Sundiata set up his capital, which for more than a century was the political centre of the western Sudan.

Beautifully situated, on a huge plain by the Sankarani, Niani was surrounded by a semi-circle of hills crossed by passes and dominated by a rocky peak. The Sankarani was deep and navigable all the year round.

Mani, as the town was originally named, was on the edge of the Guinea-Ivory forest, a source of gold and palm oil where Malinke traders sold cotton and copper goods. Hitherto it had been just a small town made famous by the resistance of its king against Sumaguru. When he settled there, Sundiata changed its name to Niani, which in Malinke means "suffering". Oral tradition calls it Niani ma bori, the exile of Sundiata (the flight of sorrow). The new name indicated that the conqueror's troubles were over.

Niani spread swiftly over the plain and at the foot of the mountains, served by two ports on the Sankarani, a northern port and a southern port, and linked to Manding (Bouré) by the Manding Road or Manding Sila, and to the Niger valley by the Sarakolle Road or Sarakoule Sila. Niani attracted both the black merchants and the Arab/Berbers.

There are several legends cencerning the death of Sundiata. It is almost certain that he was drowned in the Sankarani, some ten kilometres upstream from Niani where there is a place called Sundiata-dum (Sundiata's shelf). This part of the river is very deep and the pirogues take care to avoid it. On either side of the river the Keita set up sacred places, stone altars where from time to time, on great occasions, the descendants of the Conqueror met to sacrifice fowls and sheep and oxen.

Roughly speaking, Mali at its height covered the Western Sudan from the saltpans of Teghaza in the Sahara to the Ivory-Guinea forest in the south, and, west to east, from the Atlantic (Tekrur, Gambia, Bambadinka or Guinea-Bissau) to the Air in the Es-Souk region, where the copper mines were then being actively exploited.

It is difficult to estimate the size of the Empire's population. In the sixteenth century Mahmoud Kati said Mali had 400 towns, and it is certain that the Empire was well populated, especially in the Niger valley between Djénné and Timbuktu. Tekrur and Casamance had a large rural population. In its heyday in the fourteenth

century, Niani and its many towns must have had at least a hundred thousand inhabitants.

The old principle of succession passing from brother to brother was not observed after Sundiata's death, when his eldest son, Mansa Yerelinkon (or Oulin or Ouali) seized power and reigned from 1250 to about 1270.

In about 1307 Kanku Musa, a nephew of Sundiata, came to the throne. As Mansa Musa I he reigned from about 1307 to 1337. Under him, Mali reached its height.

Mansa Musa is the best known of the Emperors of Mali, largely because of his pilgrimage to Mecca in 1325 and his visit to Cairo, where he gave away so much gold he caused a depreciation on the market. The pilgrimage had important consequences for the subsequent history of the Western Sudan, for after it Egypt, the Maghreb, Portugal and the merchant cities of Italy took an increasing interest in Mali. Mansa Musa, who was very proud of his power, did much to make the rest of the world think of his Empire as an El Dorado.

Mansa Musa made elaborate preparations for his pilgrimage. In accordance with tradition he levied special contributions from every trading town and every province. He left Niani with a vast retinue.

Djénné, described by the 14th-century Arab historian Es Saadi as "one of the greatest markets in the Muslim world", still boasts a number of fine buildings. Particularly outstanding is the imposing mosque which, with the equally famous mosque at Timbuktu, is one of the jewels of "Sudanese style" architecture. It was built in 1905 of banco (beaten earth) strengthened with wood, the material used centuries before in the prestigious monuments erected by the Mali Empire's great ruler Mansa Musa. Far right, rooftop view of the mosque. Right, one of the minarets, surmounted by ostrich eggs. Below, four-cornered shelter affords much-needed shade.

Photos © Monique Maneval, Paris

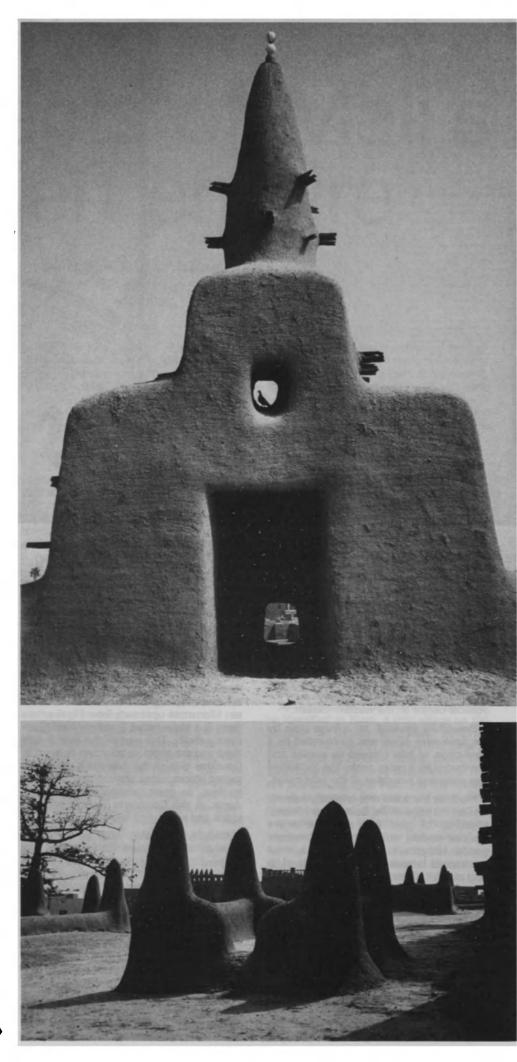
Although the figures given by the Arab writers are probably exaggerated, they give some idea of the resources Mali could muster: 60,000 porters and 500 servants decked in gold and each carrying a golden staff. At the beginning of the sixteenth century, Mahmoud Kati relates how according to tradition the Emperor was still in his palace when the head of his caravan arrived in Timbuktu.

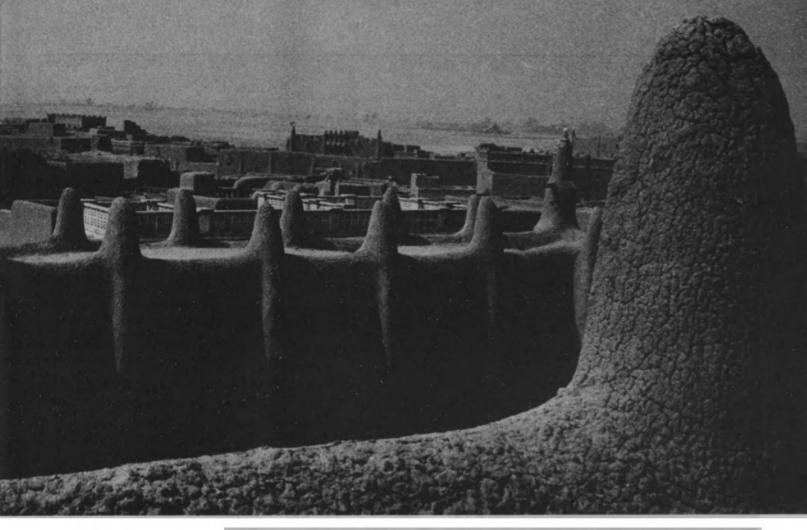
He was received in Cairo with the honours due to a great sultan, and created a great impression by his bearing and Arabian Nights lavishness. He is one of the few kings of whom we possess a description. "He was a young man with a brown skin", wrote Maqrisi, the contemporary Arab historian, "a pleasant face and good figure, instructed in the Malekite rite. He appeared amidst his companions magnificently dressed and mounted, and surrounded by ten thousand of his subjects. He brought gifts and presents that amazed the eye with their beauty and splendour".

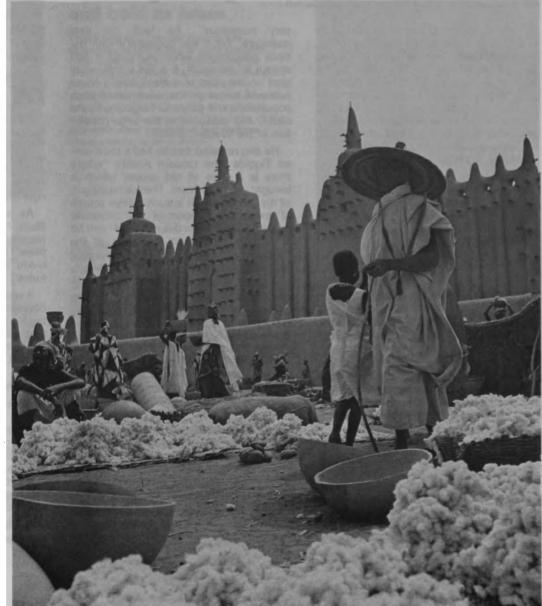
Tradition says that he bought land and houses in Cairo and Mecca to accommodate pilgrims from the Sudan. But the important thing is that he established sound economic and cultural relations with the Mamelukes.

Impressed no doubt by the majestic palaces he saw in Cairo, Mansa Musa returned home with a famous architect, Ishaq al-Touedjin, who built the great mosque at Gao, of which only a few remains of the foundations and a part of the mirhab survive. In Timbuktu he built another great mosque or Djinguereber, and a royal palace or Madugu.

But his finest work was certainly the

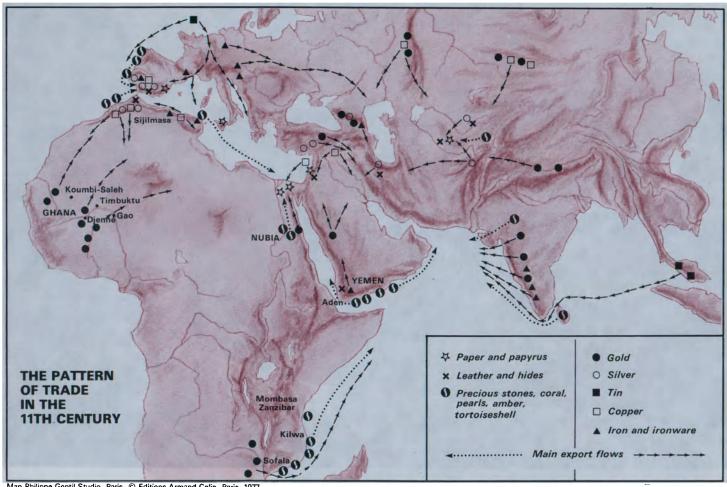






Situated on the flood lands of the Niger, Djénné was a leading city of the historic Mali Empire and later the capital of the Songhay Empire (see photo caption page 14). It is still a busy trading centre today. Every Monday hundreds of colourfully dressed Peul, Bozo, Tuareg and Bambara, many from distant villages, flock to buy and sell at Djénné's bustling market, right, in the shadow of the great mosque.

Photo © Gert Chesi, Schwaz, Austria



Map Philippe Gentil Studio, Paris, © Editions Armand Colin, Paris, 1977

famous audience chamber at Niani, on which he lavished all the resources of his art. The Emperor wanted a strong building covered with plaster, and Touedjin "built a square room surmounted by a cupola... and having covered it with plaster and decorated it with arabesques in dazzling colours, he produced a wonderful edifice. The sultan was delighted and gave Touediin twelve thousand mitqals of gold dust as testimony to his satisfaction".

No doubt the Emperor's architect had to use the most common material in that part of the Sudan, i.e. beaten earth. Buildings made of earth need constant repair and restoration in such latitudes as that of Niani. Further north where the rainfall is lighter, buildings last better, as is the case with the mosques at Djénné, Timbuktu and Gao. In the absence of stone, the banco or beaten earth is strengthened with wood; hence the characteristic Sudanese mosques bristling with bits of timber.

With the successive destructions of Niani, the wearing away of the plaster, years of rain, the poet-architect's great achievement was finally reduced to a heap of clay. Perhaps one day the archaeologists will discover beneath it the stone foundations of the building that so delighted Mansa Musa.

In Cairo Mansa Musa had been very ready to answer the questions of courtiers and men of learning, and he described his empire in detail, not without some exaggeration. He said he had "the exclusive right to gold, and that he gathered it in like a tribute". Mansa Musa exaggerated the size of his empire: "The inhabitants are very numerous", he said, "a vast multitude. Yet if you compare it with the black populations which surround it and stretch to the south, it is like a little white spot on the coat of a black cow". Musa was well aware of the existence of large populations and powerful kingdoms in the south, and especially of the large population of the Western Sudan.

He also revealed that he had a town called Tiggida (the modern Azelik) "where there is a mine of red copper which is brought in bars to Niani. There is nothing in all my empire which is such a large source of taxes as the import of this unworked copper. It is got from this mine and from no other. We send it to the lands of the heathen Negroes where we sell one mitqal of it for two-thirds of its weight in gold...".

It was also in Cairo that Musa revealed that his predecessor on the throne had died at sea, "for he would not allow that it was impossible to get to the other side of the Surrounding Sea, and did all he could to achieve this purpose...". After the failure of 200 ships filled with men, and others filled with enough gold, water and provisions to last for years, the Emperor himself took charge of operations, fitted out a thousand ships, and set off. He was never to return.

What was the fate of this expedition and how far Musa is to be believed are interesting questions. But at least this anecdote shows that the Mandingo conquerors who reached the coast, including Gambia, were not indifferent to the problems of navigation.

After his famous pilgrimage, Marinids of Fez and the merchant cities of the Maghreb began to take a lively interest in Mali, and there were exchanges of gifts and embassies between the rulers.

Musa set up Koranic schools, for he had bought many books in Cairo and the holy places.

As a builder, Mansa Musa left an enduring mark on all the cities of the Sudan, with their characteristic buildings of beaten earth strengthened with wood. The mosques at Djénné and Timbuktu were the prototypes of what is called the Sudanese style.

As a patron and friend of literature, Musa helped lay the foundations of the Negro-Arab literature which was to bear its finest fruit in the cities of Djénné and Timbuktu in the fifteenth and sixteenth centuries.

It was under the Mali Empire that urban development really began in the Sudan. In the North, Walata was the great crossroads for the caravan routes. Djénné on the Niger and Timbuktu on the Niger bend began to expand. But undoubtedly Niani, the capital, was in the fourteenth century the great meeting point for the merchants.

Islam became strongly established in the towns. The king of Djénné, a vassal of Mali, was converted in 1300, probably under pressure from the many Sarakolle and Malinke traders. While gold played an important part in the development of trade across the Sahara, it must not be forgotten that the economy of the Sudan was also based on many other kinds of wealth.

Since the time of Sundiata, agriculture had been developing fast. Cotton, introduced by the Arabs before the tenth century, was grown in the Sudan-Sahel belt, and weaving and dyeing had soon become the specialities of certain clans. Al-Omari and Ibn Battuta both speak of the growing of rice, millet and fonio.

The inner delta of the Niger, in the region of Djénné, was the rice reserve of the Empire. The city itself, the apanage of the Empresses, grew in importance daily, becoming a sort of depot for the export of oil, rice, kola nuts, millet and honey to the semi-desert regions of Timbuktu, then the second most important caravan crossroads after Walata. The western and Atlantic regions, especially Gambia and Casamance, produced large quantities of rice and cotton. Weekly fairs were the occasion for the exchange of goods by barter.

Several monetary systems were in use within the Empire: cotton strips, twists of iron and, above all, cowries were the most common currencies. Small lumps of rock salt were also used. The Emperors of Mali,like the Emperors of Ghana before them, had regalian rights over gold and copper. The customs levied on imports and exports were strictly organized, and there was a heavy duty on goods exported to the north. Ibn Battuta observed how closely

the governor of Walata inspected the caravans.

The Emperors of Ghana, and after them the Mansas of Mali, were well aware of the importance of gold in their transactions with the Arab/Berbers, and strictly forbade traders from the north to enter the gold-producing regions. Sudan's control of the Sahara saltpans gave them still more power, for there was a severe lack of salt in the interior of Africa. Salt was a great source of revenue for the merchants and all the Sudanic Empires would try to control the salt trade.

But, for medieval Europe, Mali was above all a great exporter of gold, and before the discovery of America, gold from the Sudan supplied almost all the Arab Mediterranean trade. In the fifteenth century the merchant cities of Italy and the kings of Portugal would vie for access to the fabulous Sudan.

This great commercial activity fostered the development of cities, and Niani, Djénné, Gao and Timbuktu attracted more and more Arab/Berbers, while the Malinke and the Sarakolle (the Diula) set up markets and fairs all along the border of the forest. As a result the Mandingo spread far

and wide, from the coasts of Gambia to the gold-producing regions of Ashanti.

Mali flourished until the sixteenth century, its merchants rivalling the Portuguese since they controlled the sources of gold in the African hinterland. Between 1550 and 1599 the last sovereigns struggled in vain to restore Mali to its former glory; but the years of greatness were past.

■ Diibril Tamsir Niane



### Wisdom good as gold and bold as brass

These tiny ornamental figures are examples of the brass or gold weights once used in parts of West Africa for weighing gold dust. Each one illustrates a popular saying or proverb. The two drums, left, of the Akan group of peoples who live in Ghana and the Ivory Coast, convey a stark message: "The hide of the doe who does not follow her mother always ends up on a drum".



Left, Akan "Adjabia" (Throne of State) weight symbolizing the King, the State and the Nation. On seats of this kind the Akan make sacrifices to the shades of their ancestors. The moral: "Where there's no throne there can't be a King" and "The King is mortal but Adjabia is eternal".

"True solidarity is a matter of arms and legs" is the saying associated with this "Atatafé" (solidarity) weight. In other words if you really want to help others then be ready to use your muscles. Another proverb, "We are united because we have eaten the same food", is even more explicitly related to the figurine. It alludes to the unity that comes from sharing the same spiritual sustenance.

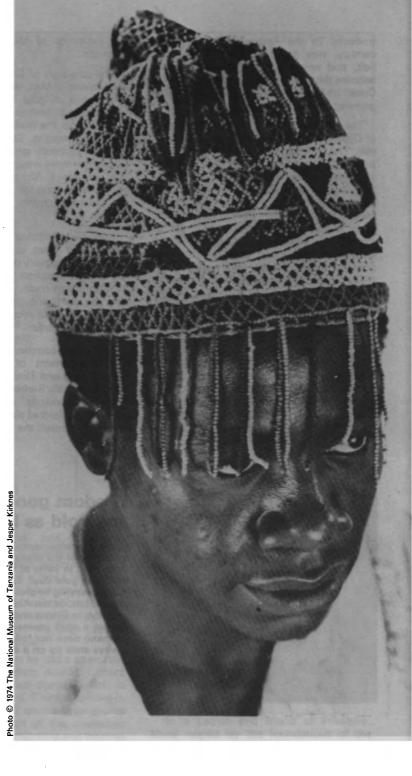
Photos © Niangoran-Bouah, University of Abidjan, Ivory Coast



Backward-looking bird, above, is a royal emblem meaning "The King sees everything". The moral: sometimes it's a good idea to see what's going on behind your back.

The property of the last Sultan of Kilwa, this colourful fez is typical of Swahili culture, drawing on African influences for its bead embroidery and on Arab sources for the fez design. A maritime city-state built on the island of Kilwa Kisiwani, off the coast of present-day Tanzania, Kilwa was a flourishing trade centre from the 12th to the 15th century.

# The shaping of Swahili civilization



by Victor V. Matveiev

N the history of the islands and coast of East Africa the period from the twelfth to the fifteenth century stands out as that of the formation of what may best be termed the Swahili ethnic community.

Around the twelfth century the Swahili people did not form a homogeneous community either ethnically or socially. Ethnically, a nucleus of Bantu-speaking peoples was joined by people from the closer parts of the hinterland and emigrants from the countries of the northern shore of

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the Arabian Sea and the Indian Ocean, comprising Arabs, Persians and Indians.

Social disparity was a fact too, since in addition to the main body of ordinary, free members of the community, there existed a distinct and isolated rich élite which enjoyed the influence stemming from traditional functions. Alongside this élite the community included individuals who were also rich but did not wield traditional power and influence. Their wealth derived from trading. The commoners formed the majority and the main body of the Swahili people.

The common Swahili people lived in huts which they made from sticks and clay and thatched with palm leaves or grass. These huts were grouped to form villages and towns. However, Arab sources tell us of the more advanced culture of the towns of

the East African islands and coast which was related to the development of maritime trade.

These towns probably consisted for the most part of huts, but they also had stone buildings and were the dwelling places of the wealthy and noble members of Swahili society. The important point was that the towns were trading centres where local wares were assembled and ships from overseas put in. They were at the same time centres of Islam on the coast.

Archaeological work carried out at Kilwa Kisiwani, a small island off the eastern coast, provides a picture of fairly developed trading. Finds have included a large quantity of cowrie shells, which were used as money, imported pottery of the yellow sgraffito type with a cream shading and also with dark green glazing, and

glassware. A small quantity of glass, cornaline and quartz beads and steatite vases from Madagascar have also been found. The main export item here was gold. In the mid-twelfth century Kilwa started to import Chinese Sung porcelain together with a small amount of celadon.

In the early thirteenth century the "Shirazi" dynasty ruled at Kilwa and it seems that Mafia Island came under its sway. In the mid-thirteenth century Kilwa fought the Shanga people, who were most probably the inhabitants of the island of Sanje ya Kati. The likely cause of the struggle was rivalry to control local trade. As related in the Chronicle of Kilwa, Kilwa ultimately prevailed. This victory probably underlay the subsequent rapid development of Swahili trade and the Swahili civilization, which can be reckoned to begin in the early fourteenth century and coincided with the advent at Kilwa of a new dynasty associated with the name of Abu-I-Mawahib.

In the fourteenth century the volume of trade was, it seems, at its height. Our main source in Arabic for that period is Ibn Battuta, who visited East Africa. He describes Mogadishu as a major trading centre and relates that it was customary for each merchant who arrived to choose from among the citizens a confidential agent to manage his affairs.

Mogadishu exported "maqdashi" (i.e. of Mogadishu) cloth. Mogadishu's trade links were distinct from those of the other towns farther south. Thus maqdashi cloth was exported to Egypt, while other cloth was imported from Egypt and from Jerusalem. We know of the huge quantity of cloth arriving at Mombasa and Kilwa for onward dispatch to Sofala in the fifteenth century.

The part played by cloth in the early period is clear, for instance, from the account in the *Chronicle of Kilwa* of the purchase of Kilwa Island. When Hussein Ben Ali, an Arab, expressed the desire to purchase Kilwa Kisiwani, the local African chief replied that he would sell the island for a length of cloth sufficient to encircle it. Hussein Ben Ali had the cloth made and took possession of Kilwa.

The main export items were ivory and gold. In addition to these were slaves (the slave raids being referred to by Ibn Battuta), rhinoceros horn, ambergris, pearls, shells and, in the northern part of the coast, leopard skins.

There were undoubtedly links between the coast and the inland gold-bearing regions near Lake Nyasa, from which the gold was brought to Kilwa. The goldbearing regions near the Zambezi in the heart of the continent and on the territory of what is now Zambia were probably the first with which trade links were established. This is attested by finds of cowrie shells, which were exchanged for gold and ivory. In the Engaruka area of present-day Kenya, excavation of a trading settlement yielded the same type of cowrie shells and beads (of the fifteenth and sixteenth centuries) as in excavations at Kilwa and other coastal towns.

In this trade it was cowrie shells more than any other article which provided a medium of exhange. They are found in all excavations and, as indicated, not only on the coast but also in the interior of the continent. The same purpose seems to have been served by beads and, at a later date, by china. Where commercial activity was the most intense a new type of medium of exchange was introduced in the form of coins of copper and silver. The minting centres seem to have been Kilwa and Mogadishu.

Coins are found in the major trading centres such as Kilwa Kisiwani, Kisiwani Mafia, Kwa on Juani Island, and the islands of Zanzibar and Pemba. It may also be supposed that coins had a greater exchange value than cowries, and their introduction is a likely indication of the large scale of business done. This is borne out by the fact that the main article of trade at Kilwa was gold, with its very high intrinsic value. At that time the abundance of gold and its rôle in commerce as an article of trade obviously precluded its use as a medium of exchange.

Trade underlay the social and cultural development of Swahili society. The contacts that are a natural part of trading familiarized it with the cultural achievements of other peoples, in particular the Arabs, Persians and Indians. Despite the vast quantity of goods of Chinese origin found in the course of excavations, the Chinese did not take a direct part in trading with Africa until the early fifteenth century.

A consequence of the development of trade was the appearance of an influential group in Swahili society competing for power with the old aristocracy. The rise of this new influential group and its endeavour to consolidate its position called for a new ideology. This was provided by Islam which had become known through contacts with the Arabs and Persians.

The penetration of Islam seems to have begun at the end of the seventh or eighth century. In the tenth century AI Masudi reports the presence of Muslims on Kanbalu Island speaking an African language. That is the period to which the spread of Islam on the East African islands is usually attributed. In the thirteenth century Islam spread to the coast itself. This East African Islam should evidently not be put on a par with that of the Arab countries, for instance. In all probability, what was important at the beginning was simply to be considered as being Muslim, and the new religion coexisted with traditional cults.

In the course of time the influence of Islam grew and went deeper, and the number of adherents increased. An outward indication of this kind of change is the rise in the number of mosques. The start of this extension process should probably be dated back to no later than the last decades of the twelfth century, and its full development must have coincided with the fourteenth and fifteenth centuries.

The adoption and spread of Islam under conditions of intense commercial activity was accompanied by much borrowing from Arabic, particularly with regard to trade, religion and law. Judging by the reference in Ibn Battuta's work to the cadis of Mogadishu and Kilwa, Swahili society

assimilated some elements of the Muslim legal system (but probably not the entire system). The demands of trade and religion, with the need to keep accounts, to observe a number of Muslim religious ceremonies, and to fix the rights and privileges of the various sections of Swahili society, also led to Swahili being put into a written form based on Arabic script.

A consequence of the development and spread of Islam among the Swahili was not only the construction of mosques but also the development of building in stone. Its beginnings date back to the twelfth century in Gedi, Zanzibar and Kilwa. This initial period had its own building methods, which consisted simply in laying coral blocks on red clay. The only edifice from that period to have survived to this day is the Great Mosque of Kilwa but it was rebuilt a number of times and is now a completely new building.

In the fourteenth century the main trading centre of Kilwa underwent a period of growth and prosperity in architecture as well as in commerce, and building methods developed further. Use was simply made of undressed stone of more or less uniform size, which was placed in mortar. New construction elements included spherical and pointed cupolas, semicylindrical vaults, stone columns and various ornaments. But it seems that those elements were then only to be found at Kilwa. Elsewhere flat roofs continued to be the rule.

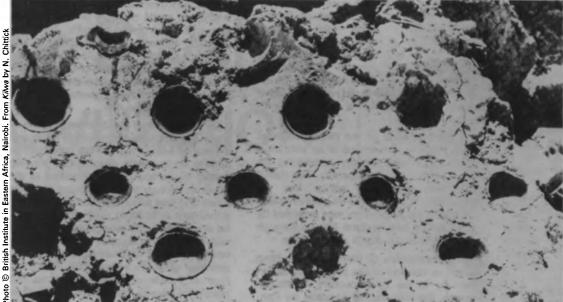
In the course of the fourteenth century many stone houses were built in Kilwa and it became a large town. This construction activity undoubtedly denotes the growing wealth of the town. In the first half of the fifteenth century this activity continued at Kilwa and was accompanied by further improvement in building methods. The mortar was poured into casings and completed with rubble. Even cupolas were built in this way. Monolithic columns were replaced by columns of stone and mortar. The basic type of house remained the same but houses of two or three floors made their appearance.

A characteristic detail of building at that time was the custom of adorning vaults and cupolas with glazed vessels of Chinese and Persian porcelain set into the body of the construction. The house with a mosque within the bounds of Makutani is a monument of that period at Kilwa. In the reign of Sultan Sulaiman ibn Muhammed al-Malik al-Adil (1412 - 1442), the Great Mosque of Kilwa was reconstructed in its present form, and it is a very fine example of East African Swahili architecture.

According to Portuguese sources, the streets of the districts of Kilwa comprising mud-wall houses were narrow and covered over with protruding palm leaves forming the roofs of the houses. The buildings in the town had wooden doors and, probably, other details in wood richly adorned with carving. Work of this kind has come to light in various parts of the coast, particularly Bagamoyo and Zanzibar.

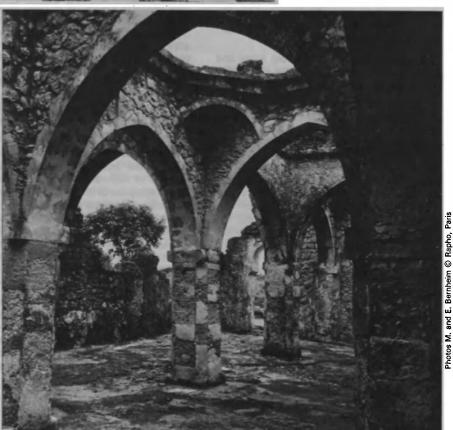
The Portuguese were impressed by the towns, by the wealth of the inhabitants and by the elegance of their rich gold-adorned silk and cotton clothes. The women wore chains and bangles of gold and silver on





The Great Mosque of Kilwa

"Faith and righteousness are their foremost qualities", declared the Arab historian Ibn Battuta in a description of the people of Kilwa written in 1331. For not only was Kilwa an important trading centre, it was also a centre of Islamic influence. Construction of the Great Mosque of Kilwa was begun in the 12th century and as the city's prosperity grew the Mosque was rebuilt several times. During the reign of Sultan Sulaiman ibn Muhammed al-Malik al Adil (1412-1442) the Great Mosque was reconstructed in its present form (aerial photo above) and with its cupolas, columns and vaults (right) it remains a fine example of East African Swahili architecture. Kilwa imported large quantities of Persian and Chinese pottery, including Sung porcelain and celadon and, later, Ming blue and white porcelain. A curious practice among builders of the time was to inset porcelain bowls as a ceiling decoration. Above, a fallen portion of a vault in the House of the Mosque showing inset bowls.



their arms and legs, and earrings set with precious stones.

The furniture consisted of carpets and mats, and sometimes stools and luxurious beds inlaid with ivory, mother-of-pearl, silver and gold. The rich made everyday use of imported pottery from Iran, Iraq and China, as well as from Egypt and Syria.

East African Swahili towns, like Kilwa, were often administrative centres and the capitals of small States ruled over by the local Muslim dynasties. But above all they were trading centres. Indeed, it seems clear that the East African Swahili civilization was the fruit of commercial development. It was trade that prompted the growth and progress of a civilization. But it can also be said to have underlain its weakness, for it was not tied in with development of the productive forces of the region.

From the occupations of the population it can be seen that the Swahili people as a whole did not endeavour to develop its productive forces beyond the level which pro-

bably obtained in traditional Swahili society before the advent of trading on a substantial scale.

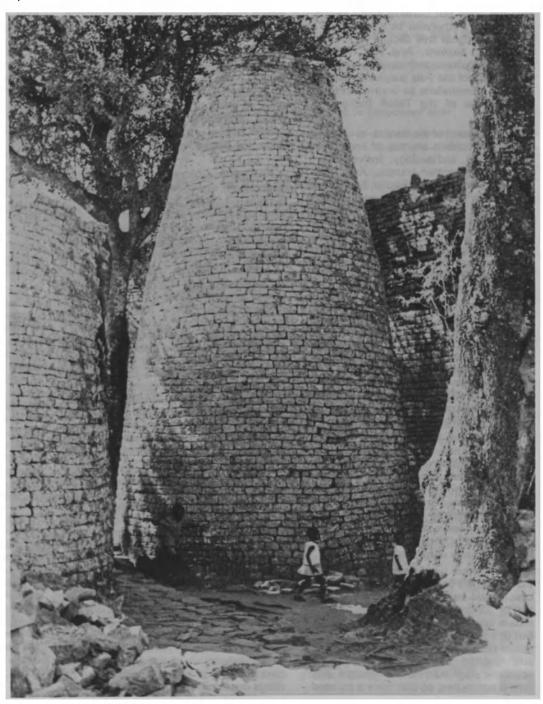
This is also evident from the fact that few iron tools or other metal instruments have come to light in excavations. Almost all the goods got or produced by the Swahili were intended not for local consumption but for sale and export. This was also true of hunting and the mining of such commodities as gold and iron.

At the same time, trade alone was an insufficient basis and stimulant for a civilization. The loss of former trade routes and the disruption of commercial relations threatened to bring trade to a standstill, with the inevitable consequence of a rapid depletion of wealth and of the civilization's vital force. This, as we now know, was what the future held in store for the East African towns.

Various circumstances are considered to have contributed to the decline of the Swahili civilization. There was the Zimba invasion, and it also seems that decreased rainfall and the consequent upsetting of the water balance hindered the further development of the coastal towns.

It is possible that all these factors did actually sap the Swahili civilization. The chief cause, however, was the disruption of maritime trade by the Portuguese. Being well fitted out, equipped with artillery and built for the very purpose of naval warfare, the Portuguese ships were an invincible force. Their constant presence in the region under the command of Ruy Lorenso Ravasco, the seizure of twenty vessels laden with goods, the defeat of Zanzibar's large fleet of light craft, and the plundering and destruction of the coastal towns, particularly Kilwa, were all blows from which East African maritime trade never recovered, and beneath them medieval Swahili civilization perished.

■ Victor V. Matveiev



The imposing ruins of Great Zimbabwe, former capital of two great southern African states-the Monomatapa Empire (12th to late 15th century) and the Changamire Empire (late 15th to early 19th century) - are situated near Fort Victoria in present-day Zimbabwe-Rhodesia. The construction of Zimbabwe's hilltop stronghold, and the Great Enclosure on the plain below must have required an effort comparable to that involved in the building of the Egyptian pyramids. The conical tower, right, 9 metres in height, lies within the massive walls of the Great Enclosure which was erected in the 13th and 14th centuries. The wealth of Zimbabwe was based on the region's gold and copper mines and the recent discovery in the ruins of a coin bearing the effigy of Sultan Al-Hasan Bin Sulaiman (1320-1333) of Kilwa seems to confirm that Zimbabwe was regularly visited by Arab traders from the east coast.

Photo Picou © A.A.A. Photo, Paris



### A continent viewed from within

the "being" of Africans is the same—that of *Homo sapiens*—their "being-in-theworld" is different. Once this is done, new instruments can be developed with which to apprehend their particular evolution.

Four main principles must govern research if we want to push forward to a new frontier in African historiography.

To begin with, interdisciplinarity. This is so important that it can almost be regarded as a source in itself. The application of political sociology to the oral tradition concerning the Kingdom of Ségou, for example, has filled out considerably a picture which would otherwise be nothing but a bare genealogical tree decked with a few stereotyped exploits. And was it not a datum of cultural anthropology—the initiatory text of the Fula shepherds—which enabled prehistorians to unravel some of the enigmas of the Tassili frescoes in Algeria?

The expansion of the Bantus, as attested by the concordant sources of linguistics, oral tradition, archaeology, anthropology, and the early written sources, Arab, Portuguese, British and Afrikaaner, becomes a living reality which can be set out in a vivid synthesis. Similarly, while linguistic arguments converge with those of technology to suggest that royal gongs and twin bells spread from West Africa to Lower Zaire, Shaba and Zambia, archaeological evidence would of course provide invaluable confirmation of this.

The Ennedi provides an excellent example of the coming together of all available sources. In this region it has been possible to establish a diachronic typology of pictural and ceramic styles and to draw from them a chronological series extending over eight millennia; and all this supported by stratigraphic soundings, and confirmed by carbon datings and the study of flora and fauna, the habitat, and oral tradition.

When eclipses are linked to the reigns of various dynasties, a list of dated eclipses, more or less visible according to area, can occasionally help with chronology. But, in general, chronology requires the use of several sources, for a variety of reasons: firstly, the average length of reigns and generations varies; secondly, the nature of the relationship between a sovereign and his successor is not always clear.

On the other hand, it is very important that the whole course of the historical process should be reintegrated into the context of African time. The Africans' idea of time is based on the principle of causality. But of a causality applied according to particular norms, in which logic is steeped in and diverted by myth; in which the economic stage reached is elementary, and time is not money, so that there is no need

for it to be measured numerically; in which the rhythm of work and of days is metronome enough for human activity; in which calendars are not abstract or universal, but deal in natural phenomena such as moon and sun, rain and drought, and the movement of men and beasts.

Every hour is defined by concrete acts. Thus, in Burundi, amakama is the time to milk (7 a.m.); maturuka is when the herds are let out (8 a.m.); kuasase is when the sun spreads out (9 a.m.); kumusase is when the sun spreads out over the hills (10 a.m.), and so on. In this cattle-raising country, time is measured in terms of pastoral and agricultural life.

This conception of time is historical in several respects. In gerontocratic African societies the idea of anteriority is even more significant than elsewhere, because upon.it alone are based such rights as public pronouncement, participation in special dances and certain dishes, marriage, the respect of other people, and so on.

Primogeniture is not usually a matter of exclusive right to royal succession, and the number of those with potential claims (uncles, brothers, sons) is always high. The fact that age is taken into account in the context of a very open competition again lends significance to chronology.

Another imperative requirement is that African history must be seen at last from within, not still measured by the yardstick of alien values. There cannot be an independent collective personality without an awareness of self and of the right to be different. Of course, the policy and practice of self-examination do not consist in artificially abolishing Africa's historical connexions with the other continents of the Old and New Worlds. But these connexions have to be analysed in terms of mutual exchanges and multilateral influences, in which something will be heard of Africa's contribution to the development of mankind.

Moreover, this history can only be the history of the peoples of the African continent seen as a whole, including the mainland and neighbouring islands such as Madagascar. The history of Africa obviously includes the Mediterranean sector in a unity consecrated by age-long and sometimes bloody links, which make the two parts of Africa on either side of the Sahara the two leaves of one door, the two sides of one coin. It has to be a history of peoples, for even the despotism of certain dynasts has always been tempered in Africa by distance, by the absence of those technical means which add to the weight of centralization, and by the permanence of village democracies, so that at every level,

from base to summit, the council called together through and for discussion constitutes the brain of the body politic. It must be a history of peoples because, except for a few decades in modern times, it has never been shaped according to the frontiers fixed by colonization, for the good reason that the territorial bases of the African peoples differ everywhere from the frontiers inherited from colonial partition.

So in the continental context, the emphasis should be on common factors resulting from common origins and agelong inter-regional exchanges of men, goods, techniques and ideas, in other words of both material and spiritual commodities. Even since prehistory, despite natural obstacles and the low level of techniques, there has been a certain degree of historical solidarity on a continental scale, between the Nile valley and the Sudan on the one hand and the forest of Guinea on the other; between the Nile valley and East Africa, including among other things the dispersion of the Lwos; between the Sudan and Central Africa. through the diaspora of the Bantu; and between the Atlantic and east coasts. through transcontinental trade across Shaba. Migration, which took place on a large scale in both space and time, is not to be seen as a vast human tide attracted by emptiness and leaving emptiness in its wake.

Our history of Africa must avoid being too narrative, for otherwise it would be in danger of according too much importance to external factors and influences. Of course, the establishment of key events is a task of the first importance, indispensable to the task of defining the original outline of African evolution. But the main concern will be civilizations, institutions, structures: agrarian and metallurgical techniques, arts and crafts, trade networks, and conception and organization of power, religion and religious and philosophical thought, the problem of nations and pre-nations, techniques of modernization, and so on. The methodological approach makes interdisciplinarity even more necessary.

Finally, why this return to African sources? While for an outsider this quest for the past could be merely a way of satisfying curiosity, a highly stimulating intellectual exercise for someone eager to solve the riddle of the Sphinx, the real intention of our enterprise should go far beyond these purely individual aims. For the history of Africa is necessary to the understanding of world history, many passages of which will remain impenetrable enigmas as long as the historical horizon of the continent of Africa has not been lit up.

■ Joseph Ki-Zerbo

### Pre-publication announcement...

### the General History of Africa

The first two volumes of the English and French editions of this eightvolume work, to be published by Unesco in collaboration with a number of well-known publishers, are expected to be available to the public in mid-1980. The History is being prepared under the intellectual and scientific responsibility of an international committee of scholars composed of thirty-nine members, twenty-six of whom are

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- Africa will be considered as a totality. The History will show the historical relationships between the various parts of the continent and between Africa and the other continents. It will bring out Africa's contribution to the development of mankind.
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### Three million years ago in Africa

This skeleton, discovered at Hadar in Ethiopia in 1974, is that of a young female distralopitheous, the genus of "near man" which lived in southern and sestern Africa letween seven and one million years ago. "Lucy" as she has been dubbed, walked spright in the savannah where she lived three million years ago. She was less than four set tall and suffered from arthritis. Hominidae such as Australopitheous were probably the ancestors of man.

