Beyond the Nile

The Influence of Egypt and Nubia in Sub-Saharan Africa

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A number of developments in human affairs seem to have taken place earlier in the Nile Valley—especially in Egypt—than in other parts of Africa. The four most important of these are the development of agriculture; the formation, based on agriculture, of civilized states; the development of metallurgy (copper, gold, silver, bronze, and iron); and conversion to the two great monotheistic religions, Christianity and Islam, which brought with them distinctive, and to Africa, alien cultural complexes. I propose here to elaborate on these events and ask what role, whether intended or not, Egypt and Nubia played in their occurrences outside of the Nile Valley.

The other articles in this issue consider the frequently rivalrous relationship of Egypt and Nubia to one another; this one considers their relationship to the rest of Africa.

Figure 1. Sorghum fields around a southern Sudanese farmstead.
Hunting Collection of Air Photographs, London
The Development of Agriculture

The wheat, barley, sheep, and goats on which Egyptian agriculture was based did not originate in Egypt (Fig. 3). The wild ancestors of these domestic species are unknown in Africa. They are, however, common in western Asia where this agricultural complex originated more than two millennia earlier. In central and southern Egypt, these domesticated animals were probably adopted by the existing inhabitants rather than brought in by immigrant farmers. This supposition is based on the fact that the first farmers in these areas shared traits with African groups elsewhere, traits that include, for example, certain characteristics of their pottery and stone tools, and particular cultural practices, such as the use of mudbrick buildings.

The acceptance of a farming way of life may well have been part of a "moving frontier" in the Nile Valley in which pioneer farmers from the north worked their way southwards until their subtypical plant food complex (but not their animals) reached its natural climatic boundary in Nubia, some way north of Khartoum. Once this boundary was reached, sometime in the 4th millennium B.C., it must have been the "end of the frontier" for this plant complex, further expansion would not have been possible without a change in crops. In the whole of sub-Saharan Africa only relatively small, usually highland areas like the Ethiopian or Kenya Highlands or Cape Province in the Republic of South Africa are suitable for growing wheat and barley.

For agriculture to flourish on the shelf and savannah of Nubia, a completely different plant complex was required, one based on tropical millets (especially sorghum and pearl millet or Pennisetum glaucum). In the Nile Valley, the wild ancestors of these millets have been found from eastern Africa to Ethiopia in western Africa (Mauritania), and they were certainly being cultivated and grown into flour by 6000 B.C. in the Khartoum area. The farmers near Khartoum, at sites like Assab, had cultural connections mainly with groups to the west. Their pottery in particular was similar to that used by cattle herders in the Sahara masifs in and after the 7th millennium B.C. While there was certainly some contact with the north, South Nubian agriculture does not seem to have been derived from or due only to the influence of Egypt, but is more likely to have come from the west (Fig. 3).

South of Nubia, evidence from before the 2nd millennium B.C. is still nonexistent, so it cannot be demonstrated that a "moving frontier" carried millet cultivation through the savannas to the south.

Fieldwork in Kenya and Tanzania in recent years has shown, however, that cattle herding was present there by the 3rd millennium and sorghum cultivation by the 2nd millennium B.C. While these are regarded as the limit of agricultural expansion from the north, the thesis supported by linguistic evidence, there seems no reason to link them specifically with Nubia but rather with the wider neolithic cultures of the savannas.

In the savannas of West Africa, especially in the inland delta of the upper Niger in Mali, we find a quite separate agricultural complex based on locally domesticated African rice and tropical millets. It is not yet clear whether this complex was a result of stimulus diffusion from the north. Even if it was, there would be no reason to link it with Nubia or Egypt.

In the tropical forests of West Africa, still another agriculture, based on yams and fruit products, developed, which suggests an independent discovery of domestication. This root and tree crop complex was very different in both its plants and its farming methods from the seed agriculture of the savannas to the north.

Figures 9a and 9b locate the likely origins of the main plant and animal domesticates discussed above.

State Formation

The second great change that happened first in Egypt was the formation of a state and the development of civilization around 3000 B.C. (For an overview of state formation in the Nile Valley, see Figure 4. See also O'Connor's article in this issue, for a discussion of what constitutes a state.) Yet in the period when...
Egyptian civilization was the only one in Africa; its influence was very limited outside Nubia (Fig. 5). The idea that social systems which included "Divine Kingship" (rulers who were gods as well as kings) spread from pharaonic Egypt to other parts of Africa seems untenable.

The indigenous nature of the unified pharaonic state, although it was influenced by western Asia, is not in doubt nor is its continued independence and relative uniformity until circa 600 B.C. Although after that period there was a succession of foreign conquerors, pharaonic Egypt retained much of its individuality into the 3rd century A.D. It might be expected to have had immense influence on neighboring regions—whether by conquest, trade, or migration. In terms of general theory, a "core-periphery model" would seem appropriate. In this model, new states form on the fringes of a developed state. Further afield, trading/raiding influences occur.

To the west of Egypt there is no evidence of these developments taking place. Even in Cyrenaica there is little to suggest Egyptian influence before the 1st millennium B.C. And while extensive raiding of pastoral peoples in the border regions of Libya took place in the 3rd millennium B.C., there is no permanent control beyond the Selima and Dabulla oases (to the east of the Libyan border) seems to have been attempted. Some penetration of Egyptian artistic ideas into the central Sahara is indicated by rock engravings and paintings, notably representations of two-sailed horse-drawn carts (Fig. 7a, b), but no evidence of urban or sophisticated state formation has been found. Without the canal, introduced sometime after 1000 B.C. from west Asia, the trans-Saharan route must have been very difficult and dangerous to traverse; and no substantial trade into Egypt from the west has been proved or even suggested (Fig. 8).

To the southeast Egypt was certainly in contact with parts of the African Red Sea coast and beyond to the Horn of Africa in the 2nd as in the 1st millennium B.C. Yet coastal surveys undertaken in Somalia and Kenya have so far failed to find there, or further south on the Tanzania coast, any evidence which might be attributed to trans-Saharan diffusion. Neither indigenous state formation nor incipient urban communities have been recognized before the 1st millennium B.C., when Arabo-Islamic communities traded with and settled on the coast.

In contrast, pharaonic influence certainly occurred directly to the south, along the Nile through Nubia. Here the core-periphery model is appropriate. Local state formation took place in the mid 3rd millennium B.C. in the Kerma region, just outside the Egyptian frontier, and in the late 2nd millennium just outside a new and more southerly frontier at Napata, where the Nubian state was known as Kush (Fig. 8). These states had absorbed many contemporary Egyptian cultural traits, and when Kush conquered Egypt in the 8th century B.C., the cultural pattern established as far south as the Fifth and Sixth Cataracts was heavily influenced by Egypt. Although substantial Egyptian influence reached south of the Sixth Cataract into the Kharumum region, its potential for affecting development in the south and savannas to the west and south could not have been greatly enhanced. There is no evidence, however, that this happened.

Meriotic Empire

From 600 B.C. onwards Nubia (now part of the Meriotic Empire) may certainly be considered a rival to Egypt. The rivalry was restricted to the Nile Valley, however, especially the region between the First and Sixth Cataracts. There is no evidence that it was continued anywhere else in Africa. As in the previous period there is no reason to suggest that the concept of Sudanic civilization or divine kingship spread into the rest of Africa from the Nile Valley.

Although Nubia was thoroughly influenced with and tenacious of Egyptian pharaonic culture, it retained and developed many non-Egyptian traits. The state formed at Napata became the Meriotic Empire in the 1st millennium B.C. With its urban core in the 'Island of Meroe,' at Napata where three major valleys (the Atbara, the Nile, and the Wadi Howar) lead into sub-Saharan Africa, this sophisticated civilization was well placed for influencing regions to its south, east, and west.
Inceptent state formation and even urbanism might therefore be predicted in the Khartoum region or even in Darfur to the west and the Gash Delta in the east. One might also have expected the Empire, familiar as its elite was with horses as well as men, to have raised cavalry armies which could have controlled a savanna empire reaching the later states of Makk or Sogou in the western savanna. But in spite of the fieldwork of Fattovich in the Abbara valley, Kolehi Sali Musa and Abbas Mohammed Ali in the Botuma, Shinnie, Chitick and Welshy around Khartoum, and Ziibert and Ibrahim Musa in Darfur, no more than slight traces of Merotic influence have been found. No sites at all with substantial remains or evidence of state-formation have been located.

One of the last Egyptian native rulers, Neho II (510-503 B.C.), reportedly financed an exploration of the African coast by Punic sailors, who sailed from the Red Sea around the continent, but no trace of this expedition has been found and it does not seem to have been repeated. Trade southeastward from the Egyptian Red Sea coast was certainly considerable, especially after 300 B.C., but no trace of it has yet been confirmed. Rail in Africa south of the entrance to the Red Sea, and there is no evidence of local state formation or urban developments there. The rise of Amran, the new state known in this period in northeast Africa, owed much to southern Arabia and nothing to Mesopotamia as far as can be seen.

From 600 B.C. until A.D. 1954 Egypt was controlled and exploited by foreign invaders, especially Greeks, Romans, Arabs, and Ottoman Turks, whose interests and ambitions lay to the north and east. The Merotic Empire, however, was not conquered by these foreign invaders, and Greek and Roman influence on areas beyond Nubia seems to have been non-existent. There is literary evidence of one 1st century A.D. Roman exploratory expedition reaching the Suds (the swamp of the southern Sudan) with Merotic help, but no archaeological evidence of the expedition has been found and its report to Rome seems to have been that the area lacked resources and was not worth conquering. No trace of Roman/Egyptian influence has been found south of the Merotic Empire.

Egypt was only one among several African provinces controlled by the Roman State. It was from the other provinces known in this period that Roman citizens and even armies penetrated the Sahara along routes newly opened up by the camel (see Fig. 6). The penetration was originated from coastal settlements from Libya to Morocco that had been established earlier by the Greeks and Phoenicians.

State formation among the indigenous populations in Tunisia-Algeria took place peripherally to Phoenician Carthage by the 3rd and 2nd centuries B.C. Some movement towards state formation also occurred in Egypt among the Garamantes, but under Greek influence in Libya. These incipient and newly formed states, like the later groupings which emerged in the early centuries A.D., further inland, owed nothing to Egypt or Nubia.

**The Later Development of States**

In the African south, the most important event in the Middle Nile Valley from A.D. 900 to 1350 was the establishment, some time during the 7th, of an independent, apparently well-organized Kingdom in the region of Khartoum. This kingdom, called Alodia, was the most southerly of the successor states to the Merotic Empire and thus the best placed of any Nile Valley polity to influence sub-Saharan Africa. Very little is known about Alodia archaeologically before the 6th century A.D., but its location at the junction of the Blue and White Nile is generally accepted. Its existence is supported by archaeological finds in Egypt, Arabia, and Nubia. It is likely that Alodia was influenced by the rival states to the north, but the exact nature of this influence is uncertain. The kingdom continued to exist until the 11th century A.D.

Figure 8: Artist's impression of a tomb at Kerma. The funeral procession enters through the central corridor at the right, works its way down the corridor, and enters the tomb at the left. The central corridor, with its hundreds of human coffins, is filled with stone.
From the Egyptian times the desert routes to the south and west were long and difficult; connections between West Africa and the Maghreb (northwestern Africa) were much closer. A core-periphery tie across the Sahara, connecting Morocco–Algeria–Tunisia to the savannas of the south, is visible in the rise to statehood of Ghana (Old Ghana in Mali), which had taken place by the 6th century AD. Old Ghana lies at the southern terminus of the trans-Saharan caravan routes used to transport gold northwards. There is no reason to think that the Ghanaian state owed its development to either Nubia or Egypt.

The Development of Metallurgy

The Nilo-Saharan states possessed a knowledge of copper, gold, and silver metallurgy from as early as 3000 B.C.

![Diagram of iron-smelting furnaces]

**Figure 3.1a.** Reconstructed section of a Merotic iron-smelting furnace. To raise the temperature of the furnace, air was forced into the smelting chamber by means of tuyeres attached to leather-covered pot-bellows. Charcoal fuel mixed with ore to produce a spongy bloom, which could then be beaten into malleable iron. Liquid slag (the residue of smelting) collected at the bottom of the furnace where it could be drained off through a tap hole. See also Dafra alla, Fig. 3, this issue.

**Drawn by Arif El-Kheleif after Nokkori 1992, Fig. 1.**

Over 2000 years before it is found elsewhere in Africa. There was apparently no significant spread of copper-bronze technology from Egypt or Nubia in the 3rd or 2nd millennia BCE. Not until the 1st millennium BCE does metal seem to have been imported south of the Sahara (Fig. 3.1). Where evidence of copper working has been found (tools and weapons), in Mauritania to the west and Zimbabwe/Zambia to the south, it dates to the 1st millennium BCE or A.D., and is contemporary with iron working. In the forested areas of southern Africa, copper, bronze, and gold working seem to develop even later than this.

Although iron was introduced to Egypt from Anatolia by the 13th century BCE, except for weapons and religious rituals it does not seem to have been widely used until hundreds of years later, well into the 1st millennium BCE. It was probably under the Greeks and Romans from the 3rd century BCE on that iron was in common everyday use in Egypt.

In Nubia a very different state of affairs existed. Shinnie (1965) and Tylecote (1972) have shown that the immense slag heaps at Merowe date to at least the 8th century BCE. It seems unlikely that this ironworking was an independent discovery. Although Nubia had had a long tradition of nonferrous metal-working, it was also in close touch with Egypt where iron was already long known if not widely used. Industrial production continued at Merowe into the 1st century A.D. (Fig. 11a, b) so that for centuries iron artifacts were available in the Middle Nile Valley, and a diffusion of technology from Nubia to other parts of Africa, even without evidence of trade or conquest, is possible.

In eastern Africa the earliest iron metallurgy is now dated to 400-300 B.C. and is linked with negroid Bantu-speaking herdsmen/cattle farmers through the Great Lakes area (Lake Victoria, Tanganyika, Malawi) towards the coasts and the south. There is no evidence of prehistoric settlements of these farmers, linked linguistically with those of central Nigeria, came by their knowledge of iron metallurgy. The technology could have been introduced in one of three ways: by stimuli from the Kenya coast or by a trans-Saharan route through the Senegal region, or by a trans-Saharan route through the Senegal region, or by a trans-Saharan route through the Senegal region, or by a trans-Saharan route through the Senegal region.
The Spread of Christianity and Islam

The last phase of possible Nubian/Egyptian religious rivalry in Africa (before the political rivalry of the last 200 years) began in the first millennium A.D., when two new monothetic religions—Christianity and Islam—reached the Nile Valley after A.D. 642. For some 800 years Egypt was dominated by Muslims, and Nubia by Christians. Attempts to spread their respective religions among neighboring pagans might be expected on political as well as religious grounds. Yet in this period of potentially intense rivalry, neither played much part in the religious conversions of sub-Saharan Africa.

Christianity, increasingly accepted by Egypt by A.D. 300 and in Axum in Ethiopia soon afterward, was gaining a foothold in strongly pagan Nubia by the 5th century (Fig. 12). All three Meriotic successor states were formally converted by Imperial Roman missionary expeditions in the mid 6th century. Since the Nubian states of Makouria and Alodia remained independent and Christian into the 14th century (while Egypt fell to the Muslims in the 7th century), it might be expected that political necessity, as well as religious concern, would have led Nubian kings to encourage missionary efforts east, south, and west. Alodia, with its settlement core south of Khartoum and its capital at Makouria, might be thought particularly well placed to further the spread of Christianity. It also might have been expected that with their distinctive character, Christian Nubians remain would be archaeologically visible. In spite of much folklore, however, the most distant churches are only about 130 km to the south and west of Soba. Recent work by Ibrahim Musa in Darfur has located few certainly Christian remains in the Nile Valley. Archaeological data from the Christian church in Egypt continues to support the churches in Nubia and Abyssinia, but there is now evidence of its supporting missionary work further afield in Africa. The failure of Christianity to be adopted by camel-keeping pastoralists is particularly noteworthy.

Nubia was increasingly accepted along the north African coast between A.D. 642 and 800, both by coastal peoples and by pastoralists (Fig. 14). From the 11th century a combination of influence and conquest carried Islam to the edges of the tropical forests and to the formation of great savanna empires reaching far east as Darfur. There is no evidence that Nubia Valley Muslims played an important role in these developments. Although contact existed through the desert, and Muslim penetration was via Mecca, west through Egypt and Nubia. A further stage in the spread of Islam came through the collapse of the Nubian Christian kingdoms in the 14th century. In Egypt and Nubia, they were not carried far beyond the Nile Basin, and the conversion of north, west, and east Africa was carried out by others. The same reason holds true in the monothetic religions of Christianity and Islam. 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