CUSHITIC AND NILOTIC PREHISTORY: NEW ARCHAEOLOGICAL EVIDENCE FROM NORTH-WEST KENYA

BY B. M. LYNCH AND L. H. ROBBINS

In recent years archaeologists have made significant contributions to the study of the prehistory of modern languages. In Africa, much new light has been shed on the problem of Bantu origins through archaeological research. Archaeological excavations at early Iron Age sites have provided detailed ceramic data as well as a radiocarbon-dated chronology which has been used to examine theories proposed by linguists. While there is considerable information available on the spread of early Bantu speakers, much less is known about the prehistory of non-Bantu languages, especially in Eastern Africa. In spite of this fact, the problem of the origins of non-Bantu languages such as Cushitic and Nilotic has interested scholars for decades. Murdock, for example, postulated that an early population of Cushites spread into East Africa from Ethiopia to Tanzania bringing a megalithic cultural complex with them. This population was believed to have been responsible for the stone monoliths, walled enclosures, irrigation systems and other related prehistoric cultural remains found in East Africa. Others have drawn attention to the cultural and linguistic interchange that occurred as a result of prehistoric culture contacts between Nilotic and Cushitic speakers. Some modern pastoral groups like the Maasai and Turkana were thought to exhibit a mixture of Nilotic and what was formerly termed Hamitic characteristics. This caused some previous researchers to classify such groups as Nilo-Hamitic, a term which is no longer used by most authorities.

More recently Ehret's detailed historical linguistic studies have provided a clearer understanding of both Cushitic and Nilotic history. Yet Ehret has pointed out that much of the chronology provided by historical linguistics was subject to independent verification by archaeological evidence. Few, if any, radiocarbon dates can be definitely linked with early Cushitic or Nilotic peoples. This is largely due to the fact that we have no precise archaeological definitions of the kinds of cultural complexes which might be associated with such peoples.

Our recent research into the later archaeology of the western Lake Turkana basin of North-west Kenya bears significantly on the problems of the prehistory of Cushitic and Nilotic speakers. A synthesis of the results is presented below.

6 Loc. cit.
7 Research was funded by the National Science Foundation. We thank the government of Kenya for granting permission to do this research. We are grateful to R. E. F. Leakey, J. C. Onyango-Abuje, 0021-8537/79/2828-1430 $02.00 © 1979 The Cambridge University Press
The Cushitic language belongs to the larger Afro-Asiatic family, which includes Arabic and other Semitic language groups. Of the four main branches of the Cushitic language, only two figure prominently in the prehistory of East Africa. They are the Eastern Cushites, which would include such groups as the Konso, Galla and Somali, and the Southern Cushites such as the Iraqw.

D. Phillipson and N. Chittick for facilitating our fieldwork. In addition we thank P. Uland and J. N. Ochieng for their drawings.

Ehret, 'Cushitic'.

EASTERN CUSHITES

The Cushitic language belongs to the larger Afro-Asiatic family, which includes Arabic and other Semitic language groups. Of the four main branches of the Cushitic language, only two figure prominently in the prehistory of East Africa. They are the Eastern Cushites, which would include such groups as the Konso, Galla and Somali, and the Southern Cushites such as the Iraqw.

D. Phillipson and N. Chittick for facilitating our fieldwork. In addition we thank P. Uland and J. N. Ochieng for their drawings.
In 1975–76 research was conducted on a series of rock art and cemetery sites which bear directly upon the spread of Eastern Cushitic-speaking peoples in north-west Kenya. The three sites, termed collectively Namoratunga, are widely distributed west of Lake Turkana (see Fig. 1). The two largest sites are located just north-east of Lokori, a small and relatively isolated settlement near the Kerio river, one of the three main tributaries of Lake Turkana. These two sites are situated on basalt outcrops which are separated by approximately 1 km. The third site is located 210 km further to the north near Kalokol, a small settlement at Ferguson’s Gulf.

Each site consists of a burial area and an accompanying rock art centre. The two Lokori sites contain 162 and 11 graves while the site near Kalokol has one. The individual graves are demarcated by an outer circle of massive stone slabs, some as much as 1.75 metres above the surface of the ground. The interior of the grave is filled with horizontally layered stone slabs to a depth of from 0.3 to 1.0 metres. Immediately beneath this layer is a much larger stone which covers the entrance to the burial pit itself. Some of these graves contained as much as 10·5 tons of rock. The burial pit contained a single interment which with two exceptions was flexed and on the left side. One grave contained a bundle reburial and another an individual that was flexed but on the right side. The cranial-caudal orientations were in all cases toward one of the four cardinal directions. No burials were oriented at an angle in between north, south, east or west.

In all, 40 of the 173 graves at the three sites were excavated, following a stratified sampling strategy. Although both males and females, children and adults were present at the sites, females and children were greatly underrepresented, indicating that access to the sites was largely confined to adult males. Although the skeletal remains were poorly preserved, the population was long-headed and relatively tall.

In addition to the slab grave, the Kalokol site also contained a series of stone ‘pillars’ of columnar basalt which ranged in height from 0.15 to 1 metre above the surface. These nineteen stones were aligned in a series of rows within a 12 x 12 metre area. Surrounding these standing stones was a larger circle formed by placing small lava cobbles end to end.

As mentioned previously, all three Namoratunga sites also contained vast quantities of rock art. In all, approximately 1,000 different engravings were found at the three sites, representing 143 different geometric designs. The art was found on the two basalt outcrops as well as on thirty-eight of the graves at the two Lokori sites. At the Kalokol site the art occurred on the basalt ‘pillars’. The fact that similar design motifs were found at all three sites, in addition to similar graves, clearly relates all three sites to the same cultural group.

These geometric designs can be clearly linked ethnographically to brand symbols used by modern East African pastoralists. A male possesses a single symbol which he inherits from his father, hence these designs serve to delineate patrilineages. At the Namoratunga sites these designs appear to have been utilized in much the same way, with only males being interred in decorated graves. The fact that these people were at least in part pastoralists may be inferred from the presence of large quantities of domesticated cattle and sheep/goat tooth fragments


which were found in the fill of most of the graves. Interestingly, graves which had the same design on their upright slabs were found in the same area of the cemetery. This association was true of ten out of the twelve different designs which occurred on the 162 graves in the largest cemetery.

From this evidence it is suggested that a number of different lineages were buried within the same cemetery. Finally, although the three sites share many of the same designs, they differ significantly both in the designs they contain and in the relative frequencies of the designs they do share. As such, it would appear that different kin groups within the larger social unit were responsible for each site.11

Although prehistoric burial cairns are common in many parts of East Africa, none has been found which is similar to the Namoratunga graves.12 The closest ethnographic fit to the Namoratunga mortuary customs is provided by the Eastern Cushitic-speaking peoples now inhabiting parts of Southern Ethiopia. These peoples have a long tradition of cairn construction which generally resembles the Namoratunga burials.13 The Konso of the Sidamo province, for example, have a mortuary routine which closely parallels that at the Namoratunga sites in many respects. In terms of grave construction, the Konso cover the burial pit itself with a large ‘door’ of either wood or stone so that no earth falls directly on the burial.14 An analogous situation is found at the Namoratunga sites where a large stone slab was placed over the burial pit. Konso graves are also often surrounded by a ‘stone fence’ similar to the circle of standing stones at the Namoratunga site.15 In addition the Konso, unlike most East African peoples, bury their dead in cemeteries, with individual clans often having their own burial area. A similar situation appears at the Namoratunga sites, where the rock art analysis indicated that the sites differed in the kin groups they represented. Finally, it was mentioned earlier that one bundle reburial was found at the largest of the three sites. Among the Konso today, priests are initially interred in a temporary grave and are then reburied after a period of three years. Clearly the Konso burial custom is very similar to that found at the Namoratunga sites. However, it is not suggested that the Konso in particular were responsible for these sites; they simply illustrate the fact that present-day Eastern Cushitic burial practices closely parallel those at Namoratunga. No other non-Cushitic peoples bury their dead in a similar manner in East Africa. For example, the Turkana, a Nilotic herding people now inhabiting the area west of Lake Turkana, do not have cemeteries as such and usually simply place a mound of stone over the deceased.16 The Maasai, also Nilotic, traditionally did not bury their dead but instead left them out to be devoured by wild animals.17

But perhaps the most conclusive evidence that the sites are clearly Eastern Cushitic in origin is provided by the Kalokol site with its stone ‘pillars’. The

15 In E. Jensen, *Im Lande des Gada* (Stuttgart, 1936), Hallpike, op. cit.
17 M. Merker, *Die Masai* (Berlin, 1910).
placing of pillars either of stone or wood at funerary sites is a common practice among Eastern Cushitic-speaking peoples. In addition, this site provides archaeo-astronomical evidence that can be definitely associated with Eastern Cushites. Among many present-day Eastern Cushites the risings of seven stars or constellations are used to calculate a sophisticated twelve-month 354-day year. When risings of these stars were compared with the stone alignments at the Kalokol site it was found that the stone pillars were very closely aligned with the risings of all seven stars. In terms of similar mortuary customs, the use of posts at funerary sites, archaeo-astronomical data and the physical evidence, the Namoratunga sites are definitely related to Eastern Cushitic-speaking peoples.

A radiocarbon date of $2285 \pm 165$ B.P. (335 B.C.) has been obtained from a sample of human bone from one of the Namoratunga burials (GX-5042-A). Interestingly, this date correlates well with Ehret’s inference from historical linguistic evidence alone as to when Eastern Cushites would have been in the Lake Turkana region. He suggests the first millennium B.C. It is noteworthy that the first radiocarbon date from the Lake Turkana area which relates directly to the spread of Eastern Cushitic-speaking peoples verifies previous conclusions based on linguistic data alone and clearly indicates the value of cross-checking linguistic and archaeological data in historical reconstructions.

**EASTERN NILOTES**

The Nilotic languages are part of the widespread Nilo-Saharan family which extends from East Africa to west of the Lake Chad basin. The modern Nilotes extend from the Sudan and parts of Ethiopia into Kenya, Uganda and Tanzania. Linguists have classified the Nilotic languages into the following main branches: (1) Eastern or plains; (2) Western or river-lake (e.g. Luo and Nuer); (3) Southern or highland (e.g. Kalenjin groups).

This paper has a direct bearing on the prehistory of the Eastern or plains branch which includes the Maasai, Karimojong, Jie, Turkana and other well-known pastoral groups. Almost all of these groups (formerly classified as Nilo-Hamites)

---

21 This date is firmly supported by the archaeo-astronomical evidence mentioned above (see Lynch and Robbins, ‘Namoratunga’, for further details). The alignments agree for the year 300 B.C., but differences are evident when more recent dates are used in the comparison. For this reason, as well as the historical linguistic data bearing on eastern Cushitic prehistory another radiocarbon date from Namoratunga of $1200 \pm 100$ B.P. (UCLA 21240) is assumed to be in error.
23 Greenberg, *Languages*.
24 The earlier archaeological history of the Nilotic speakers is not known; however, the Lake Turkana basin may have figured prominently as a general homeland for the ancestral Nilotes before they diversified. See Ehret, *Southern Nilotic History* and W. R. Ochieng, *An Outline History of the Rift Valley of Kenya* (Nairobi, 1975), for discussion of this point. It should be noted that the early Holocene fishing peoples who occupied the Lothagam Hill area between 6,000 and 7,000 years ago show some physical similarities to modern Nilotes. This is discussed in J. L. Angel, T. W. Phenice, L. H. Robbins and B. M. Lynch, *Late Stone Age Fishermen of Lothagam, Kenya*, Michigan State University, Museum Anthropological series (in press). In addition, the overall distribution pattern of early Holocene fishing communities known from wavy line pottery and bone spear or harpoon
inhabit northern Kenya or Uganda. The Masai are the most noticeable exception since they live further to the south in Kenya and extend into northern Tanzania. However, they were living further to the north along the Kerio river valley around A.D. 1400. Linguistic and historical research suggests that the homeland for the eastern Nilotes was in the region to the west of Lake Turkana in the general area where most of the modern people live. The archaeological data presented below support this assumption.

A very widely distributed ceramic tradition is found on the western side of Lake Turkana and adjacent areas of north-eastern Uganda which is identified by deeply grooved vessels (Fig. 2). Although the precise geographical boundaries of the tradition have not been defined, the available data agree remarkably well with the geographical homeland postulated for the eastern Nilotes. In an earlier paper it was suggested that the similar ceramic data implied considerable cultural unity over an extensive area. However, little was known about the age of the pottery and there was no information about the general way of life of the people who were associated with it. Recent excavations have added considerably to our knowledge of this tradition. The grooved pottery complex has recently been designated as Turkwell cultural tradition since many sites are located near the valley of the Turkwell, one of the two major rivers draining into the western side of Lake Turkana. The main features of the pottery include deep horizontal grooves on the exterior of vessels which are often interrupted by rows of nodes formed by pressing a tool into the ridges between the grooves (Fig. 3). Other variations occur where the pattern of horizontal grooves is broken by a zone of angular grooves. Open-mouthed pots, bowls and dishes or platters are the main kinds of vessels and undecorated pottery is also important. Late Stone Age tools including various backed microliths and small scrapers are frequently found with the pottery. Additional artifacts may include ostrich egg-shell beads similar to those still used by traditional Turkana women and red ochre colouring pigment, also used by many East African pastoralists. Barbed bone spear or harpoon points are known from the Lake Turkana beach area. Finally iron is associated, apparently as a scarce commodity.

The amount of time encompassed by the Turkwell tradition is still not certain. A small site located along the Turkwell irrigation scheme contained the characteristic grooved pottery in an erosional context next to a charcoal stain which was radiocarbon dated to A.D. 450 (1500 ± 100 B.P., N 909). In 1976 an important new site known as Lopoy was discovered and excavated. Lopoy is a very large settlement site situated between Eliye Springs and the Turkwell delta near the lake shore about 18 metres above the lake level (Fig. 2). An abundance of points corresponds remarkably well to the present distribution of the Nilo-Saharan language group as a whole. See discussion of this in J. E. G. Sutton, 'The African Aqualithic', Antiquity, 11 (1977), 25–35. Furthermore, some of the earliest domesticated livestock known for eastern Africa has recently been recovered from the east Lake Turkana area (J. Barthelme, personal communication).


Ehret, Southern Nilotic History. Ochieng, Rift Valley, p. 28.


of grooved potsherds and Late Stone Age artifacts were excavated from a midden at Lopoy which has been radiocarbon dated to about A.D. 1000 (950±80 B.P. UCLA 2124J). In addition, one of the hearths at the site afforded a similar date of A.D. 1080 (870±80 B.P. UCLA 2124G). Another hearth produced a date of A.D. 575 (1375±125 B.P. GX 5041) but the relationship of this date to specific cultural evidence is less certain. Another lakeside site, Apeget 1, was discovered to the north of Lopoy (Fig. 2). It yielded pottery which is probably related to the Turkwell tradition. This site has been dated to about A.D. 150, though there is a large plus or minus factor that should be considered in evaluating the date (1800±300 B.P., UCLA 2124K). Thus the available dates place the tradition between about A.D. 450 and A.D. 1100, with the likelihood that there are even earlier roots. It is emphasized that only a few sites have been dated and they are largely from one area. Nonetheless, the available dating evidence does provide an archaeological background to the period when oral traditions can be used to trace the history of particular Nilotic peoples.30

It is not yet possible to compare the above chronology with specific linguistic dating evidence applicable to the Eastern Nilotes, but the information is consistent with what is known about the period of time when the various branches of Nilotic were undergoing differentiation. For example, historical linguist

Fig. 3. Turkwell Tradition pottery from Lopoy.
evidence indicated that the proto-southern Nilotic period began about the turn of the Christian era with the introduction of iron and ended A.D. 1000 with the beginning of proto-Kalenjin.\textsuperscript{31} If the nearby eastern Nilotic group diversified at the same time the archaeological data would provide a close fit.

Virtually all of the traditional eastern Nilotic peoples have been described by anthropologists as pastoralists, though many important differences exist in the nature of their diets. Recent excavations have demonstrated that the Turkwell tradition is also associated with domesticated livestock. The previously mentioned Apeget 1 site was probably a seasonally occupied fishing–pastoralist camp. Remains of domesticated ovicaprids (either sheep or goats) were found buried in one of the small middens along with numerous bones of Nile perch, tilapia, several varieties of catfish and other fish. The subsistence pattern reflected in the site was similar to that described by Evans-Pritchard for the western Nilotic Nuer who are pastoralists that exploit fish along the Nile on a seasonal basis.\textsuperscript{32} The Lopoy site, in contrast, appears to have been inhabited on a year-round basis, probably because of the very rich fishing resources of the ancient Turkwell river delta area. Large quantities of Nile perch, tilapia, and catfish as well as numerous Nile crocodiles and water turtles were caught. A minimal estimate of 3,860 kilos of Nile perch was represented in one of the middens. Bones of either sheep or goats and cattle were recovered in direct association with the Turkwell tradition pottery. Large ash areas associated with the pottery and bones of domesticated livestock, but with few if any fish, seem to have been former livestock corrals which were burned. These ash areas were identified as former stock corrals by local Turkana field assistants who report that they burn livestock corrals at the present time when they fill up with animal dung. Individual sheep or goat butchery areas were also found at Lopoy. Clearly the people who lived there were both fishermen and pastoralists.\textsuperscript{33} Interestingly, this archaeological evidence agrees with the conclusion of historians concerning the probable nature of early Nilotic subsistence patterns. Ogot, for example, reports in his work on the history of the Luo that the ‘early Nilotic group was a fishing and a pastoralist community’.\textsuperscript{34} Evidence for cultivation was not found, although sorghum or millet could have been grown along the lake shore near where fields are currently maintained by the Turkana. Information about the subsistence pattern from other sites in the interior, away from the lake edge, is not yet known, but a pastoral economy was most likely given the associations with domestic livestock discussed above.

As mentioned previously, there is a close general agreement between the distribution of the Turkwell tradition pottery and the geographical homeland of the eastern Nilotes. The dating evidence was also consistent with the general period of time when Nilotic languages were diversifying. There is additional circumstantial evidence which supports this linkage between the Turkwell

\textsuperscript{31} Ehret, \textit{Southern Nilotic History}.
\textsuperscript{32} E. E. Evans-Pritchard, \textit{The Nuer} (London, 1940).
\textsuperscript{33} Another archaeological component is evident at a different part of the Lopoy site. This is a hunting and butchering camp associated with a distinctive kind of pottery that contrasts with the Turkwell tradition. See L. H. Robbins and B. M. Lynch, ‘New evidence on the use of microliths from the Lake Turkana Basin, East Africa’, \textit{Current Anthropology}, xix, iii, 619–20.
tradition and eastern Nilotic prehistory. The prehistory of Early Iron Age Bantu speakers in East Africa is well known, and these people were located further to the south as their descendants are today. The Turkwell tradition cannot be associated with them given the nature of Early Iron Age data. The Iron Age in East Africa is often defined by evidence of a sedentary village way of life, mixed farming and replacement of most of the Stone Age technology by iron. These Iron Age characteristics have not been found between the western shore of Lake Turkana and the Uganda border. The only other major linguistic group known to have been present in the western Lake Turkana area during prehistoric times was Cushitic. While Cushitic speakers did inhabit the same area their customs militate against any association with the Turkwell tradition. Cushitic peoples have very strong customary prohibitions against eating fish, while some western and eastern Nilotes such as the Nuer, Lwo, Njemps and Turkana do considerable fishing. The inhabitants of Lopoy were very clearly fishermen and this argues for a linkage with the Nilotes rather than any Cushitic group. In addition, Cushitic peoples, as far as we are aware, have a cultural prohibition against making pottery. In contrast, some Nilotes do make pottery, although in some cases such as among the Turkana it is rarely done. At Lopoy, the recovery of partially fired sherds as well as one with an embedded fish spine found in the groove which was probably a decorating tool (Fig. 2) implies that at least some of the pottery was being made locally at the site.

Given the evidence presented above, it is highly likely that the Turkwell tradition was associated with eastern Nilotic speakers. This conclusion together with the archaeological evidence that eastern Cushites also inhabited the same general area indicates cultural contact such as is postulated by students of modern languages and ethnographic evidence.

SUMMARY

Recent archaeological research conducted west of Lake Turkana, Kenya has shed new light on the prehistory of eastern Cushitic and Nilotic speakers in East Africa. The Namoratunga cemetery and rock art sites, dated to about 300 B.C., are clearly related to the prehistory of Eastern Cushitic speakers. The newly defined Turkwell cultural tradition, dated to the first millennium A.D., is associated with eastern Nilotic prehistory. Lopoy, a large lakeside fishing and pastoralist settlement, is discussed in terms of eastern Nilotic prehistory. The archaeological data agrees with the independent findings of historical linguistics.