

# Recent Research on Meroitic, the Ancient Language of Sudan<sup>1</sup>

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## Abstract

*Meroitic was the language of the ancient kingdom of Kush, in Northern Sudan. Though it can be traced to the second millennium BC in the Egyptian texts, it was written with a specific script only from the 2nd century AD until the fall of its capital, Meroe, in the mid-4th century. The script was deciphered 100 years ago but the knowledge of the language remains scanty because no bilingual texts were found. The search for related languages has recently come to an end thanks to better linguistic data on the languages of the Sudan. It belongs to the Nilo-Saharan phylum and more accurately to a sub-branch termed “Northern East Sudanic” (NES), together with Nara, Nubian, Tama and Nyimang. It has been possible to reconstruct parts of the remote history of the Proto-NES speakers, who were originally cattle-herders nomadising in the Wadi Howar reach, between Kordofan and Darfur. The present paper presents the most recent advances on the subject made by the author of this discovery.*

**Keywords:** Meroitic – Sudan – Eritrea – Ethiopia – Chad – Kush – Kerma – Meroe – Historical Linguistics – Nilo-Saharan – Eastern Sudanic – Nubian – Nara – Tama – Nyimang

## Historical outline

The Middle Nile valley, between Aswan and Khartoum, harboured the earliest historical kingdoms in Subsaharan Africa. These traditional enemies of Egypt are termed in ancient Egyptian texts as *Kush* from the 12<sup>th</sup> Dynasty (around 2000 BCE) onward. This new name however never replaced everywhere the old term *ḥ-ḥy* “Bow-land”, which emphasized the famed skill of the ancient Sudanese in archery. Ancient Greeks called them, appearing as such as soon as the Homeric texts, “Ethiopians”, literally “Burned faces”. This name was much later re-used by the Abyssinians for themselves, with earliest attestations not before the medieval texts. In the works of Greek and Latin geographers and historians, Ethiopia was actually the common designation of Ancient Sudan and even King ‘Ezana, in his famed victory stelae in Ge’ez and in Greek, styled himself as “king of the Axumites and Himyarites”, never as “king of Ethiopia”. A further name, first used by modern Egyptologists, is “Nubia”. Although it is now quite common, this name is somehow anachronistic since the Nubians, a

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population settled west of the Nile in Kordofan, made their appearance in the Nile valley only in the last times of the kingdom of Meroe, which they greatly contributed in destroying.

The first Kushite kingdom appeared around 2500 BCE. Its capital was then in Kerma, in the surroundings of the third cataract of the Nile. After it was destroyed by the armies of Pharaoh Thoutmosis I around 1450 BCE, it became an Egyptian colony for six centuries. With the Egyptian retreat to the north in the 10/9th centuries BCE, a new local elite appeared in the region of Napata, between the 3rd and the 4th cataracts. This principality soon became a formidable power. Around 750 BCE, the Napatan kings had already annexed Higher Egypt. Two decades later, they occupied the rest of the Egyptian territory where they founded a new dynasty of “Black Pharaohs”, namely the 25th Dynasty, also called “Ethiopian Dynasty” in early literature or more recently “Kushite Dynasty”. Expelled from Egypt by the Assyrians in 664/663 BCE, they withdrew to their original Sudanese possessions where they reigned in a first time from Napata. After an Egyptian military campaign under Pharaoh Psamtik II (591 BCE), the administrative capital was relocated 350 km further south, in Meroe. However, the Kushite kings still were buried in pyramids in the royal cemeteries around Napata, so that their kingdom is termed by scholars as “Kingdom of Napata”. At the beginning of the third century BCE, a new dynasty came to the throne in Kush. It obviously had its roots in Meroe because the new rulers chose to be buried there, and no more in Napata. Although no religious, ideological or political discontinuity is attested with the former dynasty, scholars designate this new stage of the Kushite state as “Kingdom of Meroe”. This kingdom lasted until its destruction around AD 350 under the combined strokes of the Nubian tribes from the west and the Axumite kings from the east.

### **The Meroitic texts**

Meroitic was the main language spoken in northern Sudan not only during the time of the Kingdom of Meroe (ca. 300 BC – AD 350), after which it is named, but also probably at least from the time of Kingdom of Kerma (2500 – 1500 BC), as suggested by a list of personal names transcribed in Egyptian, occurring on Papyrus Golenischeff (Rilly 2007b). Similar transcriptions of early Meroitic names are known from some Egyptian texts of the New Kingdom, but they occur with particular frequency with the rise of the Kushite 25<sup>th</sup> Dynasty and its Napatan successor state (664 – ca. 300 BC), since the birth names of the rulers and others had to be written in Egyptian documents. These Napatan transcriptions in Egyptian paved the way for the emergence of a local writing around the second half of the third century BC. However, Meroitic texts are not attested in great numbers before the end of the second century. The bulk of the corpus extends from the last decades BC to the fourth century

AD. The script actually outlived the fall of Meroe (ca. AD 350), for the latest known text is the inscription of King Kharamadoye from a column in the Kalabsha temple (REM 0094), which has recently been re-dated to AD 410/450 (Eide et al. 1998: 1103-1107). The Meroitic language itself disappeared without descent, presumably in the early Middle Ages. It was superseded by Nubian, the language of the new elite, who originated from western Sudan and put an end to the Meroitic kingdom.

The corpus of Meroitic texts, as published in the REM (*Répertoire d'Épigraphie méroïtique*: Leclant et al. 2000), includes some 1300 texts. The unpublished examples, mainly found at Qasr Ibrim and Musawwarat es-Sufra, amount to approximately 900. They are of various extent, ranging from just a few characters to the 161 lines of King Taneyidamani's stele from Jebel Barkal (REM 1044). Half of the published corpus is composed of funerary texts, written on stelae or offering-tables (cp. Fig. 1). The longest Meroitic documents are royal inscriptions. Unfortunately no more than two dozen of these have thus far been recovered.

Temple inscriptions, mostly captions for royal cult scenes, are attested at Naga, Meroe, Amara, and Dangeil. Some 250 graffiti are known, mostly written by pilgrims in the temples of Philae, Kawa and Musawwarat. Finally, some 70 *ostraka* (inscriptions painted or engraved on potsherds), predominantly short texts with numbers, are the only written traces of administrative and commercial activities.

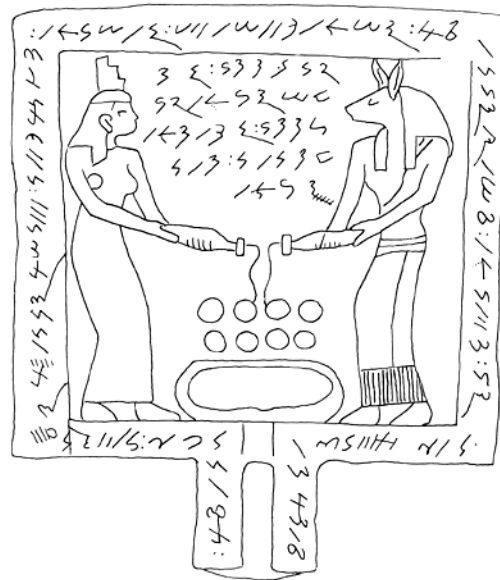



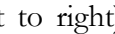
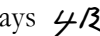
Fig. 1: Meroitic funerary offering-table, from Sai Island (AD 250-300).





## Meroitic Scripts











The Meroites used two different scripts, cursive and hieroglyphic. Both of them were deciphered between 1909 and 1911 by the British Egyptologist Francis Llewelyn Griffith (Griffith 1911). The two scripts differ only in the shape of the signs and follow the same principles. Both sets amount to twenty-three signs plus a word-divider, made of three dots in early cursive and hieroglyphic scripts, reduced to two dots in later cursive script. The hieroglyphic script was restricted to the royal sphere in connection with the cult of the gods. It is attested only in royal temples at Meroe, Naga, Dangeil,

Amara and El-Hassa or upon such royal objects as funerary offering-tables, votive bowls, etc. For all the other purposes, including royal chronicles and even some royal funerary texts, the cursive script is used, so that 90 % of the current corpus is made of cursive inscriptions.

Both Meroitic scripts were adapted from Egyptian counterparts. The cursive script is an offshoot of early Ptolemaic demotic. The hieroglyphic signs were derived from Egyptian hieroglyphs. Ironically, it is certain that the appearance of the cursive script predated the creation of the hieroglyphic script, which seems to have been a deliberate invention designed to provide a monumental counterpart to the cursive script. The first attempts to elaborate a hieroglyphic script can be dated to Taneyidamani's reign, around 100 BC. The earliest specimens of cursive texts are pilgrims' graffiti from the temples of Kawa and Dukki Gel and can be dated to the beginning of the second century BC (Rilly 2003), though two unpublished documents from Meroe and Musawwarat were possibly written half a century earlier.

The direction of writing is basically from right to left, as in Egyptian cursive inscriptions. However, hieroglyphs can be written from left to right or in columns: for instance *Amni* "Amun" (the main god of the Meroites) is written in hieroglyphic script  (left to right) or  (right to left), whereas in cursive, it is always  (right to left).

The Meroitic writing system was phonetic. It was not an alphabet, but an alphasyllabary (Hintze 1973), comparable to Indic, Ethiopic or Old Persian scripts. Each basic sign represented a syllable including a consonant plus inherent /a/. For instance,  in cursive,  in hieroglyphic script was read /ka/, though it is traditionally transliterated *k*. If the intended vowel was different, a special sign, more a vocalic modifier than a true vowel-sign, accompanied the basic sign: for instance,  /  *nob* "slave" was realized /nuba/. Unlike the Indian or Ethiopic scripts, this modifier was not written above or under the basic sign; it followed it. In spite of some defects, Meroitic script can be seen as a remarkable achievement, especially now that a foreign influence on its elaboration can be ruled out. The syllabic nature of the system does not support the hypothesis of a Greek influence, and the chronology rules out the hypothesis of a Persian influence.

| hieroglyphic  | cursive   | transliteration | values                   |
|---|---|-----------------|--------------------------|
|  |  | <i>a</i>        | <i>initial a or u</i>    |
|  |  | <i>b</i>        | ba                       |
|  |  | <i>d</i>        | da                       |
|  |  | <i>e</i>        | <i>e, ə, or no vowel</i> |
|  |  | <i>h</i>        | ya                       |

|   |   |           |                                  |
|---|---|-----------|----------------------------------|
| Ⲁ | Ⲃ | <i>h</i>  | ɣ <sup>w</sup> a                 |
| ⲁ | ⲃ | <i>i</i>  | <i>MODIFIER I</i>                |
| Ⲃ | Ⲅ | <i>k</i>  | ka                               |
| ⲃ | ⲅ | <i>l</i>  | la                               |
| Ⲅ | Ⲇ | <i>m</i>  | ma                               |
| ⲅ | ⲇ | <i>n</i>  | na                               |
| Ⲇ | Ⲉ | <i>ne</i> | ne, nə <i>or</i> n               |
| ⲇ | ⲉ | <i>o</i>  | <i>modifier u (maybe also o)</i> |
| Ⲉ | Ⲋ | <i>p</i>  | pa <i>or</i> ba (?)              |
| ⲉ | ⲋ | <i>q</i>  | k <sup>w</sup> a                 |
| Ⲋ | Ⲍ | <i>r</i>  | ra                               |
| ⲋ | ⲍ | <i>s</i>  | SA                               |
| Ⲍ | Ⲏ | <i>se</i> | se, sə <i>or</i> s               |
| ⲍ | ⲏ | <i>t</i>  | ta                               |
| Ⲏ | Ⲑ | <i>te</i> | te, tə <i>or</i> t               |
| ⲏ | ⲑ | <i>to</i> | tu                               |
| Ⲑ | Ⲓ | <i>w</i>  | wa                               |
| ⲑ | ⲓ | <i>y</i>  | ya                               |
| Ⲓ | Ⲕ | <i>:</i>  | <i>word-divider</i>              |

Fig. 2: Meroitic alphasyllabary

### How can Meroitic texts be translated?

The Meroitic language is only superficially known, although both scripts were deciphered a hundred years ago. The reason for the poor knowledge of the language is the lack of bilingual texts and, until recently, the isolated position of Meroitic among the African languages. Since the time of Griffith, nearly all the progress toward the translation of the texts was made through the painstaking and time-devouring procedures of the “philological method”. This contextual approach uses the rare elements of texts known so far (Egyptian loanwords, divine and royal names, etc.) to guess the meaning of the neighbouring elements. Using this method, Griffith was able to establish approximate translations of the standard funerary texts, which are very numerous and highly stereotyped (Griffith 1911). By contrast, the royal texts include narratives that naturally utilized a richer vocabulary and displayed more varied syntactic structures. For this reason, only rare stereotyped passages, such as initial royal

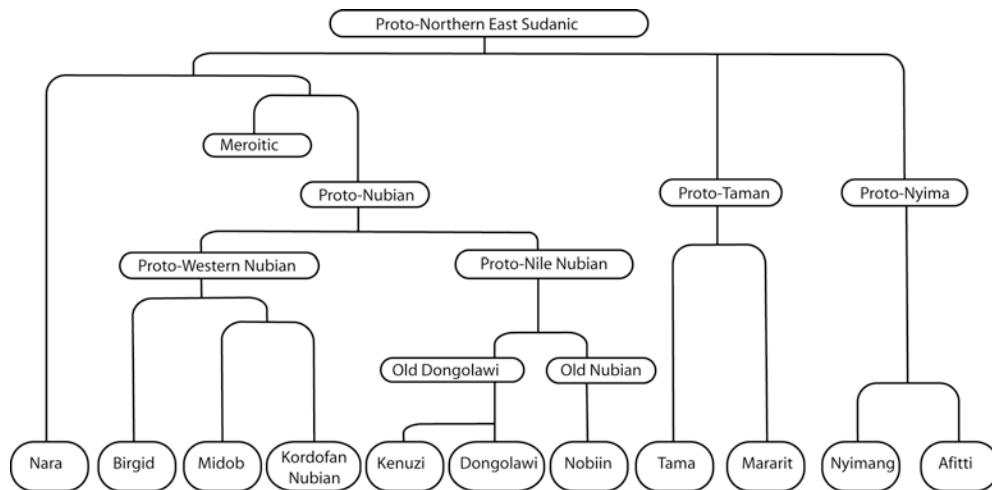
protocols and lists of enemies killed in battle and of captured women and livestock, can be partly understood.

Presently, no more than a hundred words can be translated with some certainty. The list includes several titles, mostly borrowed from Egyptian, as well as place-names and god-names, and only rare basic words, although their number has recently been increased. After Griffith's work, considerable advances were made in the knowledge of Meroitic grammar, especially by Hintze (Hintze 1979) and Hofmann (Hofmann 1981), and most recently by the author of this article (Rilly 2007:493-572), but mainly for the syntax of nominal groups and non-verbal predication. By contrast, the morphology and syntax of verbs remain mostly unknown.

The greatest advances in the decipherment of unknown ancient languages have resulted from the use of bilingual texts and from comparison with related languages: for example, Semitic languages for Akkadian, Indo-European languages for Hittite, the ancient language of Turkey. By contrast, for the languages where bilingual texts are scanty, absence of related languages is a major hindrance for full decipherment, as shown by the cases of Etruscan, the ancient language of Italy that predates Latin. Therefore, the long-awaited identification of the linguistic family of Meroitic provides the best hope for understanding the texts. The position of Meroitic within the Nilo-Saharan phylum, and more precisely in its main branch, East Sudanic, was already assumed by Bruce Trigger, but without sufficient linguistic evidence (Trigger 1964). The present author recently confirmed his theory (Rilly 2010). Meroitic belongs to a sub-group of East Sudanic, which he termed "Northern East Sudanic" (NES), comprising also Nubian (a group of languages from the Nile Valley and western Sudan), Nara (a dialectal group from Western Eritrea), Taman (a dialectal group from the Chad-Sudan borderland) and Nyima (two languages from the Nuba Mountains in Sudan). All these languages display the same typological features (word-order for instance), although they are separated by typologically different languages. Correspondences between Meroitic and these languages involve both vocabulary and morphology, with resultant spectacular similarities: Meroitic *kedite* (pronounced /kadite/ or /kaditə/) "sister", Proto-Nubian \*kedidi, Proto-Nara \*kadete; Meroitic *-kwi* (pronounced /akawi/) "they are", Old Nubian *-āroyē* (pronounced /ague/), Proto-Taman \*agi. This major step in Meroitic studies, which has been recognized by the most prominent scholars in Nilo-Saharan linguistics (Dimmendaal 2007: 148), has resulted from progress made since Trigger's contribution, not only in the knowledge of Meroitic, but also of related languages (for instance, Browne 1996 and 2002, Werner 1987 and 1993). Moreover, 170 lexical proto-forms and several morphological elements such as article, copula, case-endings, plural markers, negative particle could be reconstructed in Proto-NES. All of them fit closely with their Meroitic

counterpart and it has been possible to work out an overall classification of NES where Meroitic can be precisely located.

Proto-NES lexicon, although resulting from a strictly linguistic reconstruction, was obviously spoken by a homogeneous community restricted to a continuous territory. It includes several cultural items such as “spear”, “shield”, “build / plait”, “house / hut”, “door”. Even the name of the Creator God can be reconstructed as \*Aberdi (Nara *èbbéré*, Proto-Nubian \*ebed-, Nyimang *ábr̥d̥i*, Meroitic *Apede-* [əbede] in the name Apede-mak, literally “God Apede”). The economic structure of this original population can also be determined. The proto-lexicon includes several items connected with cattle and livestock tending: “goat”, “sheep”, “milk”, and on a more restricted scale, “cow” and “bull”, but nearly no word connected with agriculture, excepted a common term for “millet” which has various meanings in daughter languages so that the original meaning might have been just “grain” or “cereal”. No common term can be reconstructed for “field”, “to weed”, “to irrigate”. It is therefore highly probable that the Proto-NES speakers were pastoralists, using wild cereal processing as an additional mean of subsistence. It might be significant that in Meroitic and Proto-Nubian, the word for “slave” (resp. *nob* [nuba] and \*nogu) was derived from the Proto-NES word for “earth”, “silt” (\*log-).



### The original cradle of Proto-NES: lexical and statistical issues

If the Proto-NES community lived in a restricted area, the question arises to know where this area was located and why the daughter languages are presently spread upon such a wide space, from Chad to Eritrea, though no historical element can be found in favour of an diffusion of a imperial type. The answer can partly be found in the Proto-NES lexicon. Meroitic is the earliest known NES-language and since it was spoken along the Middle Nile, one could

tentatively assume that there lied the cradle of Proto-NES. However, no common word can be reconstructed for the specific fauna or flora of the Nile banks. For instance, the word for “crocodile” in Nile Nubian (*elum / ulum*) and in Nara (*àalma*) is adapted from the Proto-NES word for “hyena” (\*alum, cf. Nyimang *ɔlúm*, Nubian Midob *ármí* “jackal”): when settling along the rivers (Nile or Atbara/Gash), Nubians and Nara have operated a semantic shift from the hyena to the crocodile, both animals having dangerous jaws. Similarly, no common root can be found for “hippo” and “fish”. It could be assumed that populations living in semi-arid areas have just lost these proto-words. However, it is more likely that these animals were absent from the Proto-NES lexicon. Evidence can be found in Nile Nubian (Kenuzi / Dongolawi and Nobiin) *erid ~ erit* “hippo”. A more recent term is *essi-n-tii* in KD and *aman-tii* in Nobiin, both compounds meaning “river cow”. Reinisch already assumed that these compounds were just updated forms of *erit*. The old word *erit* is derived from Proto-Nubian \*iwer + \*tii “cow of the river” and have been updated in both languages when the old word for “river” was superseded by the word for “water”, *essi* in KD, *ámán* in Nobiin. The Old Nubian word is not yet attested, but it must have been close from the compound \*iwer-tii, since it is obviously from the Old Nubian word that the Sudanese Arabic *girinti* “hippo” was borrowed, instead of standard Arabic *hiṣaan al-bahr* “river horse”, which was literally translated from Greek *hippo-potamos*. Such metaphorical designations as “river cow” or “river horse”, as much from Nubians than from Greeks or Arabs, are typical of populations encountering a new animal.

As for “fish”, most NES-languages borrowed the word from other languages (in Nara from Tigre, in Nyimang from Temein or Arabic, in Tama from Chadic Arabic). The word is different in both Nile Nubian languages (KD *karre*, Nobiin *àḡíssi*), so that it is doubtful if a common proto-word has ever existed in Proto-Nubian, not to mention Proto-NES. It is significant that the elite of the kingdom of Kush at the time of King Piankhy (ca. 730 BCE), although settled along the Nile for centuries, considered fish-eaters as impure and unworthy to enter the Amun Temple. However, Neolithic populations settled along the Nile lived at least partially on fish, as attested by archaeological remains. So, Kushites (ancestors of Meroites) as well as Nubians, can hardly be considered as originating from the Nile banks.

The Proto-NES lexicon for plants exhibit similar features. Names of trees such as “dum palm” (*Hyphaene thebaica*) or “jujube tree” (*Zizyphus spina-christi*) can be reconstructed as \*ambi(-ti) and \*kusir(-ti). These trees are typical of semi-arid areas such as Kordofan, whence most of the dried jujubes sold on Sudanese markets come today. By contrast, no Proto-NES root can be reconstructed for “date palm”, although this tree is known at least since 2000 BCE in the Middle Nile Valley. All the designations of this tree in Mararit, Western Nubian and Nyima were borrowed from the Nile Nubian word (KD *benti*, Nobiin *féntî*), which is itself a loanword from Ancient Egyptian *bnr / bny* (with Nubian singulative suffix *-ti*) and probably passed into Nile Nubian through Meroitic.



All these lexical elements tend to indicate that the original cradle of the NES-languages must be sought in the Sahelian regions rather than along the Nile. The “principle of least movement”, used mainly in genetic studies for the diffusion of species – but also relevant for historical linguistics –, can help in locating more precisely this original cradle. According to this principle, when a species spread over a large territory, the greatest genetic variety is statistically observed near the original centre of diffusion. Among the three main branches of NES, two (Taman and Nyima) are located in the Sahelian zones of Darfur and Kordofan. In the remaining branch (Eastern branch), this is also the case of Proto-Nubian.

### **The original cradle of Proto-NES: chronological and palaeoclimatic issues**

Another issue is chronology: when did Proto-NES split into different groups? The earliest attested daughter language is by far Meroitic. Early scholars thought it appeared in the Nile Valley at the time of the first rulers of Napata, around 850 BCE. However, I have presented elsewhere (Rilly 2007) evidence that traces of Proto-Meroitic personal names could be found in Egyptian texts dated to the end of the Kingdom of Kerma (ca. 1600 BCE). In addition, strong elements in favour of the presence of names fitting with the Proto-Meroitic phonology can be found in the Egyptian lists of bewitched enemies from Kerma as early as the 12<sup>th</sup> Dynasty (ca. 2000 BCE). Therefore a chronological span around the second half of the third millennium BCE for the splitting of the NES-group is by no means exaggerated. The question is now to find what event caused this splitting.

The University of Cologne have conducted in the last decades an ambitious archaeological project (BOS, later ACACIA, cf. Kuper & Kröpelin 2006, Jesse 2004) in the region of the Wadi Howar. This wadi – also called the “Yellow Nile” – is a former tributary of the Nile running from Ennedi range, in Chad, through Darfur and Kordofan and joining the Nile at el-Debba, north of the great bend of the Nile, 100 km south of Kerma, where the first Kushite state was founded around 2500 BCE. As Eastern Sahara underwent desertification, between 5000 and 3500 BCE, the Wadi Howar attracted a numerous population, especially from the North, until its course became disrupted and finally just temporary around the middle of the 2<sup>nd</sup> millennium BCE. Nowadays, only the Upper Wadi Howar, in Darfur, retains some water at the time of the seasonal rains. The Wadi Howar was densely populated during three millennia, as can be deduced from the 1700 archaeological sites of various size spotted by the Cologne team. The banks of the wadi are surrounded by additional archaeological sites such as Gebel Tageru in the south, Erg Ennedi in the north and Ennedi range in the west.

Three phases of settlement have been determined in the Wadi Howar. From 5000 to 4000 (phase 1), the river is continuously full and its bank harbour settlements of hunter-gatherers, that live also on fish and molluscs. From 4000 to 2200 (phase 2), the Lower Wadi Howar, close to the Nile, gets

dry. New settlers, coming from the neighbouring regions where desertification is gaining ground, are now living mainly on cattle. Goats and sheep are introduced at the end of this period. Contacts with the Nile valley are indicated by imported ceramics of the “herringbone” type. From 2200 to 1100 BCE (phase 3), the whole wadi is dry most of the time, with some humid places during the rainy season in the Upper and Middle Wadi Howar. Settlements are still numerous, but more scattered. The main diet is now made of sheep and goats, as cattle is too exacting for an increasingly arid environment. Donkeys, introduced to Sudan from at least 2500 BCE, play a major role in the nomadic way of life of the last settlers. After 1100 BCE, the region becomes hardly hospitable, excepted in the Upper Wadi Howar.

What can be deduced from the history of Proto-NES fits perfectly with these archaeological and palaeoclimatic data. The crystallisation of the proto-language possibly occurred when cattle-tenders settled together along the Wadi Howar around 4000 BCE, whereas the splitting into different linguistic groups would result from the progressive dessication of the river.

### **Splitting and migrations of the NES groups**

The original splitting into three main branches (Eastern, Taman, Nyima) might have occurred at the beginning of the third millenium BCE. The Eastern branch was probably settled in the eastern parts of the riverbed that were still hospitable at this time, namely the Middle Wadi Howar. As aridity increased, this branch splitted into three groups: Kushites, Proto-Nara and Proto-Nubians. Kushites (the ancestors of Meroites) headed to the Nile banks where they took part in the founding of the Kingdom of Kerma (2500 – 1500 BCE). It seems that the first settlement on this site, called Pre-Kerma (3500 – 2500 BCE), was too early to have already included Kushites as they might still have been living in the Wadi Howar at the time. By contrast, the anthropologist Christian Simon (in Bonnet 1990:103-06) has demonstrated that the population of the Kingdom of Kerma was genetically heterogeneous. Three main clusters (A, B, C) can be determined. Cluster A is close to a sample of modern Kenyan skeletons. Cluster C is very similar to a sample of Middle Empire skeletons from the region of Assuan, whereas Cluster B, although distinct from Cluster C, shares many common features with it. Cluster C is mainly present in the first times of Kerma (*Kerma ancien*, 2500 – 2050 BCE) and possibly represents the descendency of the Pre-Kerma population that founded Kerma 4 km away from the original settlement, when the Nile riverbed shrunk because of increasing aridity. However, the fact that their cemetery remained on the ancestral site might indicate cultural and ethnical continuity between Pre-Kerma and the new city. Cluster A and B were already present in *Kerma ancien*, but become majoritary in the following stage (*Kerma moyen*, 2050 – 1750 BCE). The early Kushites were probably one of these two groups (presumably B). Nonetheless, their importance grew rapidly in the population of the city and their language, Proto-Meroitic, became the language

of the elite and possibly of a great part of the population as is obvious from the Egyptian sources.

The Proto-Kushite migration from the Wadi Howar to the Nile took place roughly at the same time than the migration of Proto-Nara. It seems Proto-Nara split later in two groups. A first group, the ancestors of modern Nara, went upstream along the Nile and along its tributary, the Atbara river, to Western Eritrea, where they settled probably during the second millenium BCE and where they still live today. The second group settled in Lower Nubia. This population of semi-nomadic cattle-tenders has been labelled as “C-group” by early archaeologists. They were rapidly incorporated into the successive kingdoms of Kush (Kerma, Napata, Meroe), and later in the early Nubian kingdoms. However, they kept their original language alive until the early Middle Ages since one of the two Nile Nubian languages, Nobiin, includes specific non-Nubian words that are close to Nara (Rilly 2008b). Cultural links between the C-group and the early population of Eritrea have been evidenced by Fattovitch (1990) from ceramic analyses.

The movements of the Proto-Nubians, the third group of the Eastern branch of NES, are more mysterious. Nubians for sure did not invade the Nile Valley before the last period of the Kingdom of Meroe (see Rilly 2008c). On the other hand, it seems that the spectacular phonological changes that affected the Western Nubian languages (especially Midob and Kordofan Nubian) took place only recently, so that the splitting between the Nubian groups might be not so old, not earlier anyway than the end of Antiquity. Finally, the general proximity between Meroitic and Proto-Nubian, and the conservative aspects of Proto-Nubian phonology and lexicon (reflecting faithfully Proto-NES) tend to show that it remained a long time isolated and untouched by exogenous influences. Proto-Nubians might have remained in regions that were still hospitable until the first millenium BCE, such as some parts of the Middle Wadi Howar or the Gebel Tageru. They progressively gained influence over a great territory. In the middle of the 3<sup>rd</sup> century BCE, Eratosthenes describes them as “a great people living west of the Nile”. The conflicts with the Meroites became more and more frequent, as attested in the Meroitic texts mentioning military campaigns against the “Nuba”. The increasing draught of the region pushed them towards the green banks of the Nile and they finally invaded the Kingdom of Meroe around 350 BC, putting an end to the last pharaonic power of the Nile.

As for the Proto-Taman, whose language constituted the second branch of the NES linguistic group, they probably went upstream to the Upper Wadi Howar, which still has some seasonal water, no far from the region where they live today. If they came there through different routes, there is no way to know it because historical data for them are available only for the last four centuries.

Finally, the Proto-Nyima, the third branch of NES, went obviously to the south, just north of the Nuba mountains where they had contacts with the Nubian Christian kingdoms as attested by the names of some days of the week (for ex. Nyimang *kirāgé* “Sunday” < Old Nubian **ΚΥΡΙΑΚΕ** / **ΚΥΡΑΚΕ** < Greek

κυριακή, see Rilly 2010:188-90). They were pushed into the Nuba mountains by the slave-raiding so-called “Arabic” tribes of Kordofan, not earlier than the 14<sup>th</sup> century.

### **The Wadi Howar diaspora and the cradle of East Sudanic (ES)**

This hypothesis, namely on the Wadi Howar diaspora, was issued independently by the present author and Gerrit Dimmendaal, professor at the Institut für Afrikanistik of the Cologne University, on the same basis, *i.e.* converging linguistic, archaeological and palaeoclimatical data. As we reconstructed this scenario in 2003, Dimmendaal presented a first paper in Lyon on the subject. He recently published a first cursory article in an edited book (Dimmendaal 2007) and has a more detailed paper in press for the next issue of *SUGLA*. It is obviously significant for the validity of this hypothesis that it was issued at the same moment by two scholars working on East Sudanic languages.

Although roughly similar, Dimmendaal’s theory and the author’s differ in the identification of the original population of the Wadi Howar. In his opinion, they were Proto-East Sudanic speakers and not merely Proto-Northern East Sudanic, although he admits our classification of NES as a consistent group. He assumes that the Proto-ES speakers split into three groups: Nilotic and Surmic in the Lower Wadi Howar, NES in the Middle Wadi Howar and Temein and Daju in the Upper Wadi Howar.

I think the key issue for this question is a matter of chronology. Dimmendaal followed the outdated theories of our predecessors and placed therefore the appearance of Meroitic on the Middle Nile around 800 BCE. This late date leaves, between the crystallisation of Proto-ES around 4000 BCE and the dispersion of the groups, a sufficient span of time (more than two millenia) for the daughter-languages to acquire the linguistic differentiation that exist between them. However, Meroitic is attested much earlier, at the end of the second millenium, as stated above in this article. So the migration of a part of the Eastern branch of the NES group did not occur much later than 2500 BCE and accordingly, the splitting of the NES languages into three branches hardly occurred before 3000 BCE, because the three branches, Eastern, Taman, Nyima display considerable divergences whereas the Eastern group is very coherent. Finally, there is no more than one millenium left for the crystallisation of Proto-ES, its splitting along the wadi into three groups and for the Proto-NES to gain a cultural homogeneity which can be deduced from the common lexicon. This span of time seems too small, especially in consideration of the large differences existing between the East Sudanic language groups, as much for typology than for lexicon or morphology.

Another solution must therefore been found to explain the appearance of Proto-ES and its articulation with NES. Domestication of cattle gives here a clue. The ES languages exhibit common roots for cattle-tending, here the word for "cow":

- Nubian:
  - Old Nubian: **TOYEI-** cow, **TINI-** cattle
  - Kenuzi-Dongolawi: *tii*
  - Nobiin: *tii*
  - Kordofan Nubian / kadaro, ghulfan: *té*, tagle, dair, dilling: *tii*
  - Birgid: *tei*
  - Midob: *t̥ə*
- Taman / Tama: *tεε*, Erenga: *tè*, Mararit: *tee*
- Surmic / Didinga: *tána*, Murle: *táy* (pl. *tiin*), Baale: *táyya*, Majang: *taŋ*
- Jebel / Gaam: *tóó*
- Temein: *n̥tɛŋ*, pl. *ki-t̥k*
- Daju: *teɣé*
- Nilotique / Shilluk: *deay*, Nandi: *tány*, Maa: *ké-tèŋ*  
 Proto-Nilotic: \*ɗeŋ, pl. \*ɗok (Dimmendaal, pc)

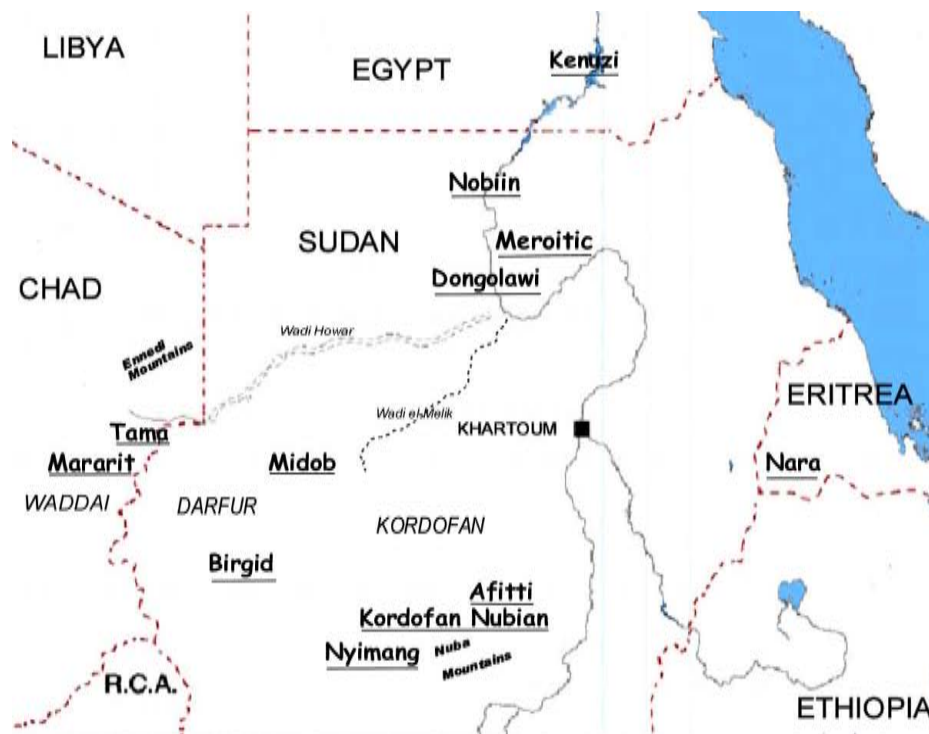


Fig. 4: Map of NES languages, courtesy of the author

We might therefore suppose that Proto-ES were already cattle-tenders. As domestication is not attested in the Wadi Howar before 4000 BCE, one must suppose either that Proto-ES appeared at this time and in this place – and this is Dimmendaal’s opinion, or that Proto-ES is earlier and appeared somewhere else – and this is my opinion.

The first traces of domesticated cattle in Africa are known on the southern sites of the Libyan desert, not far from the Sudanese border: Nabta Playa, Bir Kiseiba and Gilf Kebir, the latter being famous for his wonderful rock-

paintings. For Nabta Playa, domesticated cattle remains were dated to 8000 BCE. This early date has been recently confirmed by the discovery in EL-Barga, a site close to Kerma, of similar remains dated by radiocarbon to 7000 BCE. The analyses of the Cologne team (see Kuper – Kröpelin 2006) have shown that the population of the region of Nabta Playa and Gilf Kebir, where desertification occurred as soon as the end of the 6<sup>th</sup> millenium, went south to the Wadi Howar and some other Northern Sudanese sites in search of more hospitable pastures for their cattle.

In my opinion, the crystallisation of Proto-East Sudanic took probably place in the South of Egypt, where animal husbandry appeared much earlier than in Wadi Howar. The dessication of the Egyptian desert caused a first diaspora between the ES groups. One of these groups went further south, in the Wadi Howar region, developing a specific culture during several centuries, before growing aridity caused a second diaspora that drove them to different regions. This scenario of a double diaspora explains the common lexicon for cattle in ES groups and leaves enough time for these groups to get the considerable linguistic differences that exist between them.

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