Meroitic, the primary language of ancient Sudan, remained unwritten for at least two millennia. There were only rare transcriptions of proper names in Egyptian texts. With the rise of the 25th “Kushite” Dynasty, Egyptian script and language became the official means of written communication in Kush. A local form of Demotic was probably used in addition to the hieroglyphs, although archaeological evidence thereof is lacking. This local Demotic was very likely the ancestor of the Meroitic cursive script, which appeared in the third century BCE. A century later, a second script, called “hieroglyphic,” was created in order to replace Egyptian in monumental inscriptions. The signs were selected from the Egyptian hieroglyphs, but this new script was merely the prestigious counterpart of the Meroitic cursive characters, with a one-to-one correspondence between signs. The Meroitic writing system is an alphasyllabary. It includes 16 basic signs for syllables, with a default vowel /a/ and three vocalic modifiers used to write syllables with /e/, /ə/, /i/, and /u/. Four additional signs are used for the frequent syllables ne, se, te, and to. A word-divider made of two or three dots is inserted between the different groups of sentences. The Meroitic script disappeared in the fifth century CE, but three signs were integrated in the Old Nubian alphabet, which remained in use until the Islamic Period.
Successive kingdoms have flourished since the third millennium along the course of the Middle Nile, from Aswan to present-day Khartoum. The Egyptians referred to all these kingdoms as “Kush” from as early as the second millennium BCE. Kush, although strongly influenced by pharaonic Egypt, was

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Figure 1. Meroitic scripts sign-list.
the first historical civilization of Inner Africa. It is only during its last phase, known as the Kingdom of Meroe (270 BCE – 350 CE), that Meroitic, the language of Kush, was written with a specific script. The Meroitic script (fig. 1) existed in two strictly parallel forms, hieroglyphic and cursive, both of which were derived from Egyptian scripts. It was deciphered in 1911 by the British Egyptologist Francis Llewellyn Griffith (Griffith 1911a; Breyer 2014: 221-236). However, this decipherment did not give full access to the translation of the approximately 2000 texts currently recorded, as the vocabulary and grammar of the language remain only partially known.

Historical Overview

The Meroitic language (or at least an early stage of the language) was probably introduced into the Nile Valley in the third millennium (Zibelius-Chen 2014: 287-290). There is good reason to believe that the elites of the Kingdom of Kerma already spoke an archaic form of Meroitic as early as the beginning of the so-called Kerma Moyen stage (2150 – 1750 BCE). This first Kushite state, born south of the Third Cataract of the Nile, progressively extended its territory to the north until it clashed with the rulers of the Middle Kingdom. During the Second Intermediate Period, the monarchs of Kerma formed an alliance with the Hyksos in order to take the Theban kingdom by storm. As such, the Hyksos king sent an envoy to Kerma. The envoy, carrying an official letter, was intercepted in the Western Desert by Pharaoh Kamose’s men (Habachi 1972). It is probably within the context of these diplomatic relations that a list of foreign notables was carefully traced on the Papyrus Golenischeff (Erman 1911), originating from Shedet, now Medinet el-Fayum. These names, about 50 in all, are transcribed in hieratic script (fig. 2) but contain elements that can be identified as Meroitic (Rilly 2007b; Rilly and de Voogt 2012: 5-6). This document is of great significance for the history of Meroitic. It substantiates the existence of this language at the time of Kerma and includes a system of phonetic transcription of Kushite names that is the distant ancestor of Meroitic writing. Although it is probable that the kings of Kerma had Egyptian scribes capable of reading the missives of the Hyksos kings, it seems that writing was never practiced by the Kermans themselves.

After the fall of Kerma, around 1500 BCE, a long period of Egyptian colonization began that lasted until the late Ramesside Period, towards the end of the second millennium. The rulers of the New Kingdom built temples all over Nubia. The best-known are those of Soleb and Abu Simbel, built by Amenhotep III and Ramesses II, respectively. In addition to the numerous stelae and rock inscriptions scattered throughout the former kingdom of Kerma, the engraved texts of these sanctuaries offered countless examples of inscriptions in Egyptian hieroglyphs to the eyes of the Kushites.
It is therefore not surprising that, when a new local kingdom appeared in the Napatan region, it adopted the Egyptian script. The first textual traces come from a tumulus in the royal cemetery of el-Kurru, dated to the first half of the ninth century, and provide us with the transcription of a Meroitic word in Egyptian hieroglyphics, probably to be read as Qomlo[ye], which was likely the name of the deceased monarch (Abdalla 1999). A century later, the Kushite power of Napata had not only conquered Nubia, but also annexed Upper Egypt. During the reign of King Piankhy (753 – 721 BCE), the whole of Egypt fell to the Kushites, whose successors formed the 25th Dynasty of Egypt. Although they kept their Meroitic birth names, these rulers took Egyptian coronation names and adopted all the pharaonic regalia. This acculturation lasted long after the loss of Egypt to the Assyrians (663 BCE). All the texts written under the pharaohs of the 25th Dynasty and the kings of Napata are in the Egyptian language and script. Meroitic was nonetheless the daily language, as shown by the local names, which were transcribed phonetically in Egyptian hieroglyphs (Rilly 2007a: 20-25; 2010). Consonantal transcriptions, such as Thrq “Taharqo,” are attested along with more sophisticated transcriptions using group-writing, like in Ša-ba-t(a)-ku “Shabataqo” (aka Shebitku), cf. Assyrian transcription Šá-pa-ta-ku-u. Kushite scribes progressively replaced the Egyptian expatriate scribes, beginning with the reign of Aspelta in the late seventh century (Rilly 2012). Under the last kings of Napata, Harsiotef and Nastasen, in the fourth century, numerous spelling mistakes and grammatical errors in the texts betray an increasing distance from Egyptian culture (Peust 1999; Rilly 2007a: 26-27).

The absence of documents written in Egyptian cursive script, especially administrative texts, in the Napatan Period remains a puzzle. There is every reason to believe that a local form of Egyptian Demotic existed at Kush (Rilly 2021: 235-236). The hieroglyphic text of the Nastasen stela, for example, contains spellings and syntactic features that are no longer classical Egyptian, but Demotic. It is certainly possible that writing within the Napatan administration did not occupy the central place it had in contemporary Egypt, but it is difficult to imagine that the state institutions would have completely deprived themselves of such a powerful means of control. It is probable that future excavations will provide evidence of texts written in local Demotic.

The Meroitic cursive script clearly developed from Demotic (Priese 1973). The Meroitic signs are paleographically close to their Demotic equivalents used in Upper Egypt during the early Ptolemaic Period. However, several signs, such as ḫ ne or ur r, have no obvious connection with their Demotic counterpart and must have developed independently. The appearance of a specific script for the Meroitic language probably took place in the early third century, i.e., in the first decades of the Kingdom of Meroe. Several recent discoveries, which are described below, have brought about considerable changes in the scenario of this appearance.

According to a former hypothesis (FHN II: 660-661), the first known inscription was a cartouche in Meroitic hieroglyphs with the name of Queen Shanakdakhete, found in Temple F at Naga (fig. 3). This queen was supposed to have been buried in the pyramid Beg N. 11 of Meroe, which can be dated on archaeological grounds to the second century (Hintze 1959: 36). However, this hypothesis must now be discarded (Rilly 2003: 46-47). First, as explained below, the cursive script appeared before the development of the hieroglyphic script. Yet, the chapel of the pyramid Beg N. 11 contains inscriptions in cursive that give the names of some of the characters represented in the reliefs. Secondly, the hieroglyphs in the cartouche of Queen Shanakdakhete are paleographically quite similar to those of Queen Amanishakheto’s time and were probably engraved at the end of the first century BCE or shortly thereafter.

In fact, the earliest datable Meroitic inscription is a short text engraved on the handle of a sistrum that mysteriously appeared in 2015 on the antiquities market and was
quickly sold to an anonymous buyer (Rilly 2017: 208). The instrument is in gilded bronze and in a perfect state of preservation, probably because it was plundered from a tomb. The loop includes the names and titles of king Arnekhamani, “beloved of Isis.” Because of this epithet, which was borrowed from Ptolemy IV’s titulatures, the artifact can be dated to the years 220/210 BCE. The inscription on the handle (fig. 4) refers to a secondary wife of the king, who might be the owner of the sistrum. Thanks to this discovery, several inscriptions from the temples of Musawwarat and Dukki Gel can now be ascribed to the reign of Arnekhamani as well (Rilly 2021). Because these inscriptions already display all the features of the later Meroitic script, it has been suggested that the cursive script appeared earlier, namely in the first years of the Kingdom of Meroe, around 270 BCE. It may have been one of the innovations associated with the emergence of a southern dynasty, along with the rise of ruling queens and, a little later, the official cult of local deities such as Apedemak and Shebo (aka Sebiumeker). The invention of the cursive script also reflects the increased distancing from the Egyptian culture that resulted from the rise of Meroe, a place where Egyptians never settled.

The Meroitic hieroglyphic script was probably created by high-ranking scribes during the reign of Taneyidamani, in the first half of the second century BCE. It allowed monumental and royal texts previously written in Egyptian language and script to now be written in Meroitic. Two cartouches in Meroitic hieroglyphs are known for Taneyidamani. The first (REM 1140), engraved on a metal sheath once attached to a staff, was probably made in the earlier years of his reign and displays what can be called “experimental hieroglyphs.” The sign for d is, for example, the Egyptian nb-sign (V30) and the sign for ne is the mouth (D21). The second hieroglyphic cartouche of this king is engraved on the lunette of his great stela found in the Amun Temple in Gebel Barkal (REM 1044), now in the Museum of Fine Arts in Boston. In this second instance, the hieroglyphs already have

Figure 3. Inscription of Queen Shanakkdakhete from Temple F at Naga.

Figure 4. Archaic cursive inscription on the handle of Arnekhamani’s sistrum.
thereir definitive aspect: $d$ is an eye and $ne$ is a double rush (Egyptian M22).

Whereas the Meroitic cursive script is a natural development from Demotic, the Meroitic hieroglyphic script was in all likelihood invented by one or several scribes. All the signs are actual Egyptian hieroglyphs, but their values are sometimes different and puzzling. For instance, the duck-sign $\hat{s}$, which reads $s3$ in Egyptian, is used for $k$ in Meroitic. Similarly, the eye of Horus $\hat{d}$ reads $w3t$ in Egyptian, but $d$ in Meroitic. In many cases, the signs were chosen because of their resemblance to their cursive counterpart. The cursive sign $\hat{d}k$ bears some similarity to a duck’s head, body, and tail. Likewise, the eye of Horus is reminiscent of the cursive character $\hat{d}$. In other cases, alternative hieroglyphs were preferred to signs that are more common because they occurred in the cartouches of great Kushite kings of the past. For example, the ram $\hat{b}$, which reads $b3$ in Egyptian, was preferred to the foot (D58) in order to write $b$, because it occurred in the cartouches of kings Shabaqo and Shabataqo. The association of the ram with Amun probably played a role in this choice as well. The use of these “royal” hieroglyphs explains why the combined Egyptian signs $t + b \hat{b}$ were chosen to write the Meroitic syllable $te$. This combination of signs was present in the cartouche of king Taharqo, read as $Thrq$. The consonant /h/ (probably the result of an intervocalic *g) became silent in later Meroitic, so that the name was then pronounced /tarku/ or /tarku/. The combination $t + h$ was reinterpreted as an alternative sign for /t/ and was chosen as the hieroglyphic counterpart of cursive /$\hat{t}$ te/. Thus far, no obvious motivation can be found for some Meroitic hieroglyphic signs, such as $\hat{b}$ or $\hat{w}$ to.

Both scripts remained in use without significant change until the fall of the Kingdom of Meroe (c. 350 CE) and the early post-Meroitic period. The latest known hieroglyphic inscription (REM 1222) was engraved on a bronze bowl found in a burial mound at el-

Figure 5. Meroitic hieroglyphic inscription on a bronze bowl from el-Hobagi.

Figure 6. Pilgrim’s feet and Meroitic inscription from the Temple of Isis at Philae.

Hobagi (fig. 5). It was inscribed for a Nuba ruler shortly after the kingdom’s collapse (Rilly 2011). The most recent cursive text (fig. 6), the inscription of the priest Smet in Philae (REM 0117), was probably engraved by the same person, at the same time and in the same place as the last Demotic inscription, dated to year 452 CE (Rilly 2017: 392). Nevertheless, it seems that the Meroitic cursive script was known until the beginning of the Christianization of Sudan in the mid-sixth
century. When the Nubian kingdoms that had succeeded Meroe decided to provide Old Nubian—the language of the new elites—with a script of its own, their scribes naturally chose the Coptic alphabet. However, this alphabet had no specific signs for Nubian consonants such as /ɲ/ (Spanish “ñ”) or /ŋ/ (English “ng”). Similarly, the semi-vowel /w/ had only an inconvenient transcription oy. Therefore, the scribes adapted three Meroitic signs, N ne, h x (pronounced /ŋ/ in indigenous Meroitic words), and w w, which became颚 /ɲ/, ɲ /ŋ/, and χ /w/, respectively. In this way, only three Meroitic signs survived until the arrival of Islam in the fifteenth century.

The Principles of Meroitic Writing

Although it comes in two forms, cursive and hieroglyphic, the Meroitic script is a single system, with two sets of characters that have the same values. The hieroglyphic signs are only used in a very specific context, namely, in the worship of the gods by the royal cult. This royal script occurs particularly in the captions accompanying the reliefs of the temples (Naga, Amara, Meroe) (fig. 7), but also on objects related to the burial of the sovereigns, such as offering tables. The other types of inscriptions, especially those of private individuals, are written in the cursive script and make up the vast majority of the corpus known so far (fig. 8). The use of the cursive script extends to official texts such as stelae commemorating the achievements of the kings and queens of Meroe.
The cursive script is written from right to left, like Egyptian Demotic. The hieroglyphic script can be written, like its Egyptian ancestor, from right to left or from left to right. However, the direction of reading is the opposite of that of Egyptian hieroglyphs: the animated figures look towards the end and not towards the beginning of the line. Unlike in Egyptian or Maya hieroglyphs, they do not face the reader (cf. Stauder and Houston 2021). The Meroitic writing system is purely phonetic, and therefore differs fundamentally from the Egyptian system, which includes logographic signs and semantic classifiers. Contrary to an outdated theory that can still be found in secondary sources, the Meroitic writing system does not constitute an alphabet. Admittedly, the traditional transliteration into Latin characters, which has been used since Griffith’s decipherment, does not help to clarify this point. The cursive sign \( \text{e} \), hieroglyphic \( \text{e} \), was read /ba/ by the Meroites, but modern scholars transliterate it \( b \), without vowel. This transliteration has its justification, however, because some signs have several values: the cursive \( \text{e} \), hieroglyphic \( \text{e} \), is transliterated “e,” but it could have the values /e/ or /a/ (“schwa”), or even indicate that the preceding sign is a simple consonant, without vowel (zero value). The traditional transliteration thus provides a simple equivalent in Latin characters, sign for sign, but it does not convey the actual pronunciation of the word.

The Meroitic writing system is an “alphasyllabary,” or “abugida” (Rilly and de Voogt 2012: 35). This type of writing system seems to be derived from abjads such as the Egyptian so-called “alphabet,” Aramaic, or South Arabian scripts. It is used in particular in Indic scripts, such as Devanagari and Tibetan, but also in Ethiopic scripts. Each basic sign represents a consonant followed by the default vowel /a/. If the vowel is different, a special character is added after the basic sign to modify the default vowel. There are three such “vowel modifiers” in Meroitic: 1) \( \text{e} \), in cursive \( \text{e} \), in hieroglyphic \( \text{e} \); and 3) \( \text{o} \), in cursive \( \text{o} \), in hieroglyphic \( \text{o} \). The sign \( \text{e} \), as was mentioned above, is also used to indicate the absence of a vowel. Thus the cursive group \( \text{e} \text{e} \), hieroglyphic \( \text{e} \text{e} \), which is conventionally transliterated \( /\text{ee}/ \), was pronounced either [\text{ke}, \text{ka}], or [\text{k}]. The sign \( \text{o} \) has two values, [\text{u}] and [\text{o}]. In addition, it seems that in a few cases, [\text{o}] could replace [\text{a}] as the default vowel.

A similar ambiguity is found in the transcription of initial vowels. A special sign, cursive \( \text{s} \text{r} \), hieroglyphic \( \text{s} \text{r} \), transliterated \( \text{s} \), is used to note an initial /a/ or /u/. As for initial /e/ and /i/, Meroites originally transcribed them by the same signs as the vowel modifiers for /e/ and /i/, so that the same characters were used both as vowel modifiers and as syllabic signs. This ambivalence was a breach in the principles of the alphasyllabic system and was fixed by inserting a dummy \( \text{y} \) in front of the vocalic signs: initial /e/ and /i/ were then written \( \text{y} \text{e} \text{e} \) and \( \text{y} \text{i} \text{i} \). This inaccuracy in initial and medial vowels is a legacy of the Egyptian writing system, which as a rule does not consider vowels. Admittedly, there was an Egyptian “syllabic script” that included vocalic notation, but it seems to have been rather vague and fluctuating (see, however, Kilani 2019 for a new interpretation). Despite all their efforts, the Meroites never managed to create an accurate notation for the vowels of their language.

Finally, the Meroitic writing system includes four particular basic signs that have a fixed vocalic value, like in the full syllabaries: 1) cursive \( \text{s} \), hieroglyphic \( \text{s} \), transliterated \( \text{s} \); 2) cursive \( \text{u} \text{u} \), hieroglyphic \( \text{u} \), transliterated \( \text{u} \); 3) cursive \( \text{i} \text{i} \), hieroglyphic \( \text{i} \), transliterated \( \text{i} \); and 4) cursive \( \text{t} \text{e} \), hieroglyphic \( \text{t} \text{e} \), transliterated \( \text{t} \). These groups are contrary to the principles of the alphasyllabaries, but they were preserved because they frequently occurred in Meroitic suffixes and postpositions such as -\text{te} “in” or -\text{se} “of.”
The following examples in cursive illustrate the rules of the Meroitic writing system:

- Basic sign with default vowel /a/: \( \text{md} \) “to take, to receive,” transliterated \( \text{dm} \), reads /dama/

- Basic sign with a vowel modifier: \( \text{ru} \) “Nubian,” transliterated \( \text{nob} \), reads /nuba/

- Signs with fixed value (ne, se, te, to): \( \text{t} \) “child,” transliterated \( \text{mte} \), reads /mate/ (\( \text{T} = t + e \))

- Consonantal clusters: \( \text{qet} \) “Qurta” (name of a city), transliterated \( \text{Qoreti} \), reads /kwurti/

- Initial vowels:
  - \( \text{k} \) “Lower Nubia,” transliterated \( \text{Akine} \), reads /akin(ə)/
  - \( \text{wr} \) “Osiris,” transliterated \( \text{Asori} \), reads /usuri/
  - \( \text{yr} \) “milk,” transliterated \( \text{yer} \), reads /era/

This script does not record certain characteristics of the Meroitic language that only a comparison with Egyptian and Greek borrowings could bring to light. Repeated consonants are never represented in writing (haplography). The name of the god Amun of Napata, for example, is written \( \text{mm-npt} \), transliterated as \( \text{Amunpt} \), but reads /aman-napat(ə)/ (Egyptian \( \text{Jmn-Npt} \)). Similarly, nasals before another consonant are almost never transcribed, so that the queen’s title, “Candace,” which is transcribed in Greek as \( \text{kandake} \), is written \( \text{32} \text{32} \text{ktke} \) in Meroitic. Finally, only the second element of a diphthong is written: the title “Caesar,” in Greek \( \text{Kaiser} \), is transcribed as \( \text{33} \text{33} \text{Kisi} \) and is read /kaisari/.

Meroitic writing has a word divider, which consists of two vertical dots in cursive, and three in hieroglyphic. In the earliest texts, such as the inscription on Arnekhamani’s sistrum, it looks like a wavy line, so that the connection of the Meroitic word divider with the Egyptian hieroglyphic plural marker, as assumed by Priese (1973), can be ruled out. This sign marks the delimitation of the elements of the sentence: noun phrases, verbal forms, etc. However, its use varies from scribe to scribe: some hardly ever use it, others go so far as to isolate the constituent elements of the words themselves.

Francis Llewellyn Griffith, the decipherer of the Meroitic script, suggested it had undergone a Greek influence (Griffith 1911a: 17). In the early twentieth century, inner-African people were considered incapable of attaining such a high degree of civilization as that embodied in an alphabetic-like writing system conceived of as an exclusively Western achievement. Griffith’s hypothesis was proven wrong, because it is possible to follow the development of the Meroitic writing system from the Napatan transcriptions step by step. The Meroites created a purely phonetic writing system, which fundamentally differs from that of the Egyptians. Despite some weaknesses, especially in the notation of vowels, the development of the Meroitic script is one of the most admirable achievements of the civilization of ancient Sudan.
Bibliographic Notes

The most complete study of Meroitic writing published so far is included in Rilly (2007a: 231-358) (in French). A compendium of this study (in English) can be found in Rilly and de Voogt (2012: 35-61), and in Rilly (2016) in the section “Meroitic Scripts.” The seminal article for the description of the Meroitic writing system by Hintze (1973) (in English), though partly outdated, remains a useful reference. In the same volume, Priese’s contribution (1973) (in German) provides invaluable insights on the origin of the Meroitic cursive and hieroglyphic signs.

Abbreviations:

FHN: Fontes historiae Nubiorum (see Eide et al. 1996).
REM: Répertoire d’épigraphie méroïtique (see Leclant et al. 2000).

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