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Title: **Proposal for encoding the Meroitic script in the SMP of the UCS**
Source: **UC Berkeley Script Encoding Initiative (Universal Scripts Project)**
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This document replaces N3484 (2008-08-04), N2134 (1999-10-02), N1638 (1997-09-18), and contains the proposal summary form.

1. Introduction. The Meroitic script appeared with the rise of the Meroitic Kingdom in the third century BCE, though Egyptian writing (both hieroglyphic and demotic) would certainly have been known and was used previously in the Nubian city of Meroë, a city which is about 6 km north-east of the modern Kabushiya station near Shendi, Sudan, about 200 km north-east of modern Khartoum. Meroitic was used until some time after the fall of the Meroitic Empire in the first half of the fourth century CE. The values of the script's characters are known, but the language itself remains unknown, apart from names and a few other words.

2. Structure. The script has a monumental form, derived from Egyptian Hieroglyphs, and a cursive form, derived from Egyptian Demotic, which was used considerably more frequently than the monumental form. Although there is a relationship between Hieroglyphic Meroitic (*l'écriture hiéroglyphique méroïtique*) and Cursive Meroitic (*l'écriture cursive méroïtique*), the argument that the two should be treated as font variants is not compelling. Publications which cite Meroitic in the original script rather than in transliteration regularly preserve the distinction between Hieroglyphic and Cursive script forms. Essentially, there is no usage requirement where any text written in Hieroglyphic Meroitic would be converted into Cursive, or vice versa. Hieroglyphic Meroitic is only used to write texts which were written in Hieroglyphic Meroitic, and Cursive Meroitic is only used to write texts which were written in Cursive Meroitic. The Meroitic script is essentially two script forms used concurrently, but not interchangeably, for the same language. Scholars distinguish, and need to be able to distinguish, in plain text, Hieroglyphic Meroitic from Cursive Meroitic.

Moreover, in origin the two script forms differ historically. Cursive Meroitic developed over a period of time. Most of its characters are very close to the old Ptolemaic demotic of Upper Egypt (332-186 BCE), in particular ∕ O, ⫻ YA, ⋜ PA, ⱳ RA, ⳨ KHA *ḫa*, ⳨ SA, ⳨ QA, and the numbers ⤸ 6, ⤳ 8, ↾ 9, ⟙ 20, ↘ 50, ⤴ 70, ⳨ 80, ⌣ 100, ⳨ 200, ⳨ 300, and ⱳ 800. Rilly 2007:247-262 gives a complete discussion of the origin of each individual Cursive character.

Like Cursive Meroitic, Hieroglyphic Meroitic is first known in various forms dating to the reign of Taneyidamani, at the end of the 2nd century BCE. But whilst the goal of Cursive writing was practical, it appears that the development of the Hieroglyphic form was based in the desire to possess a monumental and decorative version of the Cursive form, and also to participate in the magic power attributed to

1

Egyptian Hieroglyphs. The set of characters devised for Hieroglyphic all have direct parallels with Egyptian Hieroglyphs, and is larger than that of Cursive Meroitic, which relates not to Egyptian Hieroglyphs, but to the demotic script which is not unified with the Hieroglyphs. One of the reasons Hieroglyphic Meroitic is larger is an evident uncertainty in which Egyptian characters were to be used for various sounds; both 𓃞 and 𓃀 are used for *b*—the former (the ram) having the value *bꜣ* in Egyptian, the latter (the foot) simply *b*. These are also distinguished in current fonts. There is no purely one-to-one relationship between Cursive and Hieroglyphic Meroitic. Hieroglyphic Meroitic is used only for formal inscriptions. There are no private documents written in it.

The two script forms of Meroitic are treated in this encoding as two *separate* scripts and are encoded in two separate blocks, Meroitic Hieroglyphs and Meroitic.

3. Directionality. The direction of writing is right-to-left, evidently with no exceptions. Unlike Egyptian, where one reads into the faces of the people and animals, in Meroitic, the reading direction follows the way the people and animals are looking. Thus, using arrows to indicate the reading direction, the name *Amūn* (ʾ*Imn*, god of Thebes) would be written as *amana* in Meroitic ≈𓆓𓃻 ← *na-ma-a* ←; in Egyptian Hieroglyphs this would be written 𓅓𓏏𓈖𓇋 ← with right-to-left directionality, → 𓇋𓏏𓈖𓅓 with left-to-right directionality. Another way of visualizing this would be that if the *cognate* Egyptian characters were written with right-to-left directionality, they would appear reversed from the Meroitic point of view, thus: Meroitic ≈𓆓𓃻 ←, Egyptian 𓈖𓅓𓇋* ←.

4. Punctuation. Word dividers are employed more or less regularly, to isolate not separate words, but basic elements of sentences—nominal phrases (noun and article, noun and adjective and article, etc) verbal forms, and so on. Three vertical dots are used in Hieroglyphs and early Cursive, though when the Hieroglyphs are set in vertical columns, three horizontal dots are used. It would seem that U+205D TRICOLON ⁝ and U+2026 HORIZONTAL ELLIPSIS … can serve this function. In later Cursive texts this became reduced to a COLON :, used with some irregularity.

5. Numbers. Meroitic numbers are fairly well known. Ones, tens, hundreds, and thousands are known; characters for 60, 90, and 900 are not yet known; neither are the numbers for 4,000, 6,000, 7,000, 8,000, and 9,000, though the number for 10,000 is cited in secondary literature (a number chart, see Figure 4). There is a system to the number shapes, as there are in Egyptian Hieratic, so gaps have been left in the code table for the numbers as yet unattested.

6. Ordering. Meroitic ordering interfiles the Cursive and Hieroglyphic script forms as well as the encoded variants:

ꞔꞔ *a^c* >> 𓃭 *a^h* > ꞔ *e^c* >> 𓏴 *e^h* > ⟋ *o^c* >> 𓃻 *o^h* > ⟋ *i* >> 𓃭 *i* > ⫶⫶ *ya^c* >> 𓏲𓏲 *ya^h* >

𝼃 *wa^c* >> 𓐍 *wa^h* > ⩔ *ba^c* >> 𓃞 *ba^h* >> 𓃀 *ba^h2* > ⪽ *pa^c* >> 𓏐 *pa^h* > ⟋ *ma^c* >> 𓆓 *ma^h* >

⟋ *na^c* >> ≈ *na^h* >> ⩚ *na^h2* > ⋏ *ne^c* >> 𓎿 *ne^h* >> 𓏧 *ne^h2* > ш *ra^c* >> ⊐ *ra^h* >> ⊡ *ra^h2* >

ꞔ *la^c* >> 𓊃 *la^h* >> ⪤ *ḫa^c* >> ⊜ *ḫa^h* > ꞔ *ḫa^c* >> ꝯ *ḫa^h* > ꞔ *sa^c* >> 𓊨 *sa^c2* >> 𓏩 *sa^h* >> ⟋ *sa^h2* >

⫶⫶ *se^c* >> 𐊊 *se^h* > ꞔ *ka^c* >> 𐊖 *ka^h* > ⟋ʒ *qa^c* >> Δ *qa^h* > ꞔ *ta^c* >> ⊐ *ta^h* >> ⊐ *ta^h2* >

⟋ *te^c* >> 𐊓 *te^h* >> 𐊌 *te^h2* > ꞔ *to^c* >> ⟋ *to^h2* > λ *da^c* >> 𐍈 *da^h*

7. Names. Meroitic has four vowels, namely *a*, *e*, *i* and *o* and a semivowel *y*. The vowel *a* is only written when it is an initial; *e*, *i*, and *o* are also written within words. Meroitic has two types of consonants. A few consonants are combined with a vowel, namely *ne*, *se*, *te*, and *to*; the other consonants are single consonants, each of which is followed by a vowel (*e*, *i*, *o*) in the inscriptional records. If there is no vowel inserted between two consonants, the consonant is read with an inherent *a*. For example, the Meroitic royal title is *qore*, written ꞔ𝼌⟋⟋ʒ or 𓏐⊐𓃻Δ (*q + o + r + e*); the title of the supreme commander of the

army is *paqara*, written ω /כ ך or ⌐∆ $\frac{c}{2}$ ($p + q + r$). In the character names, the inherent *-a* is used for the consonants and the rest of the names follow the usual UCS conventions.

8. Issues. At least twenty-four symbols are known, many used in conjunction with numbers and are perhaps determinatives of different types of goods. A number of these with very similar glyphs may not be unique characters at all. Further study of these is required. They are left for future standardization.

9. Unicode Character Properties.

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10980;MEROITIC HIEROGLYPHIC LETTER A;Lo;0;R;;;;;N;;;;;
10981;MEROITIC HIEROGLYPHIC LETTER E;Lo;0;R;;;;;N;;;;;
10982;MEROITIC HIEROGLYPHIC LETTER I;Lo;0;R;;;;;N;;;;;
10983;MEROITIC HIEROGLYPHIC LETTER O;Lo;0;R;;;;;N;;;;;
10984;MEROITIC HIEROGLYPHIC LETTER YA;Lo;0;R;;;;;N;;;;;
10985;MEROITIC HIEROGLYPHIC LETTER WA;Lo;0;R;;;;;N;;;;;
10986;MEROITIC HIEROGLYPHIC LETTER BA;Lo;0;R;;;;;N;;;;;
10987;MEROITIC HIEROGLYPHIC LETTER BA-2;Lo;0;R;;;;;N;;;;;
10988;MEROITIC HIEROGLYPHIC LETTER PA;Lo;0;R;;;;;N;;;;;
10989;MEROITIC HIEROGLYPHIC LETTER MA;Lo;0;R;;;;;N;;;;;
1098A;MEROITIC HIEROGLYPHIC LETTER NA;Lo;0;R;;;;;N;;;;;
1098B;MEROITIC HIEROGLYPHIC LETTER NA-2;Lo;0;R;;;;;N;;;;;
1098C;MEROITIC HIEROGLYPHIC LETTER NE;Lo;0;R;;;;;N;;;;;
1098D;MEROITIC HIEROGLYPHIC LETTER NE-2;Lo;0;R;;;;;N;;;;;
1098E;MEROITIC HIEROGLYPHIC LETTER RA;Lo;0;R;;;;;N;;;;;
1098F;MEROITIC HIEROGLYPHIC LETTER RA-2;Lo;0;R;;;;;N;;;;;
10990;MEROITIC HIEROGLYPHIC LETTER LA;Lo;0;R;;;;;N;;;;;
10991;MEROITIC HIEROGLYPHIC LETTER KHA;Lo;0;R;;;;;N;;;;;
10992;MEROITIC HIEROGLYPHIC LETTER HHA;Lo;0;R;;;;;N;;;;;
10993;MEROITIC HIEROGLYPHIC LETTER SA;Lo;0;R;;;;;N;;;;;
10994;MEROITIC HIEROGLYPHIC LETTER SA-2;Lo;0;R;;;;;N;;;;;
10995;MEROITIC HIEROGLYPHIC LETTER SE;Lo;0;R;;;;;N;;;;;
10996;MEROITIC HIEROGLYPHIC LETTER KA;Lo;0;R;;;;;N;;;;;
10997;MEROITIC HIEROGLYPHIC LETTER QA;Lo;0;R;;;;;N;;;;;
10998;MEROITIC HIEROGLYPHIC LETTER TA;Lo;0;R;;;;;N;;;;;
10999;MEROITIC HIEROGLYPHIC LETTER TA-2;Lo;0;R;;;;;N;;;;;
1099A;MEROITIC HIEROGLYPHIC LETTER TE;Lo;0;R;;;;;N;;;;;
1099B;MEROITIC HIEROGLYPHIC LETTER TE-2;Lo;0;R;;;;;N;;;;;
1099C;MEROITIC HIEROGLYPHIC LETTER TO;Lo;0;R;;;;;N;;;;;
1099D;MEROITIC HIEROGLYPHIC LETTER DA;Lo;0;R;;;;;N;;;;;
109A0;MEROITIC LETTER A;Lo;0;R;;;;;N;;;;;
109A1;MEROITIC LETTER E;Lo;0;R;;;;;N;;;;;
109A2;MEROITIC LETTER I;Lo;0;R;;;;;N;;;;;
109A3;MEROITIC LETTER O;Lo;0;R;;;;;N;;;;;
109A4;MEROITIC LETTER YA;Lo;0;R;;;;;N;;;;;
109A5;MEROITIC LETTER WA;Lo;0;R;;;;;N;;;;;
109A6;MEROITIC LETTER BA;Lo;0;R;;;;;N;;;;;
109A7;MEROITIC LETTER PA;Lo;0;R;;;;;N;;;;;
109A8;MEROITIC LETTER MA;Lo;0;R;;;;;N;;;;;
109A9;MEROITIC LETTER NA;Lo;0;R;;;;;N;;;;;
109AA;MEROITIC LETTER NE;Lo;0;R;;;;;N;;;;;
109AB;MEROITIC LETTER RA;Lo;0;R;;;;;N;;;;;
109AC;MEROITIC LETTER LA;Lo;0;R;;;;;N;;;;;
109AD;MEROITIC LETTER KHA;Lo;0;R;;;;;N;;;;;
109AE;MEROITIC LETTER HHA;Lo;0;R;;;;;N;;;;;
109AF;MEROITIC LETTER SA;Lo;0;R;;;;;N;;;;;
109B0;MEROITIC LETTER ARCHAIC SA;Lo;0;R;;;;;N;;;;;
109B1;MEROITIC LETTER SE;Lo;0;R;;;;;N;;;;;
109B2;MEROITIC LETTER KA;Lo;0;R;;;;;N;;;;;
109B3;MEROITIC LETTER QA;Lo;0;R;;;;;N;;;;;
109B4;MEROITIC LETTER TA;Lo;0;R;;;;;N;;;;;
109B5;MEROITIC LETTER TE;Lo;0;R;;;;;N;;;;;
109B6;MEROITIC LETTER TO;Lo;0;R;;;;;N;;;;;
109B7;MEROITIC LETTER DA;Lo;0;R;;;;;N;;;;;
109BC;MEROITIC LOGOGRAM RMT;Lo;0;R;;;;;N;;;;;
109BD;MEROITIC LOGOGRAM IMN;Lo;0;R;;;;;N;;;;;
109BE;MEROITIC SYMBOL VIDJ;So;0;R;;;;;N;;;;;
109BF;MEROITIC SYMBOL VIDJ-2;So;0;R;;;;;N;;;;;
109C0;MEROITIC FRACTION ONE HALF;No;0;R;;;;1/2;N;;;;;
109C1;MEROITIC FRACTION ONE TWELFTH;No;0;R;;;;1/12;N;;;;;
109C2;MEROITIC FRACTION TWO TWELFTHS;No;0;R;;;;2/12;N;;;;;
109C3;MEROITIC FRACTION THREE TWELFTHS;No;0;R;;;;3/12;N;;;;;
109C4;MEROITIC FRACTION FOUR TWELFTHS;No;0;R;;;;4/12;N;;;;;
109C5;MEROITIC FRACTION FIVE TWELFTHS;No;0;R;;;;5/12;N;;;;;
109C6;MEROITIC FRACTION SIX TWELFTHS;No;0;R;;;;6/12;N;;;;;
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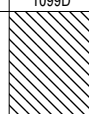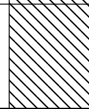
```
109C7;MEROITIC FRACTION SEVEN TWELFTHS;No;0;R;;;;7/12;N;;;;;
109C8;MEROITIC FRACTION EIGHT TWELFTHS;No;0;R;;;;8/12;N;;;;;
109C9;MEROITIC FRACTION NINE TWELFTHS;No;0;R;;;;9/12;N;;;;;
109CA;MEROITIC FRACTION TEN TWELFTHS;No;0;R;;;;10/12;N;;;;;
109CC;MEROITIC NUMBER ONE;No;0;R;;;;1;N;;;;;
109CD;MEROITIC NUMBER TWO;No;0;R;;;;2;N;;;;;
109CE;MEROITIC NUMBER THREE;No;0;R;;;;3;N;;;;;
109CF;MEROITIC NUMBER FOUR;No;0;R;;;;4;N;;;;;
109D0;MEROITIC NUMBER FIVE;No;0;R;;;;5;N;;;;;
109D1;MEROITIC NUMBER SIX;No;0;R;;;;6;N;;;;;
109D2;MEROITIC NUMBER SEVEN;No;0;R;;;;7;N;;;;;
109D3;MEROITIC NUMBER EIGHT;No;0;R;;;;8;N;;;;;
109D4;MEROITIC NUMBER NINE;No;0;R;;;;9;N;;;;;
109D5;MEROITIC NUMBER TEN;No;0;R;;;;10;N;;;;;
109D6;MEROITIC NUMBER TWENTY;No;0;R;;;;20;N;;;;;
109D7;MEROITIC NUMBER THIRTY;No;0;R;;;;30;N;;;;;
109D8;MEROITIC NUMBER FORTY;No;0;R;;;;40;N;;;;;
109D9;MEROITIC NUMBER FIFTY;No;0;R;;;;50;N;;;;;
109DB;MEROITIC NUMBER SEVENTY;No;0;R;;;;70;N;;;;;
109DC;MEROITIC NUMBER EIGHTY;No;0;R;;;;80;N;;;;;
109DE;MEROITIC NUMBER ONE HUNDRED;No;0;R;;;;100;N;;;;;
109DF;MEROITIC NUMBER TWO HUNDRED;No;0;R;;;;200;N;;;;;
109E0;MEROITIC NUMBER THREE HUNDRED;No;0;R;;;;300;N;;;;;
109E1;MEROITIC NUMBER FOUR HUNDRED;No;0;R;;;;400;N;;;;;
109E2;MEROITIC NUMBER FIVE HUNDRED;No;0;R;;;;500;N;;;;;
109E3;MEROITIC NUMBER SIX HUNDRED;No;0;R;;;;600;N;;;;;
109E4;MEROITIC NUMBER SEVEN HUNDRED;No;0;R;;;;700;N;;;;;
109E5;MEROITIC NUMBER EIGHT HUNDRED;No;0;R;;;;800;N;;;;;
109E7;MEROITIC NUMBER ONE THOUSAND;No;0;R;;;;1000;N;;;;;
109E8;MEROITIC NUMBER TWO THOUSAND;No;0;R;;;;2000;N;;;;;
109E9;MEROITIC NUMBER THREE THOUSAND;No;0;R;;;;3000;N;;;;;
109EB;MEROITIC NUMBER FIVE THOUSAND;No;0;R;;;;5000;N;;;;;
109F0;MEROITIC NUMBER TEN THOUSAND;No;0;R;;;;10000;N;;;;;
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10. Bibliography.

'Abd Allāh, 'Abd al-Qādir Maḥmūd. 1986. *Al-Lughah al-Marawīyah*. Taḥta ishrāf Markaz al-Buḥūth, Kullīyat al-Ādāb, Jāmi'at al-Malik Sa'ūd. [Al-Riyāḍ]: al-Jāmi'ah.

Griffith, F. Ll. 1911. *Karanòg: The Meroitic inscriptions of Shablûl and Karanòg*. Philadelphia: University Museum.

Hofmann, Inge. 1991. *Steine für die Ewigkeit: Meroitische Opfertafeln und Totenstelen*. (Beiträge zur Sudanforschung; Beiheft 6). Wien: Mödling.

Millet, N. B. 1996. "The Meroitic script", in *The World's Writing Systems*, ed. Peter T. Daniels & William Bright. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0

Rilly, Claude. 2007. *La langue du royaume de Méroé: un panorama de la plus ancienne culture écrite d'Afrique subsaharienne*. Paris: Librairie Honoré Champion.

Török László. 1996. "A general note to the Meroitic texts" in *Fontes Historiae Nubiorum: Textual sources for the history of the Middle Nile Region between the Eighth Century BC and the Sixth Century AD. Vol. II: From the Mid-Fifth to the First Century BC*. Pp. 359-61. Bergen: Universitetet i Bergen.

Woodard, Roger D. 2004. "Introduction", in *The Cambridge encyclopedia of the world's ancient languages*, ed. Roger Woodard, p. 7. Cambridge: Cambridge University Press.

	1098	1099
0	10980	10990
1	10981	10991
2	10982	10992
3	10983	10993
4	10984	10994
5	10985	10995
6	10986	10996
7	10987	10997
8	10988	10998
9	10989	10999
A	1098A	1099A
B	1098B	1099B
C	1098C	1099C
D	1098D	1099D
E	1098E	
F	1098F	

Vowel letters

10980   𓄿   MEROITIC HIEROGLYPHIC LETTER A
     → 13000 𓀀 egyptian hieroglyph a001
10981   𓉻   MEROITIC HIEROGLYPHIC LETTER E
     → 13184 𓆱 egyptian hieroglyph h006
10982   𓀾   MEROITIC HIEROGLYPHIC LETTER I
     → 1301E 𓀞 egyptian hieroglyph a026
10983   𓃾   MEROITIC HIEROGLYPHIC LETTER O
     → 130FE 𓃾 egyptian hieroglyph f001

Consonant letters

10984   𓏭   MEROITIC HIEROGLYPHIC LETTER YA
     → 131CC 𓇋 egyptian hieroglyph m017a
10985   𓌡   MEROITIC HIEROGLYPHIC LETTER WA
     → 1336F 𓌡 egyptian hieroglyph v004
10986   𓃒   MEROITIC HIEROGLYPHIC LETTER BA
     → 130DE 𓃒 egyptian hieroglyph e011
10987   𓂦   MEROITIC HIEROGLYPHIC LETTER BA-2
     → 130C0 𓂦 egyptian hieroglyph d058
10988   𓊨   MEROITIC HIEROGLYPHIC LETTER PA
     → 132AA 𓊨 egyptian hieroglyph q003
10989   𓅓   MEROITIC HIEROGLYPHIC LETTER MA
     → 13153 𓅓 egyptian hieroglyph g017
1098A   𓈖   MEROITIC HIEROGLYPHIC LETTER NA
     → 13216 𓈖 egyptian hieroglyph n035
1098B   𓈗   MEROITIC HIEROGLYPHIC LETTER NA-2
1098C   𓇯   MEROITIC HIEROGLYPHIC LETTER NE
     → 131D2 𓇯 egyptian hieroglyph m022a
1098D   𓏏   MEROITIC HIEROGLYPHIC LETTER NE-2
1098E   𓂋   MEROITIC HIEROGLYPHIC LETTER RA
     → 1308B 𓂋 egyptian hieroglyph d021
1098F   𓂋   MEROITIC HIEROGLYPHIC LETTER RA-2
10990   𓃀   MEROITIC HIEROGLYPHIC LETTER LA
     → 130ED 𓃀 egyptian hieroglyph e023
10991   𓈌   MEROITIC HIEROGLYPHIC LETTER KHA
     → 1340D 𓈌 egyptian hieroglyph aa001
10992   𓎡   MEROITIC HIEROGLYPHIC LETTER HHA
     → 133BC 𓎡 egyptian hieroglyph w011
10993   𓊞   MEROITIC HIEROGLYPHIC LETTER SA
     → 131B7 𓆷 egyptian hieroglyph m008
10994   𓇓   MEROITIC HIEROGLYPHIC LETTER SA-2
     → 13283 𓊗 egyptian hieroglyph o034
10995   𓊃   MEROITIC HIEROGLYPHIC LETTER SE
     → 13283 𓊗 egyptian hieroglyph o034
10996   𓅡   MEROITIC HIEROGLYPHIC LETTER KA
     → 1316C 𓅡 egyptian hieroglyph g038
10997   𓈎   MEROITIC HIEROGLYPHIC LETTER QA
     → 1320E 𓈎 egyptian hieroglyph n029
10998   𓎼   MEROITIC HIEROGLYPHIC LETTER TA
     → 1337F 𓎼 egyptian hieroglyph v013
10999   𓈐   MEROITIC HIEROGLYPHIC LETTER TA-2
     → 131FE 𓈐 egyptian hieroglyph n016
1099A   𓊪   MEROITIC HIEROGLYPHIC LETTER TE
     → 131FE 𓈐 egyptian hieroglyph n016
     → 13254 𓊪 egyptian hieroglyph o004
1099B   𓊰   MEROITIC HIEROGLYPHIC LETTER TE-2
     → 13254 𓊪 egyptian hieroglyph o004
1099C   𓈙   MEROITIC HIEROGLYPHIC LETTER TO
     → 13205 𓈙 egyptian hieroglyph n021

1099D   𓂧   MEROITIC HIEROGLYPHIC LETTER DA
     → 1307B 𓂧 egyptian hieroglyph d006

	109A	109B	109C	109D	109E	109F
0	109A0	109B0	109C0	109D0	109E0	109F0
1	109A1	109B1	109C1	109D1	109E1	
2	109A2	109B2	109C2	109D2	109E2	
3	109A3	109B3	109C3	109D3	109E3	
4	109A4	109B4	109C4	109D4	109E4	
5	109A5	109B5	109C5	109D5	109E5	
6	109A6	109B6	109C6	109D6		
7	109A7	109B7	109C7	109D7	109E7	
8	109A8		109C8	109D8	109E8	
9	109A9		109C9	109D9	109E9	
A	109AA		109CA			
B	109AB			109DB	109EB	
C	109AC	109BC	109CC	109DC		
D	109AD	109BD	109CD			
E	109AE	109BE	109CE	109DE		
F	109AF	109BF	109CF	109DF		

Vowel letters

109A0 ꦀꦂ MEROITIC LETTER A
109A1 ꦁ MEROITIC LETTER E
109A2 ꦂ MEROITIC LETTER I
109A3 ꦃ MEROITIC LETTER O

Consonant letters

109A4 ꦄ MEROITIC LETTER YA
109A5 ꦅ MEROITIC LETTER WA
109A6 ꦆ MEROITIC LETTER BA
109A7 ꦇ MEROITIC LETTER PA
109A8 ꦈ MEROITIC LETTER MA
109A9 ꦉ MEROITIC LETTER NA
109AA ꦊ MEROITIC LETTER NE
109AB ꦋ MEROITIC LETTER RA
109AC ꦌ MEROITIC LETTER LA
109AD ꦍ MEROITIC LETTER KHA
109AE ꦎ MEROITIC LETTER HHA
109AF ꦏ MEROITIC LETTER SA
109B0 ꦐ MEROITIC LETTER ARCHAIC SA
109B1 ꦑ MEROITIC LETTER SE
109B2 ꦒ MEROITIC LETTER KA
109B3 ꦓ MEROITIC LETTER QA
109B4 ꦔ MEROITIC LETTER TA
109B5 ꦕ MEROITIC LETTER TE
109B6 ꦖ MEROITIC LETTER TO
109B7 ꦗ MEROITIC LETTER DA

Logograms

109BC ꦘ MEROITIC LOGOGRAM RMT
109BD ꦙ MEROITIC LOGOGRAM IMN

Symbols

109BE ꦚ MEROITIC SYMBOL VIDJ
→ 2625 ☥ ankh
→ 132F9 𓋹 egyptian hieroglyph s034
109BF ꦛ MEROITIC SYMBOL VIDJ-2

Fractions

109C0 ꦜ MEROITIC FRACTION ONE HALF
109C1 ꦝ MEROITIC FRACTION ONE TWELFTH
109C2 ꦞ MEROITIC FRACTION TWO TWELFTHS
109C3 ꦟ MEROITIC FRACTION THREE TWELFTHS
109C4 ꦠ MEROITIC FRACTION FOUR TWELFTHS
109C5 ꦡ MEROITIC FRACTION FIVE TWELFTHS
109C6 ꦢ MEROITIC FRACTION SIX TWELFTHS
109C7 ꦣ MEROITIC FRACTION SEVEN TWELFTHS
109C8 ꦤ MEROITIC FRACTION EIGHT TWELFTHS
109C9 ꦥ MEROITIC FRACTION NINE TWELFTHS
109CA ꦦ MEROITIC FRACTION TEN TWELFTHS

Numbers

Ones

109CC ꦧ MEROITIC NUMBER ONE
109CD ꦨ MEROITIC NUMBER TWO
109CE ꦩ MEROITIC NUMBER THREE
109CF ꦪ MEROITIC NUMBER FOUR
109D0 ꦫ MEROITIC NUMBER FIVE
109D1 ꦬ MEROITIC NUMBER SIX
109D2 ꦭ MEROITIC NUMBER SEVEN

109D3 ꦮ MEROITIC NUMBER EIGHT
109D4 ꦯ MEROITIC NUMBER NINE

Tens

109D5 ꦰ MEROITIC NUMBER TEN
109D6 ꦱ MEROITIC NUMBER TWENTY
109D7 ꦲ MEROITIC NUMBER THIRTY
109D8 ꦳ MEROITIC NUMBER FORTY
109D9 ꦴ MEROITIC NUMBER FIFTY
109DA 🚫 <reserved>
109DB ꦶ MEROITIC NUMBER SEVENTY
109DC ꦷ MEROITIC NUMBER EIGHTY

Hundreds

109DE ꦸ MEROITIC NUMBER ONE HUNDRED
109DF ꦹ MEROITIC NUMBER TWO HUNDRED
109E0 ꦺ MEROITIC NUMBER THREE HUNDRED
109E1 ꦻ MEROITIC NUMBER FOUR HUNDRED
109E2 ꦼ MEROITIC NUMBER FIVE HUNDRED
109E3 ꦽ MEROITIC NUMBER SIX HUNDRED
109E4 ꦾ MEROITIC NUMBER SEVEN HUNDRED
109E5 ꦿ MEROITIC NUMBER EIGHT HUNDRED

Thousands

109E7 ꧀ MEROITIC NUMBER ONE THOUSAND
109E8 ꧁ MEROITIC NUMBER TWO THOUSAND
109E9 ꧂ MEROITIC NUMBER THREE THOUSAND
109EA 🚫 <reserved>
109EB ꧄ MEROITIC NUMBER FIVE THOUSAND
109EC 🚫 <reserved>
109ED 🚫 <reserved>
109EE 🚫 <reserved>
109EF 🚫 <reserved>
109F0 ꧈ MEROITIC NUMBER TEN THOUSAND

Figures

The following is a list of the Meroitic alphabet in order according to the values of the signs. The evidence for the values given will be found in the detailed discussion of the signs below :—

(1) 𝕤 ϛ𝟸 initial *a* or alif.

(2) β ϛ vowel *e* (earlier sometimes *ye*).

(3) ℨ *l* vowel *ĕ*.

(4) 𝕬 𝟺 vowel *i* (earlier sometimes *yi*).

(5) 𝕭𝕭 /// *y*.

(6) 𝕮 ẟ *w*.

(7) 𝕯 (⅃) ⱴ *b*.

(8) ▦ ⱸ *p*.

(9) 𝕸 𝟥 *m*.

(10) ≋ (∿) ℛ *n*.

(11) ǁǁ λ *ñ(i)* older 𝕽.

(12) ▱, ▭ *w r*.

(13) ≳ � *l*, older 𝕾.

(14) ⬭, ⬮ ⊂ *ḫ*.

(15) ♅ 𝟥 *ẖ*.

(16) ♯ (⟶) ⫿⫿⫿ *s(e)*.

(17) ⊔⊔⊔ 𝟥 *š*

(18) 𝕭 (𝕭) 𝟚 *k*.

(19) △ (⊿) /𝟥 *q*, older 𝟡, /𝟥.

(20) ⋗ (⊐) 𝟽 *t(i)*.

(21) ⊓ ⱪ *te*, older ⱪ, /𝟺.

(22) ⌐ ⟻ *tĕ*.

(23) ℞ λ *s*(?), older 𝟤, 𝕽.

The hieroglyphic letters in brackets are forms occurring in the inscription *Meroë* 1 and sometimes elsewhere.

The above scheme of the alphabet shows a close connexion with Egyptian values for the signs. ♯ like ≋ appears to be a reduplication of the corresponding Egyptian sign. ♅ for *ẖ* and ▭ for *r* seem to be the only signs devoid of any probable explanation from the Egyptian side: and the value of ℞ is as yet only guessed.

The demotic letters, 5 ///, 9 𝟥, 16 ⫿⫿⫿, 17 𝟥, resemble the Egyptian demotic signs. The rest show no such resemblance, but may have been derived by a long process from some form of hieratic, or more directly from the hieroglyphic.

Figure 1. Table from Griffith 1911 showing the alphabet in both Hieroglyphic and Cursive Meroitic.

INDEX C

MEROITIC WORDS AND GROUPS

Abbreviations:—n. personal name, n. A. name of deceased, n. AA. of second deceased, n. B. of mother (n. BB. &c.), n. C. of father (n. CC. &c.) ; pl. n., place name; form. A B C D &c., terminal formulae A B C D &c., see Ch. V, p. 42; inv., invocation, see Ch. III, p. 33; descr., occurring in descriptive phrases, see p. 38. Eg., Egyptian. Titles are roughly divided as civil and sac(erdotal).

𐦧, ⸗

𐦧⸗ n. B. *Kar.* 36

𐦧⸗ n. B. *Kar.* 28

𐦧⸗ n. A. *Kar.* 10

𐦧⸗ title (?) of A A. *Kar.* 6, v. 𐦧⸗

𐦧⸗ n. A. (man) *Kar.* 2

𐦧⸗ n. A. *Kar.* 68

𐦧⸗ descr. *Kar.* 78

𐦧⸗ n. B. *Kar.* 73, 𐦧⸗ n. B. *Kar.* 74

𐦧⸗ n. A A. *Kar.* 29, 39

𐦧⸗ 'envoy', Eg. *wpt*, descr. *Sh.* 4, 6, 19, see p. 10

𐦧⸗ n. (?) descr. *Kar.* 21

𐦧⸗ 'chief envoy', descr. *Kar.* 56, *Sh.* 3 (twice), 8

𐦧⸗ n. A. *Kar.* 93

𐦧⸗ n. B. *Kar.* 54

𐦧⸗ n. C. *Kar.* 119

𐦧⸗ 'of Amanap' deity, descr. *Kar.* 102, v. *Mnp* and see p. 71

𐦧⸗ n. B. *Kar.* 37

𐦧⸗ n. A. *Kar.* 96

𐦧⸗ 'of Ammon', descr. *Kar.* 46, 58, v. *Mni*

𐦧⸗ sac. title, descr. *Kar.* 124, v. 𐦧⸗

𐦧⸗ civil title, descr. *Kar.* 47, 59

𐦧⸗ n. B. *Kar.* 112

𐦧⸗ 'prophet' (Eg.), descr. *Kar.* 15 (twice), 19 (thrice), 21 (five times), 47, 50, 56, 60 (twice), 69, 87, 89 (thrice), 117, 119, 125, 126, cf. *at* and see p. 57

𐦧⸗ descr. *Kar.* 118

𐦧⸗ pl. descr. *Kar.* 22

𐦧⸗ sac. title, descr. *Kar.* 58, 102

𐦧⸗ descr. *Kar.* 47

𐦧⸗ sac. title (in Eg. *arbtgi*, *arbtngi*), descr. *Kar.* 92, see p. 82, note 5

𐦧⸗ 'of Rome', descr. *Kar.* 112, cf. *Inscr.* 129/4 and see pp. 10, 72

𐦧⸗ n. B. *Sh.* 11

𐦧⸗ n. A. *Kar.* 20, [21]

𐦧⸗ n. A. *Kar.* 60, cf. 61

𐦧⸗ n. A. *Kar.* 29, 39

𐦧⸗ title (?), descr. *Kar.* 41

𐦧⸗ sac. title, descr. *Kar.* 13

𐦧⸗ n. B. *Kar.* 64, 𐦧⸗ n. B. *Sh.* 4

𐦧⸗ n. B. *Kar.* 91

𐦧⸗ n. AA. *Kar.* 61, cf. 60

𐦧⸗ title (?), descr. *Kar.* 10, 36, 70

𐦧⸗ *Kar. Ostr.* 3 (exterior)

𐦧⸗ n. A. *Kar.* 119

𐦧⸗ sac. title, descr. *Kar.* 30, ⸗ 𐦧⸗ descr. *Kar.* 127, see p. 82

Figure 2. First page of the glossary from Griffith 1911.

REM 0089

REM 0088

REM 0133

Figure 3. Text in Cursive Meroitic from Hofmann 1991.

مفردات من اللغات القديمة مكتوبة كتابة تجريدية : المروية

سابعاً : (١) المرويةُ (المُخْتَزَلة) مرتبــةً ترتيبــاً هجائياً مروياً

(الهمزة)

١٦ :

(أنظــر)

(اسم "آمون سبتا")فى

١٤ :

(أنظر بعدها)

١٠ :(= " خبـــــز")

(= "قربان خبز") فى

١٦ :

٢٥٤

١٥ :

(أنظـــر)

(=اسم أوزيـــر) فى
(= " مــــاء")

(= "المــاء ، أرض

١٤ :

٢٥٤ (" يا أوزيــــر" . وأنظـــر

النيل")

(" أرض النيـــل ، قائـــــد") .

Figure 4. Text in Cursive Meroitic from 'Abd Allāh 1986.

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سادسًا (١) : المروية الهيروغليفية
(حسب الترتيب الهجائي المروي)

ﭏ (الهمزة)

٢٠٣،١٢٩،١٢٨،١٢٦،١٢٥

٢١٩،٢٠٤ ، أمنيٰ (اسم أمون) ٢٣٦ ،

أمنيٰ ؛ اريتنل ؛

تولكتبــــل : "أمون اريتنل الـذي

بالنقعة" ٢٠٤ ،

أمنيٰ : نوتِت ٢٠٤ ، ٢١٩(= أمــون

نوتِ) ، وانظـــر (منيٰ) .

"اسم

اريكخرُور" ٢٣٨ .

اريتنل

وانظـــر (= أسنيٰ) .

٢١٩،٢٠٧،٢١٦،٢٠٢

اقودِس ٢٣٦ ٢٥١،٢٠٢

(= اقدِس) ، ٢٥١
(= اقدِنسلوْ) (= اسم خنس ؟) .

(= اتخمخلو)
٢٥٣

٢٥٣

(ب)

(= يـرملوْلـو) ٢٥٣

(و)

(إيــزة) ٢٥٣ ، ٢٢٣

في (ووشِنٰ، "يا إيزة")

Figure 5. Text in Hieroglyphic Meroitic from 'Abd Allāh 1986.

Figure 6. Table of Meroitic numbers.

Tableau 8 : Équations de Griffith permettant d'établir la valeur des signes

Figure 7. Table from Rilly 2007 showing texts in both Hieroglyphic and Cursive Meroitic.

A. Administrative

1. Title
Proposal for encoding the Meroitic script in the SMP of the UCS
2. Requester's name
Michael Everson
3. Requester type (Member body/Liaison/Individual contribution)
Individual contribution.
4. Submission date
2009-05-13
5. Requester's reference (if applicable)
6. Choose one of the following:
6a. This is a complete proposal
No.
6b. More information will be provided later
Yes.

B. Technical – General

1. Choose one of the following:
1a. This proposal is for a new script (set of characters)
Yes.
1b. Proposed name of script
Meroitic Hieroglyphs and Meroitic.
1c. The proposal is for addition of character(s) to an existing block
No.
1d. Name of the existing block
2. Number of characters in proposal
30.
3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)
Category E.
4a. Is a repertoire including character names provided?
Yes.
4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?
Yes.
4c. Are the character shapes attached in a legible form suitable for review?
Yes.
5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?
Michael Everson.
5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:
Michael Everson, Fontographer.
6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?
Yes.
6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?
Yes.
7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?
Yes.
8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.
See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.
No.
2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?
Yes.
2b. If YES, with whom?
Richard Lobban, Reginald Smith, Claude Rilly, Michael Zach
2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?
Small community, scholars and historians.
4a. The context of use for the proposed characters (type of use; common or rare)
Scholarly use.
4b. Reference
5a. Are the proposed characters in current use by the user community?
Yes.
5b. If YES, where?
Worldwide.
6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
No.
6b. If YES, is a rationale provided?
6c. If YES, reference
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?
Yes.
8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?
No.
8b. If YES, is a rationale for its inclusion provided?
8c. If YES, reference
9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?
No.
9b. If YES, is a rationale for its inclusion provided?
9c. If YES, reference
10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?
Yes.
10b. If YES, is a rationale for its inclusion provided?
Yes.
10c. If YES, reference
Similarity to Egyptian hieroglyphs is genetic but superficial.
11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?
No.
11b. If YES, is a rationale for such use provided?
11c. If YES, reference
11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
No.
11e. If YES, reference
12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
No.
12b. If YES, describe in detail (include attachment if necessary)
13a. Does the proposal contain any Ideographic compatibility character(s)?
No.
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?