

Universal Multiple-Octet Coded Character Set
 International Organization for Standardization
 Organisation Internationale de Normalisation
 Международная организация по стандартизации

Doc Type: Working Group Document**Title: Proposal for encoding the Meroitic Hieroglyphic and the Meroitic Cursive scripts in the SMP of the UCS****Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)****Author: Michael Everson****Status: Liaison Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Replaces: N3646R2****Date: 2009-07-29**



This document replaces N3646R2 (2009-05-13), 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 Meroitic Hieroglyphic (*l'écriture hiéroglyphique méroïtique*) and Meroitic Cursive (*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 Meroitic Hieroglyphic would be converted into Cursive, or vice versa. Meroitic Hieroglyphic is only used to write texts which were written in Meroitic Hieroglyphic, and Meroitic Cursive is only used to write texts which were written in Meroitic Cursive. 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, Meroitic Hieroglyphic from Meroitic Cursive.

Moreover, in origin the two script forms differ historically. Meroitic Cursive 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, X PA, ω RA, ʒ KHA *ha*, ʒ SA, ʒ QA, and the numbers 6, 8, 9, 20, 50, 70, 80, 100, 200, 300, and 800. Rilly 2007:247-262 gives a complete discussion of the origin of each individual Cursive character.

Like Meroitic Cursive, Meroitic Hieroglyphic 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 Egyptian Hieroglyphs. The set of letters devised for Hieroglyphic all have direct parallels with Egyptian Hieroglyphs, and is larger than the set of letters used in Meroitic Cursive, which relates not to Egyptian Hieroglyphs, but to the demotic script which is not unified with the Hieroglyphs. One of the reasons Meroitic Hieroglyphic is larger is an evident uncertainty in which Egyptian characters were to be used for various sounds; both  and  are used for *b*—the former (the ram) having the value *b*ᶜ 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 Meroitic Hieroglyphic. Meroitic Hieroglyphic 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 Cursive.

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* (*Imn*, god of Thebes) would be written as *amana* in Meroitic     ← *na-ma-a* ←; in Egyptian Hieroglyphs this would be written  ← with right-to-left directionality, →  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    ←, Egyptian * ←.

4. Punctuation and symbols. 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 U+003A COLON :, used with some irregularity. Two logograms derived from Egyptian Demotic are used with Meroitic Cursive, and two ankh-like symbols are used with Meroitic Hieroglyphic.

5. Numbers. Meroitic numbers are fairly well known, and are only found in Meroitic Cursive. 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.

 *a*^c >>  *a*^h >  *e*^c >>  *e*^h >  *o*^c >>  *o*^h >  *i* >>  *y* >>  *ya*^c >>  *ya*^h >
 *wa*^c >>  *wa*^h >  *ba*^c >>  *ba*^h >>  *ba*^{h2} >  *pa*^c >>  *pa*^h >  *ma*^c >>  *ma*^h >
 *na*^c >>  *na*^h >>  *na*^{h2} >  *ne*^c >>  *ne*^h >>  *ne*^{h2} >  *ra*^c >>  *ra*^h >>  *ra*^{h2} >
 *la*^c >>  *la*^h >  *ha*^c >>  *ha*^h >  *ha*^c >>  *ha*^h >  *sa*^c >>  *sa*^{c2} >>  *sa*^h >>  *sa*^{h2} >
 *se*^c >>  *se*^h >  *ka*^c >>  *ka*^h >  *qa*^c >>  *qa*^h >  *ta*^c >>  *ta*^h >>  *ta*^{h2} >
 *te*^c >>  *te*^h >>  *te*^{h2} >  *to*^c >>  *to*^{h2} >  *da*^c >>  *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 $\epsilon\omega\text{I}\text{D}$ or $\beta\text{-}\text{D}\text{E}\Delta$ (*q* + *o* + *r* + *e*); the title of the supreme commander of the army is *paqara*, written $\omega\text{I}\text{D}\text{Z}$ or $\text{-}\text{D}\Delta\text{Z}$ (*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. Future standardization. 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;;;
1099E;MEROITIC HIEROGLYPHIC SYMBOL VIDJ;So;0;R;;;N;;;
1099F;MEROITIC HIEROGLYPHIC SYMBOL VIDJ-2;So;0;R;;;N;;;
109A0;MEROITIC CURSIVE LETTER A;Lo;0;R;;;N;;;
109A1;MEROITIC CURSIVE LETTER E;Lo;0;R;;;N;;;
109A2;MEROITIC CURSIVE LETTER I;Lo;0;R;;;N;;;
109A3;MEROITIC CURSIVE LETTER O;Lo;0;R;;;N;;;
109A4;MEROITIC CURSIVE LETTER YA;Lo;0;R;;;N;;;
109A5;MEROITIC CURSIVE LETTER WA;Lo;0;R;;;N;;;
109A6;MEROITIC CURSIVE LETTER BA;Lo;0;R;;;N;;;
109A7;MEROITIC CURSIVE LETTER PA;Lo;0;R;;;N;;;
109A8;MEROITIC CURSIVE LETTER MA;Lo;0;R;;;N;;;
109A9;MEROITIC CURSIVE LETTER NA;Lo;0;R;;;N;;;
109AA;MEROITIC CURSIVE LETTER NE;Lo;0;R;;;N;;;
109AB;MEROITIC CURSIVE LETTER RA;Lo;0;R;;;N;;;
109AC;MEROITIC CURSIVE LETTER LA;Lo;0;R;;;N;;;
109AD;MEROITIC CURSIVE LETTER KHA;Lo;0;R;;;N;;;
109AE;MEROITIC CURSIVE LETTER HHA;Lo;0;R;;;N;;;
109AF;MEROITIC CURSIVE LETTER SA;Lo;0;R;;;N;;;
109B0;MEROITIC CURSIVE LETTER ARCHAIC SA;Lo;0;R;;;N;;;
109B1;MEROITIC CURSIVE LETTER SE;Lo;0;R;;;N;;;
109B2;MEROITIC CURSIVE LETTER KA;Lo;0;R;;;N;;;
109B3;MEROITIC CURSIVE LETTER QA;Lo;0;R;;;N;;;
109B4;MEROITIC CURSIVE LETTER TA;Lo;0;R;;;N;;;
109B5;MEROITIC CURSIVE LETTER TE;Lo;0;R;;;N;;;
109B6;MEROITIC CURSIVE LETTER TO;Lo;0;R;;;N;;;
109B7;MEROITIC CURSIVE LETTER DA;Lo;0;R;;;N;;;
109BE;MEROITIC CURSIVE LOGOGRAM RMT;Lo;0;R;;;N;;;

































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109BF;MEROITIC CURSIVE LOGOGRAM IMN;Lo;0;R;;;N;;;;
109C0;MEROITIC CURSIVE FRACTION ONE HALF;No;0;R;;;1/2;N;;;;
109C1;MEROITIC CURSIVE FRACTION ONE TWELFTH;No;0;R;;;1/12;N;;;;
109C2;MEROITIC CURSIVE FRACTION TWO TWELFTHS;No;0;R;;;2/12;N;;;;
109C3;MEROITIC CURSIVE FRACTION THREE TWELFTHS;No;0;R;;;3/12;N;;;;
109C4;MEROITIC CURSIVE FRACTION FOUR TWELFTHS;No;0;R;;;4/12;N;;;;
109C5;MEROITIC CURSIVE FRACTION FIVE TWELFTHS;No;0;R;;;5/12;N;;;;
109C6;MEROITIC CURSIVE FRACTION SIX TWELFTHS;No;0;R;;;6/12;N;;;;
109C7;MEROITIC CURSIVE FRACTION SEVEN TWELFTHS;No;0;R;;;7/12;N;;;;
109C8;MEROITIC CURSIVE FRACTION EIGHT TWELFTHS;No;0;R;;;8/12;N;;;;
109C9;MEROITIC CURSIVE FRACTION NINE TWELFTHS;No;0;R;;;9/12;N;;;;
109CA;MEROITIC CURSIVE FRACTION TEN TWELFTHS;No;0;R;;;10/12;N;;;;
109CC;MEROITIC CURSIVE NUMBER ONE;No;0;R;;;1;N;;;;
109CD;MEROITIC CURSIVE NUMBER TWO;No;0;R;;;2;N;;;;
109CE;MEROITIC CURSIVE NUMBER THREE;No;0;R;;;3;N;;;;
109CF;MEROITIC CURSIVE NUMBER FOUR;No;0;R;;;4;N;;;;
109D0;MEROITIC CURSIVE NUMBER FIVE;No;0;R;;;5;N;;;;
109D1;MEROITIC CURSIVE NUMBER SIX;No;0;R;;;6;N;;;;
109D2;MEROITIC CURSIVE NUMBER SEVEN;No;0;R;;;7;N;;;;
109D3;MEROITIC CURSIVE NUMBER EIGHT;No;0;R;;;8;N;;;;
109D4;MEROITIC CURSIVE NUMBER NINE;No;0;R;;;9;N;;;;
109D5;MEROITIC CURSIVE NUMBER TEN;No;0;R;;;10;N;;;;
109D6;MEROITIC CURSIVE NUMBER TWENTY;No;0;R;;;20;N;;;;
109D7;MEROITIC CURSIVE NUMBER THIRTY;No;0;R;;;30;N;;;;
109D8;MEROITIC CURSIVE NUMBER FORTY;No;0;R;;;40;N;;;;
109D9;MEROITIC CURSIVE NUMBER FIFTY;No;0;R;;;50;N;;;;
109DB;MEROITIC CURSIVE NUMBER SEVENTY;No;0;R;;;70;N;;;;
109DC;MEROITIC CURSIVE NUMBER EIGHTY;No;0;R;;;80;N;;;;
109DE;MEROITIC CURSIVE NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;
109DF;MEROITIC CURSIVE NUMBER TWO HUNDRED;No;0;R;;;200;N;;;;
109E0;MEROITIC CURSIVE NUMBER THREE HUNDRED;No;0;R;;;300;N;;;;
109E1;MEROITIC CURSIVE NUMBER FOUR HUNDRED;No;0;R;;;400;N;;;;
109E2;MEROITIC CURSIVE NUMBER FIVE HUNDRED;No;0;R;;;500;N;;;;
109E3;MEROITIC CURSIVE NUMBER SIX HUNDRED;No;0;R;;;600;N;;;;
109E4;MEROITIC CURSIVE NUMBER SEVEN HUNDRED;No;0;R;;;700;N;;;;
109E5;MEROITIC CURSIVE NUMBER EIGHT HUNDRED;No;0;R;;;800;N;;;;
109E7;MEROITIC CURSIVE NUMBER ONE THOUSAND;No;0;R;;;1000;N;;;;
109E8;MEROITIC CURSIVE NUMBER TWO THOUSAND;No;0;R;;;2000;N;;;;
109E9;MEROITIC CURSIVE NUMBER THREE THOUSAND;No;0;R;;;3000;N;;;;
109EB;MEROITIC CURSIVE NUMBER FIVE THOUSAND;No;0;R;;;5000;N;;;;
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




10. Bibliography.

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












































11. Acknowledgements. This project was made possible in part by a grant from the U.S. National Endowment for the Humanities, which funded the which funded the Universal Scripts Project (part of the Script Encoding Initiative at UC Berkeley) in respect of the Meroitic encoding. Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment of the Humanities.

	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	 1099E
F	 1098F	 1099F

Vowel letters





- 10980  MEROITIC HIEROGLYPHIC LETTER A
→ 13000  egyptian hieroglyph a001
- 10981  MEROITIC HIEROGLYPHIC LETTER E
→ 13184  egyptian hieroglyph h006
- 10982  MEROITIC HIEROGLYPHIC LETTER I
→ 1301E  egyptian hieroglyph a026
- 10983  MEROITIC HIEROGLYPHIC LETTER O
→ 130FE  egyptian hieroglyph f001

Consonant letters

- 10984  MEROITIC HIEROGLYPHIC LETTER YA
→ 131CC  egyptian hieroglyph m017a
- 10985  MEROITIC HIEROGLYPHIC LETTER WA
→ 1336F  egyptian hieroglyph v004
- 10986  MEROITIC HIEROGLYPHIC LETTER BA
→ 130DE  egyptian hieroglyph e011
- 10987  MEROITIC HIEROGLYPHIC LETTER BA-2
→ 130C0  egyptian hieroglyph d058
- 10988  MEROITIC HIEROGLYPHIC LETTER PA
→ 132AA  egyptian hieroglyph q003
- 10989  MEROITIC HIEROGLYPHIC LETTER MA
→ 13153  egyptian hieroglyph g017
- 1098A  MEROITIC HIEROGLYPHIC LETTER NA
→ 13216  egyptian hieroglyph n035
- 1098B  MEROITIC HIEROGLYPHIC LETTER NA-2
- 1098C  MEROITIC HIEROGLYPHIC LETTER NE
→ 131D2  egyptian hieroglyph m022a
- 1098D  MEROITIC HIEROGLYPHIC LETTER NE-2
- 1098E  MEROITIC HIEROGLYPHIC LETTER RA
→ 1308B  egyptian hieroglyph d021
- 1098F  MEROITIC HIEROGLYPHIC LETTER RA-2
- 10990  MEROITIC HIEROGLYPHIC LETTER LA
→ 130ED  egyptian hieroglyph e023
- 10991  MEROITIC HIEROGLYPHIC LETTER KHA
→ 1340D  egyptian hieroglyph aa001
- 10992  MEROITIC HIEROGLYPHIC LETTER HHA
→ 133BC  egyptian hieroglyph w011
- 10993  MEROITIC HIEROGLYPHIC LETTER SA
→ 131B7  egyptian hieroglyph m008
- 10994  MEROITIC HIEROGLYPHIC LETTER SA-2
→ 13283  egyptian hieroglyph o034
- 10995  MEROITIC HIEROGLYPHIC LETTER SE
→ 13283  egyptian hieroglyph o034
- 10996  MEROITIC HIEROGLYPHIC LETTER KA
→ 1316C  egyptian hieroglyph g038
- 10997  MEROITIC HIEROGLYPHIC LETTER QA
→ 1320E  egyptian hieroglyph n029
- 10998  MEROITIC HIEROGLYPHIC LETTER TA
→ 1337F  egyptian hieroglyph v013
- 10999  MEROITIC HIEROGLYPHIC LETTER TA-2
→ 131FE  egyptian hieroglyph n016
- 1099A  MEROITIC HIEROGLYPHIC LETTER TE
→ 131FE  egyptian hieroglyph n016
→ 13254  egyptian hieroglyph o004
- 1099B  MEROITIC HIEROGLYPHIC LETTER TE-2
→ 13254  egyptian hieroglyph o004
- 1099C  MEROITIC HIEROGLYPHIC LETTER TO
→ 13205  egyptian hieroglyph n021

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

Symbols

- 1099E  MEROITIC HIEROGLYPHIC SYMBOL VIDJ
→ 2625  ankh
→ 132F9  egyptian hieroglyph s034
- 1099F  MEROITIC HIEROGLYPHIC SYMBOL VIDJ-2

	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		109CC	109DC		
D	109AD		109CD			
E	109AE	109BE	109CE	109DE		
F	109AF	109BF	109CF	109DF		

Vowel letters

109A0	Ⲣ	MEROITIC CURSIVE LETTER A
109A1	Ⲥ	MEROITIC CURSIVE LETTER E
109A2	Ⲧ	MEROITIC CURSIVE LETTER I
109A3	ⲧ	MEROITIC CURSIVE LETTER O

Consonant letters

109A4	Ⲩ	MEROITIC CURSIVE LETTER YA
109A5	ⲩ	MEROITIC CURSIVE LETTER WA
109A6	Ⲫ	MEROITIC CURSIVE LETTER BA
109A7	ⲫ	MEROITIC CURSIVE LETTER PA
109A8	Ⲭ	MEROITIC CURSIVE LETTER MA
109A9	ⲭ	MEROITIC CURSIVE LETTER NA
109AA	Ⲯ	MEROITIC CURSIVE LETTER NE
109AB	ⲯ	MEROITIC CURSIVE LETTER RA
109AC	Ⲱ	MEROITIC CURSIVE LETTER LA
109AD	ⲱ	MEROITIC CURSIVE LETTER KHA
109AE	Ⲳ	MEROITIC CURSIVE LETTER HHA
109AF	ⲳ	MEROITIC CURSIVE LETTER SA
109B0	Ⲵ	MEROITIC CURSIVE LETTER ARCHAIC SA
109B1	ⲵ	MEROITIC CURSIVE LETTER SE
109B2	Ⲷ	MEROITIC CURSIVE LETTER KA
109B3	ⲷ	MEROITIC CURSIVE LETTER QA
109B4	Ⲹ	MEROITIC CURSIVE LETTER TA
109B5	ⲹ	MEROITIC CURSIVE LETTER TE
109B6	Ⲻ	MEROITIC CURSIVE LETTER TO
109B7	ⲻ	MEROITIC CURSIVE LETTER DA

Logograms

109BE	Ⲽ	MEROITIC CURSIVE LOGOGRAM RMT
109BF	ⲽ	MEROITIC CURSIVE LOGOGRAM IMN

Fractions

109C0	Ⲿ	MEROITIC CURSIVE FRACTION ONE HALF
109C1	ⲿ	MEROITIC CURSIVE FRACTION ONE TWELFTH
109C2	Ⳁ	MEROITIC CURSIVE FRACTION TWO TWELFTHS
109C3	ⳁ	MEROITIC CURSIVE FRACTION THREE TWELFTHS
109C4	Ⳃ	MEROITIC CURSIVE FRACTION FOUR TWELFTHS
109C5	ⳃ	MEROITIC CURSIVE FRACTION FIVE TWELFTHS
109C6	Ⳅ	MEROITIC CURSIVE FRACTION SIX TWELFTHS
109C7	ⳅ	MEROITIC CURSIVE FRACTION SEVEN TWELFTHS
109C8	Ⳇ	MEROITIC CURSIVE FRACTION EIGHT TWELFTHS
109C9	ⳇ	MEROITIC CURSIVE FRACTION NINE TWELFTHS
109CA	Ⳉ	MEROITIC CURSIVE FRACTION TEN TWELFTHS

Numbers**Ones**

109CC	Ⲁ	MEROITIC CURSIVE NUMBER ONE
109CD	ⲁ	MEROITIC CURSIVE NUMBER TWO
109CE	Ⲃ	MEROITIC CURSIVE NUMBER THREE
109CF	ⲃ	MEROITIC CURSIVE NUMBER FOUR

109D0	Ⲅ	MEROITIC CURSIVE NUMBER FIVE
109D1	ⲅ	MEROITIC CURSIVE NUMBER SIX
109D2	Ⲇ	MEROITIC CURSIVE NUMBER SEVEN
109D3	ⲇ	MEROITIC CURSIVE NUMBER EIGHT
109D4	Ⲉ	MEROITIC CURSIVE NUMBER NINE

Tens

109D5	ⲉ	MEROITIC CURSIVE NUMBER TEN
109D6	Ⲇ	MEROITIC CURSIVE NUMBER TWENTY
109D7	ⲇ	MEROITIC CURSIVE NUMBER THIRTY
109D8	Ⲉ	MEROITIC CURSIVE NUMBER FORTY
109D9	ⲉ	MEROITIC CURSIVE NUMBER FIFTY
109DA	Ⲇ	<reserved>
109DB	ⲇ	MEROITIC CURSIVE NUMBER SEVENTY
109DC	Ⲉ	MEROITIC CURSIVE NUMBER EIGHTY

Hundreds



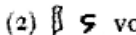
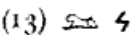
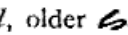





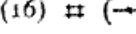


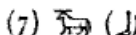


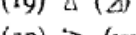
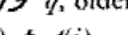

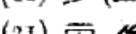
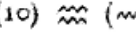
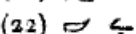


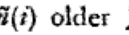

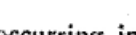
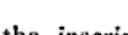
109DE	ⲉ	MEROITIC CURSIVE NUMBER ONE HUNDRED
109DF	Ⲇ	MEROITIC CURSIVE NUMBER TWO HUNDRED
109E0	ⲇ	MEROITIC CURSIVE NUMBER THREE HUNDRED
109E1	Ⲉ	MEROITIC CURSIVE NUMBER FOUR HUNDRED
109E2	ⲉ	MEROITIC CURSIVE NUMBER FIVE HUNDRED
109E3	Ⲇ	MEROITIC CURSIVE NUMBER SIX HUNDRED
109E4	ⲇ	MEROITIC CURSIVE NUMBER SEVEN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

Thousands






109E7	ⲉ	MEROITIC CURSIVE NUMBER ONE THOUSAND
109E8	Ⲇ	MEROITIC CURSIVE NUMBER TWO THOUSAND
109E9	ⲇ	MEROITIC CURSIVE NUMBER THREE THOUSAND
109EA	Ⲉ	<reserved>
109EB	ⲉ	MEROITIC CURSIVE NUMBER FIVE THOUSAND
109EC	Ⲇ	<reserved>
109ED	ⲇ	<reserved>
109EE	Ⲉ	<reserved>
109EF	ⲉ	<reserved>
109F0	Ⲇ	MEROITIC CURSIVE 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)  initial <i>a</i> or alif.	(12)  <i>r</i> .
(2)  vowel <i>e</i> (earlier sometimes <i>ye</i>).	(13)  <i>l</i> , older  .
(3)  vowel <i>i</i> .	(14)  <i>b</i> .
(4)  vowel <i>i</i> (earlier sometimes <i>yi</i>).	(15)  <i>h</i> .
(5)  <i>y</i> .	(16)  <i>s(c)</i> .
(6)  <i>w</i> .	(17)  <i>k</i> .
(7)  <i>b</i> .	(18)  <i>k</i> .
(8)  <i>p</i> .	(19)  <i>g</i> , older  .
(9)  <i>m</i> .	(20)  <i>t(i)</i> .
(10)  <i>n</i> .	(21)  <i>t</i> , older  .
(11)  <i>n(i)</i> older  .	(22)  <i>t</i> .
	(23)  <i>s</i> (?), older  .

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 *h* 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 , 16 , 17 , 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 Meroitic Hieroglyphic and Meroitic Cursive.

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(er)dotal).

- 𐎢, 𐎠
- 𐎢𐎢𐎢𐎢𐎢𐎢 n. B. *Kar.* 36
 𐎢𐎢𐎢𐎢 n. B. *Kar.* 28
 48113𐎢𐎢𐎢𐎢𐎢𐎢 n. A. *Kar.* 10
 1W𐎢𐎢 n. A. (man) *Kar.* 2
 48113𐎢𐎢𐎢𐎢 n. A. *Kar.* 68
 481413𐎢𐎢 n. A. *Kar.* 78
 𐎢𐎢𐎢𐎢 n. B. *Kar.* 73, 𐎢𐎢𐎢𐎢 n. B. *Kar.* 74
 48113𐎢𐎢𐎢𐎢 n. A. *Kar.* 29, 39
 𐎢𐎢𐎢 'envoy', Eg. *wpt*, descr. *Sh.* 4, 6, 19, see p. 10
 𐎢𐎢𐎢𐎢 n. (?) descr. *Kar.* 21
 34𐎢𐎢𐎢 'chief envoy', descr. *Kar.* 56, *Sh.* 3 (twice), 8
 48113𐎢𐎢𐎢 n. A. *Kar.* 93
 𐎢𐎢𐎢 n. B. *Kar.* 54
 448𐎢 n. C. *Kar.* 119
 48𐎢𐎢 [𐎢] n. B. 'of Amanap' deity, descr. *Kar.* 102, v. *Mup* and see p. 71
 444𐎢 n. B. *Kar.* 37
 48113𐎢𐎢𐎢 n. A. *Kar.* 96
 48𐎢𐎢 'of Ammon', descr. *Kar.* 46, 58, v. *Mni*
 1W𐎢 n. B. sac. title, descr. *Kar.* 124, v. 1W𐎢
 𐎢𐎢 civil title, descr. *Kar.* 47, 59
 344𐎢 n. B. *Kar.* 112
- 𐎢𐎢 '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
 44𐎢 n. B. descr. *Kar.* 118
 𐎢𐎢 pl. descr. *Kar.* 22
 5W n. B. sac. title, descr. *Kar.* 58, 102
 44𐎢 n. B. descr. *Kar.* 47
 𐎢𐎢 n. B. sac. title (in Eg. *arbtgi*, *arbtugi*), descr. *Kar.* 92, see p. 82, note 5
 𐎢𐎢 'of Rome', descr. *Kar.* 112, cf. *Inscr.* 129/4 and see pp. 10, 72
 44𐎢 n. B. *Sh.* 11
 4811344𐎢 n. A. *Kar.* 20, [21]
 48113𐎢𐎢 n. A. *Kar.* 60, cf. 61
 48113𐎢𐎢 n. A. *Kar.* 29, 39
 4814531W n. B. title (?), descr. *Kar.* 41
 𐎢31W n. B. sac. title, descr. *Kar.* 13
 𐎢𐎢𐎢 n. B. *Kar.* 64, 𐎢𐎢𐎢 n. B. *Sh.* 4
 44𐎢 n. B. *Kar.* 91
 48113𐎢𐎢 n. AA. *Kar.* 61, cf. 60
 W𐎢 n. B. title (?), descr. *Kar.* 10, 36, 70
 𐎢3W *Kar. Ostr.* 3 (exterior)
 48113W13𐎢 n. A. *Kar.* 119
 𐎢𐎢 n. B. sac. title, descr. *Kar.* 30, -52
 44𐎢 n. B. descr. *Kar.* 127, see p. 82

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

435 (43:113) 5/1143 5/1118:113
 :435 27 527 :5/117 5/119 5/117
 19 527 7 5/111 3/125 5 (9) 193
 525 57:3 125 5/11 12 14 54137

REM 0089

5 27 15 43 13 :4815 52 4414 :413 4113 :48 113 43 5/1115
 545 11 11 43 52 17 5 (43 6 27) :3 4 16 :43 5/11 48 15
 13 55 527 5/113 :48 15 23 5 5/11 : 11 14 6 5/11 113 17 14 7

REM 0088

:45 9/13 2 4/11 2 7 58 :3 18
 :44 11 58 :44 13
 :43 113 5/11 43 :44 5/13 :113

REM 0133

Figure 3. Text in Meroitic Cursive from Hofmann 1991.

مفردات من اللغات القديمة مكتوبة كتابة تجريدية: المروية

سابعاً: (1) المروية (المختزلة) مرتبة ترتيباً هجائياً مروياً

سز ، سز (الهمزة)

4/11 5w/3 6 4/11 5w/3 52
 (أنظر 5w/3 52)

17: 6/11 w 2 52

53: 62 (= "خز")
 (= "قربان خز") في 3/3 62 62 62 62
 • 204

14-14-22 3 62
 (انظر بعدها) 3 6/11 14 14 22 3 62

17: 3 6/11 14 14 22 3 62

3/3 62 ، 9 4 5 62
 (= "ارض النيل ، فائـ")

10: 7/11 6 13 5 62

89. 10. 11. 10. 8 : 62 (= "ماء")
 4 4 62 (= "الـ" ، ارض

5w/3 6 5w/3 62
 4/11 5w/3 14 : 4/11 5w/3 62
 204 ("يا اوزير" وانظر 6w/3 ،
 • (7/11 w 13

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

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

équation	mot méroïtique	graphie méroïtique	équivalents égyptiens et démotiques	équivalents coptes et grecs	donne valeur de
(a)	Natakamani Natakamani				Ⲛⲓ, Ⲛⲓ, Ⲛⲓ, Ⲛⲓ
(b)	Amanitère Amanitore				Ⲛⲓ, Ⲛⲓ, Ⲛⲓ, Ⲛⲓ
(c)	Amani Amon			ⲗⲞⲞⲮⲚ, -ⲗⲞⲞⲮⲚⲤ	Ⲛⲓ, Ⲛⲓ, Ⲛⲓ
(d)	Wēs Isis	3/8, 3 48		ⲛⲤⲤ, *ⲛⲤⲤ	3
(e)	Ašēri Osiris	4ω / 352		ⲟⲤⲤⲤⲤ, *ⲟⲤⲤⲤⲤ	3, ω
(f)	Ar Horus	ω 52	Hr	ⲘⲞⲞ, ⲘⲞⲞ-	52, ω
(g)	Pileqe, Pilaqe, Pilaqē Philac	5/755 4ξ 5/75 4ξ 1/755 4ξ	dém. P-3ylq	ⲡⲓⲗⲗⲗ	ξ, 4, 5, 75
(h)	Atiye Sedeinga	5/11 4752	H.t Tiy = /ha-teye/ (?)		11.52.7
(i)	tevistī adoration	47 11 48/15	dém. t-wšte	ⲤⲞⲮⲗⲞⲮⲤⲤ *ⲤⲞⲮⲗⲞⲮⲤⲤ	15, 8, 11, 7
(j)	pelamēš stratège	3/355 ξ	dém. p-mr-mš ^c	ⲡⲗⲤⲚⲚⲚⲗⲞⲮⲤ *ⲡⲗⲤⲚⲚⲚⲗⲞⲮⲤ	ξ, 5, 5, 3, 1, 3
(k)	perite agent	15 4ω 5 ξ	dém. p-rē	ⲡ-ⲡⲚⲤ	ξ, 5, ω, 15
(l)	qêreñ un titre	25ω / 17	transcr. dém. qrnj		17, ω, 2
(m)	Paḥaras Faras	111 ω 3 ξ		ⲡⲗⲗⲞⲮⲤⲤ, ⲡⲗⲗⲞⲮⲤⲤ	ξ, 3, ω, 111
(n)	Šaye Saï	5/113		ⲤⲗⲗⲚ	3, 111

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

A. Administrative

1. Title

Proposal for encoding the Meroitic Hieroglyphic and Meroitic Cursive scripts in the SMP of the UCS

2. Requester's name

UC Berkeley Script Encoding Initiative (Universal Scripts Project)

3. Requester type (Member body/Liaison/Individual contribution)

Liaison contribution.

4. Submission date

2009-07-29

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 Hieroglyphics and Meroitic Cursive.

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

98 (32, 66).

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?