

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

Doc Type: Working Group Document**Title: Preliminary proposal for encoding the Nabataean script in the SMP of the UCS****Source: Michael Everson****Status: Individual Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Date: 2010-07-25****1. Introduction.**

The Nabataean Kingdom was at first limited to the territories surrounding the city of Petra, north of the Red Sea, but eventually annexed the Transjordan to Damascus and spread south to Medina. Aramaic was used as the official language of the Kingdom, but developed a cursive Aramaic script which became widely used, from the second century BCE to 106 CE, when the Roman province of Arabia was formed. Late Nabataean script is found in the third century CE, in graffiti drawn by passers-by on the rocks of the Sinai peninsula.

The glyphs of the Nabataean script are more ornate than other Aramaic scripts, with circles, loops, and flourishes found in some inscriptions. As the script developed, a range of ligatures and final forms was introduced, evidently as an aid to faster letter writing, ideal for business transactions.

Nabataean is generally considered to be the immediate parent of the Arabic script. An inscription found at En-Nemar, Syria, dating from the fourth century CE, is believed to be the oldest known Arabic text; its letterforms show that the Arabic script is derived from the Nabataean prototype.

2. Processing. Nabataean is written from right to left horizontally. Nabataean language inscriptions usually have no space between words; modern editors tend to insert U+0020 SPACE.

3. Glyphs. Although Nabataean inscriptions show many ligatures, in fact the standardization of such ligatures is very erratic, and so it is not possible to treat Nabataean as though it were Arabic, with cursive classes and regular joinings, final forms, etc. In fact even comprehensive treatises on the Nabataean script like Yardeni 2000 do not give such charts. Accordingly only the base characters are proposed for encoding, and no particular ligation or shaping behaviour is defined, as it cannot be mandated.

4. Character names. The names used for the characters here are based on those used for Imperial Aramaic, Other West Semitic names may have some currency, but the UCS Imperial Aramaic names have been preferred here since Nabataean is an Aramaic language.

5. Numerals. Nabataean numerals are built up out of 1, 2, 3, 4, 5, 10, 20, and 100. The numbers 2 𐤁 and 3 𐤂 and 4 𐤃 are composed of multiples of 1 𐤀, but because in practice the numbers are clumped together as units separate from one another they are encoded as individual characters; divided forms 𐤁𐤀, 𐤂𐤀, 𐤃𐤀 are also found. Nabataean also has numbers for 5 𐤄, 10 𐤅, 20 𐤆, and 100 𐤇. The numbers have right-to-left directionality. In the chart below, the third and sixth columns are displayed in visual order.

1	𐤀	1 ←	11	𐤁𐤀 (also 𐤁)	1 + 10 ←
2	𐤁	2 ←	12	𐤁𐤁	2 + 10 ←
3	𐤂	3 ←	13	𐤁𐤂	3 + 10 ←
4	𐤃	4 ←	14	𐤁𐤃	4 + 10 ←
5	𐤄	5 ←	15	𐤄𐤀	5 + 10 ←
6	𐤅 (also 𐤆)	1 + 5 ←	16	𐤅𐤀	1 + 5 + 10 ←
7	𐤆	2 + 5 ←	17	𐤆𐤀	2 + 5 + 10 ←
8	𐤇	3 + 5 ←	18	𐤇𐤀	3 + 5 + 10 ←
9	𐤈	4 + 5 ←	19	𐤈𐤀	4 + 5 + 10 ←
10	𐤉	10 ←	100	𐤀	100 + 1 ←
20	𐤂𐤃 (21 𐤂𐤃 or 𐤂𐤃)	20 ←	200	𐤀𐤁	100 + 2 ←
30	𐤂𐤃𐤄	10 + 20 ←	300	𐤀𐤂	100 + 3 ←
40	𐤃𐤃	20 + 20 ←	400	𐤀𐤃	100 + 4 ←
50	𐤂𐤃𐤃	10 + 20 + 20 ←	500	𐤀𐤄	100 + 5 ←
60	𐤃𐤃𐤃	20 + 20 + 20 ←	600	𐤀𐤅	100 + 1 + 5 ←
70	𐤂𐤃𐤃𐤃	10 + 20 + 20 + 20 ←	700	𐤀𐤆	100 + 2 + 5 ←
80	𐤃𐤃𐤃𐤃	20 + 20 + 20 + 20 ←	800	𐤀𐤇	100 + 3 + 5 ←
90	𐤂𐤃𐤃𐤃𐤃	10 + 20 + 20 + 20 + 20 ←	900	𐤀𐤈	100 + 4 + 5 ←

6. Punctuation. Script-specific punctuation for Nabataean is not known.

7. Unicode Character Properties

10860;NABATAEAN LETTER ALEPH;Lo;0;R;;;;;N;;;;;
10861;NABATAEAN LETTER BETH;Lo;0;R;;;;;N;;;;;
10862;NABATAEAN LETTER GIMEL;Lo;0;R;;;;;N;;;;;
10863;NABATAEAN LETTER DALETH;Lo;0;R;;;;;N;;;;;
10864;NABATAEAN LETTER HE;Lo;0;R;;;;;N;;;;;
10865;NABATAEAN LETTER WAW;Lo;0;R;;;;;N;;;;;
10866;NABATAEAN LETTER ZAYIN;Lo;0;R;;;;;N;;;;;
10867;NABATAEAN LETTER HETH;Lo;0;R;;;;;N;;;;;
10868;NABATAEAN LETTER TETH;Lo;0;R;;;;;N;;;;;
10869;NABATAEAN LETTER YODH;Lo;0;R;;;;;N;;;;;
1086A;NABATAEAN LETTER KAPH;Lo;0;R;;;;;N;;;;;
1086B;NABATAEAN LETTER LAMEDH;Lo;0;R;;;;;N;;;;;
1086C;NABATAEAN LETTER MEM;Lo;0;R;;;;;N;;;;;
1086D;NABATAEAN LETTER NUN;Lo;0;R;;;;;N;;;;;
1086E;NABATAEAN LETTER SAMEKH;Lo;0;R;;;;;N;;;;;
1086F;NABATAEAN LETTER AYIN;Lo;0;R;;;;;N;;;;;
10870;NABATAEAN LETTER PE;Lo;0;R;;;;;N;;;;;
10871;NABATAEAN LETTER SADHE;Lo;0;R;;;;;N;;;;;
10872;NABATAEAN LETTER QOPH;Lo;0;R;;;;;N;;;;;
10873;NABATAEAN LETTER RESH;Lo;0;R;;;;;N;;;;;
10874;NABATAEAN LETTER SHIN;Lo;0;R;;;;;N;;;;;
10875;NABATAEAN LETTER TAW;Lo;0;R;;;;;N;;;;;
10878;NABATAEAN NUMBER ONE;No;0;R;;;1;N;;;;;
10879;NABATAEAN NUMBER TWO;No;0;R;;;2;N;;;;;
1087A;NABATAEAN NUMBER THREE;No;0;R;;;3;N;;;;;
1087B;NABATAEAN NUMBER FOUR;No;0;R;;;4;N;;;;;
1087C;NABATAEAN NUMBER FIVE;No;0;R;;;5;N;;;;;
1087D;NABATAEAN NUMBER TEN;No;0;R;;;10;N;;;;;
1087E;NABATAEAN NUMBER TWENTY;No;0;R;;;20;N;;;;;
1087F;NABATAEAN NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;;

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	1088	1089
0	𐤀 10880	𐤁 10890
1	𐤂 10881	𐤃 10891
2	𐤄 10882	𐤅 10892
3	𐤆 10883	𐤇 10893
4	𐤈 10884	𐤉 10894
5	𐤊 10885	𐤋 10895
6	𐤌 10886	
7	𐤍 10887	
8	𐤎 10888	𐤏 10898
9	𐤐 10889	𐤑 10899
A	𐤒 1088A	𐤓 1089A
B	𐤔 1088B	𐤕 1089B
C	𐤖 1088C	𐤗 1089C
D	𐤘 1088D	𐤙 1089D
E	𐤛 1088E	𐤜 1089E
F	𐤞 1088F	𐤟 1089F

Letters

10880	𐤀	NABATAEAN LETTER ALEPH
10881	𐤂	NABATAEAN LETTER BETH
10882	𐤄	NABATAEAN LETTER GIMEL
10883	𐤆	NABATAEAN LETTER DALETH
10884	𐤈	NABATAEAN LETTER HE
10885	𐤊	NABATAEAN LETTER WAW
10886	𐤌	NABATAEAN LETTER ZAYIN
10887	𐤍	NABATAEAN LETTER HETH
10888	𐤎	NABATAEAN LETTER TETH
10889	𐤐	NABATAEAN LETTER YODH
1088A	𐤒	NABATAEAN LETTER KAPH
1088B	𐤔	NABATAEAN LETTER LAMEDH
1088C	𐤖	NABATAEAN LETTER MEM
1088D	𐤘	NABATAEAN LETTER NUN
1088E	𐤛	NABATAEAN LETTER SAMEKH
1088F	𐤞	NABATAEAN LETTER AYIN
10890	𐤁	NABATAEAN LETTER PE
10891	𐤃	NABATAEAN LETTER SADHE
10892	𐤅	NABATAEAN LETTER QOPH
10893	𐤇	NABATAEAN LETTER RESH
10894	𐤉	NABATAEAN LETTER SHIN
10895	𐤋	NABATAEAN LETTER TAW

Numbers

10898	𐤏	NABATAEAN NUMBER ONE
10899	𐤑	NABATAEAN NUMBER TWO
1089A	𐤓	NABATAEAN NUMBER THREE
1089B	𐤕	NABATAEAN NUMBER FOUR
1089C	𐤗	NABATAEAN NUMBER FIVE
1089D	𐤙	NABATAEAN NUMBER TEN
1089E	𐤜	NABATAEAN NUMBER TWENTY
1089F	𐤟	NABATAEAN NUMBER ONE HUNDRED

10. Figures.

Hauranitisch		Nabathäisch	Palmyrenisch	Wert
nach HALÉVY	H. MÜLLER			
XYKX 1 1 6 2 2 1	{	σ ο ο β δ ε	Ϡ Ϡ Ϡ	a
)) (((()	Ⓣ	Ⓣ Ⓣ Ⓣ Ⓣ Ⓣ	Ϣ Ϣ	b
τ λ τ λ τ λ λ	γ	> > > γ γ λ	λ	g
γ γ γ β γ γ	δ	Ϡ γ γ γ γ γ	ϣ	d
γ λ γ γ γ γ ← ←	Ⓜ	π ϳ ϳ ϳ γ λ ϳ ϳ	Ϡ	h
γ γ λ λ γ γ		γ γ γ γ	ϡ ϡ	w
Ⓜ π Ⓜ	Ⓞ	Ⓞ	Ⓞ	z
ν λ ω ϳ ϳ ε ϳ ϳ λ λ ϳ ϳ	ϣ	γ γ λ λ λ λ	Ⓜ	χ
X λ				
Ⓜ Ⓜ Ⓜ	Ⓜ Ⓧ	Ⓜ β β β Ⓜ Ⓜ	Ϟ	t
γ β γ γ γ γ	γ β	γ Ⓜ Ⓜ Ⓜ	ϡ ϣ	y
Ⓜ Ⓜ Ⓜ Ⓜ γ	κ λ	γ γ γ γ γ γ	ϣ Ϣ	k
Ⓞ Ⓞ Ⓞ	Ⓞ Ⓞ	✓ Ⓞ Ⓞ Ⓞ λ	Ⓞ	l
ϳ ϳ ϳ ν λ ϳ ϳ ϳ ϳ ϳ	ϳ	Ⓞ Ⓞ Ⓞ ϳ ϳ ϳ ϳ ϳ ϳ x	Ⓞ	m
Ⓞ	ε	Ⓞ Ⓞ Ⓞ	ϳ ϳ	n
λ ν ϳ ϳ ϳ ϳ ϳ ϳ		Ⓞ Ⓞ	Ⓞ ϳ	s
Ⓞ Ⓞ Ⓞ Ⓞ ϳ ϳ ϳ ϳ	Ⓞ	γ γ γ γ γ γ	γ ϣ	a
ϳ θ Ⓞ ϳ ϳ ϳ ϳ ϳ ϳ	Ⓞ	γ γ γ γ γ	ϳ ϳ ϳ	p
{ }	θ	Ⓞ ϳ ϳ ϳ ϳ ϳ ϳ	ϣ	z
Ⓞ † †	Ⓞ	Ⓞ ϳ	Ⓞ	q
Ⓞ ϳ ϳ ϳ ϳ ϳ ϳ	ϳ Ⓞ	Ⓞ Ⓞ Ⓞ ϳ	γ γ	r
ϳ ε ϳ ε	ϳ ε	Ⓞ Ⓞ	ϣ	ξ
x +	x λ x	Ⓞ Ⓞ Ⓞ ϳ	ϣ	t

In der Wüste Hauran, welche sich zwischen Palästina und Arabien erstreckt, befinden sich Ruinen mit merkwürdigen Inschriften, welche ein Mittelglied zwischen himyarischen und aramäischen Formen bilden. An sie schlossen sich die palmyrenische und

die Schrift der Nabathäer, deren Hauptstadt Petra war; die hier gegebenen Zeichen sind theils den Münzen aus dem 2. Jahrhundert v. Chr., theils den sinaitischen Inschriften entnommen, deren Entzifferung besonders den Studien LEVY'S zu verdanken ist.

Figure 1. Chart of “scripts in the east of Palestine” from Faulmann 1880, showing Nabataean.

(184) Das Verhältnis der mandäischen und nabatäischen Schrift zum aramäischen Konsonantenalphabet

Lautwert	Aram.	Nabatäisch	Sinaitisch	Mandäisch	Lautwert	Aram.	Nabatäisch	Sinaitisch	Mandäisch
ʾ	ܰ	𐤀	𐤀	𐤀	l	𐤀	𐤀	𐤀	𐤀
b	ܰ	𐤁	𐤁	𐤁	m	𐤁	𐤁	𐤁	𐤁
g, ġ (arab.)	ܰ	𐤂	𐤂	𐤂	n	𐤂	𐤂	𐤂	𐤂
d	ܰ	𐤃	𐤃	𐤃	s	𐤃	𐤃	𐤃	𐤃
h	ܰ	𐤄	𐤄	𐤄	ʿ	𐤄	𐤄	𐤄	𐤄
w	ܰ	𐤅	𐤅	𐤅	p; f (arab.)	𐤅	𐤅	𐤅	𐤅
z	ܰ	𐤆	𐤆	𐤆	š	𐤆	𐤆	𐤆	𐤆
ḥ	ܰ	𐤇	𐤇	𐤇	q	𐤇	𐤇	𐤇	𐤇
t	ܰ	𐤈	𐤈	𐤈	r	𐤈	𐤈	𐤈	𐤈
j	ܰ	𐤉	𐤉	𐤉	š	𐤉	𐤉	𐤉	𐤉
k	ܰ	𐤊	𐤊	𐤊	t	𐤊	𐤊	𐤊	𐤊

Figure 2. Chart of Semitic scripts from Haarmann 1990, showing Nabataean.

TABLE 5.5: *Scripts Derived from Aramaic Script (Garbini 1979, fig. 7)^a*

	XVII	XVIII	XIX	XX
ʾ	Ⲁ ⲁ	Ⲃ ⲃ	Ⲅ ⲅ Ⲇ ⲇ	Ⲉ
b	ⲉ Ⲋ ⲋ	Ⲍ ⲍ	Ⲏ ⲏ Ⲑ ⲑ Ⲓ	ⲓ
g	Ⲕ	ⲕ Ⲗ	ⲗ Ⲙ ⲙ	Ⲛ
d	ⲛ Ⲝ	ⲝ Ⲟ	ⲟ Ⲡ	ⲡ
h	Ⲣ	ⲣ Ⲥ	ⲥ Ⲧ ⲧ Ⲩ	ⲩ Ⲫ
w	ⲫ Ⲭ	ⲭ Ⲯ	ⲯ Ⲱ ⲱ	Ⲳ
z	ⲳ	Ⲵ ⲵ	Ⲷ ⲷ	Ⲹ
ḥ	ⲹ Ⲻ	ⲻ Ⲽ	ⲽ Ⲿ ⲿ	ⲿ
t	ⲿ	Ⲿ ⲿ	ⲿ ⲿ	ⲿ
y	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ	ⲿ ⲿ
k	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ ⲿ ⲿ	ⲿ ⲿ
l	ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	ⲿ
m	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ	ⲿ
n	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	ⲿ
s	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	
ʿ	ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ ⲿ	ⲿ
p	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	ⲿ
ṣ	ⲿ	ⲿ	ⲿ ⲿ	ⲿ
q	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ	ⲿ
r	ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	ⲿ
š	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ	ⲿ
t	ⲿ ⲿ	ⲿ ⲿ	ⲿ ⲿ ⲿ ⲿ ⲿ	ⲿ

a. Col. XVII, Hebrew square script; col. XVIII, Palmyrene script; col. XIX, Nabataean script; col. XX, Ancient Arabic script

Figure 3. Chart of Semitic scripts from Haarmann 1990, showing Nabataean.

ALPHABETS ARAMÉENS COMPARÉS.

(ARAMÉEN ANCIEN, PALMYRÉNIEN, NABATÉEN.)

VALEUR.	ARAMÉEN ANCIEN.			PALMYRÉNIEN.	NABATÉEN.
	VIII ^e SIÈCLE.	VI ^e SIÈCLE.	IV ^e SIÈCLE.		
ʾ	𐤀	𐤀	𐤀	𐤀	𐤀 𐤁 𐤂
b	𐤁	𐤁	𐤁	𐤁	𐤁 𐤂
g	𐤂	𐤂	𐤂	𐤂	𐤂
d	𐤃	𐤃	𐤃	𐤃	𐤃
h	𐤄	𐤄	𐤄	𐤄	𐤄 𐤅
w	𐤅	𐤅	𐤅	𐤅	𐤅 𐤆
z	𐤆	𐤆	𐤆	𐤆	𐤆
h̄	𐤇	𐤇	𐤇	𐤇	𐤇 𐤈
t̄	𐤈	𐤈	𐤈	𐤈	𐤈
y	𐤉	𐤉	𐤉	𐤉	𐤉 𐤊
k	𐤊	𐤊	𐤊	𐤊	𐤊 𐤋
l	𐤋	𐤋	𐤋	𐤋	𐤋 𐤌
m	𐤌	𐤌	𐤌	𐤌	𐤌 𐤍
n	𐤍	𐤍	𐤍	𐤍	𐤍 𐤎
s	𐤎	𐤎	𐤎	𐤎	𐤎
ʿ	𐤏	𐤏	𐤏	𐤏	𐤏
f	𐤐	𐤐	𐤐	𐤐	𐤐 𐤑
ḡ	𐤑	𐤑	𐤑	𐤑	𐤑 𐤒
k̄	𐤒	𐤒	𐤒	𐤒	𐤒
r	𐤓	𐤓	𐤓	𐤓	𐤓
š	𐤔	𐤔	𐤔	𐤔	𐤔
t	𐤕	𐤕	𐤕	𐤕	𐤕 𐤖

Figure 4. Chart of "Aramaic alphabets" from Ballhorn 1864, showing Nabataean.

TEXTE NABATÉEN.

ÉPITAPHE DE L'AN 26 DE NOTRE ÈRE,
 À MEDAÏN-SALEH (HEDJRA).

ܘܫܡܠ ܢܠܘܘ ܪܒ ܐܝܫܐ ܢܠܠܟ ܕܒܥ ܝܕ ܐܪܒ ܟܥ ܗܢܕ
h š pml nlaw rb a y s a nl h k db^c yd a r b k hnd
 pour lui-même, de Waalan fils, le médecin Kahlan a fait que le tombeau Ceci est

ܝܬܝܘܘܡܠ ܕܥ ܟܕܫܐܒ ܟܕܫܐ ܗܪܗܘܘ ܗܕܠܝܘܘ
y t y a w ml^c d^c k d š a b k d š a h r h a w h d l y w
 et est ; toujours jusque en héritier d'héritier et sa postérité et pour ses enfants

ܐܪܫܘܕܠ ܡܪܗܡ ܝܕ ܐܡܪܗ ܬܟܝܠܗܟ ܡܪܗ ܗܢܕ ܐܪܒ ܟܥ
a r š w d l m r h m y d a m r h t k y l h k m r h h n d a r b k
 à Dusarès consacré qui est du sanctuaire à la façon un sanctuaire ce tombeau

ܐܠ ܝܕ ܬܪܝܘܘ ܟܕܫܐ ܫܘܢܐ ܠܟ ܠܥ ܘܡܠ ܫܘܘ ܘܬܒܢܒ
a l y d t r y w k d š a š w n a l k l^c w m l š w w t b n b
 ne que et héritier parent homme tout Pour .et chez les Salamiens en Nabatène

ܟܠܡ ܬܪܗܠ ܫܡܗܘ ܢܝܬܠܬ ܝܢ ܫ ܪܝܐ ܗܪܝܒ ܗܢܕ ܐܪܒ ܟܥ ܢܒܝܝ
kl m t r h l š m h w n y t l t i n š r y a h r y b h n d a r b k n b z y
 roi, d'Harétat et cinq trente de l'an Iyar Au mois .ce tombeau il vende

ܘܬܒܢ
w t b n
 .de Nabatène

R. DUSSAUD, 1927.

(J. FÉVRIER, 1948.)

Figure 5. Sample text in Nabataean from Fossey 1948.

(1) פדעז דעם ופטימא דא דא עט ופטימא גזיט דא דא דא דא דא דא עט
מאז ספדעט דאז מוז ופטימא (2) ופטימא דא ספדעט מאז דא דא ופטימא דא
עט ופטימא דא
כלא דא
ופטימא דא
ופטימא דא
דא
דא
דא דא

Inscription de Pétra

corps 14

(1) פדעז דעם ופטימא דא דא עט ופטימא ופטימא דא דא דא דא דא דא עט
מאז ספדעט דאז מוז ופטימא (2) ופטימא דא ספדעט מאז דא דא ופטימא דא
דא עט ופטימא דא
כלא דא
ופטימא דא
דא
דא
דא
דא דא

Inscription de Pétra (lecture rectifiée dans la copie du R. P. Vincent)

Figure 6. Sample of Nabataean text from Christian 1905.

לוח א: כתובות עם תאריך מדויק או קרוב CHART A: INSCRIPTIONS WITH PRECISE OR APPROXIMATE DATING

ארכ	ארכ	ארכ	ארכ	A/1-168 1/A Halussah/חלוסה
ארכ	ארכ	ארכ	ארכ	A/2-95 2/A "אלח" slab/ Petra/פטרה
ארכ	ארכ	ארכ	ארכ	A/3-77 3/A "אלח" El-Kutab/ Egypt/מצרים
ארכ	ארכ	ארכ	ארכ	A/4-65 4/A "רבאל" Rab'el/ Petra/פטרה
ארכ	ארכ	ארכ	ארכ	A/5-35/4 5/A Coins/מטבעות
ארכ	ארכ	ארכ	ארכ	A/6-9 6/A CIS 332 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/7-4 7/A CIS 160 Saida/צידון
ארכ	ארכ	ארכ	ארכ	A/8-1 8/A CIS 163 Hauran/הורן
ארכ	ארכ	ארכ	ארכ	A/9-1 9/A CIS 197 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/10-1 10/A CIS 198 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/11-4 11/A CIS 189 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/12-5 12/A CIS 157 Puteoli/פטולי
ארכ	ארכ	ארכ	ארכ	A/13-8 13/A CIS 201 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/14-9 14/A Starky, Hom. Petra/פטרה
ארכ	ארכ	ארכ	ארכ	A/15-11 15/A CIS 158 Puteoli/פטולי
ארכ	ארכ	ארכ	ארכ	A/16-15 16/A Euting 6 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/17-15 17/A CIS 202 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/18-16 18/A CIS 204 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/19-17 19/A Negev, IE/21 Jordan/עברדן
ארכ	ארכ	ארכ	ארכ	A/20-20 20/A CIS 354 Petra/פטרה
ארכ	ארכ	ארכ	ארכ	A/21-14 21/A CIS 205 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/22-25 22/A CIS 206 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/23-27 23/A CIS 207/8 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/24-31 24/A CIS 209 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/25-31 25/A Euting 13 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/26-31 26/A Savignac 5 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/27-35 27/A CIS 212 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/28-36 28/A CIS 213 Hegra/הגרה
ארכ	ארכ	ארכ	ארכ	A/29-37 29/A CIS 196 Mada'in/Madain
ארכ	ארכ	ארכ	ארכ	A/30-39 30/A CIS 214 Hegra/הגרה

Figure 7a. Table of dated Nabataean inscriptions from Yardeni 2000.

לוח ב: תעודות בכתב רהוט CHART B: DOCUMENTS IN CURSIVE SCRIPT

	<p>B/1 -460 1/2 סמורקנד/רח' 36 N. Hever/חבר</p>
	<p>B/2 +93 2/2 רח' 1/1 NH N. Hever/חבר</p>
	<p>B/3 +99 3/2 רח' 3/3 NH N. Hever/חבר</p>
	<p>B/4 +130 4/2 רח' 22/22 NH N. Hever/חבר</p>
	<p>B/5 +125 5/2 רח' 17/17 NH N. Hever/חבר</p>
	<p>B/6 +147 6/2 בבסל 132 רח' גב'ל רמם Gebel Ramm רח' 7/7 NH N. Hever/חבר</p>
	<p>B/8 (1)+122 8/2 רח' 9/9 NH N. Hever/חבר</p>

Figure 8. Table of Nabataean documents in cursive script from Yardeni 2000.

לוח ג: כתובות עם תאריך משוער CHART C: INSCRIPTIONS WITH CONJECTURAL DATING

אמא ס 444 נ נאאאאאא נאנ	עא ננאנאנאנא	ו שט תת	C/11-100 1/2 Incant./דמא/ת Kh. Raqiq/ת
ת 666 ונ ע נננ	ב ב	י ש תת	C/2-1-25 2/2 CIS 162 Hauran/ידרן
זכא כנאנא נאנא	עא ת פאפא תת	ת פאפא תת	C/3+25-1 3/2 CIS 164 Hauran/ידרן
ת זא נאנא	עא פ פ פ	פ פ פ	C/4+40-9 4/2 Negev, E/11 Avdat/עבדא
ת ז נ נ נ	עא פ פ פ	פ פ פ	C/5+40-9 5/2 Negev, E/11 Avdat/עבדא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/6+70-40 6/2 CIS 219 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/7+50-25 7/2 CIS 216 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/8+50-25 8/2 CIS 228 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/9+139-16 9/2 CIS 217 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/10+48 10/2 CIS 200 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/11+70-40 11/2 St.&S.RB 73 Pepra/טפרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/12+64 12/2 Savignac 38 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/13+75-50 13/2 Star.& Strag, RB 73 Pepra/טפרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/14 175-50 14/2 CIS 350 Pepra/טפרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/15+100-75 15/2 Savignac 2 Hegra/תגרא
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/16+150-100 16/2 Rotenberg/רומברג/ת W. Firda/ו. פירדא/ת
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/17+125-106 17/2 CIS 173 Hauran/ידרן
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	C/18+150 18/2 CIS 340 בבלי סבסא/ת G.Mishna
ת זא ננא ננא ננא	עא נ נ נ	נ נ נ	Nissanah/ניסנא/ת 1+300-100

Figure 9. Table of Nabataean inscriptions with conjectural dating from Yardeni 2000.

לוח ד: חרותות מסיני (מאות 2-3 לסה"ג) CHART D: GRAFFITI FROM SINAI (2ND-3RD CENTURIES CE)

ו נכנרעפ	פ	ו	א א א	א א א	א א א	א א א	D/1 ר/1 CIS 516c
א א	א	א	א א א	א א א	א א א	א א א	D/2 ר/2 CIS 638 (נילוס בחרות)
א א	א	א	א א א	א א א	א א א	א א א	D/3 ר/3 CIS 665
א א	א	א	א א א	א א א	א א א	א א א	D/4 ר/4 CIS 686
א א	א	א	א א א	א א א	א א א	א א א	D/5 ר/5 CIS 687
א א	א	א	א א א	א א א	א א א	א א א	D/6 ר/6 CIS 689
א א	א	א	א א א	א א א	א א א	א א א	D/7 ר/7 CIS 690 (נילוס בחרות)
א א	א	א	א א א	א א א	א א א	א א א	D/8 ר/8 CIS 778
א א	א	א	א א א	א א א	א א א	א א א	D/9 ר/9 CIS 780
א א	א	א	א א א	א א א	א א א	א א א	D/10 ר/10 CIS 781
א א	א	א	א א א	א א א	א א א	א א א	D/11 ר/11 CIS 790
א א	א	א	א א א	א א א	א א א	א א א	D/12 ר/12 CIS 792a
א א	א	א	א א א	א א א	א א א	א א א	D/13 ר/13 CIS 793
א א	א	א	א א א	א א א	א א א	א א א	D/14 ר/14 CIS 794
א א	א	א	א א א	א א א	א א א	א א א	D/15 ר/15 CIS 795
א א	א	א	א א א	א א א	א א א	א א א	D/16 ר/16 CIS 797
א א	א	א	א א א	א א א	א א א	א א א	D/17 ר/17 CIS 798
א א	א	א	א א א	א א א	א א א	א א א	D/18 ר/18 CIS 799
א א	א	א	א א א	א א א	א א א	א א א	D/19 ר/19 CIS 800
א א	א	א	א א א	א א א	א א א	א א א	D/20 ר/20 CIS 801
א א	א	א	א א א	א א א	א א א	א א א	D/21 ר/21 CIS 802
א א	א	א	א א א	א א א	א א א	א א א	D/22 ר/22 CIS 803
א א	א	א	א א א	א א א	א א א	א א א	D/23 ר/23 CIS 809
א א	א	א	א א א	א א א	א א א	א א א	D/24 ר/24 CIS 816
א א	א	א	א א א	א א א	א א א	א א א	D/25 ר/25 CIS 817
א א	א	א	א א א	א א א	א א א	א א א	D/26 ר/26 CIS 823 (נילוס בחרות)
א א	א	א	א א א	א א א	א א א	א א א	D/27 ר/27 CIS 824 (נילוס בחרות)
א א	א	א	א א א	א א א	א א א	א א א	D/28 ר/28 CIS 825 (נילוס בחרות)
א א	א	א	א א א	א א א	א א א	א א א	D/29 ר/29 CIS 833
א א	א	א	א א א	א א א	א א א	א א א	D/30 ר/30 CIS 834

Figure 10a. Table of Nabataean graffiti from Yardeni 2000.

כ	י	ל	ס	199	כ	D/31 31/7 CIS 848
כ	י	ל	ס	199	כ	D/32 32/7 CIS 851
כ	י	ל	ס	199	כ	D/33 33/7 CIS 852
כ	י	ל	ס	199	כ	D/34 34/7 CIS 855
כ	י	ל	ס	199	כ	D/35 35/7 CIS 856
כ	י	ל	ס	199	כ	D/36 36/7 CIS 867
כ	י	ל	ס	199	כ	D/37 37/7 CIS 883
כ	י	ל	ס	199	כ	D/38 38/7 CIS 885
כ	י	ל	ס	199	כ	D/39 39/7 CIS 890b
כ	י	ל	ס	199	כ	D/40 40/7 CIS 896
כ	י	ל	ס	199	כ	D/41 41/7 CIS 914b
כ	י	ל	ס	199	כ	D/42 42/7 CIS 925b
כ	י	ל	ס	199	כ	D/43 43/7 CIS 934b
כ	י	ל	ס	199	כ	D/44 44/7 CIS 1044c
כ	י	ל	ס	199	כ	D/45 45/7 CIS 1065
כ	י	ל	ס	199	כ	D/46 46/7 CIS 1104
כ	י	ל	ס	199	כ	D/47 47/7 CIS 1105
כ	י	ל	ס	199	כ	D/48 48/7 CIS 1108
כ	י	ל	ס	199	כ	D/49 49/7 CIS 1109
כ	י	ל	ס	199	כ	D/50 50/7 CIS 1110
כ	י	ל	ס	199	כ	D/51 51/7 CIS 1111
כ	י	ל	ס	199	כ	D/52 52/7 CIS 1112
כ	י	ל	ס	199	כ	D/53 53/7 CIS 1113
כ	י	ל	ס	199	כ	D/54 54/7 CIS 1114
כ	י	ל	ס	199	כ	D/55 55/7 CIS 1137 (עילום בודדים)
כ	י	ל	ס	199	כ	D/56 56/7 CIS 1138a (עילום בודדים)
כ	י	ל	ס	199	כ	D/57 57/7 CIS 1295b

Figure 10b. Table of Nabataean graffiti from Yardeni 2000.

A. Administrative

1. Title

Preliminary proposal for encoding the Nabataean 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

2010-07-25

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

Nabataean.

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, FontLab.

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?

Laila Nehmé.

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?

See above.

4a. The context of use for the proposed characters (type of use; common or rare)

To write the Aramaic language.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

In scholarly publications.

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?

No.

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

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?