

Universal Multiple-Octet Coded Character Set
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Международная организация по стандартизации

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John F. Healy’s *Early Alphabet* and M. O’Connor’s “Epigraphic Semitic Scripts” (ch. 5 in Daniels & Bright’s *Writing Systems of the World*) help us to determine how to encode early Semitic scripts. Tables in this document are taken from O’Connor. The UCS already encodes four of the six Semitic scripts in modern use. Of these, one is a Southern Linear script:

1 Ethiopic

Three are Northern Linear scripts:

- 2 Hebrew** (square (see table 5.5) and modern)
- 3 Arabic**
- 4 Syriac**, which encompasses *Estrangelo*, *Serto*, *Nestorian* (Eastern Syriac), *Jacobite* (Western Syriac), and *Manichaean*, *Christian Sogdian*.

The two scripts in modern use which are not yet encoded are also Northern Linear scripts:

- 5 Samaritan**
- 6 Mandaic**

The remaining historical Semitic scripts can be divided into three groups.

Southern Linear scripts (see table 5.7):

- 7 Old South Arabian**, which encompasses:
Epigraphic South Arabian
Later South Arabian
Thamudic Ethiopic
Consonantal Ethiopic

TABLE 5.7: Monumental Scripts of Yemen and Ethiopia (Garbini 1979, fig. 10)^a

	XXVII	XXVIII	XXIX	XXX
ʾ	ሰ	ሰ	ሰ ሰ ሰ	ሰ ሰ
b	ገ	ገ ገ	ገ ገ	ገ ገ
g	ገ (ገ)	ገ	ገ	ገ ገ
d	ወ	ወ	ወ ወ	ወ ወ
ḏ	ዘ	ዘ	ዘ ዘ	ዘ ዘ
h	ሃ (ሃ)	ሃ	ሃ ሃ	ሃ ሃ
w	ወ	ወ ወ	ወ ወ	ወ ወ
z	ዘ	ዘ	ዘ	ዘ
ḥ	ሃ (ሃ)	ሃ	ሃ ሐ	ሃ ሐ
b	ሃ (ኃ)	ሃ	ሃ	ሃ
t	ገ	ገ	ገ ገ	ገ ገ
z	ወ	ወ	ወ	ወ
y	ሃ	ሃ	ሃ ሃ	ሃ ሃ
k	ሰ	ሰ	ሰ ሰ	ሰ ሰ
l	ገ	ገ	ገ ገ	ገ ገ
m	ወ	ወ	ወ ወ ወ ወ	ወ ወ
n	ሃ	ሃ	ሃ ሃ	ሃ ሃ
s ¹	ሰ	ሰ	ሰ ሰ	ሰ ሰ
ʿ	ወ	ወ	ወ	ወ
ḡ	ገ	ገ ገ		
p	ገ	ገ	ገ	ገ
s	ሰ (ሰ)	ሰ	ሰ ወ	ሰ
d	ወ	ወ	ወ	ወ
q	ሃ	ሃ	ሃ	ሃ
r	ገ	ገ	ገ	ገ
s ²	ወ	ወ	ወ	ወ
s ³	ወ	ወ	ወ	ወ
t	ገ	ገ	ገ ገ	ገ ገ
ʿ	ወ (ወ)	ወ	ወ	ወ

a. Col. XXVII, Epigraphic South Arabian script (forms in parentheses are of the North Arabic type, found in some older inscriptions); col. XXVIII, Later South Arabian script; col. XXIX, “Thamudic” type of Ethiopic script; col. XXX, Ethiopic consonantal script. The order of letters in this table is artificially based on the North Semitic order; for the ancient South Semitic order, see SECTION 68.

8 Old North Arabic (see table 5.6), which encompasses:

- Dedanite*
- Lihyanite*
- Thamudic*
- Safaitic*

A cuneiform script:

9 Ugaritic

Northern Linear scripts:

10 Nabataean (see table 5.5)

11 Palmyrene (see table 5.5)

12 Hatran/Armazi (used in Armenia and Georgia)

13 Elymaic

14 Aramaic forms a rather complex family of scripts, with a number of descendants. Certainly there is a basic Aramaic, but it has many descendents (including Mongolian and possibly Brahmi) which are unique enough to merit their own encoding (see table 5.5). More research is required. However, Aramaic is expected to encompass at least:

- Aramaic proper*
- Middle Persian*
- Parthian*
- Sogdian*

Edessan is likely to be either Aramaic or Syriac. More research is required.

15 Phoenician is the catch-all for the largest group of related scripts including its ancestors, Proto-Sinaitic/Proto-Canaanite. Looking at tables 5.1, 5.3, and 5.4 (below) most of the scripts are so similar that there doesn't seem to be any point in trying to encode them separately.

TABLE 5.6: North Arabic Scripts (Garbini 1979, fig. 9)^a

	XXI	XXII	XXIII	XXIV	XXV	XXVI
ʾ	𐤀	𐤁	𐤂	𐤃	𐤄	𐤅
b	𐤆	𐤇	𐤈	𐤉	𐤊	𐤋
g	𐤌	𐤍	𐤎	𐤏	𐤐	𐤑
d	𐤒	𐤓	𐤔	𐤕	𐤖	𐤗
h	𐤙	𐤚	𐤛	𐤜	𐤝	𐤞
w	𐤠	𐤡	𐤢	𐤣	𐤤	𐤥
z	𐤧	𐤨	𐤩	𐤪	𐤫	𐤬
h	𐤭	𐤮	𐤯	𐤰	𐤱	𐤲
t	𐤴	𐤵	𐤶	𐤷	𐤸	𐤹
z	𐤻	𐤼	𐤽	𐾀	𐾁	𐾂
y	𐾃	𐾄	𐾅	𐾆	𐾇	𐾈
k	𐾉	𐾊	𐾋	𐾌	𐾍	𐾎
l	𐾏	𐾐	𐾑	𐾒	𐾓	𐾔
m	𐾕	𐾖	𐾗	𐾘	𐾙	𐾚
n	𐾛	𐾜	𐾝	𐾞	𐾟	𐾠
s	𐾡	𐾢	𐾣	𐾤	𐾥	𐾦
ʿ	𐾧	𐾨	𐾩	𐾪	𐾫	𐾬
f	𐾭	𐾮	𐾯	𐾰	𐾱	𐾲
š	𐾳	𐾴	𐾵	𐾶	𐾷	𐾸
d	𐾹	𐾺	𐾻	𐾼	𐾽	𐾾
q	𐾿	𐿀	𐿁	𐿂	𐿃	𐿄
r	𐿅	𐿆	𐿇	𐿈	𐿉	𐿊
š	𐿋	𐿌	𐿍	𐿎	𐿏	𐿐
t	𐿑	𐿒	𐿓	𐿔	𐿕	𐿖
!	𐿗	𐿘	𐿙	𐿚	𐿛	𐿜

a. Col. XXI, Dedanite; col. XXII, Late Lihyanite; cols. XXIII-XXV, Thamudic (XXIII, Teima; XXIV, Hejaz; XXV, Tabuk); col. XXVI, Safaitic.

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

	XVII	XVIII	XIX	XX
ʾ	𐤀	𐤁	𐤂	𐤃
b	𐤆	𐤇	𐤈	𐤉
g	𐤌	𐤍	𐤎	𐤏
d	𐤒	𐤓	𐤔	𐤕
h	𐤙	𐤚	𐤛	𐤜
w	𐤠	𐤡	𐤢	𐤣
z	𐤧	𐤨	𐤩	𐤪
h	𐤭	𐤮	𐤯	𐤰
t	𐤴	𐤵	𐤶	𐤷
y	𐾃	𐾄	𐾅	𐾆
k	𐾉	𐾊	𐾋	𐾌
l	𐾏	𐾐	𐾑	𐾒
m	𐾕	𐾖	𐾗	𐾘
n	𐾛	𐾜	𐾝	𐾞
s	𐾡	𐾢	𐾣	𐾤
ʿ	𐾧	𐾨	𐾩	𐾪
p	𐾭	𐾮	𐾯	𐾰
š	𐾳	𐾴	𐾵	𐾶
q	𐾿	𐿀	𐿁	𐿂
r	𐿅	𐿆	𐿇	𐿈
š	𐿋	𐿌	𐿍	𐿎
t	𐿑	𐿒	𐿓	𐿔

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

Phoenician encompasses:

- Proto-Sinaitic/Proto-Canaanite*
- Punic*
- Neo-Punic*
- Phoenician proper*
- Late Phoenician cursive*
- Phoenician papyrus*
- Siloam Hebrew*
- Hebrew seals*
- Ammonite*
- Moabite*
- Palaeo-Hebrew*

Note that Jony Rosenne once suggested that we should not encode Phoenician because it is a glyph variant of Hebrew. This is not true, despite the one-to-one correspondence of character entities. In the Dead Sea Scrolls, for instance, where the Tetragrammaton is written with Palaeo-Hebrew letters, it is (in UCS encoding terms) the Phoenician script in which the Name is written.

In the chart on the next page, note that Linear Hebrew and Palaeo-Hebrew derive from Phoenician, while Square Hebrew (see table 5.5) and the modern script derive from Aramaic.

TABLE 5.1: *The Earliest Linear Scripts (Garbini 1979, fig. 1)^a*

	I	II	III	IV	V
·	⋈ ⋈		⋈⋈	⋈⋈	⋈
b	⋈ ⋈	⋈	⋈⋈	⋈	⋈
g	^		1		
d	Δ		▷▷	▷▷	▷
h			⊘⊘		
w			⋈⋈		⋈⋈
z	I		I	I	I
h	⊘ ⊘	⊘	⊘⊘	⊘⊘	⊘⊘
t			⊘		
y	⋈ ⋈		⋈ ⋈		⋈ ⋈
k	⋈ ⋈		⋈		⋈
l	⋈	⋈	⋈ ⋈	⋈ ⋈	⋈ ⋈
m		⋈	⋈ ⋈		⋈
n	⋈ ⋈	⋈	⋈ ⋈		
s	⋈ ⋈ ⋈	⋈	⋈	⋈	⋈
c	⋈ ⋈ ⋈	⋈	⋈	⋈	⋈
p			⋈⋈		⋈
s	⋈⋈⋈			⋈⋈	⋈⋈
q					⋈
r	⋈		⋈⋈⋈		⋈⋈
s			⋈	⋈	⋈
t			⋈⋈⋈	⋈	⋈

a. Col. I, Arrowheads from Lebanon; col. II, Byblos 7765; col. III, Ahiram inscription; col. IV, Inscriptions from Palestine; col. V, Gezer calendar.

TABLE 5.3: *Northern Linear Cursive Scripts (Garbini 1979, fig. 4)^a*

	VI	VII	VIII	IX	X	XI
·	⋈		⋈ ⋈	⋈ ⋈ ⋈	⋈	⋈
b	⋈	1	⋈	⋈ ⋈	⋈	⋈
g		^	^	^	^	^
d	Δ	▷▷	▷	▷▷	▷	▷
h		⊘⊘	⊘	⊘	⊘	⊘
w	⋈		⋈	⋈	⋈	⋈
z	I	~	~	I	I	I
h	⊘⊘		⊘	⊘⊘	⊘	⊘
t			⊘	⊘	⊘	⊘
y	⋈⋈	⋈	⋈	⋈⋈	⋈	⋈
k	⋈	⋈	⋈	⋈	⋈	⋈
l	⋈	⋈	⋈	⋈	⋈	⋈
m	⋈⋈⋈		⋈	⋈	⋈	⋈
n	⋈ ⋈	⋈	⋈	⋈	⋈	⋈
s	⋈ ⋈ ⋈	⋈ ⋈ ⋈	⋈	⋈	⋈	⋈
c	⋈ ⋈ ⋈	⋈ ⋈ ⋈	⋈	⋈	⋈	⋈
p			⋈	⋈	⋈	⋈
s	⋈		⋈	⋈	⋈	⋈
q	⋈⋈		⋈	⋈⋈	⋈⋈	⋈⋈
r	⋈ ⋈	⋈	⋈	⋈ ⋈	⋈	⋈
s	⋈ ⋈	⋈⋈⋈	⋈	⋈	⋈	⋈
t	⋈⋈⋈	⋈⋈⋈	⋈	⋈	⋈	⋈

a. Col. VI, Mozia, 6th c. B.C.E., stela, Punic; col. VII, Malta, 3rd-2nd c. C.E., ostraca, Late Phoenician cursive; col. VIII, Sidon, 5th c. B.C.E., Phoenician; col. IX, Phoenician papyrus, 4th-3rd c. B.C.E.; col. X, Samaria, mid 8th c. B.C.E., ostraca, Hebrew cursive; col. XI, Aramaic papyrus, 465 B.C.E.

TABLE 5.4: *Northern Linear Monumental Scripts (Garbini 1979, fig. 5)^a*

	XII	XIII	XIV	XV	XVI
·	⋈	⋈⋈⋈	⋈	⋈	⋈⋈⋈
b	⋈	⋈⋈	⋈	⋈	⋈
g	^	^	^	^	^
d	Δ	▷▷	▷▷	▷▷	▷▷
h		⊘	⊘	⊘	⊘
w	⋈	⋈⋈	⋈	⋈	⋈
z	I	I	I	I	I
h	⊘⊘	⊘⊘	⊘⊘	⊘⊘	⊘⊘
t		⊘	⊘	⊘	⊘
y	⋈⋈	⋈⋈	⋈⋈	⋈⋈	⋈⋈
k	⋈	⋈	⋈	⋈	⋈
l	⋈	⋈	⋈	⋈	⋈
m	⋈⋈⋈	⋈⋈⋈	⋈⋈	⋈⋈	⋈⋈
n	⋈ ⋈	⋈ ⋈	⋈	⋈	⋈
s	⋈ ⋈ ⋈	⋈ ⋈ ⋈	⋈	⋈	⋈
c	⋈ ⋈ ⋈	⋈ ⋈ ⋈	⋈	⋈	⋈
p		⋈	⋈	⋈	⋈
s	⋈	⋈	⋈	⋈	⋈
q	⋈⋈	⋈⋈	⋈⋈	⋈⋈	⋈⋈
r	⋈ ⋈	⋈ ⋈	⋈	⋈	⋈
s	⋈ ⋈	⋈⋈	⋈	⋈	⋈
t	⋈⋈⋈	⋈⋈⋈	⋈	⋈	⋈

a. Col. XII, Siloam inscription, Hebrew; col. XIII, Hebrew seals; col. XIV, Meshah inscription, Moabite; col. XV, Ammonite script; col. XVI, Hasmonean coins and Abba inscription, 2nd-1st c. B.C.E., "Paleo-Hebrew" script.

Figure 4 is taken from O'Connor but I have modified it to show the scripts to be encoded by enclosing them in boxes.

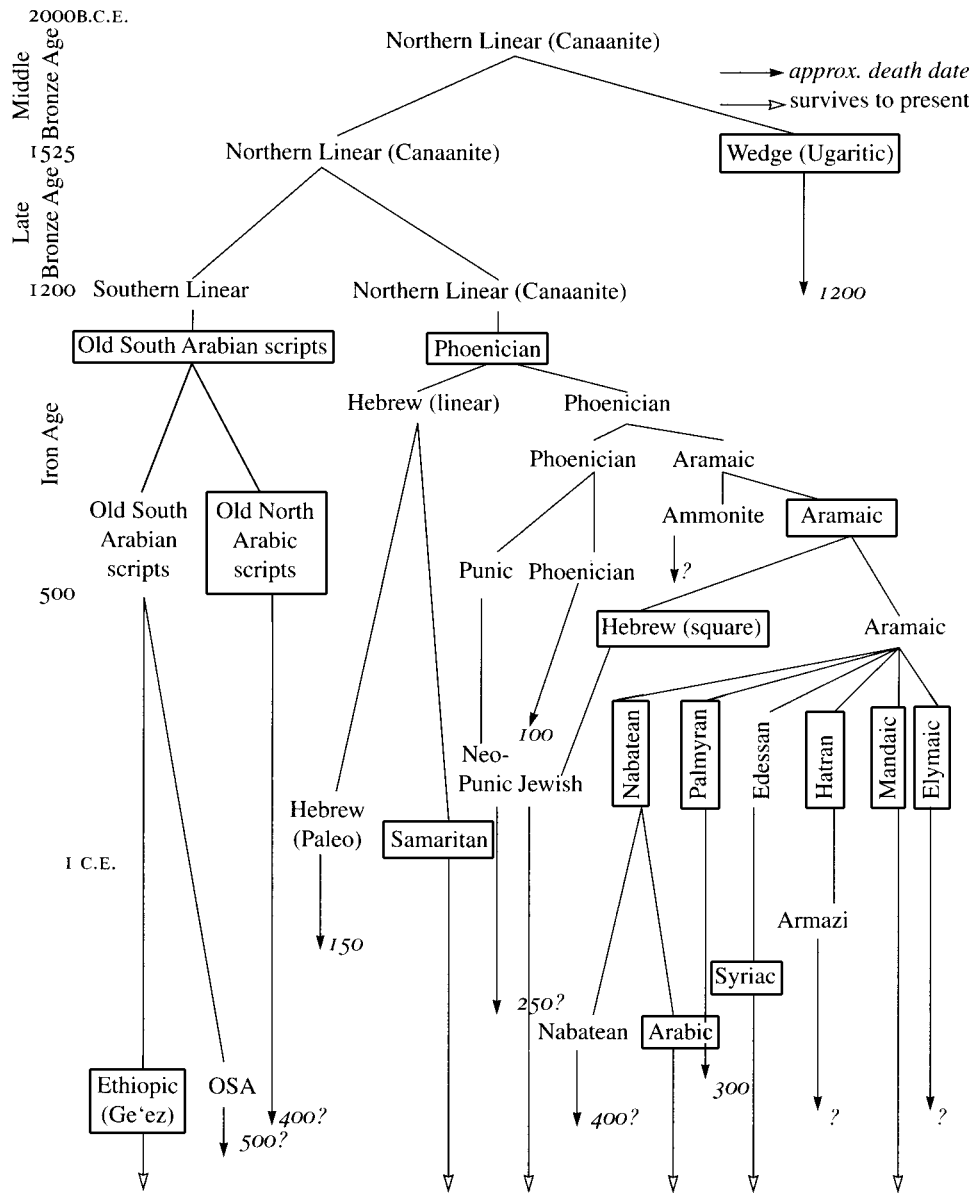


FIGURE 4. Family tree of ancient Semitic scripts