The Cypriot font*

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Abstract

The cypriot bundle provides a rendition of the Cypriot syllabary which was a script used in Cyprus for writing Greek. The script was in use between about 1000 and 200 BC.

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1 Introduction

The font presented here is a rendition of the Cypriot script that was used from about 1000 to 200 BC, particularly on Cyprus. It is one of a series of fonts that was initially intended to show how the Latin alphabet has evolved from its original Phoenician form to its present day appearance.

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This manual is typeset according to the conventions of the LaTeX docstrip utility which enables the automatic extraction of the LaTeX macro source files [MG04].

Section 2 describes the usage of the package. Commented code for the fonts and source code for the package is in later sections.

1.1 An alphabetic tree

Scholars are reasonably agreed that all the world's alphabets are descended from a Semitic alphabet invented about 1600 BC in the Middle East [Dru95]. The word 'Semitic' refers to the family of languages used in the geographical area from Sinai in the south, up the Mediterranean coast to Asia Minor in the north and west to the valley of the Euphrates.

The Phoenician alphabet was stable by about 1100 BC and the script was written right to left. In earlier times the writing direction was variable, and so were the shapes and orientation of the characters. The alphabet consisted of 22 letters and they were named after things. For example, their first two letters were called *aleph* (ox), and *beth* (house). The Phoenician script had only one case — unlike our modern fonts which have both upper- and lower-cases. In modern day terms the Phoenician abecedary was:
A B G D E Y Z H Θ I K L M N X O P ts Q R S T
where the 'Y' (*vau*) character was sometimes written as 'F' and 'ts' stands for the *tsade* character.

The Greek alphabet is one of the descendants of the Phoenician alphabet; another was Aramaic which is the ancestor of the Arabic, Persian and Indian scripts. Initially Greek was written right to left but around the 6th C BC became *boustrophedron*, meaning that the lines alternated in direction. At about 500 BC the writing direction stabilised as left to right. The Greeks modified the Phoenician alphabet to match the vocalisation of their language. They kept the Phoenician names of the letters, suitably 'greekified', so *aleph* became the familar *alpha* and *beth* became *beta*. At this point the names of the letters had no meaning. Their were several variants of the Greek character glyphs until they were finally fixed in Athens in 403 BC. The Greeks did not develop a lower-case script until about 600–700 AD.

The Etruscans based their alphabet on the Greek one, and again modified it. However, the Etruscans wrote right to left, so their borrowed characters are mirror images of the original Greek ones. Like the Phoenicians, the Etruscan script consisted of only one case; they died out before ever needing a lower-case script. The Etruscan script was used up until the first century AD, even though the Etruscans themselves had dissapeared by that time.

In turn, the Romans based their alphabet on the Etruscan one, but as they wrote left to right, the characters were again mirrored (although the early Roman inscriptions are boustrophedron).

As the English alphabet is descended from the Roman alphabet it has a pedigree of some three and a half thousand years.

2 The cypriot package

The Cypriot script was used in Cyprus for almost a thousand years, from about 1000–200 BC.

Cypriot is a syllabary, where there is a sign for each syllable. There are 55 signs in the Cypriot syllabary. The script was used for record keeping, not for literary purposes. It was used in Cyprus until about the third century BC, although by this time few could read or write it. At this late date its use was principally for recording inscriptions on votive offerings and public works, and in many cases the Cypriot script was accompanied by a Greek alphabetic version of the same text. These bilinguals were a great aid in deciphering the script, a task that was completed in the 1870's.

Apart from the specialised literature, the story of the Cypriot script can be found in [Cha87] and [Gor87], among others.

Cypriot was used to write Greek centuries before the Greek alphabet was invented. Perhaps surprisingly, Cypriot has no other relationship to the Greek alphabet except that they can both be used to write the same language. There is, however, a relationship between the Cypriot syllabary and the earlier Linear B syllabary, which was principally used in Crete, as some of the signs are the same.

The font presented here is based on the signs illustrated by Chadwick [Cha87], and consists of 55 signs.[1]

`\cyprfamily` This command selects the Cypriot font family. The family name is `cypr`.

`\textcypr` The command `\textcypr{`⟨*text*⟩`}` typesets ⟨*text*⟩ in the Cypriot font.

The commands (and their ASCII equivalents) for the 55 signs are given in Table 1; you can use either the command or its ASCII keyboard equivalent. There are 5 signs for the 5 vowels and the remaining 50 signs are two-character syllables. The apparently odd mapping to the ASCII characters is so that a companion Linear B font [Wil99] can use the same ASCII characters for the syllables that are common to both scripts.

There appears to be some flexibility in the interpretation of three of the signs, namely the *ga*, *ja* and *jo*. Some write these as *za*, *ya* and *yo*, respectively. I have provided the commands `\Cza`, `\Cya` and `\Cyo`, in addition to those listed in Table 1, for those who prefer the alternate interpretation. These typeset the same sign as the corresponding `\Cga`, `\Cja` and `\Cjo` commands, the difference between the interpretations only being manifest within transliterated text.

The Cypriot script includes a word divider, which is a short vertical line. In this font, there are three synonomous dividers which are produced by the ASCII keyboard characters `: , /` (i.e., colon or comma or slash). Using any of these when typesetting the script produce the same word divider sign.

`\translitcypr` The command `\translitcypr{`⟨*char-commands*⟩`}`, where ⟨*char-commands*⟩ are the Cypriot character commands, will typeset a transliteration of the signs. For example,
`\translitcypr{\Cti\Cme:\Cto/\Cre\Cti\Cre}` will generate

[1] I am grateful to Jürgen Kraus (`jkraus@uni-goettingen.de`) for reviewing my interpretation of the symbols.

Table 1: Commands and encoding for the signs

	a	e	i	o	u
	\Ca a	\Ce e	\Ci i	\Co o	\Cu u
g	\Cga g				
j	\Cja j			\Cjo b	
k	\Cka k	\Cke K	\Cki c	\Cko h	\Cku v
l	\Cla l	\Cle L	\Cli d	\Clo f	\Clu q
m	\Cma m	\Cme M	\Cmi y	\Cmo A	\Cmu B
n	\Cna n	\Cne N	\Cni C	\Cno E	\Cnu F
p	\Cpa p	\Cpe P	\Cpi G	\Cpo H	\Cpu I
r	\Cra r	\Cre R	\Cri O	\Cro U	\Cru V
s	\Csa s	\Cse S	\Csi Y	\Cso 1	\Csu 2
t	\Cta t	\Cte T	\Cti 3	\Cto 4	\Ctu 5
w	\Cwa w	\Cwe W	\Cwi 6	\Cwo 7	
x	\Cxa x	\Cxe X			
z				\Czo 9	

ti-me-:to-/re-ti-re-

Note that in the transliterated form the word dividers (`:` and `/` in this example) are printed as themselves. This is because only the character commands are modified while any other text is printed as is. It is a feature of the command that all transliterated commands have a trailing `-` sign.

`\translitcyprfont` The transliterated Cypriot is typeset with the font declarations specified by `\translitcyprfont`, which defaults to `\itshape` thus printing the transliteration in an italic font. The font can be changed by redefining the command. For example, if you wanted to use a bold sans font you would do:
`\renewcommand{\translitcyprfont}{\sffamily\bfseries}`

3 The font definition files

```
⟨*fdot1⟩
\ProvidesFile{ot1cypr.fd}[1999/06/20 v1.0 Cypriot font definitions]
\DeclareFontFamily{OT1}{cypr}{}
  \DeclareFontShape{OT1}{cypr}{m}{n}{ <-> cypr10 }{}
  \DeclareFontShape{OT1}{cypr}{bx}{n}{ <-> sub cypr/m/n }{}
  \DeclareFontShape{OT1}{cypr}{b}{n}{ <-> sub cypr/m/n }{}
  \DeclareFontShape{OT1}{cypr}{m}{sl}{ <-> sub cypr/m/n }{}
  \DeclareFontShape{OT1}{cypr}{m}{it}{ <-> sub cypr/m/n }{}
⟨/fdot1⟩
⟨*fdt1⟩
\ProvidesFile{t1cypr.fd}[1999/06/20 v1.0 Cypriot font definitions]
\DeclareFontFamily{T1}{cypr}{}
  \DeclareFontShape{T1}{cypr}{m}{n}{ <-> cypr10 }{}
  \DeclareFontShape{T1}{cypr}{bx}{n}{ <-> sub cypr/m/n }{}
  \DeclareFontShape{T1}{cypr}{b}{n}{ <-> sub cypr/m/n }{}
```

```
  \DeclareFontShape{T1}{cypr}{m}{sl}{ <-> sub cypr/m/n }{}
  \DeclareFontShape{T1}{cypr}{m}{it}{ <-> sub cypr/m/n }{}
⟨/fdt1⟩
```

4 The **cypriot** package code

Announce the name and version of the package, which requires LaTeX 2_ε.

```
⟨*usc⟩
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{cypriot}[2009/05/22 v1.2 package for Cypriot font]
```

We need to check the encoding default for the document.

`\Tienc`

```
\providecommand{\Tienc}{T1}
```

`\cyprfamily` Selects the Cypriot font family in the T1 encoding if this is the document's default encoding, otherwise make it the OT1 encoding.

```
\ifx\Tienc\encodingdefault
  \newcommand{\cyprfamily}{\usefont{T1}{cypr}{m}{n}}
\else
  \newcommand{\cyprfamily}{\usefont{OT1}{cypr}{m}{n}}
\fi
```

`\textcypr` Text command for the Cypriot font family.

```
\DeclareTextFontCommand{\textcypr}{\cyprfamily}
```

The commands for the basic signs.

`\Ca` `\Ce` `\Ci` `\Co` `\Cu` The 5 vowels.

```
\chardef\Ca='a
\chardef\Ce='e
\chardef\Ci='i
\chardef\Co='o
\chardef\Cu='u
```

`\Cga` The 1 G syllables.

```
\chardef\Cga='g
```

`\Cja` `\Cjo` The 2 J syllables.

```
\chardef\Cja='j
\chardef\Cjo='b
```

`\Cka` `\Cke` `\Cki` `\Cko` `\Cku` The 5 K syllables.

```
\chardef\Cka='k
\chardef\Cke='K
\chardef\Cki='c
\chardef\Cko='h
\chardef\Cku='v
```

\Cla \Cle \Cli \Clo \Clu The 5 L syllables.

```
\chardef\Cla=‘l
\chardef\Cle=‘L
\chardef\Cli=‘d
\chardef\Clo=‘f
\chardef\Clu=‘q
```

\Cma \Cme \Cmi \Cmo \Cmu The 5 M syllables.

```
\chardef\Cma=‘m
\chardef\Cme=‘M
\chardef\Cmi=‘y
\chardef\Cmo=‘A
\chardef\Cmu=‘B
```

\Cna \Cne \Cni \Cno \Cnu The 5 N syllables.

```
\chardef\Cna=‘n
\chardef\Cne=‘N
\chardef\Cni=‘C
\chardef\Cno=‘E
\chardef\Cnu=‘F
```

\Cpa \Cpe \Cpi \Cpo \Cpu The 5 P syllables.

```
\chardef\Cpa=‘p
\chardef\Cpe=‘P
\chardef\Cpi=‘G
\chardef\Cpo=‘H
\chardef\Cpu=‘I
```

\Cra \Cre \Cri \Cro \Cru The 5 R syllables.

```
\chardef\Cra=‘r
\chardef\Cre=‘R
\chardef\Cri=‘O
\chardef\Cro=‘U
\chardef\Cru=‘V
```

\Csa \Cse \Csi \Cso \Csu The 5 S syllables.

```
%
\chardef\Csa=‘s
\chardef\Cse=‘S
\chardef\Csi=‘Y
\chardef\Cso=‘1
\chardef\Csu=‘2
```

\Cta \Cte \Cti \Cto \Ctu The 5 T syllables.

```
\chardef\Cta=‘t
\chardef\Cte=‘T
\chardef\Cti=‘3
\chardef\Cto=‘4
\chardef\Ctu=‘5
```

\Cwa \Cwe \Cwi \Cwo The 4 W syllables.

```
\chardef\Cwa=‘w
\chardef\Cwe=‘W
\chardef\Cwi=‘6
\chardef\Cwo=‘7
```

\Cxa \Cxe The 2 X syllables.

```
\chardef\Cxa=‘x
\chardef\Cxe=‘X
```

\Czo The 1 Z syllables.

```
\chardef\Czo=‘9
```

\Cza \Cya \Cya The 3 arguable syllables.

```
\chardef\Cza=‘g
\chardef\Cya=‘j
\chardef\Cyo=‘b
```

\translitcyprfont \translitcypr `\translitcypr{`⟨*char-commands*⟩`}` transliterates Cypriot character commands into distinguished syllables; these are typeset using the `\translitcyprfont` font specification.

```
\newcommand{\translitcyprfont}{\itshape}
\newcommand{\translitcypr}[1]{{%
  \@translitC\translitcyprfont #1}}
```

\@translitC This macro redefines all the character producing commands for use in `\translitcypr`.

Start with the 5 vowels. We have to make sure that there are no extraneous spaces within the command.

```
\newcommand{\@translitC}{%
\def\Ca{a-}\def\Ce{e-}\def\Ci{i-}\def\Co{o-}\def\Cu{u-}%
```

The 1 G syllables.

```
\def\Cga{ga-}%
```

The 2 J syllables.

```
\def\Cja{ja-}\def\Cjo{jo-}%
```

The 5 K syllables.

```
\def\Cka{ka-}\def\Cke{ke-}\def\Cki{ki-}\def\Cko{ko-}\def\Cku{ku-}%
```

The 5 L syllables.

```
\def\Cda{da-}\def\Cde{de-}\def\Cdi{di-}\def\Cdo{do-}\def\Cdu{du-}%
```

The 5 M syllables.

```
\def\Cma{ma-}\def\Cme{me-}\def\Cmi{mi-}\def\Cmo{mo-}\def\Cmu{mu-}%
```

The 5 N syllables.

```
\def\Cna{na-}\def\Cne{ne-}\def\Cni{ni-}\def\Cno{no-}\def\Cnu{nu-}%
```

The 5 P syllables.

```
\def\Cpa{pa-}\def\Cpe{pe-}\def\Cpi{pi-}\def\Cpo{po-}\def\Cpu{pu-}%
```

The 5 R syllables.

```
\def\Cra{ra-}\def\Cre{re-}\def\Cri{ri-}\def\Cro{ro-}\def\Cru{ru-}%
```

The 5 S syllables.

```
\def\Csa{sa-}\def\Cse{se-}\def\Csi{si-}\def\Cso{so-}\def\Csu{su-}%
```

The 5 T syllables.

```
\def\Cta{ta-}\def\Cte{te-}\def\Cti{ti-}\def\Cto{to-}\def\Ctu{tu-}%
```

The 4 W syllables.

```
\def\Cwa{wa-}\def\Cwe{we-}\def\Cwi{wi-}\def\Cwo{wo-}%
```

The 2 X syllables.

```
\def\Cxa{xa-}\def\Cxe{xe-}%
```

The 1 Z syllables.

```
\def\Czo{zo-}%
```

The 3 arguable syllables

```
\def\Cza{za-}\def\Cya{ya-}\def\Cyo{yo-}%
```

Close the macro definition.

```
} % end of \@translitC
```

The end of this package.

⟨/usc⟩

5 The map file

This is pretty short.

```
⟨*map⟩
cypr10   Archaic-Cypriot  <cypr10.pfb
⟨/map⟩
```

References

[Cha87] John Chadwick. *Linear B and Related Scripts*. University of California Press/British Museum, 1987. (ISBN 0-520-06019-9)

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[MG04] Frank Mittelbach and Michel Goossens. *The LaTeX Companion*. Addison-Wesley Publishing Company, second edition, 2004.

[Gor87] Cyrus H. Gordon. *Forgotten Scripts*. Dorset Press, (Revised and enlarged edition) 1987.

[Wil99] Peter R. Wilson. *The Linear B Package*. 1999. (Available from CTAN in `fonts/archaic`).

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