Christian Palestinian Aramaic Encoding

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I. Background

Christian Palestinian Aramaic (CPA), with its specific alphabet and writing, is no longer spoken today. But it is still considered to be a highly important linguistic ancestor. When the University of Bergen announced the start of the Erasmus+ Program *Surayt-Aramaic Online Project (2017-2020)*, it used this 6th century CE CPA inscription to illustrate the history of the living Surayt language:¹



A Christian Palestinian Aramaic inscription from the Gaeianos Church in 'Uyun Musa. Inside the museum on Mount Nebo, Jordan. © DR; author: Humbert; image restored by Couson & Desreumaux.

Christian Palestinian Aramaic (CPA) is "the Palestinian Aramaic dialect of Judea and Sinai. This dialect was most prevalent between the fifth and eighth centuries, but it continued to serve as a liturgical language for the Christian Melkite community into the thirteenth century" (Müller-Kessler, 2016, 385). In its original form, it shares many characteristics with Jewish Palestinian Aramaic (JPA) and the classical period of Samaritan Aramaic (SA). During this time, the writing has remained stable (Morgenstern, 2011, 628-629). It was used by Chalcedonian Christians notably in the Roman and Byzantine Palestine and in Transjordanian Arabia. Earlier uses are attested, for example, in two passages of Eusebius in Syriac, Martyrs of Palestine II.13² and Church History I.13.2–I.5.4.³ In both passages, the Syriac uses 'rmy', (Aramaic), to designate a written Christian language. Several CPA inscriptions have been found, notably in Palestine and Jordan, that include magical texts (Puech, 2001; Abudraham, 2017). In Edfou, South Egypt, a wooden tablet has been found with CPA underwriting dated around 600 (Rutschowscava & Desreumaux, 1992; Desreumaux, 1996). It is currently at the Louvre Museum in Paris, and there is more CPA text to be deciphered on it. Several CPA texts and material remain unedited, like CPA palimpsests at the Saint-Catherine Monastery (Egypt) or at the Cambridge Library (UK).

¹ See https://www.uib.no/en/news/80246/saving-aramaic-language; all hyperlinks have been last accessed on the 26.09.23.

² This passage mentions translations done from Greek to Aramaic by the church reader Procopius of Scythopolis who died in 303 CE.

³ This passage mentions archives written in منحدکہ (Aramaic), found, and read by Eusebius in Edessa. Signaled by Telfer (1955, 35, note 43).

Thanks to the patient and impressive works of scholars from the nineteenth century until today, numerous CPA texts have been published: for example, volumes of the Hebrews Bible in CPA (tenth to thirteenth century), or the New Testament (NT) in CPA (fifth to the eighth century), published by Müller-Kessler & Sokoloff in 1997 and 1998, or the Codex Sinaiticus Zosimi Rescriptus (Desreumaux, 1997). This material is of invaluable historical importance, providing a deeper understanding of the diverse ways in which ancient Christian communities have spoken and written, at the crossroads of diverse languages and religious cultures. CPA spoken and written, at the crossroads of diverse language and religious cultures. CPA studies are an interdisciplinary field, studied equally by scholars from Jewish studies and Christian studies, including development in early Islam (Pahlitzsch, 2019). CPA texts have also been found in the Cairo Genizah, including NT passages in this Jewish medieval library (see Sokoloff and Yahalom, 1979). Unfortunately, CPA texts are in danger of being lost for future generations of scholars because there is no Unicode CPA font. For example, the two NT volumes published in 1998 are now off the market. Brill has signaled its interest for a new online scholarly edition of CPA NT volumes (CCPA IIA and CCPA IIB). But the first step is to establish a CPA Unicode font. Alain J. Desreumaux is working on an edition of a new and important Sinai CPA palimpsest manuscript and two medieval Gospel lectionaries. Christa Müller Kessler is working on a Joshua Cambridge manuscript. There is no doubt that the CPA dialect and its spread in late antiquity could raise interest for scholars in the fields of Classical Studies and multilingualism.

Presently, researchers manage as well as they can with the lack of a Unicode font. The *Editio Critica Maior of the Gospel of Mark* (2021) has chosen to transcribe CPA words in Syriac – as scholars did at the nineteenth century or later (Land, 1875; Lewis, 1897; Lewis & Gibson, 1899; Müller-Kessler, 2023). Emile Puech transcribed CPA in Hebrews letters (Puech, 2001), whereas Christa Müller-Kessler transliterated it in a 2014 article, like Mark Geller in Clivaz's SNSF MARK16 online project (2023).⁴ We would like to thank the CNRS (Huma-Num, France) public open repository Nakala, that signaled to us at the end of 2022 the absence of an ISO 639-3 code for CPA. One finds ten different kinds of Aramaic in the <u>ISO 639-3 list</u>, but no Christian Palestinian Aramaic. The ISO 639-3 codes combining c/p/a are all already attributed, and we have pre-booked the code 'axp' for Christian Palestinian Aramaic.⁵

In 1998, CPA was briefly mentioned in the Unicode application file for Syriac <u>ISO/IEC 10646</u>, <u>L2/98-0508</u>, by Paul Nelson, George Anton Kiraz, and Sargon Hasso, considering CPA as a "non-Syriac language that employs Syriac type styles" (5). Based on this file, we have prepared this Unicode Technical Note to present how to adopt the Unicode Syriac characters for CPA, with its own writing and its own ISO 639-9 code. We propose a list of 40 CPA characters, including all needed punctuation signs. After a careful examination, there is no need of creating new Unicode characters for CPA, that can be based on Syriac Script and will use some Unicode punctuation sings and symbols.

II. Script Name (see Section I)

The main CPA user group is the scholarly community in all concerned fields. The name of "Christian Palestinian Aramaic" (CPA) is well established in scholarship, as Section I

⁴ https://mr-mark16.sib.swiss/manuscript/CSRPC.

⁵ We have chosen 'axp' considering that the Greek letter χ , ancestor of 'x', has been transcribed as *ch* in several modern languages, included in the word "Christian". The code follows the French order of the CPA's name: "araméen christo-palestinien".

demonstrated it. French-speaking scholars use the name "araméen christo-palestinien" (see e.g., Capron 2020). As explained in Section I, CPA is close to "Jewish Palestinian Aramaic (JPA) and the classical period of Samaritan Aramaic (SA)" (Morgenstern, 2011, 628) and designated as منحته (Aramaic) in the Syriac language itself (Syriac Eusebius, *Mart. Pal.* II.1 and *Church History* I.13.2-I.5.4). It has its own letters, words, and dictionary (Sokoloff, 2014).

III. Structure

- Like other Semitic languages, CPA is written from right to left.
- Aramaic names of letters have been chosen in Character Repertoire (Table 1).
- <u>N°1-24</u>: CPA has an alphabet of 23 letters.
 - CPA has one own letter, borrowed from Greek, Pi, existing already in the Syriac script (U+0727).
 - \circ We added a medieval Daleth (n°4) to allow the writing of medieval texts.
 - $\circ~$ The graphism of the final Kaph and final Nun changes at the end of a word (n° 12 and 15).
- <u>N°25-34</u>: CPA has different kind of punctuation (Kokowzoff, 1906), including two types of over dots (U+0307 and U+0308) and eight signs of punctuation (U+0701, U+0703, U+2056, U+2609, U+2735, U+205D, U+0700, U+070D).
 - The CPA dot over a letter (n° 25) can have diverse meanings, depending on the manuscripts, including feminine mark.
 - \circ The diverse punctuation signs mark all a stop and vary from time to time; we included a medieval CPA stop: 3 dots aligned (n° 29).
- <u>N°35-40</u>: Four critical edition marks and two characters to force or prevent ligatures are needed, all already available. The system of ligatures can be based on this one of the Syriac Script (see Table 2).

IV. Character Repertoire

We are currently making a new CPA font in partnership with Forme.ch, fitting with the best standards expected for digital scientific editing. Ten first letters have been already prepared by Alain J. Desreumaux and Tim Meylan, and made available on the open public repository Nakala: <u>https://doi.org/10.34847/nkl.05d0mfz9</u>. The repertoire below presents letters and examples coming from the CPA Genizah font, in <u>OFL license</u>. CPA Genizah letters were drawn by Alain J. Desreumaux in the nineties and later vectorized by Alain Hurtig with the support of the laboratory *Orient & Méditerranée* (CNRS). The CPA Genizah OFL license includes Alain Hurtig, George Kiraz, Paul Nelson, and Michael Langlois. When the new CPA font will be ready and available on GitHub, we will update this Unicode Technical Note accordingly to it.

Table 1.	Character	Repertoire
		1

	Generic	Unicode	Function	Name in UNICODE font	Example ⁶
1	Л	U + 0710)	CPA ALAPH	مسم
2	Е	U + 0712	В	CPA BETH	сл.Сл.
3	${\cal X}$	U + 0713	G	CPA GAMAL	بتهيمر
4	ר	U + 0715	D (medieval)	CPA DALATH-M	
5	Г	U + 0716	D	CPA DALATH	גסבריתה
6	ш	U + 0717	Н	СРА НЕ	ாட் நட
7	0	U + 0718	W	CPA WAW	סחגע שייע
8	-	U + 0719	Z	CPA ZAIN	ліол
9	Z	U+071A	Ĥ	CPA HETH	ији
10	$oldsymbol{f}$	U + 071B	Ţ	CPA TETH	சபா
11	4	U + 071D	Ι	CPA YUDH	גסבריתר א
12	<u>ו</u> ב	U + 071F	K K (final)	СРА КАРН	دةرە تىغ ھىي
13	7	U + 0720	L	CPA LAMADH	مەتە
14	Ш	U + 0721	М	CPA MIM	பட்டலா)
15	L 、	U + 0722	N N (final)	CPA NUN	لتهديّد <i>ال</i> محمد
16	8	U + 0723	S	CPA SEMKATH	புப்படைபு
17	L	U + 0725	^C (guttural sound)	CPA AYIN	مەت
18	P	U + 0726	P or Ph	CPA PE	۳،۳۶۰
19	2	U + 0727	Р	CPA PI	உடலாலா
20	5	U + 0728	Ş	CPA SADHE	ца ^{ху}
21	.0	U + 0729	Q	CPA QOF	ידעימרי
22	'n	U + 072A	R	CPA RESH	้าาว

⁶ Examples come from Capron 2010, <u>https://shs.hal.science/halshs-02552366</u>.

23	У	U + 072B	Š	CPA SHIN	синач,
24	æ	U + 072C	Т	CPA TAW	مريه
25	Ċ	U + 0307	Dot over a letter (diverse meanings)	CPA SUPRALINEAR DOT	بتمعه
26	ö	U + 0308	Doble dot over a letter (plural)	CPA SEYAME	للت هديّا حك
27	•	U + 0701	Punctuation, half stop	CPA SUPRALINEAR PERIOD	ستاعامه
28	:	U + 0703	Punctuation, half or final stop	CPA SUK PASUQ	دە ھىت
29	•••	U + 2056	Punctuation, half or final stop	CPA STOP	دىدە:
30	:	U + 205D	Punctuation, half or final stop (medieval)	CPA STOP-M	تىدە:
31	\odot	U + 2609	Punctuation, half or final stop	CPA POINTED CIRCLE	\odot
32	*	U + 2735	Punctuation, end of title, final stop	CPA STAR	*
33	*	U + 0700	Punctuation, end of paragraph	CPA END OF PARAGRAPH	*
34	*	U + 070D	Punctuation, end of paragraph	CPA HARKLEAN ASTERISCUS	*
35		U+ 200C	Block a ligature	CPA ZERO WIDTH NON- JOINER	J.U.2.01
36		U+ 200D	Add a ligature	CPA ZERO WIDTH JOINER	⁸ ⊐⊾⊐[∞]_
37]	U + 005D	Editing conjecture (open)	CPA RIGHT SQUARE BRAKET	Jor[']Ju
38]	U+005B	Editing conjecture (close)	CPA LEFT SQUARE BRAKET	لار]تەل
39	1	U+ 2E23	Uncertain letter (open)	CPA TOP RIGHT HALF BRACKET	าํ⊾า⊐า
40	Г	U+ 2E22	Uncertain letter (close)	CPA TOP LEFT HALF BRACKET	ำ นายา

 ⁷ This example shows that a final nun is written here instead of a middle nun, because of the bracket.
⁸ This example shows a missing ligature after the semkath because the brackets has blocked it.

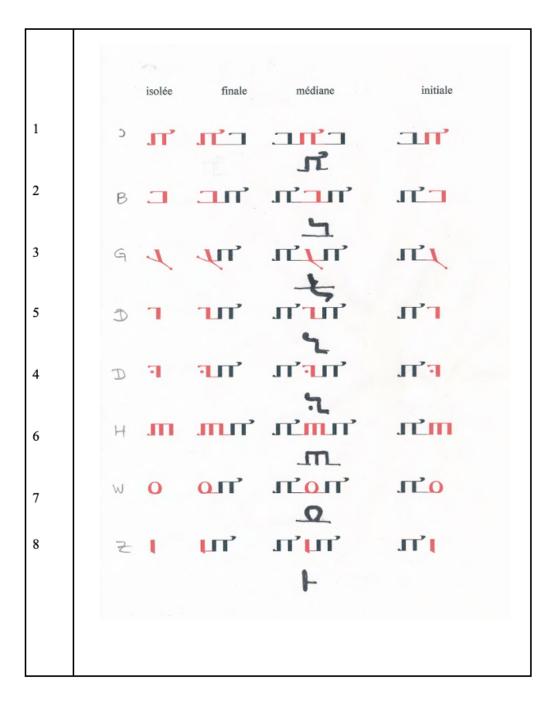
V. Properties

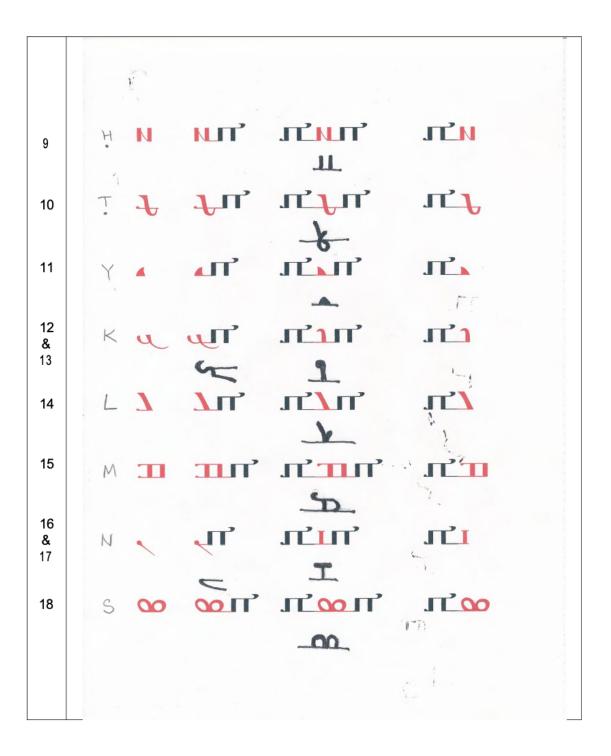
V.1 General Category and Other Properties: see existing descriptions.

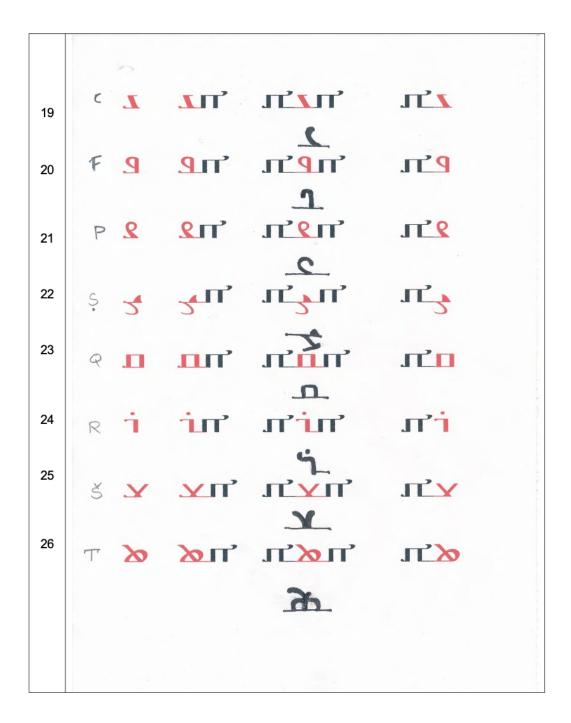
V.2 Ligatures

The CPA Genizah font, and other CPA fonts, can use the ligature system of the Syriac Classical script. We join below a complete table with the ligatures needed.

Table 2. Ligatures







V.3 Line Breaking Information

- Do the major languages using the script separate words using U+0020 SPACE or some other character? Using U+0020 SPACE.
- Can line breaks occur before a spacing character? Yes.
- If line breaks are usually only allowed as word boundaries, is there a special mode ("hyphenation") that allows for line breaks withing words at specific positions with the insertion of a marker that this mode was used? No.
- Can line breaks occur within numbers? Yes.
- No line breaks before half stop, full stop, or paragraph separator, or before closing parenthesis or brackets.

VI. Collation

The expected sorting order of the characters in the script is this one, indicated in the Table 1, in the numerical order, and in the list of general categories properties.

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VIII. Acknowledgements

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IX. Examples

Each proposed character has been illustrated in the table in Section IV, with a word taken from a 2020 article by Laurent Capron. We have combined examples with the French translation of the folio $1r^a$ in the "Life of Abraham of Qidun" (ms. 12746, collection Taylor-Schechter, Capron 2010, 234).⁹

	fol. 1 r ^a	
1. Et il semblait	வாலா (உ)டிச்	1
l'avoir transpercée	רמער [ייא]ע	
et il se mit à crier	معت، تحيمه	
d'une voix forte	כםצה ויכה	
5. et dit :	anter u, »	5
« Hâtez-vous,	بتحورجه	
mes amis,	העוד.	
hâtez-vous,	ாசல்டா	
entrez vite	حقده جبجة	
10. et étranglez-le ».	а лиоло сополю	10
Le bienheureux	har n	
lui dit alors :	ومحدثه لمعجب المعربة	
« Toutes les nations	دمد بتختي	
m'ont encerclé,	ujto as	
15. et par le nom du Seigneur,	סבאינדש נתיי	15
je les ai pourchassées ».	ires istas :	

As example of an English CPA translation, we provide below ten lines of a CPA amulet edited and translated in a 2017 article by Ohad Abudraham (99):

1. [in the n]ame of [the angel] Shamshie[I] 2. [and in the name of] the great angel 'Eliel 3. [] that the lions destroyed/lurked 4. [] who sits on the waves [of] 5. [the sea and in] the [name of the] ang[el] 'Anael 6. [of the ea]rth and of the sea, who stan[ds] 7. [of the ea]rth and of the [sea] from belo[w?] 8. [this amulet (was prepared) for] the name of Demetris 9. [son of Supara, in order to save him] from these nets of theirs 10. [] and no one will hate h[im]	1. באות אידעילי ורליינלי ורליינליינליינליינליינליינליינליינליינליי
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⁹ Alignment by Claire Clivaz.