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YEZIDI ALPHABET: THE WAY TO UNICODE

Abstract

The Yezidi (Yazidi) script gained widespread recognition in 1911 when Anastase Marie Al-Karmali published two ancient manuscripts: *Maṣḥaf Raš* (Black Scroll) and *Ktébī Jalweh* (Book of Revelation). The exact time of their creation remains unclear. These manuscripts were written in an original consonantal alphabet, comprising 33 letters. Despite its significance, this early Yezidi script version is inadequately documented within the literature on the history of writing. Furthermore, information regarding its prolonged usage gap—spanning between the aforementioned classical manuscripts and the early 2000s when attempts to revive the Yezidi script commenced—is rather scarce.

It is important to highlight that, for various reasons, the Yezidi clergy do not acknowledge the texts of *Maṣḥaf Raš* and *Ktébī Jalweh* as authentic sources of faith. Nevertheless, the script itself is recognized and has recently seen utilization among certain Yezidi groups.

A renewed version of the Yezidi script, constituting a full-fledged alphabet, was introduced in 2013 by representatives of the Yezidi community in Georgia. This new alphabet encompasses 42 characters, denoting both consonants and vowels. The classical consonantal alphabet was extended by certain modifications of the existing letters, in particular, by adding diacritical marks and changing some phonetic meanings. Alongside letters, we provide an extensive exploration of Yezidi writing's characteristics, with particular emphasis on aspects such as numbers, punctuation, and diacritical marks within both classical and contemporary contexts. Throughout the article, we incorporate examples from classical manuscripts and modern instances of the Yezidi alphabet's application, offering illustrative support to the text.

The article's content is based on Unicode proposals prepared by the authors between 2018 and 2019. The insights garnered from interactions with the Unicode Technical Committee, as reflected in the article, grant readers an enhanced understanding of the intricacies surrounding the encoding of novel writing systems. Consequently, the Yezidi alphabet was integrated into the Unicode standard, version 13.0, released in March 2020.

Keywords: writing, Yezidis, consonantal alphabet, Yezidi alphabet, diacritical marks, Unicode

1. Introduction

Work began in April 2018 to include the Yezidi alphabet in Unicode, an international encoding standard that 'provides the basis for processing, storage and interchange of text data in any language in all modern software and information technology protocols'.¹ Discussions with Unicode representatives, aimed at clarifying certain features of the Yezidi script and addressing technical points, lasted a little more than a year until a positive decision was reached in early May 2019. The alphabet eventually became part of the Unicode standard, specifically in version 13.0, released in March 2020, and is among the 154 writing systems represented there.²

The Yezidi writing system is relatively sparsely covered in classical literature on the history of writing. A more detailed analysis can be found in the works of David Diringer³ and Čestmír Loukotka.⁴ Hans Jensen briefly mentioned it⁵, and Ignaz Gelb also provides a table of signs.⁶ However, the works of Johannes Friedrich⁷ and Florian Coulmas⁸, as well as the encyclopedia *Sekai moji jiten*⁹, make no mention of Yezidi writing.

This article will provide a concise overview of the history and current status of the Yezidi alphabet, as well as the interaction process with the Unicode Technical Committee (UTC). The information presented primarily relies on the document¹⁰ and supplementary materials we prepared for Unicode. The article is organized as follows: Section 2 offers historical insights into Yezidi writing; Section 3 delves into an analysis of the writing structure; the intricacies of certain elements—diacritics, numbers, and punctuation—are discussed in more detail in Section 4. The final Section provides brief summaries.

2. Historical Background

The earliest instances of Yezidi script application are evident in two manuscripts: *Maṣḥaf Raš* (The Black Scroll) and *Ktébī Jalweh* (The Book of Revelation), which were initially unveiled by Anastas Marie Al-Karmali¹¹ in 1911. It is worth noting that preceding these, there existed manuscripts in Arabic script bearing the same titles.¹²

These manuscripts were penned onto sheets of delicate parchment derived from treated gazelle skin. The pages of *Ktébī Jalweh* encompass 16 lines of text, while *Maṣḥaf Raš* comprises 11 lines. The former contains a monologue by Tawisî Melek, the principal angel within Yezidi religion. Maṣḥaf Raš, on the other hand, narrates a cosmogony that

¹ Unicode FAQ.

² Unicode® 13.0.0.

³ Diringer 1947: 296–298.

⁴ Loukotka 1946: 95.

⁵ Jensen 1969: 325.

⁶ Gelb 1963: 142, 144.

⁷ Friedrich 1966.

⁸ Coulmas 2004.

⁹ Kono, Chino, and Nishida 2001.

¹⁰ Rovenchak, Pirbari, and Karaca 2019.

¹¹ Marie 1911.

¹² Joseph 1909.

transcends conventional Yezidi beliefs.¹³ The language employed in *Maṣḥaf Raš* is comparably simpler than that of *Ktébī Jalweh*.

Regrettably, both the time of manuscript creation and their authorship remain shrouded in uncertainty, prompting diverse viewpoints on the matter. Plausible origins span from the 12th to 14th centuries¹⁴, with a stronger likelihood leaning towards a later period, possibly the 19th century.¹⁵ However, this does not negate the existence of Yezidi writing. Yezidis hold the historical belief in the existence of sacred manuscripts titled *Maṣḥaf Raš* and *Ktébī Jalweh*, albeit their original versions are presumed lost. Subsequently, copies transcribed in a distinct Yezidi alphabet emerged, though regrettably, their content suffered distortions. As a result, a segment of the Yezidi clergy acknowledges the script itself, yet does not endorse the manuscripts' content as authentic sources of Yezidi faith. Thus, *Maṣḥaf Raš* and *Ktébī Jalweh* can be considered Yezidi apocryphal literature. Various reasons underlie their non-recognition of the manuscripts' authenticity.¹⁶ The origin and substance of these manuscripts, however, form an independent subject of studies, exceeding the confines of our present article's scope.

These classical manuscripts are composed in the Sorani language (Central Kurdish, ISO 693-3 code: ckb), related to the modern Yezidi language. The latter is referred to by a part of Yezidis as $\hat{E}zd\hat{k}i$. From a linguistic standpoint, this classification places it within the Indo-European > Indo-Iranian > Iranian > West Iranian > North-Western Iranian > Kurdish languages > Kurmanji (ISO 693-3 code: kmr).¹⁷ Presently, the language employs the Latin, Cyrillic, and Arabic scripts for writing.

Notably, the sacred Yezidi manuscripts *mišūr*, dating back to the 13–14th centuries, are inscribed in Arabic.¹⁸ In the late 2000s, efforts to rejuvenate writing practices were undertaken in Iraq. This endeavor included the publication of a Yezidi-Arabic dictionary. Regrettably, due to the challenging political and social circumstances endured by Iraq's Yezidi community, this initiative did not progress further. It is also important to underline that the Yezidi alphabet was not substantially employed for an extended duration, spanning from the era of the aforementioned two manuscripts until the early 2000s.

In 2013, the Spiritual Council of Yezidis in Georgia decided to revive the Yezidi alphabet and use it for writing prayers, sacred books, on the letterhead of the organization (see Fig. 1), in Yezidi heraldry, etc. For this purpose, Dimitri Pirbari and Kerim Amoev, modernized the classical Yezidi alphabet and adapted it to the phonetic features of the modern Yezidi language. This choice is justified by the special role of classical manuscripts in Yezidi identity and takes into account the proximity of Kurmanji and Sorani. The book Yezidi script was published¹⁹, which describes each letter and its phonetic meaning in detail. Today, the Yezidi script is used by the clergy in the Yezidi temple in Tbilisi. The names of saints are also written in this alphabet on the walls of the

¹³ Amoev 1999; Pirbari and Amoev 2013.

¹⁴ Marie 1911; Omarkhali 2017: 20.

¹⁵ Mingana 1916; Pirbari and Amoev 2013.

¹⁶ Rodziewicz 2022.

¹⁷ Eberhard, Simons, and Fennig 2021.

¹⁸ Pirbari, Mossaki, and Yezdin 2020.

¹⁹ Pirbari and Amoêv 2013.

temple (see Fig. 2). The book of prayers *Dua'yêd Êzdiyan* in Yezidi script was recently published (see Fig. 3).

ᲡᲐᲛᲐᲠᲗᲕᲔᲚᲝᲡ ᲔᲖᲘᲓᲗᲐ ᲡᲐᲡᲣᲚᲘᲔᲠᲝ ᲡᲐᲑᲭᲝ YEZIDI SPIRITUAL COUNCIL OF GEORGIA



CIVATA RUHANIYA ÊZDIYAN YA GURCISTANÊ ДУХОВНЫЙ СОВЕТ ЕЗИДОВ ГРУЗИИ

ดินไวพงกวพ ได นได่ตะดิไ ไดนไจวกิ ไวไรง

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Fig. 1: Letterhead of the Spiritual Council of Yezidis in Georgia.



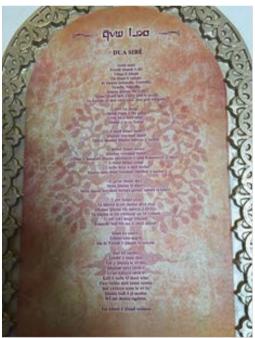




Fig. 2: Yezidi inscriptions on the walls of the Yezidi temple in Tbilisi.

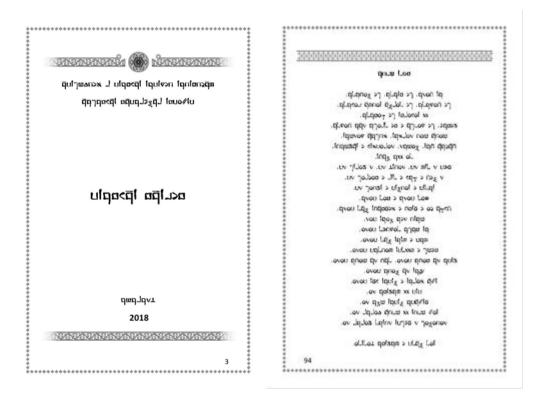


Fig. 3: Title and sample page from *Dua'yêd Êzdiyan* prayer book (2018).

3. Structure of writing

Yezidi writing is alphabetic, the direction of writing is horizontal, from right to left, lines are placed sequentially from top to bottom. In its classical form, the Yezidi script encompasses 33 letters, and its ancestral inspiration appears to stem from the Perso-Arabic lineage.²⁰ This ancestral connection is evident in the letter sequence (as depicted in Fig. 4). According to the classification of Peter Daniels²¹, it is an *abjad* (or consonantal alphabet, from the Arabic $i_{i,ee}$), indicating a script lacking characters to represent all vowels.

La découverte récente des deux livres sacrés des Yézidis. 11	
XVII [*] L'alphabet yézidite et sa transcription.	v b 1 t
n ان 🖬 🕯 ش n ,a 👖 ا	3 p ++- z
v ب b + d ب v b + d ب V	± t 1 1
w,u و ۲ مېض 🗙 ۲ ت 💵	5 * # j
	Δğ L f
y ي q ب d q ي y	$\Delta t \delta = t \overline{v}$
q پ ۲ ≒ ظ # { ج ۵	▼ h T g
σγμμειασι	Ab Sk
オ そ * # と * *) ž	
ع ک A L ف f X ک g	۱ (₽≊
v (ڤ // ا¢ ﺖ ≰ ذ ₽	
$\Pi j r \{ \langle k \rangle \}_{W}$	🗙 ž 💙 w
ا کلیے رپ	W ^s o ^h
	mě qy
$\mathbf{H} \mathcal{C} \mathcal{L} \mathcal{S} = \mathbf{V} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} U$	+ ^{\$} (b)

1	v	3,	+	۲	۵	8	ø	3	٥	P	п	4	xx	w	m	+	×	1	#	-	#	L	1.	T	Ł	*	ر	L	U	,	0	4
",a	ь	Р	t	s	Ë	č	þ	Ķ	đ	Z	r	z	ż	s	ŝ	ş	d(ż)	t	ż	ŧ	ģ	f	w	q	k	g	1	m	n	w	h	У
																(c)																

Fig. 4: Classical Yezidi *abjad* according to different authors $(a) - \text{Marie}^{22}$, $(b) - \text{Jensen}^{23}$, $(c) - \text{Diringer}^{24}$.

A certain similarity can be observed in the forms of Yezidi and Arabic letters '/a, h, u/w^{25} , as well as *s*, *n*, and *l*, and to some extent, *b*. Additionally, a resemblance to the Arabic Kufic script can be noted, which tips the historical scales in favor of the Yezidi script having an older origin. Generally, however, the depiction of Yezidi letters displays distinct and simple geometric features, setting them apart from Arabic script. Interestingly, the utilization of a simple vertical bar for elif (' / a) may find further justification considering the frequent appearance of this letter in texts. A similar

²⁰ Diringer 1947 with reference to Furlani 1930, 1932.

²¹ Daniels 1990.

²² Marie 1911.

²³ Jensen 1969: 325.

²⁴ Diringer 1947: 299.

²⁵ Diringer 1947: 298.

observation can be made in the context of Nko, an alphabet created in 1949 for the Maninka language in Guinea.²⁶

Unlike Arabic writing, Yezidi letters are rendered individually, and their shapes remain constant regardless of their position within a word. Nevertheless, it is evident that in handwritten versions, letters can be combined, akin to other alphabetic scripts such as Latin, Cyrillic, Hebrew, Armenian, and Georgian. An illustrative example is provided in Fig. 5.

Certain ligatures emerge in classical manuscripts, for instance: (l-t), t (*l-c*), w (*l-q*), x (*l-k*), y (*l-y*), z (*l-v*),²⁷ as depicted in Fig. 6. However, in the contemporary version of the alphabet, ligatures are no longer employed.

olquil qcol , olque ql qcol olqui qoq quin quin > qñ now lnolor quilom qyall qcol LOON COL D> 2 90 Cal colon cal olgollqcl i dgo cqlqcl algol azan quui > qui naw Loolor quilan gyall geol لممة دما له ع ومدما د ملمه دما

Fig. 5: A sample of a modern Yezidi handwritten text. The "printed" letters are shown in the upper part, the cursive version is shown in the lower part.

²⁶ Rovenchak 2011, 2019.

²⁷ The JG Yezidi font by Jason Glavy is used here for the ligatures. The rest of the letters of the Yezidi alphabet in the text are typed in the PirbaryiHistory font, the author of which is Dimitri Pirbari.

LVL 5- fin nval < nl nu o+lousit and lox nls Julo 1901 al ano algi of 121 ロインロッ 0日 Intolmaply and grint א קצקהביצי ang Ja אינישטוע אין אין אין אין אין אין 10 0010 migonly ougell mar of mirl 20 mlular ougelular oz Lmquia Loon Jol movem ve ullolman בווים אשו ושון ידר שוקובד Jagina is gold عمم لم مدسل اداد مردمه عامان חושבור זרע בו ופשבה החשוש Line ullysize ool maply night ONIVYZ

Fig. 6: Fragment of the *Mashaf Raš* manuscript²⁸; ligatures are circled in red.

The new version of the Yezidi script is a full-fledged alphabet, meaning it has notations not only for consonants but also for all vowels. To ensure compliance with modern Kurmanji phonetics, a number of new letters were created, mostly using specific diacritics:

ヾ ⊓ , ⊉, ѯ, ≫, ≩, ≩, ≯, Ў, Ӧ, व.

In the original writing, the symbol $\langle \ \ \rangle$ (which was also frequently simplified to a simple straight slash, $\langle C \rangle$) was employed to represent both /p/ and /p^h/, alongside $\langle \ _{\mathsf{Z}} \rangle$, indicating a parallel usage. However, in the contemporary version, these two characters now represent distinct phonemes

The character $\langle \underline{\omega} \rangle$ representing /tj^h/ is derived from $\langle \underline{\omega} \rangle$, which carries the phonetic value /tj/. The latter is evidently connected to the shape $\langle \underline{\omega} \rangle$ denoting /c/. Similarly, the characters $\langle R \rangle$ for /r/ originate from $\langle n \rangle$ for /r/, and $\langle \overline{q} \rangle$ for /e/ stems from $\langle q \rangle$, which possesses a dual phonetic value (/i/ and /j/), both created using a horizontal line. A similar modification was employed in the creation of the character $\langle \underline{z} \rangle$ for /k^h/, based on $\langle \underline{z} \rangle$ for /k/. By introducing various elements to the basic shape $\langle \mathtt{s} \rangle$, which represented /w/ or /u/ in the classical consonant alphabet and solely /u/ in the new alphabet, a series of characters was produced: $\langle \underline{z} \rangle$ for /w/, $\langle \underline{s} \rangle$ for /v/, $\langle \underline{s} \rangle$ for /o/, and the ligature $\langle \underline{w} \rangle$ for /u:/. Lastly, the modification of $\langle \underline{o} \rangle$ (with the updated value /ə/ instead of the traditional /h/) resulted in the character $\langle \underline{v} \rangle$ for /h/. Such a transference of phonetic meanings has a

²⁸ Marie 1911.

notable history in writing; for instance, the Greek (and subsequently Cyrillic) characters for the vowels *omicron* $\langle O \circ \rangle$ and *eta* $\langle H \eta \rangle$ stem from the Phoenician *'ayin* $\langle O \rangle / \mathfrak{G} / \mathfrak{$

The new Yezidi alphabet is presented in Table 1, alongside three other writing systems utilized for writing Kurmanji. The sequence of letters in the table aligns with the order accepted within the Yezidi community in Georgia.

Yezidi	Arabic	Latin	Cyrillic	IPA (approximate)	Letter name
1	١	Аa	A a	a	Elif
v	ب	Вb	Бб	b	Ве
3		Рр	Пп	р	Pe
3	پ	P' p'	П' п'	$p^{ m h}$	p'e
l	ت	T' t'	Т' т'	t ^h	ťe
7	ث	S		θ~s	Se
Δ	ج	Сс	Щщ	क्	cim
Δ⁄		Çç	Чч	ţ	çim
⊉⁄	چ	Ç' ç'	Ч' ч'	₫ĥ	ç'im
∇	7	H' h'	h' հ'	ħ	h'a
Δ	て さ	Хx	Хx	х	ха
Ø	د	D d	Дд	d	dal
P	ć	Ż		ð ~ z ^ç	zal
П	ر	Rr	Рр	r	Ra
ព		R' r'	P' p'	ſ	r'a
<	ĩ	Ζz	33	Z	Za
xx	ډ ژ	Jj	Жж	3	Ja
យ	س	Ss	Сс	s	Sin
ព	ش	Şş	Шш	ſ	Şin
+	ص	Ş		s ^ç	şad
×	ض	, ģ		d۶	ḍad
٦	ط	Τt	Τт	t	Та
#	ظ	z'		ZY	z'e
لہ		' / E' e'	ə' ə'	?	'eyn
#	ė	, X' x'	Г'г'	S	x'eyn
L	ع غ ف	Ff	Φφ	f	Fa
\$					Va
11	ڤ	Vv	Вв	v	va (variant)
т	ق	Qq	Qq	q	Qaf
, ٤		Kk	Кк	k	Kaf
Ę	ك	K' k'	К' к'	k	k'af
×	گ	Gg	Гг	g	Gaf
٦	J	LI	Лл	8	Lam
L	م	Mm	Мм	m	Mim
บ	ڹ	Nn	Нн	n	Nun
>	و	Uu	Öö	u	um
»	ر وو	Ûû	Уу	u:	uum (see Note 1)

Table 1: New Yezidi alphabet and its representation in other scripts

ž	و	Ww	Ww	w	waw
ĭ	ۆ	0 0	0 0	0	ow
0	ئە	Еe	Ээ	ə	ew
õ	٥	Нh	hь	h	hay
Ъ	ي	Îî/Υy	Ии/Йй	i/j	yot
q	ێ	Êê	Еe	е	Et
		Li	Ьь		(see Note 2)

Notes:

1. The letter *uum*, denoting long /u:/, is a ligature of two *um*s denoting short /u/.

2. Equivalents are not found in all scripts; denotes palatalization in foreign words.

The question regarding the peculiarities of the functioning of the letter *uum* in modern texts was raised by a member of the UTC. This inquiry arose due to the presence of both the kerned form $\langle \rangle \rangle$ and the conventional repetition of the symbol $\langle \rangle \rangle$ in the available text samples (see the word *Xatûna* in Fig. 2). Sometimes, such a medley can even be observed within the same text (see Fig. 7). Both spellings are entirely equivalent; thus, a decision was made not to encode this letter as a separate entity. Notably, *uum* is the sole letter within the new Yezidi alphabet that represents a long vowel phoneme.

	יורדו, אם אסע בסג אסרשע ארך ארד.	ě
*	וןסש קעארער, שסריטריין אסעריי	*
÷	.ี่ ฤ๐∟ฤบ∨. ฤไJoย	
*	יםֿסם <mark>א</mark> אש ס _ל ם םׂך סרוצמט<בון רוש > ^ג עסטע נאמל	*
*	שמכסו אס פיעס אר שבצופח.	
*	, ជ្∫ាធoក ក្នុង]Σក្សា	*

Fig. 7: An example of a text with both kerned and unkerned *uum* ligatures in the same root: *scûdeê* 'worship' (in isaphet) / *scûda* 'worship'. Taken from the prayer book *Dua'yêd Êzdiyan* (2018).

In Table 1, there are five letters used only in words of Arabic origin in order to accurately reflect the respective sounds: $\langle \neg, \mu, +, \times, + \rangle$. The letter *elif* $\langle 1 \rangle$ is placed at the beginning of words that start with a vowel, just like in Arabic writing.

4. Peculiarities of Yezidi writing: diacritics, numbers, and punctuation

In this section, we will explore other structural elements of Yezidi writing. The discussion of these elements, especially the use of diacritics (beyond those employed for creating new letters), constituted a central point of deliberation with the Unicode Technical Committee.

Words of Arabic origin incorporate two diacritic marks inherited from the Arabic script, each serving its traditional purpose: the *hamza* $\langle \diamond \rangle$ (signifying glottal stop /?/) and *madda* (placed above the letter *elif* $\langle f \rangle$ to indicate long /a/).

Certain contemporary printed texts depict the *hamza* as a distinct letter $\langle i \rangle$ rather than as a diacritic. A query from the UTC prompted us to delve further into the particulars of such usage. In Fig. 8(a), one can observe numerous instances of the *hamza* combined with the letter *elif*: $\langle i | \rangle$. In the third line of Fig. 8(b), the *hamza* appears after the letter *mim* $\langle logalugele | \lambda \rangle$ /m?uminin/ 'believers', derived from Arabic $\langle logalugele | \lambda \rangle$. This positioning is merely due to a technical constraint: in the font employed, it was simply unfeasible to place the *hamza* above the corresponding letter.



Classical manuscripts also contained several diacritical marks that are no longer used in the modern alphabet. *Maṣḥaf Raš* is especially abundant in such marks; refer to Fig. 9, where the letters with marks are encircled with ovals as follows:

- on the right page, from top to bottom: *elif-madda*, *lam* with a dot above, *ra* with a hyphen, *yot* with a circumflex + *et-hamza*;
- on the left page, from top to bottom and right to left within the line: ra with a dot below, lam with a dot above, cim with a hyphen, yot-hamza, za with a hyphen, decorative (?) horizontal brackets in k(îd), yot with a hyphen.

At least one diacritical mark carries a well-established meaning: the dot over *lam* $\langle \mathbf{j} \rangle$ altered the phonetic value from soft [I] to hard [†].

The meanings of some diacritical marks in classical manuscripts are not always evident. The significance of the horizontal brackets in Fig. 9 remains uncertain, and for instance, the dot between the letters **ool model**, in the lower right part of Fig. 6 might be a random artifact. The circumflex over yot $\langle \hat{\mathbf{q}} \rangle$ could indicate its incorrect usage (akin to "crossing out")²⁹, or it could modify the sound from [î] to [ê]. The dot under the letter ra

²⁹ Marie 1911.

might correspond to a "weakened" pronunciation, "le r très doux"³⁰, probably /r/ as opposed to /r/.

The presence of this diacritical mark also sparked a debate about whether the letter $va \langle \rangle$ in the new alphabet can be interpreted as *um* with a diacritic. However, this interpretation lacks sufficient grounds, so *va* was retained in the final code table.

ידשחאומיוש בוונבסותבסון סקשק בחצקישבו ארז נפשיקן, י · الدس ٧٢ لمر ٢٦١ ٣٦ ٢٦ دآسالي ٢٥ لم Imlal + 1- 2 =L, Lo = + que , Lov א שםום צל לעם לא בודם למינטם שח יסח יי צחלקצ יי צוף בחשו logalard oglad 150 manuales maw , lan nov All al ans . שארח בנקה אנים שוחאים אצח שבשף לוע צחוף ולל אבעף م برد اد آسااما = ل ۲۵ ولس and must also Ju Jas and י יושר אר אשווש נחבו בן المراسل المحل مردم لما المارما - זיב יייפבור ייונף בקף (0VA) a xapa (nug / legos) 19500, apax al (0VA) בור אחםובים וסבצף ישחצר לא עונע עלוחן Low Dry Ja . TUX DID 0825 ユロキnulmm 075. а Ц-, II Mashaf clis Blatt 14.

Fig. 9: Diacritical marks in *Maṣḥaf Raš*. For a detailed discussion, see the corresponding paragraphs in the text.

It should be noted that during discussions with the UTC, a decision was made to exclude, at least in the current stage, the incorporation of diacritical marks from classical manuscripts into the standard. The inclusion was limited to only two letters with diacritics, $\langle \mathbf{j} \rangle$ and $\langle \hat{\mathbf{q}} \rangle$.

The hyphen (presented in the form of an inverted apostrophe $\langle \cdot \rangle$) was placed twice in the classical manuscripts: at the end of a line where a word was split and at the beginning of the next line, before the second part of the word (refer to Fig. 10). In modern orthography, hyphens are used solely at the end of a line.

Furthermore, it is worth noting that the same sign in Fig. 8 can be observed in a nonfinal position, has a b b. This use might correspond to the duplication of the preceding letter (*cim*). However, such a function is not accounted for in modern writing.

³⁰ Marie 1911.

L, = pl+c >< Lulage Ly 2 > 2 Lel uluul AELA ליחשלי שק בר בש קטיאו השיר סקס בהי מל מק ה- ק איב שי בו בר ק בי הק בי הי ק fry ماد ۲۰۹۵ ادامج له ۹۰۹۰ Le rel-12 oz Lal ov mal 250 La 26

٤

Fig. 10: A fragment of the text of the *Ktébī Jalweh* manuscript, where most of the lines contain hyphenated words. You can also see its number 4 (Arabic ٤) at the top of the page.

To the best of our knowledge, separate symbols for numbers were never used in the Yezidi script. In ancient manuscripts, (Eastern) Arabic numerals $\langle \cdot, \cdot, \cdot, \tau, \tau, \xi, \circ, \tau, \vee, \wedge, \rangle$ were employed, cf. Marie's article³¹, while in contemporary texts, the traditional 0...9 are used.

Punctuation marks align with Arabic conventions: comma $\langle \cdot \rangle$, semicolon $\langle \cdot \rangle$, and question mark $\langle \cdot \rangle$. Periods, colons, and exclamation marks retain their traditional forms $\langle \cdot, :, ! \rangle$ because they are direction-independent.

5. Conclusions

We have described the characteristics of Yezidi writing, with particular focus on the new version of the alphabet proposed in 2013 by members of the Yezidi community in Georgia. This modernized alphabet comprises 42 letters denoting both consonants and vowels. It emerged from the old consonant alphabet, which consisted of 33 letters, and underwent specific modifications, notably the inclusion of diacritical marks.

Alongside letters, we have meticulously examined other components of writing: numerals, punctuation, and diacritical marks in classical and contemporary writing. Furthermore, we have highlighted the inquiries raised by Unicode representatives subsequent to the submission of a proposal to incorporate the Yezidi alphabet into this international standard. Information concerning the interaction with the Unicode Technical Committee serves to enhance comprehension of the procedures entailed in the development of novel writing systems there.

We also expect that technical work will be completed in the near future, which will make the full use of the Yezidi alphabet available on computers and other devices running under various operating systems (Windows, Android, Unix, MacOS).

As a follow-up to the Unicode coverage, Google created a font for the Yezidi script as part of the Noto font collection³². However, this event was overshadowed by the font's

³¹ Marie 1911.

³² Noto Serif Yezidi.

description, which initially labeled the language as "Kurdish", a very sensitive issue for the Yezidis who consider such a description to be very vulnerable. Following a request, the description was corrected to "Yezidi, Kurmanji", but this change did not last long; it was subsequently modified to "Kurdish, Yezidi". Unfortunately, despite further requests from the Yezidi community to remove "Kurdish" from the description, their efforts did not succeed.

We hope that the material presented in this article will captivate individuals interested in Yezidi culture and history, writing-related matters in a broader context, and technical aspects that facilitate information exchange in the contemporary digital world.

Acknowledgment

This study was partly supported by a grant from the United States National Endowment for the Humanities (PR-253360-17), which funds the Universal Scripts Project (part of the Script Encoding Initiative at the University of California, Berkeley). Any views, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect those of the National Endowment for the Humanities.

Our special thanks go to Deborah Anderson for her constant attention to the work on the standardization of the Yezidi alphabet and her organizational support.

References

- 1. Amoev, Kerim. *Ezidebes ts'minda ts'ebnebe*. Tbilisi, 1999.
- 2. Coulmas, Florian. *The Blackwell Encyclopedia of Writing Systems*. Blackwell, Malden, MA: Blackwell, 2004.
- 3. Daniels, Peter. (1990), "Fundamentals of grammatology." *Journal of the American Oriental Society* 110, no. 4 (October–December 1990): 727–31. https://doi.org/10.2307/602899
- 4. Diringer, David. *The Alphabet: A key to the history of mankind*. London: Hutchinson, 1947.
- 5. *Dua'yêd Êzdiyan*. Tbilisi: Universal, 2018.
- 6. Eberhard, David M., Gary F. Simons, and Charles D. Fennig, eds. *Ethnologue: Languages of the World*, 24th edition. Dallas, TX: SIL International, 2021. Online version: http://www.ethnologue.com.
- 7. Friedrich, Johannes. *Geschichte der Schrift: unter besonderer Berücksichtigung ihrer geistigen Entwicklung*. Heidelberg: C. Winter, 1966.
- 8. Furlani, Gino. "Religione dei yezidi: Testi religiosi dei yezidi." In *Testi e documenti per la storia delle religioni*, vol. III. Bologna Zanichelli, 1930.
- 9. Furlani, Gino. "Sui yezidi." *Rivista Degli Studi Orientali* 13, fasc. 2 (Aprile 1932): 97– 132. http://www.jstor.org/stable/41863678
- 10. Gelb, Ignace J. A study of writing, revised edition. Chicago: University of Chicago Press, 1963.
- 11. Jensen, Hans. *Die Schrift in Vergangenheit und Gegenwart*, 3rd edition. Berlin: VEB Deutscher Verlag der Wissenschaften, 1969.
- 12. Joseph, Isya. "Yezidi texts." *The American Journal of Semitic Languages and Literatures* 25, no. 2 (January 1909): 111–56. https://www.jstor.org/stable/527914

- 13. Kōno, Rokurō, Eiichi Chino, and Tatsuo Nishida, eds. *Sekai moji jiten*. Tokyo: Sanseido, 2001.
- 14. Loukotka, Čestmír. *Vývoj písma*. Praha: Orbis, 1946.
- 15. Marie, Anastase. "La découverte récente des deux livres sacrés des Yézîdis." *Anthropos* 6, no. 1 (1911) : 1–39. https://www.jstor.org/stable/40444071
- 16. Mingana, Alphonse. "Devil-worshippers: Their beliefs and their sacred books." *The Journal of the Royal Asiatic Society of Great Britain and Ireland* 48, no. (July 1916): 505–26. https://doi.org/10.1017/S0035869X00049364
- Noto Serif Yezidi. Available at: https://fonts.google.com/noto/specimen/Noto+Serif+Yezidi. Accessed 01 August 2023.
- 18. Omarkhali, Khanna. *The Yezidi religious textual tradition: From oral to written*. Wiesbaden: Harrassowitz, 2017.
- 19. Pirbari, Dimitri. and Kerim Amoev. *Ezidskaia pis'mennost'*. Tbilisi: Nekeri, 2013.
- Pirbari, Dimitri, Nodar Mossaki, and Mirza Sileman Yezdin. "A Yezidi manuscript: Mišūr of P'īr Sīnī Bahrī/P'īr Sīnī Dārānī, its study and critical analysis." *Iranian Studies* 53, nos. 1–2 (March 2020): 223–257. https://doi.org/10.1080/00210862.2019.1669118
- Rodziewicz, Artur. "Between Orthopraxy and Orthodoxy: International Yezidi Theological Academy in Tbilisi." *Kulturní studia*, no. 1(18) (May 2022): 81–116. https://doi.org/10.7160/ks.2022.180104
- 22. Rovenchak, Andrij. "Phoneme distribution, syllabic structure, and tonal patterns in Nko texts." *Mandenkan: Bulletin semestriel d'études linguistiques mandé*, 47 (2011): 77–96.
- 23. Rovenchak, Andrij. "Kil'kisnyĭ analiz system pys'ma: alfavit nko." Ukraïna moderna 27 (2019): 139–52. https://doi.org/10.30970/uam.2019.27.1066
- 24. Rovenchak, Andrij, Dimitri Pirbari, and Erdal Karaca. *L2/19-051R: Proposal for encoding the Yezidi script in the SMP of the UCS*. 2019. Available at: https://www.unicode.org/L2/L2019/19051r-yezidi.pdf. Accessed 01 August 2023.
- 25. Unicode[®] 13.0.0. Available at https://www.unicode.org/versions/Unicode13.0.0/. Accessed 01 August 2023.
- 26. Unicode FAQ. Available at https://home.unicode.org/basic-info/faq/. Accessed 01 August 2023.