Emergence of a new written culture: the use of Hebrew script among the Krimchaks and the Karaim¹

Abstract

Conversion to a religion usually has a positive impact on the written culture of a given community. The conversion may or may not result in the adoption of a new writing system. In the Turkic world, we find examples for both cases (Róna-Tas 1998). The Karaims, by their conversion into Karaitism, adopted the Hebrew script. They used the Hebrew alphabet up till the beginning of the 20th century in their everyday life for writing, for example, private letters, secular and religious texts in Karaim (Grzegorzewski 1917, Németh 2011, Olach 2013).

Another Turkic speaking group, the heterogeneous Rabbanite community of Krimchaks whose majority has Sephardic origin also used the Hebrew script to write their vernacular (Erdal & Ianbay 2000).

Some characteristics of the writing systems of the Karaims and of the Krimchaks have been described (Csató & Nathan 2007), but no comparative research has been carried out so far. In this study, the peculiarities of the Hebrew alphabet used by both Turkic speaking peoples will be discussed and illustrated. For instance, the new characters which were introduced in order to indicate specific Turkic phonetic values, and the ways the same Hebrew vowel sign or letter is used in the different Krimchak and Karaim manuscripts.

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Cultures can be classified based on actions taken to reproduce culture through the generations.

There are cultures in which the knowledge of one's ancestors is passed down through rites;

i.e. the repetition of the rites is the main component in the reproduction of the culture. In other

cultures, knowledge is preserved in sacred texts; i.e. interpretations of the canonical texts are

the foundations of cultural cohesion (Assmann 1999: 87–91).

Judaism falls under the latter type. In 70 CE, the Second Temple was destroyed in

Jerusalem; i.e. the place where the rites could have been repeated disappeared. Since then, the

holy text, the Hebrew Bible, has been the transmitter of the ancient traditions in Judaism. The

language and the script of the Hebrew Bible, therefore, are both considered sacred.

This paper discusses the way in which Judaism reached the Turkic peoples and the effects

it had on their culture. Examples will also be provided to illustrate how the Hebrew script was

used by the Turkic peoples.

Since Karaim is the most documented extant Turkic language to have used the Hebrew

script and the Karaim are the only Turkic group still practising their ancient faith, the paper

will mainly focus on the characteristics and the history of the Hebrew script used by the

Karaim. A discussion of the history of the Hebrew script in general and its use among the

Karaim in particular will shed light on the possible reasons for the use of certain vowel signs

and letters in Karaim texts and of the disappearance of the Hebrew script from the Karaim

communities.

1. Judaism among the Turkic peoples

Although Judaism has not been a prevalent religion among the Turkic-speaking peoples, both

mainstream Judaism and Karaitism have been represented by some Kipchak Turkic groups. In

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the late eighth and early ninth centuries, the ruling house of the Khazar Kaghanate converted to Judaism, most probably to Rabbinic Judaism (Golden 1998: 223). Khazars were a Turkic people with their empire in the territory of the North Caucasus and the lower Volga delta between the seventh and ninth centuries (Golden 1980: 58–67). Since the sources written by the Khazars are very limited (see Golden 1980: 121–122), the Hebrew script used by them will not be covered in the paper.

The Krimchaks were also followers of Rabbinic Judaism. Jews migrated from the Byzantine Empire to the Crimea in the eleventh and twelfth centuries, Sephardic Jews who migrated to the Crimean Kaghanate in the fourteenth to sixteenth centuries and Ashkenazi Jews from Eastern Europe together compose the Krimchak nation. Their language and culture has almost disappeared since World War II; now the traditional Krimchak lifestyle is only exemplified by Krimchak cuisine and feasts. The Krimchak community has dispersed throughout the world: a few hundred Krimchaks live still in the Crimea; the rest have settled in Russia, Ukraine, Israel and the USA (Kizilov 2009: 68).

Karaitism is represented by the Karaim of Eastern Europe. The Karaim have three main communities: the Crimean, Halich and Trakai Karaim communities. Linguistically, Karaim is considered a highly endangered language, since only its Trakai variety is spoken and the other two varieties, the Halich and Crimean varieties, can be regarded as extinct.² The religion of the Karaim is based on Karaitism, which was influenced by Islam early on and later by Christianity (Zajączkowski 1961: 28–29).³

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² Speakers of Crimean Karaim shifted to Crimean Tatar in the nineteenth century (Jankowski 2003: 123). The Halich Karaim variety is spoken by a few elderly ladies (Csató 2002: 135). The Trakai variety has, however, approximately 50 speakers (Csató 2006: 395).

³ The Karaim reject any definition which binds them or their religion to Judaism. See more on this question and on their religion in Harviainen 2003b.

The main difference between Rabbinic Judaism and Karaitism lies in the recognition of the post-biblical traditions. Karaite Judaism, which arose in the ninth century in present-day Iraq, only accepts the *Tanakh* and excludes the *Mishna*, the *Talmud* and the rabbinic traditions (Nemoy 1978: 603–604).

The circumstances and the date of the Krimchaks' conversion to Rabbinic Judaism and that of the Karaim to Karaitism are unknown (Golden 1998: 222–223; Polinsky 1991: 123).

2. The history of the Hebrew script⁴

In Judaism, the Hebrew language is considered the medium of the sacred text, and therefore the language itself is also regarded as holy (Weitzman 2001: 71). For writing in Hebrew, the Phoenician-based palaeo-Hebrew script was first used up to the third century BCE, when it was altered by the Aramaic script. The Aramaic script had been used for secular purposes before the third century, but after that the new script was also employed for Torah scrolls, i.e. for religious purposes (Birnbaum 1954–1957: 70–75; Yardeni 2002: 44–50). By that time, the general Aramaic script had become modified. This script, which is called Square Hebrew, spread in all Jewish communities and became the standard for Jewish book hand. The structural development of Square Hebrew ended around the tenth century (Birnbaum 1954–1957: 174).

Vocalisation was introduced in the late seventh and early eighth century CE. Of the three main vocalisation types – Palestinian, Babylonian and Tiberian – only the Tiberian type is still in use (Gaur 2001: 222–223; Yardeni 2002: 93–95).⁵

⁴ The term "Hebrew script" in Hebrew (*ktb* '*bry*) means the palaeo-Hebrew script (Birnbaum 1954–1957: 126). The term used in this paper refers to the script mentioned as '*swrit* in the Talmudic sources, i.e. a modified version of the Aramaic script (see the discussion).

⁵ For more about the different types of vowel marks, see Diringer (1953: 264–266).

Religions, as well as the alphabets used for sacred texts are, in general, considered conservative. What might account for the substitution of the palaeo-Hebrew script with the Aramaic script used for the Scriptures? Birnbaum claims that the change was introduced by religious leaders. The shift was motivated by a desire to separate from the Samaritans, or as Epiphanius (ca. 315–403) put it, "in order that the seed of Abraham should thereby be distinguished from the rest of the nation". The sources usually name Ezra as the person who carried out the substitution of the script, meaning that the change took place between 458/7 and 428/7 BCE (Birnbaum 1954–1957: 74–75).

In the Middle Ages, cursive hands also developed from Square Hebrew. In the beginning, the cursive hand was not really different from Square Hebrew but seemed much more like a simplified Square. The first cursive written documents occurred in the eleventh century, but Birnbaum assumes that this form of writing had evolved long before (1954–1957: 176).

Furthermore, in the course of time, with the spread of Judaism, not only cursive hands emerged, but also different types of Hebrew scripts, e.g. Negeb script, Ashkenazic type and Karaitic types.

No uniform Karaitic type of writing exists, but different types that developed regionally out of Jewish types can be observed. The first Karaite manuscripts – from Egypt – show similarities with the writings of the local (Rabbinic) Jewish type. Even later, when the differences are more significant, the Rabbinic influence can still be detected. The Karaitic types of Hebrew script can be classified as Southern Karaitic, Yevano-Karaitic, Northern Karaitic and Parso-Karaitic (Birnbaum 1954–1957: 312–316).

The Karaim manuscripts represent the Northern Karaitic type, which derived from the Yevano-Karaitic type in the Crimean region. However, the influence of the Ashkenazic type is noticeable, especially in sources written with cursive script (Birnbaum 1954–1957: 316).

3. Main characteristics of the Hebrew script used by the Turkic peoples

The communities of the Karaim and Krimchaks used Hebrew script to write down their own Turkic vernacular. Although the basis for the orthography of both Turkic-speaking groups is the same, i.e. the Hebrew alphabet, differences in the use of the Hebrew characters can be observed. In the following, I will demonstrate how the Hebrew script was used in the different Turkic communities: differences, regularities and exceptional cases will be illustrated.⁶

Sources used for the investigation

The following Karaim sources were used for the present examination: Halich Karaim poems published by Grzegorzewski (1903 and 1917), a Halich Karaim translation of biblical texts published by Olach (2013), partial texts published by Kowalski in 1929, a Trakai Karaim translation of the *Book of Proverbs* published by Firkovičius (2000), a translation of Psalm 91 into Trakai Karaim published by Csató (2011), Crimean Karaim translations of biblical texts published by Sulimowicz (1972) and Jankowski (1997) and private letters in Lutsk Karaim published by Németh (2011).

The Halich Karaim religious poems published by Jan Grzegorzewski in 1903 were written in the nineteenth century. The authors of the poems are Abraham Leonowicz, Josef Mordkowicz and Jakob Josef Leonowicz (Grzegorzweski 1903: 72–73). The two poems

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In this article, description the the Hebrew sciprt is based the Tiberian tradition. **Besides** certain the Tiberian tradition, links the pronunciation of Hebrew among Karaim shows traces of the Sephardic tradition Harviainen future, well, see more in 2013b (453-457).In the the connection between the pronunciation of Hebrew and the use of Hebrew script for writing Turkic must be studied in details.

published in *Język łach-karaitów* were written by Josef Ben Jeshua and Josef ben Shemuel in the seventeenth century (Grzegorzewski 1917: 25, 30).

The Halich Karaim translation of the biblical texts published by Olach forms parts of a family bible which is in the possession of the Abrahamovich family, who originally lived in Halich. It is handwritten and contains the Five Books of Moses and the *Haphtarot*, the reading portions from the writings of the prophets on Sabbaths and feasts (Olach 2013: 10–12).

Some fragments of Karaim Bible translations written in the Hebrew script were published by Kowalski: the beginning of *Genesis* from a manuscript written in 1723 in Deraźnia; fragments of the *Book of Job*: a fragment in Trakai Karaim translated by Zacharja Mickiewicz in 1904, another fragment in Trakai Karaim translation published by Radloff, a further portion in Trakai Karaim translated by Pinachas Malecki, a fragment in Halich Karaim translated by Josef Mordkowicz between 1824 and 1830, and a portion translated into Crimean Karaim, quoted from the Gözleve Bible (1841); fragments of translations of the *Song of Songs* in Halich Karaim and in a Crimean Karaim translation of the Gözleve edition (1929: 282–289).

Short parts of four different Trakai Karaim translations of the *Lamentations* were presented by Zajączkowski (1932). One of the translations was made by Izajasz Rojecki in 1848, the other was created in 1860 by Levisz Ławrecki, and another one was composed by Jozef Łobanos in 1929. No author and date of the fourth translation is known (Zajączkowski 1932: 183, 186–187).

The translation of the *Book of Proverbs* from Hebrew into Trakai Karaim was compiled in 1798 by Shelumiel, the son of the aged priest Shemuel, in Salocius, Lithuania. According to Firkovičius, it is unclear whether the text was originally translated by him or whether it was only a rewritten version of an earlier translation (2000: 169–170).

Csató published the Trakai Karaim translation of Psalm 91 (2011). The manuscript is kept at the Library of the Lithuanian Academy of Sciences.

Prayers translated into Crimean Karaim were published by Sulimowicz in 1972. Besides the Karaim texts in transcription, the article contains the copy of the manuscript as well (Sulimowicz 1972: 65–76).

Jankowski published the Crimean Karaim translation of the following biblical texts: *Genesis* 1:1–18; 6:9–18; 17:8–19; *Deuteronomy* 32:1–51; *Lamentations* 4:11–15, 21. The manuscript of these texts is kept in the Rylands Library collection in Manchester. Jankowski published the texts with a transliteration and transcription, using a transliteration system that makes it possible to reconstruct the Hebrew orthography (1997).

Two fragments of prayers for the Day of Atonement translated into Lutsk Karaim were published by Jankowski (2011). The prayers were composed of biblical quotations in 1940; and the manuscripts were kept in the National Museum in Halich (Jankowski 2011: 158). Copies of the manuscripts are attached to the article (Jankowski 2011: 166–167).

Letters and circulars written in Lutsk Karaim were published by Németh (2011). Most of the 16 letters were written in the nineteenth century; only three of them were penned in the early twentieth century. Out of the 16 letters, six are vocalised and four are partly vocalised (Németh 2011).

As for Krimchak, there were only a limited amount of texts written in the Hebrew script at my disposal. All the features demonstrated in the following are based on the short texts published by Ianbay (2000) and the description given by Chernin (1988). Furthermore, I used Erdal and Ianbay's publications, in which they provide an account of the use of the Hebrew script in the *Book of Ruth* (1998) and the *Book of Miracles and Wonders* (2000).

Ianbay (2000) discusses the orthographic features of Krimchak translations of the books of later prophets, namely the books of Isaiah, Jeremiah, Hosea, Joel, Amos, Obadiah, Jonah and

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⁷ It must be noted that the Lutsk Karaim letters are different from the rest of the documents used in the present study by being secular texts (private letters).

Micah, and presents the beginnings and the ends of each book in Hebrew script. Examples will be quoted from Ianbay's article (2000) and from the *Book of Ruth* (Ianbay & Erdal 1998).

Vocalisation

Biblical Hebrew distinguishes between reduced, short, changeable long and unchangeable long vowels, which are clearly indicated through the use of different vowel signs and their combinations (see the table below (Lambdin 1971: XIII–XXV)).

Table 1. Hebrew orthography

Hebrew orthography	Value of the vowel in			
	Hebrew ⁸			
pá <u>t</u> aḥ ়	short a			
qā́mes;	changeable long a			
səğōl ्	short e (open)			
șērê ়	changeable long e (closed)			
hîreq ़	short i			
ḥốlem '	changeable long o			
qibbûş ्	short u			
Combinations with <i>yōd</i> ,				
səgōl combined with a	unchangeable long e			

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⁸ The value of Hebrew vowels can change according to stress patterns; see, for instance, the rules of vowel reduction (Lambdin 1971: XIX–XX). For more, see the chapter "Sound and spelling" in Lambdin (1971: XV–XXVIII).

Hebrew orthography	Value of the vowel in
	Hebrew ⁸
<i>yō₫</i> 'ؚ	(open)
sِērê + yōd 'ٍ	unchangeable long e
	(closed)
hîreq combined with yōd	unchangeable long i
় •	
Combinations with wāw 1	
ḥốlem + wāw i	unchangeable long o
šûreq 1	unchangeable long u
Reduced vowels	
ḥāṭēp̄ páṯaḥ ᢩ	reduced a
ḥāṭēp̄ səḡōl ॣ	reduced e
šəwā	reduced vowel

The Krimchak and the Karaim sound system, however, only contain short vowels (Polinsky 1991: 133; Pritsak 1959: 327). Therefore, naturally, the quality of the Hebrew vowel signs does not overlap the quality of the Krimchak and Karaim vowel signs.

In vocalised Krimchak texts, the front and back labial vowels, i.e. $o \sim \ddot{o}$ and $u \sim \ddot{u}$ are not distinguished (Erdal & Ianbay 2000: 41). The Hebrew combination $h \ddot{o} lem + w \bar{a} w$ is used to

represent o and \ddot{o} , whereas $\ddot{s}\hat{u}req$ denotes u and \ddot{u} , e.g. פֿוֹג'לּוּנֶא $\ddot{k}\ddot{o}\eta l\ddot{u}ne^{o}$ 'to her heart', אוֹג'לָן oylan 'boy' and בּוּלָאיי bulay 'thus, this way' (Ianbay & Erdal 1998: 7, 13). 10

As for Karaim, we must consider the phonetic differences between the Karaim varieties. In Halich and Lutsk Karaim, due to the change $\ddot{o} > e$, $\ddot{u} > i$, there are no front labial vowels represented, e.g. אַרַיִּנְיֵּנְי 'third' $< \ddot{u} \ddot{c} \ddot{u} \ddot{c} \ddot{u}$ 'third' in Halich Karaim (Pritsak 1959: 327; Olach 2013: 24), סֵיְלִיְרְנֵי 'sezlerńi 'words (ACC)' $< s\ddot{o}z$ lerni 'words (ACC)' (Németh 2011: 372). In Crimean Karaim translation of biblical texts published by Jankowski, the distinction is not indicated in the non-vocalised parts; i.e. $w\bar{a}w$ is used to represent the vowels o, \ddot{o} , u and \ddot{u} . In vocalised texts, however, the vowels o and \ddot{o} are signified by the Hebrew vowel sign $h\ddot{o}$ lem or by $h\ddot{o}$ lem $+ w\bar{a}w$, whereas \ddot{s} ûreq indicates the vowels u and \ddot{u} (Jankowski 1997: 4, 6), e.g. אַרַּצִּרְיְ מֵיִנְיִ יְרָנִי יְנִי יְנִי יְנִי יְנִי 'because, for' (Kowalski 1929: 287), בּוֹשַׁטְלִיקְלֵּך 'remissions', יוּרוּמַה 'because, for' (Kowalski 1929: 287), יוּרוּמַה 'because, for' (Kowalski 1929: 287), יוּרוּמַה 'because, for' (Younda'), קּוּלִי יִרְנִי יְנִי יְנִי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִי יִנִּי יִנִי יִנִי יִנִּי יִנִי יִנִּי יִנִּי יִנִּי יִנִי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִּי יִנִי יִנִי

Trakai Karaim has a well-developed set of signs for indicating the distinction. In vocalised texts, the Hebrew vowel sign combination $h \delta lem + w \bar{a}w$ is the usual notation for the vowel o and $s \hat{u} req$ represents the vowel u. Trakai Karaim uses vowel sign combinations with $v \bar{v} d$ to indicate front labial vowels. Thus, the vowel \ddot{o} is written with $v \bar{v} d + h \delta lem + w \bar{u} w$, and $v \bar{v} d +$

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⁹ Since the use of the Hebrew script is discussed in the present study, in the quoted examples, the original transcription systems used by the different authors were maintained, except in the case of Halich Karaim and those texts which has no transcription at all.

¹⁰ In the fragments published by Ianbay, the quality of labials are not plainly marked, e.g. סוז $s\ddot{o}z$ 'word', דוְסְטְלַרִים 'dostlarim' my friends', כורגון $k\ddot{o}rg\ddot{u}n$ 'look!', בו bu 'this' (2000: 8–9).

Table 2. The representation of labial vowels in Krimchak and Karaim

Hebrew	Value of the	Krimchak	Crimean	Trakai	Halich	Lutsk
orthography	vowel in		Karaim	Karaim	Karaim	Karaim
	Hebrew					
ḥốlem .	changeable	-	o, ö	0	0	О
	long o					
qibbûş ្	short u	u	-	u	u	u
	Combinations with <i>wāw</i> 1					
<u> </u> hốlem + wāw	unchangeable	o, ö	o, ö	0	0	О
i	long o					
šûreq 1	unchangeable	u, ü	u, ü	u	u	u
	long u					
	Combinations with $y\bar{o}\underline{d}$,					
<u>h</u> ốlem + wāw	-	-	-	ö	-	-
+ <i>yō₫</i>						
šûreq + yōd	-	-	-	ü	-	-

The case of the vowels a, e and \ddot{a} is rather complicated. In Krimchak, the vowel a is indicated by either the vowel sign $p\acute{a}ta\dot{h}$ or the vowel sign $q\acute{a}me\dot{s}$ in vocalised texts, e.g. יור 'there is/are' and קאצָן $qa\check{c}an$ 'when' (Ianbay & Erdal 1998: 6, 10), קאצָן $qarda\check{s}lar\ddot{i}m$ 'my

In the Crimean Karaim texts, only the Hebrew vowel sign $s\bar{e}r\hat{e}$ occurs in the vocalised parts, and it represents the vowel e in the first syllable. Besides $s\bar{e}r\hat{e}$, the vowel sign $sa\bar{g}\bar{o}l$ is also used in the first syllable in the Crimean Karaim prayers, e.g. אָרָלְּגָּמִז 'you (ACC)', אָרָלְּגָּמִז 'our madness' (Sulimowicz 1972: 66). Just like the vowel a, the vowel \ddot{a} is indicated by the vowel sign $p\acute{a}tah$, e.g. אַרָּדְּרָ $mend\ddot{a}n$ 'from me' in the Book of Job (Kowalski 1929: 287), אָרָלְּבָּלָּא $bil\dot{a}n$ 'with', אַשְּׁטְמֵּדְרַ $bil\dot{a}n$ 'with', בְּלָּךְ $bil\dot{a}n$ 'with', בּלָּרָ $bil\dot{a}n$ 'with', בּלָּרָ $bil\dot{a}n$ 'with' either with the combination of the vowel sign $bil\dot{a}n$ from $bil\dot{a}n$ (Kowalski 1929: 287), פּנֵּא $bil\dot{a}n$ 'to the sky' (Kowalski 1929: 287), יוּרוּמָה $bil\dot{a}n$ 'to the sky'; or with $bil\dot{a}n$ (Kowalski 1929: 287), יוּרוּמָה $bil\dot{a}n$ 'to the sky'; or with $bil\dot{a}n$ (Kowalski 1929: 287), $bil\dot{a}n$ 'to walk', $bil\dot{a}n$ 'to us', $bil\dot{a}n$ 'to us' (Sulimowicz 1972: 65–66).

The vowel a is generally indicated with the Hebrew vowel sign $p\acute{a}\underline{t}a\dot{h}$, e.g. אַטַלְרִיק $atalar\ddot{u}$ 'their fathers (ACC)' (Kowalski 1929: 287), יַזִיקְלִי jazyqly 'sinful', אַטַלְרִימְזְנָג atalarymyznyn 'of

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¹¹ In the *Book of Ruth*, Erdal and Ianbay only use e in the transcription; however, the idea that the two different vowel signs, $s\bar{e}r\hat{e}$ and $s\bar{o}s\bar{o}l$, represent probable phonetic differences is introduced (1998: 6).

our fathers' (Sulimowicz 1972: 65). The vowel sign combination $p\acute{a}\underline{t}a\dot{h}$ + ' $\acute{a}le\bar{p}$ or $q\acute{a}me\dot{s}$ + ' $\acute{a}le\bar{p}$ is used, in general, in final position, e.g. אָרְלָמָלָה qylmama(q)qa 'for not doing' (Sulimowicz 1972: 65). Rarely, the combination $q\acute{a}me\dot{s}$ + $h\bar{e}$ occurs in back words in final position, e.g. אַלְדְגָּה aldynah 'in front of you' (Sulimowicz 1972: 65).

Similarly, in the Trakai Karaim sources, the opposition of the vowels e and \ddot{a} is signified by $s\bar{e}r\hat{e}$ and $p\acute{a}\underline{t}a\dot{h}$, but in combination with $y\bar{o}\underline{d}$, i.e. $s\bar{e}r\hat{e}+y\bar{o}\underline{d}$ indicate the vowel e and $p\acute{a}\underline{t}a\dot{h}+y\bar{o}\underline{d}$ represent the vowel \ddot{a} , e.g. בֵּיצִיאנִין $ke\check{c}\ddot{a}nin$ 'of the night' from Psalm 91 (Csató 2011: 15). Further vowels and combinations, e.g. $s\bar{e}r\hat{e}$, $s\bar{o}s\bar{g}\bar{o}l$ and $s\bar{o}s\bar{g}\bar{o}l+y\bar{o}\underline{d}$, are only used sporadically.

The vowel sign páṭaḥ is usually used in Trakai Karaim to indicate the vowel a, e.g. מַיַא maṭa 'to me' in the Book of Job translated by Pinachas Malecki (Kowalski 1929: 285). The Hebrew vowel sign qāmeṣ occurs rarely, often next to the consonant y, e.g. יִינִייָדן janijdan 'from your side' in Psalm 91 (Csató 2011: 15).

The Halich Karaim sources display the greatest variety in signifying a- and e-sounds. The e-sounds are indicated with the following Hebrew vowels signs and combinations: $s\bar{e}r\hat{e}$, $s\bar{o}g\bar{o}l$, $s\bar{e}r\hat{e} + y\bar{o}d$ and $s\bar{o}g\bar{o}l + y\bar{o}d$. Certain tendencies can be observed in the use of the different vowel signs and their combinations. The Hebrew vowel signs combined with $y\bar{o}d$ are the usual forms used for writing e-sounds, whereas $s\bar{e}r\hat{e}$ and $s\bar{o}g\bar{o}l$ without $y\bar{o}d$ only occur in certain lexical and grammatical forms, e.g. c (night', בִיצִיא c c inight', יִבְּיִרְיִּכְיִרִי reśimlerimni 'my statues (ACC)' and יָבְּיִר 'God' (Olach 2013: 31–37). The vowel sign c is not used to represent the vowel c.

The vowel signs and their combinations $s\bar{e}r\hat{e}$, $s\bar{o}g\bar{o}l$, $s\bar{e}r\hat{e}+y\bar{o}d$ and $s\bar{o}g\bar{o}l+y\bar{o}d$ occur in vocalised texts written in Lutsk Karaim. The vowel e is usually signified by the vowel sign $s\bar{e}r\hat{e}$ or $s\bar{e}r\hat{e}+y\bar{o}d$, e.g. זֵרָט zeret 'cemetery' and יַניצֵי nece 'several' (Németh 2011: 378), אִיזְלֵנִיז $s\bar{e}r\hat{e}$ (seek! (PL)', פֿיִכְיִרְלֵּרִים $s\bar{e}r\hat{e}$ fikirlerim 'my thoughts' (Jankowski 2011: 166). The vowel sign

 $s ilde{\sigma} ar{g} ar{o}l$ and the vowel sign combination $s ilde{\sigma} ar{g} ar{o}l + y ar{o}d$ are only used in in a few words: 'קּרְר 'cod', 'grita' $E ilde{s} wowičke$ 'to E in E in the Lutsk Karaim prayers, the use of $s ilde{\sigma} ar{g} ar{o}l$ and $s ilde{\sigma} ar{g} ar{o}l + y ar{o}d$ is not exceptional: קינְדִידִיר ektemlik 'pride', אָיוְרֶטְטַן 'iwretsen' if you teach', סֵינְדֵידִיר ektemlik 'pride', אָיוְרֶטְטַן 'iwretsen' if you teach', סֵינְדֵידִיר ektemlik 'pride', אַיוְרֶטְטַן 'cou' (Jankowski 2011: 166–167).

The graphic representations of a-sounds show great variation both in Halich Karaim and Lutsk Karaim materials: $p\acute{a}ta\dot{h}$, $p\acute{a}ta\dot{h}$ + ' $\acute{a}le\bar{p}$, $q\acute{a}mes$ and $q\acute{a}mes$ + ' $\acute{a}le\bar{p}$, e.g. קּוֹזְלַסִינְלָּר qozlasinlar 'let them teem' and צָאן dzan 'soul' in Halich Karaim (Olach 2013: 24–31) as well as סֵלְנָן saladan 'from village' and בּוֹלְנֵאי bolhaj 'should be' (Németh 2011: 380, 381). The vowel sign $p\acute{a}ta\dot{h}$ is the most used variant. It seems that the allographs with ' $\acute{a}le\bar{p}$ in medial position represent a kind of prominence in certain words.

Table 3. The representation of α -sounds and e-sounds

Hebrew	Value of the	Krimchaks	Crimean	Trakai	Halich	Lutsk
orthography	vowel in		Karaim	Karaim	Karaim	Karaim
	Hebrew ¹²					
pá <u>t</u> aḥ ᢩ	short a	a	a, ä	a	a	a
qā́mes़्	changeable	a, o	a, ä	a	a	a
	long a					
səgōl ्	short e (open)	ä	e	e	e	e
șērê ့	changeable	e	e	e	e	e

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¹² The value of Hebrew vowels can change according to stress patterns; see, for instance, the rules of vowel reduction (Lambdin 1971: XIX–XX). For more, see the chapter "Sound and spelling" in Lambdin (1971: XV–XXVIII).

Hebrew	Value of the	Krimchaks	Crimean	Trakai	Halich	Lutsk
orthography	vowel in		Karaim	Karaim	Karaim	Karaim
	Hebrew ¹²					
	long e					
	(closed)					
Combinations	with yōd,					
$s\partial \bar{g}\bar{o}l + y\bar{o}\underline{d}$	unchangeable	-	-	e	e	e
,	long e (open)					
ç ē rê + yō <u>d</u> 'ِ	unchangeable	e	-	e	e	e
	long e					
	(closed)					
$p\acute{a}\underline{t}a\dot{h} + y\bar{o}\underline{d}$		-	-	ä	-	-
Combinations with 'ālep x						
pá <u>t</u> aḥ + 'ā́lep̄	-	-	-	a	a	a
ু প্			(only in			
			final			
			position)			
qā́meṣ +	-	a	-	a	a	a
'ā́lep̄ ห ়			(only in			
			final			
			position)			

In Hebrew, the vowel sign hîreq signifies the short i, whereas the combination of hîreq + $y\bar{o}d$ indicates the unchangable long i. Since no long vowels exist in Krimchak and Karaim, the two forms represent no distinction in length. On the other hand, as in Turkic languages in general, front i and back \ddot{i} are distinguished in spoken languages. So the question arises: do the two types of i-sounds in Krimchak and Karaim manuscripts correspond to the two written forms in Hebrew? The investigation clearly shows that the different written forms only represent graphic variants. Even if there are two ways of writing the i-sounds, the distribution of these do not correspond to the possible distribution of the front i and back i, e.g. ביביכ kibik 'like', ייגִיט yigit 'young man' and קִילִיץ qïlič 'sword' (Ianbay & Erdal 1998: 7, 10), אָגְלַיים iglayïm 'I shall cry', דוּסָטָלַרִים 'išleriniz 'your works', דוּסָטָלַרִים 'dostlarim 'my friends', בִיר bir 'one' in Krimchak (Ianbay 2000: 8–9); גִיבִּי gibi 'like' and אַטַלְרִין atalarin 'their fathers (ACC)' in Crimean Karaim (Kowalski 1929: 287); כִּיבִיכ kibik 'like' and אָטֶלֶרִין atalaryn 'their fathers (ACC)' in Trakai Karaim (Kowalski 1929: 285); סִיווְלְדִילֶיר tiwildiler 'they are not', קְּטִּנְגָא tiwildiler 'they are not', אָטִוּנָאָ qatinga 'to the woman', אִיצִינְצִי icinci 'third' and צִיקְטִיק ciqtiq 'we went out' in Halich Karaim (Olach 2013: 24); and בֵישִינְצִי beśińći 'fifth' and קיָרְק kyrk 'forty' in Lutsk Karaim (Németh 2011: 378).

Consonants

Basically, the Krimchak and Karaim consonants in the manuscripts correspond to the Hebrew originals. Therefore, I will not go into a detailed description of the manner in which consonants are represented in Krimchak and Karaim here. Only a few special features will be mentioned.

Hebrew offers an option to indicate fricative consonants. When a dot called a *dagesh* is used in a consonant letter, it means the consonant is pronounced as a plosive, i.e. b, p, d, t, k and g. When the dot is missing, the pronunciation changes to a fricative, i.e. v, f, δ , θ , χ and γ .

In Turkic manuscripts written with the Hebrew alphabet, the *dagesh* is usually not used. However, it can be found in the Krimchak text published by Erdal and Ianbay and in the Crimean Karaim text in the Gözleve edition, e.g. סוב suv 'water' and אַקבּשָׁ bašqa 'other' in Krimchak (Ianbay & Erdal 1998: 10, 13) as well as קּיבִיט kuwatï 'its strength' and יִיבּי gibi 'like' in Crimean Karaim (Kowalski 1929: 287). See also the table of consonant letters used in the *Book of Ruth* in Erdal & Ianbay (1998: 14).

Besides, an apostrophe-like mark called a *geresh* following the consonant is employed in the Krimchak texts to indicate the fricatives v and χ , γ and f, e.g. אַזְגְיאנָא $az\gamma ana$ 'a little' and 'mister, sir' (Ianbay & Erdal 1998: 13), אורמגיא (baš) az an - bz 'king', אורמגיא (baš) az an - bz 'to bow' (Ianbay 2000: 5–6). The az an - bz combined with the letter az an - bz denotes also the nasal sonorant az an - bz 'dawn' (Ianbay & Erdal 1998: 12), ייגי az an - bz 'iyen-nin' 'LORD', or az an - bz 'it was written' (Ianbay & Erdal 1998: 12).

A further feature can be observed in Krimchak. The letter gimel is written with a dot to indicate the affricate j, e.g. j, j an 'soul' (Ianbay & Erdal 1998: 11), קוייגו qoyju 'herdman' (Ianbay 2000: 6). 13

Fricative consonants are usually indicated in Krimchak and Karaim texts with a short line above the consonant called a $r\bar{a}\bar{p}eh$. Its use is, however, rather inconsistent (see below the written form of tatuwu 'its taste' in Halich Karaim).

The set of consonants with $r\bar{a}\bar{p}eh$ is mainly common in Karaim and Krimchak ($b\hat{e}\underline{t}+r\bar{a}\bar{p}eh$ = $\bar{5}$, $g\hat{i}mel+r\bar{a}\bar{p}eh=\bar{5}$, $p\bar{e}h+r\bar{a}\bar{p}eh=\bar{5}$), but the combination of $ka\bar{p}+r\bar{a}\bar{p}eh=\bar{5}$ can only be observed in Krimchak, Crimean Karaim and Lutsk Karaim texts to indicate fricative χ , e.g. \bar{c} saŋa 'to you', יַבְּשִׁ 'yaxĕy 'good' (Sulimowicz 1972: 66), אַבֿא $\chi asta$ 'sick' (Németh 2011: 382), אַלִּיסְלָרִין $\chi aytuwcutarha$ 'to those who act', אַלִּיסְלָרִין sahystaryn 'their thoughts'

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¹³ Ianbay transcribes the word as qoyji, but the use of $w\bar{a}w$ clearly indicates a labial vowel in final position.

(Jankowski 2011: 166). Certain signs only occur in Krimchak texts, such as $d\hat{a}le\underline{t} + r\bar{a}\bar{p}eh = \bar{\tau}$ and $t\bar{a}w + r\bar{a}\bar{p}eh = \bar{n}$. The following Hebrew letters with $r\bar{a}\bar{p}eh$ are only used by authors in the Lutsk Karaim variety: $z\acute{a}yin + r\bar{a}\bar{p}eh = \bar{\tau}$ to represent \check{z} and $s\acute{a}me\underline{k} + r\bar{a}\bar{p}eh = \bar{\sigma}$ to indicate \acute{s} , e.g. 'סֹיבֿייר 'śiwer 'dear, beloved' (Németh 2011: 397, 376).

The diacritical mark $r\bar{a}p\bar{e}h$ was used in masoretic and older manuscripts, and it is still used in Yiddish. Certain letters which were/are characteristic of medieval Hebrew and Yiddish are used in Turkic texts, e.g. double $w\bar{a}w$ and double $y\bar{o}d$, see below.

The writing of v-sounds shows a number of variations. In Turkic texts, single and double $w\bar{a}w$ and the letter $b\hat{e}\underline{t}$ and $b\hat{e}\underline{t}$ with $r\bar{a}p\bar{e}h$ are used to represent v-sounds, e.g. in Trakai Karaim (ACC) and אוֹלְטוּרוּבְצוּ olturueta eu 'dweller' in Psalm 91 (Csató 2011: 15); אוֹר יוֹני awur 'heavy', אַווּדוּן awzun 'its mouth (ACC)' and טטוּבוּ tatuwu vs. שטוּבוּ tatuwu 'its taste' in Halich Karaim (Olach 2013: 40); and עטוּבוּ tatuwu 'its taste' in Halich Karaim (Olach 2013: 40); and אַרוּב tatuwu 'answer' in Lutsk Karaim (Németh 2011: 390). Furthermore, the combination of the letter $b\hat{e}\underline{t}$ and a tatuwu 'answer' in Krimchak, e.g. tatuwu 'aruvlan- 'to become pure' (Ianbay & Erdal 1998: 13).

Spoken Karaim contains palatised consonants due to Slavic influence (Pritsak 1959: 328). According to Pritsak, the palatalised consonants are systematically represented by $y\bar{o}d$ in Trakai Karaim and partly in Halich Karaim texts (Pritsak 1959: 326). If we consider how the examples provided by Pritsak are written in the Trakai Karaim translation of the *Book of Proverbs*, we see the following: 14

Table 4. The function of the Hebrew letter $y \bar{o} \underline{d}$ in Trakai Karaim texts

Words in Pritsak's transcription	Words occurring in the <i>Book of Proverbs</i>
d'äyiń 'until, till'	דֵייִן

¹⁴ Examples were taken from Pritsak (1959: 332-333).

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üśt'uńa 'onto'	איוּסָטיוּנֵיא
öź 'self'	איוֹז

4. History of the Hebrew script among the Turkic peoples

The notion that conversion to a religion results in the establishment of the alphabet of that particular religion is generally accepted. Since there is no written historical evidence for a conversion to Judaism among the Turkic-speaking peoples, no circumstances of the introduction of the Hebrew script into the Turkic groups are known.

However, it is not only the lack of historical sources that poses challenges in the study of the Turkic-Hebrew script, but also, for example in the case of the Krimchaks, the shortage of materials published in their language and of scholarly studies on the use of the Hebrew script for it. It is thus an important task to locate additional sources and make them available for future investigations into the Krimchak language and orthography.

The history of the Hebrew script used in Turkic-speaking groups is much better documented in the Karaim communities; i.e. the most publications in the Hebrew script are available in Karaim and it is the changes in the orthography used by the Karaim that can best be examined. Therefore, in the following, I describe the history of Karaim orthography and the key factors that shaped its development.

In the Middle Ages and up to the beginning of the nationalist movements in the nineteenth century, the collective identity was usually based on religion, e.g. the self-identification of the Krimchaks was *yehudi* 'Jews' or *srel balalari*" 'children of Israel' until the end of the nineteenth century, when they started to call themselves Krimchaks (Zand & Kharuv 2007: 357). Similarly to the Krimchaks, the Karaim used religion-based terms for themselves, such as *yehudim* 'Jews' or *yehudim qara'im* 'Karaim Jews' (Harviainen 2003a: 642).

Certain changes in Karaim self-identification ensued in the early nineteenth century after most of the Karaim communities fell under the control of the Russian Empire with the partition of Poland in 1772, 1793 and 1795.

In 1795, the Crimean Karaim sent a delegation to St. Petersburg to request an exemption from the double taxation levied on Jews in the Russian Empire. Claiming that they were Karaites, they succeeded in persuading the Russian authorities to exempt the Karaim from paying double taxes (Harviainen 2003a: 648).

In 1827, the Karaim again sent a delegation to St. Petersburg to be released from the military service expected of Jews in return for paying a special tax. The process continued with the official separation from the administrative bodies of the Rabbanite Jews in 1837 with the establishment of the Karaim Spiritual Consistory (Harviainen 2003a: 649).

The nationalist movement in nineteenth-century Europe also influenced the Karaim movement, is as captured in their desire to seek out their origins, which prompted them to turn

¹⁵ Harviainen calls this period "Emancipation" (2003a: 648–651).

to their Turkic roots and to strengthen their Turkic self-identification. Shifting from a religious minority to an ethnic minority caused many changes, for instance in their attitude to the Karaim language. Soon the Karaim started to publish in their vernacular, e.g. *Zemerler*, a collection of Karaim canonical and semi-canonical poetry and the literary almanac *Onarmach* 'Development, Success'. Moreover, their Karaim language was introduced into the ceremonies held in *kenesa*, the house of prayer (Harviainen 2003a: 650).

The growing gap between Rabbanite Jews and the Karaim and the change in selfidentification and attitude towards the language of the Karaim also caused changes in their attitude towards the Hebrew script that the Karaim had used for centuries.

First, the Crimean Karaim community switched from the Hebrew orthography. They shifted from Karaim to Crimean Tatar – and also to Russian – during the nineteenth century. They had therefore lost their ability to read the Hebrew script by that time. They also introduced the Cyrillic alphabet for writing Karaim texts (Csató & Nathan 2007: 211). The first publication with the new alphabet was a book of poems (*Yrlar* 'Poems') written in 1904 by Kobiecki, a Russian officer of Karaim descent, in the Trakai Karaim variety (Shapira 2003: 676). The new literacy tradition still continues among the Karaim of Russia.

Halich and Trakai Karaim communities used Hebrew script up to Soviet times, but they also developed a Latin script based on Polish orthography (Csató & Nathan 2007: 212). Among the first publications in this alphabet was a journal, the *Karaj awazy* edited by Aleksander Mardkowicz from 1931 on, and a dictionary, the *Karaj sez-bitigi* 'Karaim Dictionary' published also by Aleksander Mardkowicz in 1935.

World War II prompted new changes in Karaim orthography. Lithuania fell under the supremacy of the Soviet Union, and thus the medium of education became Lithuanian and

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¹⁶ For publications in Karaim language, see Walfish (2003). For a periodisation of Karaim literature, see Shapira (2003: 665–666).

Russian. Since then, the Trakai Karaim community started to use Cyrillic orthography. In order to escape Russian control, many members of the Halich Karaim community migrated from their homeland to Poland during the Soviet period and continued to use the Polish-based Latin alphabet (Csató & Nathan 2007: 213).

The collapse of the Soviet Union resulted in another change in the Karaim orthography as the Lithuanian-based Latin orthography was created in the Karaim community of newly independent Lithuania, e.g. *Karaj koltchalary* ('Prayers of Karaim') edited by Mikolas Firkovičius and published in 1993, *Mień karajče ürianiam* ('I learn Karaim') written by Mikolas Firkovičius and published in 1996.

Nowadays, the Karaim are not literate in the Hebrew script.

5. Conclusions

The history of the Karaim and the history of Karaim orthography show an interesting parallelism with the European nationalist movements that started in the nineteenth century. At the outset, the Karaim movement had a religious background, since the desire to be dealt with separately from the Rabbanite Jews in the region motivated the first actions.

Later, however, the movement entered the domain of ethnic issues. This was, on the one hand, inspired by representatives of the Russian authorities who, in 1839, put a number of questions related to the origins of the Karaim and their faith to the Karaim Spiritual Consistory (Harviainen 2003c: 880). This change in the Karaim movement was also the result of influence from the surrounding societies with whom the Karaim had constant and close contact. As Harviainen states: "it would be a real miracle if the Karaims ... had remained untouched by other national movements [in Europe] (Zs. O.)" (2013a: 53).

Although the theory of a Khazar origin was first deeply investigated by Abraham Firkowicz, who was entrusted by the Karaim to ascertain the answers to questions from the

Russian authorities, according to Troskovaite, it was Seraja Szapszal who played the most important role in the formation of a pure Turkic self-identification among the Karaim (2013: 217).

It is also remarkable how the orthography reflects a parallel history with Karaim self-identification. As long as the Karaim regarded themselves as Karaite believers, the Hebrew language and the Hebrew script played an almost exclusive role in Karaim written culture. The strengthening of Turkic self-identification, however, had a weakening effect on the importance of the Hebrew language and thus on the use of the Hebrew script.

Nevertheless, it would be narrow-minded to disregard the role of contemporary political and historical circumstances in the process of shifts in orthography. For instance, the language, religion and minority policy of the Soviet Union contributed to the disappearance of religious practice, e.g. among Krimchaks, and to the dispersion of communities – including those of the Karaim. As a result, the Turkic vernacular vanished among the Krimchaks and that of the Karaim has become extremely endangered.

References

- Assmann, Jan 1999 A kulturális emlékezet. Írás, emlékezés és politikai identitás a korai magaskultúrákban. (Translated from Das kulturelle Gedächtnis. Schrift, Erinnerung und politische Identität in fr-hen Hochlulturen. Verlag C. H. Beck, München, 1992) Budapest: Atlantisz Könyvkiadó.
- Birnbaum, Salomon A. 1954–1957. The Hebrew script 2: The plates. Leiden: Brill.
- Chernin, Vladimir Yurevich 1988. Krymčakskoe proiznošenie ivrita, in *Sinxronija i diaxronija v lingvističeskix issledovanijax*, *Volume 2*, ed. Vera I. Podlesskaya, Moskva: Akademija Nauk SSSR, 166–174.
- Csató, Éva Á. 2002. The Karaim language in Halych, in *Halych Karaims: History and culture* (Materials of International Conference, Halych, 6–9 September 2002), ed. Leonid Novochat'ko & Oleksandr Fedoruk & O. Beregovśkij. Lviv–Halych: Vidavnictvo, 135–139.
- Csató, Éva Á. 2006. The smallest group of Turkic-speaking people, in *The Turkic speaking world.* 2000 years of art and culture from Inner Asia to the Balkans, ed. Ergun Çagatay, Munich: Prestel Verlag, 384–403.
- Csató, Éva Á. 2011. A typological coincidence: Word order properties in Trakai Karaim biblical translations, in *Puzzles of language*. *Essays in honour of Karl Zimmer*, Turcologica, ed. Bengisu Rona, Eser Erguvanlı-Taylan, Wiesbaden: Harrassowitz, 1–18.
- Csató, Éva Ágnes & Nathan, David 2007. Multiliteracy, past and present, in the Karaim communities, in *Language Documentation and Description 4*, ed. Peter K. Austin, London: Hans Rausing Endangered Languages Project, 207–230.

- Diringer, David 1953. *The alphabet. A key to the history of mankind*, Watford: William Brendon & Son. (first published in 1949)
- Erdal, Marcel & Ianbay, Iala 2000. The Krimchak Book of Miracles and Wonders, Mediterranean Language Review 2000/12, Wiesbaden: Harrassowitz, 39–141.
- Firkovičius, Mykolas 1996. Mień karajče ürianiam. Vilnius: Danielius.
- Firkovičius, Mykolas 2000. *Šelomonun mašallary*, Türk Dil Kurumu Yayınları: 771, Ankara: Ankara Üniversitesi Basımevi.
- Gaur, Albertine 2001. Semitic scripts, in *Concise Encyclopedia of Language and Religion*, ed.

 John F. A. Sawyer, J. M. Y. Simpson, Amsterdam New York Oxford Shannon
 Singapore Tokyo: Elsevier, 220–226.
- Golden, Peter 1980. Khazar Studies. An Historico-Philological Inquiry into the Origins of the Khazars. Volume 1, Budapest: Akadémiai Kiadó.
- Golden, Peter 1998. Religion among the Qipčaqs of Medieval Eurasia, *Central Asiatic Journal* 42, 180–237.
- Grzegorzewski, Jan 1903. Ein türk-tatarischer Dialekt in Galizien: Vokalharmonie in den entlehnten Wörtern der karaitischen Sprache in Halicz, Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien, Philosophisch-historische Klasse 146, 1–80.
- Grzegorzewski, Jan 1917. Caraimica: Język Łach-Karaitów: Narzecze południowe (łucko-halickie), *Rocznik Orientalisticzny* 1–2, 252–296.
- Harviainen, Tapani 2003a. The Karaites in Eastern Europe and the Crimea: An overview, in *Karaite Judaism. A guide to its history and literary sources*, Handbook of Oriental Studies 1: 73, ed. Meira Polliack, Leiden–Boston: Brill, 634–655.
- Harviainen, Tapani 2003.b The Karaites in contemporary Lithuania and the former USSR, in *Karaite Judaism. A guide to its history and literary sources*, Handbook of Oriental Studies 1: 73, ed. Meira Polliack, Leiden–Boston: Brill, 827–854.

- Harviainen, Tapani 2003c. Abraham Firkovich, in *Karaite Judaism. A guide to its history and literary sources*, Handbook of Oriental Studies 1: 73, ed. Meira Polliack, Leiden–Boston: Brill, 875–892.
- Harviainen, Tapani 2013a. The rise of Karaim cultural nationalism, *Karaite Archives 1*, 45–58.
- Harviainen, Tapani 2013b. Karaite pronunciation tradition: Modern, in *Encyclopedia of Hebrew language and linguistics*. Vol. 2, ed. Geoffrey Khan, Leiden–Boston: Brill, 453–457.
- Ianbay, Iala 2000. New data on the literature and culture of the Krimchaks, *Manuscripta Orientalia* 6/4, 4–13.
- Ianbay, Iala & Erdal, Marcel 1998. The Krymchak translation of a *Targum Šeni* of the Book of Ruth, *Mediterranean Language Review* 10, 1–53.
- Jankowski, Henryk 1997. A Bible translation into the Northern Crimean dialect of Karaim, *Studia Orientalia* 82, 1–84.
- Jankowski, Henryk 2003. On the language varieties of Karaims in the Crimea, *Studia Orientalia* 95, 109–130.
- Jankowski, Henryk 2011. Two prayers for the Day of Atonement in translation into the Luck-Halicz dialect of Karaim, in *Eastern European Karaites in the last generations*, ed. Dan D.
 Y. Shapira, Daniel Lasker, Golda Akhiezer, Mikhail Kizilov, Jerusalem: Ben-Zvi Institute for the Study of Jewish Communities in the East of Yad Izhak Ben-Zvi & The Center for Research on the History and Culture of Polish Jews and the Hebrew University of Jerusalem, 156–170.
- Kizilov, Mikhail 2009. The Karaites of Galicia. An ethnoreligious minority among the Ashkenazim, the Turks, and the Slavs, 1772–1945, Leiden–Boston: Brill.

- Kowalski, Tadeusz 1929. *Karaimische Texte im Dialekt von Troki*, Kraków: Polska Akademja Umiejętności.
- Lambdin, Thomas O. 1971. *Introduction to Biblical Hebrew*, New York: Darton Longman and Todd.
- Mardkowicz, Aleksander 1935. *Karaj sez-bitigi. Słownik karaimski. Karaimisches Wörterbuch*. Łuck: Drukarnia Richtera.
- Németh, Michał 2011. *Unknown Lutsk Karaim letters in Hebrew script (19th–20th centuries).*A critical edition, Studia Turcologica Cracoviensia 12, Kraków: Jagiellonian University Press.
- Nemoy, Leon 1978. Karaites, in *The Encyclopaedia of Islam* IV, ed. Emeri van Donzel, Bernard Lewis, Charles Pellat, Leiden–Boston: Brill, 603–608.
- Olach, Zsuzsanna 2013. *A Halich Karaim translation of Hebrew biblical texts*, Turcologica 98, Wiesbaden: Harrassowitz Verlag.
- Polinsky, Maria S. 1991. The Krymchaks: History and texts, *Ural-Altaische Jahrbücher* 63, 123–154.
- Pritsak, Omeljan 1959. Das Karaimische, in *Philologiae turcicae fundamenta 1*, ed. Jean Deny, Kaare Grønbech, Helmuth Scheel, Zeki Velidi Togan, Wiesbaden: Franz Steiner Verlag, 318–340.
- Róna-Tas, András 1998. Turkic writing systems, in *The Turkic languages*, ed. Lars Johanson & Éva Á. Csató, London–New York: Routledge, 126–137.
- Shapira, Dan 2003. The Turkic languages and literatures of the East European Karaites, in *Karaite Judaism. A guide to its history and literary sources*, Handbook of Oriental Studies 1: 73, ed. Meira Polliack, Leiden–Boston: Brill, 657–707.
- Sulimowicz, Józef 1972. Materiał leksykalny krymskokaraimskiego zabytku językowego (druk z 1734 r.), *Rocznik Orientalistyczny 35*, 37–76.

- Troskovaite, Dovile (2013) Identity in transition: The case of Polish Karaites in the first half of the 20th century. *Codrul Cosminului* 19 (2), 207–228.
- Walfish, Barry D. 2003. Karaite press and printing, in *Karaite Judaism. A guide to its history* and literary sources, Handbook of Oriental Studies 1: 73, ed. Meira Polliack, Leiden–Boston: Brill, 925–959.
- Weitzman, Michael 2001. Judaism, in *Concise Encyclopedia of Language and Religion*, ed.

 John F. A. Sawyer, J. M. Y. Simpson, Amsterdam New York Oxford Shannon
 Singapore Tokyo: Elsevier, 68–72.
- Yardeni, Ada 2002. *The book of Hebrew script. History, palaeography, script styles, calligraphy & design*, London-New Castle: The British Library & Oak Knoll Press.
- Zajączkowski, Ananiasz 1932. Przekłady Trenów Jeremjasza w narzeczu trockokaraimskiem, *Rocznik Orientalistyczny* 8, 181–192.
- Zajączkowski, Ananiasz 1934. Przekłady Trenów Jeremjasza w narzeczu trocko-karaimskiem (tekst i słowniczek), *Rocznik Orientalistyczny* 10, 158–177.
- Zajączkowski, Ananiasz 1961. Karaims in Poland. History. Language. Folklore. Science, Warszawa: Państwowe Wydawnictwo Naukowe.
- Zand, Michael & Kharuv, Dan 2007. Krimchaks, in *Encyclopedia Judaica*. (*Second Edition*)

 Vol. 12, ed. Fred Skolnik, Michael Berenbaum, Detroit New York San Fransisco –

 New Haven Waterville London: Macmillan Reference, 357–360.