Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation Internationale de Normalisation
Международная организация по стандартизации

Doc Type: Working Group Document
Title: Proposal for encoding the Szekler-Hungarian Rovas in the BMP and the SMP of the UCS
Source: Dr. Gábor Hosszú
Status: Individual Contribution
Action: For consideration by JTC1/SC2/WG2 and UTC
Date: 2008-10-04

This document is intended to be an alternative of the proposal N3483 (2008-08-03) that corrects the mistakes of the proposal N3483. It contains each glyph of the proposal N3483, therefore in this sense it is upper compatible to that. However, the concept of the current proposal is fundamentally different from of the proposal N3483.

It contains the proposal summary form.

Please send any responses to this proposal to Dr. Gábor Hosszú (email: hosszu@eet.bme.hu).

Contents

1. Introduction

The *Szekler-Hungarian Rovas* (Runic) is a contemporary writing system of the Hungarians. Its origin has not clarified scientifically, but the oldest, proved records are 1100 years old at least [104]. It was continuously used during the whole Hungarian history even if it was not officially used. From the 19th century it became more and more popular. Nowadays the use of the Szekler-Hungarian Rovas is very extensive, e.g. there are Rovas script in the public places on street-plates that means that many people knows about the Rovas writing and a lot of them can read it. Another example: *All poetries of János Arany* [16] in Szekler-Hungarian Rovas in the Hungarian Electronic Library, where there are many books written in Szekler-Hungarian Rovas script [17]. In Szeklerland (Transylvania, Romania) more and more Szekler villages and towns write their name on the town-border-plates with Latin and Rovas scripts, too. An example of these is shown in the *Fig. 14.11-12* [98].

Since the Szekler-Hungarian Rovas has no any relation with the Germanic Runes, therefore the use of the Hungarian-origin word "***Rovas***" is preferred (in Hungarian: *Rovás*) to the "*Rune*". This term is not new in the English literature; it is used by a lot of researchers in English, e.g. [19]. The main concept if this proposal is the following:

> **The existence and the *continuous* usage of the Szekler-Hungarian Rovas are proved from the 9th century to nowadays.**
>
> **Therefore the starting point of this proposal is that the Szekler-Hungarian Rovas is a *contemporary script*.**

This approach is opposite to the concept of the previous proposals (e.g. N3483) that are based especially on very few ancient relics, only.

An old proposal (N1638, 1997-09-18) for encoding the Szekler-Hungarian Rovas (in the name of "Old Hungarian") targeted this script to the SMP as a non-contemporary script. However, following the *Principles and Procedures for Allocation of New Characters and Scripts and handling of Defect Reports on Character Names (N3452)* the high-utility characters should be encoded into the BMP [83]. As the Appendix (*Chapter 14*) proves, the Szekler-Hungarian Rovas's use is extensive based on the number of printed and online materials and the number of the community, about 100.000 users and this is dynamically increasing based on the high popularity of the Szekler-Hungarian Rovas among the

Hungarians. The users live in the following areas: Hungary, Romania (Transylvania), Slovakia, Serbia (Vojvodina), Austria (Burgenland), Ukraine (Trans-Carpathian Territories), Croatia, Slovenia and among the world-wide diasporas of the Hungarians and Hungarian speakers. Therefore this proposal basically targeted to the BMP. However, due to the fact that the BMP is almost full, a part of the repertoire of the Szekler-Hungarian Rovas character set is targeted to the SMP.

The name "*Old Hungarian*" that is used in the previous proposals (e.g. N3483) is based on some inaccurate or incorrect descriptions of the Szekler-Hungarian Rovas. The "*Numeric list of script codes*" registered by the ISO 15924 Registration Authority [99] is faulty; there the Szekler-Hungarian Rovas is registered in the name "Old Hungarian". The name "Old Hungarian" can be originated from that incorrect view of the Szekler-Hungarian Rovas that it was destroyed in the Middle Ages and after then it become an extinct writing. The Appendix of this proposal (*Chapter 14*) proves the continuous use of this writing. However, the name itself is also faulty, in the Hungarian science the "Old Hungarian" term is used for the oldest version of the Latin-based Hungarian script. E.g. the description in *The Linguist List* at the Eastern Michigan University is inaccurate [100]. The existence of this faulty view of the Szekler-Hungarian Rovas script is the reason of the detailed and large collection of the Rovas relics in this proposal (*Chapter 14*, the *Appendix*).

In the history this script was mainly called as Scythian or Szekler or Hunnish alphabet (*Chapter 14*), however, the term "Rovas" was also used. The advantage of the name "Szekler-Hungarian Rovas" is that it contains partly one of the historical names of this script (Scythian or Szekler or Hunnish alphabet).

2. Fundamental Principles

The fundamental principles of the Szekler-Hungarian Rovas are listed in *Table 2-1*. All statements are detailed and proved in the rest of the document.

The Principles of the Szekler-Hungarian Rovas
It is a unique Hungarian product and elementary part of the cultural heritage, that was created by Hungarians and their ancestors in the historical times. Its roots are subject of further scientific research.
It is a pronunciation and character based script with extensive use of the ligatures and ideograms.
Its existence and usage is already firmly proved from as early as the 9th century. However, there are numerous similar but unproved evidences from earlier ages too.
Since than up to now, its usage is continuous without any break and it never became an extinct script.
It uses both the left-to-right and the right-to-left directions, but the latter is the dominant one. Furthermore the boustrophedon and the top-to-bottom direction, as well as the organic motif-building usage in the fine arts are also possible; however, they are not frequently applied. The general rule is that any of these directionalities are acceptable.
According to the character facing, the main principle is that the faces of the characters are opposite (mirrored images) in the two kinds of horizontal writing directions. However, it is possible to write in any direction with non-mirrored characters used in right-to-left

The Principles of the Szekler-Hungarian Rovas

directionality, too.

In the 8-bit encoding "*Rovás Szabvány*" de facto standard from 1995 was accepted by the **7th World Congress of the World Federation of Hungarians** in 2008 [87] as preferred character set of the Rovas. The *Rovás Szabvány* has to be the basis of the encoding to the UCS. As compatibility characters all characters of the *Rovás Szabvány* need individual code points in order to fulfill the round-trip convertibility principle of the Unicode.

There are a few (12 pieces) special symbols (called "*bug symbols*"), which are not ligatures. Some of them are similar, but there is not any proof that they would be glyph variants of each other. They originated from oldest history of the Szekler-Hungarian Rovas that is why it is very important for the Rovas writers to encode all of them with individual code points in the UCS.

Due to the parallel usage of the Szekler-Hungarian Rovas and the Hungarian Latin scripts, from the Middle Ages a convergent development started in the Hungarian alphabets: a lot of Rovas writers like to use all Hungarian letters as individual characters in the Rovas then they use in the Hungarian Latin alphabet. The last stage of this convergent process was the development of seven absent characters (six letters and a number) in the latest one and half decade and their use became popular among the a part of the Rovas writers. That is why this proposal extends the 8-bit encoding *Rovás Szabvány* with these seven modern Hungarian Rovas characters. The use of these extensions is not obligatory; instead of them the characters of the "*Rovás Szabvány*" can also be used.

The Unicode standard is intended to encode different *characters* and not different *glyphs*. That is why this proposal usually proposes only one code point for each character independently from the number of glyph variants. However, the older version of the Rovas vowels "OE", "OEE", and "UEE" had to be included into the proposal. Its reason is that these glyphs have various usages either historically or contemporarily. The use of the current and the "OLD" variants of these vowels are not interchangeable, since their domains are different. Namely these glyphs can represent various numbers of different vowels in the various branches of the Rovas usage (e.g. the Ҡ [OE] can mean *ö* /ø/ or *ő* /øː/, the Ѧ [UEE] can mean *ü* /y/ or *ű* /yː/, or the [OLD OE] Ꙁ can mean the *ö* /ø/, *ő* /øː/, *ü* /y/, or *ű* /yː/). Therefore besides the recommended characters (OE, OEE, UE, UEE) the usage of the additional historical characters (e.g. "OLD OE", "OLD OE2", "OLD OEE", and "OLD UEE") is also possible.

This proposal introduces the casing, too. The casing was not part of the de facto standard 8-bit encoding *Rovás Szabvány*, but from the Middle Ages there is a sporadic usage of the casing, of which percentage is increasing. Since currently there is a mass production of the literature in Rovas, the casing in the character set is necessary.

Table 2-1: The principles of the Szekler-Hungarian Rovas.

3. Specialties of the Szekler-Hungarian Rovas

3.1. Directionality

Its directionality in the oldest time was right-to-left, and this remained the dominant writing direction. However from the Middle Ages the left-to-right direction appeared and in the contemporary use a serious part of the Szekler-Hungarian Rovas activity is based on the left-to-right direction. In case of the left-to-right direction either the mirrored characters (according to the right-to-left direction) or the non-mirrored characters are used. The boustrophedon and the top-to-bottom direction is also possible, however, they are very infrequently applied.

From the Middle Ages there are examples for the both writing directions, also in the contemporary usage there are left-to-right and right-to-left legacies. Directional overrides can be applied if necessary. When the direction of characters is changed, they can be mirrored, however, it is not obligatory.

The *Table 3.1-1* presents the relics that written in left-to-right directionality. This collection proves that the both directionalities are acceptable based on the relics. An example of a special direction is seen on *Fig. 14.10-12*. Its direction is similar to the boustrophedon.

Szekler-Hungarian Rovas legacy documents with left-to-right directionality	Year
Constantinople inscription [51], see *Fig. 14.6-4/a, b, c*	1515
Poem of István Szamosközy against Emperor Rudolf II [43] (the title is right-to-left) see *Fig. 14.7-1*.	1604
Mixed (Latin-letters and Rovas) inscriptions of the temple Beregkeresztúr [23]	1619
Entry of Pál Jancsó [23]	From the end of the 17th century to the beginning of the 18th century
Stone with Rovás inscripted from Parajd [23]	1754
Letter of János Zakariás [46], see *Fig. 14.8-8*	1756
Wood gourd [40], see *Fig. 14.9-6*	19th century
Nándor Jankovich's Home Page [21] (the subscription is right-to-left)., see *Fig. 14.11-3*	From 2000-
Rovas Writing Home Page [25], see *Fig. 14.10-16/a and b*	From 1995-
Jövőbenéző ("*Future Spectator*") on-line Szekler-Hungarian Rovas script journal [48], see *Fig. 14.11-15*	From 2008-
Balassa György's site [58], see *Fig. 14.11-18*	20th century
Szekler Rovas Writer Home Page [62], see *Fig. 14.11-23*	From 1997-
A Christian song [25], see *Fig. 14.11-27/a*	2008
Rovas Standard keyboard design [95], see *Fig. 14.11-33*	2008

Table 3.1-1: Some examples of the left-to-right directionality

3.2. The bug symbols

The Rovas numbers, the ligatures, and the so-called *bug-symbols* are inherent parts of the Szekler-Hungarian Rovas. The original meaning of the bug-symbols has not been explored, the oldest description call them as "*capita dictionum*" ("*the head of the words*") [7]. This sentence can be seen on the *Fig. 14.6-5 (*The *Rudimenta Hunnorum* by János Telegdi). A bug-symbol: 𝄃, its name is: „nap" (means „*sun*" in Hungarian). The existence of the bug-symbols proves the ancient roots of the Szekler-Hungarian Rovas. The *Table 3.2-1* shows the collection of the bug-symbols.

Rovas Character	Transcription
ЖС	amb
�	and
ⵣ	ant
ⵞ	emp
ⵟ	ent
ⵕ	mb
𝄃	nap
ⵚ	nb
ЖС	tpru
ⵥ	tprus
Ж	unk
ⵔ	us

Table 3.2-1: The collection of the "bug" symbols.

4. Character encoding activity so far

In *1993 Dr. Gábor Hosszú* developed *8-bit encoded* character sets of the Szekler-Hungarian Rovas (called *Rovas_MA* and *Rovas_KET*) and he developed an appropriate *Rovas Standard Keyboard Layout* fitted to the properties of the Szekler-Hungarian Rovas writing and he created the fonts of his character sets. The *Fig. 4-1* presents the keyboard map of the Szekler-Hungarian Rovas characters (© Dr. Hosszú Gábor, 1993.) on the Standard English keyboard [25].

Q = ⵣ	W = ⵁ	E = ⵉ	R = ЖС	T = Ж	Y = V	U = M	I = ⵏ	O = ⵛ	P = ⵟ
q = ⵢ	w = ⵏ	e = ⵣ	r = N	t = ⵏ	y = I	u = ⵗ	i = ⵜ	o = ⵛ	p = ⵣ

A = ⵒ	S = I	D = ⵥ	F = ⵀ	G = ⵞ	H = ⵀ	J = ЖС	K = ⵗ	L = ⵔ	
a = ⵒ	s = ⵀ	d = ⵜ	f = ⵔ	g = ⵀ	h = ⵥ	j = ⵏ	k = ⵗ	l = ⵀ	

	Z = ⵉ	X = Ж	C = N	V = ⵠ	B = Ж	N = ⵗ	M = ⵥ	?	:
	z = ⵞ	x = Ж	c = ⵜ	v = M	b = Ж	n = ⵗ	m = ⵣ	,	. = .

Figure 4-1: The de facto standard Rovas Keyboard Layout of the Szekler-Hungarian Rovas created by Dr. Gábor Hosszú in 1993 [25]

There are small differences in the modern, and the ancient Szekler-Hungarian Rovas alphabets, therefore different Rovas character sets were developed in the 20th century. One was designed by the highly regarded expert Adorján Magyar at the beginning of the 20th century (see *Fig. 14.10-3*). Another character set was developed by Győző Libisch and it was accepted by the *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture* (see *Fig. 14.10-9*). Lastly a third character set is developed by the widely acknowledged Rovas expert Sándor Forrai (see *Fig. 14.10-13*).

In *1995 Dr. Gábor Hosszú* developed the "*Rovás Szabvány*" (*Runic Standard* in Hungarian) character set, an 8-bit encoding and the appropriate fonts (*rovstd.ttf* and *rovstdjb.ttf,* they have mirrored characters for the two directions of the Szekler-Hungarian Rovas) changing his previous character set (*Rovas_KET*) in order to comply with the uniform character set of Rovas writing expert *Győző Libisch* (*http://rovasirashonlap.tar.hu/betuk*) that had been accepted by the *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture* in 1989 (see *Fig. 14.10-9*). The Rovás Szabvány character set contains the collection of the historical ligatures. Győző Libisch and Dr Gábor Hosszú collected together this set. Since Dr. Gábor Hosszú published the "*Rovás Szabvány*" in 1995 in the Internet as a freeware product, from this time the Szekler-Hungarian Rovas writers mainly use this 8-bit encoded character set (some examples among many others: [20], [21], [22]).

In order to serve the roundtable compatibility among the documents created by the three character set, Dr. Gábor Hosszú made three additional fonts after creating the *Rovás Szabvány* with the *same* 8-bit encoding schema. One is called the *Rovás FS*, which used the characters of the *Sándor Forrai*, another is the *Rovás MA*, used by *Adorján Magyar* [3]. Lastly Dr. Gábor Hosszú designed the *Rovás V1* that contains special, infrequently used character shapes.

It is very important that the four fonts use the same 8-bit encoding table. So if one writes a text by using a standard-coded Rovas font (e.g. Rovás Szabvány), it can be printed by using any other standard-coded Rovás font (e.g. Rovás V1). Naturally, all of them have left-to-right, as well as right-to-left versions due to the special bidirectionality property of the Rovas. The shapes of the letters are the same in the left-to-right and right-to-left paiers but mirror images in them. The name of the right-to-left versions: Rovás Szabvány jb, Rovás FS jb, Rovás MA jb, and Rovás V1 jb. (Note: „jb" is the Hungarian abbreviation of the right-to-left expression.)

The users of any of these three character sets (plus the *Rovas V1* as specialty) used compatible encoded TrueType fonts, so they compatible documents were able to create. The three character sets differ from each other in 4 characters (Forrai vs. Libisch-Hosszú) and in 21 glyphs (Magyar Adorján vs. Libisch-Hosszú), however the total number of the characters is much larger, 125. The unified *Rovás Szabvány* (in Hungarian "*Rovas Standard*" and its encoding schema became a de facto standard. The "*Rovás Szabvány*" character set (125 characters including the standardized historical ligatures) was unchanged from 1995 to July 12th 2008.

The 8-bit encoding *Rovás Szabvány* character set is widely used in the everyday Rovas writing activity as a de facto standard. A lot of books and web-based publications (including journals) are published that use the *Rovás Szabvány*.

The Szekler-Hungarian Rovas schools use these various Rovas character sets (or their minor variations). However, their differences are small and the main tendency is their convergence. Due to the needs for standardization this process accelerated in 2008. In 2008 July 12 the *First Hungarian Rovas (Runic) Writing Standardization Meeting* was organized in Budapest, Hungary at the Budapest University of Technology and Economics. The main result of this meeting was a unification of three most frequently used character sets of the Szekler-Hungarian Rovas: the Magyar Adorján-based one [65], the Sándor Forrai-based one and the Libisch Győző-Dr. Hosszú Gábor-based one (called *Rovás Szabvány*). In that time the representatives of the two large Rovas writing schools *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture* and the *Sándor Forrai Runic Writer Association* made an agreement (*Fig. 4-2*) in order to create a generally unified character set. This novel one is also called

Rovás Szabvány since it has a minor difference only from the previous version of the *Rovás Szabvány* in glyphs. Furthermore there was not any modification in the (8-bit) code chart.
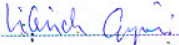
Since the modified *Rovás Szabvány* unified the three most widely used alphabets [34]; from the date of this agreement many Rovás groups and individual Rovas writers joint to support the unified *Rovás Szabvány*.
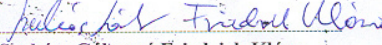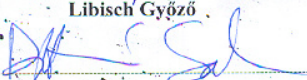
Agreement and Declaration

Libisch Győző as the secretary of the **Runic Writing Section of the Society of the Friends of the Old Hungarian Culture**, Szakács Gáborné Friedrich Klára expert and Szakács Gábor president of the **Forrai Sándor Runic Writer Association**, and **Dr. Hosszú Gábor** Associate Professor as the maker of the **Rovás Szabvány (Runic Standard)** computerized font agree and declare that they accept the ABC bellow called **Rovás Szabvány (Runic Standard)** as the only one standard runic ABC in case of the right-to-left directed writing. In case of the left-to-right writing the same ABC is used but with mirrored characters.

Runic	Latin		Runic	Latin		Runic	Latin		Runic	Latin
	a			t			csa			re
	á			ty			csin			ri
	b			aty			du			ro
	c			u			emp			rt
	cs			ú			ent			ru
	d			ü			ga			sa
	e			ű			ge			se
	é			v			gi			si
	closed-e			z			go			sk
	f			zs			ha			sm
	g			1			he			so
	gy			5			hi			sp
	h			10			ho			st
	i			50			it			szt
	í			100			irt			ti
	j			1000			la			tpru
	k			ab			lá			tprus
	deep-k			ad			le			tya
	l			al			lo			ul
	ly			amb			lt			um
	m			and			mb			unk
	n			ant			na			ur
	ny			ar			nap			us
	o			att			nb			va
	ó			ár			nc			vár
	ö			ba			nd			za
	ő			be			ngy			zr
	p			bet			ni			zt
	r			bi			nk			separator
	s			bo			nt			
	as			cak			or			
	sz			ck			ra			

Budapest, 12th July, 2008.

Libisch Győző

Szakács Gáborné Friedrich Klára

Dr. Hosszú Gábor
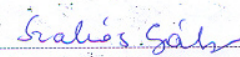
Szakács Gábor

Figure 4-2: Agreement and declaration of the unified *Rovás Szabvány* alphabet accepted by the two large Szekler-Hungarian Rovas schools in July 12, 2008, Budapest [34].

In 2008 July 12 the *First Hungarian Rovas Writing Standardization Meeting* the clear majority of the Szekler-Hungarian Rovas expert participated in the conference signed an agreement about their requirements from the Unicode standardization as the *Fig. 4-3* shows.

Declaration

The below representatives of the **Runic Writing Section of the Association of the Friends of the Old Hungarian Culture** and the **Sándor Forrai Runic Writer Association** and other researchers of the runic writings declare the followings:

The signaturies of this declaration state that they stand upon that the whole set of the short and long vowels of the current Hungarian language must be included into the planned UNICODE standard of the Old Hungarian Runic Writing (Rovásírás)., since this is the basic condition of the up-to-date usage of the planned Runic Writing standard. Furthermore they agree to take into consideration of the casing (differentiation of the lower case and upper case letters) and the reservation of the codes for the two-letter-ligatures (összerovás).

Budapest, 12th July, 2008.

Dr. Hosszú Gábor

Libisch Győző

Rumi Tamás

Sípos László

Szakács Gábor

Szakács Gáborné Friedrich Klára

Tisza András

Tiszáné Bencsik Mária

Dr. Záhonyi András

Figure 4-3: Agreement and declaration of the unified *Rovás Szabvány* (Szekler-Hungarian Rovas standard) alphabet accepted by the two large Szekler-Hungarian Rovas schools and other experts in July 12, 2008, Budapest [34].

The modified *Rovás Szabvány* defined in *Fig. 4-2* was accepted by the 7th *World Congress of the World Federation of Hungarians* in August 20, 2008 in Budapest [87].

Based on the information exchange after the First Hungarian Rovas Writing Standardization Meeting the *Community of the Szekler-Hungarian Rovas Writers* (*MRK*) was established. The main goal of this organization is to manage the standardization efforts of the Szekler-Hungarian Rovas. The members of the Community of the Szekler-Hungarian Rovas Writers accepted the de facto standard unified 8-bit encoding character set ("*Rovás Szabvány*") as the necessary minimum set of the Szekler-Hungarian Rovas characters to be standardized in the Unicode.

In October 4th, 2008 the participants of the "**Élő Rovás**" ("*Alive Rovas*") **Symposium** [106] supported with the resolution this current proposal (with the modification of the character "x", see *Section 5.3*) for

encoding the Szekler Hungarian Rovas in the Unicode Standard created by Dr. Gábor Hosszú and presented in this symposium. The home page of the symposium can be seen on the URL *http://rovasirashonlap.tar.hu/elorovas/*. The participants of the symposium have accepted the name "*Szekler-Hungarian Rovas*" against the "*Hungarian-Szekler Rovas*" as the name of the script.

5. Detailed description of the characters of this proposal

In the followings after the collection of the naming conventions the parts of the repertoire is detailed. *Section 5.2* gives the 8-bit encoding *Rovás Szabvány* then the *Section 5.3* presents the *non-historical* characters that were not included into the *Rovas Szabvány*. *Section 5.4* introduces that *historical* characters, which are not part of the *Rovás Szabvány*, but there they are in this proposal. The *punctuation* symbols and the reasoning of the *casing* are separately in *Chapter 6* and *Chapter 7*, respectively.

5.1. Naming conventions

In the Szekler-Hungarian Rovas the rules of naming of the characters are summarized in the *Table 5.1-1*.

The Naming Rules of the Szekler-Hungarian Rovas characters
The alphabet follows the current Latin-based Hungarian alphabet, since the Szekler-Hungarian Rovas in its development followed the Latin naming. This naming does not follow the names from the oldest relics but rather the current situation and customs.
The names of the ligatures are composed of the alphabetic names of their elements.
The names of the bug symbols strictly follow their historical names.
The numbers and the punctuation symbols get the appropriate English names of their meaning.

Table 5.1-1: The naming rules of the characters and other symbols in the Szekler-Hungarian Rovas.

There are characters (namely: TPRUS ❈, UE ꓶ and UEE Ꭻ) that has the same glyphs as the appropriate characters in another, earlier proposal N3483; however, in this document there names are different the names used in the proposal N3483. The *Table 5.1-2* introduces the reason of the differences in their names. Abbreviation in the *Table 5.1-2*: SZ.-H. R. L. = SZEKLER-HUNGARIAN ROVAS LETTER; O. H. L. = OLD HUNGARIAN LETTER (this is their name in the proposal N3483).

Szekler-Hungarian Rovas character names in the current proposal	Character names in the previous proposal N3483	Reasons of the differences
SZ.-H. R. L. TPRUS ❈	O. H. L. NIKOLSBERG ENT	In the Nikolsburg alphabet (15th century) this character is named as TPRUS and not ENT.
SZ.-H. R. L. UE ꓶ	O. H. L. RUDIMENTA UE	In the current proposal there is an "ü"=UE ꓶ as it was defined in the *Rovás Szabvány*, see *Fig. 5.2-1*. That is why the attribute "RUDIMENTA" is unnecessary here.
SZ.-H. R. L. UEE Ꭻ	O. H. L. NIKOLSBERG UE	In the current proposal there is an "ű"=UEE Ꭻ as it was defined in the unified 8-bit *Rovás Szabvány*, see *Fig. 5.2-1*. That is why

Szekler-Hungarian Rovas character names in the current proposal	Character names in the previous proposal N3483	Reasons of the differences
		the attribute "NIKOLSBERG" is unnecessary.

Table 5.1-2: Differences in the character names of the current and the previous proposal N3483, (SZ.-H. R. L. = SZEKLER-HUNGARIAN ROVAS LETTER; O. H. L. = OLD HUNGARIAN LETTER).

5.2. The characters of the unified 8-bit encoding *Rovás Szabvány*

Table. 5.2-1 presents the novel version of the *Rovás Szabvány* as it was modified in the unification in July 12th, 2008.

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
		Szekler-Hungarian Rovas Letters
႐	A	In Bologna stick calendar from the 13th century [36].
႐	AA	In Nikolsburg alphabet from the middle of the 15th century.
X	B	In Nikolsburg alphabet from the middle of the 15th century.
↑	C	In Nikolsburg alphabet from the middle of the 15th century.
Ⴈ	CS	In Nikolsburg alphabet from the middle of the 15th century.
✝	D	In Nikolsburg alphabet from the middle of the 15th century.
Ƨ	E	In Nikolsburg alphabet from the middle of the 15th century.
ﮒ	EE	In alphabets of István Miskolczi Csulyak from 1610-1645 [52] and Gáspár Miskolczi Gulyas' memory script from 1654 [8].
Ⴟ	CLOSE E	In Bologna stick calendar from the 13th century [36].
⊗	F	In Nikolsburg alphabet from the middle of the 15th century.
Λ	G	- On snaffle-stick from the 4th-9th centuries [23]. - In Nikolsburg alphabet from the middle of the 15th century.
‡	GY	In Bologna stick calendar from the 13th century [36].
⊠	H	In Nikolsburg alphabet from the middle of the 15th century.
†	I	In Nikolsburg alphabet from the middle of the 15th century.
⥁	II	In Bologna stick calendar from the 13th century [36].
⥁	J	In Nikolsburg alphabet from the middle of the 15th century.
◇	K	- On the Bodrog-Alsóbű relic from the 9th-10th centuries [23], [35]. - In Nikolsburg alphabet from the middle of the 15th century.
⇃	AK	- In Nikolsburg alphabet from the middle of the 15th century. - It was accurately used for in the Rudimenta [7].
Λ	L	In Nikolsburg alphabet from the middle of the 15th century.
⊘	LY	In Nikolsburg alphabet from the middle of the 15th century.
ⅎ	M	In Nikolsburg alphabet from the middle of the 15th century.
⟩	N	In Nikolsburg alphabet from the middle of the 15th century.
Ð	NY	In Nikolsburg alphabet from the middle of the 15th century.

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
Ɔ	O	In Nikolsburg alphabet from the middle of the 15th century.
ꙅ	OO	In the Csíkszentmiklós-Csíkszentmihály Inscription from 1501 [1].
K	OE	In the Csíkszentmiklós-Csíkszentmihály Inscription from 1501 [1].
ꝝ	OEE	- The two alphabets of István Miskolczi Csulyak from 1610-1645 [52]. - Alphabet of Kapossi from about 1700 [23] - Alphabet from the book of Mátyás Bél from 1718 [24]. - Alphabet of Lipsius from about 1715 [23]. - Alphabet of Adorján Magyar from the beginning of the 20th century [3].
ꝶ	P	In Nikolsburg alphabet from the middle of the 15th century.
Ꞃ	R	In Nikolsburg alphabet from the middle of the 15th century.
Λ	S	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century (with smaller glyph modification)
λ	AS	In the copy of *the Inscription from Csíkszentmiklós-Csíkszentmihály*, created by Imre Simonchicz in 1751 [4]
ǀ	SZ	In Nikolsburg alphabet from the middle of the 15th century.
Ⴤ	T	In Nikolsburg alphabet from the middle of the 15th century.
Ж	TY	- On snaffle-stick from the 4th-9th centuries [23]. - In Bologna stick calendar from the 13th century [36].
Ж	ATY	In Nikolsburg alphabet from the middle of the 15th century [91].
Ⴈ	U	In Nikolsburg alphabet from the middle of the 15th century [91].
Ⴈ	UU	In the Rudimenta of János Telegdi from 1598 [7].
५	UE	In the Rudimenta of János Telegdi from 1598 [7].
¤	UEE	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century [91]. - The Szekler alphabet of Gyula Németh from 1934 [91]
M	V	In Nikolsburg alphabet from the middle of the 15th century [91].
Ⱨ	Z	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century (with smaller glyph modification) [91].
Ⴒ	ZS	In Nikolsburg alphabet from the middle of the 15th century [91].
Szekler-Hungarian Rovas "Bug" Symbols		
ƆƆ	AMB	In the Rudimenta of János Telegdi from 1598 [7]
Ж	AND	In Nikolsburg alphabet from the middle of the 15th century [91].
⥂	ANT	- In Bologna stick calendar from the 13th century [36]. - In brick inscription from Székelyderzs from the 15th century [44]. - In the Rudimenta of János Telegdi (its name is not clear, maybe "ant", maybe "ent") from 1598 [7]
ⱷ	EMP	In Nikolsburg alphabet from the middle of the 15th century [91].
Ⴒ	ENT	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century [91].
Ⱡ	MB	- In the Constantinople inscription from 1515 [42], [51].
ꝝ	NAP	The alphabet and sentences of Franciscan monk János Kájoni from 1673 [8].
Ⴈ	NB	Bologna stick calendar from the 13th century [36], see *Fig. 14.4-1/a*
ƆƆ	TPRU	- In the Rudimenta of János Telegdi from 1598 [7] - Alphabet and script samples of Péter Bod in 1739 [23]
※	TPRUS	In Nikolsburg alphabet from the middle of the 15th century [91].

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
Ж	UNK	In Nikolsburg alphabet from the middle of the 15th century [91].
Φ	US	In Nikolsburg alphabet from the middle of the 15th century [91].

Szekler-Hungarian Rovas Separator

·	SEPARATOR	In the Rudimenta of János Telegdi from 1598 [7].

Szekler-Hungarian Rovas Numbers

Ι	ONE	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].
V	FIVE	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].
X	TEN	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].
⋎	FIFTY	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].
Ж	ONE HUNDRED	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].
⁂	ONE THOUSAND	Numeral Rovas stick from Kiskunhalas from the end of the 19th century [4].

Szekler-Hungarian Rovas Historical Ligatures

Ж	AB	In the Constantinople inscription from 1515 [42], [51].
₸	AD	In the Rudimenta of János Telegdi from 1598 [7].
℟	AL	In the Constantinople inscription from 1515 [42], [51].
�	AR	In the poem of István Szamosközi against emperor Rudolf from 1604 [43].
ⵌ	ATT	In the Constantinople inscription from 1515 [42], [51].
ⵌⵌ	AAR	In the Constantinople inscription from 1515 [42], [51].
Ж	BA	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript [8] from 1753. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42].
Ж	BE	- In the Rudimenta of János Telegdi from 1598 [7]. - In the poem of István Szamosközi against emperor Rudolf from 1604 [43]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
Ж	BET	In the legacy document by Mihály Bonyhai Moga and another (unknown) person from 1629 [50].
Ж	BI	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript [8] from 1753. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
Ж	BO	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript [8] from 1753. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
⇕	CAK	In Nikolsburg alphabet from the middle of the 15th century. (*That was named here as "ECK"*) [91].
⇕	CK	In Bologna stick calendar from the 13th century [36].
⋀⋀	CSA	- In the Rudimenta of János Telegdi from 1598 [7]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
⋙	CSIN	In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501.
⋈	DU	In Bologna stick calendar from the 13th century [36].
⋀⋀	GA	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript [8] from 1753. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
ᴣ	GE	Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ᴣ	GI	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript [8] from 1753.
ᴣ	GO	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ᛉ	HA	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ᛉ	HE	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ᛉ	HI	In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ᛉ	HO	- In the Rudimenta of János Telegdi from 1598 [7]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꟼ	IT	In the Constantinople inscription from 1515 [42], [51].
ꟼ	IIRT	In the Constantinople inscription from 1515 [42], [51].
ᴌ	LA	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ᴌ	LAA	In Bologna stick calendar from the 13th century [36].
ᴌ	LE	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ᴌ	LO	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ᴌ	LT	- In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꟍ	NA	- From the relic in Bodrog-Alsóbű from the 9th-10th century [35]. - In Bologna stick calendar from the 13th century [36].
ꟍ	NC	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꟍ	ND	- In Bologna stick calendar from the 13th century [36]. - In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501. - In the Constantinople inscription from 1515 [42], [51]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꟍ	NGY	In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꟍ	NI	In ligatures related to alphabet of Telegdi [4]
ꟍ	NK	- In Bologna stick calendar from the 13th century [36]. - In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꟍ	NT	- In Bologna stick calendar from the 13th century [36]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - In the Rudimenta of János Telegdi from 1598 [7].
ᛕ	OR	In the poem of István Szamosközi against emperor Rudolf from 1604 [43].

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
ꙮ	RA	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	RE	Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	RI	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	RO	Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	RT	- In the Constantinople inscription from 1515 [42], [51]. - In the Rudimenta of János Telegdi from 1598 [7]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42].
ꙮ	RU	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	SA	- In the Rudimenta of János Telegdi from 1598 [7]. - In the poem of István Szamosközi against emperor Rudolf from 1604 [43]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	SE	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	SI	- In Bologna stick calendar from the 13th century [36]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8].
ꙮ	SK	In Bologna stick calendar from the 13th century [36].
ꙮ	SM	In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501.
ꙮ	SO	- In the Rudimenta of János Telegdi from 1598 [7]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	SP	In Bologna stick calendar from the 13th century [36].
ꙮ	ST	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century with name: "EST" [91]. - In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501. - In the Rudimenta of János Telegdi from 1598 [7]. - In the poem of István Szamosközi against emperor Rudolf from 1604 [43]. - In the legacy document by Mihály Bonyhai Moga and another (unknown) person from 1629 [50]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
ꙮ	SZT	In the Constantinople inscription from 1515 [42], [51].
ꙮ	TI	In the Constantinople inscription from 1515 [42], [51].
ꙮ	TYA	In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501.
ꙮ	UL	In Bologna stick calendar from the 13th century [36].
ꙮ	UM	In the poem of István Szamosközi against emperor Rudolf from 1604 [43].
ꙮ	UR	In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501.
ꙮ	VA	- In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501. - In the legacy document by Mihály Bonyhai Moga and another (unknown) person from 1629 [50].
ꙮ	VAAR	In the Constantinople inscription from 1515 [42], [51].

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
⟨ZA glyph⟩	ZA	- In the Rudimenta of János Telegdi from 1598 [7]. - In Dési alphabet in the Marosvásárhelyi manuscript from 1753 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]
⟨ZR glyph⟩	ZR	In Csíkszentmiklósi felirat (Inscription from Csíkszentmiklós) [1] from 1501.
⟨ZT glyph⟩	ZT	In Nikolsburg alphabet from the middle of the 15th century with name: "EZT" [91].

Table 5.2-1: The *Rovás Szabvány* character set and the origin of each glyph.

5.3. Additions non-historical characters to the *Rovás Szabvány*

Rovas researcher *Sándor Vér* in 1994 created four novel characters as ligatures, Q, X, Y, W [56], and he developed further two ones: DZ ⟨glyph⟩, DZS ⟨glyph⟩ in 2001 [57], see *Table 14.10-1*. In Hungarian language the characters Q, X, Y, and W are duplicates: W~V, Y~I or J, X~KSZ, Q~KV. However, his novel ligatures are not purely aesthetic, but they are orthographically significant. These characters correspond to the appropriate characters in the Hungarian Latin-based alphabet. The *Association of the Rovas Writers of Szeged* uses these novel characters as extensions to the *Rovás Szabvány*. Unicode expert *Gáspár Sinai* also recommended in 2008 the introduction to this proposal the characters DZ and DZS [28].

In August 28th, 2008 a new glyph ⟨glyph⟩ for the "w" has been introduced and accepted by the *Rovásbizottság* (*Committee of the Community of the Szekler-Hungarian Rovas Writers*), which is a clear ligature. The proposal was made by András Tisza, László Sípos, and Tamás Rumi [94]. This modification has been accepted by Sándor Vér. See original ligature of Sándor Vér in *Fig. 14.10-17*.

In October 4th, 2008 Sándor Vér modified his original glyph of the character "X" to the ⟨glyph⟩ in the "Élő Rovás" ("*Alive Rovas*") Symposium [106].

The use of these novel characters (DZ ⟨glyph⟩, DZS ⟨glyph⟩, Q ⟨glyph⟩, W ⟨glyph⟩, X ⟨glyph⟩, Y ⟨glyph⟩) becomes successful, see *Fig. 14.11-2* [66]. Its reason was that in the modern Hungarian language the consonants DZ, DZS exist, and all of these six characters are listed in the standard Hungarian Latin-based alphabet. So a part of the Szekler-Hungarian Rovas writers needed these characters e.g. in the transcription of the Hungarian historical names, which frequently use the archaic Y, W. Another example is the transcription of the modern words came from English, which use Q and X in many cases. If we have not individual characters of these consonants sorting of texts in Szekler-Hungarian Rovas in an editor is difficult and it needs an additional dictionary.

In the numeral system of the Szekler-Hungarian Rovas the *half* of the glyph of number 1000 ⟨glyph⟩ is absent from the sequence of the Rovas numbers: 1=⟨glyph⟩, 5=⟨glyph⟩, 10=⟨glyph⟩, 50=⟨glyph⟩, 100=⟨glyph⟩, 1000=⟨glyph⟩. Between 100 and 1000 could be the number character 500 similarly to the 50=⟨glyph⟩ between 10=⟨glyph⟩ and 100=⟨glyph⟩, and the 5=⟨glyph⟩ between 1=⟨glyph⟩ and 10=⟨glyph⟩ [93]. Earlier the Rovas researcher Atilla Koricsánszky stated in his book that the character of the FIVE HUNDRED had to exist, however there are not known any historical relic of this [92]. In 2008 Tamás Rumi derived a glyph ⟨glyph⟩ from the other Rovas numerals that was accepted by the Committee of the Community of the Szekler-Hungarian Rovas Writers in its meeting in August 28th, 2008, Budapest [93]. The *Table 5.3-1* shows the glyph of the number FIVE HUNDRED.

The *Table 5.3-1* presents the novel characters in this proposal for extending the *Rovás Szabvány*.

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
Szekler-Hungarian Rovas Letters		
ᛒ	DZ	Sándor Vér: Életfa ("*Tree of Life*") First Edition, from 2001 [66].
ᚥ	DZS	
ᛩ	Q	Sándor Vér: Életfa ("*Tree of Life*") distributed as manuscript, from 1994 [56].
ᛞ	W	András Tisza, László Sípos, Tamás Rumi: Derived glyph for the "w" in 2008 [94].
ᛯ	X	Sándor Vér: Életfa ("*Tree of Life*") distributed as manuscript, from 1994 [56], modified in the "Élő Rovás" ("*Alive Rovas*") Symposium in October 4th, 2008, Gödöllő [106].
ᛏ	Y	Sándor Vér: Életfa ("*Tree of Life*") distributed as manuscript, from 1994 [56].
Szekler-Hungarian Rovas Numbers		
ᚢ	FIVE HUNDRED	Tamás Rumi: The Szekler-Hungarian Rovas glyph of the five hundred [93].

Table 5.3-1: The additions to the *Rovás Szabvány* and the origins of each glyph.

> **The usage of these extensions is optional, not obligatory; the Szekler-Hungarian Rovas writers can use instead of them the traditional Szekler-Hungarian Rovas characters of this proposal in the following way:** DZ ᛒ =>D ᛏ + Z ᛟ:, DZS ᚥ =D ᛏ +ZS ᛏ, Q ᛩ =K ◊ +v ᛞ, X ᛯ =K ◊ +SZ Ι, Y ᛏ =I ᛏ or J ᛜ, W ᛞ=v ᛞ +v ᛞ, FIVE HUNDRED= ᚥᚢ

5.4. Additions historical characters to the *Rovás Szabvány*

An earlier proposal N3483 introduced some additional characters, which have exclusively historical importance, only. However, these characters really existed in a certain period of time; therefore they are included into the current proposal especially for historical purposes. These characters are seen in *Table 5.4-1*.

In the earlier proposal N3483 the character ᚷ in the Nikolsburg alphabet [4], [91] was called as "NIKOLSBERG ETY". As Dr. Gábor Vékony professor explored in 1987 [71] the character ᚷ is "HH", not "ETY". That is why the character ᚷ is named in the current proposal as HH. The characters HH ᚷ and other historical character ENC ↕ are can be used as ligatures. The third historical letter SHORT R ⸝ can also be used in ligatures, since the author of the first Rovas writing teaching book János Telegdi gave rules for the usage of the SHORT R ⸝ [7].

In the earlier proposal N3483 the character names "NIKOLSBERG OE" ᛦ and the "RUDIMENTA OE" ᛕ were incorrect. It named the glyph ᛦ as "NIKOLSBERG OE", however, in earlier than the Nicolsberg relic this glyph ᛦ has been used as it is shown on the *Table 5.4-1*.

The name "RUDIMENTA OE" for the character K is also faulty, since in the Rudimenta another "*ö*"(="OE" /ø/) X is used [7]. The "RUDIMENTA OE" K character can be found not in the Rudimenta, but in the Csíkszentmiklós-Csíkszentmihály Inscription" [1].

In order to differentiate the similar characters the attribute "OLD" is used in order to sign that these characters are not intended for regular usage as OE="ö" /ø/. In the ancient time the character 'ö' /ø/ was used as "ö" / øː/ as well. That is the basis of the differentiation in the names between $\mathsf{Ɣ}$ and X: OLD OE $\mathsf{Ɣ}$ and OLD OEE X. The glyph X is named as the "OLD OEE", since this glyph is the ancestor of the "ö"="OEE" /øː/ $\mathsf{⧢}$ in the current proposal. These historical characters can be seen on the *Table 5.4-1*.

The situation of the OLD OE 2 ($\mathsf{Ħ}$) and OLD UEE ($\mathsf{ϟ}$) is different. The glyph $\mathsf{Ħ}$ of the OLD OE 2 is similar to the UEE. In some relics [8], [42], [91] this glyph was used as ö (OE). For avoiding the conflict in presenting historical text the individual code point is necessary for the glyph of the OLD OE 2.

The glyph $\mathsf{ϟ}$ of the OLD UEE exists in some historical relics [30], [8], [23]. Because of the fact that the glyph of the UEE $\mathsf{Ȕ}$ could stand for *both* "ö" /ø/ OE and "ű" /yː/ UEE in historical examples, it is necessary to register a place for another "ű" (OLD UEE $\mathsf{ϟ}$) as well, as we did for OE and OEE.

This OLD UEE letter $\mathsf{ϟ}$ for "ű" /yː/ would have a brother in shape of "ü" /y/ UE $\mathsf{Ꮷ}$, but it helps to describe the various historical relics and recognize the family of "ü" /y/ UE and "ű" /yː/ UEE.

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
Szekler-Hungarian Rovas Letters		
$\updownarrow$	ENC	In Nikolsburg alphabet from the middle of the 15th century [4].
X	HH	In Nikolsburg alphabet from the middle of the 15th century [4]. The proposal N3483 incorrectly calls this character as "NIKOLSBERG ETY", since it is not "ETY".
$\mathsf{Ɣ}$	OLD OE	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century [4].
$\mathsf{Ħ}$	OLD OE 2	- The alphabet and sentences of Franciscan monk János Kájoni from 1673 [8]. - Hunnish-Szekler alphabets of Miklós Révai from 1803 [42]. - The Szekler alphabet of Gyula Németh from 1934 [91]
X	OLD OEE	In the Rudimenta of János Telegdi from 1598 [7]. It should be noted the in the proposal N3483 the used name "RUDIMENTA OE" for the glyph K is incorrect, since this glyphs K is in the "Csíkszentmiklós-Csíkszentmihály Inscription" [1]. However, the glyph X of the Rudimenta is included into the current proposal for historical purposes as OLD OEE.
$\diagup$	SHORT R	- In Bologna stick calendar from the 13th century [36]. - In Nikolsburg alphabet from the middle of the 15th century [4]. - In alphabet from the book of Mátyás Bél from 1718 [24]. - In the Dési-alphabet in the Marosvásárhelyi Manuscript from 1753 [8].

Rovas character glyph	Name of the Szekler-Hungarian Rovas character	Origin of the glyph
५	OLD UEE	- Harsányi-alphabet from 1678 [23], [39]. - The "Lord's prayer" map of Hensel from 1730 [30]. - Collection of nine alphabets from the Marosvásárhelyi Manuscript from 1753 [8], [23].

Table 5.4-1: The Szekler-Hungarian Rovas characters introduced for historical purposes.

The usage of the characters "OLD OE", "OLD OE2", "OLD OEE" and "OLD UEE" is not recommended in the usual Rovas writing. The purpose of these characters is using them in historical scripts.

6. Punctuation

Some of the punctuation marks on the *Table 6.1* have mirrored pairs already existing in the Unicode (e.g. U+061F ARABIC QUESTION MARK). Theoretically their mirrors can be managed by the rendering engine. However, on one hand there are a lot of examples for characters whose glyphs serve as mirrored glyphs [82]. On the other hand the Szekler-Hungarian Rovas has a special situation: the user community is divided into two groups in the question of the directionality. That is why *the same Szekler-Hungarian Rovas text is needed to convert occasionally from LTR to RTL or vice versa.* Due to keep the consistency of the text the own Szekler-Hungarian Rovas punctuation marks are necessary. The mirrored glyphs that have own code points (as the U+061F ARABIC QUESTION MARK) are by default mirrored and these characters should be not exchanged with the non-mirrored glyphs (as the U+003F QUESTION MARK) especially in case of software that does not mirror the glyph but uses what the font contains.

Due to the doubtless fact that the Szekler-Hungarian Rovas is used in the both direction and the usual punctuation marks are used in it, some of them are necessary, since depending on the actual font, the both directionality of them are intended to use. The *Table 6-1* gives the list of the necessary punctuation marks. According to current recommendation by the *Hungarian Academy of Sciences* (*Magyar Tudományos Akadémia*, *MTA*) the main Hungarian quotation marks are comma-shaped double quotation marks set on the base-line at the beginning of the quote and at apostrophe-height at the end of it for first level. The Szekler-Hungarian Rovas uses the same rule; this is a matter of policy. The hyphenation follows the Hungarian Latin-based Script.

Rovas Glyph	Name of the Szekler-Hungarian Rovas Punctuation Mark	Remark
؋	SZEKLER-HUNGARIAN ROVAS COMMA	*Necessary due to the both directionalities*
؋؋	SZEKLER-HUNGARIAN ROVAS BEGINNING QUOTATION MARK	*Necessary due to the both directionalities*
؋؋	SZEKLER-HUNGARIAN ROVAS ENDING QUOTATION MARK	*Necessary due to the both directionalities*
؛	SZEKLER-HUNGARIAN ROVAS SEMICOLON	*Necessary due to the both directionalities*
·	SZEKLER-HUNGARIAN ROVAS SEPARATOR	*This is used in the Rovás Szabvány from 1995*
؟	SZEKLER-HUNGARIAN ROVAS QUESTION MARK	*Necessary due to the both directionalities*

In the historical relics for separating the words the space, the middle dot, the double dots, the vertical four dots (see *Fig. 14.8-1* and [31]), and the asterisk (see *Fig. 14.10-12* and [85]) were used. The contemporary Szekler-Hungarian Rovas usage applies the same punctuation as it is used in the Hungarian Latin script besides the historical Szekler-Hungarian Rovas separate symbols (but in the modern time mainly the space). However, the usage of the various separators is a font-related problem. In various fonts of the historical variations of Szekler-Hungarian Rovas there can be various glyphs for the separator. That is the reason why the WORD SEPARATOR MIDDLE DOT 2E31 from the Punctuation block is not recommended, since it is not a single dot in all cases. Depending on the actual style of the font (Magyar Adorján, or Forrai Sándor, etc.) the ROVAS SEPARATOR can differs. The default value is a single dot, but when somebody will make a font, is should be possible to use double dots or four dots instead of single dot for the same character (and so for the same code point). So the font should be able to offer various glyphs for this character. But generally an explicit "*Szekler-Hungarian Rovas Separator*" symbol is necessary for the compatible documents created by various historical glyphs (in various fonts).

The other possibility would be that we use the Unicode code points (e.g. MIDDLE DOT 00B7, COLON 003A, TRICOLON 205D, and VERTICAL FOUR DOTS 205E), then and we apply directionality overrides on a paragraph-to-paragraph basis in order for the letters to be laid out in a left-to-right and the rendering system should produce the correct visual result. But for the mirrored characters the font must contain mirrored glyphs. Since the in general, the Unicode *bidirectional algorithm* does not mirror character glyphs but leaves them unaffected [32]. The Hungarian Latin script (which is exclusively LTR) uses the same punctuation marks from the Punctuation block, so if somebody wants to use the Szekler-Hungarian Rovas in RTL direction and also the Hungarian Latin script, *collisions* could happen. That is why the punctuation marks defined for the Szekler-Hungarian Rovas should get own code points.

These punctuation marks should be allocated in the range of the other Szekler-Hungarian Rovas characters similarly to the OL CHIKI PUNCTUATION MARKS (1C7E and 1C7F) in the BMP Ol Chiki, range: 1C50-1C7F [84].

7. Casing

The casing appeared in the Szekler-Hungarian Rovas when it was started to use in books. The *Table 7-1* summarizes some relics with casing; however there are a lot of others that use casing, too.

Szekler-Hungarian Rovas legacy documents that use casing	Year
Manuscript by István Szamosközi, see *Fig. 14.7-1*	1604
Letter of "K. G.", see *Fig. 14.8-10*	1770
Letter of Petrovai János to Tar Mihály [4], [9], see *Fig. 14.10-2*	1903
Starting the sentence with capital letter in Sándor Forrai's book [10], see *Fig. 14.10-15/a*	1996
Starting the sentence and in the name of a city Debrecen with capital letter in the book of Sándor Forrai [10], see *Fig. 14.10-15/b*	1996
The book of Klára Friedrich titled: Roga királyfi – Mesekönyv rovásírással. ⵜⴻⵙⴴⵏⵜⵔ ⴳⴰⵢⵀ [73], see *Fig. 14.11-5*	2004
The book of Klára Friedrich titled: Attila ifjúsága – Rovásírásos olvasókönyv [74], see *Fig. 14.11-5*	2004
The back side of the business card of Miklós Szondi from 2005 (the text in bottom uses casing), see *Fig. 14.11-11*.	2005
The book of Klára Friedrich titled: Új Rovásírás Tankönyv és Szakköri Ötlettár [75], see	2006
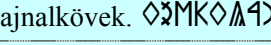
Szekler-Hungarian Rovas legacy documents that use casing	Year
Fig. 14.11-5	
Music-CD of Klára Friedrich and Gábor Szakács titled: Rákóczi él [76], see *Fig. 14.11-24*	2008
The book of Klára Friedrich titled: Hajnalkövek. ◊⚡MK◊⋀⏁⟩⏁⏁⚡ [67], see *Fig. 14.11-25*	2008
The Home Page of the Sándor Forrai Rovas Writer Association [55] (the title script uses casing), see *Fig. 14.11-16*	2008

Table 7-1: Some selected examples of the casing in Szekler-Hungarian Rovas relics

Based on the evidences listed above the casing is recommended in the Szekler-Hungarian Rovas. The casing is supported by the *Community of the Szekler-Hungarian Rovas Writers*, the *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture*, the *Sándor Forrai Runic Writer Association*, and *The Research Institute of the Writing History* [77], [78]. The casing was also supported by the clear majority of the participants in the *First Hungarian Rovas Standardization Meeting*, see *Fig. 4-3*.

The upper case Rovas characters differ from the lower case ones in size, only. There have already been examples of the similar situations, e.g.: *Deseret* script (*http://unicode.org/charts/PDF/U10400.pdf*) and the *Glagolitic* script (*http://unicode.org/charts/PDF/U2C00.pdf*).

8. The historical ligatures of the *Rovás Szabvány*

The *Table 5.2-1* shows the historical ligatures of the *Rovás Szabvány*, which are required in the font of the Szekler-Hungarian Rovas script. These ligatures have been used from 1995 in the *Rovás Szabvány*, therefore they should be handled them as *compatibility characters* and that is why it is necessary to give them individual code points. According to the Unicode Standard [80], for the round-trip convertibility with the 8-bot encoding de facto standard "*Rovás Szabvány*" in general a single code point in another standard corresponds to a single point in the Unicode Standard. There are many examples in the Unicode code maps for using this rule. Due to the shortage of the code points in the BMP these characters are targeted into the SMP.

9. Ordering

The majority of the Szekler-Hungarian Rovas writers follow the Hungarian Latin-based alphabetic order. The bug-symbols and the historical letters are listed among the base letter as it is seen on *Fig. 9-1*.

ꝯ UE < Ꝋ UEE < ꝑ OLD UEE < M V < M W < ◊ X < Y Y < Z Z < Y ZS

Table 9-1: Sorting the Szekler-Hungarian Rovas characters

10. Unicode Character Properties

In the followings the proposed naming and coding of the Szekler-Hungarian Rovas script is listed.

These charts contain only proposed assignments and should not be considered valid until such time as the Unicode Consortium formally accepts them.

The Szekler-Hungarian Rovas punctuation marks are listed among the other Szekler-Hungarian Rovas characters; however, it is possible to put them into the Punctuation Block.

10.1. Code chart of the Szekler-Hungarian Rovas in BMP

	086	*087*	*1AB*	*1C8*	*1C9*	*1CA*	*1CB*	*1CC*	*AB7*	*AB8*
0	0860	0860	1AB0	1C80	1C90	1CA0	1CB0	1CC0	AB70	AB80
1	0861	0871	1AB1	1C81	1C91	1CA1	1CB1	1CC1	AB71	AB81
2	0862	0872	1AB2	1C82	1C92	1CA2	1CB2	1CC2	AB72	AB82
3	0863	0873	1AB3	1C83	1C93	1CA3	1CB3	1CC3	AB73	AB83
4	0864	0874	1AB4	1C84	1C94	1CA4	1CB4	1CC4	AB74	AB84
5	0865	0875	1AB5	1C85	1C95	1CA5	1CB5	1CC5	AB75	AB85
6	0866	0876	1AB6	1C86	1C96	1CA6	1CB6	1CC6	AB76	AB86
7	0867	0877		1C87	1C97	1CA7	1CB7	1CC7	AB77	AB87
8	0868	0878	1AB8	1C88	1C98	1CA8	1CB8	1CC8	AB78	AB88
9	0869	0879	1AB9	1C89	1C99	1CA9	1CB9	1CC9	AB79	AB89
A	086A	087A	1ABA	1C8A	1C9A	1CAA	1CBA	1CCA	AB7A	AB8A

	086	087	1AB	1C8	1C9	1CA	1CB	1CC		
B	086B	087B	1ABB	1C8B	1C9B	1CAB	1CBB	1CCB		
C	086C	087C	1ABC	1C8C	1C9C	1CAC	1CBC	1CCC		
D	086D	087D	1ABD	1C8D	1C9D	1CAD	1CBD	1CCD		
E	086E	087E		1C8E	1C9E	1CAE	1CBE	1CCE		
F	086F	087F		1C8F	1C9F	1CAF	1CBF	1CCF		

10.2. Code chart of the Szekler-Hungarian Rovas Historical Ligatures in SMP

	10C6	*10C7*	*10C8*	*10C9*	*10CA*	*10CB*	*10CC*	*10CD*
0	10C60	10C70	10C80	10C90	10CA0	10CB0	10CC0	10CD0
1	10C61	10C71	10C81	10C91	10CA1	10CB1	10CC1	10CD1
2	10C62	10C72	10C82	10C92	10CA2	10CB2	10CC2	10CD2
3	10C63	10C73	10C83	10C93	10CA3	10CB3	10CC3	10CD3
4	10C64	10C74	10C84	10C94	10CA4	10CB4	10CC4	10CD4
5	10C65	10C75	10C85	10C95	10CA5	10CB5	10CC5	10CD5
6	10C66	10C76	10C86	10C96	10CA6	10CB6	10CC6	10CD6
7	10C67	10C77	10C87	10C97	10CA7	10CB7	10CC7	10CD7
8	10C68	10C78	10C88	10C98	10CA8	10CB8	10CC8	10CD8
9	10C69	10C79	10C89	10C99	10CA9	10CB9	10CC9	10CD9

A	𐱪 10C6A	𐱺 10C7A	𐲊 10C8A	𐲚 10C9A	𐲪 10CAA	𐲺 10CBA	𐳊 10CCA	𐳚 10CDA
B	𐱫 10C6B	𐱻 10C7B	𐲋 10C8B	𐲛 10C9B	𐲫 10CAB	𐲻 10CBB	𐳋 10CCB	𐳛 10CDB
C	𐱬 10C6C	𐱼 10C7C	𐲌 10C8C	𐲜 10C9C	𐲬 10CAC	𐲼 10CBC	𐳌 10CCC	𐳜 10CDC
D	𐱭 10C6D	𐱽 10C7D	𐲍 10C8D	𐲝 10C9D	𐲭 10CAD	𐲽 10CBD	𐳍 10CCD	𐳝 10CDD
E	𐱮 10C6E	𐱾 10C7E	𐲎 10C8E	𐲞 10C9E	𐲮 10CAE	𐲾 10CBE	𐳎 10CCE	𐳞 10CDE
F	𐱯 10C6F	𐱿 10C7F	𐲏 10C8F	𐲟 10C9F	𐲯 10CAF	𐲿 10CBF	𐳏 10CCF	𐳟 10CDF

10.3. Name charts

Additional information about individual characters in this block can be found in *Chapters 5, 6, 7, and 8* of this proposal.

0860   **Szekler-Hungarian Rovas Characters Part I**   **087F**

UPPERCASE LETTERS

0860;   𐡁   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER A;Lu;0;R;;;;;N;;;;;

0861;   𐡁   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AA;Lu;0;R;;;;;N;;;;;

0862;   X   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER B;Lu;0;R;;;;;N;;;;;

0863;   ↑   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER C;Lu;0;R;;;;;N;;;;;

0864;   𐤇   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CS;Lu;0;R;;;;;N;;;;;

0865;   ✝   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER D;Lu;0;R;;;;;N;;;;;

0866;   𐤇   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER DZ;Lu;0;R;;;;;N;;;;;

0867;   ¥   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER DZS;Lu;0;R;;;;;N;;;;;

0868;   𐢁   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER E;Lu;0;R;;;;;N;;;;;

0869;   𐢁   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER EE;Lu;0;R;;;;;N;;;;;

086A;   𐡊   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CLOSE E;Lu;0;R;;;;;N;;;;;

086B;   ⊗   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER F;Lu;0;R;;;;;N;;;;;

086C;   𐢈   SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER G;Lu;0;R;;;;;N;;;;;

086D; ‡ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER GY;Lu;0;R;;;;;N;;;;;

086E; ⹮ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER H;Lu;0;R;;;;;N;;;;;

086F; ⸸ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER I;Lu;0;R;;;;;N;;;;;

LOWERCASE LETTERS

0870; ꝗ SZEKLER-HUNGARIAN ROVAS SMALL LETTER A;Ll;0;R;;;;;N;;;;;

0871; ꝗ SZEKLER-HUNGARIAN ROVAS SMALL LETTER AA;Ll;0;R;;;;;N;;;;;

0872; Ⲭ SZEKLER-HUNGARIAN ROVAS SMALL LETTER B;Ll;0;R;;;;;N;;;;;

0873; ↑ SZEKLER-HUNGARIAN ROVAS SMALL LETTER C;Ll;0;R;;;;;N;;;;;

0874; ꝟ SZEKLER-HUNGARIAN ROVAS SMALL LETTER CS;Ll;0;R;;;;;N;;;;;

0875; ✝ SZEKLER-HUNGARIAN ROVAS SMALL LETTER D;Ll;0;R;;;;;N;;;;;

0876; ꝟ SZEKLER-HUNGARIAN ROVAS SMALL LETTER DZ;Ll;0;R;;;;;N;;;;;

0877; ⸶ SZEKLER-HUNGARIAN ROVAS SMALL LETTER DZS;Ll;0;R;;;;;N;;;;;

0878; ⸵ SZEKLER-HUNGARIAN ROVAS SMALL LETTER E;Ll;0;R;;;;;N;;;;;

0879; ⸵ SZEKLER-HUNGARIAN ROVAS SMALL LETTER EE;Ll;0;R;;;;;N;;;;;

087A; ⸸ SZEKLER-HUNGARIAN ROVAS SMALL LETTER CLOSE E;Ll;0;R;;;;;N;;;;;

087B; ⊗ SZEKLER-HUNGARIAN ROVAS SMALL LETTER F;Ll;0;R;;;;;N;;;;;

087C; Λ SZEKLER-HUNGARIAN ROVAS SMALL LETTER G;Ll;0;R;;;;;N;;;;;

087D; ‡ SZEKLER-HUNGARIAN ROVAS SMALL LETTER GY;Ll;0;R;;;;;N;;;;;

087E; ⹮ SZEKLER-HUNGARIAN ROVAS SMALL LETTER H;Ll;0;R;;;;;N;;;;;

087F; ⸸ SZEKLER-HUNGARIAN ROVAS SMALL LETTER I;Ll;0;R;;;;;N;;;;;

1AB0   Szekler-Hungarian Rovas Part II   1ABF

NUMBERS

1AB0; | SZEKLER-HUNGARIAN ROVAS NUMBER ONE;No;0;R;;;;;N;;;;;

1AB1; V SZEKLER-HUNGARIAN ROVAS NUMBER FIVE;No;0;R;;;;;N;;;;;

1AB2; X SZEKLER-HUNGARIAN ROVAS NUMBER TEN;No;0;R;;;;;N;;;;;

1AB3; ⱽ SZEKLER-HUNGARIAN ROVAS NUMBER FIFTY;No;0;R;;;;;N;;;;;

1AB4; ⋌ SZEKLER-HUNGARIAN ROVAS NUMBER ONE HUNDRED;No;0;R;;;;;N;;;;;

1AB5; ⱱ SZEKLER-HUNGARIAN ROVAS NUMBER FIVE HUNDRED;No;0;R;;;;;N;;;;;

1AB6; ✷ SZEKLER-HUNGARIAN ROVAS NUMBER ONE THOUSAND;No;0;R;;;;;N;;;;;
1AB7; (This position shall not be used)

PUNKTUATION MARKS

1AB8; ˎ SZEKLER-HUNGARIAN ROVAS COMMA;Po;0;R;;;;;N;;;;;

1AB9; ˎˎ SZEKLER-HUNGARIAN ROVAS BEGINNING QUOTATION MARK;Pi;0;R;;;;;N;;;;;

1ABA; ˮˮ SZEKLER-HUNGARIAN ROVAS ENDING QUOTATION MARK;Pf;0;R;;;;;N;;;;;

1ABB; ⁝ SZEKLER-HUNGARIAN ROVAS SEMICOLON;Po;0;R;;;;;N;;;;;

1ABC; · SZEKLER-HUNGARIAN ROVAS SEPARATOR;Po;0;R;;;;;N;;;;;

1ABD; ʕ SZEKLER-HUNGARIAN ROVAS QUESTION MARK;Po;0;R;;;;;N;;;;;
1ABE; (This position shall not be used)
1ABF; (This position shall not be used)

1C80   Szekler-Hungarian Rovas Part III   1CCF

UPPERCASE LETTERS

1C80; ꒠ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER II;Lu;0;R;;;;;N;;;;;

1C81; ꒡ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER J;Lu;0;R;;;;;N;;;;;

1C82; ◇ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER K;Lu;0;R;;;;;N;;;;;

1C83; ꒢ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AK;Lu;0;R;;;;;N;;;;;

1C84; ꒤ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER L;Lu;0;R;;;;;N;;;;;

1C85; ꒥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LY;Lu;0;R;;;;;N;;;;;

1C86; ꒦ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER M;Lu;0;R;;;;;N;;;;;

1C87; ꒧ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER N;Lu;0;R;;;;;N;;;;;

1C88; ꒨ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NY;Lu;0;R;;;;;N;;;;;

1C89; ꒩ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER O;Lu;0;R;;;;;N;;;;;

1C8A; ꒪ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OO;Lu;0;R;;;;;N;;;;;

1C8B; ꓘ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OE;Lu;0;R;;;;;N;;;;;

1C8C; ꒬ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OEE;Lu;0;R;;;;;N;;;;;

1C8D; ꒭ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER P;Lu;0;R;;;;;N;;;;;

1C8E; ꒮ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER Q;Lu;0;R;;;;;N;;;;;

1C8F; ꒯ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER R;Lu;0;R;;;;;N;;;;;

1C90; ꓥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER S;Lu;0;R;;;;;N;;;;;

1C91; λ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AS;Lu;0;R;;;;;N;;;;;

1C92; Ɩ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SZ;Lu;0;R;;;;;N;;;;;

1C93; Ɣ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER T;Lu;0;R;;;;;N;;;;;

1C94; Ӿ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER TY;Lu;0;R;;;;;N;;;;;

1C95; Ӿ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ATY;Lu;0;R;;;;;N;;;;;

1C96; Ⱈ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER U;Lu;0;R;;;;;N;;;;;

1C97; Ⱈ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UU;Lu;0;R;;;;;N;;;;;

1C98; Ⴗ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UE;Lu;0;R;;;;;N;;;;;

1C99; Ɒ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UEE;Lu;0;R;;;;;N;;;;;

1C9A; Ⅿ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER V;Lu;0;R;;;;;N;;;;;

1C9B; Ⱞ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER W;Lu;0;R;;;;;N;;;;;

1C9C; Ⱖ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER X;Lu;0;R;;;;;N;;;;;

1C9D; Ɏ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER Y;Lu;0;R;;;;;N;;;;;

1C9E; Ⱳ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER Z;Lu;0;R;;;;;N;;;;;

1C9F; Ⴧ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ZS;Lu;0;R;;;;;N;;;;;

1CA0; ⵝⵎ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AMB;Lu;0;R;;;;;N;;;;;

1CA1; Ӿ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AND;Lu;0;R;;;;;N;;;;;

1CA2; Ⴠ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ANT;Lu;0;R;;;;;N;;;;;

1CA3; Ɒ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER EMP;Lu;0;R;;;;;N;;;;;

1CA4; Ⴧ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ENT;Lu;0;R;;;;;N;;;;;

1CA5; Ꝋ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER MB;Lu;0;R;;;;;N;;;;;

1CA6; Ꝥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NAP;Lu;0;R;;;;;N;;;;;

1CA7; Ꝋ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NB;Lu;0;R;;;;;N;;;;;

LOWERCASE LETTERS

1CA8; ⇑ SZEKLER-HUNGARIAN ROVAS SMALL LETTER II;Ll;0;R;;;;;N;;;;;

1CA9; ⇑ SZEKLER-HUNGARIAN ROVAS SMALL LETTER J;Ll;0;R;;;;;N;;;;;

1CAA; ◇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER K;Ll;0;R;;;;;N;;;;;

1CAB; ⇃ SZEKLER-HUNGARIAN ROVAS SMALL LETTER AK;Ll;0;R;;;;;N;;;;;

1CAC; 𜰬 SZEKLER-HUNGARIAN ROVAS SMALL LETTER L;Ll;0;R;;;;;N;;;;;

1CAD; 𜰭 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LY;Ll;0;R;;;;;N;;;;;

1CAE; 𜰮 SZEKLER-HUNGARIAN ROVAS SMALL LETTER M;Ll;0;R;;;;;N;;;;;

1CAF; 𜰯 SZEKLER-HUNGARIAN ROVAS SMALL LETTER N;Ll;0;R;;;;;N;;;;;

1CB0; 𜰰 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NY;Ll;0;R;;;;;N;;;;;

1CB1; 𜰱 SZEKLER-HUNGARIAN ROVAS SMALL LETTER O;Ll;0;R;;;;;N;;;;;

1CB2; 𜰲 SZEKLER-HUNGARIAN ROVAS SMALL LETTER OO;Ll;0;R;;;;;N;;;;;

1CB3; 𜰳 SZEKLER-HUNGARIAN ROVAS SMALL LETTER OE;Ll;0;R;;;;;N;;;;;

1CB4; 𜰴 SZEKLER-HUNGARIAN ROVAS SMALL LETTER OEE;Ll;0;R;;;;;N;;;;;

1CB5; 𜰵 SZEKLER-HUNGARIAN ROVAS SMALL LETTER P;Ll;0;R;;;;;N;;;;;

1CB6; 𜰶 SZEKLER-HUNGARIAN ROVAS SMALL LETTER Q;Ll;0;R;;;;;N;;;;;

1CB7; 𜰷 SZEKLER-HUNGARIAN ROVAS SMALL LETTER R;Ll;0;R;;;;;N;;;;;

1CB8; 𜰸 SZEKLER-HUNGARIAN ROVAS SMALL LETTER S;Ll;0;R;;;;;N;;;;;

1CB9; 𜰹 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AS;Ll;0;R;;;;;N;;;;;

1CBA; 𜰺 SZEKLER-HUNGARIAN ROVAS SMALL LETTER SZ;Ll;0;R;;;;;N;;;;;

1CBB; 𜰻 SZEKLER-HUNGARIAN ROVAS SMALL LETTER T;Ll;0;R;;;;;N;;;;;

1CBC; 𜰼 SZEKLER-HUNGARIAN ROVAS SMALL LETTER TY;Ll;0;R;;;;;N;;;;;

1CBD; 𜰽 SZEKLER-HUNGARIAN ROVAS SMALL LETTER ATY;Ll;0;R;;;;;N;;;;;

1CBE; 𜰾 SZEKLER-HUNGARIAN ROVAS SMALL LETTER U;Ll;0;R;;;;;N;;;;;

1CBF; 𜰿 SZEKLER-HUNGARIAN ROVAS SMALL LETTER UU;Ll;0;R;;;;;N;;;;;

1CC0; 𜱀 SZEKLER-HUNGARIAN ROVAS SMALL LETTER UE;Ll;0;R;;;;;N;;;;;

1CC1; 𜱁 SZEKLER-HUNGARIAN ROVAS SMALL LETTER UEE;Ll;0;R;;;;;N;;;;;

1CC2; 𜱂 SZEKLER-HUNGARIAN ROVAS SMALL LETTER V;Ll;0;R;;;;;N;;;;;

1CC3; 𜱃 SZEKLER-HUNGARIAN ROVAS SMALL LETTER W;Ll;0;R;;;;;N;;;;;

1CC4; 𜱄 SZEKLER-HUNGARIAN ROVAS SMALL LETTER X;Ll;0;R;;;;;N;;;;;

1CC5; 𜱅 SZEKLER-HUNGARIAN ROVAS SMALL LETTER Y;Ll;0;R;;;;;N;;;;;

1CC6; 𜱆 SZEKLER-HUNGARIAN ROVAS SMALL LETTER Z;Ll;0;R;;;;;N;;;;;

1CC7; 𜱇 SZEKLER-HUNGARIAN ROVAS SMALL LETTER ZS;Ll;0;R;;;;;N;;;;;

1CC8; ⵥⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER AMB;Ll;0;R;;;;;N;;;;;

1CC9; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER AND;Ll;0;R;;;;;N;;;;;

1CCA; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ANT;Ll;0;R;;;;;N;;;;;

1CCB; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER EMP;Ll;0;R;;;;;N;;;;;

1CCC; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ENT;Ll;0;R;;;;;N;;;;;

1CCD; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER MB;Ll;0;R;;;;;N;;;;;

1CCE; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER NAP;Ll;0;R;;;;;N;;;;;

1CCF; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER NB;Ll;0;R;;;;;N;;;;;

AB70   Szekler-Hungarian Rovas Part IV   AB8F

UPPERCASE LETTERS

AB70; ⵥⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER TPRU;Lu;0;R;;;;;N;;;;;

AB71; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER TPRUS;Lu;0;R;;;;;N;;;;;

AB72; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UNK;Lu;0;R;;;;;N;;;;;

AB73; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER US;Lu;0;R;;;;;N;;;;;

AB74; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ENC;Lu;0;R;;;;;N;;;;;

AB75; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER HH;Lu;0;R;;;;;N;;;;;

AB76; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OLD OE;Lu;0;R;;;;;N;;;;;

AB77; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OLD OE 2;Lu;0;R;;;;;N;;;;;

AB78; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OLD OEE;Lu;0;R;;;;;N;;;;;

AB79; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SHORT R;Lu;0;R;;;;;N;;;;;

AB7A; ⵥ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OLD UEE;Lu;0;R;;;;;N;;;;;
AB7B; (This position shall not be used)
AB7C; (This position shall not be used)
AB7D; (This position shall not be used)
AB7E; (This position shall not be used)
AB7F; (This position shall not be used)

LOWERCASE LETTERS

AB80; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER TPRU;Ll;0;R;;;;;N;;;;;

AB81; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER TPRUS;Ll;0;R;;;;;N;;;;;

AB82; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER UNK;Ll;0;R;;;;;N;;;;;

AB83; ⵥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER US;Ll;0;R;;;;;N;;;;;

AB84; ↕ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ENC;Ll;0;R;;;;;N;;;;;

AB85; Ҳ SZEKLER-HUNGARIAN ROVAS SMALL LETTER HH;Ll;0;R;;;;;N;;;;;

AB86; Ҁ SZEKLER-HUNGARIAN ROVAS SMALL LETTER OLD OE;Ll;0;R;;;;;N;;;;;

AB87; Ҥ SZEKLER-HUNGARIAN ROVAS SMALL LETTER OLD OE 2;Ll;0;R;;;;;N;;;;;

AB88; Ӿ SZEKLER-HUNGARIAN ROVAS SMALL LETTER OLD OEE;Ll;0;R;;;;;N;;;;;

AB89; ´ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SHORT R;Ll;0;R;;;;;N;;;;;

AB8A; ɔ SZEKLER-HUNGARIAN ROVAS SMALL LETTER OLD UEE;Ll;0;R;;;;;N;;;;;
AB8B; (This position shall not be used)
AB8C; (This position shall not be used)
AB8D; (This position shall not be used)
AB8E; (This position shall not be used)
AB8F; (This position shall not be used)

10C60   Szekler-Hungarian Rovas Historical Ligatures   10CDF

UPPERCASE LETTERS

10C60; Ⅺ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AB;Lu;0;R;;;;;N;;;;;

10C61; ⅎ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AD;Lu;0;R;;;;;N;;;;;

10C62; Ⱪ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AL;Lu;0;R;;;;;N;;;;;

10C63; ⱈ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AR;Lu;0;R;;;;;N;;;;;

10C64; Ψ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ATT;Lu;0;R;;;;;N;;;;;

10C65; ⱶ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER AAR;Lu;0;R;;;;;N;;;;;

10C66; Ⱎ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER BA;Lu;0;R;;;;;N;;;;;

10C67; Ҳ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER BE;Lu;0;R;;;;;N;;;;;

10C68; Ж SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER BET;Lu;0;R;;;;;N;;;;;

10C69; Ҳ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER BI;Lu;0;R;;;;;N;;;;;

10C6A; Ҳ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER BO;Lu;0;R;;;;;N;;;;;

10C6B; ⱱ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CAK;Lu;0;R;;;;;N;;;;;

10C6C; ⱷ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CK;Lu;0;R;;;;;N;;;;;

10C6D; ⱳ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CSA;Lu;0;R;;;;;N;;;;;

10C6E; Ⱨ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER CSIN;Lu;0;R;;;;;N;;;;;

10C6F; ⱨ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER DU;Lu;0;R;;;;;N;;;;;

10C70; Ⱂ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER GA;Lu;0;R;;;;;N;;;;;

10C71; ⱬ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER GE;Lu;0;R;;;;;N;;;;;

10C72; Ⱂ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER GI;Lu;0;R;;;;;N;;;;;

10C73; Ⱂ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER GO;Lu;0;R;;;;;N;;;;;

10C74; Ⱄ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER HA;Lu;0;R;;;;;N;;;;;

10C75; Ⱅ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER HE;Lu;0;R;;;;;N;;;;;

10C76; Ⱆ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER HI;Lu;0;R;;;;;N;;;;;

10C77; Ⱈ SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER HO;Lu;0;R;;;;;N;;;;;

10C78;　Ⴤ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER IT;Lu;0;R;;;;;N;;;;;
10C79;　Ⴥ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER IIRT;Lu;0;R;;;;;N;;;;;
10C7A;　⴦　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LA;Lu;0;R;;;;;N;;;;;
10C7B;　Ⴧ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LAA;Lu;0;R;;;;;N;;;;;
10C7C;　⴨　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LE;Lu;0;R;;;;;N;;;;;
10C7D;　⴩　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LO;Lu;0;R;;;;;N;;;;;
10C7E;　⴪　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER LT;Lu;0;R;;;;;N;;;;;
10C7F;　Ⴛ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NA;Lu;0;R;;;;;N;;;;;
10C80;　Ⴝ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NC;Lu;0;R;;;;;N;;;;;
10C81;　Ⴞ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ND;Lu;0;R;;;;;N;;;;;
10C82;　Ⴟ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NGY;Lu;0;R;;;;;N;;;;;
10C83;　Ⴠ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NI;Lu;0;R;;;;;N;;;;;
10C84;　Ⴡ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NK;Lu;0;R;;;;;N;;;;;
10C85;　Ⴢ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER NT;Lu;0;R;;;;;N;;;;;
10C86;　Ⴣ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER OR;Lu;0;R;;;;;N;;;;;
10C87;　Ⴤ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RA;Lu;0;R;;;;;N;;;;;
10C88;　Ⴥ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RE;Lu;0;R;;;;;N;;;;;
10C89;　⴦　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RI;Lu;0;R;;;;;N;;;;;
10C8A;　Ⴧ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RO;Lu;0;R;;;;;N;;;;;
10C8B;　⴨　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RT;Lu;0;R;;;;;N;;;;;
10C8C;　⴩　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER RU;Lu;0;R;;;;;N;;;;;
10C8D;　⴪　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SA;Lu;0;R;;;;;N;;;;;
10C8E;　Ⴛ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SE;Lu;0;R;;;;;N;;;;;
10C8F;　Ⴜ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SI;Lu;0;R;;;;;N;;;;;
10C90;　Ⴝ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SK;Lu;0;R;;;;;N;;;;;
10C91;　Ⴞ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SM;Lu;0;R;;;;;N;;;;;
10C92;　Ⴟ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SO;Lu;0;R;;;;;N;;;;;
10C93;　Ⴠ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SP;Lu;0;R;;;;;N;;;;;
10C94;　Ⴡ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ST;Lu;0;R;;;;;N;;;;;
10C95;　Ⴢ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER SZT;Lu;0;R;;;;;N;;;;;
10C96;　Ⴣ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER TI;Lu;0;R;;;;;N;;;;;
10C97;　Ⴤ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER TYA;Lu;0;R;;;;;N;;;;;
10C98;　Ⴥ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UL;Lu;0;R;;;;;N;;;;;
10C99;　⴦　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UM;Lu;0;R;;;;;N;;;;;
10C9A;　Ⴧ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER UR;Lu;0;R;;;;;N;;;;;
10C9B;　⴨　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER VA;Lu;0;R;;;;;N;;;;;
10C9C;　⴩　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER VAAR;Lu;0;R;;;;;N;;;;;
10C9D;　⴪　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ZA;Lu;0;R;;;;;N;;;;;
10C9E;　Ⴛ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ZR;Lu;0;R;;;;;N;;;;;
10C9F;　Ⴜ　SZEKLER-HUNGARIAN ROVAS CAPITAL LETTER ZT;Lu;0;R;;;;;N;;;;;

LOWERCASE LETTERS

10CA0; 𐲠 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AB;Ll;0;R;;;;;N;;;;;

10CA1; 𐲡 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AD;Ll;0;R;;;;;N;;;;;

10CA2; 𐲢 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AL;Ll;0;R;;;;;N;;;;;

10CA3; 𐲣 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AR;Ll;0;R;;;;;N;;;;;

10CA4; 𐲤 SZEKLER-HUNGARIAN ROVAS SMALL LETTER ATT;Ll;0;R;;;;;N;;;;;

10CA5; 𐲥 SZEKLER-HUNGARIAN ROVAS SMALL LETTER AAR;Ll;0;R;;;;;N;;;;;

10CA6; 𐲦 SZEKLER-HUNGARIAN ROVAS SMALL LETTER BA;Ll;0;R;;;;;N;;;;;

10CA7; 𐲧 SZEKLER-HUNGARIAN ROVAS SMALL LETTER BE;Ll;0;R;;;;;N;;;;;

10CA8; 𐲨 SZEKLER-HUNGARIAN ROVAS SMALL LETTER BET;Ll;0;R;;;;;N;;;;;

10CA9; 𐲩 SZEKLER-HUNGARIAN ROVAS SMALL LETTER BI;Ll;0;R;;;;;N;;;;;

10CAA; 𐲪 SZEKLER-HUNGARIAN ROVAS SMALL LETTER BO;Ll;0;R;;;;;N;;;;;

10CAB; 𐲫 SZEKLER-HUNGARIAN ROVAS SMALL LETTER CAK;Ll;0;R;;;;;N;;;;;

10CAC; 𐲬 SZEKLER-HUNGARIAN ROVAS SMALL LETTER CK;Ll;0;R;;;;;N;;;;;

10CAD; 𐲭 SZEKLER-HUNGARIAN ROVAS SMALL LETTER CSA;Ll;0;R;;;;;N;;;;;

10CAE; 𐲮 SZEKLER-HUNGARIAN ROVAS SMALL LETTER CSIN;Ll;0;R;;;;;N;;;;;

10CAF; 𐲯 SZEKLER-HUNGARIAN ROVAS SMALL LETTER DU;Ll;0;R;;;;;N;;;;;

10CB0; 𐲰 SZEKLER-HUNGARIAN ROVAS SMALL LETTER GA;Ll;0;R;;;;;N;;;;;

10CB1; 𐲱 SZEKLER-HUNGARIAN ROVAS SMALL LETTER GE;Ll;0;R;;;;;N;;;;;

10CB2; 𐲲 SZEKLER-HUNGARIAN ROVAS SMALL LETTER GI;Ll;0;R;;;;;N;;;;;

10CB3; 𐲳 SZEKLER-HUNGARIAN ROVAS SMALL LETTER GO;Ll;0;R;;;;;N;;;;;

10CB4; 𐲴 SZEKLER-HUNGARIAN ROVAS SMALL LETTER HA;Ll;0;R;;;;;N;;;;;

10CB5; 𐲵 SZEKLER-HUNGARIAN ROVAS SMALL LETTER HE;Ll;0;R;;;;;N;;;;;

10CB6; 𐲶 SZEKLER-HUNGARIAN ROVAS SMALL LETTER HI;Ll;0;R;;;;;N;;;;;

10CB7; 𐲷 SZEKLER-HUNGARIAN ROVAS SMALL LETTER HO;Ll;0;R;;;;;N;;;;;

10CB8; 𐲸 SZEKLER-HUNGARIAN ROVAS SMALL LETTER IT;Ll;0;R;;;;;N;;;;;

10CB9; 𐲹 SZEKLER-HUNGARIAN ROVAS SMALL LETTER IIRT;Ll;0;R;;;;;N;;;;;

10CBA; 𐲺 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LA;Ll;0;R;;;;;N;;;;;

10CBB; 𐲻 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LAA;Ll;0;R;;;;;N;;;;;

10CBC; 𐲼 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LE;Ll;0;R;;;;;N;;;;;

10CBD; 𐲽 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LO;Ll;0;R;;;;;N;;;;;

10CBE; 𐲾 SZEKLER-HUNGARIAN ROVAS SMALL LETTER LT;Ll;0;R;;;;;N;;;;;

10CBF; 𐲿 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NA;Ll;0;R;;;;;N;;;;;

10CC0; 𐳀 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NC;Ll;0;R;;;;;N;;;;;

10CC1; 𐳁 SZEKLER-HUNGARIAN ROVAS SMALL LETTER ND;Ll;0;R;;;;;N;;;;;

10CC2; 𐳂 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NGY;Ll;0;R;;;;;N;;;;;

10CC3; 𐳃 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NI;Ll;0;R;;;;;N;;;;;

10CC4; 𐳄 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NK;Ll;0;R;;;;;N;;;;;

10CC5; 𐳅 SZEKLER-HUNGARIAN ROVAS SMALL LETTER NT;Ll;0;R;;;;;N;;;;;

10CC6; 𐳆 SZEKLER-HUNGARIAN ROVAS SMALL LETTER OR;Ll;0;R;;;;;N;;;;;

10CC7; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RA;Ll;0;R;;;;;N;;;;;
10CC8; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RE;Ll;0;R;;;;;N;;;;;
10CC9; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RI;Ll;0;R;;;;;N;;;;;
10CCA; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RO;Ll;0;R;;;;;N;;;;;
10CCB; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RT;Ll;0;R;;;;;N;;;;;
10CCC; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER RU;Ll;0;R;;;;;N;;;;;
10CCD; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SA;Ll;0;R;;;;;N;;;;;
10CCE; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SE;Ll;0;R;;;;;N;;;;;
10CCF; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SI;Ll;0;R;;;;;N;;;;;
10CD0; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SK;Ll;0;R;;;;;N;;;;;
10CD1; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SM;Ll;0;R;;;;;N;;;;;
10CD2; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SO;Ll;0;R;;;;;N;;;;;
10CD3; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SP;Ll;0;R;;;;;N;;;;;
10CD4; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ST;Ll;0;R;;;;;N;;;;;
10CD5; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER SZT;Ll;0;R;;;;;N;;;;;
10CD6; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER TI;Ll;0;R;;;;;N;;;;;
10CD7; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER TYA;Ll;0;R;;;;;N;;;;;
10CD8; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER UL;Ll;0;R;;;;;N;;;;;
10CD9; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER UM;Ll;0;R;;;;;N;;;;;
10CDA; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER UR;Ll;0;R;;;;;N;;;;;
10CDB; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER VA;Ll;0;R;;;;;N;;;;;
10CDC; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER VAAR;Ll;0;R;;;;;N;;;;;
10CDD; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ZA;Ll;0;R;;;;;N;;;;;
10CDE; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ZR;Ll;0;R;;;;;N;;;;;
10CDF; ᳇ SZEKLER-HUNGARIAN ROVAS SMALL LETTER ZT;Ll;0;R;;;;;N;;;;;

11. Acknowledgements

Tisza, Sándor Vér, Dr. András Záhonyi, and every member of the Community of the Szekler-Hungarian Rovas Writers for their support including photos and other relics of Szekler-Hungarian Rovas.

Last but not least, I thank my mother for her patience and useful advices during the elaboration of the whole work and I remember my father who introduced me to the stenography and the history of Hungary.

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13. Proposal Summary form

<table>
<tr><td colspan="2" align="center">ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html for guidelines and details before filling this form.
Please ensure you are using the latest Form from http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html.
See also http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html for latest <i>Roadmaps</i>.</td></tr>
</table>

A. Administrative

1. **Title:**	**Proposal for encoding the Szekler-Hungarian Rovas in the BMP and SMP of the UCS**
2. Requester's name:	**Dr. Gábor Hosszú**
3. Requester type (Member body/Liaison/Individual contribution):	Individual Contribution
4. Submission date:	August 18 2008
5. Requester's reference (if applicable):	*http://nimrud.eet.bme.hu/hosszu, http://rovasirashonlap.tar.hu*
6. Choose one of the following:	
This is a complete proposal:	
(or) More information will be provided later:	*Yes*

B. Technical – General

1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	*Yes*
Proposed name of script:	**Szekler-Hungarian Rovas**
b. The proposal is for addition of character(s) to an existing block:	
Name of the existing block:	*No*
2. Number of characters in proposal:	*274*

3. Proposed category (select one from below - see section 2.2 of P&P document):

A-Contemporary	**X**	B.1-Specialized (small collection)	
C-Major extinct		D-Attested extinct	
F-Archaic Hieroglyphic or Ideographic			

B.2-Specialized (large collection)

E-Minor extinct

G-Obscure or questionable usage symbols

4. Is a repertoire including character names provided?	*Yes*
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?	*Yes*
b. Are the character shapes attached in a legible form suitable for review?	*Yes*
5. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?	*Dr. Gábor Hosszú*

If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools

used: *Dr. Gábor Hosszú, FontCreator 5.6, hosszu@eet.bme.hu,*

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[1] Form number: N3152-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05)

6. References:

    a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?   *Yes*

    b. Are published examples of use (such as samples from newspapers, magazines, or other sources)

    of proposed characters attached?   *Yes*

7. Special encoding issues:

    Does the proposal address other aspects of character data processing (if applicable) such as input,

    presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?   *Yes*

---

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see http://www.unicode.org/Public/UNIDATA/UCD.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard. – **See below.**

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	*No*
If YES explain	

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes

If YES, with whom?

Alpár Adorjáni, Zoltán Bajtai, Gábor Bakonyi, István Barna, Éva Budaházy, Béla Czapp, Győző Czettele, Dr. Csaba Dávid, Dr. Dezső Deák (president of the Association of the Rovas Writers of Szeged), Ferenc Dittler, Attila Diviki-Nagy, Sándor Dobos, Attila Fábián, László Fabó, Árpád Fási, Árpád Fáy, Dr. Zsombor Fekete, ifj. Márton Forrai, Zsolt Forrai, Zoltán Főr, Dr. Magor Gáll, László Hódos, Ádám Máté Horváth, Balázs Horváth, Nándor Jankovich, Ádám Joó, Erzsébet Joóné Virág, Ferenc Jóri, József Kiss, Dr. László Kontur, Atilla Koricsánszky, Krisztián Kormos, Tamás Kovács, Dr. Imre Lánszki, Ádám Lénárth, Győző Libisch (leader of the Runic Writing Section of the Society of the Friends of the Old Hungarian Culture), Dr. Szabolcs Márka, Sebestyén Markolt, Hajnalka Nagy, Beatrix Neer, Imre Pető, Tamás Rumi, Lajos Schedl, Ferenc Schell, Gáspár Sinai, László Sípos, Ferenc Sólyom, Boglárka Soós, Gábor Szabó, Gábor Szakács (president of the Sándor Forrai Runic Writer Association), Klára Szakács Gáborné Friedrich, André Szabolcs Szelp, Miklós Szondi, András Tisza, Mária Tiszáné Bencsik, Ákos Tóth, Ferenc Tóthárpád, Csaba Varga, Géza Varga, József Kadocsa Vetráb, Dr. András Záhonyi, Jenő Zomora, Márta Zomora et al., Community of the Szekler-Hungarian Rovas Writers, http://geocities.com/rovasujsag/MRK/MRK.html

If YES, available relevant documents: *Yes*

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Yes

Reference:

*Continuous historical and contemporary use by Hungarians.
http://rovasirashonlap.tar.hu
"Future Spectator – Rovas Writing Journal": http://jovobenezo.blogspot.com/
„Home Knowledge Camp" http://geocities.com/honismeretitabor/
Pages of Jankovich Nándor: http://geocities.com/jankovichnandor
Terembura. Hunnish Research Journal: http://www.hunok.hu/
Yudit Home Page: http://www.yudit.org/
Runic Writing Section of the Society of the Friends of the Old Hungarian Culture: http://omt.atw.hu/
Sándor Forrai Runic Writer Association: http://www.rovasirokor-forrai.xw.hu/
Írástudó newsletter: http://irastudo.fw.hu/
Rovásírás: http://www.hun-idea.com/4rovasiras.htm
Rovás Editor: http://www.sportspositive.com/rovas/
Rovásírás: http://www.pserve.hu/rovas/
A székely-magyar rovásírás, http://crowland.uw.hu/rovasiras.html
Research Institute of Writing History, http://ikint.uw.hu
Gabor Z. Bodroghy: The Szekler-Hungarian Rovas, http://users.tpg.com.au/etr/rovas/hurov.html
Community of the Szekler-Hungarian Rovas Writers,
http://geocities.com/rovasujsag/MRK/MRK.html
Rovas site of Zoltán Für: http://www.rovas.hu
Magyar rovás("Hungarian Rovas") by Miklós Szondi: http://www.magyarrovas.hu*

4. The context of use for the proposed characters (type of use; common or rare)

Common with increasing popularity

Reference:

*Increasing number of home pages used Szekler-Hungarian Rovas writing. E.g.:
http://rovasirashonlap.tar.hu/csatolsk/csatolsk.htm*

5. Are the proposed characters in current use by the user community? *Yes*

If YES, where? Reference:

In Hungary, in Rumania (mainly in Szeklerland), in Slovakia, in Serbia, in Ukraine and in every place where Hungarians live.

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

Yes

If YES, is a rationale provided? *Yes*

If YES, reference: *All characters form a complete system; each of them exists in the Szekler-*

Hungarian Rovas, only. Currently it is used contemporary.

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?   *Yes*

8. Can any of the proposed characters be considered a presentation form of an existing
   character or character sequence?   *No*

        If YES, is a rationale for its inclusion provided?

          If YES, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either
   existing characters or other proposed characters?   *No*

        If YES, is a rationale for its inclusion provided?

          If YES, reference:

10. Can any of the proposed character(s) be considered to be similar (in appearance or function)
    to an existing character?   *No*

         If YES, is a rationale for its inclusion provided?

           If YES, reference:

11. Does the proposal include use of combining characters and/or use of composite sequences?   *No*
    If YES, is a rationale for such use provided?

           If YES, reference:

       Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?   *No*

           If YES, reference:

12. Does the proposal contain characters with any special properties such as
    control function or similar semantics?   *No*

         If YES, describe in detail (include attachment if necessary)

13. Does the proposal contain any Ideographic compatibility character(s)?   *No*
    If YES, is the equivalent corresponding unified ideographic character(s) identified?

           If YES, reference:

14. Appendix – History of the Szekler-Hungarian Rovas

14.1. Introduction to the history of the Szekler-Hungarian Rovas

In the followings examples of the relics of the Szekler-Hungarian Rovas will be presented in order to serve as a reference basis for the decisions about the Szekler-Hungarian Rovas script.

14.2. The ancient times up to the 9th century

The following relic (*Fig. 14.2-1*) is found in Hungary (Balatonboglár city, Somogy county), the script is on a snaffle-stick [23]. Its age is between 4th…9th centuries equestrian nations came to this area. All numbers and characters exist in the Szekler-Hungarian Rovas. In the first line there are four "X", which is 40 in Szekler-Hungarian Rovas numbers and in the second line the characters are (from right-to-left): "r" Ͷ, "g" Λ and "ty" Ж. Since in the earliest time in the Szekler-Hungarian Rovas the vowels were not signed in many cases and the shortening was extensively used due to the shortage of the target material, from these three characters the original meaning is very hard to recover.

Figure 14.2-1: Snaffle-stick (*left*) and the numbers and characters on it (*right*) [23].

14.3. The 9th-12th Centuries

The relic on the *Fig. 14.3-1* is found in village Bodrog-Alsóbű in county Somogy, Hungary from the 9th-10th century [23], [35]. The historian-archeologist-linguist Dr. Gábor Vékony he was professor in the Eötvös Loránd University, Budapest) read it: *"fónak"* ◊٩⊃⊗, in English: *"I would like to blow"* [the fire for melting the iron]) [35].

Figure 14.3-1: One of the oldest relic ˮ◊ᑿ꠷⊗ₑₑ of the Szekler-Hungarian Rovas [23].

14.4. The 13ᵗʰ-14ᵗʰ Centuries

The original version of the Bologna stick calendar may be created in the 13ᵗʰ century. Then the stick calendar was replicated by observant Franciscus monks in the 15ᵗʰ century. This stick calendar has been vanished, but authentic copy was created by Luigi Ferdinando Marsigli Italian soldier and naturalist in 1690 [23], [36], [63]. *Fig. 14.4-1/a,b,c,d,e* show a Szekler-Hungarian Rovas alphabet from Marsigli and some parts of the Rovas stick calendar [64]. This relic is one of the most important Szekler-Hungarian Rovas legacy document. In the alphabet there is a bug symbol *nb* ȣ. It should be noted that the alphabet in the *Fig. 14.4-1/a* is written in the 17ᵗʰ century and the whole relic show the effects of the multiple copies.

Figure 14.4-1/a: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].

Figure 14.4-1/b: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].
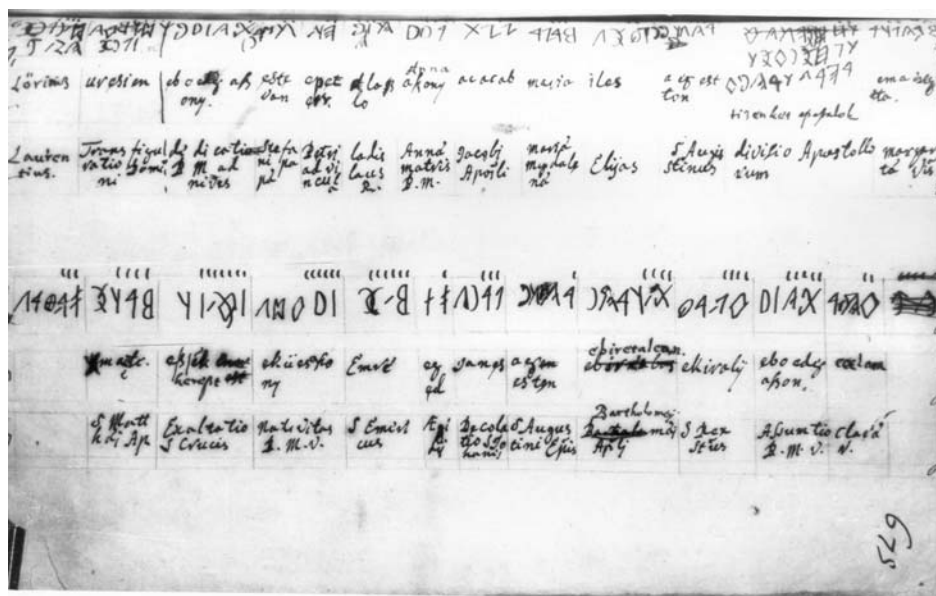
Figure 14.4-1/c: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].
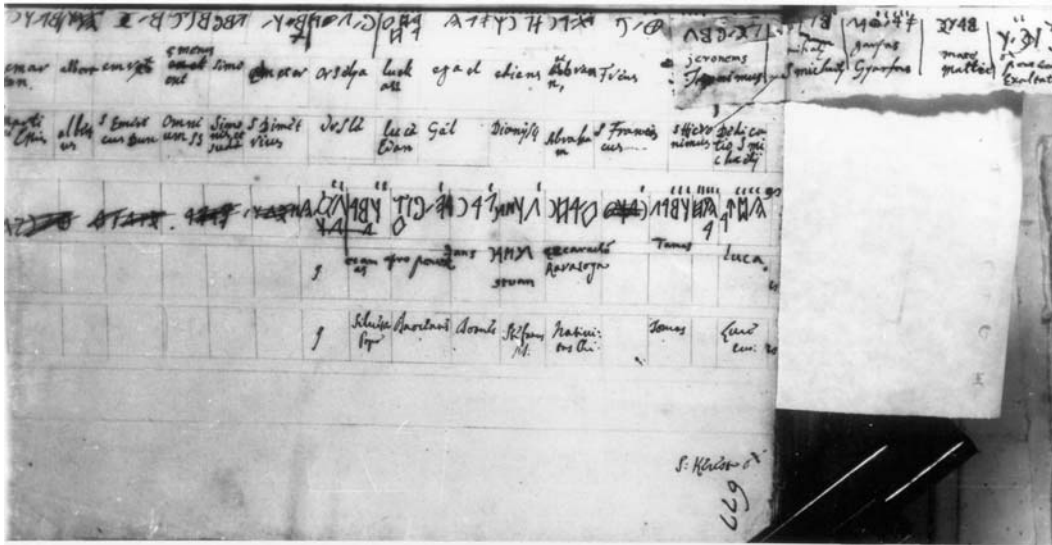
Figure 14.4-1/d: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].
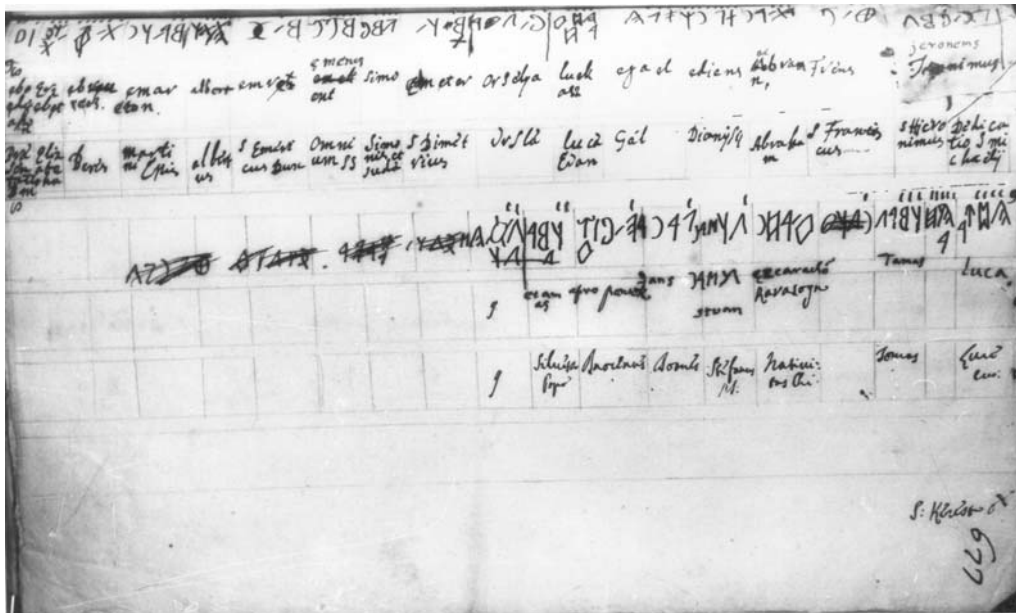
Figure 14.4-1/e: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].
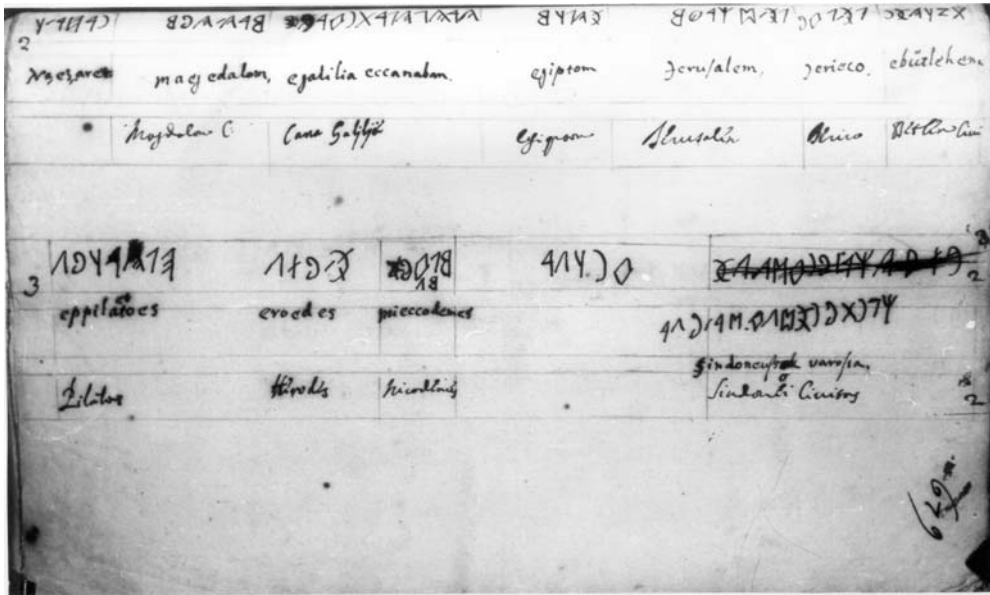
Figure 14.4-1/f: An alphabet from Marsigli and some parts of the paper copy of the Bologna stick calendar [23], [36].

Fig. 14.4-2 shows another page of Marsigli's manuscript where the Name Days beginning with *Ambruzs* (4-th of April) are on top right corner.
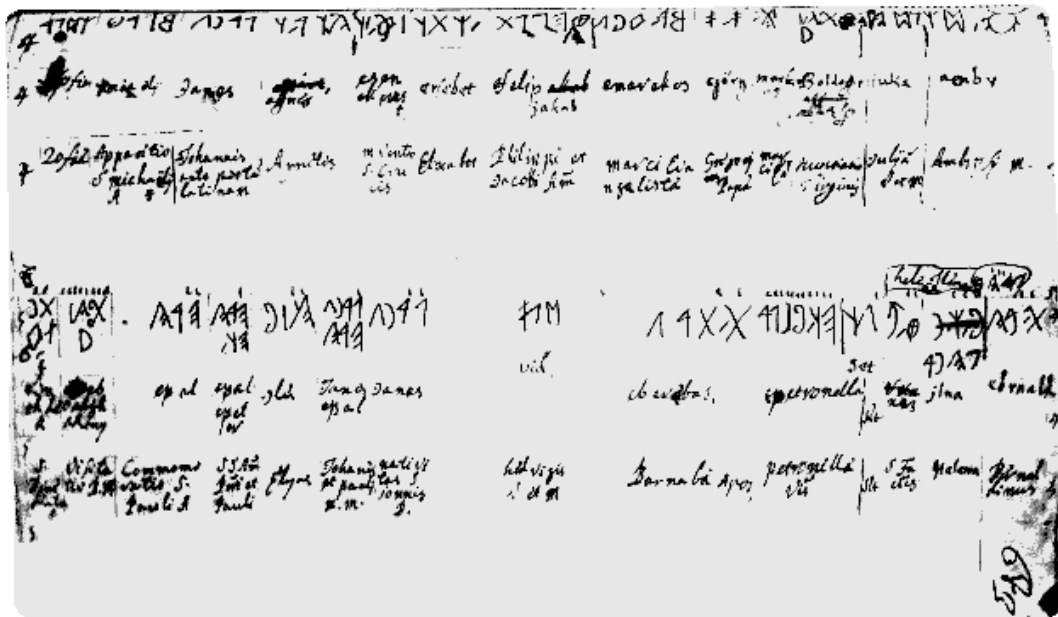
Figure 14.4-2: A page from the Bologna stick calendar [14]

The importance of the Bologna relic is that it followed the original rules of creating ligatures and skipping characters similarly to stenography. An example is seen on *Fig. 14.4-3*, which is the name of August 15, the Feast of the Assumption of the Blessed Virgin Mary, who is called in Hungarian "Nagyboldogasszony" ("*Great Blessed Lady*"). In the calendar there are more Feast of Virgin Mary, all of them are called "Boldogasszony" ("*Blessed Lady*") in the stick calendar. On the *Fig. 14.4-3* the script contains regular ligature and skipping mainly vowels similar to the stenography [4]. The script is in *Rovás Szabvány* characters: ⅁IΛX. (NY o sz SZ a G o d OB), the lower case letters are skipped in the Rovas script of the *Fig. 14.4-3*. This kind of shortening was usual in the oldest Szekler-Hungarian Rovas.
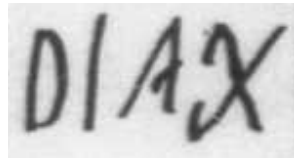
Figure 14.4-3: Blessed Virgin Mary's Feast in the stick calendar originated from the 13ᵗʰ century [23].

From the 13ᵗʰ-14ᵗʰ century there is an inscription from village Vargyas on a stone (it was originally used as a font) in temple [45]. The text is "MiHáLY J iRTáN KöVeT" (*J. Mihály wrote the stone*"), in Rovas Standard: ᛘᛔᛂ ᛃᛘ ᛏ ᛟᛝᛋ as *Fig. 14.4-4* presents [23]. "*Rovas*" (or "*Rovás*" with the Hungarian spelling) means "*Runic*" in Hungarian The vowels "i", "á", "i" again, "ö" and "e" were left out, as it was usual in the stone-inscription in this age. The "J" is an abbreviation, the starting character of a Christian name.

Figure 14.4-4: Inscription from Vargyas (photos and authentic drawing) [23], [45].

14.5. The 15ᵗʰ Century

In the 15ᵗʰ century an interesting Szekler-Hungarian Rovas script was scratched into a brick (before burning out). Now it is in a temple in a village Székelyderzs (in Szeklerland, Transylvania, Romania). The two photos of the brick and the drawing of the inscription can be seen on *Figure 14.5-1* [23] [44]. The text on the brick is "M*i*klos Anti p*a*pp" ("*Tony Miklos cleric*"). The character "m" in the text differs

from the standard "m" ⟨symbol⟩ since it is a ligature of the "m" ⟨symbol⟩ and "i" ⟨symbol⟩. The bug symbol "ant" ⟨symbol⟩ is applied in the text and it is also in a ligature; it is created from the "ant" ⟨symbol⟩ and the "i" ⟨symbol⟩. The character "a" ⟨symbol⟩ absents from the word "papp", leaving out a vowel is typical in the oldest relics of the Szekler-Hungarian Rovas.
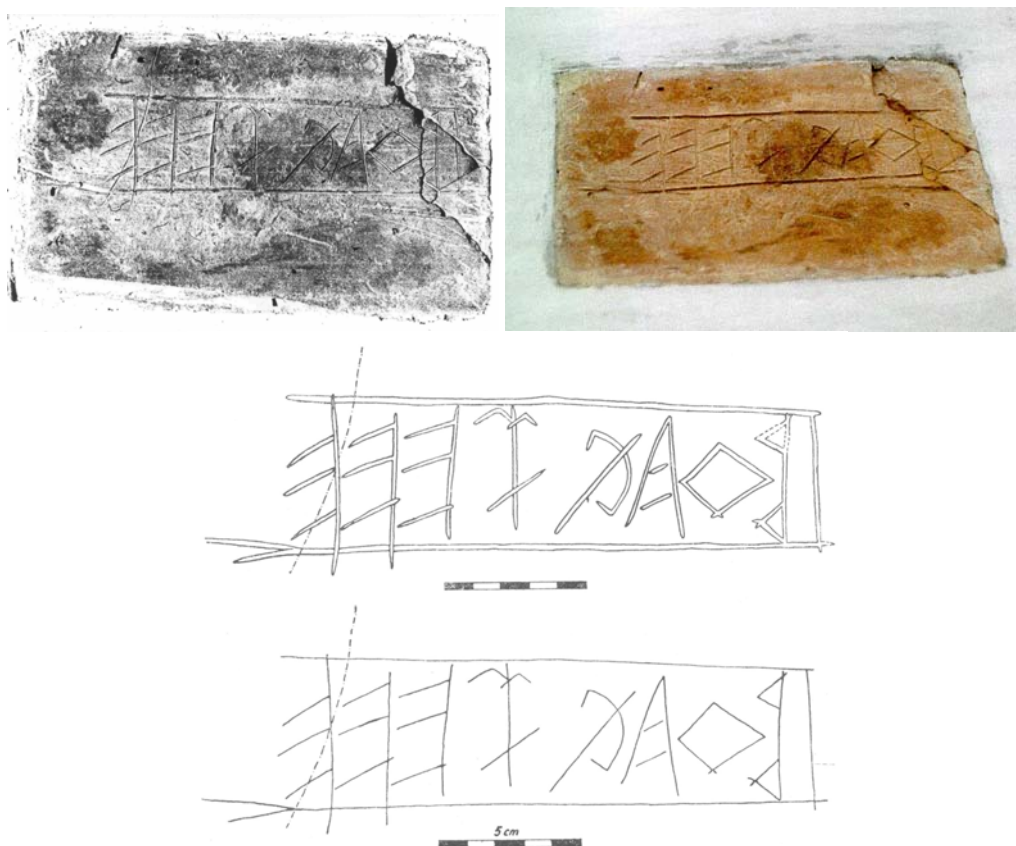
Figure 14.5-1: Brick inscription from Székelyderzs from the 15th century [23], [44].

There are hundreds of Szekler-Hungarian Rovas legacies from the Middle Ages [15]. E.g. in the court of the great Hungarian Renaissance ruler, King Matthias, the Szekler-Hungarian Rovas was in fashion. One of the most important is the *Alphabet of Nikolsburg* (middle of the 15th century, not later than 1483) [4], [91], *Fig. 14.5-2/a* [54]. The whole sheet can be seen on the *Fig. 14.5-2/b*.

The sheet also contains a Hebrew alphabet that shows that a very educated person wrote the Szekler-Hungarian Rovas alphabet. Furthermore it is obvious that the Szekler-Hungarian Rovas alphabet was taken as a serious writing if the Rovas characters were compared to the very important Hebrew characters (that are used in the Bible).
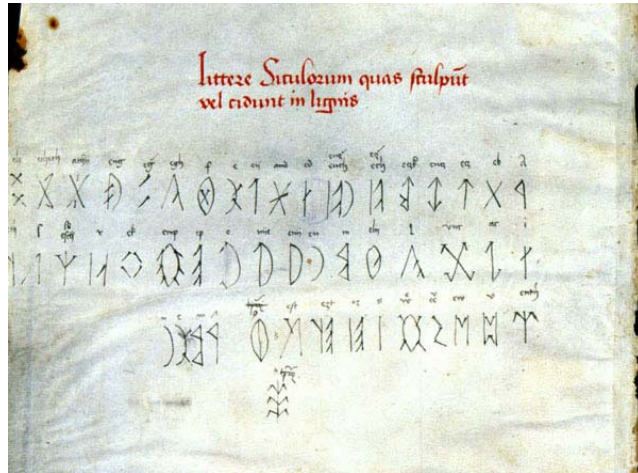
Figure 14.5-2/a: Alphabet of Nikolsburg [54]

Figure 14.5-2/b: The whole page of the alphabet of Nikolsburg [23]

The Alphabet of Nikolsburg contains a lot of special characters. The most interesting is the so-called "tprus" ✻ alone in the fourth line of the alphabet-list. Zsolt Máté gave an explanation that the word "*tprus*" is shortening of the Latin word "*temperius*" and that is why the symbol tprus ✻ is the older form of the symbol "ent" Υ [26]. However, Varga showed that there is a small but clearly visible double cross near the "tprus" ✻ text and also in the third row between the symbol us ⬓ and symbol Λ [27]. The symbol tprus ✻ is just below this double cross among ⬓ and Λ as it can clearly be seen on the *Fig. 14.5-3*. Consequently the symbol tprus ✻ must be taken into account as an independent, existing symbol.
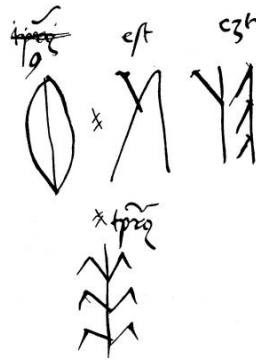
Figure 14.5-3: Resized part of the Alphabet of Nikolsburg [27].

From 1497 there is a mural inscription in village Gelence, Kovászna county, (in Transylvania, Romania) [38], see *Fig. 14.5-4*. Its meaning is "Pál pap" (="Paulus cleric"), in Szekler-Hungarian Rovas: ꓮꓶꓶ ꓕꓶꓶ.

Figure 14.5-4: Mural inscription from village Gelence from 1497 [23]. The original mural (*left*) and the inscription, only (*right*).

14.6. The 16th Century

During the Turkish wars, after 1526, an independent Hungarian state was formed, the Transylvanian Principality. Here a lot of people wanted to use the Szekler-Hungarian Rovas for official correspondence. While the Latin-based Hungarian alphabet remained the official one, a lot of Hungarian people (mainly the Szeklers) used the Szekler-Hungarian Rovas. Another inscription was discovered in the oratory in a Christian church of a village Csikszentmiklós in Transylvania (now in Romania) in the 18th century. That is why this relic is called "Csíkszentmiklósi-Csíkszentmihályi felirat ("*Inscription from Csíkszentmiklós-Csíkszentmihály*") [1]. Since then it has vanished, but there are at least three copies known today. The oldest copy known is created by Sámuel Szilágyi in year 1749 (*Fig. 14.6-1*).
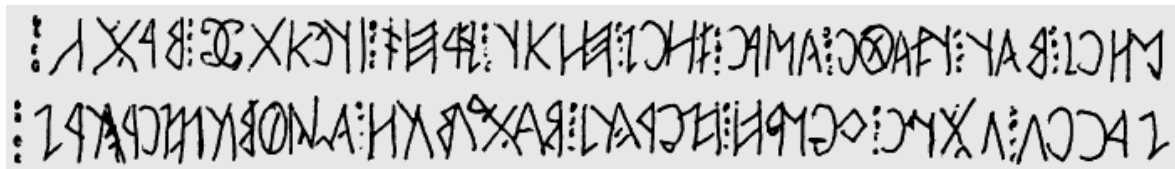
Figure 14.6-1: The Oratory in Csíkszentmiklós-Csíkszentmihály [14].

The original inscription is from 1501 based on the meaning of the text. Gyula Sebestyén corrected the faulty characters (based on his opinion) [4]. His result is presented on the *Fig. 14.6-2*.

Figure 14.6-2: The corrected copy of the *Inscription from Csíkszentmiklós-Csíkszentmihály*, repaired by Gyula Sebestyén [23].

Another copy made by Imre Simonchicz in May 26th 1751 [4] is seen on the *Fig. 14.6-3*.

Figure 14.6-3: The copy of the *Inscription from Csíkszentmiklós-Csíkszentmihály*, created by Imre Simonchicz [4], [23].

The most important relic of the left-to-right writing direction is the *Constantinople inscription* (*Fig. 14.6-4/a*) [51]. In 1515 in Costantinople (Istambul) Barnabás Bélay, the ambassador of the Hungarian king Ulászló II had to wait for two years and during this time a Hungarian person called Tamás Kedei Székely wrote this inscription onto the wall of the ambassadors. In 1553 *Hans Dernschwam* explored and copied it, before the building has been destroyed due to a fire-accident. Another two copies also exist as the *Fig. 14.6-4/b* and *Fig. 14.6-4/c* demonstrates it. The text contains a lot of ligatures.

Figure 14.6-4/a: The Derschwam copy of the *Constantinople inscription* from 1515 [23], [51]

Figure 14.6-4/b: The Prague copy of the *Constantinople inscription* from 1515 [23], [42]

Figure 14.6-4/c: The Wolfenbüttel copy *Constantinople inscription* from 1515 [23], [42]

One of the most interesting legacies is the book of János Telegdi in year 1598. It had a major influence on later pen-written Rovas documents. He noted that the "*rovás is the only suitable writing system to write the Hungarian language*". The *Fig. 14.6-5* shows page 4 in his Rudimenta [7], with some exercises and examples [14].
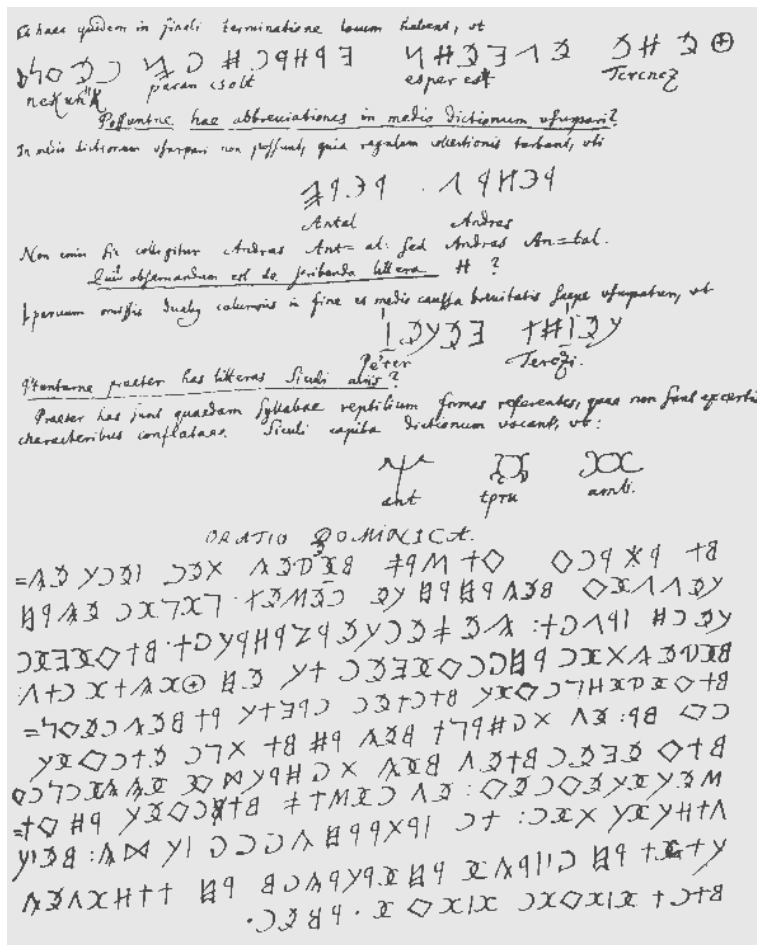
Figure 14.6-5: The Rudimenta Hunnorum by János Telegdi [7], [14], [23]

The *Fig. 14.6-6* presents the alphabet of János Telegdi in the Rudimenta Hunnorum [7].

Figure 14.6-6: Alphabet of János Telegdi in the Rudimenta Hunnorum [7], [23]

A wall-script in the temple in Berekeresztúr (Transylvania) can be seen on the *Figure 14.6-7*. Its age is between 1563 and 1619. The relic direction is right-to-left; its meaning is "BALoG", where the character "o" is absent. The relic follows the shortening rules of the Szekler-Hungarian Rovas, since the second vowel is not necessary to include if the vowels have the same height (*high* or *deep*). Vowel height is named for the vertical position of the tongue. In Hungarian the high vowels are *e, é i, í, ö, ő, ü, ű*; the deep vowels are *a, á, o, ó, u, ú*. In this case the "*á*" and the "*o*" are both deep vowels. The word "Balog" is a typical, old family name in Hungary.

Figure 14.6-7: The wall-script in the temple Berekeresztúr from the end of the 16th century [26]

14.7. The 17th Century

In 1604 István Szamosközy wrote a poem (a pasquinade) against Emperor Rudolf II (July 18 1552 – January 20 1612; emperor of the Holy Roman Empire from 1576 to 1612) as *Fig. 14.7-1* shows. The most sensitive expressions were written in Szekler-Hungarian Rovas [43]. The directionality of the title is right-to-left, in the text it is left-to-right. This relic uses casing and a lot of ligatures. It is interesting that the poem is written in Latin language, even the words in Szekler-Hungarian Rovas, too.

Figure 14.7-1: The poem of István Szamosközi against Emperor Rudolf from 1604 [23], [43].

In 1627 and in 1629 an alphabet and other relics are created in Rovas by Mihály Bonyhai Moga and another (unknown) person [50]. These can be seen on the *Fig. 14.7-2/a* from 1629 and *Fig. 14.7-2/b* from 1627. These relics are very valuable since it contains some special ligatures, too.
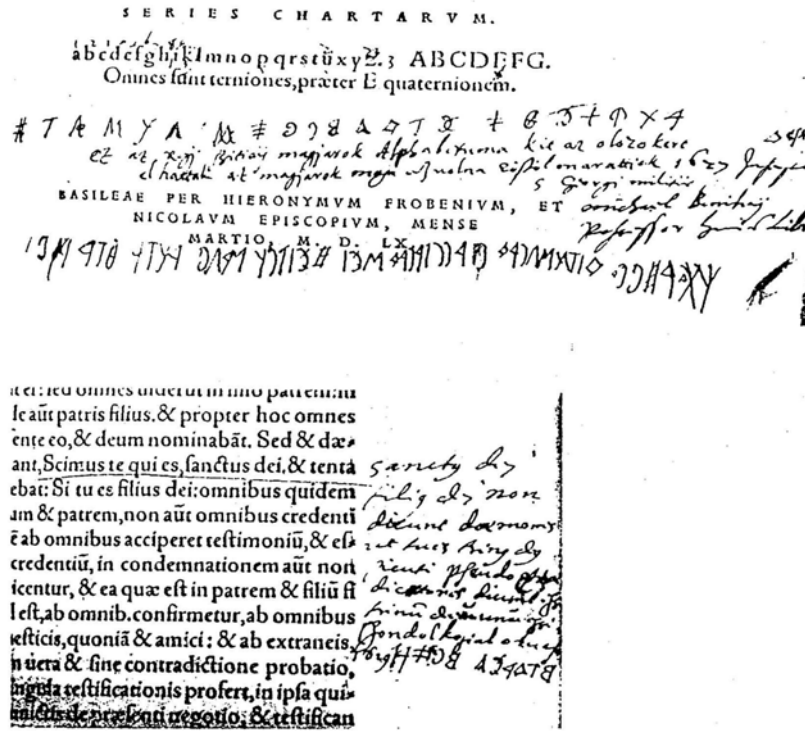
Figure 14.7-2/a: Alphabet and scripts by Mihály Bonyhai Moga and another person from 1629 [23], [50].

Figure 14.7-2/b: Scripts by Mihály Bonyhai Moga from 1627 [23], [50].

From March 12, 1653 in the album sheet of György Komáromi Csipkés there is a sentence in Szekler-Hungarian Rovas (the second and third lines) between Hebrew (the first line) and Latin (from the fourth line) scripts as *Fig 14.7-3* shows.
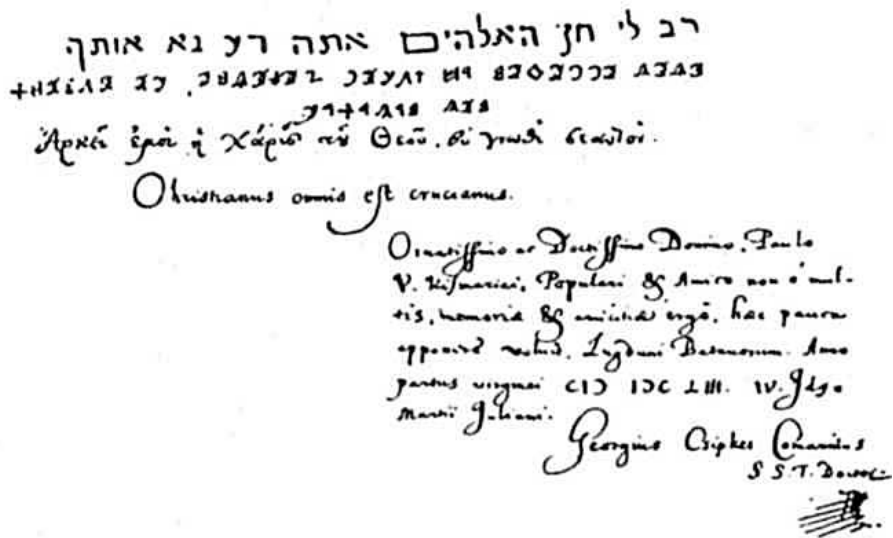
Figure 14.7-3: The sentence of György Komáromi Csipkés from 1653 [23].

The sentence on the *Fig. 14.7-3* is the followings (in two rows) "*Elég énnekem az Isten kegyelme, te esmérd / meg magadat*" (="*Lord's grace is enough for me, you should get to know yourself*"). It is in the Rovas Standard character set of the Szekler-Hungarian Rovas:

An important development was in the Szekler-Hungarian Rovas the appearance of the character "é" ⟩. differing from the character "e" ⟩. In the Hungarian pronunciation these two vowels differ from each other. The developing process was exiting: first a glyph variations of the "e" ⟩ was developed (the ⟩), but it was first used as "e". Later this glyph was applied as "é" and the original e was used as "e". The *Fig. 14.7-4* gives the two alphabets of István Miskolczi Csulyák from 1610-1645 [52], then *Fig. 14.7-5* presents Gáspár Miskolczi Csulyák's memory script that uses the ⟩ character as "é". The later relic is from February 3, 1654 [8].
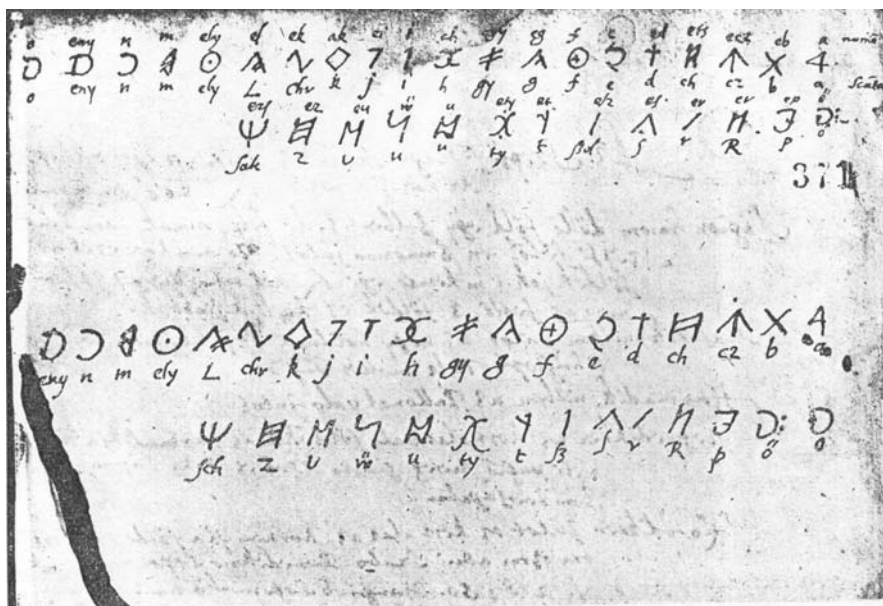
Figure 14.7-4: The two alphabets of István Miskolczi Csulyak from 1610-1645 [23], [52].

Figure 14.7-5: Gáspár Miskolczi Csulyak's memory script from 1654 [8], [23].

An important relic of the Szekler-Hungarian Rovas is located in Énlaka, Transylvania (currently in Romania) from 1668 [101]. The *Fig. 14.7-6* presents it. The text is: "*Egy az Isten. Georgius Musnai Da(r)kó.*", in English: „*There is but one God. Georgius Musnai Da(r)kó*" [25]. Da(r)kó is another family name of György Muzsnai (Georgius Musnai) according to Géza Ferenczi [102].

Figure 14.7-6: The Énlaka relic from 1668 [13].

János Kájoni made an alphabet and two sentences in Rovas in 1673 as it can be seen on the *Fig. 14.7-7* [4], [23].

Figure 14.7-7: The alphabet and sentences of Franciscan monk János Kájoni from 1673 [4], [23].

George Hickes published in 1703, Oxford in his book a "*Hunnish alphabet*" originated from János Harsányi from 1678 [39], see *Fig. 14.7-8* [23]. The alphabet was discovered by Károly Antal Fischer [1].

Figure 14.7-8: Harsányi-alphabet from 1678 [23], [39].

14.8. The 18th Century

An alphabet and the script (*Fig. 14.8-1*) in Szekler-Hungarian Rovas was published in the book of Mátyás Bél in year 1718 [23], [24]. The text is the Lord's Prayer in Hungarian. An interesting in the alphabet is the individual character of the "*e*" and the "*é*", that was a step in the development of the Szekler-Hungarian Rovas via use individual characters for each Hungarian vowel.

Figure 14.8-1: Alphabet from the book of Mátyás Bél from 1718 [23], [24].

In 1730 German philologist Gottfried Hensel made maps of languages [30], see *Fig. 14.8-2*. The left one is the area of Hungary the Oratio Dominica is written in Latin script in Hungarian, but on the bottom-table of the map in the first line the alphabet of the Szekler-Hungarian Rovas is presented. Hensel called it as "Hunnorum" [*Hunnish*], which fits to the current Hungarian name of the Szekler-Hungarian Rovas.

Figure 14.8-2: The "Lord's prayer" map of Hensel from 1730 [30].

In 1739 Péter Bod copied the Rudimenta [7], however, he used his own knowledge in writing. On the *Fig. 14.8-3* three bug symbols can be clearly seen: ant: ⟨glyph⟩, tpru: ⟨glyph⟩, and amb: ⟨glyph⟩. In the *Rovas Szabvány* [25], [34] the original glyphs from the oldest version of the Rudimenta [7] is used. There are a lot of ligatures on the *Fig. 14.8-3*.

Figure 14.8-3: Alphabet and script samples of Péter Bod in 1739 [23].

In May 2, 1753 some important legacy documents were created in the *Marosvásárhelyi kézirat* ("*Manuscript from Marosvásárhely [in Transylvania]*"). One of these is an alphabet [8], [23], its writer is called "*Anonym*" on the handwriting (*Fig. 14.8-4*). The title of the relic says: "*the letters of the old Hunnish…*").

Figure 14.8-4: Szekler-Hungarian Rovas alphabet from May 2, 1753 [8], [23].

The second document is on an individual sheet, called Dési-alphabet in the Marosvásárhelyi manuscript [8]. As *Fig. 14.8-5* presents, this relic contains a accurate alphabet and a detailed list of abbreviations.

Figure 14.8-5: Alphabet and ligatures in the Dési-alphabet in the Marosvásárhelyi Manuscript from Szekler-Hungarian Rovas alphabet from May 2, 1753 [8], [23].

The third document from the Marosvásárhelyi Manuscript, called Dobai-alphabet in the Marosvásárhelyi manuscript [8], see *Fig. 14.8-6*.
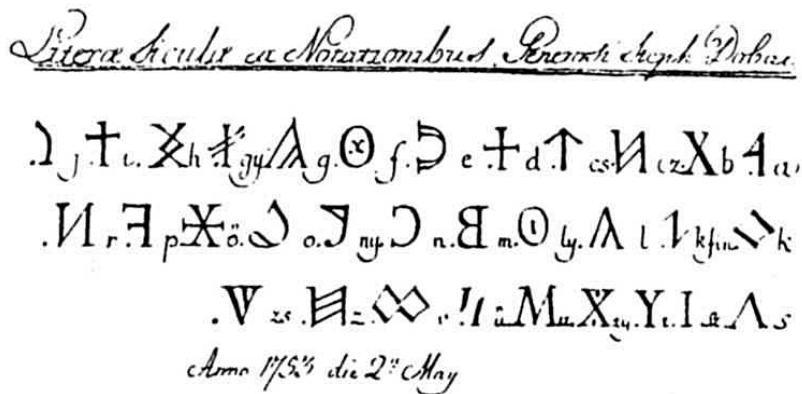
Figure 14.8-6: Dobai-alphabet in the Marosvásárhelyi Manuscript from Szekler-Hungarian Rovas alphabet from May 2, 1753 [8], [23].

From 1753 there is an interesting collection of nine Szekler-Hungarian Rovas alphabets with some additional alphabets for the comparison from the Marosvásárhelyi Manuscript [8] as the *Fig. 14.8-7* presents. The alphabets from left are the alphabet of János Telegdi; Kapossi; Dési; Anonym; Udvarhelyi; János Harsányi; Mátyás Bél (from 1718); Lipsius (from about 1715); Dobai. This table is the first scientific review of the known Rovas alphabets.

Figure 14.8-7: Collection of nine alphabets from the Marosvásárhelyi Manuscript from 1753 [8], [23].

On April 16, 1756 the Jesuit missionary János Zakariás wrote a letter from his mission in Peru to the rev. József Bartakovics partly in Latin partly in Hungarian [46]. He described the brutality of the conquerors against red Indians. He used the Szekler-Hungarian Rovas characters to cipher the most sensitive words in his letter as *Fig. 14.8-8* presents. This Rovas script is left-to-right directed. Ha also made a remark: "*If you don't know the Siculo-Hunnic characters, go for advise to Vargyasi, Bél, and Otrokócsi.*" This sentence presents the actual name of the Szekler-Hungarian Rovas in the 18th century [86].

Figure 14.8-8: Letter of János Zakariás from 1756 [86], [46].

Between 1759…1769 Péter Bod made a stone-script in the reformat temple in Fogaras (Transylvania) [8], [23] as the *Fig. 14.8-9/a* presents it. It was manufactured in village Magyarigen (Transylvania), since the Rovas script says: "*Bod Péter készített Igenben*" "*Bod Péter made it in Igen [shortening name of village Magyarigen]*".

Figure 14.8-9/a: Szekler-Hungarian Rovas alphabet from 1759…1769 [8], [23].

The text of the *Fig 14.8-9/a* can be seen written in the Rovas Standard (*Rovás Szabvány*) on the *Fig. 14.8-9/b*. The differences came from the glyph variations of the Szekler-Hungarian Rovas.

Figure 14.8-9/b: Péter Bod's Szekler-Hungarian Rovas alphabet written in Rovas Standard character set [25].

The following legacy document is from 1770, a letter of "K. G." as *Fig. 14.8-10* shows [8].

Figure 14.8-10: Title case in the letter of "K. G."

In 1785 János Goedri wrote a script in Szekler-Hungarian Rovas (he called as "*Scythian letters*") into Protocollum Ecclesia Ungaro Evangel Coronensis in Bononia, as *Fig. 14.8-11* shows.

Figure 14.8-11: János Goedri's writing in Rovas from 1785 [23].

In May 15, 1786 there is a Szekler-Hungarian Rovas script from village Furta, Bihar county (Hungary). It is interesting that this area is far from Székelyföld ("*Szeklerland*"), which was the centre of the Szekler-Hungarian Rovas activity. *Fig. 14.8-12* shows the pages of the parish register [23]. It was explored by Dr. Tamás Esze and Sándor Forrai published it at first [37].
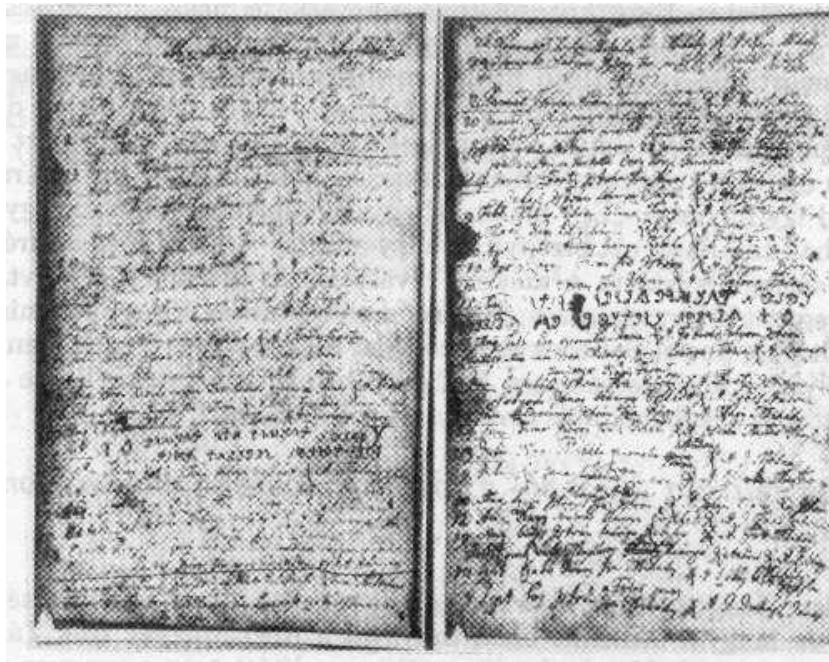
Figure 14.8-12: Szekler-Hungarian Rovas in a parish register from village Furta in 1786 [23].

14.9. The 19th Century

In 1803 some Hunnish-Schytian-Szekler alphabets (as the Szekler-Hungarian Rovas called in that time) are published by Miklós Révai [42] as *Fig. 14.9-1* presents. In this relic there are many ligatures, too.

Figure 14.9-1: Hunnish-Schytian-Szekler alphabets of Miklós Révai from 1803 [23].

From 1806 there is a Szekler-Hungarian Rovas alphabet ("*Letters of the Bibles from the archive of Besztercebánya*") [23], [33] as *Fig. 14.9-2* presents.

Figure 14.9-2: Alphabet from 1806 [33].

Between 1809 and 1840 a "wood-book" is created writing onto birch-peelings; see *Fig. 2.9-3* [1], [8], [70].

Figure 14.9-3: The wood-book between 1809 and 1840 [23].

Before 1821 in the parish register in city Nagybánya (Rumania) there is a Szekler-Hungarian Rovas alphabet and text of the "Lord's payer" [41] as the *Fig. 14.9-4* gives.

Figure 14.9-4: The alphabet and text of the "Lord's payer" in the parish register in Nagybánya before 1821 [23], [41].

In the 19th century somebody (maybe Kálmán Ábrahám) practiced the Rovas on a sheet in a hand-written book. The book was explored by Annamária Huber and Hajnalka Nagy and they presented in the Élő Rovás" ("*Alive Rovas*") Symposium in October 4th 2008 [106]. The two sides of the sheet are shown on the *Fig. 14.9-5/a and 5/b*.
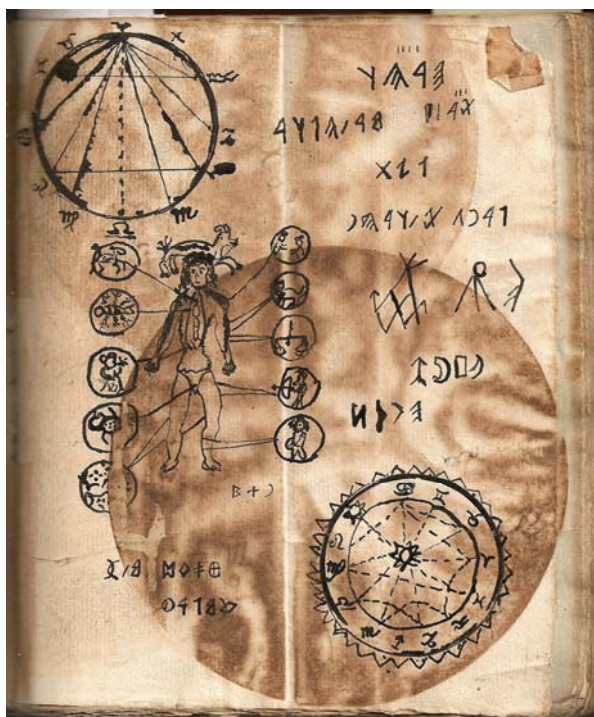
Figure 14.9-5/a: The first side of the Rovas-sheet from the 19th century in the Nagy-Huber book [106].
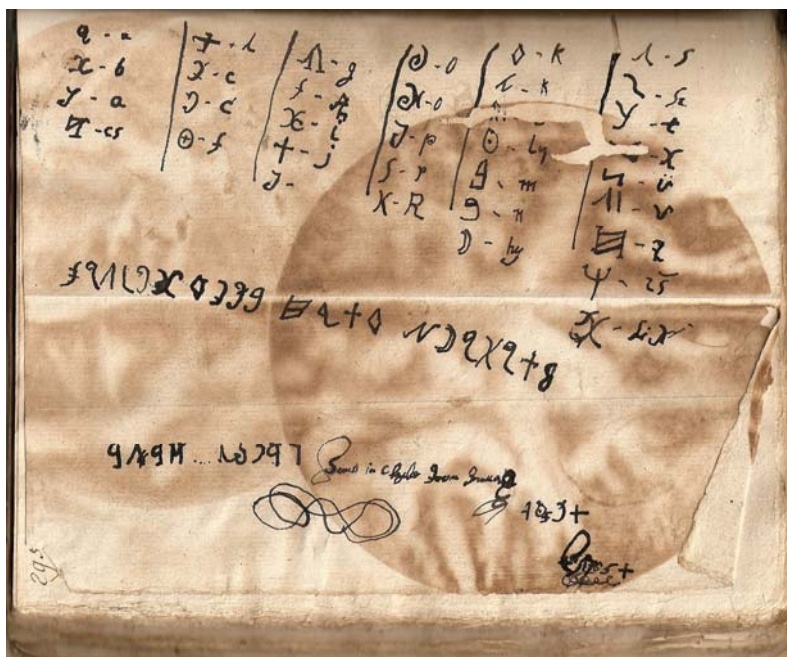
Figure 14.9-5/b: The second side of the Rovas-sheet from the 19th century in the Nagy-Huber book [106].

In the middle of the 19th century in a wood gourd there is a short script in Szekler-Hungarian Rovas [40]. The directionality of the text is left-to-right as the *Fig. 14.9-6* shows.

Figure 14.9-6: Two characters (T and R) on a wood gourd from the middle of the 19th century [23], [40].

14.10. The 20th Century

In the 20th century the Szekler-Hungarian Rovas became more and more popular. A lot of Rovas-related scientific books were published and the number of people using the Rovas for various private and community purposes (typical example is mailing) dynamically increased.

In Transylvania from the historical time to the 20th century the shepherds used the Szekler-Hungarian Rovas numbers on sticks in settlements of sheep or horned cattle. The owner and the shepherd incised the number of animals by using Szekler-Hungarian Rovas numbers then they cut the stick horizontally. One piece remained with the owner, the other with the shepherd when the shepherd took the animals from the owner for herding. At the accounting they joint the two parts, and they were able to check the original number of animals.

In 1902 Mihály Tar made alphabet and scripts as *Fig. 14.10-1/a, b, c* present. On the *Fig. 14.10-1/b* there is a text in Latin-based characters "*Ezt a rovást az édes Atyámtól tanultam / jobbról balra mint a zsidó írást*" ("*I have learnt this Rovas from my father / from right to left as the Hebrew writing*"). It proves that the Szekler-Hungarian Rovas was learnt from the parents and not from books, only. So it is a evidence that this writing was "alive" before 1902, too.
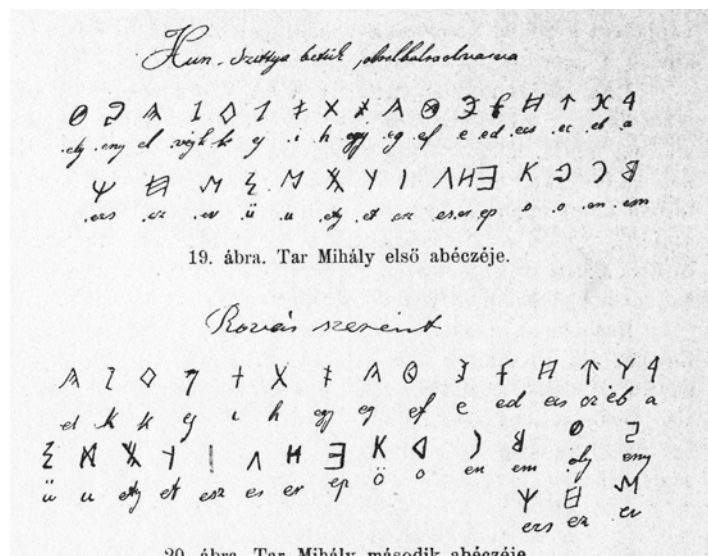
Figure 14.10-1/a: Alphabet of Mihály Tar from 1902
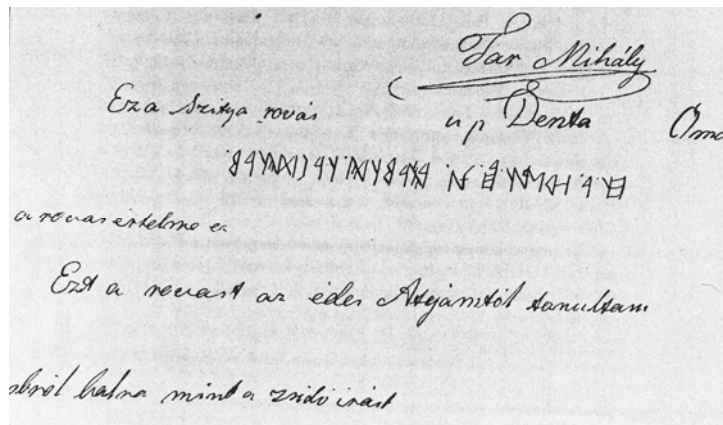
Figure 14.10-1/b: One line script of Mihály Tar from 1902

17. ábra. Részlet Tar Mihály leveléből.
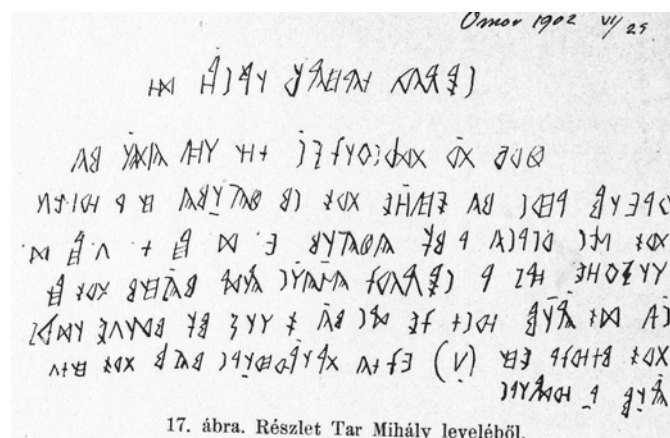
Figure 14.10-1/c: Longer text written by Mihály Tar from 1902

The following document is from 1903, letter of Petrovai János to Mihály Tar (it was published by Sándor Forrai [4] on the page 362 and [9], the *Fig. 14.10-2* presents.

Figure 14.10-2: Title case in the letter of Petrovai János from 1903

On the *Fig. 14.10-3* the alphabet of Adorján Magyar (1887-1978) is shown before 1915. The picture is from Ferenc Sólyom [107].

Figure 14.10-3: Alphabet of Adorján Magyar before 1915 [107].

In 1934 Gyula Németh published a Szekler-Hungarian Rovas (as he called „Szekler") alphabet in his book [91], the *Fig. 14.10-4* presents.

sor-szám	hangérték	betűjel	sor-szám	hangérték	betűjel
1.	a, á	◁ ◁ Λ	18.	m	ᕉ
2.	b	✕	19.	n	)
3.	c	↑	20.	ny	D
4.	cs	Ꮆ	21.	o, ó	Ꞩ
5.	d	✛	22.	ö, ő	Ⴟ ✕ Ⱪ ⵉ ⵉ
6.	e, é	Ꝝ	23.	p	Ⴈ ⵏ
7.	f	⊗	24.	r	Ⱨ И Ⱨ
8.	g	∧	25.	s	∧
9.	gy	‡	26.	sz	ǀ
10.	h	Ȣ	27.	t	Ⴤ
11.	h (ch)	Ȣ	28.	ty	✕ ✕
12.	i, í	✝	29.	u, ú	⋈ ⋈
13.	j	1	30.	ü, ű	Ꮞ Ꮞ Ⴟ
14.	k	◇	31.	v	Ϻ
15.	k (szóvégi)	Ꮮ	32.	z	ᕉ
16.	l	Λ	33.	zs	Ψ Ψ
17.	ly	☉ ⊘			

1. táblázat.

A székely ábécé (Németh Gyula nyomán)

Figure 14.10-4: The Szekler alphabet of Gyula Németh from 1934 [91]

On the *Fig. 14.10-5* The Rovas script of the Deszkatemplom ("*Board-temple*") in Miskolc is shown from 1938. The picture is made by Ferenc Sólyom [107].

Figure 14.10-5: The Rovas script of the Deszkatemplom ("*Board-temple*") in Miskolc from 1938 [107].

In May 29, 1939. Éva György made her votive document in Szekler-Hungarian Rovas [49] as *Fig. 14.10-6* shows. The specialty of the relic is the usage of the four vertical dots as word separator. She also used *soft hyphen* (Unicode: U+00AD, [32]) as in the Hungarian Latin character-based writing, too.
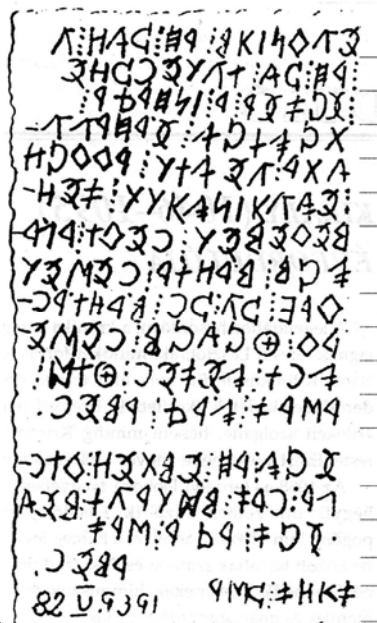
Figure 14.10-6: Votive Document from 1939 [49].

In the middle of the 20th century Dr. Kálmán Gosztonyi, professor in the Saint-Michel College wrote the Szekler-Hungarian Rovas characters presenting in the *Fig. 14.10-7* [88].

Figure 14.10-7: Dr. Kalman Gosztonyi's alphabet from his manuscript (edited version) [49].

In 1988 the book of Sándor Forrai titled "Az írás bölcsője és a magyar rovásírás" (*The Cradle of the Writing and the Hungarian Rovas Writing*) was published in Gödöllő, Hungary [9]. There is a rovas sentence on the cover page of the book, as *Fig. 14.10-8* shows (photo is from Mrs. Klára Szakács Gáborné Friedrich) as: ᛒᚫᚢᚫᛐᛐᛐᚱᚺᚴᛕ ᛐᚫᛒᚫᛚᚴᛁᛐ ᛐᚱᚴ ᛐᚫᛐᚫᛐᚫ ᚷᚷᚴᛐᛞ (*"New data for the history of our ancient writing"*).
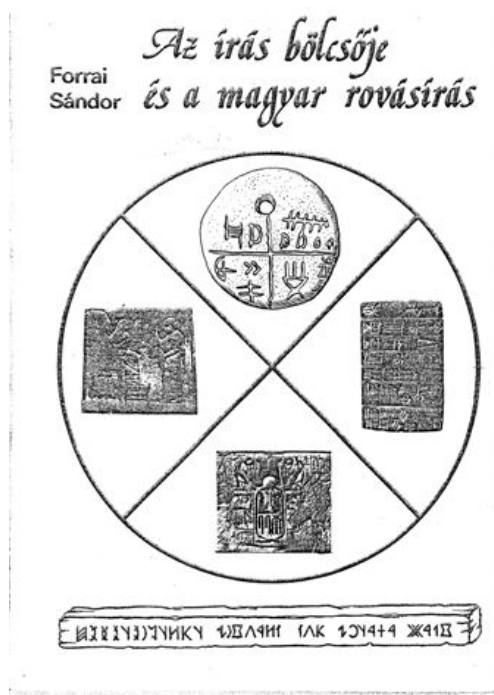
Figure 14.10-8: Rovas sentence on the book of Sándor Forrai in 1988 [9].

On the *Fig. 14.10-9* the "Unified Alphabet" (accepted by *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture* [55] in 1989.) of Győző Libisch from 1989 [108]. The picture is from Ferenc Sólyom [107].

Figure 14.10-9: The Unified Alphabet of Győző Libisch from 1989. [107], [109].

In the second half of the 20th century a nice Szekler-Hungarian Rovas script is written onto a wood luster by a Szekler wood carver from Transylvania, see *Fig. 14.10-10* [69]. The directionality of the Rovas scripts is left-to-right. Its content: "*békét*" ⵝⵣⵐⵕ (to wish peace), "*bort*" ⵝⵑⵀⵔ (to wish wine), "*búzát*" ⵝⵍⵖⵌⵔ (to wish peace). "*Bort, búzát, békét!*" is a Hungarian felicitation. The word "*bort*" ⵝⵑⵀⵔ is an example of the mixed usage of the RTL and the mirrored LTR glyphs, since its directionality is LTR, and the glyph of the "t" (ⵔ) is RTL, but the glyphs "o" (ⵑ) and "r" (ⵀ) are RTL.

Figure 14.10-10: Wood engraving with Szekler-Hungarian Rovas script from the second half of the 20th century (photo is from Győző Libisch) [69].

There are crossword puzzles [29] from 1991 shown in *Fig. 14.10-11*. The left one is the solution of another published earlier (in the number 2, 1991) it the journal *Napjaink* [*Nowadays*], the right one is a new puzzle was set actually (in the number 3, 1991).

Figure 14.10-11: Crossword puzzles of Győző Libisch from 1991 [29].

The *Fig. 14.10-12* presents a document in Szekler-Hungarian Rovas published in a journal in 1993 [85]. The Magyar Adorján-alphabet was used. It is interesting that the directionality is similar to the boustrophedon. Another interesting feature is the word separator symbol that is an asterisk (*).
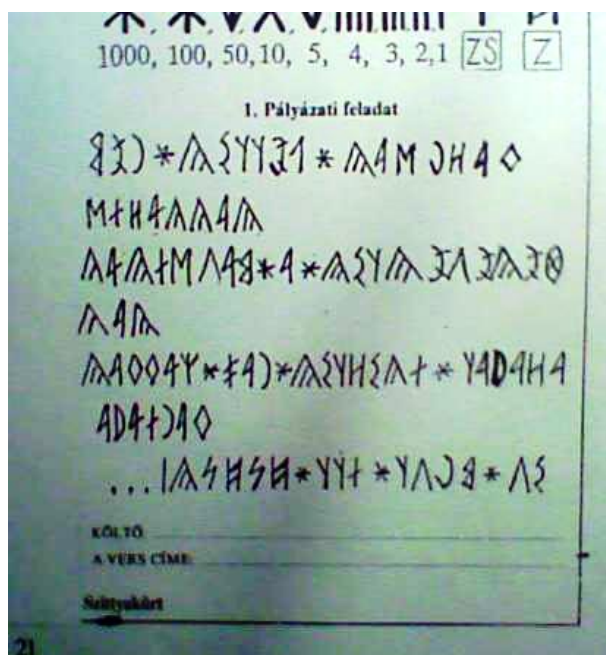
Figure 14.10-12: Portion of a poem in Szekler-Hungarian Rovas in the monthly Journal Szittyakürt [85] from 1993.

The *Fig. 14.10-13* presents the alphabet of Sándor Forrai who was the most widely acknowledged Szekler-Hungarian Rovas researcher and scientist in the 20th century.

Figure 14.10-13: The alphabet of Sándor Forrai from the 90th of the 20th century.

On the *Fig. 14.10-14* two pages of the book of Zsolt Szemerey titled "*Rovásírásunk gyakorlati alkalmazásáról - Vitairat gyanánt*" (*About the practical use of our Rovas writing – For discussion paper*) is shown from 1995 [111], the photo was made by Tamás Rumi in 2008 [106]. In this book the author compared and analyzed the glyph variations of each Rovas character.
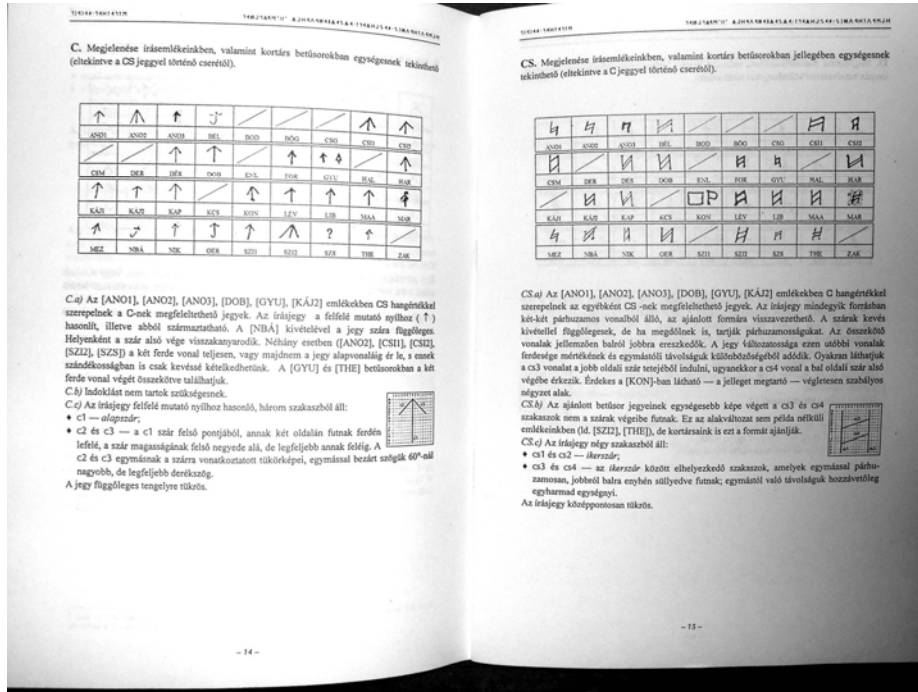
Figure 14.10-14: Two pages of the book Zsolt Szemerey from 1995 [111].

The *Fig. 14.10-15/a* and *Fig. 14.10-15/b* present the legacy documents [10] from Sándor Forrai who was the most widely acknowledged Szekler-Hungarian Rovas researcher and scientist in the 20th century.
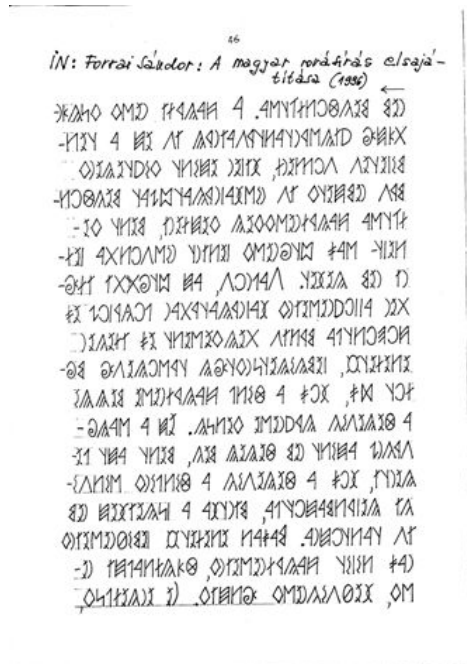
Figure 14.10-15/a: Starting the sentence with capital letter in Sándor Forrai's book [10] from 1996.
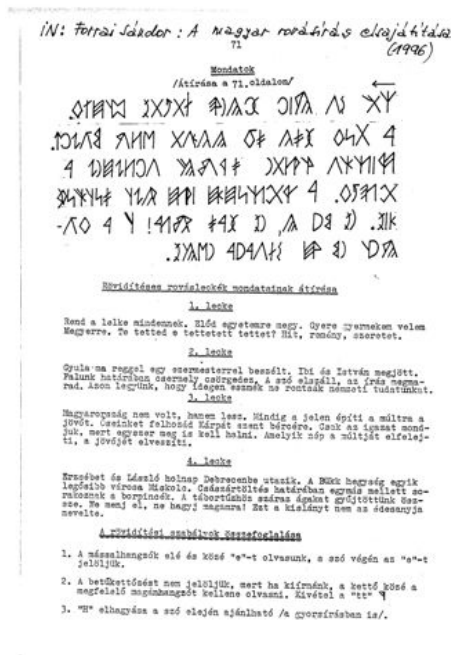
Figure 14.10-15/b: Starting the sentence and in the name of a city Debrecen with capital letter in the book of Sándor Forrai [10] from 1996.

From 1995 the people started to use the *Rovas Szabvány* ("*Rovas Standard"*) was downloadable from the Rovásírás Honlap (Rovas Writing Home Page) of Dr. Hosszú Gábor Assoc. Prof. at the Budapest University of Technology and Economics [25]. Besides to the standard character set, the author created Word Macros for making the ligatures easier. The home page is seen of the *Fig. 14.10-16/a*.

Figure 14.10-16/a: The home page of the "*Rovásírás Honlap*" ᚲᛘᛈᚪᛏᚢᛈᚪ ᛝᚲᛆᚱᛟ" ("*Rovas Writing Home Page*") of the Dr. Gábor Hosszú, created in 1995 [25].

An example of the texts in Szekler-Hungarian Rovas from Dr. Gábor Hosszú's pages can be seen on the *Fig. 14.10-16/b*.

ᚠ ᛚᚠᛞᛏᛏ ᛁᚳᛗᛈᚢᛏᚾᛈᚨ ᚷᛟᛏ, ᛁᛁᚷᛗᛈᛞᚳᚨ ᛝᛁᚷᛗᚳᚲᛈᚱᚳᛏ ᛌᚨ ᛌᚨᛌᛈᚨᚨᛏᛁᚱᛈᚨᛁᛟ ᚠ ᚷᚨᛌᚳᚷᛟᚾᚲᛁᛌᚲ

ᚠ ᛚᚠᛏᛏ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᛏᚾᚱᛏ ᛗᚱᚷᚷ ᛏᛏᛌᚷ ᛚᛌᚨᚳᛏᚨᛗᛈᚳᛌᚨᚲ ᛌᚾᛏᛌᛟᚨᛌᛏᛌᚨ ᛁᚺᛟᚨᛌᛌᚨᚨᛌ ᚱᛌᚱᚱᛌ ᚠ ᛚᚠᛏᛏ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᛁᛁᚷᛗᛈᚢᚳᚨ ᛁᛈᛚᛏᚱᚳᚨᛌᛚᚨ
ᚷᚢᛟᛌᛁᛌᚱᛌᛌᛟ ᛟᛏᛏᛌᚨᚨᛌᚾᛈᚨᚱᛁ. ᛌᚾ ᚠ ᛟᛌᚱᛌᚱᛌ ᛚᛟᛌᚱᛈ ᛗᛌᚨᚾᛌ ᚨᛟᛌᚾᛁᚷᚨ ᚾᛡᚱ, ᚨ ᚠ ᛚᛌᚨᚨᛟᛌᚨ ᛌᚷᛏᛚᛌᛟᛌᛟᚾᛌ ᛗᛌᚾᛌᚱᛌᚱᚱ.

ᚠ ᛁᛈᛚᛏᚱᚳᚨᛌᛚᚨ ᚷᚢᛟᛌᛁᛌᚱ ᚠᚾ ᛌᛚᚠᛏᛏ ᛟᚲᚨᚹᛁ ᚷᚾᛈᚱ ᚱᛏᚨᛈᚨᚨᚨ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᛁᛈᛌᛁᚱᛈᛟᛈᛌ ᛗᛌᚾᛌᚱᛌ ᛁᛈᛌᚷᛁᛌᚱᛌ, ᚨᛏᚷᚨᛏᚲ ᛏᛌᚾᛌ ᛉᛟᚱᛒᛁᚱᚨᛈᚹᛁ ᛟᛌᛁᚺᚨ
ᛌᚨ 1995-ᚷᛌᛌ.

ᚠ ᚷᚢᛟᛌᛁᛌᚱ ᚠ ᛟᚷᛗᛌᚱᛟᛌᛌ ᛌᚨᛗᛌᛟᚾ ᛌᛌᚺᚨ:

*   ᚠᚾ ᚨᚹᛌᚷᚢᛟ ᛟᛏᛗᛈᚱᛌᚱᛈᚨᚹ (ᚨᛈᛌᛁᛟ ᛏᚨ) ᚠ ᛁᛈᛌᚷᛁᛌᛟ ᚱᛒᚷᚷᚨᛌᚨ ᚱᚨᛈ ᛚᚠᛌᚨᚱᚨ ᚱᛁᚱᚳᚨᛌᚱᚱ ᚷᚢᛟᛌᛌᛟ ᛚᛌᚨᛟᛌᛌᚨᛌᛌ ᚱᚨᚾᛌᛌ.

*   ᚠᚾ ᛏᚾᛈᚨ ᛏᚾᛈᛟᛈᛗᛁ ᛌᛈᚱᚾᛌᚨᚱᛁᛌᛌ ᚠ ᛟᛏᛏᛌᛁᚨᚱᚨ ᚠᚾ ᛗᛌᚨ, ᛉᛏ ᚠᚾ ᛌᛚᚨᛟᛌᛟ ᚱᚱᚳᚨᛈᚱ ᛁᚷᛁᚱ ᚠ ᚾᛌᚨ ᛚᚠᛏᛏᛌᛌ ᛚᛏᛌᛟᛌᚱ ᛏᚾᛈᚨᛏᚾᛈᛟᚱ ᚷᛁᚳᛈᚨᛌ. ᛌᚾᛌᚾ ᚠ
ᚷᚢᛟᛌᛁᛌᚱᛌᛟ ᛚᛏᛌᛟᛌᚱ ᛏᚾᛈᚨᛁᚱ ᛌᚨᛟᛌᛁᚺᚨᛌᛟ, ᚠᚾᛌᛌᚳᚨ ᛟᛌᛏᛟᛏᛌᚱᚠᚨᚨᛁ, ᚱᛌᛌᚨᛟᛌᚲᚳ ᚱᛁᛟᚾᚲᛁᚾᛁᚱ ᚷᚢᛈᚱᛌᛌᛁᛁ.

*   ᚠ ᚷᚢᛟᛌᛁᛌᚱᚷ ᛉᛟᛌᚱ ᛌᛈᛁᚱᛈᛌ ᛚᛌᚨ ᚠ ᚱᚨᚾᛌᛌᛌᚨᛚᛏ ᛌᛚᚨᛟᛟᛟᚷ ᛟᛌᛌᛚᛏᛁᚱ ᚷᚢᛁᛁᛌᛗᛌᚳᚳᚱᛌ ᛌᚨ ᛚᛌᚳᚱ ᛌᚨᛏ ᛏᛏᛁᛁᚱ ᚱᛌᚨᛌ, ᚱᛌᛗᚱᚷᚷ ᚠ ᛁᛈᛚᛁᚳᛗᚱᚨ
ᚱᛌᚨᛏ ᛏᚨ.

*   ᚠ ᚷᚢᛟᛌᛁᛌᚱᚷ ᚠ ᛚᚠᛌᚨᚱᚨ ᛉᛁᚳᛈᚱᛁᚳᚨ ᛌᚨᛌᛏ ᚱᛌᚨᛟ (ᛚᚨ. ᛟᛌᚾᛏᛌᚱᛌᚨ, ᛟᛌᚱᚱᛌᚨᛌᚳᛌ, ᛗᛌᛁᛁᛌ, ᚨᚷ.) ᚠ ᛁᛌᛌᛈᚷᚨ ᛉᛟᚺᛟᚷ ᛚᛌᚨᛚᛏᛡᚱᛈᛌ ᚠ ᛟᛌᛏᛟᛏᛌᚱᚠᚨᛌᛌ.

*   ᛁᛏᛌᛌᛌ ᛚᛌᚨᛚᛏᛡᚱᛈᛌ ᚠᚾ ᛏᚾᚷ ᛁᛈᛚᛌᛌ ᛏᚨ. ᚠ ᛁᚳᚾᚾᛌ ᛗᛌᛌᛚᛌᚳᛌ ᛁᚷᛁᛏᛌ, ᚠᛉᛏ ᚠ ᛌᚱᛌ ᚷᛟᚨ ᛌᛌᛚᛌᚾᛌᛌ ᛏᚾᚱᚨᚷᚷᛌ ᛏᚨ ᛏᚱᛌᛁᚨᛏ ᛌᛌᛌᛌᚷᚷᚨ ᚠ ᚾᛌᛚᚱᛏ ᛁᛈᛚᛌᛌ
ᛉᛟᛌᚱᚱ ᚠᚾ ᛏᚾᚷ ᛁᛈᛚᛌᛌᚱᚱ ᛉᛁᚳᛈᚨᛁᛌᛟ, ᚨᛌᚠᛌᛏᛉ ᚠ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᚨᛌᛈᛌ ᛏᚨ ᚠᚾ ᚲᛁᛁᛌᚱᛌᚱᚷᚷ ᛟᛏᛟᛌᚱᛌᚾᛌᚨᛟᛌᚾ, ᚱᛌᛌᛟᛌᛌᛁᛈᛌᛌᚾ, ᚨᚷ. ᚠᚾ ᛏᚾᚷ ᛁᛈᛚᛌᛌ ᛉᛁᚳᛈᚨᚱ
ᛏᛌᛌᚷᛌᛗ. ᛌᛏᛌᚷᛟᛌᛌ ᚠ ᚾᛌᚨ ᛌᛚᚨᛟᛌᛟ ᛟᚷᚾᛌᛁᚱ ᛏᚨ ᚱᚨᚱᚨᛉᛌᚱ ᛌᛟᚱᛌ, ᚠᛉᚨ ᚠ ᛁᚳᛗᛈᚨᛏᚾᛈᚨᛌᚨ ᛁᛉᛗᛌᚨ ᛚᛌᚨᛌᚱᚱ ᛏᚾᚷ ᛁᛈᛚᛌᛌᚱ ᛉᛁᚳᛈᚨᛌ (ᛟᛌᛌᚨᚨᛌᛁᛌᛚᛌᚾᛌᛏᛏ ᚾᛌᛚᚱᛏ
ᛌᚱᚱᛌᛌᛏᛟᛟ ᚱᛌᚨᛌᛚ ᛁᚳᛗᛈᚨᛟᛌᛌᛏᚱᚱᚱ 1482-ᚷᛌᚨ).

*   ᚷᛋᛁ ᚠ ᛚᚠᛏᛏ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᛌᛏᚨᛌᛌᚨ ᚱᛌᛁᛌᚾ, ᛏᛌ ᚠ ᛁᚳᛗᛈᚨᛏᚾᛈᚨ ᚱᛌᚨᛏᛌᛌᛟ ᛁᛈᛚᛌᚨ ᛗᛈᚨᛌᚾᛈᚱᚱ ᚨᛈᛌᛁᚨ ᛟᛏ, ᚠᛌᛟᛌᛟ ᛚᛌᚨᚱᚨᛈᛉᛌᚱᛌᛟ ᛌᛏ ᛗᛏ ᚱᚷᚷᚷ
ᚱᚨᚾᛌᛌᛌᚨᛚᛏ ᛌᛚᚨᛟᛌᚷ. ᛉᛟᛌᛌᛌᛟ ᛌᚨ ᛚᛌᚨᚱᛈᛌᚨᛌᛌ ᚱᛌᛟᛟ, ᛉᛏ ᛟᛏᛏᛌᛌᛟᛌ ᛗᛌᛏᚺᛟ ᛌᚾᛌᛟᛌᚱ ᚠ ᛗᛈᚳᚾᛌᚱᛌᛌᚱᛈᚱ, ᚠᛌᛟᛌᛟ ᛌᛏᛌᚷ ᛁᚳᛗᛈᚱᛌᚢᛗᛌᚨᛌᚨᛁᚺᛌ ᚨᚾᛏᚱᚨᚨᚨᚨᚱ
ᛏᚨ ᛚᚨᚱᛈᚱᚱᛌ. ᛌᚾᛌᚾ ᚠᚾᛌᛌᚨ ᛟᛌᛏᛟᛌᛁᛌᚱᚱᛌᚨ, ᛏᛌ ᛗᛈᚳᚾᚷ ᚷᚢᛈᚱᛌᛌᛁᛁ ᛌᚨᛟᛌᛁᚺᚨ ᚠ ᛁᚳᛗᚨ ᛁᛁᚷᛗᛈᚢ ᛁᛁᚷᛗᛈᚢᚳᚨ ᚷᚢᛟᛌᛁᛌᚱ ᛚᛌᚨᛌᚱᚱ ᚠ ᛁᚳᛗᛈᚨ ᛟᚨ ᛟᛟᛁᚺᛏ ᚨᚱᛌᛟᛁ-
ᛟᛌᚨ ᚷᚢᛟᛌᛁᛌᚱ, ᚠ ᛁᚳᛗᛈᚨ ᛚᚠ ᛚᚠᛏᛏ ᛏᛉᛁᚱᛈᛌ-ᛟᛌᚨ ᚷᚢᛟᛌᛁᛌᚱ ᛌᚨ ᚠ ᛁᚳᛗᛈᚨ ᛗᛁ ᛌᛏᚷᚷ, ᛚᛌᚨᛟᛌᛟᚷ ᛌᚨᛌᛟᛉᛁᚨᚳ ᚷᚢᛈᚱᛌᛌᛁᚱᚱ ᚱᛏᛁᚨᛚᛈᚾᚳ ᚷᚢᛟᛌᛁᛌᚱ ᛏᚨ.

*   ᚠ ᛟᛏᛏ ᚷᚢᛟᛌᛁᛌᚱᛌᛟ ᚷᚨᚾᛌᚨ ᚱᚷᚷᚱ ᛉᚨᚱᛌ ᛏᚾᚱᚨᛉᚾ ᛟᛌᛁᚺᚨᛌᛟ, ᚠ ᚱᛌᚷᚷᚾᛌᚨ-ᚷᚨᚹ ᛉᚨᚱᛌ ᛏᚾᚱᚨᛉᚾ ᛟᛌᛁᚺᚨ ᚷᚢᛟᛌᛁᛌᚱᛌᛟ ᚠ ᛟᚷᛗᛌᚱᛟᛌᛌᛟ:
ᛁᚳᛗᛈᚨ ᛁᛁᚷᛗᛈᚢ ᚱᚷ, ᛁᚳᛗᛈᚨ ᛟᚨ ᚱᚷ, ᛁᚳᛗᛈᚨ ᛚᚠ ᚱᚷ, ᛁᚳᛗᛈᚨ ᛗᛁ ᚱᚷ. ᛌᚾᛌᛟ ᚷᚢᛈᚱᛌᚾᚱᛏ ᛌᚨ ᛟᛌᛏᛟᛏᛌᚱᚠᚨᚱ ᛚᛌᚨᛏᛌᚾᛏᛟ ᚠ ᚷᚨᚾᛌᚨ-ᚱᚷᚷᚱ ᛉᚨᚱᛌᛟᚨᛁ, ᚾᚱᛌ ᚱᛌᛌᚨᛟᛌᚳ
ᚱᛁᛟᚾᚲᛁᚾᛁᚱᛌᛟ.

Figure 14.10-16/b: Document in Szekler-Hungarian Rovas by using the de facto standard Rovas Standard character set from 1998 [25].

Sándor Vér developed the Q, X, Y, W in 1994, and later the DZ, DZS in 2001. Szekler-Hungarian Rovas characters from the ligatures of standard Rovas characters. These characters are regular characters in the Hungarian Latin-based script but in the Szekler-Hungarian Rovas it has not been used. Its reason is that in the earlier time the Hungarian language did not need them. The Latin-based Hungarian writing also step-by-step introduced all of these characters. In 1997 the Association of the Rovas Writers of Szeged [57] started to use these novel Rovas characters as extensions to the *Rovás Szabvány* de facto standard character set.

Sándor Vér developed his characters by using the rules of ligature creation. These rules were systematically described by Sándor Forrai [4]. These ligatures are composed of that characters which are used in the appropriate Latin-based Hungarian alphabetic, too. The development of these characters was the end of a natural procedure of becoming compatible with the Latin-based Hungarian alphabetic. On the other hand, the Hungarian Latin letters are also resulted from the long development in the last centuries. The composition of characters developed by Sándor Vér is seen on *Table 14.10-1*. See original ligature of Sándor Vér in *Figure 14.10-17.*

Creation of novel characters formally as ligatures by Sándor Vér in 1994 and 2001		
ᛃ DZ	ᛃ + ᛏ ←	Z + D ←
ᛚ DZS	ᛉ + ᛏ ←	ZS + D ←
ᛆ Q	ᛆ + ◊ ←	U + K ←
ᛗ W	ᛗ + ᛗ ←	V + V ←
◊ X	ᛁ + ◊ (+ ᛁ) ←	SZ + K (+ I) ←
ᛎ Y	ᛁ + ᛏ ←	J + I ←

Table 14.10-1: The additions to the *Rovás Szabvány* de facto standard character set and the origin of each glyph in 1994 and 2001 by Sándor Vér.

This is the latest development of the Szekler-Hungarian Rovas writing. The alphabet of Sándor Vér was included into the unpublished version of his book ("*Életfa*"), see *Fig. 14.10-17*.
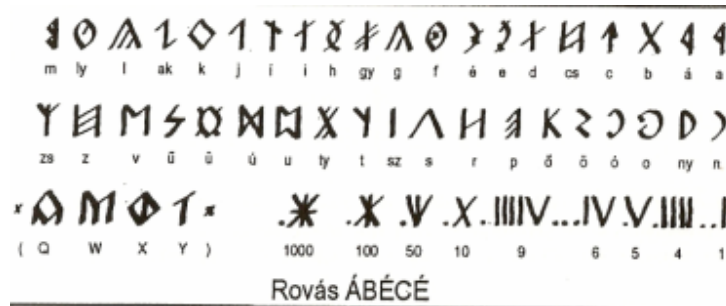

Figure 14.10-17: Alphabet of Sándor Vér from 1996 [56].

On the *Fig. 14.10-18* the alphabet of Ferenc Sólyom is presented from1996.
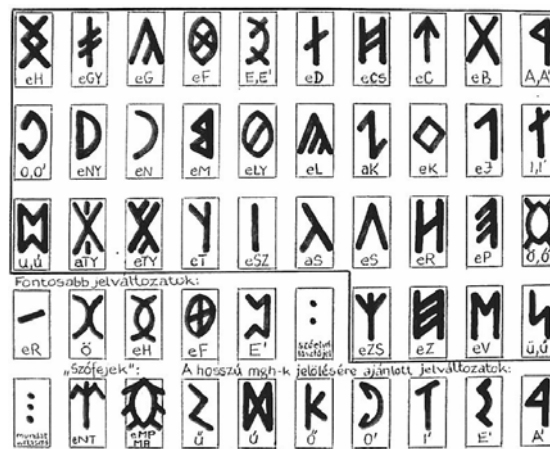

Figure 14.10-18: Alphabet of Ferenc Sólyom from 1996 [107].

On the *Fig. 14.10-19* the alphabet of Ferenc Sólyom is shown from1996 [108]. The picture is from Ferenc Sólyom [107].
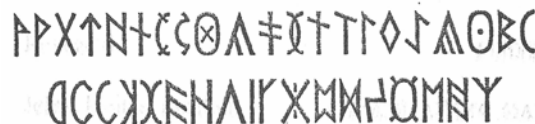
Figure 14.10-19: Alphabet of Zoltán Fűr from 1996 [107], [108].

In 1998 the book of Mrs. Angéla Molnos was published. Its title: *Magyarító könyvecske* (*Book for changing foreign words for Hungarians*), see *Fig. 14.10-20*. On the top and at the bottom of the book there are strips of Szekler-Hungarian Rovas script written with *Rovás Szabvány* characters [68]. She later published a lot of other books, in all of them there are Szekler-Hungarian Rovas scripts in the *Rovás Szabvány*.

Figure 14.10-20: Book of Angéla Molnos from 1998 with *Rovás Szabvány* script [68].
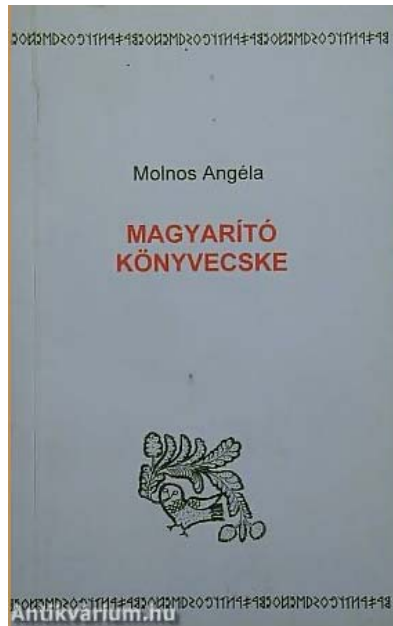
14.11.   The 21ˢᵗ Century

There are poems and other literary works on the Internet by using the *Rovás Szabvány* (*Rovas Standard*) or compatible fonts. These compatible fonts are downloadable from the *Szekler-Hungarian Rovas Home Page* [25]. The popularity of the Szekler-Hungarian Rovas exceeded any earlier levels. Hundreds of links are related to various Rovas web pages. The book publishing also continued in the 21ˢᵗ century.

In 2001 Sándor Vér developed the DZ 𐲿, DZS 𐳀, see *Table 14.10-1*. In this year he published his book "*Életfa*" ("*Tree of Life*"), see *Fig. 14.11-1* [66]. On the *Fig. 14.11-1* the *Rovás Szabvány* character set is used for writing the script "ÉLETFA" 𐳀𐳋𐳖𐳉𐳆𐳀.
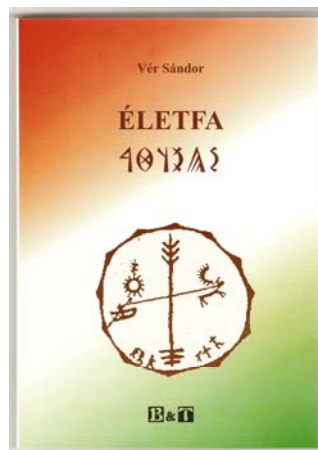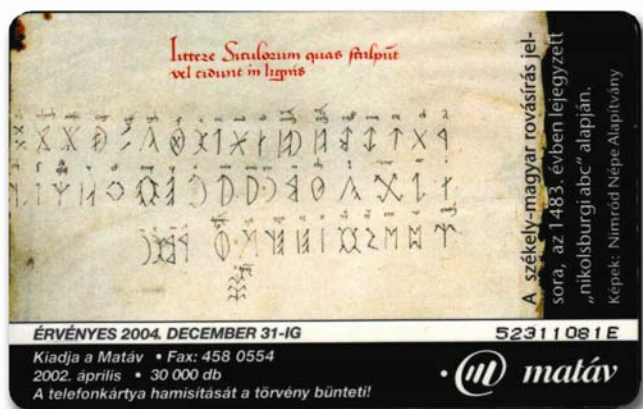

Figure 14.11-1: The book of Sándor Vér titled "Életfa" ("*Tree of Life*") from 2001 [66].

The whole *Rovás Szabvány* alphabet with the characters developed by Sándor Vér in 1994 and 2001, further a script in Szekler-Hungarian Rovas is presented on the *Fig. 14.11-2*.

Figure 14.11-2: The *Rovás Szabvány* alphabet, the extensions developed in 1994 and 2001 by Sándor Vér and his script in Szekler-Hungarian Rovas book from 2001 [66].

One interesting example is Nándor Jankovich's Home Page [21], *Fig. 14.11-3* presents a nice folk song collected by composer, researcher and educator Zoltán Kodály. The song is written in left-to-right direction, however at the bottom there is a right-to-left directed writing: ᛘᛠᛈᛌᛒᛂᛌᛈᛉ ("*Master of Rovas*"). In this small script Nándor Jankovich applied the "closed-e=ë" that was generally used in the Middle Ages but nowadays a few people can sense the difference between the "*e*" ᛈ and "*ë*" ᛆ in the Hungarian pronunciation, only.

Figure 14.11-3: A folk song collected by Zoltán Kodály created by Nándor Jankovich from 2002 [21].

In April 2002 the Hungarian Telecommunication Company (MATÁV) released a new phone card with Szekler-Hungarian Rovas alphabets on its two sides, as *Fig. 14.11-4* presents [90].

a)	b)

Figure 14.11-4: The two sides of the phone card released in 2002: *a)* a contemporary Szekler-Hungarian Rovas alphabet and b) the photo of the Nikolsburg alphabet (see *Fig. 14.5-2/a*) [90].

In a Rovas book the authors, Klára Friedrich and Gábor Szakács wrote games, puzzles, quizzes and other exercises for learning and practicing the Rovas, including also the usage of Rovas numbers. The book is published in 2005, see *Fig. 14.11-4* [72]. This book is intended for everybody from beginners to advanced Rovas writers. There are Rovas relics in this book, too.

Figure 14.11-4: A book of Klára Friedrich and Gábor Szakács for children in Szekler-Hungarian Rovas from 2005 [72].

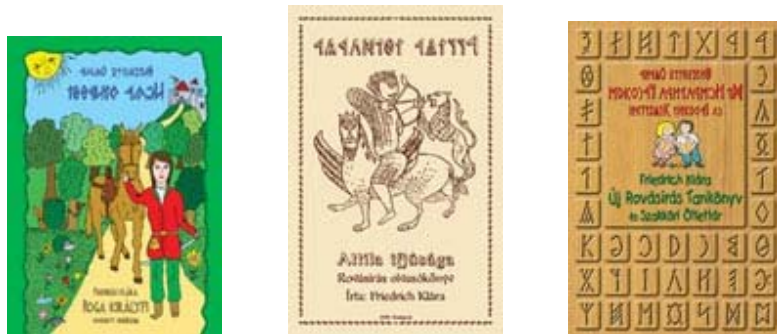In 2004 and 2006 three further books of Klára Friedrich were published [73], [74], [75], see *Fig. 14.11-5*.

Figure 14.11-5: Three books of Klára Friedrich for children and for Rovas writing education in Szekler-Hungarian Rovas in 2004 [73] (*most left picture*), in 2004 [74], and in 2006 [75] (*most right picture*).

The Sebestyén Markolt designed special shaped version of the Szekler-Hungarian Rovas characters for LED (Light-Emitting Diode) or liquid crystal displays in 2005. He presented them in the Élő Rovás" ("*Alive Rovas*") Symposium in October 4th 2008 [106]. The character set is shown on the *Fig. 14.11-6*.
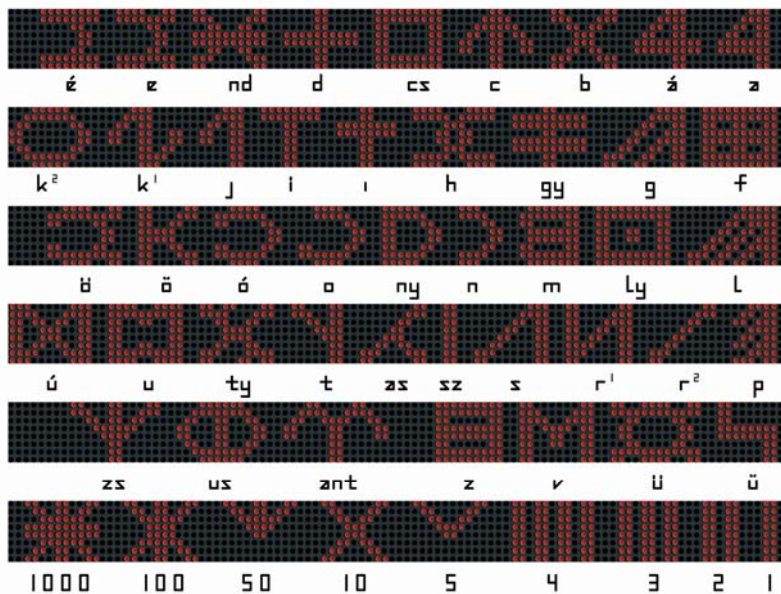

Figure 14.11-6: Rovas character set designed by Sebestyén Markolt for the ticker in 2005 [106].

In the *Fig. 14.11-7* some Rovas characters are visible on a liquid crystal display [106].

Figure 14.11-7: Rovas characters developed by Sebestyén Markolt on a liquid crytall display in 2005.

The *Fig. 14.11-8* presents two tickers under operation. The right one shows: ◇ꟷ꙰ꟷꟷ (“*Magyar szellemi termék*”=”*Hungarian intellectual product*”) [106], [110].

Figure 14.11-8: The defense of Sebestyén Markolt's diploma work in the Hungarian University of Fine Arts in 2005.

The *Fig. 14.11-9* an alphabetic of Sebestyén Markolt designed for ticker display in 2005 [106], [110].
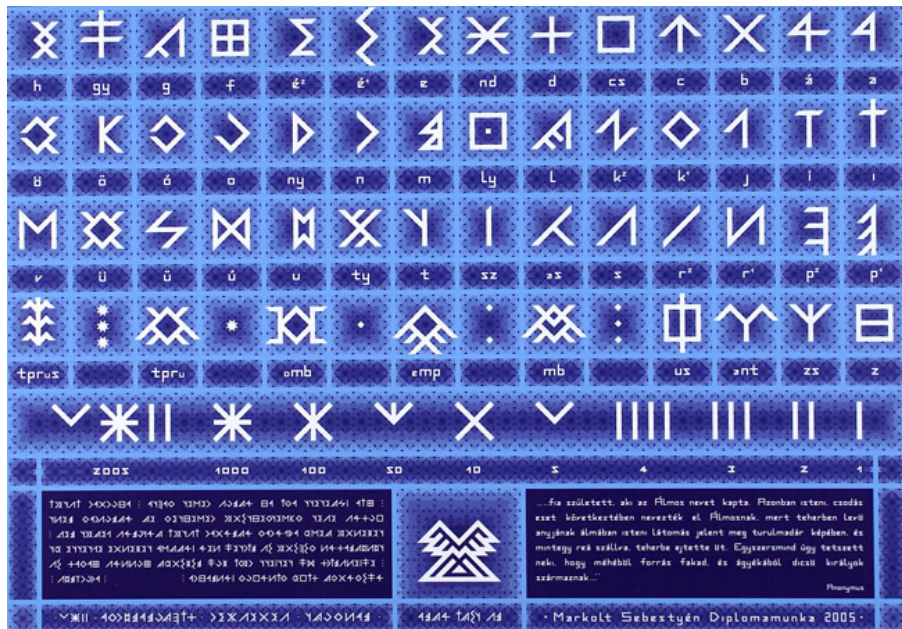

Figure 14.11-9: The alphabetic of Sebestyén Markolt in his diploma work in 2005 [106], [110].

The *Fig. 14.11-10*: A giant poster is designed by Sebestyén Markolt for a poster-tender in 2005 [106]. He used specially designed glyphs of the Rovas characters.

Figure 14.11-10: A giant poster designed by Sebestyén Markolt in 2005 [106].

The back side of the business card of Miklós Szondi from 2005, image is created by Dr. Gábor Hosszú, see *Fig. 14.11-11*. There is a Rovas text in bottom: ᛉᗝᚷ-ⅢⅩⅩⅣ⁂ ᐊᗝᚺᗝ◇ ᐟᗝᛁ ᚺᐊᚋᐊᚄ ᐠ ᗝᚃᐊᗝᚺᛁᛉᛁᛘᗝᚷ ᐊ (“*On the background picture is the Hungarian Holy Crown from 1613*”). This is an example of the usage of the Rovas numbers.

Figure 14.11-11: The back side of the business card of Miklós Szondi from 2005.

Fig. 14.11-12 gives an example of the contemporary usage of the Rovas on town-border-plates. This example is in Székelyudvarhely (Transylvania, Romania), made in 2007 [98].

Fig. 14.11-12: Town-border-plate with Rovas script in Székelyudvarhely from 2007 [98].

The *Írástudó* ("*scripturist*") on-line journal and Web site gives an interesting information centre in Szekler-Hungarian Rovas as the *Fig. 14.11-13* presents it [53]. The *Fig. 14.11-14* gives the proof of the fact that this site supports the de facto standard "*Rovás Szabvány*".

Figure 14.11-13: The home page of the Írástudó Szekler-Hungarian Rovas information centre from nowadays [53].

Figure 14.11-14: This part of the home page of *András Tisza* proves that this site supports the de facto standard "*Rovás Szabvány*" accepted by the Community of the Szekler-Hungarian Rovas Writers [53].

The Szekler-Hungarian Rovas on-line blog-journal *Jövőbenéző* ("*Future Spectator*") [48] works for a long time and it uses the Rovas Standard-compatible font "*Csenge*" [47]. *Fig. 14.11-15* shows an article in August 10th 2008. The article is written in Szekler-Hungarian Rovas, and it deals with a research area, the two kinds of character k (◊ and �) [31]. This example proves the usage of the Szekler-Hungarian Rovas for scientific discussions, too. This journal has left-to-right directionality.

Figure 14.11-15: An issue of the *Jövőbenéző* ("*Future Spectator*") on-line Szekler-Hungarian Rovas journal from 2008 [48].

In the following the two large Rovas associations will be introduced. The both are based on the research work of the previous Szekler-Hungarian Rovas writers, the old professors of the Rovas, from *János Telegdi* (Rudimenta, 1598) to the widely accepted researcher *Sándor Forrai* (1913-2007) The *Fig. 14.11-16* shows the home page of the *Sándor Forrai Runic Writer Association* [54]. On the home page there are news about two diploma works that have topic of the Szekler-Hungarian Rovas.

Figure 14.11-16: The home page of the Sándor Forrai Runic Writer Association from nowadays [55].

The *Fig. 14.11-17* shows the home page of the *Runic Writing Section of the Society of the Friends of the Old Hungarian Culture* [55]. On the *Fig. 14.11-17* there is the Call for Participation for the 13th Hungarian National Rovas competition.

Figure 14.11-17: The home page of the Runic Writing Section of the Society of the Friends of the Old Hungarian Culture from nowadays [55].

The *Fig. 14.11-18* presents György Balassa's site that uses the *Rovás Szabvány* de facto standard Rovas character set in both directions, left-to-right and right-to-left. The site supports the Szekler-Hungarian Rovas, only, Latin-based character are not used here [58].
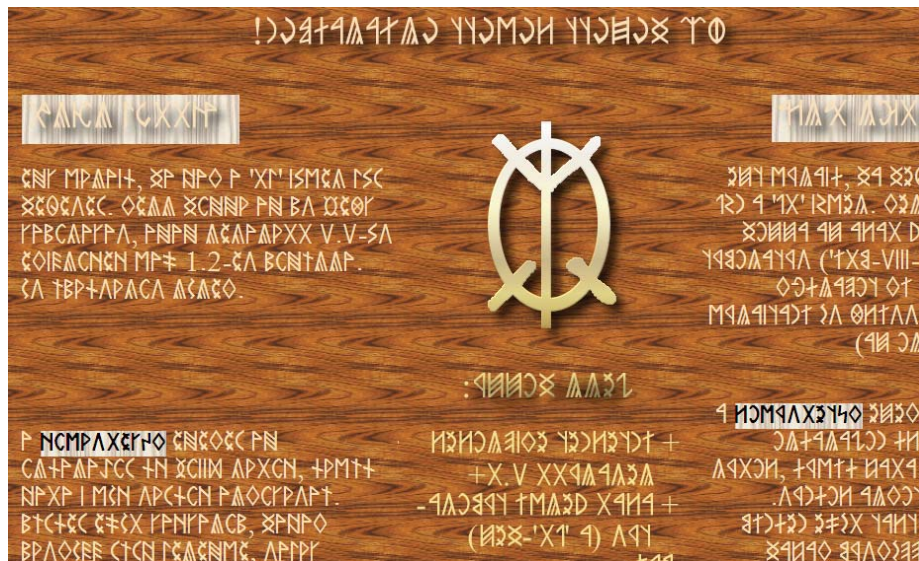
Figure 14.11-18: György Balassa's site [58].

The *Fig. 14.11-19* gives Crow's Rovas Home Page. It gives detailed description about the Rovas with example sentences and alphabet in Rovas. Some bug symbols are emphasized [20]. The text on the *Fig. 14.11-19* is written with the de facto standard *Rovás Szabvány* encoding with glyphs of Adorján Magyar [3], [65]. The necessary font (*Rovas MA JB*) is created and supported by Dr. Gábor Hosszú [25], since it is compatible with the *Rovás Szabvány*.
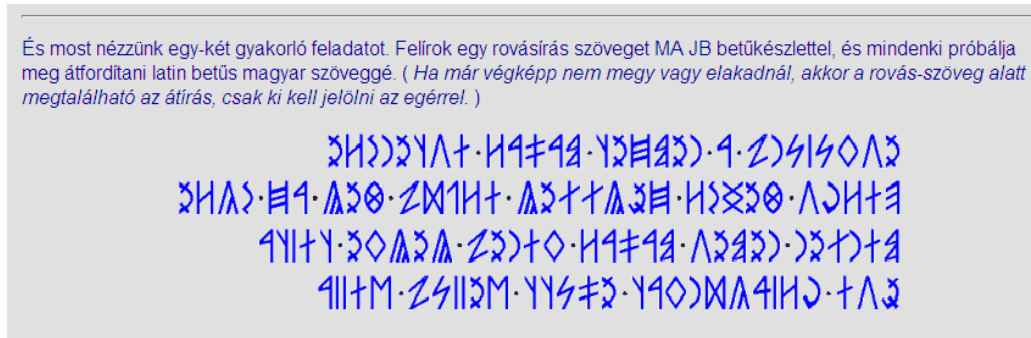
Figure 14.11-19: Rovas site of Crow [20].

The *Fig. 14.11-20* shows The Rovas Linkcenter with more than 100 Rovas-related links [59].
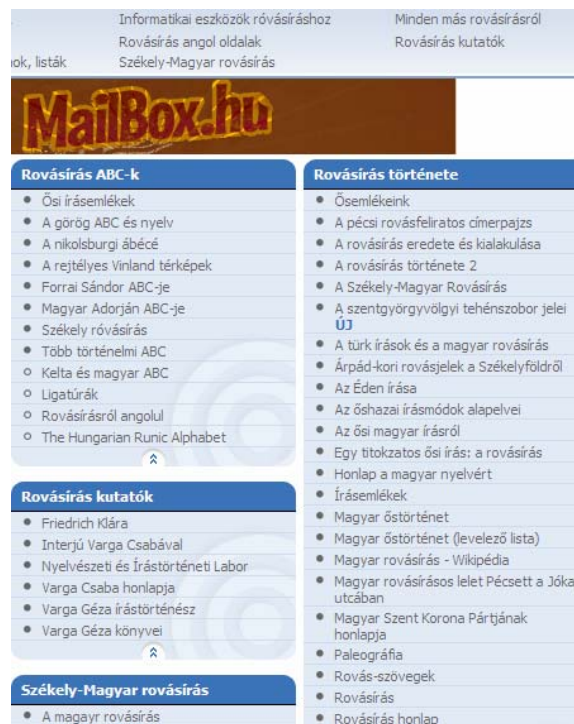
Figure 14.11-20: The Rovas Linkcenter with more than 100 Rovas-related links [59].

The *Fig. 14.11-21* gives the Official Home Page of the Scout Patrol "Szí" with Szekler-Hungarian Rovas script [60]. The Hungarian scouts widely use the Rovas.
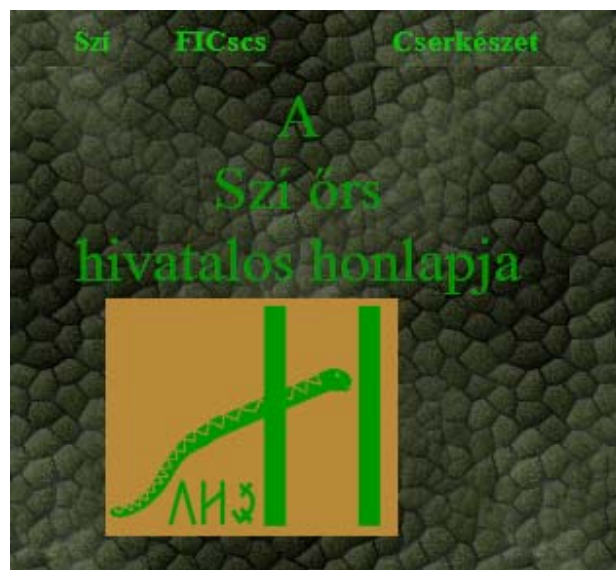
Figure 14.11-21: The Official Home Page of the Scout Patrol "Szí" with Szekler-Hungarian Rovas sript ("őrs"="ΛΉ3"="patrol") [60].

The *Fig. 14.11-22* presents the Rovas Educating-Editing Home Page [61]. The curiosity of this Rovas site is the various quizzes and games on the web site. Also it has an on-line real-time translator from Latin-based script to Szekler-Hungarian Rovas script.
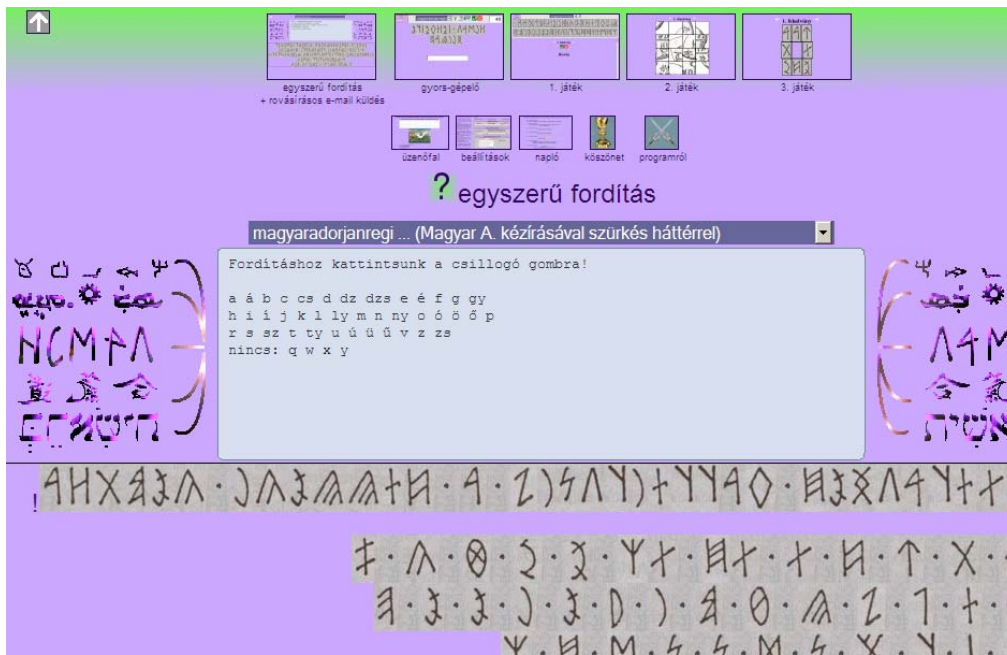
Figure 14.11-22: Rovas Educating-Editing Home Page [61]

The *Fig. 14.11-23* shows the Szekler Rovas Writer Home Page [62]. It gives a freeware Rovas text processor and Latin-Rovas translator. It supports the both left-to-right and right-to-left writing directionalities.
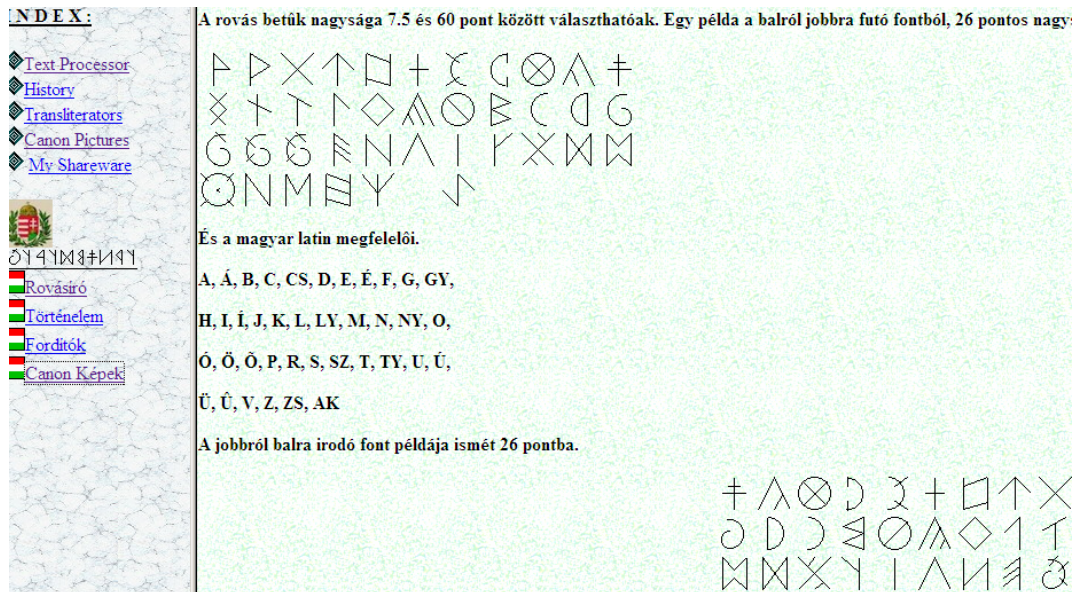
Figure 14.11-23: Szekler Rovas Writer Home Page [62]

In 2008 Klára Friedrich and Gábor Szakács published a music-CD, the texts on the CD are in Szekler-Hungarian Rovas scripts, too. They used casing. See *Fig. 14.11-24*.

Figure 14.11-24: Music-CD of Klára Friedrich and Gábor Szakács from 2008 [76].

In 2008 the book of Klára Friedrich titled: Hajnalkövek. ◊ℑMK◊Λ◄Ͻꝑ4Ɪ ("*Dawn-stones*") was published, see *Fig. 14.11-25*. Every script in the book is in Szekler-Hungarian Rovas and Hungarian Latin, too [67]. In the book the Szekler-Hungarian Rovas has casing.

Figure 14.11-25: The book of Klára Friedrich from 2008 [67]

Street/door-plate in Pomáz (Hungary) made in 2008 (*Fig, 14.11-26*). The photo was made by Ildikó Izsó [96] in July, 2008. The script uses Rovas numbers, too.

Figure 14.11-26: Street/door-plate in Pomáz (Hungary) from 2008 [96]

In the 18th and 19th century this song (title: "*Our Mather Blessed Lady*") was the "*nationalis cantitio*" before creating the current National Hymn of Hungarians. The Szekler-Hungarian Rovas script in Rovás Szabvány was created by Dr. Gábor Hosszú in August 15, 2008, on the Feast of the Assumption of the Blessed Virgin Mary [25], see *Fig. 14.11-27/a*. In the Rovas script the standard ligatures (from the *Rovás Szabvány*) were used. On the *Fig. 14.11-27/b* the Latin-based Hungarian text is presented. The Rovas text uses casing.
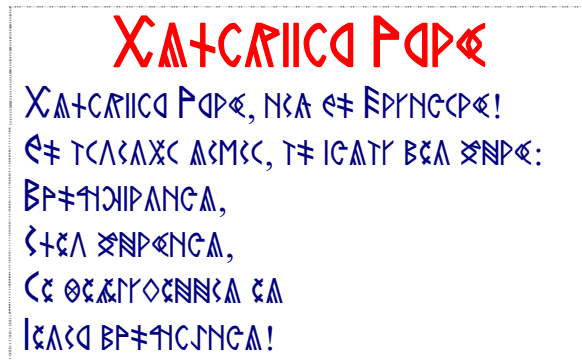
Figure 14.11-27/a: The Szekler-Hungarian Rovas script of the Christian song "*Boldogasszony anyánk*" ("*Our Mather Blessed Lady*") transcript into Rovas created by Dr. Gábor Hosszú in August 15, 2008 [25].
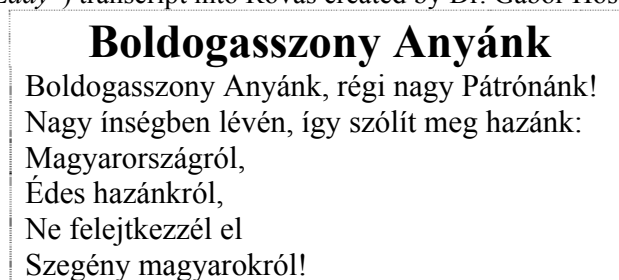
Boldogasszony Anyánk

Boldogasszony Anyánk, régi nagy Pátrónánk!
Nagy ínségben lévén, így szólít meg hazánk:
Magyarországról,
Édes hazánkról,
Ne felejtkezzél el
Szegény magyarokról!

Figure 14.11-27/b: The text of the "*Boldogasszony anyánk*" ("*Our Mather Blessed Lady*") in Latin-based Hungarian script [25].

The literature is increasing due to the 8-bit de facto standard *Rovás Szabvány*. Examples of this are books in the *Hungarian Electronic Library* of the *National Széchényi Library*. The datasheet of one of them is shown on the *Fig. 14.11-28/a*, and a page of this is on the *Fig. 14.11-28/b*. This book uses the Rovas_FS font, which can be downloaded from the *Rovas Writing Home Page* [25] and fully compatible with the *Rovás Szabvány*.
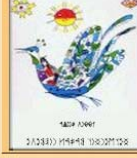

Figure 14.11-28/a: The catalog entry of the book of Gyula Illyés in Rovas_FS alphabet that is fully compatible with the Rovás Szabvány [81].

Figure 14.11-28/b: A page of the book of Gyula Illyés in the Hungarian Electronic Library [81].

The official home page of the 7th Hungarian World Congress (16th-20th August 2008, Budapest) of the *Magyarok Világszövetsége* ("*World Federation of Hungarians*", MVSZ) [79], with Szekler-Hungarian Rovas script in Rovas Szabvány font, see *Fig. 14.11-29* [87].

Figure 14.11-29: The official home page of the 7th Hungarian World Congress [87].

The *Fig. 14.11-30* gives an example of the contemporary use of the Szekler-Hungarian Rovas in the Reformat temple under construction in Miskolc-Felsőváros, in Hungary [89]. One feature of this script is the extensive usage of the ligatures. The rovas script was made by Ferenc Sólyom.

Figure 14.11-30: Szekler-Hungarian Rovas engravings in the wood joists of the Reformat temple under construction in Miskolc-Felsőváros [88].

Street plates in Gyergyócsomafalva (Transylvania, Romania) made by Rovas characters and numbers in 2008. The photo was made by Attila Osváth [97] in Sept. 14, 2008 (*Fig. 14.11-31*).

Figure 14.11-31: Street plates in Gyergyócsomafalva (Transylvania, Romania) from 2008 [97]

The *Fig. 14.11-32* shows the use of the 8-bit standard Rovás Szabvány nowadays from Győző Czettele [103]. The author of the text used the latest version of this standard that was modified in July 12, 2008 (*Fig. 4-2*) in order to unify the three most important contemporary Rovas alphabets [34].

Figure 14.11-32: Use of the Abiword for Rovas writing from right-to-left (text was made by 8-bit encoded *Rovás Szabvány*, font: rov_std.ttf) by Győző Czettele from September 17, 2008 [103].

The *Fig. 14.11-33* shows the design of the Standard Rovas Keyboard for the 8-bit Rovas Szabvány (left-to-right direction) made by Dr. Csaba Dávid [95], published in Sept. 18, 2008.

Figure 14.11-33: The design of the Standard Rovas Keyboard for the 8-bit Rovas Szabvány by Csaba Dávid presented in September 18, 2008 [95].

In 2008 the book "Történelmünkhöz magyarul". ⴼⵕⵀⵉⵇⵣⵇⴳ ⴵⴽⵝⵔⵒⴼⴳⴰⵌⵣⵌⵌⵢⵀⴽⵢ ("*To our history in Hungarian [the same test in Rovas]*"), edited by Miklós Szondi (co-autohor) was published, see *Fig. 14.11-34*.

Figure 14.11-34: The book of Szondi Miklós (co-author and editor) from 2008 [105]

Rovas script was made by the wood carver Lajos Schedl (see *Fig. 14.11-35*). Lajos Schedl gave it as a present to Dr. Gábor Hosszú in the "Élő Rovás" ("*Alive Rovas*") Symposium [106] in October 4th, 2008 in Gödöllő.
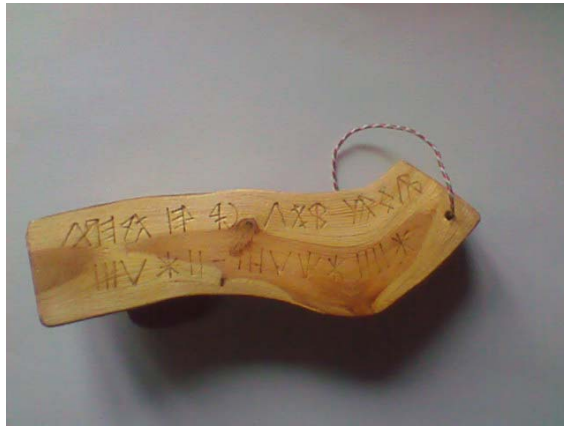
Figure 14.11-35: Wood engraving made by Lajos Schedl from 2008 (photo was made by Dr. Gábor Hosszú).

Rovas script on metal plate (key-case) was made by Lajos Schedl (see *Fig. 14.11-36*). Lajos Schedl gave it as a present to Dr. Gábor Hosszú in the "Élő Rovás" ("*Alive Rovas*") Symposium [106] in October 4th, 2008 in Gödöllő. Since the metal plate in cut through, the script is left-to-right from one side and right-to-left from the opposite site. The text is "ᚺᏟᎷᏢᴧ" (*Rovas*)

Figure 14.11-36: Key-case with Rovas script made by Lajos Schedl from 2008 (photo was made by Dr. Gábor Hosszú).