



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 to encode additional Cyrillic characters in the BMP of the UCS****Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)****Authors: Michael Everson, David Birnbaum (University of Pittsburgh), Ralph Cleminson (University of Portsmouth), Ivan Derzhanski (Bulgarian Academy of Sciences), Vladislav Dorosh (irmologion.ru), Alexej Kryukov (Moscow State University), Sorin Paliga (University of Bucharest), Klaas Ruppel (Research Institute for the Languages of Finland)****Status: Individual Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Replaces: N3184, L2/06-359, N1744****Date: 2007-03-21**

**1. Introduction.** This document requests the addition of a number of Cyrillic characters to be added to the UCS. It also requests clarification in the Unicode Standard of four existing characters. This is a large proposal. While all of the characters are either Cyrillic characters (plus a couple which are used with the Cyrillic script), they are used by different communities. Some are used for non-Slavic minority languages and others are used for early Slavic philology and linguistics, while others are used in more recent ecclesiastical contexts. We considered the possibility of dividing the proposal into several proposals, but since this proposal involves changes to glyphs in the main Cyrillic block, adds a character to the main Cyrillic block, adds 16 characters to the Cyrillic Supplement block, adds 10 characters to the new Cyrillic Extended-A block currently under ballot, creates two entirely new Cyrillic blocks with 55 and 26 characters respectively, as well as adding two characters to the Supplementary Punctuation block, it seemed best for reviewers to keep everything together in one document.

**2. Rehabilitation of existing characters.** Four characters already encoded require clarification.

**CYRILLIC LETTER OMEGA WITH TITLO (U+047C and U+047D)** should have the reference glyphs changed from  and  to the glyphs given below, with three notes added:

047C  CYRILLIC CAPITAL LETTER OMEGA WITH TITLO

047D  CYRILLIC SMALL LETTER OMEGA WITH TITLO

= cyrillic “beautiful omega”

- despite its character name, this letter does not have a titlo

- this character is not decomposable into a base with diacritics

**CYRILLIC LETTER UK (U+0478 and U+0479)** should have its reference glyphs changed to the glyphs given below, with three notes added:

0478 0y CYRILLIC CAPITAL LETTER UK

0479 oy CYRILLIC SMALL LETTER UK

- this character has ambiguous glyph representation and should not be used

- for “digraph uk” use U+043E and U+0443

- for “monograph uk” use U+A6CB

**2. Additional letters for Mordvin, Kurdish, Aleut, and Chuvash.** Twelve of these characters are encoded in ISO 10754; the two additions for Aleut are used in ecclesiastical texts in Aleut, and are attested with both Grazhdanka and Slavonic letterforms.

**LHA** Лхлх, **RHA** Ррр, and **YAE** Яея are used in early orthographies of Mordvin for voiceless [l̥], [r̥], and [j̥æ] respectively. These were encoded in ISO 10754:1996 at positions 5A, 4A, 73, 63, 7E, and 6E respectively. They are not typographic ligatures. See Figures 1, 2, 3.

**QA** Qq is used in Kurdish Cyrillic orthography and in early Abkhaz orthographies to represent [q]. These were encoded in ISO 10754:1996 at positions 56 and 46. In ISO 10754, as well as in early Abkhaz orthography, the glyph of the capital looks like an enlarged small *q* or like a reversed capital P. This variation is unknown for the Latin progenitor of the Cyrillic letter. See Figures 4, 5, 6, 7, 8, 9, 10, 37, 38a, 38c, 39c.

**WE** Ww is used in Kurdish Cyrillic orthography to represent [w]. These were encoded in ISO 10754:1996 at positions 78 and 68. The letter WE derives from the Latin letter w. It does not exhibit non-Latin shape behaviour (as QA does), but it does have non-Latin sorting behaviour (it comes between Cyrillic Ѡ and I and not between Latin v and x). The argument (“when does an alphabetic adoption become naturalized?”) is an old one, but the arguments against Cyrillic WE are weak. Kurdish Cyrillic makes use of 14 Cyrillic letters which are identical with Latin originals (Aa, Ee, Oo, Öö, Qq, Ww, and Əə), so why should two of these be considered “unnaturalized”? Since Kurdish is written in both Latin and Cyrillic alphabets, a multilingual wordlist cannot sort Kurdish correctly because Latin w cannot be in two places at the same time. By sorting, we mean ordinary plain-text sorting, for instance of files in a directory. Expecting Kurdish users to have recourse to special language-and-script tagging software *for these two letters alone* is simply not a credible defence for the retention of the unification. Continued unification of w with WE will also likely mean that Russian Kurds will be unable to make use of IDN, as script mixing of Latin and Cyrillic is certainly to be frowned upon; the addition of WE will not make spoofability any worse than *a*, *e*, *o*, *ö*, and *ə* already do or than *q* will. The UTC and WG2 have also already ignored other cloneables: COMBINING CYRILLIC LETTER O and COMBINING CYRILLIC LETTER HA were not unified with their Latin lookalikes U+0366 or U+036F. This disunification is long overdue. (Indeed it is the last of the pernicious unhelpful unifications from the late 1980s.) See Figures 4, 5, 6, 7, 8, 9, 10.

**ALEUT KA** Кк is used in Aleut Cyrillic orthography to represent [q]. See Figures 11, 12, 13.

**EL WITH MIDDLE HOOK** Ёё and **EN WITH MIDDLE HOOK** Њњ were used in Jakovlev’s Chuvash orthography which was used from 1873–1938 to represent [l̥] and [n̥] respectively. These were encoded in ISO 10754:1996 at positions 59, 49, 5E, and 4E. See Figure 14.

**3. Additional letters for Early Slavic.** A large number of letters are needed to support editions of early Slavic manuscripts, or the more recent Slavonic ecclesiastical tradition. A number of these characters were previously reviewed by the UTC, in document L2/06-359. These are coloured light orange in the code chart on pages 46 and 50; on the names lists for those pages the names of those previously seen are given in *italics*. In the list here, each character appearing in L2/06-359 is identified and its name in that document is given.

**ZEMLYA** З̑z̑ is the earliest form of a letter which represents [z]. It is used alongside Зз ZE in 16th- and 17th century alphabets. See Figures 15,17, 20, 24, 30, 40. *In L2/06-369, this character was named EARLY ZE.*

**DZELO** З̑z̑ is the earliest form of a letter which represents [dz]. It is used alongside Ss DZE which originally derives from Greek stigma, particularly in manuscripts which use the latter as a numeral. See Figure 24. *In L2/06-369, this character was named DZELO.*

**REVERSED DZE** Ƶƶ is a common character, especially in early South Slavonic manuscripts and inscriptions, and particularly when used as a numeral. It co-occurs with Ss, for example in the manuscripts NBKM 880 and RGB Sevast’janov 17; in the former Ƶƶ is also found. See Figure 22. *In L2/06-369, this character was named REVERSED DZE.*

**IOTA** Ѳ has been used in scholarly literature since the nineteenth century to transcribe Glagolitic Ǫǫ. See Figure 23. *In L2/06-369, this character was named IOTA.*

**DJERV** Ǧǧ is the Old Cyrillic letter for the voiced palatal affricate, used particularly in the Bosnian manuscript tradition and in early Bosnian printings, where it also serves to indicate palatal *l* and *n*, by analogy with Italian *gl*, *gn*. The glyph is the ancestor of U+040B and U+045B ҃҃, but the two characters do not correspond either phonetically or etymologically. U+0402 and U+0452 ҃҃ was in turn derived from ҃҃ in 1819. DJERV cannot be unified with ҃҃ because the latter corresponds to it only partially, and besides, the two are sorted differently: ǧ comes between и and κ, while ҃҃ comes between д and е. If this character is added, the note in the Unicode Standard at U+045B “= Old Cyrillic derv” should be deleted. See Figure 21. *In L2/06-369, this character was named DJERV.*

**MONOGRAPH UK** ҃҃ was incorrectly unified with Cyrillic ҃҃; these two letters are not the same either historically or functionally. It is not unusual to find manuscripts using both ҃҃ and ҃҃ (see Figure 15). Both historically and in modern Church Slavonic, ҃҃ is also used as a numeral, but ҃҃ is only used as a letter: the two are therefore not interchangeable. Old Cyrillic ҃҃ originated as a ligated form of оу, but cannot be unified with it as the two quickly diverged in usage. They are distinguished by orthographical conventions going back many centuries and formalized in modern Church Slavonic; according to these rules, the substitution of either ҃҃ or оу for ҃҃ is an error, and all three characters are required for proper Church Slavonic typesetting. See Figures 11, 12, 13, 15, 16, 17, 18, 20, 25, 27, 30. *In L2/06-369, this character was named MONOGRAPH UK.*

**BROAD OMEGA** Ѡѡ is found alongside Ѡѡ in most sixteenth- and seventeenth-century alphabets and is most frequently used with a distinctive supralinear element (in most typefaces unique to this character) for the vocative particle “O!”. However, in some alphabets (e.g. the 1631, 1653 and 1692 Primers) it appears without any supralinear element, and in the 1648 grammar is used to correspond to Greek ω in proper names derived from Greek, in which function it may take the same diacritics as the other vowel characters (cf. on f.93v in the paradigm of Jonah, vocative Ѡ ѠѠно, locative ѡ томѡ ѠѠнѡ). This indicates that it is the body of the letter that is distinctive, not the supralinear element, and Ѡ is not to be regarded as w + diacritic. See Figures 17, 20. *In L2/06-369, this character was named BROAD OMEGA.*

**NEUTRAL YER** Ѣѣ is used in transcribing documents where it is impossible to tell the difference between ѢѢ and ѢѢ (a common situation in late medieval Russian archival materials). See Figure 27. *In L2/06-369, this character was named UNDIFFERENTIATED JER.*

**YERU WITH BACK YER** ѣѣ is found alongside ѣѣ in important manuscripts, such as the Dobrejšo Gospels. The ability to make the distinction between ѣѣ and ѣѣ is of great importance to palaeography, and essential for a comprehensive palaeographic description of Cyrillic sources. See Figures 26, 40. *In L2/06-369, this character was named YERY (FORM WITH BACK JER).*

**IOTIFIED YAT** ѣѣ occurs in certain early Cyrillic texts, in which it is used contrastively with ѣѣ. See Figure 40. *In L2/06-369, this character was named IOTIFIED YAT.*

**REVERSED YU** ѣѣ appears in some early Middle Bulgarian manuscripts and inscriptions, and has palaeographic and phonological significance. It is uncertain whether it has a common origin with ѣѣ. See Figures 22, 30. *In L2/06-369, this character was named REVERSED YU.*

**IOTIFIED A** ѣѣ occurs regularly from the earliest times to modern Church Slavonic. It is not to be unified with ѣѣ (which is a variant of ѣѣ), which is used as a distinct character alongside it in early





**CCHE** Цч is used in early orthographies for Abkhaz to represent [tʃ:]. The character is a double Cyrillic CHE. It is not a divisible ligature. See Figure 39b.

**DZZE** Дд is used in Uslar's orthography for Abkhaz to represent [dz]. The character is a fusion of a tiny Cyrillic ZE to the base of the letter DE. It is not a divisible ligature. See Figure 39b.

**TE WITH MIDDLE HOOK** Т̣̣̣ is used in early orthographies for Abkhaz to represent [t]. It is also used in Jakovlev's orthography for Chuvash to represent [ṭ]. It is not related to either Serbian Т̣̣̣ or Т̣̣̣̣. See Figures 14, 38a, 38c, 39c.

**TWE** Тτ is used in early orthographies for Abkhaz to represent [tʷ]. See Figures 37, 38a, 38c, 39c.

**TSWE** Цц is used in early orthographies for Abkhaz to represent [tsʷ]. See Figures 37, 38a, 38c, 39d.

**TSSE** Т̣̣̣̣ is used in early orthographies for Abkhaz to represent [tsʲ]. The character is a fusion of a tiny Cyrillic ES to the base of the letter TE. It is not a divisible ligature. See Figure 39d.

**TCHE** Ц̣̣̣̣ is used in early orthographies for Abkhaz to represent [tʃʲ]. The character is a fusion of the topbar of Cyrillic TE to the letter CHE. It is not a divisible ligature. See Figures 38c, 39e.

**HWE** һһ is used in early orthographies for Abkhaz to represent [hʷ]. See Figures 38a, 38c, 39e.

**SHWE** Ц̣̣̣̣̣̣ is used in early orthographies for Abkhaz to represent [ʃʷ]. See Figures 38a, 38c, 39e.

## 6. Unicode Character Properties. Character properties are proposed here.

0487;COMBINING CYRILLIC POKRYTIE;Mn;230;NSM;;;;;N;;;;;

0514;CYRILLIC CAPITAL LETTER LHA;Lu;0;L;;;;;N;;;0515;  
0515;CYRILLIC SMALL LETTER LHA;Ll;0;L;;;;;N;;;0514;0514  
0516;CYRILLIC CAPITAL LETTER RHA;Lu;0;L;;;;;N;;;0517;  
0517;CYRILLIC SMALL LETTER RHA;Ll;0;L;;;;;N;;;0516;0516  
0518;CYRILLIC CAPITAL LETTER YAE;Lu;0;L;;;;;N;;;0519;  
0519;CYRILLIC SMALL LETTER YAE;Ll;0;L;;;;;N;;;0518;0518  
051A;CYRILLIC CAPITAL LETTER QA;Lu;0;L;;;;;N;;;051B;  
051B;CYRILLIC SMALL LETTER QA;Ll;0;L;;;;;N;;;051A;051A  
051C;CYRILLIC CAPITAL LETTER WE;Lu;0;L;;;;;N;;;051D;  
051D;CYRILLIC SMALL LETTER WE;Ll;0;L;;;;;N;;;051C;051C  
051E;CYRILLIC CAPITAL LETTER ALEUT KA;Lu;0;L;;;;;N;;;051F;  
051F;CYRILLIC SMALL LETTER ALEUT KA;Ll;0;L;;;;;N;;;051E;051E  
0520;CYRILLIC CAPITAL LETTER EL WITH MIDDLE HOOK;Lu;0;L;;;;;N;;;0521;  
0521;CYRILLIC SMALL LETTER EL WITH MIDDLE HOOK;Ll;0;L;;;;;N;;;0520;0520  
0522;CYRILLIC CAPITAL LETTER EN WITH MIDDLE HOOK;Lu;0;L;;;;;N;;;0523;  
0523;CYRILLIC SMALL LETTER EN WITH MIDDLE HOOK;Ll;0;L;;;;;N;;;0522;0522

2DF6;COMBINING CYRILLIC LETTER A;Mn;230;NSM;;;;;N;;;;;  
2DF7;COMBINING CYRILLIC LETTER IE;Mn;230;NSM;;;;;N;;;;;  
2DF8;COMBINING CYRILLIC LETTER DJERV;Mn;230;NSM;;;;;N;;;;;  
2DF9;COMBINING CYRILLIC LETTER MONOGRAPH UK;Mn;230;NSM;;;;;N;;;;;  
2DFA;COMBINING CYRILLIC LETTER YAT;Mn;230;NSM;;;;;N;;;;;  
2DFB;COMBINING CYRILLIC LETTER YU;Mn;230;NSM;;;;;N;;;;;  
2DFC;COMBINING CYRILLIC LETTER IOTIFIED A;Mn;230;NSM;;;;;N;;;;;  
2DFD;COMBINING CYRILLIC LETTER LITTLE YUS;Mn;230;NSM;;;;;N;;;;;  
2DFE;COMBINING CYRILLIC LETTER BUG YUS;Mn;230;NSM;;;;;N;;;;;  
2DFF;COMBINING CYRILLIC LETTER IOTIFIED BIG YUS;Mn;230;NSM;;;;;N;;;;;

2E3A;VERTICAL TILDE;Lm;0;ON;;;;;N;yerik;;;

A640;CYRILLIC CAPITAL LETTER ZEMLYA;Lu;0;L;;;;;N;;;A641;  
A641;CYRILLIC SMALL LETTER ZEMLYA;Ll;0;L;;;;;N;;;A640;A640  
A642;CYRILLIC CAPITAL LETTER DZELO;Lu;0;L;;;;;N;;;A643;  
A643;CYRILLIC SMALL LETTER DZELO;Ll;0;L;;;;;N;;;A642;A642  
A644;CYRILLIC CAPITAL LETTER REVERSED DZE;Lu;0;L;;;;;N;;;A645;  
A645;CYRILLIC SMALL LETTER REVERSED DZE;Ll;0;L;;;;;N;;;A644;A644  
A646;CYRILLIC CAPITAL LETTER IOTA;Lu;0;L;;;;;N;;;A647;  
A647;CYRILLIC SMALL LETTER IOTA;Ll;0;L;;;;;N;;;A646;A646  
A648;CYRILLIC CAPITAL LETTER DJERV;Lu;0;L;;;;;N;;;A649;  
A649;CYRILLIC SMALL LETTER DJERV;Ll;0;L;;;;;N;;;A648;A648  
A64A;CYRILLIC CAPITAL LETTER MONOGRAPH UK;Lu;0;L;;;;;N;;;A64B;  
A64B;CYRILLIC SMALL LETTER MONOGRAPH UK;Ll;0;L;;;;;N;;;A64A;A64A  
A64C;CYRILLIC CAPITAL LETTER BROAD OMEGA;Lu;0;L;;;;;N;;;A64D;







TABLE 11 - Row 04: CYRILLIC

	040	041	042	043	044	045	046	047
0	È	А	Р	а	р	è	Ƶ	ƶ
1	Ë	Б	С	б	с	ë	Ʒ	Ʒ̇
2	Ђ	В	Т	в	т	ђ	Ђ	Ɖ
3	Ѓ	Г	У	г	у	ѓ	Ђ	Ɖ
4	Є	Д	Ф	д	ф	є	Є	Ʊ
5	Ɔ	Е	Х	е	х	Ɔ	Є	Ʊ
6	І	Ж	Ц	ж	ц	і	Ӓ	Ʊ̇
7	Ї	З	Ч	з	ч	ї	Ӓ	Ʊ̇
8	Ј	И	Ш	и	ш	ј	Ӓ	Ʊу
9	Љ	Й	Щ	й	щ	љ	Ӓ	Ʊу
A	Њ	К	Ъ	к	ъ	њ	Ӓ	Ʊ
B	Ћ	Л	Ы	л	ы	ћ	Ӓ	Ʊ
C	Ќ	М	Ь	м	ь	ќ	Ӓ	Ʊ̂
D	Ў	Н	Э	н	э	ў	Ӓ	Ʊ̂
E	Ѕ	О	Ю	о	ю	ѕ	Ӓ	Ʊ̃
F	Ѡ	П	Я	п	я	ѡ	Ӓ	Ʊ̃

G = 00  
P = 00

TABLE 11 - Row 04: CYRILLIC

hex	Name
00	CYRILLIC CAPITAL LETTER IE WITH GRAVE
01	CYRILLIC CAPITAL LETTER IO
02	CYRILLIC CAPITAL LETTER DJE (Serbocroatian)
03	CYRILLIC CAPITAL LETTER GJE
04	CYRILLIC CAPITAL LETTER UKRAINIAN IE
05	CYRILLIC CAPITAL LETTER DZE
06	CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
07	CYRILLIC CAPITAL LETTER YI (Ukrainian)
08	CYRILLIC CAPITAL LETTER JE
09	CYRILLIC CAPITAL LETTER LJE
0A	CYRILLIC CAPITAL LETTER NJE
0B	CYRILLIC CAPITAL LETTER TSHE (Serbocroatian)
0C	CYRILLIC CAPITAL LETTER KJE
0D	CYRILLIC CAPITAL LETTER I WITH GRAVE
0E	CYRILLIC CAPITAL LETTER SHORT U (Byelorussian)
0F	CYRILLIC CAPITAL LETTER DZHE
10	CYRILLIC CAPITAL LETTER A
11	CYRILLIC CAPITAL LETTER BE
12	CYRILLIC CAPITAL LETTER VE
13	CYRILLIC CAPITAL LETTER GHE
14	CYRILLIC CAPITAL LETTER DE
15	CYRILLIC CAPITAL LETTER IE
16	CYRILLIC CAPITAL LETTER ZHE
17	CYRILLIC CAPITAL LETTER ZE
18	CYRILLIC CAPITAL LETTER I
19	CYRILLIC CAPITAL LETTER SHORT I
1A	CYRILLIC CAPITAL LETTER KA
1B	CYRILLIC CAPITAL LETTER EL
1C	CYRILLIC CAPITAL LETTER EM
1D	CYRILLIC CAPITAL LETTER EN
1E	CYRILLIC CAPITAL LETTER O
1F	CYRILLIC CAPITAL LETTER PE
20	CYRILLIC CAPITAL LETTER ER
21	CYRILLIC CAPITAL LETTER ES
22	CYRILLIC CAPITAL LETTER TE
23	CYRILLIC CAPITAL LETTER U
24	CYRILLIC CAPITAL LETTER EF
25	CYRILLIC CAPITAL LETTER HA
26	CYRILLIC CAPITAL LETTER TSE
27	CYRILLIC CAPITAL LETTER CHE
28	CYRILLIC CAPITAL LETTER SHA
29	CYRILLIC CAPITAL LETTER SHCHA
2A	CYRILLIC CAPITAL LETTER HARD SIGN
2B	CYRILLIC CAPITAL LETTER YERU
2C	CYRILLIC CAPITAL LETTER SOFT SIGN
2D	CYRILLIC CAPITAL LETTER E
2E	CYRILLIC CAPITAL LETTER YU
2F	CYRILLIC CAPITAL LETTER YA
30	CYRILLIC SMALL LETTER A
31	CYRILLIC SMALL LETTER BE
32	CYRILLIC SMALL LETTER VE
33	CYRILLIC SMALL LETTER GHE
34	CYRILLIC SMALL LETTER DE
35	CYRILLIC SMALL LETTER IE
36	CYRILLIC SMALL LETTER ZHE
37	CYRILLIC SMALL LETTER ZE
38	CYRILLIC SMALL LETTER I
39	CYRILLIC SMALL LETTER SHORT I
3A	CYRILLIC SMALL LETTER KA
3B	CYRILLIC SMALL LETTER EL
3C	CYRILLIC SMALL LETTER EM
3D	CYRILLIC SMALL LETTER EN
3E	CYRILLIC SMALL LETTER O
3F	CYRILLIC SMALL LETTER PE
40	CYRILLIC SMALL LETTER ER
41	CYRILLIC SMALL LETTER ES
42	CYRILLIC SMALL LETTER TE
43	CYRILLIC SMALL LETTER U
44	CYRILLIC SMALL LETTER EF
45	CYRILLIC SMALL LETTER HA
46	CYRILLIC SMALL LETTER TSE
47	CYRILLIC SMALL LETTER CHE
48	CYRILLIC SMALL LETTER SHA
49	CYRILLIC SMALL LETTER SHCHA
4A	CYRILLIC SMALL LETTER HARD SIGN
4B	CYRILLIC SMALL LETTER YERU
4C	CYRILLIC SMALL LETTER SOFT SIGN
4D	CYRILLIC SMALL LETTER E
4E	CYRILLIC SMALL LETTER YU
4F	CYRILLIC SMALL LETTER YA
50	CYRILLIC SMALL LETTER IE WITH GRAVE
51	CYRILLIC SMALL LETTER IO
52	CYRILLIC SMALL LETTER DJE (Serbocroatian)
53	CYRILLIC SMALL LETTER GJE
54	CYRILLIC SMALL LETTER UKRAINIAN IE
55	CYRILLIC SMALL LETTER DZE
56	CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
57	CYRILLIC SMALL LETTER YI (Ukrainian)
58	CYRILLIC SMALL LETTER JE

hex	Name
59	CYRILLIC SMALL LETTER LJE
5A	CYRILLIC SMALL LETTER NJE
5B	CYRILLIC SMALL LETTER TSHE (Serbocroatian)
5C	CYRILLIC SMALL LETTER KJE
5D	CYRILLIC SMALL LETTER I WITH GRAVE
5E	CYRILLIC SMALL LETTER SHORT U (Byelorussian)
5F	CYRILLIC SMALL LETTER DZHE
60	CYRILLIC CAPITAL LETTER OMEGA
61	CYRILLIC SMALL LETTER OMEGA
62	CYRILLIC CAPITAL LETTER YAT
63	CYRILLIC SMALL LETTER YAT
64	CYRILLIC CAPITAL LETTER IOTIFIED E
65	CYRILLIC SMALL LETTER IOTIFIED E
66	CYRILLIC CAPITAL LETTER LITTLE YUS
67	CYRILLIC SMALL LETTER LITTLE YUS
68	CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS
69	CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS
6A	CYRILLIC CAPITAL LETTER BIG YUS
6B	CYRILLIC SMALL LETTER BIG YUS
6C	CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS
6D	CYRILLIC SMALL LETTER IOTIFIED BIG YUS
6E	CYRILLIC CAPITAL LETTER KSI
6F	CYRILLIC SMALL LETTER KSI
70	CYRILLIC CAPITAL LETTER PSI
71	CYRILLIC SMALL LETTER PSI
72	CYRILLIC CAPITAL LETTER FITA
73	CYRILLIC SMALL LETTER FITA
74	CYRILLIC CAPITAL LETTER IZHITSA
75	CYRILLIC SMALL LETTER IZHITSA
76	CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT
77	CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT
78	CYRILLIC CAPITAL LETTER UK
79	CYRILLIC SMALL LETTER UK
7A	CYRILLIC CAPITAL LETTER ROUND OMEGA
7B	CYRILLIC SMALL LETTER ROUND OMEGA
7C	CYRILLIC CAPITAL LETTER OMEGA WITH TITLO
7D	CYRILLIC SMALL LETTER OMEGA WITH TITLO
7E	CYRILLIC CAPITAL LETTER OT
7F	CYRILLIC SMALL LETTER OT

TABLE 12 - Row 04: CYRILLIC

	048	049	04A	04B	04C	04D	04E	04F
0	С	Г	К	У	І	Ă	З	ÿ
1	с	г	к	у	Ж	ă	з	ÿ
2	ѝ	Ғ	Ң	Х	Ж	Ă	Й	Ў
3	ѝ	ғ	ң	х	Қ	ä	й	ў
4	ѝ	Б	Н	Ц	Қ	Æ	Й	Ч
5	ѝ	б	н	ц	Л	æ	й	ч
6	ѝ	Ж	П	Ч	Л	Ё	Ö	Г
7	ѝ	ж	п	ч	Н	ё	ö	г
8	ѝ	З	Q	Ч	Н	Э	Ө	БІ
9	ѝ	з	q	ч	Н	э	ө	бі
A	Й	Қ	С	Һ	Ң	Ә	Ө	Ғ
B	й	қ	с	һ	ң	ә	ө	ғ
C	Ъ	К	Т	Є	Ч	Ж	Ә	Х
D	ъ	к	т	є	Ч	ж	ә	х
E	Р	К	У	Є	М	З	Ү	Ж
F	р	к	у	е	І	з	ү	ж

G = 00  
P = 00

TABLE 12 - Row 04: CYRILLIC

hex	Name
80	CYRILLIC CAPITAL LETTER KOPPA
81	CYRILLIC SMALL LETTER KOPPA
82	CYRILLIC THOUSANDS SIGN
83	COMBINING CYRILLIC TITLO
84	COMBINING CYRILLIC PALATALIZATION
85	COMBINING CYRILLIC DASIA PNEUMATA
86	COMBINING CYRILLIC PSILI PNEUMATA
87	COMBINING CYRILLIC POKRYTIE
88	COMBINING CYRILLIC HUNDRED THOUSANDS SIGN
89	COMBINING CYRILLIC MILLIONS SIGN
8A	CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
8B	CYRILLIC SMALL LETTER SHORT I WITH TAIL
8C	CYRILLIC CAPITAL LETTER SEMISOFT SIGN
8D	CYRILLIC SMALL LETTER SEMISOFT SIGN
8E	CYRILLIC CAPITAL LETTER ER WITH TICK
8F	CYRILLIC SMALL LETTER ER WITH TICK
90	CYRILLIC CAPITAL LETTER GHE WITH UPTURN
91	CYRILLIC SMALL LETTER GHE WITH UPTURN
92	CYRILLIC CAPITAL LETTER GHE WITH STROKE
93	CYRILLIC SMALL LETTER GHE WITH STROKE
94	CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK
95	CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK
96	CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER
97	CYRILLIC SMALL LETTER ZHE WITH DESCENDER
98	CYRILLIC CAPITAL LETTER ZE WITH DESCENDER
99	CYRILLIC SMALL LETTER ZE WITH DESCENDER
9A	CYRILLIC CAPITAL LETTER KA WITH DESCENDER
9B	CYRILLIC SMALL LETTER KA WITH DESCENDER
9C	CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE
9D	CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE
9E	CYRILLIC CAPITAL LETTER KA WITH STROKE
9F	CYRILLIC SMALL LETTER KA WITH STROKE
A0	CYRILLIC CAPITAL LETTER BASHKIR KA
A1	CYRILLIC SMALL LETTER BASHKIR KA
A2	CYRILLIC CAPITAL LETTER EN WITH DESCENDER
A3	CYRILLIC SMALL LETTER EN WITH DESCENDER
A4	CYRILLIC CAPITAL LIGATURE EN GHE
A5	CYRILLIC SMALL LIGATURE EN GHE
A6	CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK (Abkhasian)
A7	CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK (Abkhasian)
A8	CYRILLIC CAPITAL LETTER ABKHASIAN HA
A9	CYRILLIC SMALL LETTER ABKHASIAN HA
AA	CYRILLIC CAPITAL LETTER ES WITH DESCENDER
AB	CYRILLIC SMALL LETTER ES WITH DESCENDER
AC	CYRILLIC CAPITAL LETTER TE WITH DESCENDER
AD	CYRILLIC SMALL LETTER TE WITH DESCENDER
AE	CYRILLIC CAPITAL LETTER STRAIGHT U
AF	CYRILLIC SMALL LETTER STRAIGHT U
B0	CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE
B1	CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE
B2	CYRILLIC CAPITAL LETTER HA WITH DESCENDER
B3	CYRILLIC SMALL LETTER HA WITH DESCENDER
B4	CYRILLIC CAPITAL LIGATURE TE TSE (Abkhasian)
B5	CYRILLIC SMALL LIGATURE TE TSE (Abkhasian)
B6	CYRILLIC CAPITAL LETTER CHE WITH DESCENDER
B7	CYRILLIC SMALL LETTER CHE WITH DESCENDER
B8	CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE
B9	CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE
BA	CYRILLIC CAPITAL LETTER SHHA
BB	CYRILLIC SMALL LETTER SHHA
BC	CYRILLIC CAPITAL LETTER ABKHASIAN CHE
BD	CYRILLIC SMALL LETTER ABKHASIAN CHE
BE	CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER
BF	CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCENDER
C0	CYRILLIC LETTER PALOCHKA
C1	CYRILLIC CAPITAL LETTER ZHE WITH BREVE
C2	CYRILLIC SMALL LETTER ZHE WITH BREVE
C3	CYRILLIC CAPITAL LETTER KA WITH HOOK
C4	CYRILLIC SMALL LETTER KA WITH HOOK
C5	CYRILLIC CAPITAL LETTER EL WITH TAIL
C6	CYRILLIC SMALL LETTER EL WITH TAIL
C7	CYRILLIC CAPITAL LETTER EN WITH HOOK
C8	CYRILLIC SMALL LETTER EN WITH HOOK
C9	CYRILLIC CAPITAL LETTER EN WITH TAIL
CA	CYRILLIC SMALL LETTER EN WITH TAIL
CB	CYRILLIC CAPITAL LETTER KHAKASSIAN CHE
CC	CYRILLIC SMALL LETTER KHAKASSIAN CHE
CD	CYRILLIC CAPITAL LETTER EM WITH TAIL
CE	CYRILLIC SMALL LETTER EM WITH TAIL
CF	CYRILLIC SMALL LETTER PALOCHKA
D0	CYRILLIC CAPITAL LETTER A WITH BREVE
D1	CYRILLIC SMALL LETTER A WITH BREVE
D2	CYRILLIC CAPITAL LETTER A WITH DIAERESIS
D3	CYRILLIC SMALL LETTER A WITH DIAERESIS

hex	Name
D4	CYRILLIC CAPITAL LIGATURE A IE
D5	CYRILLIC SMALL LIGATURE A IE
D6	CYRILLIC CAPITAL LETTER IE WITH BREVE
D7	CYRILLIC SMALL LETTER IE WITH BREVE
D8	CYRILLIC CAPITAL LETTER SCHWA
D9	CYRILLIC SMALL LETTER SCHWA
DA	CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS
DB	CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS
DC	CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS
DD	CYRILLIC SMALL LETTER ZHE WITH DIAERESIS
DE	CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS
DF	CYRILLIC SMALL LETTER ZE WITH DIAERESIS
E0	CYRILLIC CAPITAL LETTER ABKHASIAN DZE
E1	CYRILLIC SMALL LETTER ABKHASIAN DZE
E2	CYRILLIC CAPITAL LETTER I WITH MACRON
E3	CYRILLIC SMALL LETTER I WITH MACRON
E4	CYRILLIC CAPITAL LETTER I WITH DIAERESIS
E5	CYRILLIC SMALL LETTER I WITH DIAERESIS
E6	CYRILLIC CAPITAL LETTER O WITH DIAERESIS
E7	CYRILLIC SMALL LETTER O WITH DIAERESIS
E8	CYRILLIC CAPITAL LETTER BARRED O
E9	CYRILLIC SMALL LETTER BARRED O
EA	CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS
EB	CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS
EC	CYRILLIC CAPITAL LETTER E WITH DIAERESIS
ED	CYRILLIC SMALL LETTER E WITH DIAERESIS
EE	CYRILLIC CAPITAL LETTER U WITH MACRON
EF	CYRILLIC SMALL LETTER U WITH MACRON
F0	CYRILLIC CAPITAL LETTER U WITH DIAERESIS
F1	CYRILLIC SMALL LETTER U WITH DIAERESIS
F2	CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE
F3	CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE
F4	CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS
F5	CYRILLIC SMALL LETTER CHE WITH DIAERESIS
F6	CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
F7	CYRILLIC SMALL LETTER GHE WITH DESCENDER
F8	CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS
F9	CYRILLIC SMALL LETTER YERU WITH DIAERESIS
FA	CYRILLIC CAPITAL LETTER GHE WITH STROKE AND HOOK
FB	CYRILLIC SMALL LETTER GHE WITH STROKE AND HOOK
FC	CYRILLIC CAPITAL LETTER HA WITH HOOK
FD	CYRILLIC SMALL LETTER HA WITH HOOK
FE	CYRILLIC CAPITAL LETTER HA WITH STROKE
FF	CYRILLIC SMALL LETTER HA WITH STROKE

TABLE 13 - Row 05: CYRILLIC SUPPLEMENT

	050	051	052
0	Ԁ	Ɛ	Ӣ
1	ԁ	Ɛ	Ӣ
2	Ԃ	Ӣ	Ӣ
3	ԃ	Ӣ	Ӣ
4	Ӣ	Ӣ	
5	Ӣ	Ӣ	
6	Ӣ	Ӣ	
7	Ӣ	Ӣ	
8	Ӣ	Ӣ	
9	Ӣ	Ӣ	
A	Ӣ	Ӣ	
B	Ӣ	Ӣ	
C	Ӣ	Ӣ	
D	Ӣ	Ӣ	
E	Ӣ	Ӣ	
F	Ӣ	Ӣ	

G = 00  
P = 00



TABLE XX - Row 2D: CYRILLIC EXTENDED-A

	2DE	2DF
0	Ѹ ○	Ц ○
1	В ○	Ч ○
2	Г ○	Ш ○
3	Д ○	Щ ○
4	Ж ○	Ѳ ○
5	З ○	Ѣ ○
6	К ○	а ○
7	Л ○	е ○
8	М ○	Ѡ ○
9	Н ○	Ѳ ○
A	О ○	Ѣ ○
B	П ○	Ю ○
C	Р ○	Ѡ ○
D	С ○	Ѡ ○
E	Т ○	Ѡ ○
F	Х ○	ѠѠ ○

G = 00  
P = 00

**TABLE XX - Row 2D: CYRILLIC EXTENDED-A**

hex	Name
E0	COMBINING CYRILLIC LETTER BE
E1	COMBINING CYRILLIC LETTER VE
E2	COMBINING CYRILLIC LETTER GHE
E3	COMBINING CYRILLIC LETTER DE
E4	COMBINING CYRILLIC LETTER ZHE
E5	COMBINING CYRILLIC LETTER ZE
E6	COMBINING CYRILLIC LETTER KA
E7	COMBINING CYRILLIC LETTER EL
E8	COMBINING CYRILLIC LETTER EM
E9	COMBINING CYRILLIC LETTER EN
EA	COMBINING CYRILLIC LETTER O
EB	COMBINING CYRILLIC LETTER PE
EC	COMBINING CYRILLIC LETTER ER
ED	COMBINING CYRILLIC LETTER ES
EE	COMBINING CYRILLIC LETTER TE
EF	COMBINING CYRILLIC LETTER HA
F0	COMBINING CYRILLIC LETTER TSE
F1	COMBINING CYRILLIC LETTER CHE
F2	COMBINING CYRILLIC LETTER SHA
F3	COMBINING CYRILLIC LETTER SHCHA
F4	COMBINING CYRILLIC LETTER FITA
F5	COMBINING CYRILLIC LETTER ES-TE
F6	COMBINING CYRILLIC LETTER A
F7	COMBINING CYRILLIC LETTER IE
F8	COMBINING CYRILLIC LETTER DJERV
F9	COMBINING CYRILLIC LETTER MONOGRAPH UK
FA	COMBINING CYRILLIC LETTER YAT
FB	COMBINING CYRILLIC LETTER YU
FC	COMBINING CYRILLIC LETTER IOTIFIED A
FD	COMBINING CYRILLIC LETTER LITTLE YUS
FE	COMBINING CYRILLIC LETTER BIG YUS
FF	COMBINING CYRILLIC LETTER IOTIFIED BIG YUS

hex	Name
-----	------



TABLE XX - Row A6: CYRILLIC EXTENDED-B

	A64	A65	A66	A67	A88	A89
0	Ƶ	Ы		⦿	Д	Т
1	ƶ	ы		⦿	д	т
2	Ʒ	Ѣ	Д	☼	Ѕ	Ч
3	Ƹ	ѣ	д	☆	ѕ	ч
4	ƹ	ОИ	Л		ЗК	Һ
5	ƺ	ои	л		зк	һ
6	І	Ѧ	М		Ѱ	ѱ
7	і	ѧ	м		ѱ	Ѳ
8	Ӏ	А	⊙		Д <sub>3</sub>	
9	Ӂ	а	⊙		д <sub>3</sub>	
A	ӂ	Ӑ	⊙		Ӏ	
B	Ӄ	ӑ	⊙		Ӂ	
C	ӄ	Ӓ	∞	◌̇	Т	
D	Ӆ	ӓ	∞	◌̈́	т	
E	ӆ	Ӕ	⊗	◌̂	ӄ	
F	Ӈ	ӕ	◌̈́	◌̂	Ӆ	

G = 00  
P = 00

**TABLE XX - Row A6: CYRILLIC EXTENDED-B**

hex	Name
40	<i>CYRILLIC CAPITAL LETTER ZEMLYA</i>
41	<i>CYRILLIC SMALL LETTER ZEMLYA</i>
42	<i>CYRILLIC CAPITAL LETTER DZELO</i>
43	<i>CYRILLIC SMALL LETTER DZELO</i>
44	<i>CYRILLIC CAPITAL LETTER REVERSED DZE</i>
45	<i>CYRILLIC SMALL LETTER REVERSED DZE</i>
46	<i>CYRILLIC CAPITAL LETTER IOTA</i>
47	<i>CYRILLIC SMALL LETTER IOTA</i>
48	<i>CYRILLIC CAPITAL LETTER DJERV</i>
49	<i>CYRILLIC SMALL LETTER DJERV</i>
4A	<i>CYRILLIC CAPITAL LETTER MONOGRAPH UK</i>
4B	<i>CYRILLIC SMALL LETTER MONOGRAPH UK</i>
4C	<i>CYRILLIC CAPITAL LETTER BROAD OMEGA</i>
4D	<i>CYRILLIC SMALL LETTER BROAD OMEGA</i>
4E	<i>CYRILLIC CAPITAL LETTER NEUTRAL YER</i>
4F	<i>CYRILLIC SMALL LETTER NEUTRAL YER</i>
50	<i>CYRILLIC CAPITAL LETTER YERU WITH BACK YER</i>
51	<i>CYRILLIC SMALL LETTER YERU WITH BACK YER</i>
52	<i>CYRILLIC CAPITAL LETTER IOTIFIED YAT</i>
53	<i>CYRILLIC SMALL LETTER IOTIFIED YAT</i>
54	<i>CYRILLIC CAPITAL LETTER REVERSED YU</i>
55	<i>CYRILLIC SMALL LETTER REVERSED YU</i>
56	<i>CYRILLIC CAPITAL LETTER IOTIFIED A</i>
57	<i>CYRILLIC SMALL LETTER IOTIFIED A</i>
58	<i>CYRILLIC CAPITAL LETTER CLOSED LITTLE YUS</i>
59	<i>CYRILLIC SMALL LETTER CLOSED LITTLE YUS</i>
5A	<i>CYRILLIC CAPITAL LETTER BLENDED YUS</i>
5B	<i>CYRILLIC SMALL LETTER BLENDED YUS</i>
5C	<i>CYRILLIC CAPITAL LETTER IOTIFIED CLOSED LITTLE YUS</i>
5D	<i>CYRILLIC SMALL LETTER IOTIFIED CLOSED LITTLE YUS</i>
5E	<i>CYRILLIC CAPITAL LETTER YN</i>
5F	<i>CYRILLIC SMALL LETTER YN</i>
60	(This position shall not be used)
61	(This position shall not be used)
62	<i>CYRILLIC CAPITAL LETTER SOFT DE</i>
63	<i>CYRILLIC SMALL LETTER SOFT DE</i>
64	<i>CYRILLIC CAPITAL LETTER SOFT EL</i>
65	<i>CYRILLIC SMALL LETTER SOFT EL</i>
66	<i>CYRILLIC CAPITAL LETTER SOFT EM</i>
67	<i>CYRILLIC SMALL LETTER SOFT EM</i>
68	<i>CYRILLIC CAPITAL LETTER MONOCULAR O</i>
69	<i>CYRILLIC SMALL LETTER MONOCULAR O</i>
6A	<i>CYRILLIC CAPITAL LETTER BINOCULAR O</i>
6B	<i>CYRILLIC SMALL LETTER BINOCULAR O</i>
6C	<i>CYRILLIC CAPITAL LETTER DOUBLE MONOCULAR O</i>
6D	<i>CYRILLIC SMALL LETTER DOUBLE MONOCULAR O</i>
6E	<i>CYRILLIC LETTER MULTIOCULAR O</i>
6F	<i>COMBINING CYRILLIC VZMET</i>
70	<i>COMBINING CYRILLIC TEN MILLIONS SIGN</i>
71	<i>COMBINING CYRILLIC HUNDRED MILLIONS SIGN</i>
72	<i>COMBINING CYRILLIC THOUSAND MILLIONS SIGN</i>
73	<i>SLAVONIC ASTERISK</i>
74	(This position shall not be used)
75	(This position shall not be used)
76	(This position shall not be used)
77	(This position shall not be used)
78	(This position shall not be used)
79	(This position shall not be used)
7A	(This position shall not be used)
7B	(This position shall not be used)
7C	<i>COMBINING CYRILLIC KAVYKA</i>
7D	<i>COMBINING CYRILLIC PAYEROK</i>
7E	<i>CYRILLIC KAVYKA</i>
7F	<i>CYRILLIC PAYEROK</i>
80	<i>CYRILLIC CAPITAL LETTER DWE</i>
81	<i>CYRILLIC SMALL LETTER DWE</i>
82	<i>CYRILLIC CAPITAL LETTER DZWE</i>
83	<i>CYRILLIC SMALL LETTER DZWE</i>
84	<i>CYRILLIC CAPITAL LETTER ZHWE</i>
85	<i>CYRILLIC SMALL LETTER ZHWE</i>
86	<i>CYRILLIC CAPITAL LETTER C CHE</i>
87	<i>CYRILLIC SMALL LETTER C CHE</i>
88	<i>CYRILLIC CAPITAL LETTER D ZZE</i>
89	<i>CYRILLIC SMALL LETTER D ZZE</i>
8A	<i>CYRILLIC CAPITAL LETTER TE WITH MIDDLE HOOK</i>
8B	<i>CYRILLIC SMALL LETTER TE WITH MIDDLE HOOK</i>
8C	<i>CYRILLIC CAPITAL LETTER TWE</i>
8D	<i>CYRILLIC SMALL LETTER TWE</i>
8E	<i>CYRILLIC CAPITAL LETTER TSWE</i>
8F	<i>CYRILLIC SMALL LETTER TSWE</i>
90	<i>CYRILLIC CAPITAL LETTER TSSE</i>
91	<i>CYRILLIC SMALL LETTER TSSE</i>
92	<i>CYRILLIC CAPITAL LETTER TCHE</i>
93	<i>CYRILLIC SMALL LETTER TCHE</i>
94	<i>CYRILLIC CAPITAL LETTER HWE</i>
95	<i>CYRILLIC SMALL LETTER HWE</i>
96	<i>CYRILLIC CAPITAL LETTER SHWE</i>
97	<i>CYRILLIC SMALL LETTER SHWE</i>
98	(This position shall not be used)

hex	Name
99	(This position shall not be used)
9A	(This position shall not be used)
9B	(This position shall not be used)
9C	(This position shall not be used)
9D	(This position shall not be used)
9E	(This position shall not be used)
9F	(This position shall not be used)

**TABLE xx - Row 2E: SUPPLEMENTARY PUNCTUATION**

	2E0	2E1	2E2	2E3	2E4	2E5	2E6	2E7
0	⌈	⌋						
1	⌈̇	⌋̇						
2	⌈̂	⌋̂						
3	⌈̃	⌋̃						
4	⌈̄	⌋̄						
5	⌈̅	⌋̅						
6	⌈̆	⌋̆						
7	⌈̇	⌋̇						
8	⌈̈	⌋̈						
9	⌈̉	⌋̉						
A	⌈̊			⌈̊				
B	⌈̋							
C	⌈̌	⌈̌						
D	⌈̍	⌈̍						
E	⌈̎							
F	⌈̏							

G = 00  
P = 00

**TABLE XXX - Row 2E: SUPPLEMENTARY PUNCTUATION**

hex	Name	hex	Name
00	RIGHT ANGLE SUBSTITUTION MARKER	59	(This position shall not be used)
01	RIGHT ANGLE DOTTED SUBSTITUTION MARKER	5A	(This position shall not be used)
02	LEFT SUBSTITUTION BRACKET	5B	(This position shall not be used)
03	RIGHT SUBSTITUTION BRACKET	5C	(This position shall not be used)
04	LEFT DOTTED SUBSTITUTION BRACKET	5D	(This position shall not be used)
05	RIGHT DOTTED SUBSTITUTION BRACKET	5E	(This position shall not be used)
06	RAISED INTERPOLATION MARKER	5F	(This position shall not be used)
07	RAISED DOTTED INTERPOLATION MARKER	60	(This position shall not be used)
08	DOTTED TRANSPOSITION MARKER	61	(This position shall not be used)
09	LEFT TRANSPOSITION BRACKET	62	(This position shall not be used)
0A	RIGHT TRANSPOSITION BRACKET	63	(This position shall not be used)
0B	RAISED SQUARE	64	(This position shall not be used)
0C	LEFT RAISED OMISSION BRACKET	65	(This position shall not be used)
0D	RIGHT RAISED OMISSION BRACKET	66	(This position shall not be used)
0E	EDITORIAL CORONIS	67	(This position shall not be used)
0F	PARAGRAPHS	68	(This position shall not be used)
10	FORKED PARAGRAPHS	69	(This position shall not be used)
11	REVERSED FORKED PARAGRAPHS	6A	(This position shall not be used)
12	HYPODIASTOLE	6B	(This position shall not be used)
13	DOTTED OBELOS	6C	(This position shall not be used)
14	DOWNWARDS ANCORA	6D	(This position shall not be used)
15	UPWARDS ANCORA	6E	(This position shall not be used)
16	DOTTED RIGHT-POINTING ANGLE	6F	(This position shall not be used)
17	DOUBLE OBLIQUE HYPHEN	70	(This position shall not be used)
18	INVERTED INTERROBANG	71	(This position shall not be used)
19	PALM BRANCH	72	(This position shall not be used)
1A	(This position shall not be used)	73	(This position shall not be used)
1B	(This position shall not be used)	74	(This position shall not be used)
1C	LEFT LOW PARAPHRASE BRACKET	75	(This position shall not be used)
1D	RIGHT LOW PARAPHRASE BRACKET	76	(This position shall not be used)
1E	(This position shall not be used)	77	(This position shall not be used)
1F	(This position shall not be used)	78	(This position shall not be used)
20	(This position shall not be used)	79	(This position shall not be used)
21	(This position shall not be used)	7A	(This position shall not be used)
22	(This position shall not be used)	7B	(This position shall not be used)
23	(This position shall not be used)	7C	(This position shall not be used)
24	(This position shall not be used)	7D	(This position shall not be used)
25	(This position shall not be used)	7E	(This position shall not be used)
26	(This position shall not be used)	7F	(This position shall not be used)
27	(This position shall not be used)		
28	(This position shall not be used)		
29	(This position shall not be used)		
2A	(This position shall not be used)		
2B	(This position shall not be used)		
2C	(This position shall not be used)		
2D	(This position shall not be used)		
2E	(This position shall not be used)		
2F	(This position shall not be used)		
30	(This position shall not be used)		
31	(This position shall not be used)		
32	(This position shall not be used)		
33	(This position shall not be used)		
34	(This position shall not be used)		
35	(This position shall not be used)		
36	(This position shall not be used)		
37	(This position shall not be used)		
38	(This position shall not be used)		
39	(This position shall not be used)		
3A	<i>VERTICAL TILDE</i>		
3B	(This position shall not be used)		
3C	(This position shall not be used)		
3D	(This position shall not be used)		
3E	(This position shall not be used)		
3F	(This position shall not be used)		
40	(This position shall not be used)		
41	(This position shall not be used)		
42	(This position shall not be used)		
43	(This position shall not be used)		
44	(This position shall not be used)		
45	(This position shall not be used)		
46	(This position shall not be used)		
47	(This position shall not be used)		
48	(This position shall not be used)		
49	(This position shall not be used)		
4A	(This position shall not be used)		
4B	(This position shall not be used)		
4C	(This position shall not be used)		
4D	(This position shall not be used)		
4E	(This position shall not be used)		
4F	(This position shall not be used)		
50	(This position shall not be used)		
51	(This position shall not be used)		
52	(This position shall not be used)		
53	(This position shall not be used)		
54	(This position shall not be used)		
55	(This position shall not be used)		
56	(This position shall not be used)		
57	(This position shall not be used)		
58	(This position shall not be used)		

# Figures

аф учфттодэзь. (Стэй моркш ваксста). Эх, деяй-  
алэй, у<sup>к</sup>э<sup>л</sup>х<sup>ь</sup>гыда... (Сембэ стьякшнихть). Мезевок  
лие аф <sup>н</sup>и<sup>я</sup>, эряви. Ну, аф ламёе коданга кырьдеда.  
Тон, деяй, тят аварьчнэ. Мон саян.

**Корна атэ.** Кода, цёрай, тисак, натъ тяфтак эряви.  
М<sup>н</sup>хь коданга тьса тиенъттяма,—тон тоса коданга  
у<sup>л</sup>х<sup>ь</sup> шумбра, шумбраста сак куду курёкёнэ.

**Председателсь.** Эрь, Петэ, коданга тон пажалыста  
эряскатт. Мон молян нингэ лядыкснёнъ ширева якан.  
Прощайте мзяре. (Лиси).

**Карна баба.** (Мешоксь кэцонза). Вога тьса  
пункет, панархть, пракстанят. Кшенэ путёнъ. А<sup>ф</sup>  
лэтфтаса мезэ нингэ эряви. Нэк пэк вышкста <sup>с</sup>ы<sup>р</sup>-  
каты. Пиделёнъ-панелёнъ мезьянок <sup>м</sup>арх<sup>т</sup>от...

**Figure 1.** Sample from Бондяков 1925, showing letters LNA and RHA. Typographically, the former is based on HA with an EL extension, and the latter is ER with a HA extension.

20. Я<sup>р</sup>рь калдывнъ тивс аф кельгс валдть,  
аф<sup>л</sup>ж моли шельгза, тят п<sup>я</sup>юот тевънън калдыв-  
шиснън марта.

**Figure 2.** Sample from Барсов 1901, showing the letter YAE.

б)  $\text{яе} = \text{среднему изъ я + е: пряе, у<sup>ж</sup>яель, еуяе;$   
с<sup>я</sup>ели, с<sup>я</sup>ень, ш<sup>я</sup>ели.

**Figure 3.** Sample from Барсов 1901, showing the letter YAE and describing its sound as being between YA and IE (evidently [jæ]).

Ә Л Й Ф Б А

Аа—Ц	Ээ—Ә	Пп—Ф	Һһ—Л	Ц Արբա — аббат. Արբախար — аббабан, дербан. Արբալիան — аббаты. Արբաղիա — аберагна. Արբազ — абхаз. Արբազի — абхаз. Արբազիա — Абхазна. Արբեմենտ — абонмент. Արբենտ — абонент. Արբорт — аборт, зар'о бэр хва- кьры, зар'о бэркьры. Արբулют — абсолют, э'йани. Արբулютизм — абсолютизм.
Бб—Ф	Ии—Т	П'п'—Ф	Гг—Л'	
Вв—Ч	Йй—В	Рр—Р	Чч—Д	
Гг—Ч	Кк—Ч	Р'р'—П	Чч—Д	
Г'г'—Ч	Кк'—Ф	Сс—П	Шш—Т	
Дд—Ч	Лл—Л	Тт—С	Цц—Ә	
Ее—В	Мм—У	Т'т'—Ф	Ьь—Р	
Әә	Нн—В	Уу—П	Ээ—Л	
Ә'ә'	Оо—О	Фф—Д	Qq—Ч	
Жж—Ф	Өө—Ф	Хх—В	Ww—ПЦ	

**Figure 4.** Sample from Hassanpour 1992, showing Kurdish QA and WE in an Armenian-Kurdish dictionary published in Erevan in 1957.

11) Өгөр (һөгөр): өгөр шамера дьгәри, һәрә мала мир Сәдин, өгөр дьхвәзи һәри мала мәри җфата, һәрә мала Җәра-Җаждин, Чакан у Өрфан, ле өгөр хьраба дьгәри, һәрә мала Бәкәе Өвал. (Ф. К. 299).

12) Чь кө: чь кө мьн қазанш дькьр, мьн дьда дьйә хвә (КЗК 94): чь кө һатийә сәре мьд, бьра нәе сәре кәлдә чь кө рәсти тә һат, бьдә бәр хвә бажо.

13) Һәрке: һәрке тә һьзани, тә хьзани, һәрке һун бен, әме арикарийа вә бькьн; һәрке әв досте һәвьн, әве бь досте жи бь һәврә дәрбас бькьн.

14) Кәнге: кәнге һьшик нә ль малә, дәвата мьшка-нә; кәнге тә ани, әзе бьдьм тә; кәнге мә һәв дит, мә һәврә гот.

15) Вәхте (кө): вәхте (кө) әз һатьм гөнд, мьн тә дити; вәхте тә дьхәбти, мьн ль тә дьһери; вәхте баран бари, әм ль мерге бун.

16) Чахе: чахе нав шуна щинава тен хәбьтандьне, чава хьдавфел, һьнге һьртька «е» сәр ванда зедә дьба (Q.K. 94).

Figure 5. Sample from Kõrdo 1956, showing QA and WE used in a reader for the 5th and 6th class.

АЛФАВИТ

В 1929 г. курды, проживающие в СССР, получили письменность; был создан алфавит на основе латинской графики с добавлением знака ь. В 1945 г. курды СССР перешли на новый алфавит на основе русской графики с добавлением четырёх знаков: ә, һ, қ, w. Кроме того над некоторыми буквами с правой стороны стали ставить знак ', который означает добавочную артикуляцию¹.

на основе русской графики	на основе латинской графики	на основе русской графики	на основе латинской графики
а	a	и	p
б	b	и'	p'
в	v	р	г
г	g	р'	г [r]
г'	q	с	s
д	d	т	t
е	e	т'	t'
ә	ә	у	u
ә'	ә'	ф	f
ж	ж	х	x
з	z	һ	h
и	i	һ'	h'
й	j	ч	c
к	k	ч'	c'
к'	к	щ	ç
л	l	ш	ş
м	m	ь	ь
н	n	қ	q
о	o	w	w
ө	ö		

Figure 6. Sample from Бакаев 1957, showing Latin Q and w alongside Cyrillic QA and WE, in columns labelled, literally, “Latin graphics” and “Russian graphics” respectively; we use the terms “Cyrillic characters” and “Latin characters” today. The text above states that in 1945 Kurds in the USSR adopted a new alphabet based on “Russian graphics” with the addition of four characters: Әә, Һһ, Qq, and Ww. All of these ultimately derive from the Latin script, but were naturalized Cyrillic characters 61 years ago. Other Cyrillic characters used in Kurdish with identical Latin counterparts are Aa, Ee, Oo, and Öö.

rîp ливоблѣдничать. подхалимст-  
 вовать.  
 kûtik [кृतык] ю.-к. презрѣнный,  
 пѣдлый.  
 kût-kût [кृत-кृत] ю.-к. кусками.  
 kût û kur [кृत у кѣр] с.м. кет-  
 кир.  
 kûvî [кृви] 1. 1) гѣрный;  
 2) дѣкий; неприручѣнный; пугли-  
 вый; нелюдѣмый; ~ bûn стать  
 дѣким, дѣчать; ~ kirin сдѣлать  
 дѣким, нелюдѣмым; 3) перен. бѣр-  
 ный; несдѣржашный; бѣшенный;  
 2. ж. сѣрна.

(ГЕОГНАД).  
 kûzkîrîp [кृतкृतрын] и. д. ж.  
 а) сгѣрблыванне; б) сгѣбанне; на-  
 гѣбанне.  
 kwa [кwa] ю.-к. с.м. ка I.  
 kwanê [кване] ю.-к. с.м. ка-  
 пѣ.  
 kwexa [кwâха] ю.-к. с.м. kew-  
 хwe.  
 kwîner [квинър] ж. 1) ѣпухоль;  
 2) нарѣв; чѣрей.  
 kwîner [квинер] с.м. kwîner.  
 kwîr [квир] ю.-к. с.м. кор I.  
 kwîsî [квисî] ю.-к. с.м. kûst.

Q

qab I [qab] 1) ж. корѣбка;  
 футляр; 2) ж. нѣжнѣ; 3) ж. ко-  
 лѣдка (для ѣбуи и т. п.); 4) ж.  
 тех. фѣрма (для ѣтливки); 5) ю.-к.  
 посѣда.

qab II [qab] 1. м. развратник;  
 jîna ~ развратница; проститут-  
 ка; 2. yê ~ распутный (о мужчине).  
 qaban [qaban] м. кабан; бѣров;  
 дѣкий кабан, вѣпрь.

**Figure 7.** Sample from Курдоев 1960, showing Latin Q and w alongside Cyrillic QA and WE. This is a dictionary of Kurdish in a Latin orthography; here, the phonetic re-spelling is given for Russian-speaking readers in Cyrillic transcription, as in **kwîsî** [квисî] and **qaban** [qабан].

<i>Alphabet</i>	<i>Transliteration</i>	<i>Alphabet</i>	<i>Transliteration</i>
А а	a	Ф ф	f
Б б	b	Х х	kh
В в	v	Ч ч	ch
Г г	g	Ч' ч'	ch'
Г' г'	g'	Ш ш	sh
Д д	d	Щ щ	j
Е е	e	Ь ь	ï
Ж ж	zh	Э э	ë
З з	z	Һ һ	h
И и	i	Һ' һ'	h'
Й й	y	Q q	q
К к	k	W w	w
К' к'	k'	Ә ә	ä
Л л	l		
М м	m		
Н н	n		
О о	o		
Ö ö	ö		
П п	p		
П' п'	p'		
С с	s		
Т т	t		
Т' т'	t'		
У у	u		

\* К. М. Musacv, *Alfavitî iazykov narodov SSSR* (Moscow: Izdatel'stvo "Nauka," 1965), pp. 26–28; N. A. Baskakov, ed., *Osnovnye protsessy vnutristrukturnogo razvitiia iranskikh i iberiisko-kavkazskikh iazykov* (Moscow: Izdatel'stvo "Nauka," 1969), pp. 159–62.

**Figure 8.** Sample from Allworth 1971, showing the Kurdish Cyrillic alphabet and its Latin transliteration. The following letters are identical between Latin and Cyrillic: Aa, Ee, Oo, Öö, Qq, Ww, and Әә (though Allworth transliterates the last as Ää).

Сопоставление графем курдского алфавита 1945 г. с применявшимися для выражения тех же звуков курдского языка графемами арабской письменности, а также с алфавитами, принятыми при издании курдских текстов латинским шрифтом, дает следующую картину.

Таблица алфавитов, употребляемых в курдской письменности

№№ пп.	Курдский алфавит 1945 г. (на основе русской графики)	Латинизированный курдский алфавит 1927 г.	Алфавит, выработанный обществом "Хавар" в Сирии	Латинизированный алфавит курдов Ирака	Курдский алфавит (на основе арабской графики)
1	2	3	4	5	6
1	a	a	a	a	آ ا ب ج د ه و ز ح ط ي ق ك ل م ن و س ع ف
2	б	b	b	b	
3	ч	c	c	ch	
4	ч'	e	c	ch	
5	щ	c	c	c	
6	д	d	d	d	
7	е	e	e	e	
8	э	e	e	e	
9	э'	e'	e, э'	e	
10	ф	f	f	f	
11	г	g	g	g	
12	г'	q	ǰ	gh	
13	h	h	h	h	
14	h'	h	h	h	
15	и	i	i	i, iy	
16	ь	o	i	i, y	
17	й	j	y	y	
18	к	k	k	q	
19	к'	ḳ	k	k, kh	
20	л	l	l	l	
21	л	l	l	lh	
22	м	m	m	m	
23	н	n	n	n	
24	о	o	o	o	
25	п	p	p	p	
26	п'	p	p	p, ph	

<sup>1</sup> Произносится как дж (твердое).

1	2	3	4	5	6
27	q	q	q	q	ق ك ل م ن و س ع ف
28	p	r	r	r	
29	p	r	r, rr	rh	
30	c	s	s	s	
31	ш	š	š	sh	
32	t	t	t	t	
33	t	t	t	th	
34	y	u	û	u	
35	v	v	v	v'	
36	w	w	w	w	
37	x	x	x	x	
38	ö	y	u	ö	
39	э	z	z	z	
40	ж	z	j	j, zh	

Figure 9. Sample from Курдоев 1957, showing the Kurdish alphabet of 1945 (with "Russian graphics"), the Latinized Kurdish alphabet of 1927, the Latin alphabet devised by the "Xavar" society in Sirin, the Latinized alphabet of Iranian Kurds, and the Kurdish alphabet (with "Arabic graphics"). Latin q and w are used alongside Cyrillic QA and WE. Here, as in Figure 6, the author identifies the letters as Russian, that is, as Cyrillic.



## КУРДСКИЙ

Щарэке бэрф, баран у ба һэвр'а к'эти һ'оцэте, чька к'и жь вана зорэ. Баране гот: „Эз гьшка зортърьм. Һэр дэра дьбарьм. Кэсэк бь мьн нькарэ“. Ба гот: „Qэ жи на, э'мре тэ кьнэ. Дьбари у зу тейи бьр'ине, зу жи дьмьч'ьци. Е зор эзьм, вэки ч'ьл у ч'йар'а дьбэзьм, хвэ ль һэр дэрар'а дьгһиньм“. Бэрфе гот: „Э'мре тэ жи кьнэ. Зу тей бьр'ине, кэс тэ дэрнахэ, чька к'ода чуйи. Йа зор дьса эзьм, дьбарьм, рудьним, һ эрдэра сьпи дькьм“. Ба гот: „Лэ вэки эз бем, го тэе жь бэр мьн к'ода хьлаз би“.

Һ'оцэта вана we he гэлэки бьк'ьшанда, һэрге бь ванар'а ро дэрнэк'эта; эве п'энце хвэ зэр-зэрьданд; дьһа пер'а к'эһйа: „Баран, бэрф у ба ида һэр йэк аликида мьна бубун“.

### А л ф а в и т

Аа, Бб, Вв, Гг, Г'г', Дд, Ее, **ээ, Э'э'**, Жж, Зз, Ии, Йй, Кк, К'к', Лл, Мм, Нн, Оо, **Об**, Пп, П'п', Рр, Р'р', Сс, Тт, Т'т', **Уу, Фф, Хх, Һһ, Һ'Һ', Чч, Ч'ч', Шш, Щщ, Ъь, Ээ, Qq, Ww.**

Отличительными признаками служат буквы **q (Q), w (W)**, не употребляющиеся в настоящее время в других языках с русским письмом. Имеются также дополнительные буквы **э, об, һ**. Часто встречается апостроф (') после букв **г, э, к, п, р, т, һ, ч**. В алфавите отсутствуют буквы **ё, ц, ь, ы, ю, я**.

Прежде использовалось арабское письмо с дополнительными буквами: **چ گ ق ل**  
армянское письмо с дополнительной буквой **т**; латинское письмо с дополнительными буквами

**ç, ь, э, ь, һ, ь, q, ь, ь, ь, ь.**

Курды, проживающие за рубежом, пользуются латинским и арабским письмом (см. раздел „Языки народов Азии и Океании“).

В СССР курдский язык распространен в Армянской ССР, Грузинской ССР, Азербайджанской ССР и частично в Средней Азии. На нем говорит в СССР около 50 тыс. человек. Принадлежит к иранской группе индоевропейских языков.

15

Figure 10. Sample from Гиляревский & Гривнин 1964, showing Cyrillic QA and WE.

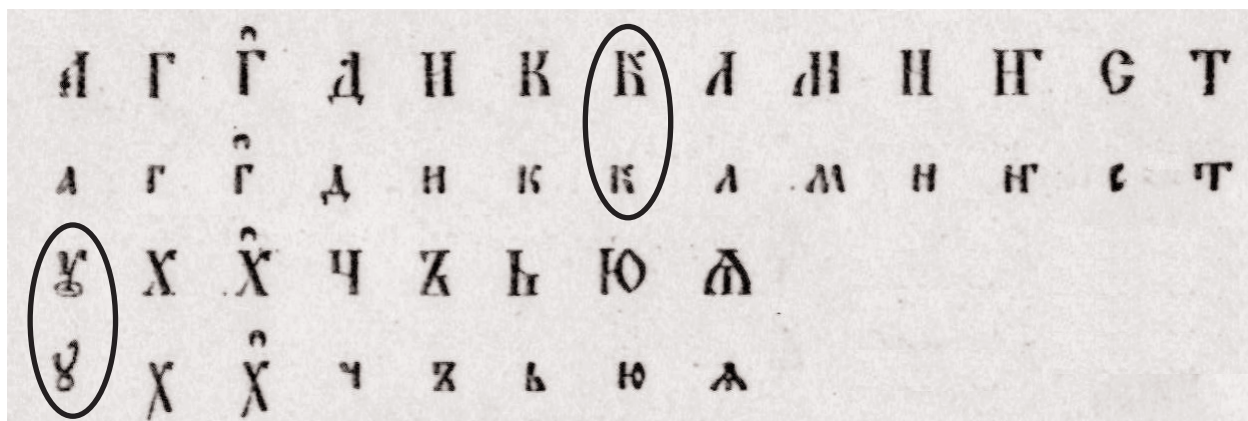


Figure 11. Sample from the alphabet page of an 1893 Aleut Primer, showing ALEUT KA and MONOGRAPH UK.

АТНУЗ ДУГУМЗ  
 ПХТАВАННУЗ.  
 а. Тингъ КВКНГЗ  
 АГВГВНЗ, ГВСПВДАНЗ:  
 Тингъ ВНВКВКМННГЗ АВ  
 АГННЗ а) АГВГВНЗ ИМННЗ  
 АЛАКАГННЗ.  
 б. АМАГАНЗ СИГІМ  
 КВКЗ б), КВГАДАКЗ в)  
 ИМННЗ АГВГНАХТГННЗ,  
 АМАГАНЗ ИНИМЗ г) КВ  
 ГАНЗ АКАВВНЗ, АМАГАНЗ

Figure 12. Sample of the first of the 10 Commandments in Aleut, showing ALEUT KA and MONOGRAPH UK.

УНАГАМЗ АСМУКА.  
 А Г Д И К К Л М  
 а г д и к к л м  
 Н П С Т У Х Ч З  
 н п с т у х ч з  
 Ъ Ю А  
 ъ ю а  
 А Г Д И К К Л М Н П  
 а г д и к к л м н п  
 С Т У Х Ч Ъ Ь Ю Я  
 с т у х ч ъ ъ ю я

Figure 13. Sample from another Aleut alphabet page, showing ALEUT KA and MONOGRAPH UK in both Slavonic and Graždanka font styles.

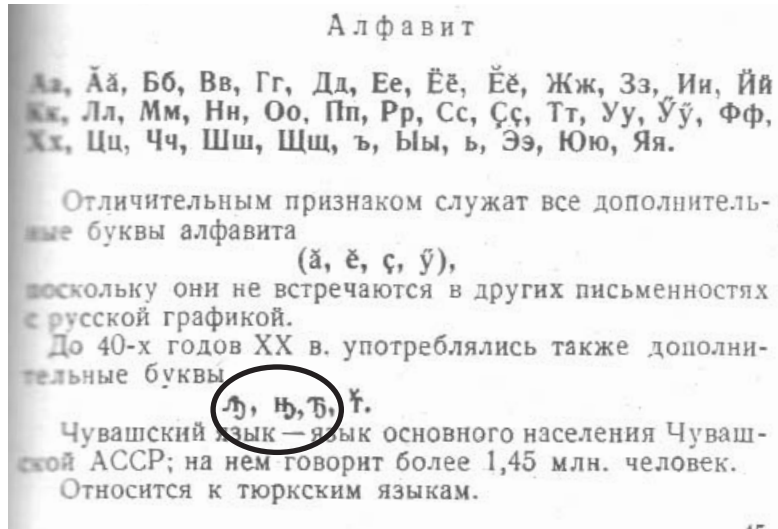


Figure 14. Sample from Гиляревский & Гривнин 1964, showing EL WITH MIDDLE HOOK, EN WITH MIDDLE HOOK, and TE WITH MIDDLE HOOK.



Figure 15. Sample from a 1574 Primer, showing ZEMLYA alongside ZE, MONOGRAPH UK alongside digraph UK, and IOTIFIED A.

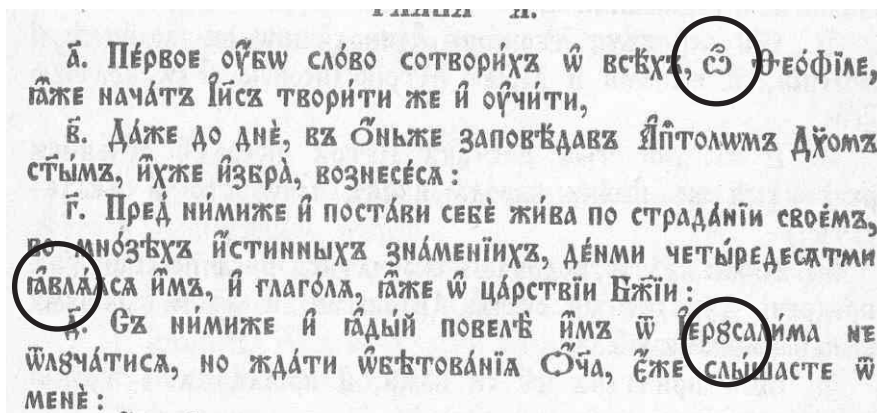


Figure 16. Sample from a modern edition of the Acts of the Apostles, showing the *beautiful omega*, MONOGRAPH UK and IOTIFIED A.



Figure 17. Sample from a 1631 Primer, showing MONOGRAPH UK, IOTIFIED A, ZEMLYA, and BROAD OMEGA.



Прощѣдіа . Препинае стѣо :  
 черта́  
 о́зіа́  
 запата́а ,  
 ва́ріа́  
 двото́чїе :  
 шеле́тема  
 чо́чка .  
 пе́ліа  
 ра́двнжа́а  
 двіа́  
 сопра́наа  
 па́еркѣ́  
 вопро́снїте́ма ;  
 е́рнкѣ́  
 о́удвнїте́маа !  
 бра́дїа  
 вме́тнїте́ма ( ) .  
 ма́гккаа  
 нзме́тнїаа .

Figure 19. Sample from a 1631 Primer, showing *payerok* (*naerкѣ́*) and *yerik* (*epukѣ́*). The character U+033E NON-SPACING VERTICAL TILDE was encoded to represent the *yerik*, but the *yerik* can be spacing as well as non-spacing. In order to accommodate the needs of Slavacists, three characters are proposed: a spacing VERTICAL TILDE for the *yerik*, as well as COMBINING CYRILLIC PAYEROK and CYRILLIC PAYEROK. The character COMBINING CYRILLIC POKRYTIE is also shown in this example.

далѣце о́нїи́ дїкїтїрїи́ , а́лї далѣкї́ вѣ́ашї́ ѿ́кїтї́  
 рїи́ о́убеѣ́ ѿ́повѣ́дїа́тїсѣ́ мї́блѣ́ ( рї́звѣ́дантї́ )  
 на́вїлше́ма́ гамїва́ла . и́нї о́убеѣ́ вї́дѣ́лїтѣ́ тї́о ,  
 же́ стї́хтѣ́ мї́бртѣ́ , хро́мїмѣ́ , за́дївї́ здрї́овїго  
 на́за́вїдѣ́ , нї́бмо́мѣ́ за́красї́мївцѣ́ наспї́ры , и́  
 о́нїмѣ́ жа́вра́кѣ́ , чїю́ жу́нї крї́левскї́н на́свї́е ли́це  
 вкларї́антї́ и́дї персї́онѣ́ , ма́лїмї́тѣ́ нї́бвї́лѣ́ , а́во  
 и́бвї́лѣ́ пї́дї́внїи́ . бї́ штї́ за́пї́дї́бна́ стѣ́дї́на́мѣ́  
 і́у́стї́у́пїва́тїи́ , а́мї́лї́дї́стїи́ влї́бїтѣ́ хтѣ́ и́рї́зѣ́мї́тѣ́  
 вї́рї́вї́а́тїсѣ́ . за́пы́танї́ бї́ мї́внї́тѣ́ ѿ́цѣ́вѣ́ твї́и́  
 и́ ѿ́повѣ́дїа́тї́ тї́и́ , стї́а́рцї́ѿвѣ́ твї́и́ и́ рекї́у́тї́тѣ́  
 тї́вѣ́ ( сѣ́дї́а́кѣ́ же́ прї́шї́дї́ши в́па́мї́тѣ́ , же́  
 о́мї́лї́дї́стїи́ мї́внї́тѣ́ твї́и́ , нї́хтї́ а́вбї́ не́за́нї  
 двабї́лѣ́ , же́ мї́цтѣ́ бжї́а́ в́не́дї́стїа́ткѣ́ вї́пї́лнї́а́  
 сѣ́ , же́ тѣ́ слѣ́бпцї́а́ і́у́мдї́рї́а́тї́тѣ́ , же́ вѣ́зї́мѣ́ бї́чнї́а  
 и́гѣ́гнї́бїгї́ мшѣ́сї́а́ в́мї́вї́тѣ́ і́у́крашї́а́тї́тѣ́ , же́ і́у́  
 вї́рї́сткѣ́ да́нї́ї́лѣ́ дхї́а́ пнѣ́дї́жа́тї́тѣ́ , же́ зї́у́спї́тѣ́  
 нї́мї́а́тї́кѣ́ хвалї́у́ свї́и́ вї́пї́лнї́а́тї́тѣ́ . Нї́и́ бї́  
 и́лї́ тї́ сї́вѣ́ прї́вї́а́цї́а́лѣ́ , а́во́ ктдѣ́ на́сї́лѣ́ мо́ї

Figure 20. Sample showing ZEMLYA, MONOGRAPH UK, and BROAD OMEGA.

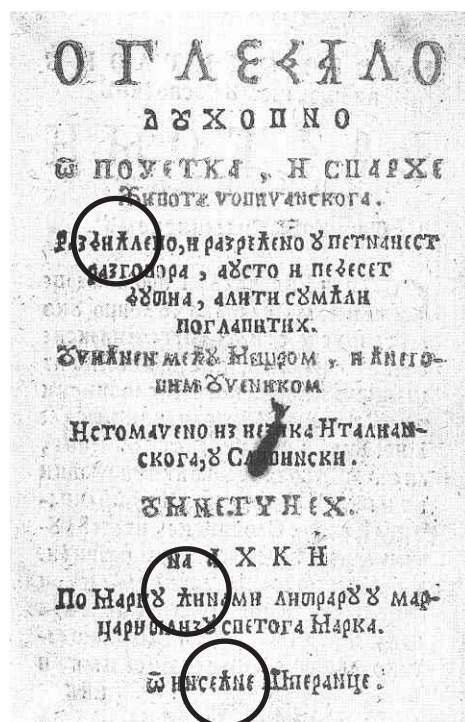


Figure 21. Sample from *Ogledalo duhovno*, Venice 1628, showing DJERV.

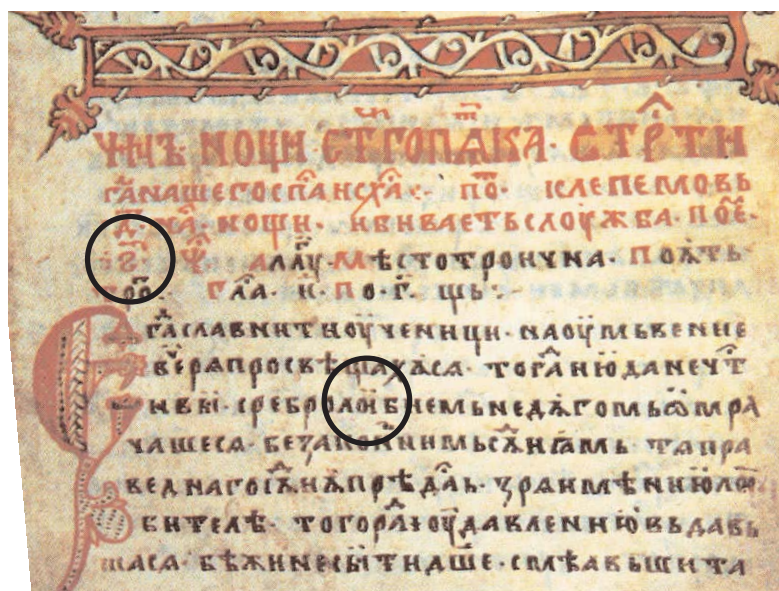
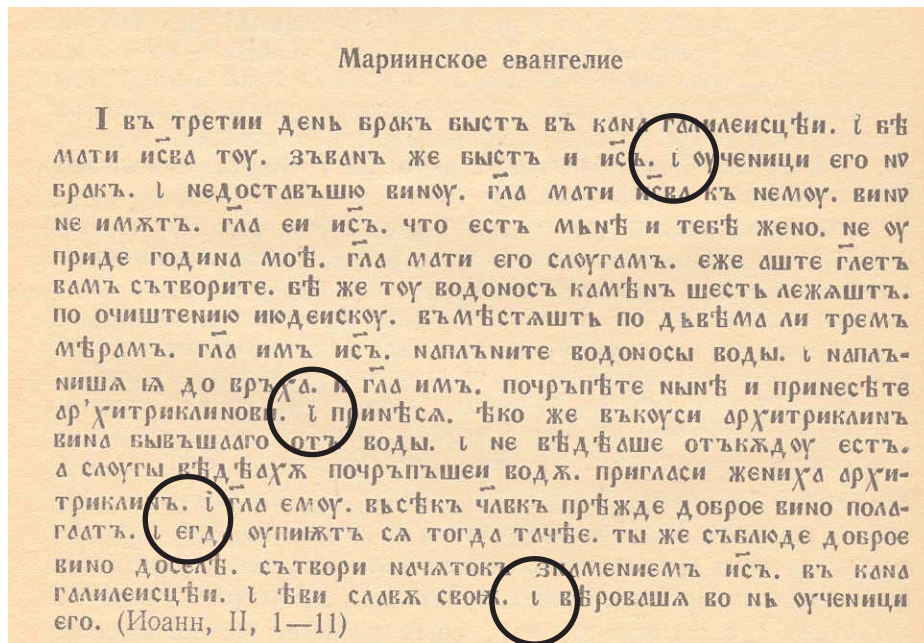
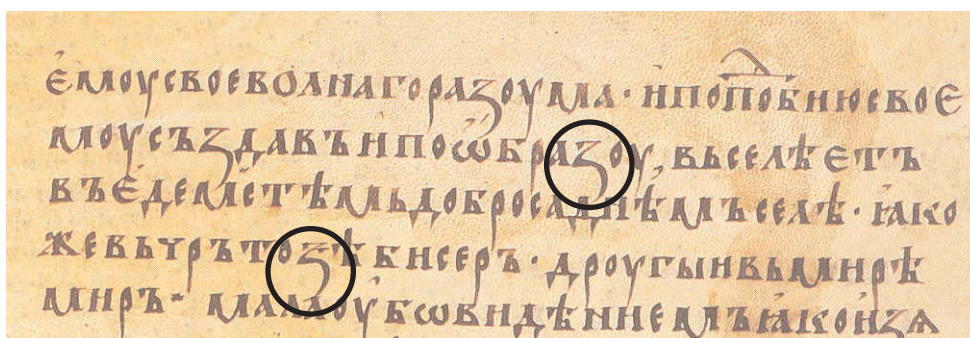


Figure 22. Sample from Hrvatska Akademija Znanosti i Umjetnosti in Zagreb (IV d.107), showing REVERSED DZE and REVERSED YU.



**Figure 23.** Sample a passage from the Codex Marianus from Иванова 1977, showing numerous examples of CYRILLIC IOTA.



**Figure 24.** Sample of a text in the Vatican Library (Vat. Slav. 2, f.8), showing ZEMLYA and DZELO.





| л. 537 | Приятел мои гсдрь и добродей Алеѣѣи Ма|твеевич здрав-  
ствуи о Хрсте на веки і пребы|вай во всяких радостях и с теми кто тебѣ  
прия|телю моему всякого добра желает и здорова | твоего остерегает<sup>1</sup>  
Пожалуи прикажи ко мне писат о своемъ здорое а я слышат про  
твое | здоровье всегда желател<sup>1</sup> |

Челом гсдрь бью | за прѣмьногѣю твою къ бе<sup>2</sup> милосѣт что по съво-  
емъ милосердѣ|мъ милосѣтивомъ вомотѣренью<sup>3</sup> учнил<sup>4</sup> мѣ въ людехъ  
указъ и я за твоею къ се|бе милосѣть вечной тебе<sup>5</sup> работникъ<sup>6</sup> |

И о техъ гсдрь людехъ | послалъ я людише|къ своихъ зъ гсдревую  
грамотою уди|ви милосѣть гсдрь мои нада мною | дай мне милосѣть  
свою на веки по|мьнѣть учини меня себе вечны|мъ работникомъ<sup>7</sup> |

И я послал для техъ<sup>8</sup> оутѣхъ людей люди|шеж своиж а с ними послал  
я<sup>9</sup> пожалуи приятел | мои ѡдичи надо мною млсть свою пошли для | тех  
моихъ беглыж людей пристава і пожа|лу<sup>10</sup>

А семь писае вечной твой работник Андрюшка Бѣзо|бразов со ѡпро-  
шениемъ челомъ бью не пре|зри приятел мои ѡбогова моево прошения |  
к себѣ водше

Моск. ст., стб. 599, л. 537

<sup>1-1</sup> Написано на левом поле, вставка; далее зачеркнуто челомъ гсдрь бью за прѣ-  
многую твою к се|бѣ млсть что жалует (далее буква не читается) ом крестьяннишек |  
ниих і впрѣд ѡ тебѣ о том же млсти про|шу пожалуи буди к ним млсрдъ; далее почер-  
ком А. И. Безобразова. <sup>2</sup> Так в ркп. <sup>3</sup> Так в ркп., милосѣтивомъ вомотѣренью

Figure 27. Sample from Котков & Тарабасова 1965, showing NEUTRAL YER and MONOGRAPH UK.

Предсто|тель: Рцѣмъ ѡ ѡ ннѣхъ.  
Гдн помнѣнн, трнжды.  
Млтвами стѣхъ оутѣцъ нашнхъ,  
сз греч. ѡ себѣ самѣхъ. гдн

Figure 28. Sample from the Horologion, Moscow 1980, showing CYRILLIC KAVYKA.

Оубы мнѣ блднѣмъ, оубы мнѣ ѣн  
Окалнѣмъ: гакъ рѣцѣ простирѣю къ ѣн  
моимъ дрѣгѣмъ, ѡ слѣзы ѡ оѣю  
проливѣю, но никтоже мнѣнн мѣ.

Figure 29. Sample the Euchologion, Moscow 1980, showing COMBINING CYRILLIC KAVYKA alongside COMBINING BREVE; to the right the spacing CYRILLIC KAVYKA can be seen.

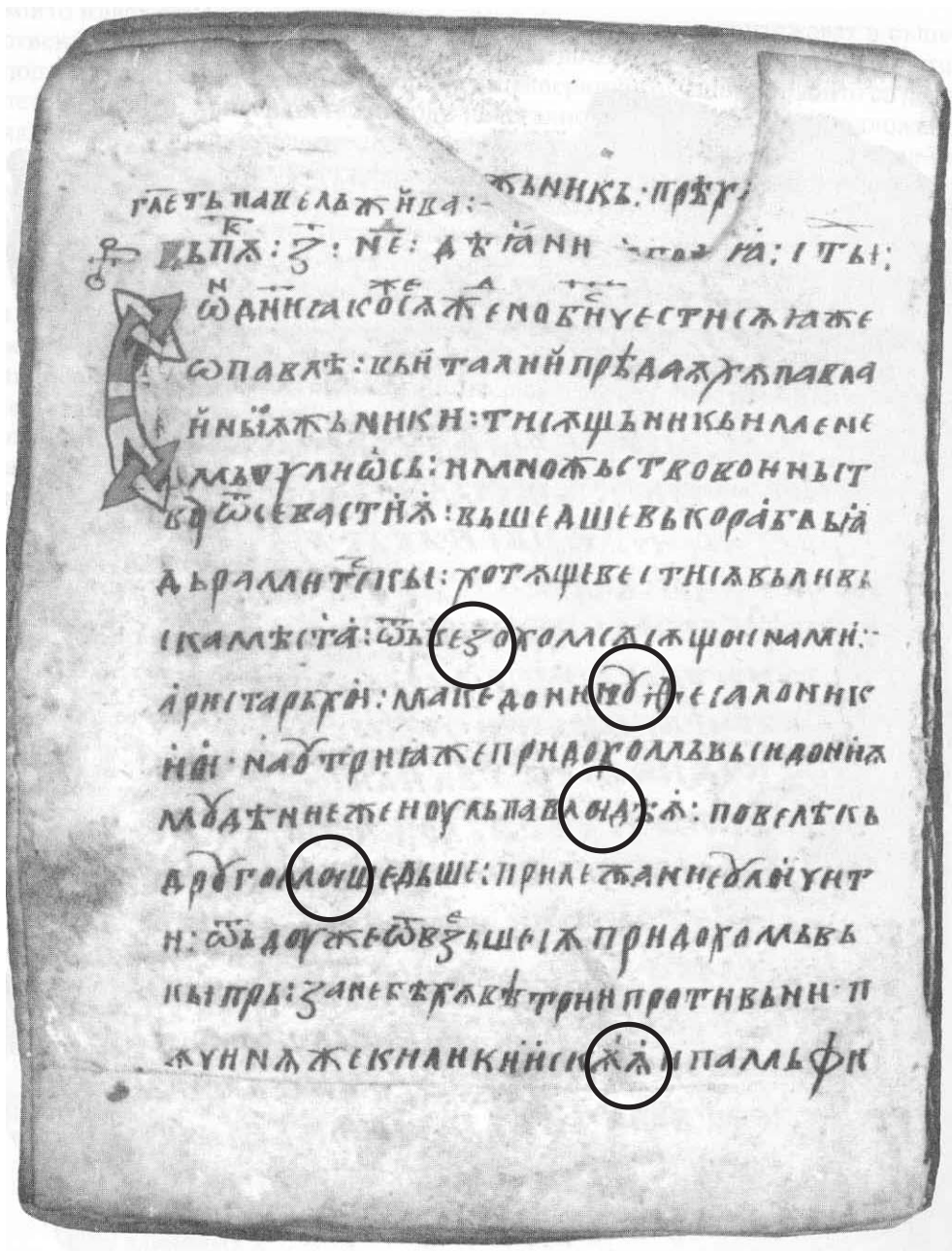


Figure 30. Sample from NBKM 880, showing ZEMLYA, MONOGRAPH UK, REVERSED YU and BLENDED YUS.

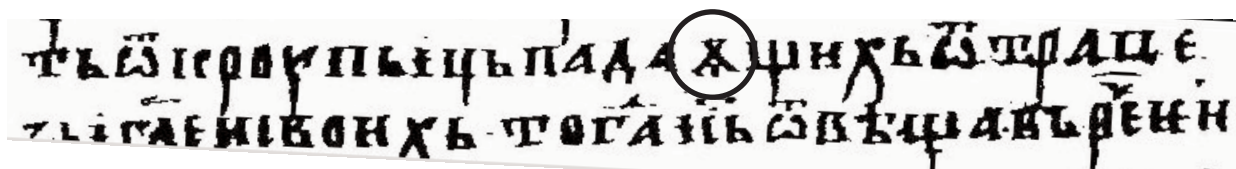


Figure 31. Sample from BL Add. MS 39628, showing BLENDED YUS.

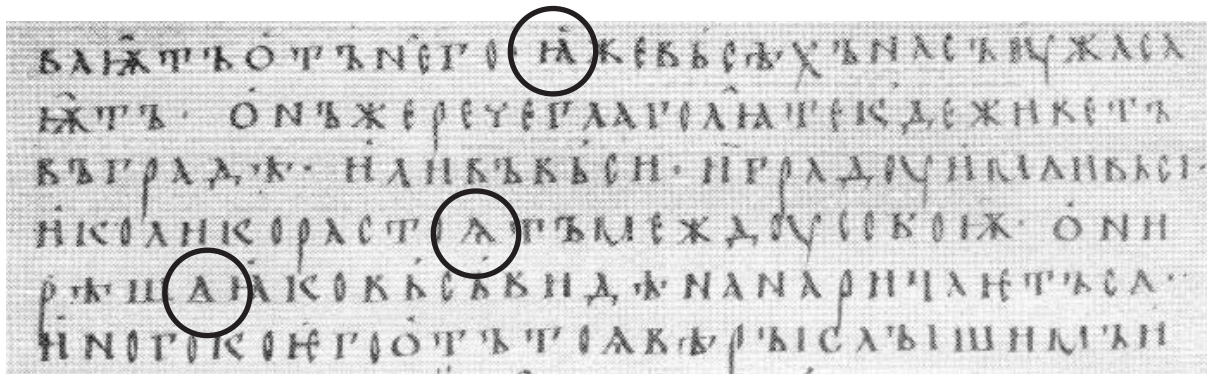


Figure 32. Sample from Codex Supraslensis, showing IOTIFIED A, LITTLE YUS, and CLOSED LITTLE YUS.

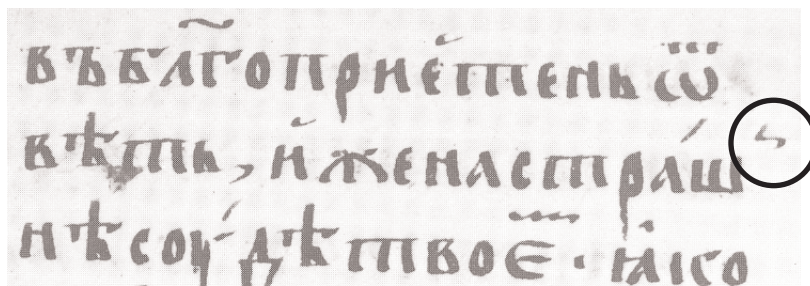


Figure 33. Sample from Athos, Mone Zographou, III6.6, f.61v, showing the spacing *yerik*, proposed for encoding as VERTICAL TILDE.

и҃хъ, ꙗко ѡсирѣша. Оу҃къ миѣ, кто дастъ ѡчи́ма моѣма слезы,  
 л. 754 ꙗ глаго́лѣ моѣи вѣдоу, да са пла́чю ѡ жернѣ своѣмъ днѣ и  
 об. нѡщю, да беспрестѡни рыдаю вѣдовѣства своѣ, да прѣиѡ сѣтоую  
 ѡ сирѣствѣ ча́ своѣхъ! оу҃къ миѣ, когдѣ к рыданію моѣмоу при-  
 зокоу на помѡщѣ, кто ми посѡбитъ пла́кати са, ктѡ ми слезы  
 ѡтрѣ, ктѡ ми пла́чь оу҃толитъ, ктѡ ми печѡлъ оу҃тѣшитъ!  
 ѣпѣпа ли своѣго призокоу на оу҃тѣшеніе, томѡ вѡ данѡ была  
 така ва́тъ, ꙗ́ тогѣ имѡше такоу ва́тъ, слѡвѡ оу҃тѣшеніа, ѣже  
 оу҃тѣшити печѡлныа и сѣкроушенныа срѣцѣмъ, и за́ла вѡ са, рече,  
 ва́тъ вѣ оу҃стѣхъ ѣго, но ѡвѡче оу҃же нѣсть ѣго, не слышѡ вѡ  
 гласѣ ѣго вѣ црѣкви, оу҃стѣѣ ѣго мѡлчаніемъ затворѣстасѡ, оу҃ста  
 ѣго не глѡтъ, ꙗ́ ѣже и за́ласѡ ва́тъ вѣ данѡ ѣмоу ѡлетѣла прѡ,  
 глѡ ѣго оу҃мѡлече, ꙗзыкъ ѣго преста глѡти, оу҃ченіе же преса́каѡ,  
 ꙗ́сточникъ оу҃ченіа преса́че, и рѣка преса́хла, ѡскоудѣ проу҃ченіе  
 л. 755. вѣ Перми! не виждѣ вѣ лица ѣго вѣ црѣкви, не виждѣ ѡчи́ю ѣго вѣ  
 црѣкви. ѡчи́ црѣкви хѣѡ! вѡмѡ ꙗзыю тѣло црѣковное ꙗ́ оу҃доке  
 ѡчасти, разво́лѣшасѡ вѡ ва́знію чада црѣковнаѡ, не соу҃цоу

Figure 34. Sample from the life of St Stephen of Perm (creator of the Old Permic script), showing BINOCULAR O.

ПТЕНІЦЪ БЫШНАГѠ ГНѢЗДА АГГЛЫКАГѠ,  
 НІКОЛАЕ ТРЕБЛЖЕННЕ, ЗОВЕШИ ПРИНѠ КЪ  
 БГѠ Ѡ ВЕФХЪ НАСЯ, ЛЖЕ КЪ НЪЖНЫХЪ  
 ВЕДАХЪ Н НСКУШЕНІНХЪ, Н НЗБАКЛАЕШИ  
 МЛТВАМИ ТВОИМИ.  
 СЦЕННИА ОДЕЖДЫ КРАСОТѠ, ДѢЛТЕЛЬНЫ-  
 МИ СОДѢЛАЕ СЕИ ДОБРОДѢТЕЛМИ СВѢТЛѢИ-  
 ШЮ, ОЧЕ БГОНОСЕ. ТѢМЖЕ НАМЪ СЦЕННО-  
 ДѢИТЕЛЬШИ ИЖНАА, СЛАВНЫХЪ ЧУДЕСЪ  
 СЦЕННОДѢТЕЛЮ, ЛЮТЫХЪ НЗБАВЛАА НЫ.  
 НЕВИДИМЫХЪ ДОБРОТЫ ПРОХОДА, СТРАШ-  
 НЮ ОНУ РАЗУМЕЛЪ СЕИ СЛАВУ СТЫХЪ,  
 БГѢ. ТѢМЖЕ НАМЪ НЕБАА СЛОВЕСА, ЦНО-  
 ЖИВОТНЫХЪ ОНЫХЪ ВИДѢНІИ ГАВЛАЕШИ,  
 СЦЕННИКНИШИ ОЧЕ.  
 ГЛѠ ВО СНѢ ПРЕДСТАЛЪ СЕИ БЛГОЧЕСТИ-  
 ВОМУ ЦРЮ, Н ОУЗНИКИ ОЧЕ Ѡ СМЕРТИ  
 НЗБАВЛАЕ СЕИ, МОЛІСА НЕПРЕСТАННО, ГЛѠ

Figure 35. Sample from the Life of St Nicholas, showing SLAVONIC ASTERISK alongside COMBINING CYRILLIC POKRYTIE and COMBINING CYRILLIC TITLO.

Из рассмотрения всего сказанного о надстрочных значках можно ви-  
 деть, что только в немногих случаях они действительно указывали на неко-  
 торые звуковые явления и, следовательно, были живой особенностью. Не-  
 сомненно, на живую черту, именно: на *мягкость согласных* р, л, н, к, г, х  
 (а, может быть, и некоторых других) указывают следующие значки:  
 а) <sup>~</sup>, с большой последовательностью выдержанный в Супрасльской руко-  
 писи; напр., съ ѳнмѣ, глагола, горжшнмѣ, бѣла, агѣель, раѳиньл; то же  
 в лествице XII в. (б. Рум. муз. № 198); б) в Хиландарских листках, сборн.  
 Святосл. 1073 г., Мстиславовом ев., Галицком ев. 1143 г., Выголексин-  
 ском сборн. XII—XIII в. (б. Рум. муз. № 1832) и некоторых других па-  
 мятниках мягкость согласных обозначается посредством приписки к ним  
 особого значка <sup>1</sup> л, н. Примеры: приемлѣи, одолѣти, тѣлашнѣи Хиландар.  
 листки и др., лѣди, съ ѳнми, землѣ 9, болѣе 10 б, оставленіе 43 б сборн.  
 Святосл. 1073 г., клангашеса гѣа Галицк. ев., гѣи 2 б, волни 11, люблѣю  
 25 б и даже иждѣноу 10 б Мстисл. ев., вѣждѣлахъ 166 б Выгол. сборн.  
 (Р. Ф. В. XII, 95), лю, пола устав с кондакар. XI—XII в. (Типогр. б.  
 № 285, л. 87). Смягченные н и л встречаются даже в Луцком ев. XIV в.  
 (Соболевский. «Очерки», 41). В других позднейших памятниках л = лг:

Figure 36. Sample from Karskij 1972, showing SOFT EL, EN GHE, and SOFT DE, as well as COMBINING CYRILLIC VZMET.



**Figure 37.** Sample shield of the Abkhaz SSR, showing TSWE, TWE, QA, and SHWE. The text reads:  
 АПРОЛЕТАРЦА АԚҮЛАҚУА ЗЕԚҮ РԚԵՆ ІҚОУ ШԚԵІԸՆЦКҮЛ!  
 In mixed case this is: Апролетарца аԚҮлақуа зеԚҮ рԚԵн іқоу, шԚԵіԸнцкҮл!  
 In modern orthography: Апролетарцә атәылақуа зегьы рҕы іқоу, шәҕеидышәкыл!

9. Шцнҕа абас: ЖѠан іқоу һ'Аб, ицҕа-  
 хааит үхиз;  
 10. Иааиаит уцҕара; іқалааит угуацҕара, хах  
 аѠан ақнҕ еіцш цақа адуней аҕҕ.  
 11. Ача зда һхуарҕам іпаҕ хара еха;  
 12. Еҕһазнҕ хара хауалқуа, хара һҕн зв-  
 куқуоу ишврзвнһажуа еіцш;  
 13. Паҕалаумгалан хара ацнҕнҕшара, һаҕап-  
 нурха хара ацҕара. Уара ацҕарей амчи адуреі  
 цҕмкрда іумоуп азҕ. Амін.

**Figure 38a.** Sample from *Ievāngelija цҕа*, 1912 (the Four Gospels in Abkhaz), showing HWE, ZHWE, QA, TE WITH MIDDLE HOOK, TWE, SHWE, and TSWE.

9 Шәныҕәа абас: Жәәан іқоу Ғаб, ицҕахааит ухиз.  
 10 Иааиаит Уцҕара; икалааит угуацҕара, хахь ажәәан ақны  
 еіцш цақа адуней аҕҕы.  
 11 Ача ада ххуарҕам ихат хара ехә.  
 12 Еҕҕазнҕ хара хауалқуа, хара хтәы зықуқуоу ишырзвн-  
 хажуа еіцш;  
 13 Ғаҕалаумгалан хара ацәыҕҕышәара, хаҕацәәнырха  
 хара ацәҕара. Уара Ацҕарей амчи адурей цымкрыда иумоуп  
 азы. Амин.

**Figure 38b.** Sample from *The Gospels of Mathew, Mark, Luke and John in Abkhaz Language*, Christian Publishing House, 1998, showing the text of Figure 38a in modern orthography.

17. Уарà уанъчгвуа, ухъ (азеџън) ахшъ,  
уџгъ џа.

18. Ушъчгвуа ауаà идмврбакуа, у'Аб маза  
іџоу іџв̄ уааірацн; у'Абгн̄ амаза збуà іуіџап  
арґама.

19. Іеіаџџмгалап џхн̄ азъ ахазвна адгил  
азъ, аџі ажакцсі іахъбурхвуа, аџъчцагн̄ іах-  
твржаауà еґахързнуа:

20. Іеіџџгала ахазвна џхн̄ азъ азџџан азъ,  
аџгн̄ ажакцагн̄ іахврзъбумхвуа, аџъчцагн̄ іах-  
тврмжаауà еґахърмзхуа.

21. Ізбан̄ акузар, џъхазвна ахъџоу џвгугн̄  
уà іґазаашт.

22. Аџеіџ азъ лапърбагас іџоу аблоуп. Убас,  
убла цџазар, уџеіџ шеібакъу лашахвудіт.

23. Убла рахъмзар, уџеіџ шеібакъу лап-  
цахвудіт. Убас, алашара іулоу лапцаразар, нас  
алапцара зеіџпрдусеі?

24. Аџгн̄ ілшуом џ-аһцак ръматц аурà, ізбан̄  
акузар, ма аџ діџъмџзаашт, агі бзла дібалашт,  
ма аџ ізъ ігъ шџъзаашт, агі діџаашпалашт. Анџеі  
мамд̄неі ръматц џзеіцнуом.

25. Убрі азъ іџасџоіт: џамеічанап џвџсв̄  
іџфарвзеі іжакрвзеі һа, џџеіџ азъ іанџаһцарв-  
зсі һа. Аґаџ аткв̄с аџсв̄ еіһамі, аџџаџв̄ аткв̄с  
аџеіџ?

26. Џврџпн̄ш̄ жџант̄ аџсаакуа: урџ еґла-

Figure 38c. Sample from *Ievàngelìa цџа*, 1912 (the Four Gospels in Abkhaz), showing TE WITH MIDDLE HOOK, DZWE, QA, ZHWE, SHWE, TSWE, TCHE, HWE, and TWE.

43. Лаџш-буџуàла дџаіхуаџшвн̄ убрісааџ  
ддъуіџеіт.

44. Еґеіџт: аһһаі аџгн̄ акъ іџумһан; уцанъ  
аџшаџ уевірба, інаг уахъцџахаз азъ Моісєі  
ііһаз, ірзъшаџаџхаразв.

45. Дандълц, зеігн̄ іреіһуа далагвєіт дзвџу-  
џаз, убрві ақн̄т̄ Іеіус̄ арґама аґалаџ дзалам-  
луа дқалвєіт; аџһн̄раџуа рах̄ далтцн̄ двқан.  
Зеігн̄џарап̄т̄ Іарà ізауан̄.

Figure 38d. Sample from *Ievàngelìa цџа*, 1912 (the Four Gospels in Abkhaz), showing DWE.

	I	II	III	IV	V	VI	VII	VIII
1	a	a	a	a	a	ა	ა	ა
2	ბ	б	б	b	b	ბ	б	b
3	в	в	в	v	v	ვ	в	v
4	г	г	г	g	g	გ	г	g
5	[ɟj]	[ɟj]	ჭ	გ	გ	[ღღ]	[ɟb]	გ
6	[ɟy]	[ɟy]	[ɟy]	გ	[gu]	[ღღ]	გ°	გ°
7	д	д	д	ǰ	oi	ო	დ	γ
8	[ɟj]	[ɟj]	ჭ	ǰ	[oi]	[ღღ]	[ɟb]	γ
9	[ɟy]	[ɟy]	[ɟy]	ǰ	[oiu]	[ღღ]	გ°	γ°
10	ð	д	д	d	d	ო	д	d
11	ð	д	д	d	d	[oo]	д°	d°
12	e	e	e	e	e	ე	e	e
13	ж	ж	ж	j	z	[jz]	ж	ž°
14	[жj]	[жj]	ჟ	j	ɿ	j	[жb]	ž
15	ж	ж	ж	ɿ	j	[jo]	ж°	ž°
16	ჟ	ჟ	ჟ	ɿ	—	—	ჟ°	z°

Figure 39a. Sample from Бгажба 1964, showing eight different transcription systems for Abkhaz.

Shown here are the letters DWE (two glyph variants) and ZHWE.

Bgažba describes the dolumns in this table as follows:

I. The (handwritten) alphabet of Uslar.

II. The printed form of Uslar's alphabet with additions and alterations by M. R. Zapadskij.

III is the alphabet of the Translation Committee.

IV. The analytical (Yaphetidological) alphabet of Marr.

V. The Latinizing alphabet of N. F. Jakovlev.

VI. The alphabet on the basis of Georgian characters.

VII. Transcription on the basis of the modern Abkhaz alphabet, used in the monograph of Kh. S. Bgažba

“The Bzyb dialect of the Abkhaz language”

VIII. Suitable Latin transcription marks, used for linguistic purposes.



	I	II	III	IV	V	VI	VII	VIII
17.	-	-	ц	д	г	ж	ц	ѣ
18.	ѣ	ц	ц̣	д̣	г̣	ж̣	[цб]	ѣ̣
19.	е	ц̣	е	д̣	г̣	[жх]	е	ѣ̣
20.	ѣ̣	ц̣	ѣ̣	д̣	г̣	[жѣ]	ѣ̣	ѣ̣̣
21.	з	з	з	з	з	ѣ̣	з	з
22.	-	-	-	з̣	-	-	з̣	з̣
23.	ѣ̣	д̣	з̣	д̣	з̣	д̣	з̣	з̣
24.	-	-	-	д̣	-	-	з̣	з̣
25.	ѣ̣	д̣	д̣	д̣	ѣ̣	[до]	з̣°	з̣°
26.	и	и	и	и	и	о	и	и
27.	ј	ј	-	у	-	-	й	ј
28.	к	к	к	к	к	ј	к	к
29.	[кј]	[кј]	к̣	к̣	[кј]	[жѣ]	[кб]	к̣
30.	[кѣ]	[кѣ]	[кѣ]	к̣°	[кѣ]	[жѣ]	к̣°	к̣°
31.	к̣	к̣	к̣	к̣	к̣	ј̣	к̣	к̣
32.	[к̣ј]	[к̣ј]	к̣̣	к̣̣	[к̣ј]	[жѣ]	[к̣б]	к̣̣

Figure 39b. Sample from Бражба 1964, showing CCHE, DZZE, and DZWE.

	I	II	III	IV	V	VI	VII	VIII
33.	[ky]	[ky]	[ky]	q <sub>p</sub>	[ku]	[jy]	k°	k°
34.	q	q	q	k	q	y	k	q
35.	[qj]	[qj]	q̇	k <sub>k</sub>	[qi]	[yɛ]	[kɔ]	q'
36.	[qu]	[qu]	[qu]	k <sub>h</sub>	[qu]	[yɟ]	k°	q°
37.	л	л	л	l	l	ʁ	л	l
38.	м	м	м	m	m	ɓ	м	m
39.	н	н	н	n	n	ɓ	н	n
40.	о	о	о	o	o	ɓ	о	o
41.	п	п	п	p	p	ɓ	п	p
42.	п <sub>ɣ</sub>	п̇	п <sub>ɣ</sub>	ɸ	p	ɟ	п <sub>ɣ</sub>	p
43.	р	р	р	r	r	ɓ	р	r
44.	с	с	с	s	s	ɓ	с	s
45.	с̇	с̇	—	ṡ	—	—	с'	s'
46.	т	т	т	t	t	ɓ	т	t
47.	т <sub>ɣ</sub>	т̇	т <sub>ɣ</sub>	ɖ	t	ɓ	т	t
48.	τ	τ	τ	ɖ	ɸ	[tɔ]	т°	t°

Figure 39c. Sample from Бражба 1964, showing QA, TE WITH MIDDLE HOOK, and TWE.

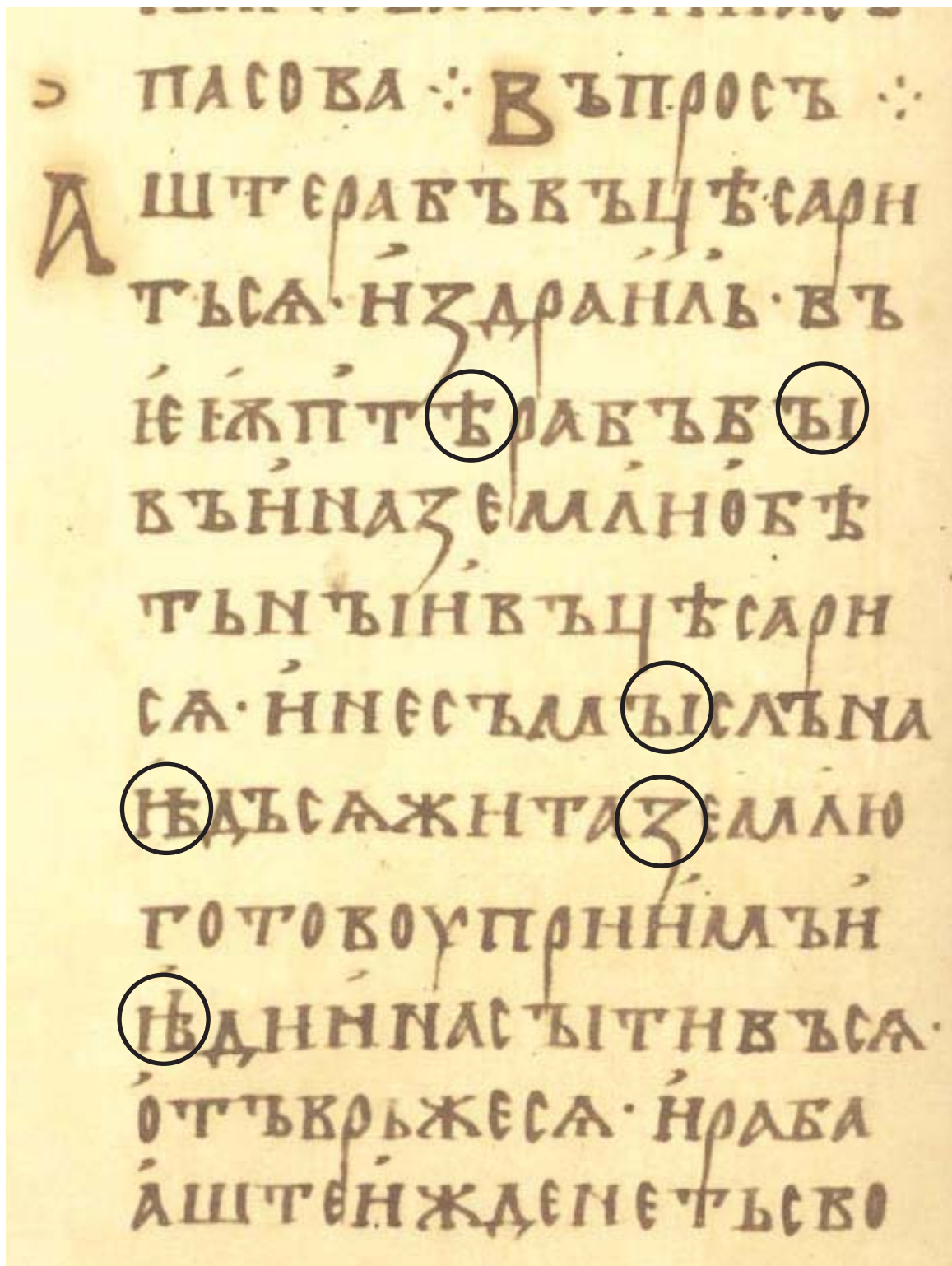
	I	II	III	IV	V	VI	VII	VIII
49.	č	č̣	č̣̣	č̣̣̣	č̣̣̣̣	[č̣̣̣̣°]	č̣̣̣̣°	č̣̣̣̣̣̣°
50.	y	y	y	u	u	у	y	u
51.	-	-	-	w	-	-	ŷ	w
52.	φ	φ	φ	f	f	φ̣	φ	f
53.	x	x	x	q̣	x	б̣	x	x
54.	[xj]	[xj]	ḡ	q̣̣	[xɪ]	[be]	[xʙ]	x'
55.	[xy]	[xy]	[xy]	q̣̣̣	[xu]	[bɣ]	x°	x°
56.	x̣	x̣	-	q̣̣̣̣	-	-	x̣	x̣
57.	[x̣y]	[x̣y]	-	q̣̣̣̣̣	-	-	x̣°	x̣°
58.	ц	ц	ц	ɟ̣	e	ɟ̣	ц	e
59.	ц	ц̣	-	ɟ̣̣	-	-	ц'	e'
60.	ц	ц̣	ц̣̣	ɟ̣̣̣	ɟ̣	[ɟ̣̣̣̣°]	ц̣°	e°
61.	ц̣	ц̣̣	ц̣̣̣	ɟ̣̣̣̣	ɟ̣̣	[ɟ̣̣̣̣̣°]	ц̣̣°	ẹ°
62.	ц̣̣	ц̣̣̣	ц̣̣̣̣	ɟ̣̣̣̣̣	ɟ̣̣̣	ɟ̣̣̣̣̣	ц̣̣̣	ẹ̣̣
63.	ц̣̣̣	ц̣̣̣̣	-	ɟ̣̣̣̣̣̣	-	-	ц̣̣̣'	ẹ̣̣'
64.	ц̣̣̣̣	ц̣̣̣̣̣	ц̣̣̣̣̣̣	ɟ̣̣̣̣̣̣̣	ц̣̣̣̣̣̣̣	ɟ̣̣̣̣̣̣̣	ц̣̣̣̣̣̣̣	ẹ̣̣̣̣̣̣

Figure 39d. Sample from Бражба 1964, showing TSWE and TSSE.

Map

	I	II	III	IV	V	VI	VII	VIII
65.	f	ḥ	ⓧ	t	ḡ	ḡ	ɥ	č
66.	h	h	h	h	h	ḡ	x	h
67.	h	h	ⓧ	h	h	[ḡo]	x°	h°
68.	u	u	u	u	ʃ	[ḡʃ]	u	š
69.	ü	ü	ü	u	f	ḡ	[uɥ]	š
70.	u	u	ⓧ	u°	f	[ḡo]	u°	š°
71.	ü	ü	ü	u	-	-	e°	s°
72.	o	o	o	y	y	ḡ	e	ω°
73.	r	v	v	ə	ə	ḡ	ɫ	ə
74.	-	-	-	-	-	o	o	o
75.	-	-	-	-	l	ɔ	b	-
76.	-	-	-	-	-	ɔ	-	ɔ
77.	-	-	-	-	-	-	-	ǝ(f)
78.	-	-	-	-	-	-	-	ɛ

**Figure 39e.** Sample from Бражба 1964, showing TCHE, HWE, and SHWE.



**Figure 40.** Sample from the Izbornik of 1073, showing YAT alongside IOTIFIED YAT.  
Also shown is YERU WITH BACK YER and ZEMLYA.



Figure 41. Sample from Карский 1979, showing two variants of BINOCULAR O, and three variants of DOUBLE MONOCULAR O.

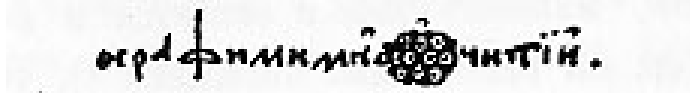


Figure 42. Sample from Карский 1979, showing MULTI-OCULAR O in the phrase *serafimi mnogoѣnitїi* ‘many-eyed seraphim’.

b) Undolskijsche Blätter (сург., а. 4).

(мс. 5, 24) <sup>Ѡ</sup>вѣ ма · \*\*\*\*д\*\*ана ісоу нардѣ многѣ и оуѣн  
таѣж и · (25) и се жена етера въ тоемніе крѣви · | лѣтъ двѣ на  
десате имѣи · (26) и многѣ постро<sup>д</sup>дѣвши · отъ многѣ врачѣ ·

Figure 43. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER A.

Auferweckung des Lazarus: Ev. Joh. 11, 1–45 (bl. 81a).

<sup>Ѡ</sup>сѣ · <sup>Ѡ</sup>цѣтѣнаѣ · <sup>Ѡ</sup>лѣ <sup>Ѡ</sup>гнѣ |

Figure 44. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER IOTIFIED A.

1. Christi Geburt: Ev. Lucae 2, 1–20 (bl. 132b).

<sup>Ѡ</sup>мѣца <sup>Ѡ</sup>дѣ и ѣ въ навечеріе родствѣ | хѣва · <sup>Ѡ</sup>ѣва ѣ <sup>Ѡ</sup>лоу гнѣ ѣ · · · · |  
(с. 2, 1) въ онѣ ѣзидѣ заповѣ | отъ кесарѣ авгоста · на|писати вѣсѣ  
въселенжїѣ · (2) се написаніе прѣвої | вѣ · владжцоу соурїѣж · и курїніѣж ·

Figure 45. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER YAT and COMBINING CYRILLIC LETTER DJERV (here shown with a TSHE glyph, but it must be DJERV as the word is *евангелие evangelii*).

въ | на <sup>Ѡ</sup>гнѣ сна ха его: — | (3) <sup>Ѡ</sup>растрѣтѣнѣ ѣзѣ іхѣ | ѣ отѣврѣзѣмѣ  
отъ насѣ | нго іхѣ: | (4) живѣи на <sup>Ѡ</sup>всѣхѣ <sup>Ѡ</sup>посмѣетѣ | сѣ емѣу і гнѣ  
порѣгаѣтѣ сѣ <sup>Ѡ</sup>імѣ: | (5) тѣгда <sup>Ѡ</sup>вѣзгаѣтѣ къ нимѣ | гнѣвомѣ сѣоимѣ:

Figure 46. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER IE.

1. Gebet für einen Fieberkranken, Euch. 45a, 16–46a, 18.

<sup>Ѡ</sup>л <sup>Ѡ</sup>д <sup>Ѡ</sup>м <sup>Ѡ</sup>м <sup>Ѡ</sup>ѣ  
(Euch. 45a, 16) мо на всѣ трасѣ трасѣвице |

Figure 47. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER IOTIFIED BIG YUS.

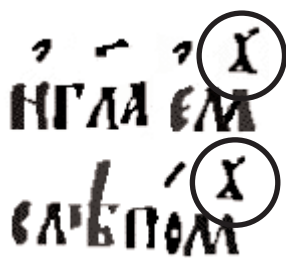


Figure 48. Sample from a Bulgarian manuscript, showing COMBINING CYRILLIC LETTER MONOGRAPH UK.

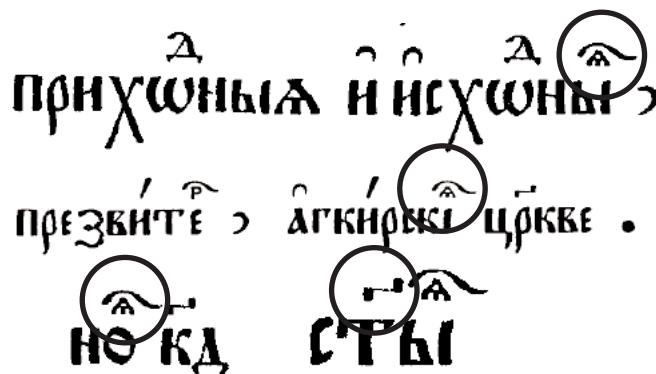


Figure 49. Sample from “Ustav o molitve domašnej”, published by the Preobraženskij Dogadelnyj Dom in Moscow in the early 20th century, showing COMBINING CYRILLIC LETTER LITTLE YUS, as well as COMBINING CYRILLIC POKRYTIE alongside COMBINING CYRILLIC TITLO.



Figure 50. Sample from Карский 1979, showing COMBINING CYRILLIC LETTER YU.

тысѣ. тма (а). десѣ темь легіонъ (а). десѣ легионовъ. леѡръ (а)

десѣ леѡровъ. вѡрон. какъ. десять воронѡвъ. колода аминь. В некоторых рукописях при обозначении леѡдров пишутся не палочные круги, а круги из запятых (а), ворон обозначается крестиками (а), колоды обозначались жобками (а). В некоторых рукописях Новгородской Софійской библиотеки встречается еще тма тем, или десять колод: (а). Все эти хитрые способы обозначения чисел, однако, сравнительно позднего времени. В хронографе 1494 г. (л. 416) встречается численный знак для ста тысяч извѣн Ѡмъ днѣ единѣ: (а) (а); то же в Амартоле читается; тѣм ѱ и ѱ (т.-е. 580,000), так что оба эти кружка надобно читать: пять легионовъ и осмь тем.

Figure 51. Sample from Карский 1979, showing COMBINING CYRILLIC TEN MILLIONS SIGN, COMBINING CYRILLIC HUNDRED MILLIONS SIGN, and COMBINING CYRILLIC THOUSAND MILLIONS SIGN.

Кроме отмеченных двух начертаний в памятниках югославянского письма, еще встречается **Δ**, напр., в Сунрасльской рукописи, Слуцкой псалтыри, Саввиной книге, Хиландарских листках, Мирославовом ев., Слепченском апостоле, паримейнике Григоровича, мннейном листке Григоровича (б. Рум. муз. № 1727), евангелии Сречковича XIII в. («Starine» XXIX, 98), ев. XIII в. собрания Уварова (№ 38), отрывках XIV в. Белгр. н. б. (Сперанск., 41) и нек. др. Это **Δ** обыкновенно употребляется после согласных, в смысле **л** (Супр. рук., Слуцк. пс., изредка Савв. кн.); в Хиландарских листках — наоборот **Δ** вм. **м**, а в Македонском листке XI века **Δ** единств. знак для **л** и **м**. В Карапсебеш. окт. XIII в. есть йотованное **Δ**: **прнѣтъ** (Сборник ОРЯС, т. 67, ст. Сырку). В Саввиной книге раз встретилось **▷** (ср. на снимке № 5): **м▷ 101 б.**

Figure 52. Sample from Карский 1979, showing CYRILLIC LETTER IOTIFIED CLOSED LITTLE YUS.

Памятники югославянские еще знают **Λ** и **Λ** (ср. на снимке №№ 3 и 4) в роли **л**, а иногда и **ж**, напр., в Боянском ев. XII—XIII в.: **стоΛ, вл-кляΛ 2 л.** систематически **Λ** вм. **ж** в Македонском апостоле XII—XIII в.: **сΛ, глаголаще, покажΛ пола** («Archiv f. sl. Phil.» X, 110), в Путнян. ев. XIV в., повидимому, своеобразно написан **Λ**, так что получилось как бы **Λ**: **гонΛхуть, изганΛв** и др. (Калужняцкий, табл. 3); такое написание можно

Figure 53. Sample from Карский 1979, showing CYRILLIC LETTER EARLY YUS.

аншнѣзъ еспѣтъ исправленіа. Дшѣ бо егда едннѣ  
 обеззрамнѣна понужденна бѣдѣтъ, къ кѣзъ  
 болѣзніе шпадаѣтъ, и ннже кроуікнмъ повн-  
 нѣтъ славнѣмъ проче, ннже преціемъ прѣ-  
 кланѣтъ, нн блгодѣаннн подвнжѣтъ.  
 нѣ мнѣго горшѣа града онаго бѣваѣтъ, ннже  
 прѣкъ озлобама глаше: Зракъ каждннчъ бѣѣ  
 тн, обеззрамнѣ бо къ кѣмъ. Сего ради мнѣ  
 гаго потреба разума Паугарѣ. и чмами сѣуѣтъ,  
 къ еже оззрашн ш всѣдѣ дшѣвоѣ нмѣшнко.  
 ꙗкоже бо в недомыслннко кѣземѣтнѣ мнѣшнѣ

Figure 54. Sample from Златоуст 1614, showing COMBINING CYRILLIC PAYEROK.

**око** («Описание» Востокова, 799)]. При употреблении слова *око* во множе-  
 ственном числе *о* часто удваивалось, при чем точки ставились либо в обеих  
 частях такого *о*, либо в одной (ср. на снимке №№ 3, 4, 5), примеры: **оочи**  
 апостол 1495 г. (б. Рум. муз. № 9), Путнян. ев.: **оочи** псалт. б. Рум. муз.  
 № 335; еще удвоенное *о* в **оою** отрывки XIV века Белгр. (Сперан-

Figure 55. Sample from Карский 1979, showing BINOCULAR O, DOUBLE BINOCULAR O, and MONOCULAR O. In this sample, two MONOCULAR Os are shown alongside DOUBLE BINOCULAR O: **око, оочи, оочи, оою.**



## A. Administrative

1. Title

**Proposal to encode additional Cyrillic characters in the BMP of the UCS**

2. Requester's name

**UC Berkeley Script Encoding Initiative (Universal Scripts Project)**

3. Requester type (Member body/Liaison/Individual contribution)

**Liaison contribution.**

4. Submission date

**2007-03-21**

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

**Yes.**

6b. More information will be provided later

**No.**

## B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

**No.**

1b. Proposed name of script

1c. The proposal is for addition of character(s) to an existing block

**Yes and also new blocks**

1d. Name of the existing block

**Cyrillic, Cyrillic Supplementary, Cyrillic Extended-A, Cyrillic Extended-B, Supplementary Punctuation**

2. Number of characters in proposal

**106 (1, 16, 10, 78, 1).**

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

**Category A.**

4a. Is a repertoire including character names provided?

**Yes.**

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

**Yes.**

4c. Are the character shapes attached in a legible form suitable for review?

**Yes.**

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

**Michael Everson.**

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

**Michael Everson, Fontographer.**

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

**Yes.**

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

**Yes.**

7. 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. 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 Unicode Character Database <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

**See above.**

## C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

**Yes, some of the characters have. See N3184.**

2a. 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.**

2b. If YES, with whom?

**David Birnbaum (University of Pittsburgh), Ralph Cleminson (University of Portsmouth), Ivan Derzhanski (Bulgarian Academy of Sciences), Vladislav Dorosh (irmologion.ru), Alexej Kryukov (Moscow State University), Sorin Paliga (University of Bucharest), Klaas Ruppel (Research Institute for the Languages of Finland)**

2c. If YES, available relevant documents

**Co-authors**

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

**Slavicists, Uralicists, Turkicists, Caucasianists, and other scholars and people interested in Slavonic ecclesiastics.**

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

**Used historically and liturgically.**

4b. Reference

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

**Yes.**

5b. If YES, where?

**Scholarly and religious publications.**

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

**Yes.**

6b. If YES, is a rationale provided?

**Yes.**

6c. If YES, reference

**Accordance with the Roadmap. Keep with other Cyrillic characters.**

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

**No.**

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

**No.**

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

**No.**

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

**Yes.**

10b. If YES, is a rationale for its inclusion provided?

**Yes.**

10c. If YES, reference

**See discussion at QA and WE.**

11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

**No.**

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

**No.**

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

**No.**

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

**No.**

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?