

**Ponomar Project**  
**Slavonic Computing Initiative**

Additional Typicon Symbols and their Encoding in Unicode

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## Introduction

The introduction of the Sabbaitic *Typicon* in the Russian Orthodox Church in the early-mid 15<sup>th</sup> Century – a *Typicon* distinguished by its rich hymnographical material and an extensive gradation of the levels of solemnity for the various feasts and saints' days of the ecclesiastical year – created a practical need for an approach that would make the rubrical information provided by the *Typicon* easy to interpret. This need was especially acute since, prior to the Sabbaitic *Typicon*, parishes and monasteries of the Russian Church followed the *Typicon* of Alexis the Studite, which had a much simpler gradation of solemnity and a poorer collection of hymnography.<sup>2</sup> The switch to a more complex *Typicon* quite naturally created more potential for confusion among clergy – especially in areas of liturgical complexity – and thus the hierarchy felt the need for a systematic approach to presenting liturgical information. In addition to the need for systematization, there was a parallel desire to make the material of the *Typicon* more condensed, driven no doubt by considerations of cost, since book printing had not yet been introduced in Russia and the production of large, complex manuscripts is notoriously expensive, time-consuming, and limited in scale. Finally, the creation of new hymnographical material for locally venerated Russian saints created a further need for such systematization since the necessary rubrics were not present in the *Typicon*, which had been translated from the Greek.

One such attempt to create a systematic approach to liturgical instructions was the *Окозрительный устав* (“*Typicon at a glance*”), created by Archbishop Gennadius of Novgorod (fl. c. 1500), better known for his compilation of the first full Church Slavonic Bible. His redaction sought to simplify the practical use of the *Typicon* by indicating the solemnity and amount of hymnography available for a given commemoration by means of special marks, called the *окозрительные пометы* (“glancing marks”).<sup>3</sup> Thus, the *Typicon at a Glance* consisted of two sections: a menologion that provided a listing of the saints or feasts for a given day, each supplemented with a glancing mark; and a rubricon that provided liturgical rubrics for each glancing mark. While undoubtedly inspired by the liturgical marks in the *Tacticon* of Nikon of the Black Mountain, the marks of the *Typicon at a Glance* are unique and probably the invention of Archbishop Gennadius (or someone in his circle). Nikon's *Tacticon* used only three different marks to indicate solemnity; the modern Church Slavonic *Typicon* uses four marks, which are derived from the marks used in the *Tacticon*.<sup>4</sup>

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2 On the use of the *Typicon* of Alexis the Studite in Russia, see Pentkovsky (2001). On the transition to the Sabbaitic *Typicon*, see Getcha (2010). For a general overview of the *Typicon* and its development, see Mansvetov (1885).

3 The Church Slavonic word “окозрительный” is best translated by the Russian word “наглядный”, which the dictionary translates to English as “graphic”, “obvious”, “vivid”, “visual”, or “pictorial”. We have chosen to use the term “glance” because it captures the same sense, as in the English idiomatic expression “at a glance.”

4 The critical edition of Beneshevich (1917) uses the marks ⋮ (THREE DOT PUNCTUATION; U+2E56), probably the inspiration for ⋮ and the modern Slavonic *Typicon*; † (DAGGER; U+2020), probably the inspiration for † and (CIRCLED PLUS; U+2295), undoubtedly the forerunner of ⊕, a circled cross pommy. The *Tacticon* has recently been translated into English, but, unfortunately, without reproducing the solemnity symbols (see Allison, 2000). The modern *Typicon* symbols (as found in the 1682 and later editions of the *Typicon*) have been available in Unicode since version 6.2 (see Shardt and Andreev, 2009).

Although Mansvetov (1885) in his classical work on the history of the *Typicon* dismisses the system of Archbishop Gennadius as a local experiment that “had no practical significance and did not come to be grafted onto the *Typicon* as a practical guide” (307) because “despite the attempt at simplification ... [it] required considerable skill and knowhow to be used practically” (306), recent research has revealed that the system did in fact become quite popular and, in modified form, continues to be used by some communities of believers up to today.

Thus, Danilenko (1990) has shown that this *Typicon at a Glance* was popular in the 16<sup>th</sup> and 17<sup>th</sup> Centuries: it was frequently appended to other liturgical books as an instructional manual and was also used as a pedagogical tool in the instruction and training of clergy (39-40). Nonetheless, for unknown reasons, the system did not make it into the printed *Typicon* editions of 1610, 1633 and 1641, continuing to be maintained only in manuscript form in various unofficial liturgical manuals. Following the liturgical reforms of Patriarchs Nikon and Joasaph II – and the publication of the reformed *Typicon* of 1682 – the system disappeared from the mainline Russian Orthodox Church and continued to be used only among Old Ritualists (those who did not accept the liturgical reforms). In the early 20<sup>th</sup> Century, these symbols finally found their way to the printing press when they were used by Nikita Syrnikov in his book *Ключь къ церковному уставу* (“Key to the Church *Typicon*”), a liturgical manual published for Edinoverie communities.<sup>5</sup> Although primarily intended for those following the pre-reformed rite, Syrnikov's book, published in 1910 (reprinted in 1998), is a valuable resource also for those on the new rite, and is frequently cited by various liturgical manuals, including, for example, the annual *Богослужебные указания* (“Liturgical Instructions”) published by the official Press of the Russian Orthodox Church.

Danilenko (51) identifies 42 “glancing marks” used in the original redaction of the *Typicon at a Glance* attributed to St. Gennadius of Novgorod. In addition, he identifies a second, simplified redaction popular in the 17<sup>th</sup> Century, featuring 27 such symbols (75). These symbols presently cannot be encoded in the Unicode standard because adequate font technologies for their computer representation are not available.<sup>6</sup> However, the 46 symbols used by Syrnikov in his *Key to the Church Typicon* can be rendered with available font technology and thus should be encoded in Unicode. This would greatly facilitate, among other things, the creation of a digital version of Syrnikov's manual. In addition, there are plans to use some portions of this system in a new English edition of the *Typicon*.

Below, we list all the symbols found in Syrnikov (1910, 1998), their meaning, and examples of their usage. We note that some symbols can be represented using characters already encoded in Unicode and thus do not need to be encoded separately. We propose for encoding only those symbols which do not yet exist in the character repertoire of Unicode and cannot be composed from other characters.

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5 Edinovertsy (members of Edinoverie communities) are Old Ritualists in communion with the mainline Russian Church.

6 Some symbols require the ability to render different parts of the *same* glyph in different colors and given the present state of font technology this is impossible. However, Microsoft Corporation has recently proposed an extension to the OpenType standard that would allow for glyphs to contain different layers with color information. Intended primarily for the presentation of multi-colored Japanese emoji, this technology could also be used to represent the “glancing marks” of the first two redactions identified by Danilenko. The authors intend to submit an additional proposal for these symbols once this technology is formally accepted as part of the OpenType standard.



Name	Codepoint	Appearance	Description	Proposed Action
<p>This character indicates the number of doxastica printed in the service. Black bars are doxastica at Vespers, red bars are doxastica at Matins. The simplest way to handle this character is to treat it as a Cyrillic Decimal I (what Unicode calls Cyrillic Letter Ukrainian / Byelorussian I) without any dots. This character usually occurs with a variety of superscripts and subscripts.  Example: </p>				
Cyrillic Small Letter Es	U+0441		Stichera Aposticha with refrains (black at Vespers, red at Matins)	Already encoded
<p>This character indicates the presence of stichera aposticha in the service. (A black character indicates stichera at Vespers; a red character – at Matins).  This character is simply the Cyrillic Small Letter es. Example: </p>				
Combining Black Dot with Titlo	U+0307 U+0483		Prokimenon, Epistle and Gospel	Decompose, Already encoded
<p>This indicates that the saint has a Prokimenon, Epistle and Gospel reading.  Example: </p>				
Combining Red Dot with Titlo	U+0307 U+0483		Beatitudes on 6 (from Ode 3 and Ode 6)	Decompose, Already encoded
<p>This indicates that in addition to readings, at Liturgy this saint has 6 Troparia at the Beatitudes, and hence the Troparia at the Beatitudes from the <i>Octoechos</i> are not chanted.  Note that this is the same symbol as above, just in different color.</p>				
Combining Red Diaeresis with Titlo	U+0308 U+0483		Beatitudes for 2 saints on 6	Decompose, already encoded
Combining Black Kavyka Above Right with Titlo	(U+1DF8) U+0483		Beatitudes from the Octoechos and the Saint from Ode 3	Encode Combining Kavyka Above Right
<p>This indicates that 4 troparia at the Beatitudes are sung from the <i>Octoechos</i> and 4 from Ode 3 of the Canon of the Saint. Note that the Kavyka could also occur in Red, if we are dealing with a Feast. Note also that this character may combine with a dot or may occur without it.  Example: </p> <p>Note that (U+1DF7) Combining Dot Above Left will also need to be encoded.</p>				
Combining Black Kavyka Above Left with Titlo	(U+1DF9) U+0483		Beatitudes from the Octoechos and the Saint from Ode 6	Encode Combining Kavyka Above Left
<p>This is just as the above, but the Beatitudes Troparia are taken from Ode 6.  Example: </p> <p>Note that the Combining Dot Above Right is already encoded in Unicode at U+0358.</p>				
Same as above two, but with Breve in Red			Beatitudes from the Canon of the Feast and the Saint from Ode 3 or 6	p. 27, Jan. 3, Jan. 4, Jan. 7



Name	Codepoint	Appearance	Description	Proposed Action
One Dot over Two Dots Punctuation	U+2E2B	∴	Hexastichiraric	Already encoded
<p>6 stichera are chanted at LIHC; the Canon is chanted on 6; and 4 stichera are chanted at the praises.  Example (p. 21): παρακλῶ ∴ <span style="margin-left: 100px;">ΠΑΡΑΚΛΩ ∴</span></p>				
Four Dot Punctuation	U+2058	⋈	Hexastichiraric with 6 stichera at Praises	Already encoded
<p>6 stichera are chanted at LIHC; the Canon is chanted on 6; and 6 stichera are chanted at the praises.  Example (p. 25): στυφάνῳ ⋈ <span style="margin-left: 100px;">ΣΤΥΦΑΝΩ ⋈</span></p>				
One Dot over Two Dots Punctuation + Combining Breve Below	U+2E2B U+032E	⋈̆	Stichera at the Praises on 7	Already encoded, decomposeable
<p>This type of service was eliminated from Niconian books. Example: ἡ ⋈̆ ἡ ⋈̆ ῥ</p>				
Red Combining Titlo	U+0483	Ⲁ̇	No common Theotokia	Already encoded
<p>Common theotokia are not used because this feast is tied to a commemoration of the Theotokos.  Example: ἡ Ⲁ̇ ἡ Ⲁ̇</p>				
Red Iso	U+0486 U+0301	Ⲁ̆	Resurrectional Theotokia	Already encoded, decomposed
<p>The common resurrectional Theotokia are used.  Example: ἡ Ⲁ̆ ἡ Ⲁ̆</p>				
Red Semicolon	U+003B	;	Great Doxology chanted	p. 41, June 30
<p>The Great Doxology is chanted, not read.  Example: ΔΩΔΗΚΕΣΤΗΜΙ ∴ ; ΔΩΔΗΚΕΣΤΗΜΙ ∴</p>				
Inverted Red Hook	(U+1F54B)	Მ	Trezvon (festive peal)	See below
Red Izhitsa with Combining Cedilla	U+0475 U+0327	ϣ̆	Great Doxology, no Readings	Already encoded, decomposed
<p>Entrance at Vespers and Great Doxology is chanted at Matins. Resurrectional Theotokia.  Example: ῥ ϣ̆ ∴ ῥ ϣ̆ ∴</p>				
Red Psi with Combining Cedilla	U+0471 U+0327	ϣ̆	Old Testament Readings	Already encoded, decomposed, see above
<b>Higher Ranked Commemorations</b>				



Name	Codepoint	Appearance	Description	Proposed Action
Example: ѣr ѓ      ѣ̣r ѓ				
Black Hook with Notch and Red Combining Dot Overlay	(U+1F54C) (U+1DFA)	ѓ	Afterfeast with Kontakia	See above
<p>This is just like above, except that after Ode 3: Kontakion of the Saint; after Ode 6: Kontakion of Feast.</p> <p>Example: ѣ̣̣r ѓ      ѣ̣̣̣r ѓ</p>				
Red Cyrillic Small Letter O	U+043E	o	Epistle and Gospel from Daily Lectionary read ahead of time	Already encoded
Red Cyrillic Small Letter Ukrainian Ie	U+0454	ѣ	At Midnight Office: Troparion and Kontakion of Feast	Already encoded

### Summary of Characters Proposed for Encoding

Name	Ex.	Codepoint	Block
DOUBLE COMMA	ꞌ	U+2E44	Supplemental Punctuation
LOW KAVYKA	ᵛ	U+2E45	Supplemental Punctuation
LOW KAVYKA WITH DOT	ᵛ̇	U+2E46	Supplemental Punctuation
INVERTED LOW KAVYKA	ᵝ	U+2E47	Supplemental Punctuation
INVERTED LOW KAVYKA WITH KAVYKA ABOVE	ᵞ	U+2E48	Supplemental Punctuation
DOWNWARD FACING HOOK	ᶑ	U+1F54B	Miscellaneous Symbols and Pictographs
DOWNWARD FACING HOOK WITH NOTCH	ᶒ	U+1F54C	Miscellaneous Symbols and Pictographs
COMBINING INVERTED TORTOISE SHELL BRACKET BELOW	ᶞ	U+1DF6	Combining Diacritical Marks Supplement
COMBINING DOT ABOVE LEFT	ᶟ	U+1DF7	Combining Diacritical Marks Supplement
COMBINING KAVYKA ABOVE RIGHT	ᶠ	U+1DF8	Combining Diacritical Marks Supplement
COMBINING KAVYKA ABOVE LEFT	ᶡ	U+1DF9	Combining Diacritical Marks Supplement
COMBINING DOT OVERLAY	ᶢ	U+1DFA	Combining Diacritical Marks Supplement

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