
Introduction to Old Church Slavonic

Pavia Summer School 2026

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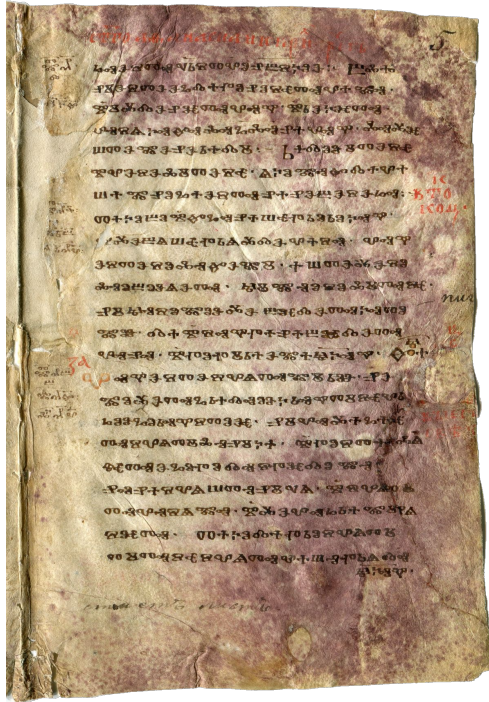


Figure 1: Zographensis 5r. From expositions.nlr.ru.

Front matter

Preamble

Parts of this text were translated from Danish to English by Matthew Scarborough in 2023.

The synchronic descriptions draw heavily on Vaillant (1964). Other parts have been adapted from Andersen & Olander (forthcoming).

Slavic forms and meanings are largely taken from Derksen (2008).

Aim of the course

The course gives an introduction to the Slavic branch of the Indo-European language family through the lens of its oldest documented representative, Old Church Slavonic (OCS). In Session 1 we become familiar the Slavic language group and discuss its internal structure and its relationship to the other Indo-European branches. We take a look at the alphabets used for writing OCS and get an overview of the scholarly literature needed for the study of the history of the Slavic languages. In Session 2 we become acquainted with the phonological system of OCS and discuss its historical background, from PIE over Proto-Balto-Slavic, Proto-Slavic and Common Slavic. Session 3 and 4 give overviews of the OCS nominal and verbal systems and their historical background. All sessions include OCS reading samples illustrating OCS itself and the historical processes that contributed to shaping Slavic.

Overview

Session 1 (Monday, 7 September 2026): Slavic and OCS

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Session 4 (Saturday, 12 September 2026): The grammar of OCS: verbs

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1. Slavic and Old Church Slavonic

1.1. The Slavic languages

1.1.1. Distribution of the Slavic languages

Slavic languages are distributed across Central and Eastern Europe, in the Balkans and in Central and North Asia (Siberia) (see Figure 2). They are spoken by around 315 million people.



Figure 2: Modern distribution of the Slavic languages. Based on Asher & Moseley (2007)

1.1.2. Traditional subgrouping

The Slavic languages (Glottocode: [slav1255](#)) are traditionally divided into three main subgroups.

1. South Slavic ([sout3147](#))

- Eastern South Slavic ([east2269](#))
 - Old Church Slavonic ([chur1257](#))
 - Bulgarian ([bulg1262](#))
 - Macedonian ([mace1250](#))
- Western South Slavic ([west2084](#))
 - Bosnian ([bosn1245](#)), Croatian ([croa1245](#)) (with three main dialects: Štokavian ([shto1241](#)), Čakavian ([chak1265](#)), Kajkavian ([kajk1237](#))), Montenegrin ([mont1282](#)), Serbian ([serb1264](#)) – sometimes referred to collectively as BCMS or Serbo-Croatian (cf. [sout1528](#))

[2026-09-18]

- Slovene ([slov1268](#))

2. East Slavic

- Russian ([russ1263](#))
- Belarusian ([bela1254](#))
- Ukrainian ([ukra1253](#))
- Rusyn ([rusy1239](#))

3. West Slavic

- Lekhitic
 - Polish ([poli1260](#))
 - Kashubian ([kash1274](#)) (including Slovincian ([slov1270](#)) (extinct))
 - Polabian (extinct) ([pola1255](#))
- Sorbian
 - Lower Sorbian ([uppe1395](#))
 - Upper Sorbian ([lowe1385](#))
- Czecho-Slovak ([czec1260](#))
 - Czech ([czec1258](#))
 - Slovak ([slov1268](#))

A typical family tree can be seen in Figure 3.

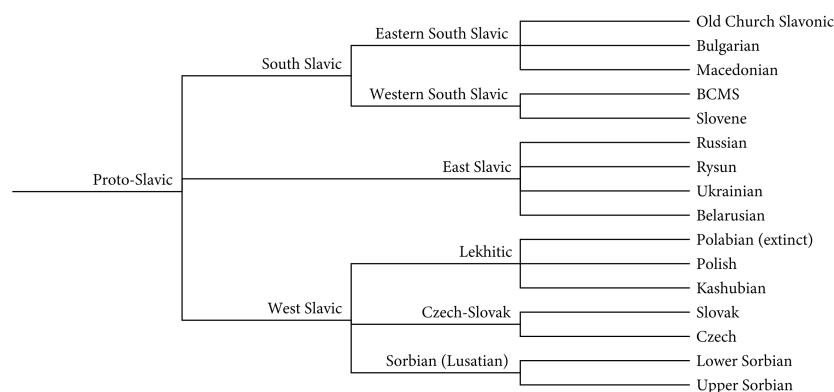


Figure 3: Traditional subgrouping of the Slavic languages.

In practice, the Slavic languages constitute a dialect continuum, with overlapping isoglosses that make it difficult to make a clear phylogenetic model. While the traditional tripartite subgrouping may not reflect the true phylogenetic relationships among the languages, it still constitutes a useful framework for making generalised statements about them. For historical overviews see Blažek (2020); Saenko (2020).

It is difficult to find systematic treatments of the subgrouping of Slavic based on shared innovations (cf. Mareš 1980; Schenker 1993: 60–61; Poljakov 2018: 1588–1589). Criteria that are mentioned in connection with the subgrouping of Slavic are mostly phonological, e.g.:

- the outcome of PS **t_i d_i* (CS **t_i d_i*) (see 3.4.7)
- the outcome of the Liquid Metathesis (see 3.4.5)

There are morphological and lexical differences as well, but they are more difficult to get hold of.

I am not aware of any computational studies dealing specifically with the subgrouping of Slavic; those concerned with the entire Indo-European language family are based on lexicon and of dubious value for Slavic (Gray & Atkinson 2003: 437, implying that Polish is more closely related to East Slavic than to Czech and Slovak; Bouckaert et al. 2012: Supplementary Materials p. 24, again with Polish in a weird place; Heggarty et al. 2023: Supplementary Materials p. 57, with OCS and Slovene forming an outlier; for criticism of the two former publications see Pereltsvaig & Lewis 2015: 83–85).

1.1.3. The position of the Old Novgorod dialect

Spoken in the Novgorod–Pskov area in north-western Russia, it seems to be an early outlier in the Slavic family (“North Slavic”) (Nasirpour 2025; Andersen 2026). Some of the features characteristic of the Old Novgorod dialect distinguishing it from the other Slavic dialects are the following:

Old Novgorod dialect does not have the regressive part of second palatalisation (Zaliznjak 2004: 45–47); see 3.4.4.

- ONovg. *o*-stem pron. adj. NOM.SG.M *kěle* from PS **kajlǝ* ‘whole’ – all other Slavic dialects have reflexes of **cělŭ*

There is probably no progressive palatalisation of **x* (and possibly **g*).

- pron. DAT.PL (*kŭ*) *vīxemo* (i.e. *vīxēmŭ*) < PS **ui'xajmǝ* ‘all’; all other Slavic languages point to CS **vīšēmŭ* (cf., however, Galinskaja 2014)

According to a minority view, the Old Novgorod dialect also shows a special development of PS **ǣ* (from pre-PS **ǣ* in final syllables ending in **-s*) (Zaliznjak, Nikolaev and Dybo *apud* Zaliznjak 2004: 148–149; Olander 2012): PS **ǣ ā* > “classical” CS **ŭ y* || ONovg. *e ě*

- OCS, OESl. NOM.SG *xlěbŭ* м ‘bread’ vs. ONovg. *xlěbe*

1.2. Proto-Slavic and Common Slavic

“Proto-Slavic” reconstructions are traditionally written as a kind of lightly modified OCS; for instance, the word for ‘water’ is reconstructed as **vodà* (cf. OCS *voda*, Ru. *vodá*, Po. *woda* etc.), and the word for ‘whole’ is reconstructed as **cěľũ* (cf. OCS *cěľũ*, Ru. *cělyj*, Po. *cały* etc.).

However, from (1) loanwords to and from Slavic, (2) internal phonological correspondences in the Slavic languages and (3) information from the Old Novgorod dialect we can see that actual Proto-Slavic – in the sense of the language state from which all the known Slavic languages can be derived – looked quite different: the word for ‘water’ probably rather sounded **uā'dā* in actual Proto-Slavic, and the word for ‘whole’ was **kajlā* (see [Olander 2015: 64](#); [Holzer 1997](#))

1. LOANWORD RELATIONS: Traditionally, “Proto-Slavic” forms are reconstructed with the sequences **or ol*.

- **golvà* F ‘head’ > OCS *glava*, Ru. *golová*
- **stornà* F ‘side; land’ > OCS *strana*, Ru. *storoná*
- **gôrdũ* M ‘fortification; town’ > OCS *gradũ*, Ru. *górod*

But loanwords from Slavic that contain such sequences seem to always have **ar al*, suggesting that Proto-Slavic **a* had not yet become **o* when the Liquid Metathesis took place. Since the Liquid Metathesis had different results in the Slavic languages, it must have taken place after the dissolution of Proto-Slavic.

Accordingly, forms like **golvà*, **stornà* and **gôrdũ* probably never existed; the actual Proto-Slavic forms are **gāl'uā*, **star'nā* and **gardā*

2. INTERNAL SLAVIC CORRESPONDENCES: It is easier to understand the Liquid Metathesis in South Slavic (and Czecho-Slovak) as a development **ar > *rā > *ra* than **or > *ra*, since if **o > *a* happened before the Liquid Metathesis, **or* would probably have become **rō* or **ro*, but this did not happen ([Lindstedt 1991: 114–115](#)).

3. THE OLD NOVGOROD DIALECT (see also [1.1.3](#)): In contrast to all other Slavic languages, the Old Novgorod dialect clearly does not have the regressive part of the Second Palatalisation (see [3.4.4](#)).

- ONovg. *o*-stem pron. adj. NOM.SG.M *kěle* from PS **kajlā* ‘whole’ (vs. reflexes of **cěľũ* in all other Slavic dialects), showing that Proto-Slavic must have had **k-* in this word

Thus, these reconstructions are anachronistic, but in reality give a good picture of the Slavic dialect continuum as it was spoken until the loss of the reduced vowels around 1200 CE ([3.4.12](#)). Moreover, it is practical to represent Slavic reconstructions

tions in the traditional notation, partly because it is the way it has always been done, and partly because the words are immediately more easily recognisable. Accordingly, I (and others) refer to the traditional notation as “Common Slavic”, and “Proto-Slavic” denotes reconstructions of the actual common point of departure for the Slavic languages.

Proto-Slavic refers to the stage AFTER the First Palatalisation (e.g. $*ke > *če$; 3.4.1) and BEFORE changes like the vowel palatalisations (e.g. $*ja > *je$; 3.4.2), the monophthongisation of oral diphthongs (e.g. $*aj > *ě$; 3.4.3) and the Second Palatalisation (e.g. $*kaj > *cě$; 3.4.4) (cf., somewhat differently, Klotz 2023; Olander 2015: 46–67).

1.3. Slavic and the other Indo-European branches

1.3.1. Slavic and Baltic

The relationship between Baltic and Slavic is debated: have they developed in parallel since PIE times, or did an actual Balto-Slavic proto-language exist at some point in prehistory?

At this point it is probably safe to say that Baltic the *communis opinio* assumes a Balto-Slavic subgroup of Indo-European (for literature on the problem see Olander 2019; Wandl & Olander 2026). Notably, all phylolinguistic studies of the Indo-European language family that I am aware of group Baltic and Slavic together, with no exceptions.

Among the significant common innovations found in Baltic and Slavic are the following:

- Hirt’s Law: the accent is retracted from an accented syllable to an immediately preceding syllable which ends in a postvocalic laryngeal (3.2.5)
- loss of laryngeals: in pre-Proto-Balto-Slavic when syllable-final laryngeals are lost, a preceding vowel is lengthened and becomes acute, also across an intervening resonant. (3.2.4)
- Winter’s Law: a vowel is lengthened and becomes acute before an original voiced unaspirated stop ($*VD > *\tilde{V}D$); a vowel is glottalised before a sonorant followed by an original voiced unaspirated stop ($*VRD > *\tilde{V}RD$) (3.2.8)
- accentual mobility: certain word-forms accented on the ending in PIE receive initial accent (more precisely: become unaccented) in Proto-Balto-Slavic (3.2.7)
- development of IE $*r l$ to both $*ir il$ and $*ur ul$ (the precise conditioning is unclear in both Baltic and Slavic) (2.2)
- formation of a new preterite suffix $*-ē-/-ā-$

- use of the ablative singular for the genitive singular in the *o*-stems

1.3.2. The position of Balto-Slavic in the Indo-European family

It is disputed what the closest relative of the Balto-Slavic subgroup is. It has been argued that the *ruki* change (3.2.3) may be a shared innovation of Balto-Slavic and Indo-Iranian (e.g. Ringe & Taylor 2007: 6–7; see also Ringe, Warnow & Taylor 2002; Nakhleh, Ringe & Warnow 2005; but cf. Hock 2021: 594–597, arguing that *Ru ki* is a transitional phenomenon). On the other hand, Balto-Slavic and Germanic share the striking use of **m* for **b^h* in oblique dual and plural case endings, which also has the appearance of a shared innovation.

Some authors give a negative appraisal of the possibility of grouping Balto-Slavic with any other Indo-European branch (e.g. Pronk 2022: 279–285).

A preliminary majority consensus tree resulting from the research project [Connecting the Dots: Reconfiguring the Indo-European family tree](#) can be seen in Figure 4.

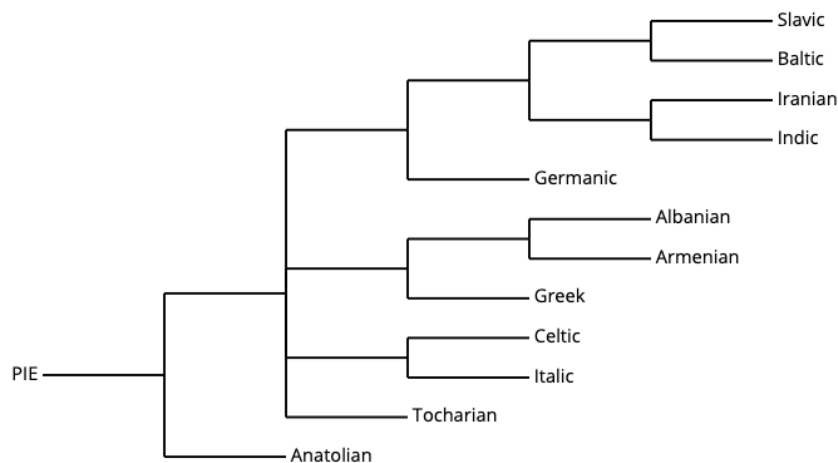


Figure 4: Indo-European family tree (*Connecting the Dots* project).

For an attempt at matching population genetic relationships with linguistic branches see Gretzinger (2026: 31). For the genetic background of Slavic-speaking populations see Gretzinger et al. (2025); Gretzinger (2026: 38–39).

1.4. Old Church Slavonic

1.4.1. The OCS corpus

OCS is the first ample direct attestation of the Slavic branch of Indo-European. The OCS manuscripts date to the 10th (the *Kiev Leaves*) and 11th centuries, which is late compared to many other branches of Indo-European. The *Freising Fragments* (Sln. *Brižinski spomeniki*) in Old Slovene are from around 1000 AD.

The language of the OCS corpus is based on a South Slavic dialect closely related to later Bulgarian and Macedonian dialects. OCS is sometimes referred to as Old Bulgarian; cf. e.g. the title of Leskien's *Grammatik der albulgarischen (alt kirchenslavischen) Sprache* (Leskien 1919a).

The OCS texts all serve religious purposes. The following shows the OCS manuscript, the script they are written in, and the number of folios they contain (Andersen & Olander forthcoming; cf. Vaillant 1964: 14–16; Schaeken & Birnbaum 1999: 87–91).

1. Gospel

- *Codex Zographensis*, Glagolitic, 270 fols.
- *Codex Marianus*, Glagolitic, 173 fols.
- *Codex Zographensis Palimpsest*, Glagolitic, 16 fols.

2. Aprakos Gospel (gospel readings for feast days)

- *Codex Assmanianus*, Glagolitic, 158 fols.
- *Savvina Kniga*, Cyrillic, 130 fols.
- *Vatican Palimpsest*, Cyrillic, 93 fols.
- *Ohrid Leaves*, Glagolitic, 2 fols.
- *Fragmentum Sinaiticum*, Glagolitic, 1 fol.
- *Palimpsest of Bojana*, Glagolitic, 2 fols.
- *Undol'skij's Leaves*, Cyrillic, 2 fols.

3. Apostolos (Acts of the Apostles, Catholic epistles and Pauline epistles from the New Testament)

- *Kiev Leaf*, Glagolitic, 1 fol.
- *Apostolus of Enina*, Cyrillic, 39 fols.

4. Psalter

- *Psalterium Sinaiticum*, Glagolitic, 209 fols.

- *Dimitrij's Psalter*, Glagolitic, 145 fols.

5. Liturgical texts (for church services)

- *Kiev Leaves* (*Kiev Folios*, *Kiev Missal*), Glagolitic, 7 fols.
- *Euchologium Sinaiticum*, Glagolitic, 134 fols.
- *Sinai Missal*, Glagolitic, 3 fols.
- *Missale Sinaiticum*, Glagolitic, 80 fols.
- *St. Petersburg Octoich*, Glagolitic, 8 fols.
- *Menaeum Sinaiticum*, Glagolitic, 2 fols.

6. Edificational literature

- *Codex Suprasliensis*, Cyrillic, 285 fols.
- *Glagolita Clozianus*, Glagolitic, 14 fols.
- *Rila Leaves*, Glagolitic, 8 fols.
- *Hilandar Leaves*, Cyrillic, 2 fols.
- *Zographos Leaves*, Cyrillic, 2 fols.
- *Grigorovič's Leaf*, Glagolitic, 1 fol.
- *Hilferding's Leaf*, Cyrillic., 1 fol.

1.4.2. The creation of the Glagolitic and Cyrillic alphabets

The following account is a shortened version of the one found in Andersen & Olander ([forthcoming](#)).

Around 862 two brothers from Thessaloniki, Methodius (c. 815–885) and Cyril (b. Konstantinos, c. 826–869), were sent on a mission from Constantinople to Moravia (present-day eastern Czechia and Hungary), where they spent three years. The brothers spoke not only Greek, but also a South Slavic dialect; Thessaloniki had a large Slavic-speaking population.

According to tradition, Cyril created the Glagolitic alphabet, and the brothers translated the most important liturgical texts into their variety of South Slavic. The original language of the translations is referred to as “Urkirchenslavisch”, German for “Proto-Church Slavonic” (see [Schaecken & Birnbaum 1999: 13–15](#)).

While the mission to Moravia ultimately failed, the followers of Cyril and Methodius relocated to Bulgaria and established a highly influential school there.

While the Cyrillic script is named after Cyril, most scholars agree that it was created later, on the basis of Glagolitic. Most of the Cyrillic letters are derived from Byzantine Greek majuscules (uncial, large book script letters), with Byzantine Greek pronunciation.

Both scripts are based on a phonological analysis of OCS.

The majority of the OCS manuscripts are written in the Glagolitic script; an important exception is the *Codex Suprasliensis*, written in Cyrillic (see 1.4.1).

Note that in this course we do not use the Glagolitic script; OCS is given in Cyrillic and/or Roman.

Glagolitic does not distinguish between *ě* and *ja*, nor *e* and *je*.

Cyr.	Glag.	translit.	name	Cyr.	Glag.	translit.	name
А	Ɑ	a	<i>azŭ</i>	Ф	Ɱ	f	<i>fritŭ</i>
Б	Ɱ	b	<i>buky</i>	Х	Ɱ	x	<i>xěrŭ</i>
В	Ɱ	v	<i>vědě</i>	Ц	Ɱ	c	<i>ci</i>
Г	Ɱ	g	<i>glagoli</i>	Ч	Ɱ	č	<i>čřivŭ</i>
Д	Ɱ	d	<i>dobro</i>	Ш	Ɱ	š	<i>ša</i>
Є Ǝ Ǝ	Ɱ	e, je	<i>jestŭ</i>	Щ	Ɱ	št	<i>šta</i>
Ж	Ɱ	ž	<i>živěte</i>	Ъ	Ɱ	ŭ (ъ)	<i>jerŭ</i>
З Ɔ	Ɱ	dz	<i>dzělo</i>	Ы ы	Ɱ Ɱ	y	<i>jery</i>
З	Ɱ	z	<i>zemlja</i>	Ь	Ɱ	ĩ (ь)	<i>jerĩ</i>
І	Ɱ Ɱ	i	<i>i</i>	Ѣ	Ɱ	ě	<i>jatĩ</i>
И	Ɱ	i	<i>ize</i>	Ю	Ɱ	ju	–
(ĥ)	Ɱ	ġ	<i>ġervŭ</i>	Ѡ	–	ja	–
К	Ɱ	k	<i>kako</i>	Ѣ	–	je	–
Л	Ɱ	l	<i>ljudije</i>	Ѥ Ѥ	Ɱ	ę	–
М	Ɱ	m	<i>myslite</i>	Ѧ	Ɱ	ję	–
Н	Ɱ	n	<i>naši</i>	Ѩ	Ɱ	q	–
О	Ɱ	o	<i>onŭ</i>	Ѭ	Ɱ	jq	–
П	Ɱ	p	<i>pokojŭ</i>	Ѣ	–	ks	<i>ksi</i>
Р	Ɱ	r	<i>rŭci</i>	Ѥ	–	ps	<i>psi</i>
С	Ɱ	s	<i>slovo</i>	Ѧ	Ɱ	θ	<i>θita</i>
Т	Ɱ	t	<i>tvřido</i>	Ѩ	Ɱ	ũ	<i>izica</i>
У ҃ ҃	Ɱ	u	<i>ukŭ</i>	Ѭ	Ɱ	o	<i>otŭ</i>

Table 1: The Glagolitic and Cyrillic alphabets.

A transliteration tool for Early Cyrillic to Latin is available at sproghistorie.dk/ocstrans.

1.4.3. Local variants of the Cyrillic alphabet

Variations of the Cyrillic script are still used across eastern Europe and Asia. A reform by Peter the Great (1672–1725) in 1708 changed the shape of the Cyrillic letters to a form resembling the Roman script (see [this blog post with illustrations](#)).

In Bulgaria, Macedonia and Serbia local variants of the letter shapes of the Cyrillic alphabet are used, as illustrated in Table 2.

	regular	italic
Russian	вода	<i>вода</i>
Bulgarian	Ѡоѡа	<i>ѡоѡа</i>
Serbian / Macedonian	Ѡоѡа	<i>ѡоѡа</i>

Table 2: ‘Water’ in local variants of the Cyrillic alphabet.

1.5. Handbooks

The Slavic languages in general and OCS in particular have a long and rich tradition of handbooks. The list below is not exhaustive; see Vaillant (1964), 16–18 for references to older handbooks.

1.5.1. Synchronic dictionaries of OCS

- Cejtin, Ralja Mixajlovna, Robert Večerka & Emilie Bláhová. 1994. *Старославянский словарь (по рукописям X–XI веков)*. Москва. [\[full text\]](#)
 - dictionary of OCS (in Russian)
- Kurz, Josef & Zoe Hauptová. 1966–1997. *Slovník jazyka staroslověnského / Lexicon linguae Palaeoslovenicae*. Vol. 1–4. Praha: Academia. [Online version](#).
 - a.k.a. *SJS*; dictionary of OCS (in Latin, with translations into Czech, Russian, German; the online version adds translations into English)
- Sadnik, Linda & Rudolf Aitzetmüller. 1955. *Handwörterbuch zu den altkirchenslavischen Texten* (Slavistische Drukken En Herdrukken). ’s-Gravenhage: Mouton.
 - widely used dictionary of OCS (in German)

1.5.2. Etymological dictionaries of Slavic languages

There are numerous etymological dictionaries of the individual Slavic languages. Here are some of the important ones.

- Derksen, Rick. 2008. *Etymological dictionary of the Slavic inherited lexicon* (Leiden Indo-European Etymological Dictionary Series 4). Leiden & Boston: Brill.
 - Slavic etymology from a Leiden School perspective; handy, but with very little discussion
- Havlová, Eva, Adolf Erhart & Ilona Janyšková. 1989–2018. *Etymologický slovník jazyka staroslověnského*. Vol. 1–19. Praha (1–14) & Brno (15–19): Academia (1–14) & Tribun EU (15–19).
 - a.k.a. *ESJS*; up-to-date etymological dictionary of OCS (in Czech, with translations into German; cf. also the useful review series by Eichner & Reinhart (1990; 1991; 1995; 1996; 1997; 1998; 2000; 2001) in *Wiener Slavistisches Jahrbuch*)
- Klotz, Emanuel. 2023. *Urslawisches Wörterbuch*. 2., aktualisierte und erweiterte Auflage. Wien: Facultas.
 - dictionary of Proto-Slavic in the strict sense (1.2), with reflexes in the Slavic languages (in German)
- Sławski, Franciszek. 1974–2001. *Słownik prasłowiański*. Vol. 1–8 (A–Gyža). Wrocław etc.
 - unfinished dictionary of Common Slavic (in Polish)
- Snoj, Marko. 2016. *Slovenski etimološki slovar*. Tretja izdaja. Ljubljana: Založba ZRC. [Online version](#).
 - up-to-date dictionary of Slovene (in Slovene)
- Trubačëv, Oleg Nikolaevič. 1974–. *Этимологический словарь славянских языков: Праславянский лексический фонд*. Vol. 1–. Москва: Наука.
 - a.k.a. *ЭССЯ* (*ĖSSJa*); very comprehensive, but still unfinished, etymological dictionary of Slavic (in Russian); PIE reconstructions are not up to date
- Vasmer, Max. 1953–1958. *Russisches etymologisches Wörterbuch*. Vol. 1–3. Heidelberg.
 - outdated, but still widely regarded the standard etymological dictionary of a Slavic language
- Vasmer, Max. 2006. *Этимологический словарь русского языка*. 4-е издание (online version). 4 vols. Москва: Прогресс. <https://lexicography.online/etymology/vasmer/>. [Online version](#).
 - Russian translation of Vasmer 1953–1958, with additions and comments by Trubačëv

1.5.3. Synchronic grammars of OCS

- Andersen, Henning & Thomas Olander. 2020. Old Church Slavonic. Göttingen: Georg-August-Universität Göttingen. <https://spw.uni-goettingen.de/projects/aig/lng-chu.html>.
 - for those who like watching videos
- Auty, R. 1968. *Handbook of Old Church Slavonic*. Reprinted with corrections. Vol. 2. Texts and glossary. London: The Athlone Press, University of London.
 - companion to Nandriş 1968
- Birnbaum, Henrik & Jos Schaeken. 1997. *Das altkirchenslavische Wort* (Slavistische Beiträge 348). München: Sagner. [\[full text\]](#)
 - useful and comprehensive introduction to OCS; cf. Schaeken & Birnbaum (1999)
- Comrie, Bernard & Greville G. Corbett. 1993. *The Slavonic languages*. London & New York: Routledge.
 - overview of the Slavic languages plus Common Slavic
- Diels, Paul. 1963. *Altkirchenslavische Grammatik*. 2. Ausg. Heidelberg: Winter.
 - thorough and reliable grammar of OCS with texts and vocabulary (in German)
- Leskien, August. 1919b. *Grammatik der altbulgarischen (altkirchenslavischen) Sprache*. 2. und 3. Auflage. Heidelberg: Winter.
 - OCS grammar; old but still very useful (in German)
- Leskien, August. 1922. *Handbuch der altbulgarischen (altkirchenslavischen) Sprache: Grammatik, Texte, Glossar*. Sechste Auflage. Heidelberg: Winter. [\[full text\]](#)
 - OCS grammar with texts and dictionary; old but still very useful (in German)
- Lunt, Horace Gray. 2001. *Old Church Slavonic grammar*. 7th ed. Berlin & New York: Mouton de Gruyter. <https://doi.org/10.1515/9783110876888>.
 - in the 7th edition the chapter on “Toward a generative phonology of OCS” has been replaced by a chapter on “A sketch history: from late Indo-European to late Common Slavic”
- Nandriş, Grigore. 1959. *Handbook of Old Church Slavonic*. Reprinted with corrections 1965. Vol. 1. Old Church Slavonic grammar. London: The Athlone Press, University of London.
 - companion to Auty 1965
- Polivanova, Anna. 2023. *Old Church Slavic: Grammar and dictionaries* (Biblioteca Di Studi Slavistici 51). (Ed.) Artemij Keidan. Florence: Firenze University Press. <https://doi.org/10.36253/979-12-215-0104-9>. [\[full text\]](#)
 - I haven’t checked this one out

- Schaeken, Jos & Henrik Birnbaum. 1999. *Die altkirchenslavische Schriftkultur* (Slavistische Beiträge 382). München: Sagner. [\[full text\]](#)
 - useful and comprehensive introduction to OCS; cf. Birnbaum & Schaeken (1997)
- Vaillant, André. 1963–1964. *Manuel du vieux slave*. Seconde édition revue et augmentée. Vol. 1. Grammaire; 2. Textes et glossaire. Paris: Institut d'Études Slaves.
 - thorough and reliable grammar of OCS with texts and dictionary (in French)
- Zaliznjak, Andrej Anatol'evič. 2014. *Древнерусское ударение: Общие сведения и словарь*. Москва: Языки славянской культуры.
 - very useful accentological dictionary of Old Russian (Old East Slavic) (in Russian)

1.5.4. Historical grammars of Slavic languages

- Aitzetmüller, Rudolf. 1991. *Altbulgarische Grammatik als Einführung in die slavische Sprachwissenschaft* (Monumenta Linguae Slavicae Dialecti Veteris. Fontes Et Dissertationes 30). Freiburg i. Br.: Weiher.
 - includes useful historical information (in German); largely based on Vaillant's *Grammaire comparée*
- Bräuer, Herbert. 1961–1969. *Slavische Sprachwissenschaft*. Vol. 1. Einleitung, Lautlehre; 2. Formenlehre (1. Teil); 3. Formenlehre (2. Teil). Berlin: de Gruyter. doi: [10.1515/9783110845549](https://doi.org/10.1515/9783110845549); [10.1515/9783110840759](https://doi.org/10.1515/9783110840759); [10.1515/9783110831573](https://doi.org/10.1515/9783110831573)
 - very good comparative grammar of the Slavic languages (in German), but unfinished (unfortunately no pronominal and verbal morphology)
- Olander, Thomas. 2015. *Proto-Slavic inflectional morphology: A comparative handbook* (Brill's Studies in Indo-European Languages and Linguistics 14). Leiden & Boston: Brill. <https://doi.org/10.1163/9789004270503>.
 - includes overview of various authors' historical analyses of Slavic endings
- Stang, Christian Schweigaard. 1942. *Das slavische und baltische Verbum* (Skrifter Utgitt Av Det Norske Videnskaps-Akademi i Oslo. 2. Hist.-Filos. Kl.). Oslo: I kommisjon hos J. Dybwad.
 - thorough and useful treatment of the verbal system of Slavic and Baltic (in German)
- Vaillant, André. 1950–1977. *Grammaire comparée des langues slaves* (Collection 'Les Langues Du Monde'. Série Grammaire, Philologie, Littérature 6, 11, 12). Vol. 1. Phonétique; 2/1. Morphologie (Flexion nominale); 2/2. Morphologie (Flexion pronominale); 3. Le verbe; 4. La formation des noms; 5. La syntaxe. Lyon & Paris.
 - the standard work on Slavic historical grammar; very comprehensive (in French)

2. The OCS phonological system

2.1. Segments: overview

	labial	dental	palatal	velar
stops	<i>p b</i>	<i>t d</i>	([c ʝ])	<i>k g</i>
affricates		<i>c ʒ</i>	<i>č</i>	
fricatives		<i>s z</i>	<i>š ž</i>	<i>x</i>
nasals	<i>m</i>	<i>n</i>	<i>nʲ</i> [ɲ]	
liquids		<i>l r</i>	<i>lʲ</i> [ɭ] <i>rʲ</i>	
glides	<i>v</i>		<i>j</i>	

Table 3: The OCS consonants.

The Glagolitic letters **Ѣ Ѥ**, rendered by **Ѣ Ѥ** in Cyrillic, may have denoted palatal stops [c ʝ] (from CS **tj dj*), later developing into *št žd* [3.4.7](#), (cf. [Andersen & Olander forthcoming](#)).

	front	back spread	rounded
tense	<i>i</i>	<i>y</i>	<i>u</i>
	<i>ě</i>	<i>a</i>	
lax	<i>ĩ</i>		<i>ũ</i>
	<i>e</i>		<i>o</i>
nasal	<i>ɛ</i>		<i>ɔ</i>

Table 4: The OCS vowels.

2.2. Syllabic liquids

The OCS sequences *rĩ*, *rũ*, *lĩ* and *lũ* need some context to be understood correctly ([Lunt 2001: 38–39](#)).

Common Slavic **īr ūr* and *īl ūl* become /r̥ j̥ l̥ j̥/ in OCS. In the *Kiev Leaves* they are written *rī rū* and *lī lū*, but in the remaining manuscripts they are mostly written *rŭ lŭ*, as a result of a depalatalisation of the syllabic liquids.

- CS **sŭmrĭtĭ* F *i*-stem ‘death’ > OCS /sŭmr̥tĭ/, written *sŭmrĭtĭ*
- CS **gŭrdŭ* adj. ‘proud’ > OCS /gr̥dŭ/, written *grŭdŭ*
- CS **pŭlnŭ* adj. ‘full’ > OCS /p̥lnŭ/, written *plnŭ*
- CS **sŭlnice* N *o*-stem ‘sun’ > OCS /s̥lnice/, written *slŭnice*

But the actual sequences /r̥ ī rū/ and /l̥ ī lū/ (from CS **rī rū* and **lī lū*) are also written /rī rū/ and /lī lū/.

- CS **krŭvĭ* ACC.SG of **krŭ* F *ū*-stem ‘blood’ > OCS /krŭvĭ/, written *krŭvĭ*
- CS **krĭstŭ* M *o*-stem ‘cross’ > OCS /krĭstŭ/, written *krĭstŭ*
- CS **slĭzŭ* GEN.PL of **slĭzà* F *ā*-stem ‘tear’ > OCS /slĭzŭ/, written *slĭzŭ*
- CS **plŭtĭ* F *i*-stem ‘body; flesh’ > OCS /plŭtĭ/, written *plŭtĭ*

While the normal representation of both types is identical in the manuscripts, the former type never shows vocalisation of *ī ū* in apparently strong position (see 3.4.12), whereas the latter type sometimes does,

- OCS *krestŭ* alongside *krĭstŭ* ‘cross’
- OCS *krovĭ* alongside *krŭvĭ* ‘blood’
- OCS *slezŭ* alongside *slĭzŭ* ‘tears’
- OCS *plotĭ* alongside *plŭtĭ* ‘flesh’

East Slavic also shows the original order of reduced vowel and liquid.

- with CS **ī/ŭR*: Ru. *smert’* ‘death’, *górdyj* ‘proud’, *pólnyj* ‘full’, *sólnce* ‘sun’
- with CS **ī/ŭR*: Ru. *krést* ‘cross’, *krov’* ‘blood’, *sléz* ‘tears’, *plót’* ‘flesh’

2.3. Syllable structure

The possible onsets and nuclei are as follows (from Andersen & Olander forthcoming):

- possible onsets: (s š z ž) + (p t k c č x b d g) + (v m n) + (l r) + (j)
- possible nuclei: vowel or *l̥ j̥ r̥ j̥* (written *lŭ lī rū rī*) (see 2.2)

Only some of the combinations are possible, but all attested combinations conform to the scheme.

There are no syllable codas in OCS, i.e. all syllables are open, except (a) in a few words ending in *-gda*: *jegda* ‘when(CONJ)’, *ko/ŭgda* ‘when(INT)’, *togda* ‘then’, *všegda* ‘always’; (b) in words with initial *al-*: *alkati* ‘be hungry’ (alongside less frequent *lakati*) and derivatives, *al(ŭ)dii* ‘boat’ (alongside more frequent *ladii*) and a few more (Vaillant 1964: 72).

3. Slavic historical phonology

3.1. Sound changes from PIE to OCS: overviews

The development of the individual consonants from PIE to CS:

PIE	PBS	PS	CS
*p	*p	*p	*p
*b	*b (+ Winter's Law 3.2.8)	*b	*b
*b ^h	*b (3.2.9)		
*t	*t	*t	*t
*d	*d (+ Winter's Law 3.2.8)	*d	*d
*d ^h	*d (3.2.9)		
*k̂	*ś (3.2.1)	*s	*s
*ĝ	*ž (3.2.1 ; + Winter's Law 3.2.8)	*z	*z
*ĝ ^h	*ž (3.2.1 ; 3.2.9)		
*k	*k	*k	*k
*k ^w	*k (3.2.2)		*č (1st pal.; 3.4.1)
			*c (2nd pal.; 3.4.4)
*g	*g (+ Winter's Law 3.2.8)	*g	*g
*g ^h	*g (3.2.9)		*ž (1st pal.; 3.4.1)
*g ^w	*g (3.2.2 ; + Winter's Law 3.2.8)		
*g ^{wh}	*g (3.2.2 ; 3.2.9)		* (d)z (2nd pal.; 3.4.4)
*s	*s	*s	*s
	*š (ruki; 3.2.3)	*x	*x
			*š (1st pal.; 3.4.1)
			*ś (2nd pal.; 3.4.4)
*h ₁	*∅ (3.2.4)	*∅	*∅
*h ₂			
*h ₃			
*r	*r	*r	*r
*l	*l	*l	*l
*m	*m	*m	*m
*n	*n	*n	*n
*i̇	*i̇	*i̇	*j (3.4.7)
*u	*u	*u	*v

Table 5: Overview of the development of consonants from PIE to Common Slavic.

The development of the vowels from PIE to CS:

PIE	PBS	PS	CS
<i>*i</i>	<i>*i</i>	<i>*i</i>	<i>*ĩ</i>
<i>*e</i>	<i>*e</i>	<i>*e</i>	<i>*e</i>
	<i>*a</i> (before heterosyll. <i>*u</i> ; 3.2.14)		<i>*o</i>
<i>*a</i>	<i>*a</i> (3.2.10)	<i>*a</i>	<i>*e</i> (after <i>*j</i> ; 3.4.7)
<i>*o</i>			
<i>*u</i>	<i>*u</i>	<i>*u</i>	<i>*ũ</i>
			<i>*ĩ</i> (after <i>*j</i> ; 3.4.7)
<i>*ih</i>	<i>*ī</i> (3.2.4)	<i>*ī</i>	<i>*i</i>
<i>*ē</i>	<i>*ē</i>	<i>*ē</i>	<i>*ě</i>
<i>*eh₁</i>	<i>*ē</i> (3.2.4)		<i>*a</i> (after <i>*j</i> ; 3.4.7)
<i>*ah₂</i>	<i>*ā</i> (3.2.4)	<i>*ā</i>	<i>*a</i>
<i>*ō</i>	<i>*ō</i>	<i>*ā</i> (3.3.3)	
<i>*oh₁/h₂/h₃</i>	<i>*ō</i> (3.2.4)		

Table 6: Overview of the development of vowels from PIE to Common Slavic.

The development of diphthongs from PIE to CS (cf. Andersen 1998a: 426–427):

PIE	PBS	PS	CS
*eĩ	*eĩ	*eĩ	*i
*aĩ	*aĩ	*aĩ	*ě
*oĩ			
*eu	*iaũ (3.2.14)	*iaũ	*u
*au	*au	*au	*u
*ou			

Table 7: Overview of the development of diphthongs from PIE to Common Slavic.

The development of syllabic nasals from PIE to CS:

PIE	PBS	PS	CS
$*\eta$	$*in$ (3.2.6)	$*in$	$*in$ (before vowel)
			$*\epsilon$ (before consonant and word-finally)
	$*un$ (3.2.6)	$*un$	$*\check{u}n$ (before vowel)
			$*\rho$ (before consonant and word-finally)
$*m$	$*im$ (3.2.6)	$*im$	$*im$ (before vowel)
			$*\epsilon$ (before consonant)
	$*um$ (3.2.6)	$*um$	$*\check{u}m$ (before vowel)
			$*\rho$ (before consonant)

Table 8: Overview of the development of syllabic nasals from PIE to Common Slavic.

The development of syllabic liquids from PIE to CS:

PIE	PBS	PS	CS
$*r$	$*ir$ (3.2.6)	$*ir$	$*ir$
	$*ur$ (3.2.6)	$*ur$	$*\check{u}r$
$*l$	$*il$ (3.2.6)	$*il$	$*il$
	$*ul$ (3.2.6)	$*ul$	$*\check{u}l$

Table 9: : Overview of the development of syllabic liquids from PIE to Common Slavic.

For the further changes of the syllabic liquids in OCS see 2.2 .

3.2. Sound changes from PIE to Proto-Balto-Slavic

Traditional presentations of the historical phonology of any language are usually organised around the development of specific sounds, e.g. the outcome of PIE $*g^h$ in OCS in different positions. It may be more useful to see the sound changes in their relative chronology, however, so this is what we are going to try here (cf. Holzer 2007; Wandl 2020; Olander 2015: 47–67; for thoughts on the visualisation of sound changes in a relative chronology see Wandl & Theliz 2024; cf. also Wandl, Olander & List forthcoming). The chronology below more or less follows that of Olander (2015: 47–67).

As the relative order of several (groups of) sound changes cannot be determined with certainty, the order given below should be taken with a grain of salt.

3.2.1. *Satəm* assibilation

In the *satəm* branches of Indo-European (Armenian, Albanian, Indo-Iranian, Baltic and Slavic) the palatal stops series (whatever its age, whether PIE or post-PIE) $*\hat{k} \hat{g} \hat{g}^h$ undergoes assibilation to PBS $*\acute{s} \acute{z} \acute{z}$ (see Clackson 2007: 49–53 for a discussion of the *satəm* change). In Slavic, these sibilants develop further to PS $*s z \acute{z}$, while in Lithuanian they become $\acute{s} \acute{z} \acute{z}$.

- PIE num. $*\hat{k}m̥t́o-$ N ‘hundred’ > PBS $*\acute{s}imta$ > (with unexplained vocalism in first syllable) PS $*\acute{s}uta$ (CS $*\acute{s}ŭto$) (a.p. c); Lith. *šimtas*, Latv. *simts*; cf. Ved. *śatá-*, YAv. *sata-*; Lat. *centum* ([k-]), Goth. *hunda*, Gk. *ἑκατόν*
- PIE $*\hat{k}léyos$ ‘fame; praise’ N > PBS $*\acute{s}layas$ > PS $*\acute{s}laya$ (CS $*\acute{s}lōvo$) ‘word’ (a.p. c); cf. OIr. *clú* ‘fame’, Gk. *κλέος* ‘fame’, Ved. *śrávas-* ‘praise’, OAv. *srauuah-* ‘fame’
- PIE $*\hat{g}neh_3-$ ‘know’ > PBS $*\acute{z}nō-$ > PS INF $*\acute{z}nātēi$ (CS $*\acute{z}nāti$); Lith. *žinóti*, Latv. *zināt*, OPr. *posinnat* ‘confess’; cf. Ved. *jānāti* ‘knows’; Goth. *kunnan* ‘know’; Gk. *γινώσκω* ‘realise’
- PIE $*\hat{g}^hém-$ ‘winter; snow’ > PBS $*\acute{z}ejmā$ F ‘winter’ > PS $*\acute{z}ejmā$ (CS $*\acute{z}imā$) (a.p. c); Lith. *žiemà* (a.p. 4), Latv. *ziema*; cf. Ved. *himá-* M ‘cold’, OAv. *zimō* GEN.SG.M ‘in winter’, YAv. *ziiā* M ‘winter’; Hitt. [dat-loc.sg] *giemi* ‘in winter’, Lat. *hiems* F ‘winter; storm’, Gk. *χίων* F ‘snow’

3.2.2. Delabialisation of labiovelars

The PIE labiovelar stops $*k^w g^w g^{wh}$ lose their labial articulation and merge with the plain dorsals $*k g g^h$. This innovation also takes place in Indo-Iranian and possibly also in Armenian and Albanian.

- PIE $*pek^w-$ > PBS $*pek-$ ‘bake’ > PS PRS.1SG $*\acute{p}ekān$ (CS $*\acute{p}ěko$) (a.p. c), PS PRS.3SG $*\acute{p}eke'ti$ (CS $*\acute{p}ečēti||\acute{u}$) (with First Palatalisation, 3.4.1), Lith. *kėpti* ‘bake; fry’ (with metathesis); cf. Ved. *pácati* ‘cook’, YAv. *pačata* ‘cooked’; Lat. *coquō* ‘cook’, Gk. *πέσσω* ‘cook’
- PIE $*g^wen-$ F ‘woman’ > PBS $*\acute{g}enā$ > PS $*\acute{g}e'nā$ (CS $*\acute{z}enā$) (a.p. b) ‘woman; wife’, OPr. *genno* ‘woman’; cf. Ved. *jāni* ‘woman’, OAv. *gənā-* ‘woman’, Arm. *kin* ‘woman; wife’; CLuw. *wāna(/i)-* ‘woman’, OIr. *bé^N* ‘woman’, Goth. *qino* ‘woman’, Gk. *γυνή* ‘woman’
- PIE $*g^{wh}en-$, $*g^{wh}n-$ > PBS $*\acute{g}en-$, $*\acute{g}i/un-$ ‘chase’ (3.2.6) > PS INF $*\acute{g}u'nātēi$ (CS $*\acute{g}ŭnāti$) (a.p. b), PS PRS.1SG $*\acute{g}e'nān$ (CS $*\acute{z}enō$), Lith. *giñti* ‘chase’, Latv. *dzīt* ‘chase’; Ved. *hánti* ‘strikes; slays’; Gk. *θείνω* ‘kill’

3.2.3. *Ruki* change

At a pre-stage of Proto-Balto-Slavic and Proto-Indo-Iranian, PIE *s develops an allophone *[s̥] (> PBS *š; PIIr. *ś > Ved. ś, Av. š) after *ī ī ũ ũ r K (where *K represents voiceless, voiced unaspirated and voiced aspirated palatal, plain and velar dorsals). PBS *š yields PS (CS) *x, Lith. š, and Latv. s, OPr. s (merging again with the reflex of PIE *s).

- PIE *urs- (from *uerš- ‘high place’) > PBS *uiršu- > PS uir’xu (CS *vīrxū) M u-stem (a.p. b) ‘top’, Lith. viršūs M (a.p. 4) ‘top’, Latv. vīrsus M ‘upper part; top’; cf. Ved. várṣman- M ‘top’; OIr. ferr ‘better’, Goth. wairs ‘worse’
- PIE *moisó- ‘sheep; sheep skin’ > PBS *maiša- > PS *maišə (CS *mēxū) (a.p. c) ‘bag (made from skin)’, Lith. maišas (a.p. 4) ‘bag; sack’, Latv. mēiss ‘bag’, OPr. (*Elbing Vocabulary*) moasis ‘bellows’; cf. Ved. meṣá- M ‘ram’; ONor. meiss M ‘basket’
- PIE *snusó- F ‘daughter-in-law’ > PBS *snušā > PS *snu’xā (CS *snūxā) (a.p. b/c); cf. Ved. snuṣā- F; cf. Lat. nurus F, OEng. snoru F, Gk. ννός F
- PIE o-stem LOC.PL *-oisu > PBS *-aišu > PS *-aixu (CS *-ēxū); for Lithuanian see below; cf. Ved. -eṣu, Av. -aēšū

Before an obstruent PBS *š reverts to *s in Slavic:

- PIE *pr̥s-to- > PBS *piršta- M/N ‘finger’ > PS *pirstə (CS *pīrstū) (a.p. b) ‘finger’, Lith. pirštas (a.p. 2), Latv. pir(k)sts, OPr. pirsten ‘finger’; cf. Ved. pr̥sthá- N ‘back; mountain ridge’

In Slavic, *ruki* *x is subsequently generalised almost everywhere there is an alternation between *s and *x; but in Lithuanian it is the non-*ruki* s that is generalised

- PS ā-stem LOC.PL *gāl’u-āxu (CS *gol’v-āxū) from *-āsu by analogy with o-stem PS *-aixu (CS *-ēxū), i-stem *-ixu (*-īxū), u-stem *-uxu (*-ūxū)
- cf. Lith. o-stem LOC.PL *linguosė*, i-stem *mintysė*, u-stem *sūnuosė* with *-š- replaced by -s- by analogy with ā-stem *galvosė*

According to Andersen (1968), the different trajectories taken by Slavic and Lithuanian can be explained by the outcome of PIE *k̂:

- in Slavic, *k̂ becomes *s: an alternation between *s and *x can be synchronically derived from an underlying *x (but not from *s) – therefore *x is generalised in Slavic

- in Lithuanian, conversely, PIE $*\hat{k}$ becomes $\acute{s}$: thus an alternation between s and $\acute{s}$ can be synchronically derived from an underlying s (but not from $\acute{s}$) – therefore s is generalised in Lithuanian

3.2.4. Loss of laryngeals

The PIE laryngeals $*h_1$ h_2 h_3 were lost to different degrees in all Indo-European subgroups. Balto-Slavic has no traces of laryngeals (a) word-initially before a consonant, as opposed to Anatolian, Greek, Armenian and Phrygian; (b) word-initially before a vowel, as opposed to Anatolian; (c) between vowels.

Syllable-final laryngeals are also lost in pre-Proto-Balto-Slavic, but when this happens, a preceding vowel is lengthened and becomes acute (see 9.3.1), also across an intervening resonant (Olander 2009: 151–152; 2015: 47–48; cf. Jasanoff 2017: 74–103; Villanueva Svensson 2023).

- PIE $*doh_3tēj$ > PBS $*'dōtēj$ > PS $*'dātēj$ (CS $*dǎti$) ‘give’, Lith. *dúoti* ‘give’, Latv. *duôt*, *duōt* ‘give’
- PIE $*g^werh_3tēj$ > PBS $*ger'tēj$ > PS $*gēr'tēj$ (CS $*žerti$) ‘devour’, Lith. *gérti* ‘drink’, Latv. *dzeft* ‘drink’ – the acute accent does not surface in Slavic due Meillet’s Law (3.3.2)
- PIE $*tenh_2uós$ > PBS $*'tenyas$ > Lith. (Žem.) *tėvas* (a.p. 3) adj. ‘thin, slender’, Latv. *tiēvs* adj. ‘thin, slender’

Another possible source of acute tone are PIE plain long vowels, but this is disputed (see 9.3.1).

Between consonants it seems likely that the three laryngeals yielded PBS $*a$, although examples are difficult to find.

- PIE $*sth_2-tó-$ PST.PTCP.PASS > PBS $*'stata-$ in Lith. *statýti* ‘

3.2.5. Hirt’s Law

In pre-Proto-Balto-Slavic the accent is retracted from the accented syllable to an immediately preceding syllable which ends in a postvocalic laryngeal (Olander 2009, xxx).

- PIE $*p_lh_1nós$ > PBS $*'p_lnas$ > PS $*'p_lnā$ (CS $*p_lnǔ$) (a.p. a); Lith. *pilnas* (a.p. 1), Latv. *piļns*
- PIE $*d^huhmós$ > PBS $*'dūmas$ > PS $*'dūmā$ (CS $*dýmǔ$) (a.p. a); Lith. *dúmai* (a.p. 1), Latv. *dūmi*
- PIE $*grih_3uáh_2$ > PBS $*'grīuā$ > PS $*'grīuā$ (CS $*gríva$) (a.p. a); Latv. *grīva*

3.2.6. Diphthongisation of syllabic sonorants

The Baltic and Slavic languages have two different outcomes of PIE $*R$ ($*l̥ r̥ m̥ n̥$): $*iR$ and $*uR$ (see the overview in [Hock 2004: 6–7](#)). The normal outcome is PBS $*iR$, which is the most frequent outcome in roots and the only outcome in all inflectional endings. We also find PBS $*iR$ when the ablaut alternations are preserved, e.g. Lith. *ki̇r̃pti* ‘cut’, prs. *kėr̃pa*, past *ki̇r̃po*.

- PIE $*h_2u̯l̥h_1nah_2-$ F ‘wool’ > PBS $*u̯ilnā$ > PS $*u̯ilna$ (CS $*vīlna$) (a.p. *a*); Lith. *vīlna* (a.p. 1), Latv. *vilna*; cf. Hitt. *ḫulana-*, Lat. *lāna*, OIr. *olann*, Goth. *wulla*, Gk. *λῆνος* N, Ved. *úrṇā-*, YAv. *varəṇā-*
- PIE $*k̑ér-$, $*k̑erd-$, $*k̑rd-$ N ‘heart’ > PBS $*šird-$ > PS $*širdika$ (CS $*širdice$), Lith. *širdis* F (a.p. 3), Latv. *si̇r̃ds* F, OPr. *seyr*; cf. Hitt. *ker*, *kard(i)-* N, Lat. *cor* (stem *cord-*), OIr. *cride*, Goth. *hairto*, Gk. *κῆρ*, *καρδίᾱ*, Hom. Gk. *καρδίη*, Arm. *sirt*
- PIE *i*-st. NOM.SG $*m̑nt-ís$ ‘thought’ > PBS $*m̑ntiš$ (> Lith. *at-mintis*) > PS $*pā-minti$ (CS $*pa-męti$) > OCS *pa-męti* ‘memory’
- PIE num. $*deḱm-tí-$ ‘ten’ > PBS $*dešimti$ (Lith. *dėšimt*, *dėšimtis*) > PS $*desinti$ (CS $*děseti$) > OCS *desęti*

In some cases we find $*uR$.

- PIE $*gʷr̥h_3-tlo-$ N > PBS $*gurtla-$ > PS $*gūrtla-$ (CS $*gūrdlo-$ (a.p. *a*) ‘throat’, Lith. *gurkl̃ys* M (a.p. 3) ‘crop (of birds), crawl’

The double outcome has not found a good explanation (cf. e.g. [Stang 1966: 77–82](#); [Hock 2004: 6–7](#); [Matasović 2004](#)). It has been suggested that the *u*-outcome is due to dialect mixture with an extinct Indo-European dialect that had $*uR$ from PIE $*R$; this dialect would have been a *centum* dialect since the Balto-Slavic words with *centum* reflexes as a rule also have *uR*. Others assume that *i* is the regular zero-grade outcome in roots with *e* in the full grade, whereas *u* appears in the zero grade of roots with *o* in the full grade. Still others ascribe *u* to expressive formations or loanwords.

3.2.7. Accentual mobility

In pre-Proto-Balto-Slavic certain word-forms accented on the ending in PIE receive initial accent (or, perhaps more precisely, become unaccented). The formulation is disputed (see [Olander 2009](#); [Jasanoff 2017](#)). Some authors consider it to be in principle inherited from PIE, others purely analogical, still others as the result of a sound law plus systematic analogical processes, still others as the result of a sound law.

My own suggestion (the “Mobility Law”) is that at some point in pre-Proto-Balto-Slavic a high tone became low (i.e. accented words became unaccented) if it was on a short final vowel or on a final hiatal structure: $\mu[+H] > [-H] / C_o\#$.

Two synchronic prosodic rules of Proto-Slavic find a natural diachronic explanation if one accepts that the Proto-Balto-Slavic accentual mobility is the result of accent loss (Andersen 2009a). The example word without clitics is PBS ACC.SG $*g\tilde{a}l\tilde{u}\tilde{a}m > PS *g\tilde{a}l\tilde{u}\tilde{a}n$ (CS $*g\tilde{o}lv\varphi > Ru. g\acute{o}lovu$, BCMS $gl\grave{a}vu$ ‘head’.

ŠAXMATOV’S LAW in Slavic: “initially accented” word-forms in the mobile accent paradigms (i.e. unaccented) give up their accent to a preceding preposition.

- Ru. *ná gólovu*, BCMS. *nā glāvu* ‘on the head’ from PS $*n\tilde{a} g\tilde{a}l\tilde{u}\tilde{a}n$ (CS $*n\tilde{a} g\tilde{o}lv\varphi$) $< PBS *n\tilde{a} g\tilde{a}l\tilde{u}\tilde{a}m$

VASIL’EV-DOLOBKO’S LAW in Slavic: “initially accented” word-forms in the mobile accent paradigms (i.e. unaccented) give up their accent to a following enclitic – the accent is not lost by the Mobility Law since it is on a non-final syllable.

- e.g. OESL. *golovu tú* ‘this head’ from PS $*g\tilde{a}l\tilde{u}\tilde{a}n \tilde{t}\tilde{a}n$ (CS $*g\tilde{o}lv\varphi t\grave{o}$) $< PBS *g\tilde{a}l\tilde{u}\tilde{a}m t\tilde{a}m$

3.2.8. Winter’s Law

Before the deaspiration of voiced aspirated stops in pre-Proto-Balto-Slavic (3.2.9) a vowel is lengthened and becomes acute, also across a resonant, in front of voiced unaspirated stops (PIE $*b d g g^w \tilde{g}$), but not in front of voiced aspirated stops (PIE $*b^h d^h g^h g^{wh} \tilde{g}^h$).

- PIE $*sed-$ ‘sit’ (cf. La. *sedeō*) $> PBS *s\tilde{e}d- > PS *s\tilde{e}d- > CS *s\tilde{e}d- > OCS s\tilde{e}d-$, Lith. *sėd-*
- PIE $*h_2melg-$ ‘milk’ (cf. Gk. *μέλγω*, OEng. *melcan*) $> PBS *m\tilde{e}l\tilde{z}- > PS inf. *m\tilde{e}l\tilde{z}t\tilde{e}j > CS *m\tilde{e}l\tilde{z}ti$, Lith. *mīlžti mēlžu* (across a resonant)
- cf. PIE $*u\tilde{e}d^h-$ ‘lead’ $> PBS *u\tilde{e}d- > OCS ved-$, Lith. *ved-*

3.2.9. Deaspiration of voiced aspirated stops

Like in Albanian and Anatolian, at a pre-stage of Balto-Slavic the voiced aspirated stops (**b^h* *d^h* *ǵ^h* *g^h* *g^{wh}*) lose their aspiration and merge with the voiced unaspirated stops (**b* *d* *ǵ* *g* *g^w*). This change is later than Winter's Law (3.2.8), which requires a distinction between voiced unaspirated and voiced unaspirated stops.

- PIE **b^her-* 'carry' > PBS **ber-* > PS **ber-* 'take' (CS **ber-*) (> OCS INF *bŕati*, PRS.3SG *beretŭ*), Lith. *beŕti* 'scatter', Latv. *bērt* 'scatter'; cf. Lat. *ferō* 'carry', Goth. *bairan* 'carry', Gk. *φέρω* 'carry', Ved. *bhárati* 'carry'
- PIE **uēd^h-* 'lead' > PBS **uēd-* > PS **uēd-* (CS **ved-*) (> OCS INF *vesti*, PRS.3SG *vedetŭ*), Lith. INF *vèsti*, PRS.3SG *vėda*

3.2.10. Delabialisation of **o* to **a*

PIE **o* and **a* merge in PBS **a*, like in Germanic and Albanian. Since Winter's Law (3.2.8) produces different outcomes of lengthened PIE **o* and **a* in Baltic, it must precede their merger.

- PIE **h₂óui-* 'sheep' > PBS **avi-* > PS **auī'kā* (CS **ovīcā*) F (a.p. c), Lith. *avīs* F (a.p. 4); cf. Lat. *ovīs* F 'sheep', Gk. *οἷς* M/F 'sheep', Ved. *ávi-* M/F 'sheep; ram'
- PIE **tok^wó-* 'course; stream' > PBS **taka-* M > PS **takə* (CS **tōkŭ*) (a.p. c), Lith. *tākas* (a.p. 4) '(foot-)path', Latv. *taks* '(foot-)path'; YAv. *taka-* M 'course'
- PIE num. **h₃ok^tóh₁* 'eight' > PBS **aštā* > (with remade final part) PS **a'smi* (CS **òsmŭ*) (a.p. b), Lith. *aštuoni*, Latv. *astuôņi*; cf. Lat. *octō*, Gk. *ὀκτώ*, Ved. *aṣṭáu*

3.2.11. Dissimilation of dental stops to **s* plus stop

At a pre-stage of Proto-Balto-Slavic, the first dental stop of dental stop clusters becomes a sibilant: PIE **TT* > PBS > PS **sT*. The same outcome is seen in Tocharian, Greek and Iranian.

- PIE *i*-stem LOC.SG **uēd^h-tēj* (from **uēd^h-ti-* from **uēd^h-* 'lead') > PBS **ues'tēj* > PS INF **ues'tēj* (CS **vesti*) > OCS *vesti* (cf. PRS *vedp*); Lith. *vèsti* (cf. PRS *vedŭ*)

For Slavic see Andersen (1998a), 425–426.

3.2.12. Loss of word-final stops

Word-final stops are lost in pre-Proto-Balto-Slavic (but cf. 3.3.5).

- PIE PRS.INJ.ACT.3SG **uéd^hed* > PBS, PS **uēde* > CS **věde* 'led'
- PIE dem. pron. NOM-ACC.SG.N **tód* 'that' > PBS **ta* > PS **ta* (CS **tō*)

The last example, with a short vowel before original **-d*, shows that that before Winter's Law (lengthening before PIE **b d ĝ g gʷ*; see 3.2.8) final voiced stops either became devoiced, or had already been lost. If not, we would have had PS *,tā* (CS *ta*).

3.2.13. Regressive voicing assimilation of obstruents

Balto-Slavic has regressive voicing assimilation of obstruents.

- PIE *i*-stem LOC.SG **ueĝh-tēi* (from **ueĝh-ti*- from **ueĝh-* 'carry') > PBS **ues'tēi* > PS INF **ues'tēi* (CS **vesti*) > OCS *vesti* (cf. PRS *vedo*); Lith. *vēžti* (pronounced [št]; cf. PRS *vežti*)
- PIE **misdh-* 'reward' > PBS **miz'dā* > PS **miz'dā* (CS **mizdā*) > OCS *mizda*

In Ukrainian, a voiced obstruent appears before a voiceless obstruent in cases like *vezti* [vez'ti]. This is not an archaism (Andersen 1969), but the result of an analogical reintroduction of the voiced obstruent from prevocalic allomorphs, e.g. PRS.3SG *vezé*. The reintroduction was made possible when new clusters of voiced plus voiceless obstruent arose following the loss of reduced vowels (3.4.12), e.g. Ukr. *dúžka* ['duʒka] 'handle' (from CS **dōžika*, from CS **doga* a.p. *b* 'arc').

3.2.14. PIE **ēu* in Balto-Slavic

The development of PIE **ēu* in Balto-Slavic is complicated. When the sequence **ēu* occurred before a consonant or in final position, it apparently yielded **iau* in all cases.

- PIE **leudh-* > **leud-* > PBS **liaud-*, which yielded Lith. *liáudis* (a.p. 1) and PS **liaud-*, CS **ljud-* 'people'
- PIE **kéud-* > **kēud-* > PBS, PS **kīāud-*, CS **čūd-*, OCS *čudo* 'miracle'

Otherwise **eu* became **au* before a vowel.

- *u*-stem NOM.PL **-eues* > PBS **-aues* > PS *-aue*, CS **-ove*, e.g. OCS *synove* 'sons'

In endings **i* was lost again in analogy with endings with preserved **ēu* (before a vowel).

- PIE *u*-stem LOC.SG **-ēu* > **iāu* → PBS, PS **-āu*, CS **-u*, e.g. OCS *synu* 'son'

3.3. Sound changes from Proto-Balto-Slavic to Proto-Slavic

3.3.1. Dybo's Law

By Dybo's Law the accent is advanced from an accented non-acute syllable to a following syllable.

- pre-PS $\bar{a}$ -stem NOM.SG $*'gen\bar{a}$ 'woman; wife' > PS $*ge'n\bar{a}$ (CS $*ženà$)
- pre-PS ACC.SG $*'gen\bar{a}m$ (from $*'gen\bar{a}$) > PS $*ge'n\bar{a}n$ (CS $*ženò$)

Dybo's Law does not affect the non-desinentially accented word-forms of accent paradigm *c* lexemes since such word-forms with "initial" accent were in fact phonologically unaccented.

- PBS, PS ACC.SG $*'nag\bar{a}n$ (from $na'g\bar{a}$ F 'foot, leg') (CS $*nògø$)

Some authors assume that Dybo's Law DID affect accent paradigm *c* lexemes – however, it did not target the unaccented word-forms, but such desinentially accented word-forms that had a disyllabic ending where the first syllable was non-acute ([Rasmussen 1999: 478](#); [Olander 2004; 2009: 142–143](#)).

- PBS PRS.3SG $*ne'seti$ (from $*nes-$ 'carry') > PS $*nese'ti$ (CS $nesèti$)
- PBS INSTR.PL $*ga'stim\bar{i}s$ (from $*_{,}gastiš$ 'guest' a.p. II) > PS $*gasti'm\bar{i}$ (CS $*gost\bar{i}mi$)
- cf. PBS INSTR.PL $*gal'_{\bar{u}}\bar{a}m\bar{i}s$ (from $*gal'_{\bar{u}}\bar{a}$ 'head' a.p. II) > PS $*gāl'_{\bar{u}}\bar{a}m\bar{i}$ (CS $*golv\bar{a}mi$) with no accent advancement from a non-acute syllable

Cf. Saussure's Law in Lithuanian ([9.6.1](#)), according to which the accent is advanced from a non-acute syllable to a following acute syllable.

- PIE $*h_3m\acute{i}g^{hl}ah_2-$ F 'fog' > PBS $*'migl\bar{a}$ > Lith. *miglà*; cf. PS $*mi'gl\bar{a}$ (CS $*m\grave{i}gl\bar{a}$); Gk. $\acute{o}\mu\acute{\iota}\chi\lambda\eta$
- PBS INSTR.PL $*ga'stim\bar{i}s$ (from $*_{,}gastiš$ 'guest' a.p. II) > Lith. *gastimìs*

Contrary to Dybo's Law, Saussure's law does affect the initial syllable of originally unaccented word-forms, indicating that when Saussure's Law operated, these words had become accented. For the similarities and differences between Saussure's Law and Dybo's Law see [Olander \(2009\)](#), 116.

3.3.2. Meillet's Law

In Slavic the distinction between acute and non-acute syllables is lost in unaccented position, including the first syllable of unaccented word-forms.

- PBS **nōgām* (acute tone) > PS adj. ACC.SG.F **nāgān* (CS **nāgo*) ‘naked’
- PBS **zeimām* (circumflex tone) > PS ACC.SG **zeimān* (CS **zīmo*) F ‘winter’

This leads to a merger of Proto-Balto-Slavic mobile words with acute and non-acute roots (i.e. words with a.p. 3 and 4 in Lithuanian) as a.p. c in Slavic (9.3.2).

- PBS **gāl'uā* F (a.p. II) ‘head’, ACC.SG **gāl'uām* (> Lith. *galvā*, *gálvq* (a.p. 3)) > PS **gāl'uā*, **gāl'uān* > CS **golvā*, **gōlvq* > Ru. *golová*, *gólovu*, BCMS *gláva*, *glāvu*
- cf. PBS **bar'dā* F (a.p. II) ‘beard’, ACC.SG **bardām* (> Lith. *barzdā*, *bařzdq* (a.p. 4); Latv. *bārda*) > PS **bar'dā*, **bardān* > CS **bordā*, **bōrdq* > Ru. *borodá*, *bórodu*, BCMS *bráda*, *brādu*

3.3.3. Delabialisation of **ō* to **ā*

In Slavic, but not in Baltic, PBS **ō* is delabialised to **ā*, thereby merging with PBS **ā*.

- PIE **mah₂tér-* F ‘mother’ > PBS **'māter-* > PS **'māter-* (CS **māter-*) (a.p. a); cf. OLith., dial. Lith. *mótė* ‘wife; mother’ (a.p. 1/3), Latv. *māte*; Lat. *māter*, OIr. *máthir*, Gk. *μήτηρ*, Ved. *mātár-*, OAv., YAv. *mātar-*
- PIE **b^hráh₂ter-* M ‘brother’ > PBS **brāter-* > PS **brātrā* (CS **brātrū*) (a.p. a); cf. Lith. *broterėlis*, *brólis* (a.p. 1/3), Latv. *brālis*; TochB *procer*, TochA *pracar*, Lat. *frāter*, Goth. *broþar*, Gk. *φρᾱτήρ* ‘member of a phratría’, Ved. *bhrátar-*, OAv., YAv. *brātar-*
- PIE **nog^wó-* adj. ‘naked’ > (by Winter's Law, 3.2.8) PBS **nōga-* > PS **nāgā* (CS **nāgǔ*) (a.p. c); cf. Lith. *núogas* (a.p. 3), Latv. *nuōgs*; Lat. *nūdus*, Goth. *naqaps*, Ved. *nagná-*

3.3.4. Loss of word-final fricatives

PIE final **s* is preserved in Baltic, but not in Slavic. According to many authors, final **s* disappeared tracelessly in Slavic; others maintain that a final **s* affected the quality of a preceding vowel in pre-Proto-Slavic. It is difficult to speak of a *communis opinio*.

A limited version states that only **oi* was affected by a word-final **s*, **-ois* becoming CS **-i* (not **-ě*) (Kortlandt 2011a: 177–178):

- PIE pron. NOM.PL.M **-oi* plus analogical **-s* > **-ois* > CS **vīlci* ‘wolves’

- PIE PRS.IMPV.ACT.2SG **oih₁s* > CS impv. **vedi* ‘lead’

According to this view, forms like OCS *o*-stem NOM.SG *vlikŭ* ‘wolf’ must be analogical for **vliko*; the ending *-ŭ* may have been taken over from *u*-stem NOM.SG (e.g. OCS *synŭ* ‘son’ < PIE **suHnús*) or from *o*-stem ACC.SG (e.g. OCS *vlikŭ* < PIE **u₁lk^wom*), where *-ŭ* < **-om* is regular (see 3.3.5).

A relatively widespread view maintains that **o* was also affected, **-os* regularly becoming CS **-ŭ*:

- PIE *o*-stem NOM.SG.M **-os* > CS **vilkŭ* ‘wolf’

Within this framework it is problematic that neuter *s*-stem NOM-ACC.SG shows *-o*, not *-ŭ* as expected.

- OCS *slovo* ‘word’ from PIE **kléuos* (cf. Ved. *śrávaḥ*, Gk. *κλέος*)

These forms may have analogical *-o*, ultimately from pronouns (**tód* > OCS *to* etc.).

An extended version claims that pre-PS **ā* (from PIE **ah₂*) was also affected, pre-PS **-ās* becoming CS **-y* (Meillet 1897: 96, 104, 125).

- PIE *ā*-stem GEN.SG **-ah₂s* > pre-PS **-ās* > CS **golvŷ*
- PIE *ā*-stem NOM.PL **-ah₂as* > pre-PS **-ās* > CS **golvŷ*

An even more extended version claims that any pre-PS **ǣ* in a final syllable ending in **s* is affected, and that the Old Novgorod dialect has a different outcome (Olander 2012; 2015: 56–57; Viredaz 2009; partly Zaliznjak 2004: 148–149): pre-PS **a ā* > PS **ǣ ā* > Classical CS **ŭ y* (merging with PS **u ū*) || Old Novgorod dialect *e ě* (merging with PS **e ē*).

- PIE M *o*-stem NOM.SG **-os* > pre-PS **-as* > PS **xlāibə* > OCS *xlěbŭ*, ONovg. *xlěbe*
- PIE *ā*-stem GEN.SG **-ah₂(a)s*, *ā*-stem NOM.PL **-ah₂as* > pre-PS **-ās* > PS **ge'nā* > Classical CS **ženŷ* || OCS *grivně*

3.3.5. Loss of word-final nasals

Final **m* is lost after a short vowel in pre-Proto-Slavic; a preceding PIE **o* becomes PS **u* > CS **ŭ*.

- PIE M *o*-stem ACC.SG **-om* > PS **u₁lku* > CS **vilkŭ*
- PIE thematic secondary ending 1SG **-om* > OCS aor. *sěd-ŭ* ‘I sat down’

According to the *communis opinio* final **n* also disappears after a short vowel in Slavic, except if preserved by a final dental.

- PIE thematic secondary ending 1SG **-om* > OCS aor. *sěd-ŭ* ‘I sat down’
- PIE thematic secondary ending 3PL **-ond* > OCS aor. *sěd-ŕ* ‘they sat down’

This would mean that the loss of word-final stops took place independently in Baltic and Slavic. An alternative hypothesis would be to ascribe the loss of word-final stops to the pre-Proto-Balto-Slavic period, and to assume that the different outcomes of PIE **-ŷm* and **-ŷnd* in Slavic is conditioned by the different nasals (**m* vs. **n*) (Olander 2010; but cf. Hill 2013: 172 n. 7). In the alternative scenario, **m* disappears after a short vowel in Slavic, whereas final **n* is preserved and eventually forms a nasal vowel with the preceding vowel.

- PIE PST.3PL **-ond* > PBS, PS **-an* > CS **-ŕ* > OCS *sěd-ŕ* ‘they sat down’
- PIE *n*-stem NOM-ACC.SG.N **-n̥* > PBS, PS **-in* > CS **-e* > OCS *im-e*

3.3.6. Loss of syllable-final stops

- PIE **g^hreb^h-* ‘dig’ + infinitive marker **-tēj*: PS **gre'tēj* > CS **greti* ‘row, dig’ > OCS *greti* (prs. *grebŕ*)

Before a back vowel PS **kt* and **gd* yield CS **t* and **d*. However, **kt gd* before front vowels merge with **tj dī* in CS **tj dī*

- PIE **nók^wt-* F ‘night’ > PS **_inakti* > CS **nōt'ŷ* > OCS *noštŷ*, OESl. *nočŷ*, Po. *noc*, etc.

3.4. Common Slavic phonological developments

3.4.1. First Palatalisation

Before front vowels and **j*, PS **k g x* are palatalised to CS **č ž š*.

- PIE **kes-* ‘comb’ > PS **kes'ātāj* (CS **česāti*)
- PIE **g^wi^huó-* adj. ‘alive’ > PBS **_igīua-* > PS **_igīuā-* (CS **živŷ*) adj. (a.p. c); cf. Lith. *gývas* (a.p. 3), Latv. *dzīvs*
- PIE NOM-ACC.DU **h₂a_us-ih₁* ‘ears’ > PBS **_iaušŷ* > PS **_iaušī* (CS **ušī*); cf. PS NOM-ACC.SG **_iauxa* (CS **ušo*); Lith. *ausis* F (a.p. 4) ‘ear’, Latv. *auss* F ‘ear’

Note that in Klotz (2023) the First Palatalisation is considered to be pre-Proto-Slavic.

3.4.2. Fronting of vowels after palatal consonants

One of the defining changes of the Slavic vowel system was the fronting of non-front vowels after palatal consonants: PS **a ā u ū ə ē* appear as CS **o a ŭ y ŭ||e y||ě* after non-palatal consonants, but **e ě i ī ě(?)* after palatal consonants.

- PIE **mori-* N ‘sea’ > PBS **marja-* > PS **marja* (CS **mōrie*) (a.p. 2) ‘sea’; cf. Lith. *mārios* PL (a.p. 2) ‘isthmus; (dial.) sea’; Lat. *mare*, OIr. *muir*, Goth. *marei* F
- PIE PRS.3SG **sjuh-je-ti* ‘sews’ > PBS **sjujēti* > PS **sjujēti* (CS **šijeti*); cf. Lith. INF *siúti*, PRS.3SG *siùva*, Latv. *šūt*; Lat. *suō*, Goth. *siujan*, Ved. *śívyati*

3.4.3. Monophthongisation of oral diphthongs

The Proto-Slavic oral diphthongs **ǣ ěj ǣu ǣu* are monophthongised to CS **ě i u (j)u*.

- PIE **loikʷó-* > PBS **laika-* > PS **laikə* (CS **lěkü*) > OCS *otŭ-lěkü* ‘rest’; cf. Lith. *laikas* (a.p. 4) ‘time; period’; Latv. *laiks* ‘time’; Gk. *λοιπός* adj. ‘remaining’; Ved. *pra-rekā-* M ‘abundance’
- PIE [pf.1sg] **uóid-h₂a + i* > PBS **uāida* > PS **uāida* (CS **vědě*); cf. Lat. *uīdī*, Goth. *wait*, Gk. *oída*, Ved. *vēda*
- PIE **kʷoijnāh₂-* > PBS **kai'nā* > PS **kai'nā* (CS **cěnā*) (a.p. c) ‘price; value’; cf. Lith. *káina* (a.p. 2/4) ‘price; value’; Latv. *ciens* ‘respect’; cf. Gk. *ποινή* ‘penance; penalty’; Av. *kaēnā-* penance; penalty’
- PIE **h₁eǵ-* ‘go’ > PBS INF **eǵtē* > PS **eǵtē* (CS **iti*); cf. Lith. *eiti*, Latv. *iēt*; Lat. *eō* Gk. *εἶμι*, Ved. *éti*
- PIE **ǵʰéim-* ‘winter; snow’ > PBS **zeimā* F ‘winter’ > PS **zeimā* (CS **zimā*) (a.p. c); Lith. *žiemà* (a.p. 4), Latv. *ziema*; cf. Ved. *himá-* M ‘cold’; OAv. *zimō* GEN.SG.M ‘in winter’; YAv. *ziiā* M ‘winter’; Hitt. [dat-loc.sg] *giemi* ‘in winter’; Lat. *hiems* F ‘winter; storm’; Gk. *χίον* F ‘snow’
- PIE **h₁roudh₂o-* adj. ‘red’ > PBS **rauda-* > PS **raudə* (CS **rūdŭ*) (a.p. c); cf. Lith. *raūdas* ‘reddish brown’ (a.p. 4), Latv. *raūds* ‘red; reddish brown’; Lat. dial. *rufus* ‘red-haired’; OIr. *rúad* ‘red’; Goth. *rauþs* ‘red’
- PIE **bʰouǵh₂-* ‘awaken’ > PBS **baud-* > PS **baudeiti* (CS **buditī||ŭ*) (a.p. c) ‘awaken’; cf. Lith. *baūsti* ‘incite’, *báudyti* ‘incite’, Latv. *baūdīt* / *bāudīt* ‘incite’, OPr. *etbaudints* [pst.pass.ptcp] ‘awakened’; Ved. *bodháyati* ‘awaken’
- PIE **bʰeudʰ-* ‘become aware’ > PBS **bjaud-* (3.2.14) > PS PRS.3SG **bjaude'ti* (CS **blūdētī||ŭ*) (a.p. c) ‘watch; observe’; cf. Gk. *πεύθομαι* ‘give notice’; Ved. *bódhati* ‘observe’

3.4.4. Second Palatalisation

After the monophthongisation of PS $*a\bar{i}$ $\bar{a}\bar{i}$ to $*\bar{e}$ $\bar{i}$, the Slavic velars (PS $*k$ g x) underwent a second round of palatalisations, this time to CS $*c$ z $š$, in two positions:

- 1 before the new front vowels CS $\bar{e}$ and $\bar{i}$
- 2 between PS $*\bar{i}(n)$ and a non-high vowel ($*\bar{a}$ or $*\bar{a}$)

Formula: PS $*k$ g x > CS $*c$ z $š$ / $_{-(u)}V[+front]$ (“Second Palatalisation”) and $\bar{i}(n)_{-}V[-high]$ (“Third Palatalisation”)

Note that CS $*š$ is a shorthand for the outcome $*s$ in South and East Slavic and $*š$ in West Slavic.

In most Slavic dialects CS $*z$ is simplified to z , but in Polish it is retained as dz .

- PIE $*k^{wo}i\acute{n}á\acute{h}_2$ > PBS $*ka\bar{i}'n\bar{a}$ (> Lith. *káina* F (a.p. 1) ‘price’) > PS $*ka\bar{i}'n\bar{a}$ > CS $*c\bar{e}n\bar{a}$ F ‘price, value’ > OCS *cěna*, Bulg. *cená*, BCMS *cijèna*, Ru. *cená*, Cz., Po. *cena*
- PIE $*h_3nog^{wh}-áh_2a\bar{i}$, DAT.SG of $*h_3nog^{wh}-áh_2$ F ‘nail, hoof’ (cf. Gk. *ὄνυξ* M ‘nail, hoof’; OHG *nagal* M ‘nail’) > PBS $*nag\bar{a}\bar{i}$ (> Lith. *nāgai*) > PS $*nag\bar{a}\bar{i}$ > CS $*n\bar{o}z\bar{e}$ ‘foot, leg’ (NOM.SG $*nog\bar{a}$) > OCS *nožě* (NOM.SG *noga*), BCMS *nòzi* (NOM.SG *nòga*), Cz. *noze* (NOM.SG *noha*), Po. *nodze* (NOM.SG *noga*)
- PS $*xa\bar{i}r-$ > CS $*š\bar{e}r-$ adj. ‘grey’ > Sln. *šér*, Ru. *šéryj*; Cz., Slk. *šerý*, Po. *szary*; ONovg. GEN.SG.F *xěri* ‘of a grey cloth’

The palatalisation across $*u$ (PS $*ku$, $*gu$, $*xu$ > CS $*cv$, $*zv$, $*šv$) takes place in South Slavic and some East Slavic dialects, but not in West Slavic and other East Slavic dialects.

- PS $*ku\bar{a}i\bar{t}-$ ‘flower’ > OCS *cvětŭ*, Ru. *cvét*, but Cz. *květ*, Po. *kwiat*; Ukr. *kvít* alongside *cvít*

The Old Novgorod dialect is only partly affected: there is no regressive palatalisation and probably no progressive palatalisation of $*x$ and perhaps $*g$ (see 1.1.3).

- ONovg. *o*-stem pron. adj. NOM.SG.M *kěle* from PS $*ka\bar{i}l\bar{a}$ ‘whole’ – all other Slavic dialects have reflexes of $*c\bar{e}lŭ$

Some authors consider the Second and Third Palatalisations to be different processes (mostly with the Third Palatalisation preceding the Second Palatalisation) (e.g. Pedersen 1905; Wandl 2020).

Others consider them to be the same process as they yield exactly the same results in the Slavic dialects (e.g. Andersen 1998b: 588–589; Vermeer 2003; Olander 2015: 63–64 with further references).

3.4.5. Liquid Metathesis

The Liquid Metathesis refers to the process whereby inherited sequences of PS **ǣ* or **ě* followed by **r* or **l* undergo various changes in the Slavic languages. It is one of the diagnostics in the traditional subgrouping of Slavic (see 1.1.2). The general outcomes in the Slavic languages are shown in Table 10.

PS	CS	SSL.	ESL.	Po., LSorb., USorb.	Cz.	Slk.
*-ǣr- -ǣl-	*-or- -ol-	ra la	-oro- -olo-	-ro- -lo-	-ra- -la-	-ra- -la-
*ar- al-	*ôr- ôl-		ro- lo-	ro- lo-	ro- lo-	ra- la-
*ār- āl-	*ỗr- ỗl-		ra- la-	ra- la-	ra- la-	ra- la-
*ěr- ěl	*er el	rě lě	ere olo	re le	rě lě	re le

Table 10: The outcomes of the liquid diphthongs in the Slavic languages.

Examples:

- PS **garda* (CS **gordŭ*) M o-stem ‘fortification, town’
 - OCS *gradŭ*; Bulg. *grád*; Mac. *grad*; BCMS *grād*; Slovene *grād*
 - Ru. *górod*, BRu. *hórad*, Ukr. *hórod* – for Russian place names in *-grad* see below
 - Po. *gród*, USrb. *hród*
 - Cz. *hrad*, Slk. *hrad*
- PS **ārdla* (CS **ārdlo*) N o-stem ‘plough’
 - OCS *ralo*, Bulg. *rálo*, Mac. *ralo*, BCMS *rālo*, Slovene *rálo*
 - Ru. *rálo*, BRu. *rāla*, Ukr. *rálo*
 - Cz. *rádlo*, Slk. *radlo*, Po. *radło*, USrb. *radło*, LSorb. *radło*
- PS **ald-* (CS **old-*) ‘boat’
 - OCS *ladii* (also *alŭdii*), Bulg. *ládja*, BCMS *lāđa*, Slovene *ládja*; OESl. *lodġja*, Ru. *lódka*; Cz. *lod’*, Po. *łódź*, USrb. *łódź*
- PS **alkŭtĭ* (CS **ôlkŭtĭ*) M i-stem / ĭo-stem ‘elbow’
 - OCS *lakŭtĭ*, Bulg. *lákāt*, Mac. *lakt*, *lakot*, BCMS *lākat*, Sln. *lāket*, *lakāt*
 - Ru. *lókot’*, BRu. *lókac’*, Ukr. *líkot’*
 - Cz. *loket*, Slk. *loket’* (*laket’*), Po. *łokieć*, USorb. *łochć*
- PS **bērza* (CS **běrza*) F ā-stem ‘birch tree’
 - OCS *brěza*, Bulg. *brezá*, Mac. *breza*, SCr. *brěza*, Sln. *bréza*
 - Ru. *berěza*, BRu. *bjaróza*, Ukr. *beréza*

- Cz. *bríza* (with long $\check{e} > i$), Slk. *breza*, Po. *brzoza* (with $e > o$ before a non-palatalised dental), USrb. *brěza*, LSrb. *brjaza*
- PS $*m\check{e}lt\check{e}j$ (CS $*m\check{e}lti$) INF ‘grind, mill’
 - OCS *mlěti*, SCr. *mljěti*, Sln. *mléti*
 - Ru. *molót’*, BRu. *malóc’*, Ukr. *molóty*
 - Cz. *mlít* (with long $\check{e} > i$), Slk. *mliet’*, Po. *mleć*, USrb. *mlěć*

FUN FACT: Russian toponyms in *-grad* – e.g. Saint Petersburg’s former names *Petrográd* (1914–1924) and *Leningrád* (1924–1991); *Volgográd* and its earlier name *Stal-ingrád* (1925–1961) – have the South Slavic version. The East Slavic outcome is seen in toponyms in *-gorod* (e.g. *Nóvgorod*).

3.4.6. Common Slavic vowel contractions

The Slavic languages, including OCS, have varying degrees of vowel contractions (Andersen 2014).

- PS DEF.M–N.GEN.SG $*na'u\bar{a}-iaga$ (CS $*nova-jego$) (from PS $*na'u\bar{a}$ (CS $*n\bar{o}v\bar{u}$) adj. ‘new’ (a.p. b)) > OCS *novaego*, *novaago*, *novago*; Po. *nowego*; Cz. *nového*
- PS $*paj\bar{a}s\bar{a}$ (CS $*p\bar{o}jas\bar{u}$) M o-stem (a.p. c) ‘girdle’ > OCS *pojasŭ*, Bg. *pójas*, BCMS *pòjās*, *pās*, Sln. *pās*; Ru. *pójas*; Po. *pas*, Cz. *pás*, Slk. *pás*

3.4.7. Loss of postconsonantal $*j$

PIE (and Proto-Balto-Slavic) consonants followed by $*j$ underwent significant changes in Slavic. The first step was loss of the $*j$ with palatalisation of the preceding consonant: PIE $*Cj$ > PS $*Cj$ > CS $*Cj$ (see e.g. Andersen 1998a: 431; Olander 2015: 65).

The outcome of dental stops plus $*j$ – PS $*tj\ d\bar{j}$ (CS $*tj\ d\bar{j}$; also written $*t' d'$) – is one of the main diagnostics for the internal subgrouping of Slavic (see 1.1.2), although the South Slavic languages have diverging results.

PS	$*tj$	$*d\bar{j}$
CS	$*tj$	$*d\bar{j}$
OCS	<i>št</i>	<i>žd</i>
Bulg.	<i>št</i>	<i>žd</i>
Mac.	<i>šć</i>	<i>đ</i>
BCMS	<i>ć</i>	<i>đ</i>
Sln.	<i>č</i>	<i>j</i>
East Sl.	<i>č</i>	<i>ž</i>
West Sl.	<i>c</i>	<i>dz / z</i>

Table 11: Loss of postconsonantal *j

The reflexes of PS *sʷaj'tiā (CS *světiā) F 'light' and *me'diā (CS *mediā) F 'border' are shown in Table 12.

FUN FACT: The preposition CS *medŭ 'between' is originally a locative dual form of *medjā 'border'; the -žd- of Ru. *meždu* shows it is a borrowing from Church Slavonic.

PS	*tj	*sʷaj'tiā 'light'	*dj	*me'diā F 'border'
CS	*tj	*světiā	*dj	*mediā
OCS	št	svěsta	žd	mežda
Bulg.	št	svěšt	žd	meždá
Mac.	ć	sveća	ǵ	meǵa
BCMS	ć	svěća, svijěća	đ	měđa
Sln.	č	svěča	j	mėja
ESL.	č	Ru. svečá	ž	Ru. mežá
WSl.: Po.		świeca	dz	miedza
WSl.: Cz.	c	svíce	z	meze
WSl.: USrb.		swěca		mjeza

Table 12: Loss of postconsonantal *j: examples

PS *kt followed by a front vowel merges with PS *tj as CS *ti.

- PIE *nókʷt- F 'night' > PS *nakti (CS *nõti): OCS *nošti, Bulg. *nošt*, Mac. *noć*, BCMS *nôć*, Sln. *nǫč*; Ru. *noč'*, BRu. *noč*, Ukr. *nič*; Po. *noc*, USorb. *nóc*, LSorb. *noc*, Cz. *noc*, Slk. *noc*

Before a non-front vowel PS *kt yields CS *t.

If the consonant was a labial, *l was inserted after the consonant in Common Slavic.

- PIE *dʰǵʰem- > PS ā-stem NOM.SG *zem'iā (CS *zemlā) F 'earth'

A following front vowel may have prevented the insertion of *l.

- PS ā-stem LOC.SG *zem'iēi (CS *zemĭ)

The alternation of allomorphs with and without *lj was not tolerated, an *lj was normally generalised, e.g. Ru. *zemljá*, LOC *zemljí*.

3.4.8. Backing of *ē to *ā after palatalised consonants

After a palatalised consonant *ē becomes *ā.

- PS **gēli* > **žēli* (3.4.1) > **žāli* > CS **žǎli* F *i*-stem (a.p. *a*) ‘grief; regret’
- PS LOC.SG **zem-’iāi* > **zem-’iēi* > CS **zem’i* (3.4.3) (from PS **zem-’iā* (CS **zem-līā*) F *ā*-stem (a.p. *c*) ‘earth’)
- PS *je*-present PRS.1SG **peis-’iān* > **’iēn* > **’iān* > CS **pišǫ* (from PS **pi’sātēi* (CS **pīsǎti*) (a.p. *b*) ‘write’)

The change is later than the first palatalisation (3.4.1), the vowel fronting after palatal consonants (3.4.2), and the monophthongisation of oral diphthongs (3.4.3); cf. CS **zem’i* above, not *zeml’ě*. It takes place before the monophthongisation of nasal diphthongs (3.4.9); cf. CS **pišǫ* above, not *pišǣ*.

3.4.9. Monophthongisation of nasal diphthongs

In the Common Slavic period nasal diphthongs were monophthongised to nasal vowels: **ǣn ēn ĩn ũn* > CS **ǫ ę ę ǫ*. For the hypothesised reflexes of **ǣn* see Olander (2015: 66).

- PS **ran’kā* F *ā*-stem (a.p. *c*) ‘hand’ > CS **rǫkà*
- PS **penti* F *i*-stem (a.p. *c*) ‘five’ > CS **pětĭ*
- PS **pā-minti* F *i*-st. (a.p. *a*) ‘memory’ > CS **pǎ-metĭ*
- PS PFV.PRS.3SG **būndeti* (from PS **būtēi* (CS **bŷti*) (a.p. *a*) ‘to be’) > CS **bǫde-tĭ/ŭ*

3.4.10. Reinterpretation of vowel quantity as quality

In all Slavic languages, at some point vowel quantity was reinterpreted as vowel quality: **ī ē ā ū ŷ i e a u* > CS **i ě a u ĭ e o ŭ*. This systemic change affects all Slavic words.

The change is referred to as the “Second CS Vowel Shift (VS₂)” by Andersen (1998c).

3.4.11. Stang’s Law (Slavic)

The accent was retracted to a preceding syllable from, from reduced vowels in weak position, from short (i.e. non-acute) medial diphthongs and from contracting syllables. The syllable receiving the accent acquired neoacute tone.

- PS NOM.SG **sna’pə* M *o*-stem ‘sheaf’ (a.p. *b*): CS **snǫpŭ* ‘sheaf’ > BCMS *snǫp*, Sln. *snǫp*

- PS NOM.SG **kar'liǝ* M *o*-stem 'king' (a.p. *b*): CS **kórlǝ* 'king' > Čak. *králj*, Ru. *koról'*
- PS PRS.3PL **ma'ganti* 'they can': CS **mògotǝ* > Čak. *mòrǝ*, Ru. *mógut*
- PS PRS.2SG **pǝ'tāǝexej* 'you ask': CS **pytāǝješi* > Čak. *pítāš*; cf. uncontracted Ru. *pytāeš'*

3.4.12. The loss of the reduced vowels (jers)

The Common Slavic vowel system included the two so-called “reduced vowels”, or jers, written **ĭ ŭ* or **ь ъ* and normally reflecting PS **i u*. In “Urkirchenslavisch”, the original language of Cyril and Methodius, they may have been pronounced [ɪ ʊ].

The reduced vowels are to some extent preserved as *ĭ ŭ* in the most conservative OCS and Old East Slavic manuscripts. In most manuscripts, however, and in the remaining Slavic languages, the reduced vowels have two different types of reflexes, depending on their position in the word.

A reduced vowel is in **WEAK** position if it is the final vowel of the word, or if it is followed by a non-reduced vowel; and in **STRONG** position if it followed by a reduced vowel in weak position. This rule is referred to as “Havlík’s Law”.

- CS NOM.SG **gôrdǝ* M *o*-stem ‘fortification; town’: the final *ǝ* is in weak position
- CS NOM.SG **sǝnǝ* M *o*-stem ‘sleep; dream’: the final *ǝ* is in weak position; the initial *ǝ* is in strong position
- CS GEN.SG **sǝna* (from **sǝnǝ* M *o*-stem ‘sleep; dream’): the initial *ǝ* is in weak position

In weak position the reduced vowel disappears, although in many cases *ĭ* causes palatalisation of the preceding consonant. In strong position, the reduced vowel becomes a full vowel, with different qualities in the various Slavic languages (see Table 13).

At the time of the writing of the actual extant OCS manuscripts, the speakers had probably already lost the weak reduced vowels and replaced the strong ones with the full vowels *e o*.

In all Slavic languages reduced vowels in strong position merge with other vowels.

CS	* <i>ĩ</i>	* <i>ũ</i>
OCS	<i>ĩ</i> (<i>e</i>)	<i>ũ</i> (<i>o</i>)
Bulg.	<i>e</i>	<i>ǎ</i> [ə]
Mac.	<i>e</i>	<i>o</i>
BCMS	<i>a</i>	<i>a</i>
Sln.	<i>a</i>	<i>e</i> [ə]
East Sl.	<i>e</i>	<i>o</i>
West Sl.	<i>e</i>	<i>e</i>

Table 13: Reflexes of the reduced vowels in strong position in the Slavic languages.

Examples of reduced vowels in strong and weak position (an underlined *ũ* or *ĩ* in the Common Slavic reconstruction indicates strong position).

- PS NOM.SG **ati'kə* M *o*-stem 'father' (CS **otĩci*) > OCS *otĩci*, Bulg. *otéc* (old-fashioned), BCMS *òtac*; Ru. *otéc*; Po. *ojciec*, Cz. *otec*
- PS GEN.SG **ati'kā* (from M *o*-stem 'father') (CS **otĩcā*) > OCS *otĩca*, BCMS *òca*; Ru. *otcá*; Po. *ojca*, Cz. *otce*
- PS ACC.SG **kruŭi* (from F *ũ*-stem **krũ* 'blood') (CS **krũvĩ*) > OCS *krũvĩ* / *krovĩ*, Bulg. *krǎv*, BCMS ; OESl. *krũvĩ* / *krovĩ*, Ru. *krov'*; Po. *crew*
- PS NOM.SG **gardə* M *o*-st. 'fortification; town' (CS **gōrdũ*) > OCS *gradũ*, Bulg. *grad*, Mac. *grad*, BCMS *grād*; OESl. *gorodũ*, Ru. *górod*, BRu. *hórad*, Ukr. *hórod*; Po. *gród*, LSrb. *grod*, USrb. *hród*, Cz. *hrad*, Slk. *hrad*
- PS NOM.SG **su'nə* M *o*-st. 'sleep' (CS **sũnũ*) > OCS *sũnũ*, Bulg. *sǎn*; BCMS *sǎn*; Sln. *sèn* [sən], *snà*; Ru. *son*; Po. *sen*, Cz. *sen*
- PS GEN.SG **su'nā* (from **su'nə* M *o*-stem 'sleep') (CS **sũ'na*) > OCS *sũna*, BCMS *snā*, Sln. *snà*; Ru. *sna*; Po. *snu*, Cz. *snu* / *sna*

Reduced vowels in weak position are lost in all Slavic languages, with one exception: Polabian treats a weak reduced vowel as strong if it occurs in the word's first syllable in accented or immediately pretonic position

- CS inf. **sũpǣti* 'sleep' > Plb. *sǣpǣt*
- CS *o*-stem NOM.PL.M **pĩsi* 'dogs' > Plb. *pasai*

4. Morphology: the OCS nominal system

4.1. Nouns

4.1.1. Nominal inflectional categories

Like Common Slavic and Proto-Slavic, OCS had three nominal inflectional categories: case (nominative, accusative, genitive, dative, instrumental, locative and a vocative form), number (singular, dual and plural) and gender (masculine, feminine and neuter).

Nouns have an inherent gender and are inflected for case and number. Adjectives, non-personal pronouns and certain numerals are inflected for case, number and gender. Personal pronouns are inflected for case.

This section presents a series of tables showing the nominal inflectional paradigms of OCS. They have been adapted from Vaillant (1964). Words in parentheses are from non-canonical Church Slavonic texts (cf. 1.4.1).

4.1.2. Masculine *o*- and *jo*-stems

The vowel palatalisations (3.4.2) caused the masculine *o*- and *jo*-stems to split in two different paradigms, shown in Table 14. Example words: *gradŭ* м ‘city’; *člověku* м ‘man’; *mŏžŭ* м ‘man’; *otĭčŭ* м ‘father’.

	<i>gradŭ</i> M ‘city’	<i>člověku</i> M ‘man’	<i>mŏžŭ</i> M ‘man’	<i>otičŭ</i> M ‘father’
SINGULAR				
NOM	<i>gradŭ</i>	<i>člověku</i>	<i>mŏžŭ</i>	<i>otičŭ</i>
ACC	<i>gradŭ</i>	<i>člověka</i>	<i>mŏža</i>	<i>otiča</i>
GEN	<i>grada</i>	<i>člověka</i>	<i>mŏža</i>	<i>otiča</i>
DAT	<i>gradu</i>	<i>člověku</i>	<i>mŏžu</i>	<i>otiču</i>
INSTR	<i>gradomŭ</i>	<i>člověkomŭ</i>	<i>mŏžemŭ</i>	<i>otičemŭ</i>
LOC	<i>gradě</i>	<i>člověcě</i>	<i>mŏži</i>	<i>otiči</i>
VOC	<i>grade</i>	<i>člověcě</i>	<i>mŏžu</i>	<i>otiče</i>
DUAL				
NOM-ACC	<i>grada</i>	<i>člověka</i>	<i>mŏža</i>	<i>otiča</i>
GEN-LOC	<i>gradu</i>	<i>člověku</i>	<i>mŏžu</i>	<i>otiču</i>
DAT-INSTR	<i>gradoma</i>	<i>člověkoma</i>	<i>mŏžema</i>	<i>otičema</i>
PLURAL				
NOM	<i>gradi</i>	<i>člověci</i>	<i>mŏži</i>	<i>otiči</i>
ACC	<i>grady</i>	<i>člověky</i>	<i>mŏžę</i>	<i>otičę</i>
GEN	<i>gradŭ</i>	<i>člověku</i>	<i>mŏžŭ</i>	<i>otičŭ</i>
DAT	<i>gradomŭ</i>	<i>člověkomŭ</i>	<i>mŏžemŭ</i>	<i>otičemŭ</i>
INSTR	<i>grady</i>	<i>člověky</i>	<i>mŏži</i>	<i>otiči</i>
LOC	<i>graděxŭ</i>	<i>člověcěxŭ</i>	<i>mŏžixŭ</i>	<i>otičixŭ</i>

Table 14: Inflection of masculine *o*- and *jo*-stems.

As illustrated by *člověku*, the VOC.SG of masculine *o*-stems shows the effects of the First Palatalisation (3.4.1), and the LOC.SG, NOM.PL and LOC.PL show the effects of the Second Palatalisation (3.4.4).

4.1.3. Masculine *u*-stems

A recessive inflection in OCS – and in the other Slavic languages – is the *u*-stem paradigm, which was conflated with the *o*-stem paradigm. A few nouns appear more often with *u*-stem endings: *volŭ* ‘ox’, *domŭ* ‘house’, *polŭ* ‘half’, *vrŭxŭ* ‘top’, *rědŭ* ‘succession; order’ and, to a lesser degree, *činŭ* ‘row; order’, *medŭ* ‘honey’, *sanŭ* ‘rank; office’, *udŭ* ‘limb; body part’, *darŭ* ‘present’ (Vaillant 1964: 91). Table 15 shows the ideal inflection of an *u*-stem; in practice, however, many of the forms were substituted by *o*-stem forms, e.g. GEN.SG *syna*. Example word: *synŭ* M ‘son’.

<i>synŭ</i> M ‘son’	
SINGULAR	
NOM	<i>synŭ</i>
ACC	<i>synŭ</i>
GEN	<i>synu</i>
DAT	<i>synovi</i>
INSTR	<i>synomĭ</i>
LOC	<i>synu</i>
VOC	<i>synu</i>
DUAL	
NOM–ACC	<i>syny</i>
GEN–LOC	<i>synovu</i>
DAT–INSTR	<i>synŭma</i>
PLURAL	
NOM	<i>synove</i>
ACC	<i>syny</i>
GEN	<i>synovŭ</i>
DAT	<i>synomŭ</i>
INSTR	<i>synŭmi</i>
LOC	<i>synoxŭ</i>

Table 15: Inflection of masculine *u*-stems.

4.1.4. Neuter *o*- and *jo*-stems

Neuter *o*- and *jo*--stems also had different inflections due to the vowel palatalisations (3.4.2). The paradigms are shown in Table 16. Example words: *mĕsto* N ‘place’; *srŭdĭce* N ‘heart’; *znameniĭe* N ‘sign’.

	<i>město</i> N ‘place’	<i>srůdíce</i> N ‘heart’	<i>znamenije</i> N ‘sign’
SINGULAR			
NOM–ACC	<i>město</i>	<i>srůdíce</i>	<i>znamenije</i>
GEN	<i>města</i>	<i>srůdica</i>	<i>znamenija</i>
DAT	<i>městu</i>	<i>srůdicu</i>	<i>znameniju</i>
INSTR	<i>městomī</i>	<i>srůdicemī</i>	<i>znamenijemī</i>
LOC	<i>městě</i>	<i>srůdici</i>	<i>znamenii</i>
DUAL			
NOM–ACC	<i>městě</i>	<i>srůdici</i>	<i>znamenii</i>
GEN–LOC	<i>městu</i>	<i>srůdicu</i>	<i>znameniju</i>
DAT–INSTR	<i>městoma</i>	<i>srůdicema</i>	<i>znamenijema</i>
PLURAL			
NOM–ACC	<i>města</i>	<i>srůdica</i>	<i>znamenija</i>
GEN	<i>městů</i>	<i>srůdici</i>	<i>znamenii</i>
DAT	<i>městomů</i>	<i>srůdicemů</i>	<i>znamenijemů</i>
INSTR	<i>městy</i>	<i>srůdici</i>	<i>znamenii</i>
LOC	<i>městěxů</i>	<i>srůdicixů</i>	<i>znameniiixů</i>

Table 16: Inflection of neuter *o*- and *jo*-stems.

Neuter *o*-stems ending in a velar, e.g. *mlěko* N ‘milk’, show the effects of the Second Palatalisation (3.4.4) in the LOC.SG (*mlěcě*), NOM–ACC.DU and LOC.PL.

4.1.5. Feminine (masculine) *a*- and *ja*-stems

OCS *a*- and *ja*-stems were prevailingly feminine, but a few nouns were masculine, e.g. *sluga* ‘servant’, *junoša* ‘boy’, *spdii* ‘judge’. Due to the Common Slavic vowel palatalisations (3.4.2) the inflection of *ja*-stems differed from that of the *ah*₂-stems. The paradigms are shown in Table 17. Examples words: *žena* F ‘woman; wife’; *duša* F ‘soul’; *spdii* M ‘judge’.

	<i>žena</i> F ‘woman; wife’	<i>duša</i> F ‘soul’	<i>sōdii</i> M ‘judge’
SINGULAR			
NOM	<i>žena</i>	<i>duša</i>	<i>sōdi(i)</i>
ACC	<i>ženŋ</i>	<i>dušŋ</i>	<i>sōdijŋ</i>
GEN	<i>ženy</i>	<i>dušę</i>	<i>sōdijŋ</i>
DAT	<i>ženě</i>	<i>duši</i>	<i>sōdii</i>
INSTR	<i>ženojŋ</i>	<i>dušejŋ</i>	<i>sōdijejŋ</i>
LOC	<i>ženě</i>	<i>duši</i>	<i>sōdii</i>
VOC	<i>ženo</i>	<i>duše</i>	<i>sōdi(i)</i>
DUAL			
NOM–ACC	<i>ženě</i>	<i>duši</i>	<i>sōdii</i>
GEN–LOC	<i>ženu</i>	<i>dušu</i>	<i>sōdiju</i>
DAT–INSTR	<i>ženama</i>	<i>dušama</i>	<i>sōdijama</i>
PLURAL			
NOM	<i>ženy</i>	<i>dušę</i>	<i>sōdiję</i>
ACC	<i>ženy</i>	<i>dušę</i>	<i>sōdiję</i>
GEN	<i>ženŭ</i>	<i>duši</i>	<i>sōdii</i>
DAT	<i>ženamŭ</i>	<i>dušamŭ</i>	<i>sōdijamŭ</i>
INSTR	<i>ženami</i>	<i>dušami</i>	<i>sōdijami</i>
LOC	<i>ženaxŭ</i>	<i>dušaxŭ</i>	<i>sōdijaxŭ</i>

Table 17: Inflection of *ah*₂-stems.

Stems ending in a velar, e.g. *ruka* F ‘hand’, show the effects of the Second Palatalisation (3.4.4) in the DAT.SG (*rucě*), the LOC.SG (*rucě*) and the NOM–ACC.DU (*rucě*).

4.1.6. Feminine (masculine) *i*-stems

In OCS, *i*-stem nouns were usually feminine, but a few masculines are found as well (see Vaillant 1964: 101–102). The inflection can be seen in Table 18. Examples words: *kostī* F ‘bone’; *pōtī* M ‘road’.

	<i>kostĭ</i> F ‘bone’	<i>pŕti</i> M ‘road’
SINGULAR		
NOM–ACC	<i>kostĭ</i>	<i>pŕti</i>
GEN	<i>kosti</i>	<i>pŕti</i>
DAT	<i>kosti</i>	<i>pŕti</i>
INSTR	<i>kostijŕ</i>	<i>pŕtemĭ, (-ĭmĭ)</i>
LOC	<i>kosti</i>	<i>pŕti</i>
VOC	<i>kosti</i>	<i>pŕti</i>
DUAL		
NOM–ACC	<i>kosti</i>	<i>pŕti</i>
GEN–LOC	<i>kostiju</i>	<i>pŕtiju</i>
DAT–INSTR	<i>kostĭma</i>	<i>pŕtĭma</i>
PLURAL		
NOM	<i>kosti</i>	<i>pŕtije</i>
ACC	<i>kosti</i>	<i>pŕti</i>
GEN	<i>kostii</i>	<i>pŕtii</i>
DAT	<i>kostemŭ</i>	<i>pŕtemŭ (-ĭmŭ)</i>
INSTR	<i>dŭšterĭmi</i>	<i>pŕtĭmi</i>
LOC	<i>kostexŭ</i>	<i>pŕtexŭ (-ĭxŭ)</i>

Table 18: Inflection of *i*-stems.

The inflection of masculine consonant stems is shown in Table 19. Examples words: *dĭnĭ* M ‘day’; *korenĭ* M ‘root’; *kamenĭ* M ‘stone’; *jelenĭ* M ‘stag’; *sęžĭnĭ* M/F? ‘fathom’; *stepenĭ* M ‘degree; step’.

	<i>děňi</i> M ‘day’	<i>koreňi</i> M ‘root’
SINGULAR		
NOM+ACC	<i>děňi</i>	<i>koreňi</i> (<i>korę</i>); <i>kameně, kamy</i>
GEN	<i>děne, -i</i>	<i>korene, -i</i>
DAT	<i>děni</i>	<i>koreni</i>
INSTR	<i>děnemě, -ěmě</i>	<i>kamenemě</i>
LOC	<i>děne, -i</i>	<i>korene, -i</i>
DUAL		
NOM+ACC	<i>děni</i>	<i>jeleni</i>
GEN+LOC	<i>děnu, -děniju</i>	<i>jeleniju</i>
DAT+INSTR	<i>(děňima)</i>	<i>jeleněma</i>
PLURAL		
NOM	<i>děne, děnije</i>	<i>(jelene, -nije)</i>
ACC	<i>děni</i>	<i>jeleni</i>
GEN	<i>děňů, děňii</i>	<i>(jelenii, sęženě)</i>
DAT	<i>děnemě, -ěmě</i>	<i>jelenemě</i>
INSTR	<i>děny, děňimi</i>	<i>(stepenexě)</i>
DAT	<i>děnexě, -ěxě</i>	<i>jelenemě</i>

Table 19: Inflection of masculine consonant stems.

The inflection of neuter consonant stems can be seen in Table 20. Examples words: *imę* N ‘name’; *nebo* N ‘sky’; *tělo* N ‘body’.

	<i>imě</i> N ‘name’	<i>nebo</i> N ‘sky’
SINGULAR		
NOM–ACC	<i>imě</i>	<i>nebo</i>
GEN	<i>imene, -ni</i>	<i>nebesē, -si</i>
DAT	<i>imeni</i>	<i>nebesi</i>
INSTR	<i>imenemī, -īmī</i>	<i>nebesemī, -īmī</i>
LOC	<i>imeni, -ne</i>	<i>nebesē, -si</i>
DUAL		
NOM–ACC	<i>imeně, -ni</i>	<i>tělesě, -si</i>
GEN–LOC		<i>tělesu</i>
DAT–INSTR		<i>(tělesīma)</i>
PLURAL		
NOM–ACC	<i>imena</i>	<i>nebesa</i>
GEN	<i>imenŭ</i>	<i>(nebesŭ)</i>
DAT	<i>imenemŭ</i>	<i>nebesemŭ</i>
INSTR	<i>imeny</i>	<i>nebesy</i>
LOC	<i>imenexŭ</i>	<i>nebesemŭ</i>

Table 20: Inflection of neuter consonant stems.

Table 21 shows the inflection of feminine consonant stems. Examples words: *mati* F ‘mother’; *dŭšti* F ‘daughter’; *crŭky* F ‘church’; *neploďy* F ‘infertile woman’.

	<i>mati</i> F ‘mother’	<i>crŭky</i> F ‘church’
SINGULAR		
NOM	<i>mati</i>	<i>crŭky</i>
ACC	<i>materĩ, -re</i>	<i>crŭkŭvĩ, -ve</i>
GEN	<i>matere, -ri</i>	<i>crŭkŭve, -vi</i>
DAT	<i>materi</i>	<i>crŭkŭvi</i>
INSTR	<i>materijŏ, -rĩjŏ</i>	<i>crŭkŭvijŏ, -vĩjŏ</i>
LOC	<i>dŭšteri</i>	<i>crŭkŭve, -vi</i>
VOC	<i>mati</i>	<i>(neplody)</i>
DUAL		
NOM-ACC	<i>(dŭšteri)</i>	
GEN-LOC	<i>(dŭšteriju)</i>	
DAT-INSTR	<i>(dŭšterĩma)</i>	
PLURAL		
NOM-ACC	<i>materi</i>	<i>crŭkŭvia</i>
GEN	<i>materŭ, -rii</i>	<i>crŭkŭvŭ</i>
DAT	<i>materemŭ</i>	<i>crŭkŭvamŭ</i>
INSTR	<i>dŭšterĩmi</i>	<i>(crŭkŭvami)</i>
LOC	<i>materexŭ</i>	<i>crŭkŭvaxŭ</i>

Table 21: Inflection of feminine consonant stems.

4.2. Adjectives

OCS adjectives have two different forms, a shorter one denoting indefiniteness, and a long one denoting definiteness. In the masculine, neuter and feminine the short forms are inflected like masculine *o*-stems (4.1.2), neuter *o*-stems (4.1.4) and feminine *a*-stems (4.1.5) respectively. If the stem ends in a palatalised consonant, the adjective is inflected like the corresponding *jo*- and *a*-stems.

The long forms, by contrast, have a paradigm of their own, shown in Table 22.

	masculine	neuter	feminine
SINGULAR			
NOM	<i>novyi, -y, -oi</i>	<i>novoje</i>	<i>novaja</i>
ACC	(= NOM or GEN)	<i>novoje</i>	<i>novoję</i>
GEN	<i>novaago, novago, -ajego</i>		<i>novyję</i>
DAT	<i>novuumu, novumu, -ujemu</i>		<i>nověi</i>
INSTR	<i>novyimi, novymi</i>		<i>novoję</i>
LOC	<i>novějemī, nověmī, nověēmī, nověamī</i>		<i>nověi</i>
DUAL			
NOM-ACC	<i>novaja</i>	<i>nověi</i>	<i>nověi</i>
GEN-LOC	<i>novuju</i>		
DAT-INSTR	<i>novyima, novyma</i>		
PLURAL			
NOM	<i>novii</i>	<i>novaja</i>	<i>novyję</i>
ACC	<i>novy</i>	<i>novaja</i>	<i>novyję</i>
GEN	<i>novyixŭ, novyxŭ</i>		
DAT	<i>novyimi, novymi</i>		
INSTR	<i>novyimi, novymi</i>		
LOC	<i>novyixŭ, novyxŭ</i>		

Table 22: Inflection of definite adjectives.

4.3. Pronouns: gendered

Like the short adjectives (4.2), the inflection of gendered pronouns follows that of *o-/jo-*stem and *a-/ja-*stem nouns in the nominative and accusative; the remaining cases have an interfix *-oj-* / *ě*. Table 23 shows the inflection of the demonstrative pronoun *tŭ*.

	masculine	neuter	feminine
SINGULAR			
NOM	<i>tŭ</i>	<i>to</i>	<i>ta</i>
ACC	(= NOM or GEN)	<i>to</i>	<i>tə</i>
GEN	<i>togo</i>		<i>toje</i>
DAT	<i>tomu</i>		<i>toi</i>
INSTR	<i>těmĭ</i>		<i>tojo</i>
LOC	<i>tomĭ</i>		<i>toi</i>
DUAL			
NOM-ACC	<i>ta</i>	<i>tě</i>	<i>tě</i>
GEN-LOC	<i>toju</i>		
DAT-INSTR	<i>těma</i>		
PLURAL			
NOM	<i>ti</i>	<i>ta</i>	<i>ty</i>
ACC	<i>ty</i>	<i>ta</i>	<i>ty</i>
GEN	<i>těxŭ</i>		
DAT	<i>těmŭ</i>		
INSTR	<i>těmi</i>		
LOC	<i>těxŭ</i>		

Table 23: Inflection of the demonstrative pronoun *tŭ*.

4.4. Pronouns: personal and reflexive

The inflection of the first-person personal pronouns is to some extent syncretic, with the nominative form being markedly distinct from the other forms (SG *azŭ* vs. *m-*; DU *vě* vs. *n-*; PL *my* vs. *n-*). The inflection of the personal pronouns is shown in [tbl:inflection-of-personal-pronouns-and-reflexive](#).

	first person	second person	reflexive
SINGULAR			
NOM	<i>azŭ</i>	<i>ty</i>	
ACC	<i>mę, mene</i>	<i>tę, tebe</i>	<i>sę, sebe</i>
GEN	<i>mene</i>	<i>tebe</i>	<i>sebe</i>
DAT	<i>mŭnĕ, mi</i>	<i>tebĕ, ti</i>	<i>sebĕ, si</i>
INSTR	<i>mŭnojo</i>	<i>tobojo</i>	<i>sobojo</i>
LOC	<i>mŭnĕ</i>	<i>tebĕ</i>	<i>sebĕ</i>
DUAL			
NOM	<i>vĕ</i>	<i>va, vy</i>	
ACC	<i>na, ny</i>	<i>va, vy</i>	
GEN-LOC	<i>naju</i>	<i>vaju</i>	
DAT-INSTR	<i>nama, (DAT na)</i>	<i>vama, DAT va</i>	
PLURAL			
NOM	<i>my</i>	<i>vy</i>	
ACC	<i>ny, nasŭ</i>	<i>vy, vasŭ</i>	
GEN	<i>nasŭ</i>	<i>vasŭ</i>	
DAT	<i>namŭ, ny</i>	<i>vamŭ</i>	
INSTR	<i>nami</i>	<i>vami</i>	
LOC	<i>nasŭ</i>	<i>vasŭ</i>	

Table 24: Inflection of personal pronouns.

5. Slavic historical morphology: nominal system

5.1. General

For detailed of the historical background of Slavic nominal inflection see Olander (2015), Ch. 3.

Balto-Slavic is generally very conservative from a morphological perspective, especially in the nominal inflection. The Balto-Slavic verbal system preserves many forms, but the system has been restructured.

In the oldest transmitted Slavic (as in Lithuanian) all the PIE cases except the ablative are preserved, i.e. nominative, accusative, genitive, dative, instrumental and locative, plus the vocative, which is perhaps better seen as a derived form (Andersen 2012).

Modern Bulgarian and Macedonian have lost the case system in nouns; pronouns have nominative, accusative and genitive–dative forms.

Proto-Balto-Slavic and Proto-Slavic preserve all three numbers of PIE: singular, dual, plural. Among the modern Slavic languages only Slovene, Lower Sorbian and Upper Sorbian preserve the dual category. The other languages preserve original dual forms, but not the dual category as such. Likewise, in modern standard Lithuanian, Latvian and Old Prussian the dual has disappeared, but the dual category is preserved in Old Lithuanian and in Lithuanian dialects.

The three genders of Proto-Core IE – masculine, feminine and neuter – are preserved in Proto-Balto-Slavic and Proto-Slavic. In Baltic the East Baltic languages (Lithuanian and Latvian) have lost the neuter, neuter nouns becoming masculine; the neuter is preserved in Old Prussian.

- OCS *jezero* N ‘lake’, OPr. *assaran* N ‘lake’; cf. Lith. *ẽžeras* M ‘lake’, Latv. *ẽzẽrs* M ‘lake’

From a formal point of view, Proto-Balto-Slavic and Proto-Slavic had five basic noun paradigms: *o-*, *u-*, *ah₂-*, *i-* and consonant-stems (in PIE terms), with further sub-paradigms governed by gender. Moreover, the Common Slavic vowel palatalisations (3.4.2) lead to a split of the *o*-stems into *o*-stems and *jo*-stems (4.1.2; 4.1.4), and of the *ah₂*-stems into *a*-stems and *ja*-stems (4.1.5).

5.2. Consonant stems

PIE feminine *r*-stems (e.g. **d^hugh₂tér-* ‘daughter’) and neuter *n*-stems (e.g. **uért-men-* ‘turning’) have the following reflexes in Baltic and Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
SINGULAR						
NOM.M–F	*-ē _r	*-ē _r	duktē	*duk'tī	*dūtjī	dūšti
NOM–ACC.N	*-ŋ _o	*-in	OPr. <i>semen</i>	*uermin	*verme	vrēme
ACC.M–F	*-ŋ _i	*-im	dūktėrį	* _i dukteri	*dūtjerī	dūšterī
GEN–ABL	*-e/os (*-s)	*-es	dukterš; OLith. <i>dukterės</i>	*duktere	*dūtjere	dūštere, dūšteri
DAT	*-e _i	*-e _i	dūktėriai	*dukterej	*dūtjeri	dūšteri
INSTR	*-eh ₁ , *-h ₁	*-mi	dukterimi	*duktermi	*dūtjeriję	dūšteriję
LOC	*-Ø, *-i	*-i	dukteryjė	*dukteri	*dūtjere	dūštere, dūšteri
DUAL						
NOM–ACC.M–F	*-h ₁ e	*-e	dūktėri; OLith. <i>n-st. (du) žmūne</i>	*dukterī	*dūtjeri	dūšteri
NOM–ACC.N	*-ih ₁	*-ī	F <i>akì</i>	* _i ermenī	*vermeni	vrēmeni
GEN	*-HoHs	*-ā _u	–	*dukterā _u	*dūtjeru	dūšteru, -iju
LOC	*-Hou					
DAT–ABL–INSTR	*-b ^h ia _h ₂	*-imā	DAT <i>akmenim</i> ; INSTR <i>akmeniū</i>	*dukterimā	*dūtjerīma	dūšterīma
PLURAL						
NOM.M–F	*-es	*-es	dūktėrys, OLith. <i>dūktėrės</i>	*duktere	*dūtjere	dūšteri, n-st. <i>dīne</i>
NOM–ACC.N	*(-VR)-Ø, *(-VC)-h ₂	*-ī	–	*uermenā	*vermena	vrēmena
ACC.M–F	*-m _s	*-ins	dūktėris	* _i dukterī	*dūtjerī	dūšterī
GEN	*-(H)om	*-am	dukterū	*dukteru	*dūtjerū	dūšterū
DAT–ABL	*-b ^h ios	*-mas	dukterims	*duktermā	*dūtjerīmū	dūšterēmū, n-st. <i>kamenīmū</i>
INSTR	*-b ^h i(H)s	*-mīš	dukterimis; OLith. <i>akmemis</i>	*duktermī	*dūtjerīmi	dūšterīmi
LOC	*-su	*-su	dukterysė	*dukterxu	*dūtjerixū	dūšterexū, n-st. <i>kamenixū</i>

Table 25: The reflexes of the PIE consonant-stem endings in Slavic.

5.3. *i*-stems

The PIE *i*-stems have the following reflexes in Baltic and Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
SINGULAR						
NOM.M–F	*-is	*-iš	<i>mintis</i>	* <i>gasti</i>	* <i>gösti</i>	<i>gostī</i>
ACC	*-im	*-im	<i>miñtį</i>	* <i>gasti</i>	* <i>gösti</i>	<i>gostī</i>
GEN–ABL	*-eįs	*-eįš	<i>mintiės</i>	* <i>gastei</i>	* <i>gösti</i>	<i>gostī</i>
DAT	*-eį	*-eį	Ƒ <i>miñčiai</i> ; M <i>žvériui</i> ; dial. <i>āvie</i>	* <i>gasteį</i>	* <i>gösti</i>	<i>gostī</i>
INSTR	*-ih ₁ , *-i ₁ eh ₁	*-imi	<i>minitimì</i>	* <i>gasti'mi</i>	M * <i>gostìmi</i> ; Ƒ * <i>kostījò</i>	M <i>gostīmī</i> ; Ƒ <i>kostījò</i>
LOC	*-ēį	*-ēį	<i>mintyje</i>	* <i>gast'ēį</i>	* <i>gosti</i>	<i>gostī</i>
VOC.	*-eį	*-eį	<i>mintiē</i>	* <i>gasteį</i>	* <i>gösti</i>	<i>gostī</i>
DUAL						
NOM–ACC.M–F	*-ih ₁	*-ī	<i>minti</i>	* <i>gastī</i>	* <i>gösti</i>	<i>gostī</i>
GEN	*-iHoHs	*-ijau	–	* <i>gastijau</i>	* <i>gostijau</i>	<i>gostīju</i>
LOC *-iHoH						
DAT–ABL–INSTR	*-ib ^h ia ₂	*-imā	DAT <i>mintim</i> ; INSTR <i>mintim̃</i>	* <i>gastimā</i>	* <i>gostimā</i>	<i>gostīma</i>
PLURAL						
NOM.M–F	*-eįes	*-es	<i>miñtys</i>	* <i>gasteje</i>	M * <i>göstīje</i> ; Ƒ * <i>köstī</i>	M <i>gostīje</i> ; Ƒ <i>kostī</i>
ACC	*-ims	*-ins	<i>mintis</i>	* <i>gastī</i>	* <i>göstī</i>	<i>gostī</i>
GEN	*-eį(H)om, *-i ₁ om / *iHom	*-eįam, *-i ₁ am	<i>minčių</i>	* <i>gaste'iu</i>	* <i>gostīji</i>	<i>gostīi</i>
DAT–ABL	*-ib ^h io s	*-imas	<i>mintims</i>	* <i>gasti'mə</i>	* <i>gostīmū</i>	<i>gostīmū</i>
INSTR	*-ib ^h i(H)s	*-imįš	<i>mintimis</i>	* <i>gasti'mī</i>	* <i>gostīmì</i>	<i>gostīmī</i>
LOC	*-isu	*-išu	<i>mintysè</i> ; dial. <i>akisù</i>	* <i>gasti'xu</i>	* <i>gostīxū</i>	<i>gostīxū</i>

Table 26: The reflexes of the PIE *i*-stem endings in Slavic.

5.4. u-stems

	PIE	PBS	Lith.	PS	CS	OCS
SINGULAR						
NOM.M-F	*-us	*-uš	sūnūs	*sūnu	*sŷnũ	synũ
ACC	*-um	*-um	sūnu	*sūnu	*sŷnũ	synũ
GEN-ABL	*-eus	*-auš	sūnaūs	*sūnaų	*sŷnu	synu
DAT	*-euej	*-auej	sūnui	*sūna'ej	*synovì	synovi
INSTR	*-uh ₁ , *-ueh ₁	*-umi	sūnumì	*sūnu'mi	*synũmì	
LOC	*-eui, *-ēu	*-āu	sūnujè	*sū'nāų	*synũ	synu
VOC.	*-eu	*-au	sūnaũ	*sūnāų	*sŷnu	synu
DUAL						
NOM-ACC.M-F	*-uh ₁	*-ū	sūnu	*sūnũ	*sŷny	synu
GEN	*-uHoHs					
LOC	*-uHoų	*-uųauų	–	*sūnaųauų	*synovu	synovu
DAT-ABL-INSTR	*-ub ^{hi} ah ₂	*-umā	DAT sūnũm; INSTR sūnuĩm	*sūnumā	*synũma	synũma
PLURAL						
NOM.M-F	*-eues	*-eues	sūnus; dial. sūnaus	*sūnaųe	*sŷnove	synove
ACC	*-ums	*-uns	sūnus	*sūnũ	*sŷny	syny
GEN	*-eu(H)om, *-uom / *uHom	*-auam, *-uam	sūnũ	*sūna'ųu	*sŷnõvũ	synovũ
DAT-ABL	*-ub ^{hi} ios	*-umas	sūnũms	*sūnu'mə	*synũmũ	synomũ; OESl. synũmũ
INSTR	*-ub ^{hi} (H)s	*-umĩš	sūnumis;	*sūnu'mĩ	*synũmĩ	synũmi
LOC	*-usu	*-ušu	sūnuosè	*sūnu'xu	*synũxũ	synoxũ; OESl. synũxũ

Table 27: The reflexes of the PIE u-stem endings in Slavic.

5.5. ah₂-stems

The PIE *ah*₂-stems are preserved in Proto-Balto-Slavic and Proto-Slavic. Like the *o*-stems (5.6), with the vowel palatalisations (3.4.2) the *ah*₂-stems split into two paradigms in Common Slavic, the *a*-stems proper and the *ja*-stems (4.1.5).

PIE *deví* stems have preserved an independent form in the nominative singular, but otherwise became incorporated into the **jah*₂-stems.

The PIE *ah*₂-stems have the following reflexes in Baltic and Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
SINGULAR						
NOM	*-ah ₂	*-ā	galvà	*na'gā	*nogà; *dušà	glava; duša
NOM (*-ih ₂)	*ih ₂	*-ī	pati	*ba'gūmīi	*bogýnīi	bogyńi
ACC	*-ah ₂ m, *-ah ₂ m	*-ām	gálvq	*nagān	*nōgo; *dūšp	glavp; dušp
GEN-ABL	*-ah ₂ s	*-ās	galvōs	*na'gā	*nogý ě; *dušě	glavy; dušę
DAT	*-ah ₂ ai	*-āi	gálvai	*nagāi	*nōgl žě; *dūši	glavě; duši
INSTR	*-ah ₂ (a)h ₁	*-āN	gálva	*nagān	*nogo, *nogojo; *dušp, *dušejp	glavp, glavojo; dušp, dušejp
LOC	*-ah ₂ i, *-ah ₂ i	*-āi	galvojē	*na'gāi	*nog žě; *duši	glavě; duši
VOC.	*-a	*-a	gálva	*naga	*nōgo; *dūše	glavo; duše
DUAL						
NOM-ACC	*-ah ₂ ih ₁	*-ai	gálvi	*nagāi	*nōgl žě; *dūši	glavě; duši
GEN	*-ah ₂ HoHs	*-āu	–	*nagāu	*nogu; *dušu	glavu; dušu
LOC	*-ah ₂ Hoū					
DAT-ABL-INSTR	*-ah ₂ b ^{hi} ah ₂	*-āmā	DAT galvóm; INSTR galvōm	*na'gāmā	*nogāma; *dušāma	galvama; dušama
PLURAL						
NOM	*-ah ₂ as	*-ās	gálvos	*nagā	*nōgy ě; *dūšě	galvy; dušę
ACC	*-ah ₂ ms	*-āns	gálvas	*nagān	*nōgy ě; *dūšę ě	glavy; dušę
GEN	*-ah ₂ (H)om	*-ōm	galvīū	*na'gu	*nōgū; *dūši	glavū; duši
DAT-ABL	*-ah ₂ b ^{hi} ios	*-āmas	galvóms	*na'gāmā	*nogāmū; *dušāmū	glavamū; dušamū
INSTR	*-ah ₂ b ^{hi} (H)s	*-āmīš	galvomīs	*na'gāmī	*nogāmi; *dušāmi	glavami; dušami
LOC	*-ah ₂ su	*-āsu	galvosē	*na'gāxu	*nogāxū; *dušāxū	glavaxū; dušaxū

Table 28: The reflexes of the PIE ah₂-stem endings in Slavic.

5.6. o-stems

The Indo-European o-stems have the following reflexes in Baltic and Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
SINGULAR						
NOM.M	*-os	*-as	<i>lángas</i>	* <i>takə</i>	* <i>tōkū e</i> ; * <i>gōjī</i>	<i>plodŭ; konjī</i>
NOM-ACC.N	pron. *-od (subst. *-om)	pron. *-a	<i>šálta</i>	* <i>suta</i>	* <i>sŭto</i> ; * <i>pōlje</i>	<i>město; polje</i>
ACC.M	*-om	*-am	<i>lánga</i>	* <i>taku</i>	* <i>tōkū</i> ; * <i>gōjī</i>	<i>gradŭ; konjī</i>
ABL → GEN	*-ah ₂ ad	*-ā	<i>lángo</i>	* <i>takā</i>	* <i>tōka</i> ; * <i>gōja</i>	<i>grada; konja</i>
DAT	*-oej	*-ōj	<i>lángui</i>	* <i>takāu</i>	* <i>tōku</i> ; * <i>gōju</i>	<i>gradu; konju</i>
INSTR	*-o/eh ₁ / *-oeh ₁ ?	*-ō	<i>lángu</i>	* <i>ta'kā</i>	* <i>tōko ūmī</i> ; * <i>gōje īmī</i>	<i>gradomī; konjemī</i>
LOC	*-oj	*-aj	<i>lángē</i>	* <i>takaj</i>	* <i>tōk cē</i> ; * <i>gōji</i>	<i>gradē; konji</i>
VOC.	*-e	*-e	<i>lángē</i>	* <i>take</i>	* <i>tōčē</i> ; * <i>gōju</i>	<i>grade; konju</i>
DUAL						
NOM-ACC.M	*-oh ₁ ?	*-ō	<i>lángu</i>	* <i>takā</i>	* <i>tōka</i> ; * <i>gōja</i>	<i>grada; konja</i>
NOM-ACC.N	*-ojh ₁	*-aj	–	* <i>sutaj</i>	* <i>sŭtē</i> ; * <i>pōlji</i>	<i>sŭtē; polji</i>
GEN	*-oHoHs	*-āu	–	* <i>takāu</i>	* <i>toku</i> ; * <i>goju</i>	<i>gradu; konju</i>
LOC	*-oHoū					
DAT-ABL-INSTR	*-ob ^h i _{ah} ₂	*-amā	DAT <i>langám</i> ; INSTR <i>langam̃</i>	* <i>takamā</i>	* <i>tokoma</i> ; * <i>gojema</i>	<i>gradoma; konjema</i>
PLURAL						
NOM.M	pron. *-oj (subst. *-oes)	*-aj	<i>langāi</i>	* <i>takaj</i>	* <i>tōk ci</i> ; * <i>gōji</i>	<i>gradi; konji</i>
NOM-ACC.N	*-ah ₂	*-ā	<i>keturiólīka</i> (num.)	* <i>sut'ā</i>	* <i>sŭtā</i> ; * <i>poljā</i>	<i>města; polja</i>
ACC.M	*-ōms	*-ōns	<i>lángus</i>	* <i>takān</i>	* <i>tōky ē</i> ; * <i>gōjē ē</i>	<i>grady; konjē</i>
GEN	*-o(H)om	*-ōm	<i>langŭ</i>	* <i>ta'ku</i>	* <i>tōkū</i> ; * <i>gōjī</i>	<i>gradŭ; konjī</i>
DAT-ABL	*-ob ^h i _{os}	*-amas	<i>langāms</i>	* <i>taba'mə</i>	* <i>tokòmū</i> ; * <i>gojèmū</i>	<i>gradomū; konjemū</i>
INSTR	*-ōjs	*-ajš	<i>langāis</i>	* <i>ta'kū</i>	* <i>toký</i> ; * <i>goji</i>	<i>grady; konji</i>
LOC	*-oj _{su}	*-ajš _u	<i>languosē</i>	* <i>takaj'xu</i>	* <i>tok cēxū</i> ; * <i>gojīxū</i>	<i>gradēxū; konjīxū</i>

Table 29: The reflexes of the PIE *o*-stem endings in Slavic.

5.7. Personal pronouns

	PIE	PBS	Lith.	PS	CS	OCS
NOM	* <i>h₁éǵ</i>	*'eś, *'ēžam	<i>ąš</i> , dial. <i>eš</i>	*'ēzu	* <i>jázŭ</i> ; * <i>já</i>	<i>azŭ</i>
ACC	* <i>mé</i> ; encl. * <i>me</i>	* <i>mēm</i>	<i>manē</i>	* <i>mēn</i>	* <i>mę</i>	<i>mę, mene</i>
GEN-ABL	* <i>méne</i>	* <i>mene</i>	<i>manēs</i>	* <i>mene</i>	* <i>měne</i>	<i>mene</i>
DAT ton.	* <i>méǵ^hi</i>	* <i>me/uni</i>	<i>mán</i>	* <i>mu'nāi</i>	* <i>mŭnē</i>	<i>mŭnē</i>
GEN-DAT encl.	* <i>me/oj</i>	DAT * <i>mej</i>	OLith. - <i>mi</i>	* <i>mej</i>	* <i>mi</i>	<i>mi</i>
INSTR	–	–	<i>manimì, maniñ</i>	* <i>mu'naiān</i> / * <i>munaĩ'ān</i>	* <i>mŭndōjō</i> / * <i>mŭnojo</i>	<i>mŭnojo</i>
LOC	–	–	<i>manyje, manỹ(j)</i>	* <i>mu'nāi</i>	* <i>mŭnē</i>	<i>mŭnē</i>

Table 30: The reflexes of the PIE first-person singular pronouns in Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
NOM	*túH	*tū̃, *'tu	tù	*tū̃	*tŷ	ty
ACC	*túé; encl. *te	*tēm	tavè	*tēn	*tę	tę, tebe
GEN–ABL	*téue	*taue	tavęs	*tebe	*těbe	tebe
DAT ton.	*téb ^{hi}	*tebi	táu	*te/a'bāi	*te/obě	tebě
GEN–DAT encl.	*te/oj	DAT *teĭ	OLith. -ti	*teĭ	*ti	ti
INSTR	–	–	tavimì, taviñ	*ta'baiān / *tabai'ān	*tobòjō / *tobojò	tobojo
LOC	–	–	tavyjė, tavỹ(j)	*te/a'bāi	*te/obě	tebě

Table 31: The reflexes of the PIE second-person singular pronouns in Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
NOM	*u ^é h ₁	*u ^ē , *u ^e	M mùdu, F mùdvi	*u ^ē	*v ^ě	v ^ě
ACC ton.	*nh ₃ u ^é	*n ^ō		ACC–DAT encl. *nā	*na	ACC na, ny
OBL encl.	*noh ₃					
GEN	–	–	mùdviejų	*'nāiāu	*nāju	naju
DAT–ABL–INSTR	–	–	mùdviem	*'nāmā	*nāma	nama
LOC	–	–	mùdviese	*'nāiāu	*nāju	naju

Table 32: The reflexes of the PIE first-person dual pronouns in Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
NOM	* <i>iúH</i>	* <i>iū̃</i> , * <i>i<u>u</u> ?</i>	<i>M jùdu, F jùdvi</i>	* <i>uū</i>	* <i>vy</i>	<i>vy, va</i>
ACC ton.	* <i>uh₃uē</i>	* <i>uō̃</i>		ACC–DAT encl. * <i>uā</i>	* <i>va</i>	ACC <i>va, vy</i>
OBL encl.	* <i>uoh₃</i>					
GEN	–	–	<i>jùdviejų</i>	* <i>uāiāu</i>	* <i>vǎju</i>	<i>vaju</i>
DAT–ABL–INSTR	–	–	<i>jùdviem</i>	* <i>uāmā</i>	* <i>vǎma</i>	<i>vama</i>
LOC	–	–	<i>jùdviese</i>	* <i>uāiāu</i>	* <i>vǎju</i>	<i>vaju</i>

Table 33: The reflexes of the PIE second-person dual pronouns in Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
NOM	* <i>uēi</i>	* <i>mei</i> ?	<i>mēs</i>	*, <i>mū</i>	* <i>mŷ</i>	<i>my</i>
ACC ton.	* <i>usmé</i>					
OBL encl.	* <i>nā</i>	* <i>nōs</i>	<i>mūs</i>	ACC-DAT encl. * <i>nā</i>	* <i>ny</i>	<i>ny</i>
GEN	–	–	<i>mūsų, mūs</i>	* <i>nāsu</i>	* <i>nāsŭ</i>	<i>nasŭ</i>
DAT-ABL	–	–	<i>mūms</i>	* <i>nāmə</i>	* <i>nāmŭ</i>	<i>namŭ</i>
INSTR	–	–	<i>mumīs, muĩs</i>	* <i>nāmī</i>	* <i>nāmī</i>	<i>namī</i>
LOC	–	–	<i>mumysę</i>	* <i>nāsu</i>	* <i>nāsŭ</i>	<i>nasŭ</i>

Table 34: The reflexes of the PIE first-person plural pronouns in Slavic.

	PIE	PBS	Lith.	PS	CS	OCS
NOM	* <i>iúHs</i>	* <i>iūs</i>	<i>jūs</i>	*, <i>uū</i>	* <i>vŷ</i>	<i>vy</i>
ACC ton.	* <i>usmé</i>	* <i>uōs</i>	<i>jūs</i>	* <i>uā</i> (ACC-DAT encl.)	* <i>vy</i>	<i>vy</i>
OBL encl.	* <i>uā</i>					
GEN	–	–	<i>jūsų, jús</i>	* <i>uāsu</i>	* <i>vāsŭ</i>	<i>vasŭ</i>
DAT-ABL	–	–	<i>jūms</i>	* <i>uāmə</i>	* <i>vāmŭ</i>	<i>vamŭ</i>
INSTR	–	–	<i>jumīs, juĩs</i>	* <i>uāmī</i>	* <i>vāmī</i>	<i>vamī</i>
LOC	–	–	<i>jumysę</i>	* <i>uāsu</i>	* <i>vāsŭ</i>	<i>vasŭ</i>

Table 35: The reflexes of the PIE second-person plural pronouns in Slavic.

5.8. Adjectives

5.8.1. Stem-formation

In OCS, adjectives are inflected as (*i*)*o*-stems in the masculine and neuter and as (*i*)*ah*₂-stems in the feminine. In the present and preterite participle active, comparatives and in the number ‘four’ there are traces of consonant-stem declension (Vaillant 1958: 495).

Certain forms are indeclinable but behave syntactically like adjectives.

- OCS *svobodī* ‘free’ and *različī* ‘different’

They are often considered to be direct reflexes of *i*-stem adjectives but perhaps are instead adverbs formed on the basis of the neuter accusative singular of *i*-stem adjectives (Majer 2018).

While *u*-stem adjectives are common in Baltic, in Slavic they have been extended with a suffix **-ko-*.

- OCS *sladükŭ* ‘sweet’; cf. Lith. *u*-stem *saldūs* (ap. 3) ‘sweet’ (Vaillant 1958: 530–535)

Comparatives to original *u*-stems do not display the **-ko-* extension.

- cpv. NOM–ACC.SG.N CS **sŏld’e* > OCS *slažde*

Comparatives are generally built on the basis of PIE **-ies-/*-ios-/*-is-*, in Slavic changed to **-iis-*.

- CS NOM.SG.M **bolĭjĭ* (always definite form) ‘bigger’, NOM–ACC.SG.N **bolĭe*, NOM.SG.F **bolĭši*, OBL **bolĭšĭ*; cf. Lat. *maiōr*, N *maius*, adv. *magis* < PIE **-iōs*, **-is*

Most comparatives are extended with *-ě-*, which possibly goes back to a Balto-Slavic adverbial formation in **-ē-*, which has otherwise disappeared in Slavic; but it is not unambiguous (Vaillant 1958: 569).

- CS **novějĭ* (always definite form) ‘newer’, NOM–ACC.SG.N **nověje*, NOM.SG.F **novějĭši*, OBL **novějĭš-*

Superlatives are not found as an inflectional category in Common Slavic. An absolute superlative (relative; ‘super-new, entirely new’) is formed from a comparative with the Common Slavic prefix **per-*.

- OCS *prěvelikŭ* ‘very big’
- OCS *prěsvětŭ* ‘very holy’

To express a relative superlative (‘newest’) the comparative form is used.

- OCS *všěxŭ mĭnĭjĭ* ‘smallest of all’
- OCS *bezakonĭnějĭ sy* ‘being the most criminal’

Occasionally and almost only in adverbial use, such forms may be reinforced with the prefix CS **najĭ-*.

- OCS adv. *najĭvęšte* ‘the most’
- OCS adv. *najĭskoręje* ‘fastest’

5.8.2. Short and long forms of the adjectives

Common Slavic adjectives have a short and a long form. The short forms are declined as substantival $(i)o-$ / $(i)ah_2$ -stems.

- OCS NOM.SG.M *novŭ*, F *nova*, N *ново* < PS $*na'u\bar{a}$, $*na'u\bar{a}$, $*na'u\bar{a}$ 'new' (a.p. *b*)

The long form, which shows definiteness, originally consisted of the short form plus the PS pronoun $*i\bar{a}$ -.

- OCS NOM.SG.M *novyi*, F *novaja*, N *novoe* < PS $*na'u\bar{a} + *i\bar{a}$, $*na'u\bar{a} + *i\bar{a}$, $*na'u\bar{a} + *i\bar{a}$

Over the course of the Common Slavic period the adjective and pronoun fused, leading to a new adjective paradigm that cannot be synchronically derived from the individual elements, e.g. CS GEN.SG.F $*novy-je\bar{y}\bar{e} > novyj\bar{e}$.

6. Morphology: the OCS verbal system

6.1. Overview

The OCS verbal system comprised the following finite inflectional categories ([Andersen 2006](#): 235–236):

- tense: present, past
- mood: indicative, imperative, irrealis
- aspect: imperfect vs. aorist (in the past tense); retrospective vs. present vs. imperfect/aorist vs. future; prospective (“future”) vs. actual (present, past) (see below)
- person (first, second, third)
- number (singular, dual, plural)

And the following non-finite categories:

- infinitive
- supine
- present active participle
- present passive participle
- past active participle
- past passive participle
- resultative participle (“*l*-participle”)
- verbal noun

According to Andersen in Andersen & Olander ([forthcoming](#)), OCS has the following aspects, the first two of which are lexicalised:

a. viewpoint aspect (derivation): perfective vs. imperfective verbs

- *pasti* (*pade-*) ‘fall(PFV)’ vs. *padati* (*padaje-*) ‘fall(IPFV)’

b. imperfective verbs of (loco)motion (derivation): determinate vs. indeterminate verbs

- *vesti* (*vede-*) ‘lead(IPFV.DET)’ vs. *voditi* (*vodi-*) ‘lead(IPFV.INDET)’

c. past tense: imperfect vs. aorist (inflection)

- *bīraaxŭ* ‘collect:IPF.1SG’ vs. *bīraxŭ* ‘collect:AOR.1SG’

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d. retrospective (auxiliated perfect, pluperfect, and future perfect) vs. (simple) present vs. imperfect/aorist vs. future (present prospective) (auxiliary construction)

- *bīralū esmī* ‘collect:RES.PTC be:PRS.1SG’ vs. *berp* ‘collect:PRS.1SG’ vs. *bīraaxū* ‘collect:IPF.1SG’ vs. *sūberp* ‘gather:FUT.1SG’

e. prospective: auxiliated present (termed future) and past (future in the past) vs. actual (present) (auxiliary construction)

- *xoštq bīrati* ‘will:PRS.1SG collect:INF’ vs. *berp* ‘collect:PRS.SG’

Most verbal forms are derived from the present stem (present, imperative, present participles) or the infinitive stem (aorist, past and perfect participles, verbal noun); the imperfect is sometimes derived from the infinitive stem and sometimes from the present stem (Vaillant 1964: 226). A very comprehensive description and analysis of the OCS verbal system can be found in Koch (1990).

To illustrate the inflection of an OCS verb, the synthetic personal forms of *bīrati* (PRS *berp*) ‘collect’ are shown in Table 36, the periphrastic personal forms in Table 37, and the non-finite forms in Table 38.

	present	imperative	aorist	imperfect
1SG	<i>ber-ǝ</i>	<i>(otū-pad-ě-mī)</i>	<i>bīr-a-x-ū</i>	<i>bīr-aa-x-ū</i>
2SG	<i>ber-e-ši</i>	<i>ber-i-Ø</i>	<i>bīr-a-Ø</i>	<i>bīr-aa-š-e</i>
3SG	<i>ber-e-tū</i>	<i>ber-i-Ø</i>	<i>bīr-a-Ø</i>	<i>bīr-aa-š-e</i>
1DU	<i>ber-e-vě</i>	<i>ber-ě-vě</i>	<i>bīr-a-x-o-vě</i>	<i>bīr-aa-x-o-vě</i>
2DU	<i>ber-e-ta</i>	<i>ber-ě-ta</i>	<i>bīr-a-s-ta</i>	<i>bīr-aa-š-e-ta / -s-ta</i>
3DU	<i>ber-e-te/a</i>	–	<i>bīr-a-s-te</i>	<i>bīr-aa-š-e-te / -s-te</i>
1PL	<i>ber-e-mū</i>	<i>ber-ě-mū</i>	<i>bīr-a-x-omū</i>	<i>bīr-aa-x-o-mū</i>
2PL	<i>ber-e-te</i>	<i>ber-ě-te</i>	<i>bīr-a-s-te</i>	<i>bīr-aa-š-e-te / -s-te</i>
3PL	<i>ber-ǝ-tū</i>	<i>(bǝdǝ)</i>	<i>bīr-a-š-ǝ</i>	<i>bīr-aa-x-ǝ</i>

Table 36: Synthetic personal forms of *bīrati* (PRS *berp*) ‘collect’.

category	form
perfect	<i>bīr-a-l-ū, -a, -o jes-mī</i> etc.
pluperfect	<i>bīr-a-l-ū, -a, -o bě-x-ū</i> etc.
future perfect	<i>bīr-a-l-ū, -a, -o bǝd-ǝ</i> etc.
present prospective (“future”)	<i>xošt-ǝ / ima-mī bīr-a-ti</i> etc.
past prospective (“future in the past”)	<i>xot-ěa-x-ū bīr-a-ti</i> etc.
irrealis	<i>bīr-a-l-ū, -a, -o bi-mī / by-x-ū</i> etc.

Table 37: Periphrastic personal forms of *bīrati* (PRS *berǝ*) ‘collect’.

category	form
infinitive	<i>bīr-a-ti</i>
supine	<i>bīr-a-tū</i>
present active participle	M/N <i>ber-y</i> , F <i>ber-ǝšt-i</i>
past active participle	M/N <i>bīr-a-v-ū</i> , F <i>bīr-a-v-ūš-i</i>
perfect active participle	<i>bīr-a-l-ū</i> , -a, -o
present passive participle	<i>ber-o-mū</i> , -a, -o
past passive participle	<i>bīr-a-n-ū</i> , -a, -o
verbal noun	<i>bīr-a-n-īj-e</i> N

Table 38: Non-finite forms of *bīrati* (PRS *berǝ*) ‘collect’.

6.2. Present classes

The OCS verbal system is traditionally organised according to five main verb classes (Table 39) (see the discussion of [Birnbaum & Schaeken 1997: 83–86](#)).

verb class	1SG	3SG	INF	gloss
1. <i>e</i> -present	<i>ved-ǝ</i>	<i>ved-e-tū</i>	<i>vesti</i>	‘lead’
	<i>ber-ǝ</i>	<i>ber-e-tū</i>	<i>bīrati</i>	‘collect’
2. <i>ne</i> -present	<i>dvig-nǝ</i>	<i>dvig-ne-tū</i>	<i>dvignǝti</i>	‘move’
3. <i>je</i> -present	<i>čes-ǝ</i>	<i>čes-e-tū</i>	<i>česati</i>	‘comb’
	<i>zna-jǝ</i>	<i>zna-je-tū</i>	<i>znati</i>	‘know’
4. <i>i</i> -present	<i>mol-ǝ</i>	<i>mol-i-tū</i>	<i>moliti</i>	‘pray’
	<i>vižd-ǝ</i>	<i>vid-i-tū</i>	<i>viděti</i>	‘see’
5. athematic present	<i>da-mī</i>	<i>da-s-tū</i>	<i>dati</i>	‘give’

Table 39: The OCS present classes.

6.3. Present: inflection

The inflection of the present is shown in Table 40 (*bīrati* ‘collect’, *dvignǝti* ‘move’, *znati* ‘know’, *moliti* ‘beg’, *dati* ‘give’).

	class 1 (<i>bīrati</i>)	class 2 (<i>dvignṛti</i>)	class 3 (<i>znati</i>)	class 4 (<i>moliti</i>)	class 5 (<i>dati</i>)
1SG	<i>ber-ṛ</i>	<i>dvig-n-ṛ</i>	<i>zna-j-ṛ</i>	<i>mol-i-ṛ</i>	<i>da-mī</i>
2SG	<i>ber-e-ši</i>	<i>dvig-n-e-ši</i>	<i>zna-j-e-ši</i>	<i>mol-i-ši</i>	<i>da-si</i>
3SG	<i>ber-e-tū</i>	<i>dvig-n-e-tū</i>	<i>zna-j-e-tū</i>	<i>mol-i-tū</i>	<i>das-tū</i>
1DU	<i>ber-e-vě</i>	<i>dvig-n-e-vě</i>	<i>zna-j-e-vě</i>	<i>mol-i-vě</i>	<i>da-vě</i>
2DU	<i>ber-e-ta</i>	<i>dvig-n-e-ta</i>	<i>zna-j-e-ta</i>	<i>mol-i-ta</i>	<i>das-ta</i>
3DU	<i>ber-e-te/a</i>	<i>dvig-n-e-te/a</i>	<i>zna-j-e-te/a</i>	<i>mol-i-te/a</i>	<i>das-te/a</i>
1PL	<i>ber-e-mū</i>	<i>dvig-n-e-mū</i>	<i>zna-j-e-mū</i>	<i>mol-i-mū</i>	<i>da-mū</i>
2PL	<i>ber-e-te</i>	<i>dvig-n-e-te</i>	<i>zna-j-e-te</i>	<i>mol-i-te</i>	<i>das-te</i>
3PL	<i>ber-ṛ-tū</i>	<i>dvig-n-ṛ-tū</i>	<i>zna-j-ṛ-tū</i>	<i>mol-ṛ-tū</i>	<i>dad-ṛ-tū</i>

Table 40: Inflection of the OCS present.

6.4. Imperative: inflection

The inflection of the imperative is shown in Table 41 (*bīrati* ‘collect’, *dvignṛti* ‘move’, *znati* ‘know’, *moliti* ‘beg’, *dati* ‘give’).

	class 1 (<i>bīrati</i>)	class 2 (<i>dvignṛti</i>)	class 3 (<i>znati</i>)	class 4 (<i>moliti</i>)	class 5 (<i>dati</i>)
1SG	(<i>otū-pad-ě-mī</i>)	–	–	–	–
2SG	<i>ber-i-Ø</i>	<i>dvig-n-i-Ø</i>	<i>zna-i-Ø</i>	<i>mol-i-Ø</i>	<i>dažd-ī</i>
3SG	<i>ber-i-Ø</i>	<i>dvig-n-i-Ø</i>	<i>zna-i-Ø</i>	<i>mol-i-Ø</i>	<i>dažd-ī</i>
1DU	<i>ber-ě-vě</i>	<i>dvig-n-ě-vě</i>	<i>zna-i-vě</i>	<i>mol-i-vě</i>	<i>dad-i-vě</i>
2DU	<i>ber-ě-ta</i>	<i>dvig-n-ě-ta</i>	<i>zna-i-ta</i>	<i>mol-i-ta</i>	<i>dad-i-ta</i>
3DU	–	–	–	–	–
1PL	<i>ber-ě-mū</i>	<i>dvig-n-ě-mū</i>	<i>zna-i-mū</i>	<i>mol-i-mū</i>	<i>dad-i-mū</i>
2PL	<i>ber-ě-te</i>	<i>dvig-n-ě-te</i>	<i>zna-i-te</i>	<i>mol-i-te</i>	<i>dad-i-te</i>
3PL	(<i>bṛdṛ</i>)	–	–	–	–

Table 41: Inflection of the OCS imperative.

6.5. Aorist: inflection

The inflection of the aorist is shown in Table 42 (*iti* ‘go’, *vesti* ‘lead’, *jeṭi* ‘take’, *moliti* ‘beg’).

	<i>iti</i>	<i>vesti</i> (a)	<i>vesti</i> (b)	<i>jęti</i>	<i>moliti</i>
1SG	<i>id-ů</i>	<i>vě-s-ů</i>	<i>ved-o-x-ů</i>	<i>ję-s-ů</i>	<i>mol-i-x-ů</i>
2SG	<i>id-e</i>	<i>ved-e</i>	<i>ved-e</i>	<i>ję, ję-tů</i>	<i>mol-i</i>
3SG	<i>id-e</i>	<i>ved-e</i>	<i>ved-e</i>	<i>ję, ję-tů</i>	<i>mol-i</i>
1DU	<i>id-o-vě</i>	<i>vě-s-o-vě</i>	<i>ved-o-x-o-vě</i>	<i>ję-s-o-vě</i>	<i>mol-i-x-o-vě</i>
2DU	<i>id-e-ta</i>	<i>vě-s-ta</i>	<i>ved-o-s-ta</i>	<i>ję-s-ta</i>	<i>mol-i-s-ta</i>
3DU	<i>id-e-te</i>	<i>vě-s-te</i>	<i>ved-o-s-te</i>	<i>ję-s-te</i>	<i>mol-i-s-te</i>
1PL	<i>id-o-mů</i>	<i>vě-s-o-mů</i>	<i>ved-o-x-o-mů</i>	<i>ję-s-o-mů</i>	<i>mol-i-x-o-mů</i>
2PL	<i>id-e-te</i>	<i>vě-s-te</i>	<i>ved-o-s-te</i>	<i>ję-s-te</i>	<i>mol-i-s-te</i>
3PL	<i>id-ø</i>	<i>vě-s-ę</i>	<i>ved-o-š-ę</i>	<i>ję-s-ę</i>	<i>mol-i-š-ę</i>

Table 42: Inflection of the OCS aorist.

6.6. Imperfect: inflection

The inflection of the aorist is shown in Table 42 (*iti* ‘go’, *vesti* ‘lead’, *jęti* ‘take’, *moliti* ‘beg’).

	<i>moliti</i>	<i>iti</i>	<i>byti</i>
1SG	<i>mol-aa-x-ů</i>	<i>id-ěa-x-ů</i>	<i>b-ě-x-ů</i>
2SG	<i>mol-aa-š-e</i>	<i>id-ěa-š-e</i>	<i>b-ě</i>
3SG	<i>mol-aa-š-e</i>	<i>id-ěa-š-e</i>	<i>b-ě, / b-ěa-š-e</i>
1DU	<i>mol-aa-x-o-vě</i>	<i>id-ěa-x-o-vě</i>	<i>b-ě-x-o-vě</i>
2DU	<i>mol-aa-š-e-ta / -s-ta</i>	<i>id-ěa-š-e-ta / -s-ta</i>	<i>b-ě-s-ta</i>
3DU	<i>mol-aa-š-e-te / -s-te</i>	<i>id-ěa-š-e-te / -s-te</i>	<i>b-ě-s-te / b-ěa-š-e-te</i>
1PL	<i>mol-aa-x-o-mů</i>	<i>id-ěa-x-o-mů</i>	<i>b-ě-x-o-mů</i>
2PL	<i>mol-aa-š-e-te / -s-te</i>	<i>id-ěa-š-e-te / -s-te</i>	<i>b-ě-s-te</i>
3PL	<i>mol-aa-x-ø</i>	<i>id-ěa-x-ø</i>	<i>b-ě-š-ę / b-ěa-x-ø</i>

Table 43: Inflection of the OCS imperfect.

6.7. Aspect: imperfective vs. perfective

The distinction between imperfective and perfective aspect is expressed by derivation. Most simple (underived) verbs are imperfective, but some are perfective.

Perfective verbs may be derived from imperfective verbs by the addition of a preverb or the suffix *-np-*. Imperfective verbs may be derived from (simple or derived) perfective verbs by suffixation with *-a-*, *-va-* or *-ova-*, or in *i*-verbs, by replacement of the stem suffix. Table 44 gives some typical examples.

simple imperfective	prefixed perfective	derived imperfective
<i>plesti</i> (<i>plete-</i>) ‘plait’	<i>sŭ-plesti</i> ‘plait together’	<i>sŭ-plětati</i> ‘plait together’
<i>tešti</i> (<i>teče-</i>) ‘run’	<i>is-tešti</i> ‘run out’	<i>is-těkati</i> ‘run out’
<i>rešti</i> (<i>reče-</i>) ‘speak’	<i>na-rešti</i> ‘call’	<i>na-ricati</i> ‘call’
<i>žešti</i> (<i>žeže-</i>) ‘burn (trans.)’	<i>pri-žešti</i> ‘sear’	<i>pri-žagati</i> ‘sear’
<i>mošti</i> (<i>može-</i>) ‘be able’	<i>po-mošti</i> ‘help’	<i>po-magati</i> ‘help’
<i>bŕati</i> (<i>bere-</i>) ‘collect’	<i>sŭ-bŕati</i> ‘gather’	<i>sŭ-birati</i> ‘gather’
<i>mrěti</i> (<i>mŕe-</i>) ‘die’	<i>u-mrěti</i> ‘die’	<i>u-mirati</i> ‘die’
<i>sŭlati</i> (<i>sŭle-</i>) ‘send’	<i>po-sŭlati</i> ‘send’	<i>po-sylati</i> ‘send’
<i>myti</i> (<i>myje-</i>) ‘wash’	<i>u-myti</i> ‘wash’	<i>u-myvati</i> ‘wash’
<i>piti</i> (<i>pĭje-</i>) ‘drink’	<i>u-piti se</i> ‘get drunk’	<i>u-pivati se</i> ‘get drunk’
<i>slěditi</i> (<i>slědi-</i>) ‘follow’	<i>na-slěditi</i> ‘inherit’	<i>na-slědovati</i> ‘inherit’
<i>mysliti</i> (<i>mysli-</i>) ‘think’	<i>po-mysliti</i> ‘intend’	<i>po-mysl’vati</i> ‘intend’
<i>tvoriti</i> (<i>tvori-</i>) ‘make’	<i>za-tvoriti</i> ‘close’	<i>za-tvar’ati</i> ‘close’
<i>vesti</i> (<i>vede-</i>) ‘lead, take’	<i>iz-vesti</i> ‘lead out’	<i>iz-voditi</i> ‘lead out’
<i>vlěšti</i> (<i>vlěče-</i>) ‘drag, draw’	<i>iz-vlěšti</i> ‘pull out’	<i>iz-vlačiti</i> ‘pull out’

Table 44: Formation of aspect in OCS.

Examples of simple perfective verbs and their imperfective partners are shown in Table 45.

simple perfective	derived imperfective	gloss
<i>dati</i> (<i>dad-</i>)	<i>dajati</i>	‘give’
<i>lešti</i> (<i>ležē-</i>)	<i>lěgati</i>	‘lie down’
<i>pasti</i> (<i>pade-</i>)	<i>padati</i>	‘fall’
PRS <i>bŕde-</i>	PRS <i>jes-</i>	‘be’ (INF <i>byti</i>)
<i>kupiti</i> (<i>kupi-</i>)	<i>kupovati</i>	‘buy’
<i>prostiti</i> (<i>prosti-</i>)	<i>praštati</i>	‘forgive’
<i>stopiti</i> (<i>stopi-</i>)	<i>stopati</i>	‘tread’

Table 45: Formation of imperfective verbs from perfective verbs in OCS.

The perfective verb *rešti* (*reče-*) ‘say’ forms a pair with the imperfective verb *glagolati*.

The imperfective present normally expresses present meaning, whereas the perfective present expresses future meaning.

6.8. Iteratives

The iterative denotes a repeated action (see [Leskien 1922: 19–20](#) (formation), 171, 173–175 (use); [Vaillant 1964: 326–335](#)).

Verbs with a vowel-final root form the iterative with the suffix *-va-*.

- *po-dati* ‘transfer’ ⇒ iterative *po-davati*

Verbs with a consonant-final root form the iterative with the suffix *-a-* plus lengthening of the root vowel.

- *iz-bosti iz-bodŋ* ‘prick out’ ⇒ iterative *iz-badati*

i-verbs form the iterative with the suffix *-a-* plus lengthening of an *o* in the root to *a*; the stem-suffix *i* becomes syllabic *ĭ* with concomitant changes to the preceding consonant ([3.4.7](#)).

- *raz-oriti* ‘destroy’ ⇒ iterative *raz-arjati*
- *u-tvrŭditi* ‘fasten’ ⇒ iterative *u-tvrŭždati*

7. Slavic historical morphology: verbal system

7.1. PIE verbal dimensions

Post-Anatolian Proto-Indo-European had the following formally expressed verbal dimensions: aspect, tense–mood, voice, person–number (cf. [Rix 1992: 190–194](#)).

- aspect: present (imperfective), aorist (perfective), perfect
- tense–mood: indicative (present), preterite, injunctive, imperative, subjunctive, optative
- voice (diathesis): active, middle (mediopassive)
- person–number: first, second and third person; singular, dual and plural number

While Balto-Slavic preserve many of the verbal forms, the verbal system itself was restructured. Among the most important restructurings of Balto-Slavic and Slavic are the following:

- the PIE aspect distinction present vs. aorist vs. perfect (imperfective vs. perfective vs. perfect) disappears
- a new aspect distinction emerges: imperfective vs. perfective (see [6.7](#))
- Slavic shows no traces of the augment – Slavic preterite forms formally correspond to Indo-Iranian injunctive forms
- the preterite, imperative and subjunctive disappear; the optative is repurposed as the imperative
- the middle voice is lost

Of the PIE perfect forms, only a single one, PIE PF.1SG **uóǵid-h₂a* + **-i* survives as OCS *vědě* ‘I know’, repurposed as a present.

All items of the person–number category are preserved in Balto-Slavic.

For the historical background of the Slavic aspects see Andersen ([2009b](#)).

7.2. The new imperfect

The inherited aorist and imperfect categories merged in Slavic as the aorist. However, at some pre-stage of Slavic a new imperfect category was created, expressed morphologically by a chain of suffixes: PS interfix $*\bar{e}/\emptyset$ -, progressive $-\dot{i}\bar{a}$ -, past $*-x/\check{s}$ -, interfix $*-e/a$ - (the thematic vowel), person-number ending (Andersen 2013: 30–32).

It is likely that the interfix $*\bar{e}$ - is identical with the Baltic past suffix $*\bar{e}$ -, e.g. Lith. PST.3PS *nėšė* (INF *nėšti* ‘carry’), Lith. PST.3PS *prašė* (INF *prašyti* ‘ask’).

The progressive suffix PS $*\dot{i}\bar{a}$ - is probably identical with the suffix $*-(\dot{i})\bar{a}$ - (CS $*-(j)a$ -) used to derive imperfective verbs from perfective verbs (see 6.7).

The Common Slavic imperfect is preserved in OCS, Bulgarian, Macedonian, some varieties of BCMS, Upper Sorbian and Polabian.

7.3. The development of the verbal personal endings

			PIE	PBS	PS	CS	OCS
1SG	primary	athem.	*-mi	*-mi	*es'mi	*jěsmĩ	jesmĩ, jesmũ
		them.	*-oh	*-ō	* <u>u</u> edān	*vĕdō; *pišō	vedō; pišō
	secondary	athem.	*-m	*-am	* <u>u</u> e'su	*vĕšũ	vĕšũ, vedoxũ
		them.	*-om	*-am	*sĕdu	*sĕdũ	sĕdũ
	imperative	athem.	*-iēh ₁ m	–	–	–	–
		them.	*-oih ₁ m	*-a ₁ mi	* <u>u</u> edā ₁ mi	*vedĕmĩ; ?	otŭpadĕmĩ; ?
2SG	primary	athem.	*-si	*-si	*e'si, *e'sī / *e'sĕĩ	*jĕsĩ, *jesi	jesi
		them.	*-esi	*-esi	* <u>u</u> ede'xi, * <u>u</u> ede'xī / * <u>u</u> ede'xĕĩ	*vedĕšĩ, *vedešĩ; *pīšešĩ, *pīšešĩ	vedešĩ; pīšešĩ
	secondary	athem.	*-s	*-s	*'bēĩ / *'bī; *mer; *bū	*bĩ; *mēr; *bŷ	bi; umrĕ, umrĕtũ; by, bystũ
		them.	*-es	*-es	*sĕde, * <u>u</u> ede	*sĕde, *vĕde	sĕde
	imperative	athem.	*-iēh ₁ s	*-iĕs	*dādji	*dadji	daždĩ
		them.	*-oih ₁ s	*-a ₁ s	* <u>u</u> e'dā ₁ i	*vedĩ; *pišĩ	vedi; piši
3SG	primary	athem.	*-ti	*-ti	*es'ti	*jĕstĩ	jestũ, jestĩ (rare), je
		them.	*-eti	*-eti	* <u>u</u> ede'ti	*vedĕtĩ; *pīšetĩ	vedetũ, pridetĩ (rare), bōde (rare); pišetũ, bijetĩ (rare), igraje (rare)
	secondary	athem.	*-d	*-∅	*'bēĩ / *'bī; *mer; *bū	*bĩ; *mēr; *bŷ	bi; umrĕ, umrĕtũ; by, bystũ
		them.	*-ed	*-e	*sĕde, * <u>u</u> ede	*sĕde, *vĕde	sĕde
	imperative	athem.	*-iēh ₁ d	*-iĕ	*dādji	*dadji	daždĩ
		them.	*-oih ₁ d	*-a ₁ i	* <u>u</u> e'dā ₁ i	*vedĩ; *pišĩ	vedi; piši
1DU	primary	athem.	*-ue/os	*-uā	*esūā	*jesva, *jesvĕ	jesvĕ
		them.	*-oue/os	*-auā	* <u>u</u> eda ₁ uā	*vedeva, *vedevĕ; *pīševa, *pīševĕ	vedevĕ; pīševĕ
	secondary	athem.	*-uah ₂	*-uā	* <u>u</u> ēsa ₁ uā	*vĕsova, *vĕsovĕ	vĕsovĕ, vedoxovĕ
		them.	*-ouah ₂	*-auā	*sĕda ₁ uā	*sĕdova, *sĕdovĕ	sĕdovĕ
	imperative	athem.	*-ih ₁ uah ₂	*-iūā	*dād ₁ iūā	*dadi ₁ va, *dadi ₁ vĕ	dadi ₁ vĕ
		them.	*-oih ₁ uah ₂	*-ōiūā	* <u>u</u> edā ₁ iūā	*vedĕva, *vedĕvĕ; *pišiva, *pišivĕ	vedĕvĕ; pišivĕ
2DU	primary	athem.	*-th ₁ es	*-tā	*estā	*jesta	jesta
		them.	*-eth ₁ es	*-etā	* <u>u</u> edetā		

		PIE	PBS	PS	CS	OCS	
					*vedeta; *pišeta	vedeta; pišeta	
	secondary	athem.	*-tom	*-tā	*uēstā	*vēsta	vēsta, vedosta
		them.	*-etom	*-etā	*sēdetā	*sēdeta	sēdeta
	imperative	athem.	*-ih ₁ tom	*-ītā	*dādītā	*dadita	dadita
them.		*-oġh ₁ tom	*-qītā	*uēdāītā	*vedēta; *pišita	vedēta; pišita	
3DU	primary	athem.	*-tes	*-tes	*este	*jeste	jeste, jesta
		them.	*-etes	*-etes	*uēdete	*vedete; *pišete	vedete, vedeta; pišete, pišeta
	secondary	athem.	*-tah ₂ m	*-tes	*uēste	*vēste	vēste, vēsta, vedoste, vedosta
		them.	*-etah ₂ m	*-etes	*sēdete	*sēdete	sēdete, sēdeta
	imperative	athem.	*-ih ₁ tah ₂ m	–	–	–	–
		them.	*-oġh ₁ tah ₂ m	–	–	–	–
1PL	primary	athem.	*-mos	*-mas	*es'mə	*jěsmŭ, *jesmè, *jesmò	jěsmŭ
		them.	*-ómos	*-amas	*uēda'mə	*vedēmŭ, *vedemè, *vedemò; *pišemŭ, *pišeme, *pišemo	vedemŭ; pišemŭ
	secondary	athem.	*-me	*-me	*uēsame	*vēsomŭ, *vēsome, *vēsomo	*vēsomŭ, *vedoxomŭ
		them.	*-ome	*-ame	*'sēdame	*sědomŭ, *sědome, *sědomo	sědomŭ
	imperative	athem.	*-ih ₁ me	*-īme	*dādīme	*dadimŭ, *dadime, *dadimo	dadimŭ
		them.	*-oġh ₁ me	*-qīme	*uē'dāīme	*vedēmŭ, *veděme, *veděmo; *pišimŭ, *pišīme, *pišimo	*vedēmŭ; pišimŭ
2PL	primary	athem.	*-th ₁ e	*-te	*es'te	*jěstè	jeste
		them.	*-eth ₁ e	*-ete	*uēde'te	*vedetè; *pišete	vedete; pišete
	secondary	athem.	*-te	*-te	*uēste	*vēste	vēste, vedoste
		them.	*-ete	*-ete	*'sēdete	*sědete	sědete
	imperative	athem.	*-ih ₁ te	*-īte	*dādīte	*dadīte	dadīte
		them.	*-oġh ₁ te	*-qīte	*uē'dāīte	*veděte; *pišīte	veděte; pišīte
3PL	primary	athem.	*-enti, *-nti	*-enti, *-inti	*san'ti, *dā'de/inti	*sōtī, *dādētī	sōtŭ; dādētŭ
		them.	*-onti	*-anti	*uēdan'ti	*vedōtī; *pišōtī	vedōtŭ; pišōtŭ
	secondary	athem.	*-end, *-nd	*-in	*uēsen	*vēšē	věšē, vedošē
		them.	*-ond	*-an	*'sēdan	*sědō	sědō
	imperative	athem.	–	–	–	–	–
		them.	*-ond	*-an	*'būndan	*bōdō	bōdō

Table 46: Overview of the development of the verbal personal endings from PIE to OCS.

7.4. Infinite forms

PARTICIPLES: The PIE participial formations are generally well preserved in CS and OCS. Table 47 shows the correspondences between the OCS and PIE participles (OCS *nes-ti* ‘carry’, PRS *nes-ρ*; OCS *ję-ti* ‘take’, PRS *jím-ρ*).

	stem	NOM.SG.M	NOM.SG.F	PIE base
PRS.ACT.PTCP	<i>nes-ρšt-</i>	<i>nes-y</i>	<i>nes-ρšt-i</i>	PRS.ACT.PTCP *-ont-
PRS.PASS.PTCP	<i>nes-om-</i>	<i>nes-om-ŭ</i>	<i>nes-om-a</i>	probably PRS.PASS.PTCP *-mh ₁ no-
PST.ACT.PTCP I	<i>nes-ŭš-</i>	<i>nes-ŭ</i>	<i>nes-ŭš-i</i>	PF.ACT.PTCP *-uōs, *-uot-, *-us-
PST.ACT.PTCP II	<i>nes-l-</i>	<i>nes-l-ŭ</i>	<i>nes-l-a</i>	adjective formation in *-lo-
PST.PASS.PTCP	<i>nes-en-</i>	<i>nes-en-ŭ</i>	<i>nes-en-a</i>	adjective formation in *-no-
	<i>ję-t-</i>	<i>ję-t-ŭ</i>	<i>ję-t-a</i>	to-participle

Table 47: The participles of OCS and their PIE sources.

The present passive participle OCS *nesomŭ* is identical with Lith. *nėšamas* and is likely to reflect PIE *-mh₁no-, also found in Gk. -μενο- etc. (Nowak 2017).

For the past passive participle cf. Goth. *bundans*.

The most important formal change is that – outside the masculine–neutre nominative singular – the stems of the present and past active participles are based on the original feminine allomorph: PIE PRS.ACT.PTCP *-ont-_i- > PBS *-ant_i- > PS *-ant_i- (CS *-ρt_i-) > OCS -ρšt-; PIE PST.ACT.PTCP *-us-_i- > PBS *-uš_i- > PS *-ux_i- (CS *-ŭš-) > OCS -ŭš-. This innovation is shared with Baltic, cf. the active participles formed from OCS *nesti* ‘carry’ and Lith. *nėšti* ‘carry’:

- OCS PRS.ACT.PTCP.GEN.SG.M/N *nesρšta* and Lith. PRS.ACT.PTCP.GEN.SG.M *nėšančio*, both from PBS *-ant_i-
- OCS PST.ACT.PTCP.GEN.SG.M/N *nesŭša* and Lith. PST.ACT.PTCP.GEN.SG.M *nėšusio*, both from PBS *-uš_i-

INFINITIVE: The Common Slavic infinitive marker *-ti may reflect PS *-tī or *-tēi. Since the Slavic infinitive marker is underlyingly accented, it is most likely that it corresponds to the locative singular (not the dative singular) of an *i*-stem, i.e. PS *-tēi < PBS *-tēi < PIE *-t-ēi – because the *i*-stem locative singular is also accented in Slavic, e.g. PS LOC.SG **nak'tēi* (CS **notī*), as opposed to DAT.SG **naktei* (CS **nōtī*) with non-final accentuation.

SUPINE: The Common Slavic supine marker **-tŭ* < PS **-tu* < PBS **-tum*, is originally the accusative singular of a *tu*-stem (Ved. INF *-tum* and Lat. SUP *-tu*). East Baltic also uses this form as a supine, e.g. Lith. *vèstu* and Latv. dial. *ġtu*, while in West Baltic (Old Prussian) the form is used as an infinitive, e.g. *boũton* ‘be’.

8. Other parts of speech; word formation; syntax

8.1. Indeclinable words

See Andersen (1998a), 447–448.

8.1.1. Adverbs

Adverbs are often formed to the neuter accusative singular of adjectives.

- *malo* adv. ‘a bit’ < *malů* adj. ‘little’
- *mūnogo* adv. ‘much, many’ < *mūnogů* adj. ‘much, many’

Adverbs can also be formed from the neuter locative singular of adjectives.

- *dobře* adv. ‘well’ to *dobrů* adj. ‘good’
- *zůlě* adv. ‘badly’ to *zůlů* adj. ‘bad’

Other fossilised case forms of adjectives and nouns are used.

- *noštijō* adv. ‘during the night’, INSTR.SG of *noštī* F *i*-stem ‘night’

8.1.2. Prepositions

Some prepositions in Slavic are inherited from PIE:

- *vŭ(n)* prep. + ACC, LOC ‘in(to)’, which must continue PIE **h₁n*
- *sŭ(n)* prep. + INSTR, GEN ‘with, (out) from’ which partly continues PIE **som*, also in Ved. *sám* preverb, prep. ‘together with’, cf. PIE **sem-* ‘one’; partly PIE **kōm*, also in Lat. *cum*, *com* prep. ‘with’

Some prepositions are case forms of adjectives or nouns:

- *među* prep. + INSTR ‘between’, GEN–LOC of *među* F ‘border, boundary’

Some are derived from other prepositions:

- *na* prep. + ACC, LOC ‘on(to)’ vs. *nadŭ* prep. + ACC, INSTR ‘over, above’

8.2. Notes on word formation

The standard work is Vaillant (1974); cf. also Matasović (2014); Birnbaum & Schaeken (1997: 17–115).

o- and *ah₂*-stems from verbs (with *o-* or lengthened grade in the root) can designate actions (*nomina actionis*), results (*nomina rei rectae*), places (*nomina loci*) and agents (*nomina agentis*) – this process continues to be productive in the modern languages.

Many types of compounds are found – the older types are formed without derivational suffixes, e.g. *voj-e-vod-a* ‘warrior, general’, but more recent types are formed with a suffix, e.g. *řpko-vod-ŋn-ik-ŭ* ‘guide’.

8.3. Notes on syntax

The standard treatments of historical Slavic syntax are Vaillant (1977); Večerka (1989–2003).

8.3.1. Use of cases

In Slavic there is a strong tendency to use the genitive form instead of the accusative with animate objects in the paradigms where the nominative and accusative have merged. This tendency is already observable in the oldest OCS manuscripts.

<i>Petr-ŭ</i>	<i>vidi-tŭ</i>	<i>Simon-a</i>
Peter-NOM.SG	see-PRS.3SG	Simon-ACC-GEN.SG
‘Peter sees Simon’		

The original use of the accusative is also found, but it is rare.

<i>Petr-ŭ</i>	<i>vidi-tŭ</i>	<i>Simon-ŭ</i>
Peter-NOM.SG	see-PRS.3SG	Simon-ACC.SG
‘Peter sees Simon’		

The animateness hierarchy is primarily based on the features Personal and Mature (Huntley 1993: 137): proper personal > common personal > *gospodŭ* ‘lord’ > *rabŭ* ‘slave’ > *synŭ* ‘(mature) son’ > *anġelŭ* ‘angel’ > animals > *synŭ* ‘(infant) son’ > *bĕsŭ* ‘demon’ > infants > *duxŭ* ‘spirit’ > inanimates.

“Polarity questions” (“yes or no?”) contain a *li* that follows the constituent that stands in focus.

<i>Ty</i>	<i>li</i>	<i>je-si</i>	<i>car-ĩ</i>	<i>ijuděisk-ŭ</i>
You:NOM.SG	Q	be-PRS.2SG	king-NOM.SG	Judeian-NOM.SG
'Are you the king of the Jews?'				

The negation *ne* is proclitic; if a sentence contains a negated pronoun or adverb, the predicate is often negated in OCS and very often in the modern Slavic languages.

- *ne jęsomŭ ničesože* “we did not catch anything”

In existential sentences the partitive or the negated subject stands in the genitive.

- *ne bě ima čęda* lit. “There was no child’s for them”, i.e. “They had no children”

Locatives with prepositions are not common in OCS, but they are used productively in Old East Slavic.

- OESl. *Samŭ že Izäslavŭ kŭnäzĩ pravljaaše stolŭ ... Kyjevě* “Prince Izäslavŭ sat himself on the throne in Kyiv” where *Kyjevě* is a prepositionless locative.

In older Slavic the genitive had a number of functions that later became expressed in other ways – some of these functions appear to be inherited from the old ablative.

- complement for verbs that express perception (e.g. *slušati* ‘hear’)
- achievement or striving toward (e.g. *iskati* ‘look for, seek’, *žĩdati* ‘wait for’)
- separation (e.g. *otŭlqčiti* ‘separate’, *běžati* ‘flee from’, *bojati sę* ‘be afraid’)
- partitive or negated object (see above)

Genitives are also used for the direct object of the supine – that probably reflects that the supine was originally a nominal form.

- *pride ... viděti groba* “he came to see the grave” where *groba* stands in the genitive

The instrumental expresses means, time, place, manner, comparison and quality; in addition it is used with nominal predicates.

- *děvoję bo bě Eŭa* “Since Eve was a virgin” where *děvoję* stands in the instrumental

8.3.2. Word order

The word order is relatively free in early and modern Slavic. It expresses the information structure of the utterance: constituents come from left to right in agreement with rising rhematicity, i.e. new information comes from the position of the last thing in the sentence, cf. English *the name of the student was André*, where *André* is the new information.

8.3.3. Subordination

Subordinate clauses can be expressed with the assistance of a conjunction and a finite clause or by with the assistance of nominalized clauses (e.g. participles). The rich system of participles suggests that Common Slavic preferred nominalized clauses.

- *se estŭ tělo moje dajemoje za vy* “This is my body, which is given to you”

When the subject in the main clause is not the same as the subject in the subordinate clause, a dative absolute is used.

- *mŭnogu sŕštu narodu i ne imŕstemŭ česo ěsti ... Isusŭ glagola* “When the crowd of people was large, and they didn’t have anything to eat ... Jesus said”, where *mŭnogu sŕštu narodu i ne imŕstemŭ* is the dative absolute

9. Appendix: Balto-Slavic prosody

9.1. Introduction

Balto-Slavic prosody is a complex area where approaches have changed more radically than in other parts of the historical study of Balto-Slavic. Today most scholars take the starting point in the results of Stang (1965), e.g. Illič-Svityč (1979); Dybo (e.g. 1981); Olander (e.g. 2009); Jasanoff (2017).

9.2. Terminology and notation

9.2.1. Terminology: accent

I refer to **ACCENT** as the prosodic emphasis of a syllable in the word. **STRESS** is the realisation of the accent in stress-accent languages (see below). The accent is realised very differently in different languages, and under different conditions in the same language.

For Indo-European linguistics it is useful to distinguish between languages with stress accent and languages with pitch accent. In languages with **STRESS ACCENT** the accented syllable is emphasised through of pitch, relative vowel length, intensity and reduction of unstressed syllables. Stress accent is found in contemporary languages like English, German, Italian, Spanish, Russian and Polish; in historically attested languages like Old English, Old High German and Latin; and in reconstructed languages like Proto-Germanic and Proto-Italic.

In languages with **PITCH ACCENT** the accented syllable is emphasised almost exclusively through pitch. Pitch accent is found in contemporary languages like Japanese; in attested languages like Vedic and Ancient Greek; and in reconstructed languages like PIE, Proto-Balto-Slavic and Proto-Slavic.

The placement of the accent can be more or less independent of the word's phonological structure. It is useful to distinguish between languages with free accent, limited free accent and bound accent. In languages with **FREE ACCENT** the placement of the accent in the word cannot be predicted from the word's phonological structure, e.g. English, German, Italian, Spanish, Lithuanian and Russian. In languages with **LIMITED FREE ACCENT** the placement of the accent in the word can be predicted to a certain extent from the word's phonological structure, e.g. Greek. In languages with **FIXED ACCENT** the placement of the accent in the word can be predicted from the word's phonological structure,

e.g. Czech, Latvian, Finnish, Proto-Italic and Proto-Germanic (accent on the first syllable); Polish (accent on the penultimate syllable); Latin (accent on the penultimate syllable if it is heavy; otherwise on the antepenultimate syllable); Classical Sanskrit (accent on the penultimate syllable if it is long; otherwise on the antepenultimate syllable if it is heavy; otherwise the pre-antepenultimate syllable).

9.2.2. Terminology: tones

TONE refers to phonologically relevant pitch contrasts. The domain for tones can be the syllable or the word.

Some languages have SYLLABLE TONES: Ancient Greek NOM.SG $\phi\acute{\omega}\varsigma$ M ‘man’ (rising tone) vs. NOM-ACC $\phi\tilde{\omega}\varsigma$ N ‘light’ (falling tone).

Others have WORD TONES: Swedish *anden tomten stegen* with accent 1: ‘the duck’ (bird), ‘the ground’ (area of earth), ‘the steps’; with accent 2 ‘the spirit’, ‘the elf’, ‘the ladder’.

9.2.3. Notation of Proto-Balto-Slavic, Proto-Slavic and Common Slavic prosodic features

As might be expected, there is no uniform notation of the prosodic features of Proto-Balto-Slavic, Proto-Slavic and Common Slavic. This is partly due to different analyses of the reconstructed languages and partly due to different conventions followed by individual researchers.

Proto-Balto-Slavic acute syllables contained either a long vowel or a diphthong. They are mostly interpreted as glottalised, as opposed to non-acute (“circumflex”) syllables. The notation used here for Proto-Balto-Slavic is the following:

- $\acute{x}$: “acute” (perhaps glottalised) syllable
- $\acute{x}$: accented syllable
- $\text{,}x$: unaccented initial syllable

Table 48 shows the notational conventions for Proto-Slavic prosody used here, and those used by Holzer (2009; followed by Klotz 2023); and the traditional conventions for Common Slavic prosody, also used here, alongside those used by Derksen (2008; 2015) (referred to as “Proto-Slavic” by Derksen). See the discussion and overview in Majer (2020).

type	PS (used here)	PS (Holzer)	CS (used here)	CS (Derksen)
(long) acute	* $\bar{V}(R)$	$\bar{V}$, $\underline{V}R$	* $\acute{x}$	* $\dot{x}$
long “circumflex”	* $\bar{V}$, * $\check{V}R$	[unmarked]	* $\hat{x}$	* $\hat{x}$
short “circumflex”	* $\bar{V}$	[unmarked]	* $\check{x}$	* $\check{x}$, * $\hat{x}$
long neoacute	* $\bar{V}...$, * $\check{V}R...$	$\bar{V}...$, $\underline{V}R...$	* $\acute{x}$	* $\acute{x}$
short neoacute	* $\bar{V}...$, * $\check{V}...$	$\bar{V}...$	* $\dot{x}$	* $\dot{x}$

Table 48: Notation of Proto-Slavic and Common Slavic prosody.

The types of syllables refer to the following:

- acute: accented syllable with long vowel or long diphthong: PS NOM.SG **lěipā* F ‘linden tree’ F *ah*₂-stem (a.p. a) (CS **lǐpa*) |
- long “circumflex”: initial syllable with long vowel or short or long diphthong of an unaccented word-form: PS ACC.SG **zeimān* (from **zei'mā* F *ah*₂-stem ‘winter’ (a.p. c)) (CS **zīmō*)
- short “circumflex”: initial syllable with short vowel of an unaccented word-form: PS ACC.SG **uadān* (from **ua'dā* F *ah*₂-stem ‘water’ (a.p. c)) (CS **vōdō*)
- long neoacute: pretonic syllable with a long vowel or short or long diphthong: PS NOM.SG **xuar'stā* (CS **xvórstǔ*) M *o*-stem ‘osier’ (a.p. b) |
- short neoacute: pretonic syllable with a short vowel: PS NOM.SG **sna'pā* (CS **snòpǔ*) M *o*-stem ‘sheaf’ (a.p. b)

The contemporary Baltic languages have a more or less standardised way of showing the prosodic features.

Lithuanian:

- *é ó ý ū ér ár ĩr ùr*: acute syllable (falling tone)
- *ẽ ĕ ÿ ũ eĩ aĩ ĩr uĩ*: circumflex (rising tone)

Latvian:

- $\bar{V}$: falling tone (German “Fallton”)
- $\check{V}$: sustained tone (German “Dehnton”)
- $\hat{V}$: broken tone (German “Stoßton”, “Brechtton”)

9.3. Proto-Balto-Slavic prosody

9.3.1. Proto-Balto-Slavic: prosodic system

Proto-Balto-Slavic had a free pitch accent, a difference between glottalised and non-glottalised syllables (cf. 9.2.3) and distinctive quantity.

The accent probably was realised as a high tone on accented syllables, approximately as in Vedic (9.2.1).

In principle the PIE accent was preserved directly in Balto-Slavic, but some accent shifts make the correspondences difficult to see through. In pre-Proto-Balto-Slavic HIRT'S LAW took place: the accent is retracted from an accented syllable to a preceding syllable if it contained *VH (3.2.5). In addition to this is the Balto-Slavic PARADIGMATIC ACCENTUAL MOBILITY: some forms of a paradigm are unaccented, while others are accented on the ending (3.2.7).

Apart from the accent, Proto-Balto-Slavic distinguished between two kinds of syllables, traditionally referred to as “acute” and “circumflex” syllables. According to a widespread suggestion, the distinction may hinge on a difference between glottalised and non-glottalised vowels. An acute syllable (*Y) has the following main sources.

1. An Indo-European (short) vowel followed by a laryngeal (*V(R)H), in accordance with the loss of laryngeals (3.2.4).
 - PIE *mah₂tér- > PBS *'māter- F ‘mother’ > PS *'māter- (CS *māter-) (a.p. a); OLith., dial. Lith. *mótė* ‘wife; mother’ (a.p. 1/3)
2. An Indo-European (short) vowel followed by a voiced-unaspirated stop (*V(R)D), in accordance with Winter's Law (3.2.8).
 - PIE *sed- ‘sit’ > PBS *sēd- > OCS *sěděti*; Lith. INF *sėdėti*
 - cf. (with voiced aspirated stop) PIE *ueǵʰ- ‘drive’ (trans.), ‘transport’ > PBS *uež- > PS *vez- (CS *vez-) > OCS *vezq*; Lith. PRS.1SG *vežù*

By contrast, a non-glottalised vowel can go back to an Indo-European short vowel and probably also an Indo-European apophonic long vowel. The latter point is disputed, however, some authors arguing that PIE long vowels become non-acute in Proto-Balto-Slavic (e.g. Kortlandt 2009; 2012; 2018), and others arguing that they become acute (e.g. Rasmussen 1999: 480–483; Jasanoff 2017: 74–103; Villanueva Svensson 2011; 2023: 144–187).

9.3.2. Proto-Balto-Slavic: paradigmatic accent

After the rise of accentual mobility in vowel stems (3.2.7) Proto-Balto-Slavic nouns and verbs belonged to one of two accent paradigms.

- 1 immobile (a.p. I): all forms are accented on the same, non-desinential syllable – lexemes not accented on the ending in PIE and lexemes with Hirt’s Law
- 2 mobile (a.p. II): forms accented on the first syllable of the ending alternating with unaccented forms – lexemes accented on the ending in PIE

PIE	PBS	PBS root	Lithuanian	Slavic
non-desinential	a.p. I (immobile)	acute	a.p. 1	a.p. <i>a</i>
		non-acute	a.p. 2 (Saussure’s Law)	a.p. <i>b</i> (Dybo’s Law 3.3.1)
desinential	a.p. II (mobile)	acute	a.p. 3	a.p. <i>c</i>
		non-acute	a.p. 4 (Saussure’s Law)	

Table 49: Correspondences between PIE accentuation and Balto-Slavic accent paradigms.

The correspondences between Proto-Balto-Slavic, Baltic and Slavic accent paradigms can be seen in Table 50. The forms are accusative singular of *ah*₂-stems.

PBS a.p.	PBS “tone”	PBS	Lith.	Latv.	PS
I	acute	* <i>l̥ēipān</i>	<i>l̥ēpą</i> a.p. 1	<i>l̥ēpu</i>	* <i>l̥ēipān</i> a.p. <i>a</i>
	non-acute	* <i>uaitān</i>	<i>viētą</i> a.p. 2	<i>vietu</i>	* <i>ual’kān</i> a.p. <i>b</i>
II	acute	* <i>gālūān</i>	<i>gálvą</i> a.p. 3	<i>gaľvu</i>	* <i>gālūān</i> a.p. <i>c</i>
	non-acute	* <i>zeimān</i>	<i>žiēmą</i> a.p. 4	<i>ziemu</i>	* <i>zeimān</i> a.p. <i>c</i>

Table 50: PBS, Baltic and Slavic prosodic correspondences.

9.4. Proto-Slavic and Common Slavic prosody

9.4.1. Proto-Slavic and Common Slavic: prosodic system

Proto-Slavic has a free pitch accent and distinctive quantity. The accent is probably realised as a high tone on the accented syllable, approximately as in Vedic Sanskrit. In principle the Proto-Balto-Slavic accent is preserved directly in Proto-Slavic.

In my analysis, an accented syllable is acute if it contains a long vowel or a long diphthong, and non-acute if it contains a short vowel or a short diphthong. In unaccented syllables acuteness is not relevant.

9.4.2. Proto-Slavic and Common Slavic: paradigmatic accent

Dybo's Law (3.3.1) causes the Proto-Balto-Slavic a.p. I to split in two, resulting in three accent paradigms in Proto-Slavic and Common Slavic.

Accent paradigm *a*: columnar accentuation on a non-desinential syllable. Lexemes with Proto-Balto-Slavic a.p. I (immobile accent) and a acute root syllable. Corresponds to Lith. a.p. 1.

- PS NOM.SG **kārūā* (CS **kǫrva*) F 'cow', ACC.SG **kārūān* (CS **kǫrvq*)
- PS NOM-ACC.SG **ka'pūta* (CS **kopýto*) N 'hoof', GEN.SG **ka'pūtā* (CS **kopýta*)
- PS NOM.SG **pa'dabā* (CS **podǫba*) F 'manner', ACC.SG **pa'dabān* (CS **podǫbq*)
- PS PRS.1SG **lězān* (CS **lězq*) 'crawl', PRS.3SG **lězeti* (CS **lězetī*)

Accent paradigm *b*: columnar accentuation on the first syllable of the ending. Lexemes with Proto-Balto-Slavic a.p. I (immobile accent) and a non-acute root-syllable (which triggers Dybo's Law; 3.3.1). Corresponds to Lithuanian a.p. 2.

- PS NOM.SG **ge'nā* (CS **ženā*) F 'woman; wife', ACC PS **ge'nān* (CS **ženq*)
- PS PRS.1SG **ma'gān* (CS **mogq*) 'can', PRS.3SG PS **ma'geti* (CS **mòžetī*)

Accent paradigm *c*: alternation between unaccented word-forms and word-forms with accent on the ending. Lexemes with Proto-Balto-Slavic a.p. II (mobile accent). Corresponds to Lithuanian a.p. 3 (acute roots) and 4 (non-acute roots).

- PS NOM.SG **gāl'uā* (CS **golva*) F 'head', ACC.SG **gāl'uān* (CS **golvq*)
- PS PRS.1SG **gīrān* (CS **žīrq*) 'swallow', PRS.3SG **gīre'ti* (CS **žīrētī*)

PIE root-accented masculine nouns are expected to have a.p. *b* in Slavic, but they seem to have been analogically transferred into a.p. *c*.

- PIE **ǵómbʰo-* (cf. Ved. *jámbha-* 'tooth; (du.) jaws', Gk. *γόμφος* 'pin; nail') > PBS **'žambas* (a.p. I) (cf. Lith. *žāmbas* '(sharp) edge' (a.p. 2/4)) → PS **zanbā* (CS **zǫbŭ*) M 'tooth' (a.p. c)

Proto-Indo-European root-accented neuters look like they often become masculine and take a.p. *b* in Slavic:

- PIE **dʰuóro-* N → PS **duarə* (CS **dvòrŭ*) M (a.p. c) 'courtyard'

9.5. Prosodic systems of the Slavic languages

9.5.1. South Slavic: Bosnian, Croatian, Montenegrin, Serbian

(Serbo-Croatian)

The standard BCMS languages, which all build on Štokavian dialects, have a stress accent, syllable tones and distinctive quantity, with certain prosodic limitations.

- the accent is restricted to non-final syllables (except for monosyllabic words)
- falling tone is only found in initial syllables (including monosyllabic words)
- rising tone is only found in polysyllabic words

We have the following reflexes in the first syllable:

Common Slavic acute yields a short falling tone (ǵ)

- PS NOM.SG **bābā* (CS **bāba*) F (a.p. *a*) ‘grandmother’ > Štok., Čak. *bāba*

Common Slavic long neoacute yields a long falling tone (ǵ̃; falling together with “circumflex”) in Štokavian, but long rising tone (ǵ̃, ǵ̃̃) in conservative dialects

- PS NOM.SG **xuar’stā* (CS **xvórstŭ*) M (a.p. *b*) ‘brushwood’ > Štok. *hrāst*, Čak. *hrást*

Common Slavic short neoacute yields short falling tone (ǵ).

- PS NOM.SG **sna’pə* CS **snòpŭ* M (a.p. *b*) ‘sheaf’ > Štok., Čak. *snòp*

Common Slavic long “circumflex” yields long falling tone (ǵ̃).

- PS ACC.SG **gālŭā* (CS **gōlvŏ*) F (a.p. *c*) ‘head’ > Štok., Čak. *glāvu*

Common Slavic short “circumflex” yields long falling tone (ǵ̃) in closed syllables, short falling tone (ǵ̃̃) in open syllables.

- PS NOM-ACC.SG **aka* (CS **ōko*) N (a.p. *c*) ‘eye’ > Štok., Čak. *ōko*
- PS NOM.SG **nasə* (CS **nōsŭ*) M ‘nose’ (a.p. *c*) > Štok., Čak. *nôs*

In Čakavian dialects of Croatian the Proto-Slavic accent location is preserved as a starting point.

- Čak. NOM.SG *glāvā* ‘head’, ACC *glāvu* etc.

In the Štokavian dialects (which underlie the standard languages) a retraction of the accent from a non-initial syllable to a preceding syllable occurred; the newly accented vowel has rising tone, written *ǎ* if it is long, *ǐ* if it is short.

- Štok. NOM.SG *gláva* (cf. Čak. *glāvā*) (cf. Štok., Čak. ACC.SG *glāvu*)
- Štok. NOM.SG *žēna* (cf. Čak. *ženā*)

9.5.2. South Slavic: Slovene

Slovene has a free stress accent, tones and distinctive quantity.

The relationship between accent, tones and quantity is relatively complicated, and the different Slovenian dialects have very different systems. Some important developments in Slovene are the following:

Common Slavic acute syllables yield short vowels (*ǐ*) in final position (after the loss of CS **ĩ*, **ũ*), long rising tone (*ǎ*) elsewhere.

- PS NOM.SG **gārxǎ* (CS **gōrxǔ*) M ‘pea’ (a.p. *a*) > Sln. *grǎh* (GEN.SG *gráha*)

Common Slavic long neoacute syllables yield long rising tone (*ǎ*).

- PS NOM.SG **xuar’stǎ* (CS **xvórstǔ*) M ‘brushwood’ (a.p. *b*) > Sln. *hrást*

Common Slavic short neoacute syllables yield short vowel (*ǐ*).

- PS NOM.SG **sna’pǎ* (CS **snòpǔ*) M ‘sheaf’ (a.p. *b*) > Sln. *snòp*

Common Slavic long “circumflex” yields long falling tone (*ǐ*) in monosyllabic words, accent movement to the right in polysyllabic words.

- PS NOM.SG **kūāśǎ* (CS **kvāsǔ*) M ‘sourdough’ (a.p. *c*) > Sln. *kvās*
- PS ACC.SG **gālūā* (CS **gōlvǔ*) F ‘head’ (a.p. *c*) > Sln. *glavǐ*

Common Slavic short “circumflex” yields long falling tone (*ǐ*) in monosyllabic words. In polysyllabic words the accent moves one syllables towards the end of the word.

- PS NOM-ACC.SG **aka* (CS **ǎko*) N ‘eye’ (a.p. *c*) > Sln. *okǐ*
- PS NOM.SG **nasǎ* (CS **nǎsǔ*) M ‘nose’ (a.p. *c*) > Sln. *nǐš*

9.5.3. South Slavic: Bulgarian and Macedonian

Bulgarian has a free stress accent. Macedonian has a fixed stress accent on the word’s third last syllable. Neither Bulgarian nor Macedonian have distinctive quantity. Bulgarian prosody is a bit of a murky area from a diachronic point of

view, among other reasons, because of the development of the case system. Macedonian is the Slavic language that has the simplest prosodic system; and it is the language that says the least about the Proto-Slavic situation.

9.5.4. East Slavic

The East Slavic languages (Russian, Belarusian, Ukrainian) have a free stress accent. They do not have distinctive quantity. The original Proto-Slavic position of the accent is in principle preserved, originally unaccented word-forms receiving initial accent.

- PS NOM.SG **gāl'ua* (CS **golva*) F 'head' (a.p. c) > Ru. *golová*
- PS ACC.SG **gāl'ua* (CS **golvo*) F 'head' (a.p. c) > Ru. *gólovu*

In fixed expressions the Proto-Slavic unaccented word-forms are preserved as such, as a result of Šaxmatov's Law (3.2.7).

- PS **nā gāl'ua* (CS **nā golvo*) 'on the head' (a.p. c) > Ru. *ná golovu*

In structures with Liquid Metathesis (3.4.5), syllables with acute and neoacute are accented on the second vowel (*oró, oló, eré*), while unaccented word-forms are accented on the first vowel (*óro, ólo, ére*).

- acute: PS **dārgā* (CS **dǫrga*) F (a.p. a) 'road' > Ru. *doróga*
- neoacute: PS **karlĭa* (CS **kǫrlĭ*) M (a.p. b) 'king' > Ru. *koról'*
- unaccented ("circumflex"): PS ACC.SG **gāl'ua* (CS **golvo*) (from PS **gāl'ua* (CS **golva*)) F 'head' (a.p. c) > Ru. *gólovu*

9.5.5. West Slavic

In nearly all West Slavic languages the Proto-Slavic free accent is replaced by a fixed accent. A non-fixed accent is still found in Kashubian, especially the now extinct Slovincian dialect spoken in the area of Gdańsk up to the beginning of the twentieth century, and in Polabian, spoken around Lüneburg in northern Germany until the beginning of the eighteenth century.

The West Slavic languages have (traces of) distinctive quantity.

Czech and Slovak have fixed initial accent and distinctive quantity.

Upper Sorbian and Lower Sorbian have fixed initial accent and no distinctive quantity.

Polish has fixed accent on the penultimate syllable. Traces of an older quantitative distinction is seen in the difference between *o* $\bar{e}$ (originally short syllables) and *ó* $\bar{q}$ (originally long syllables).

- PS NOM.SG **nasā* (CS **nǫsŭ*) M ‘nose’ (a.p. *c*) > Po. *nos*
- PS NOM.SG **karlĭā* (CS **kǫrlĭ*) M ‘king’ (a.p. *b*) > Po. *król*

Kashubian dialects have varying degrees of free accent. Earlier quantitative distinctions have been transformed to distinctive vowel qualities.

In West Slavic the Proto-Slavic prosodic situation has left traces in the quantity. The details are complicated and debated, but the following things are what there is some agreement on.

Czech and Upper Sorbian: Common Slavic acute and neoacute syllables and pretonic long syllables yielded long vowels.

- PS NOM.SG **bābā* CS **bǎba* F ‘grandmother’ (a.p. *a*) > Cz. *bába*
- PS NOM.SG **karlĭā* (CS **kǫrlĭ*) M ‘king’ (a.p. *b*) > Cz. *král*

Other syllables yield a short vowel.

PS ACC.SG **gālŭā* (CS **gǫlvŏ*) F ‘head’ (a.p. *c*) > Cz. *hlavu*

In Slovak, Lower Sorbian, Polish, Kashubian, Common Slavic long neoacute syllables and pretonic long syllables yield long vowels.

- Po. NOM.SG *król* M ‘king’, Slk. *král* < CS **kǫrlĭ* (a.p. *b*) < PS **karlĭā* (a.p. *b*)

Other syllables receive a short vowel.

- Po., Slk. NOM.SG *baba* ‘grandmother’ < CS **bǎba* (a.p. *a*) < PS **bābā* (a.p. *a*)
- Po. ACC.SG *głowę* F ‘head’, Slk. *hlavu* < CS **gǫlvŏ* (a.p. *c*) < PS **gālŭān* (a.p. *c*)

9.6. Prosodic systems of the Baltic languages

9.6.1. Lithuanian

Lithuanian has a free stress-accent, tones and distinctive quantity. Lithuanian preserves in principle the Proto-Balto-Slavic accent location. Unaccented word-forms in the mobile paradigms receive initial accent.

- PBS ACC.SG **gālŭān* (from **gāl’ŭā* F ‘head’, a.p. II) > Lith. *gálvą* (a.p. 3)

Moreover, the accent is moved to the right from a non-acute syllable to a following acute syllable by SAUSSURE'S LAW (cf. 3.3.1).

- pre-Lith. NOM.SG **ran'kā* F 'hand' (a.p. 2) > **'rankā* > (with shortening by Leskien's Law; see below) Lith. *rankà*

Lithuanian has two tones: syllables with acute (falling) tone go back to Proto-Balto-Slavic glottalised syllables, whereas syllables with circumflex (rising) tone go back to Proto-Balto-Slavic non-glottalised syllables.

An important tonally conditioned law is LESKIEN'S LAW: the vowel in an acute final syllable is shortened.

- PBS NOM.SG **'rankā* F 'hand' > Lith. *rankà* (a.p. 2)

Saussure's Law causes the two Proto-Balto-Slavic accent paradigms divide themselves into two, so one gets four accent paradigms

- a.p. 1: fixed accent on a non-ending syllable (which is acute if it is the syllable immediately before the ending) – e.g. NOM.SG *lėpa* F 'linden tree', ACC *lėpq*, GEN *lėpos*, DAT *lėpai*, etc.
- a.p. 2: accent on the syllable immediately before the ending (if it is circumflex) alternating with ending accent because of Saussure's Law – e.g. NOM.SG *rankà* 'hand', ACC *rañkq*, GEN *rañkos*, DAT *rañkai*, etc.
- a.p. 3: accent on a non-ending syllable (which is acute if it is the syllable immediately before the ending) alternating with ending accent because of the mobility – e.g. NOM.SG *galvā*, F 'head', ACC *gálvq*, GEN *galvōs*, DAT *gálvai*, etc.
- a.p. 4: accent on the syllable immediately before the ending (which is circumflex), alternating with ending accent because of the mobility and Saussure's Law – e.g. NOM.SG *žiemā* F 'winter', ACC *žiēmq*, GEN *žiemōs*, DAT *žiēmai*, etc.

9.6.2. Latvian

Certain Latvian dialects have three tones on long vowels: falling tone ($\grave{x}$; *Fallton*), sustained tone ($\tilde{x}$; *Dehnton*) and broken-tone ($\hat{x}$; *Stoßton*, *Brechtton*). In most of the dialects a merger of two of the tones, so that these dialects only have two distinctive tones. The distinction between the three tones is only preserved in initial syllables – in non-initial syllables the falling and extended tone have merged.

The falling tone occurs in Proto-Balto-Slavic non-acute syllables independently of the original accent location, i.e. in words with a.p. 2 and 4 in Lithuanian.

- Latv. *rùoka* F 'hand' (cf. Lith. *rankà* (a.p. 2)) and Latv. *dràugs* M 'friend' (cf. Lith. *draũgas* (a.p. 4))

The extended tone occurs in Proto-Balto-Slavic accented acute syllables, i.e. in words with a.p. 1 in Lithuanian.

- Latv. *liēpa* F 'linden tree' (cf. Lith. *lėpa* (a.p. 1))

The broken tone occurs in Proto-Balto-Slavic unaccented acute syllables, i.e. in words with a.p. 3 in Lithuanian.

- Latv. *gaĻva* F 'head' (cf. Lith. *galvą* (a.p. 3))

The Latvian broken tone in words with a.p. 3 in Lithuanian can be most easily explained if one assumes that Latvian goes back to a linguistic stage with unaccented word-forms in the mobile paradigms, which Slavic also seems to have been.

10. Text reading

10.1. Introduction to text reading

This section provides a synchronic and diachronic analysis of Matthew 5.11–14 from the New Testament as found in *Codex Zographensis*. The manuscript is now located in the Russian National Library (Saint Petersburg). It was written around 1000 AD in the Glagolitic script.

The Glagolitic text of *Codex Zographensis* with a Cyrillic transliteration can be found at the [site of the University of Sofia](#); it can also be found at Wikisource ([Glagolitic original](#) and [Cyrillic transliteration](#)).

The *Codex Zographensis* is phonologically rather conservative compared to other manuscripts, but with regard to morphology and lexicon it is more innovative. The reduced vowels *ĩ ũ* are mostly preserved, although they sometimes have disappeared in weak position and turned into *e o* in strong position (see [3.4.12](#)). Palatal [*rʲ ʎ n*] are (inconsistently) written with the “kamora” diacritic: *ř ʎ n̂*, as they are in *Codex Suprasliensis*.

Abbreviations in the text (e.g. *ѿѿѿ / ѿѿѿ*) have been resolved in the Cyrillic transliteration (*члѿѿѿѿѿ*).

Abbreviations:

- Glag.: Glagolitic original, punctuation retained
- Cyr.: Cyrillic transliteration, “modern” punctuation
- translit.: Roman transliteration, “modern” punctuation
- morph.: Morphological analysis
- lexeme: dictionary headword
- CS: Common Slavic reconstruction/transponat
- PS: Proto-Slavic reconstruction/transponat
- PBS: Proto-Balto-Slavic reconstruction/transponat
- PIE: Proto-Indo-European reconstruction/transponat
- Gk.: Greek original
- Eng.: English translation

10.2. OCS text reading 1: Matthew 5.11

10.2.1. Text reading 1: text

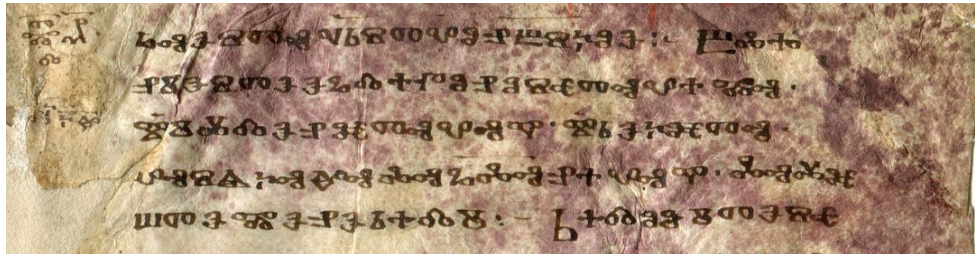


Figure 5: Matthew 5.11 (Zographensis)

Glag.	Бла[же]ни	ѡдѡѡ	ѡѡѡѡ	ѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡ
Cyr.	Бла[же]ни	ѡдѡѡ	ѡѡѡѡ	ѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡ
translit.	<i>Blaž-en-i</i>	<i>jes-te</i>	<i>jegda</i>	<i>ponos-ętŭ</i>	<i>va-mŭ</i>
morph.	bless-PST.PASS.PTCP-NOM.PL.M	be-PRS.2PL	when	reproach-PRS.3PL	you-DAT
lexeme	<i>blažiti</i> IPFV	<i>byti</i>		<i>po-nositi</i> IPFV	<i>vy</i>
CS	<i>bōlženi</i>	<i>jestè</i>	<i>jegdà</i>	<i>po-nòsętŭ</i>	<i>vǎmŭ</i>
PS	<i>,balgenaj</i>	<i>es'te</i>	<i>ĭagdā</i>	<i>pa-na'seĭenti</i>	<i>'uāmŭ</i>
PBS	<i>,balg-eĭenaj+s</i>	<i>'este</i>	<i>ĭa-dā</i>	<i>pa-na'seĭanti</i>	<i>uōmas</i>
PIE	<i>b/bʰol(h)g/gʷ/gʰ/gʷh-eĭe-en-óĭ+s</i>	<i>h₁és-th₁e</i>	<i>ĭo-d-?</i>	<i>po h₁nok-éĭ-o-nti</i>	<i>uō-bʰĭos</i>
Gk.	μακάριοι ἔστε ὅταν ὀνειδίσωσιν ὑμᾶς				
Eng.	Blessed are ye when men shall reproach you,				

Glag.	ѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ
Cyr.	ѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡѡѡѡѡѡ
translit.	<i>i</i>	<i>ižden-ętŭ</i>	<i>vy</i>	<i>i</i>	<i>rek-ętŭ</i>
morph.	and	persecute-PRS.3PL	you:ACC	and	speak-PRS.3PL
lexeme		<i>iz-gŭnati</i> PFV	<i>vy</i>		<i>rešti</i> PFV
CS	<i>ì</i>	<i>jřz-žęnętŭ ŭ</i>	<i>vy</i>	<i>ì</i>	<i>rekŏtŭ</i>
PS	<i>'eĭ</i>	<i>iz-ge'nanti</i>	<i>uē</i>	<i>'eĭ</i>	<i>rekan'ti</i>
PBS	<i>'eĭ</i>	<i>iz-'genanti</i>	<i>uōs</i>	<i>'eĭ</i>	<i>re'kanti</i>
PIE	<i>h₁éi</i>	<i>h₁eĝ gʷhén-onti</i>	<i>uōs</i>	<i>h₁éi</i>	<i>rek-ónti</i>
Gk.	καὶ διώξωσιν καὶ εἰπωσιν				
Eng.	and persecute you, and say				

Glag.	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ
Cyr.	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ
translit.	<i>vīsĕk-ŭ</i>	<i>zŭl-ŭ</i>	<i>g[lagol]-ŭ</i>	<i>na</i>	<i>vy</i>
morph.	every-ACC.SG.M	evil-ACC.SG.M	word-ACC.SG	to	you:ACC
lexeme	<i>vīsĭakŭ</i>	<i>zŭlŭ</i>	<i>glagolŭ</i>		<i>vy</i>
CS	<i>vīsāĭkŭ</i>	<i>zŭlŭ</i>	<i>golgolŭ</i>	<i>nā</i>	<i>vy</i>
PS	<i>uī'xāku</i>	<i>zu'lu</i>	<i>gal'galu</i>	<i>nā</i>	<i>uō</i>
PBS	<i>uī'sākam</i>	<i>'zulam</i>	<i>galgal-am</i>	<i>nō</i>	<i>uōs</i>
PIE	<i>uīs-ah₂k-om</i>	<i>ĝ/ĝ^hul-om</i>	<i>g/g^wol-g/g^wol-om</i>	<i>nō</i>	<i>uōs</i>
Gk.	παῖν πονηρὸν κατ' ὑμῶν				
Eng.	all manner of evil against you				

Glag.	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ
Cyr.	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ	ѡѡѡѡѡѡѡѡ
translit.	<i>lŭž-ρšt-e</i>	<i>mene</i>	<i>radi.</i>
morph.	lie-PRS.PTPC.ACT-NOM.PL.M	I:GEN	on account of
lexeme	<i>lŭgati</i> IPFV	<i>azb</i>	
CS	<i>lŭžptje</i>	<i>mene</i>	<i>rādi</i>
PS	<i>lugiantĭe</i>	<i>mene</i>	<i>'rādī</i>
PBS	<i>lugiantĭes</i>	<i>,mene</i>	(loan)
PIE	<i>lug^h-iō-ntĭ-es</i>	<i>méne</i>	–
Gk.	ψευδόμενοι ἐνεκεν ἐμοῦ.		
Eng.	falsely, for my sake.		

10.2.2. Text reading 1: commentary

blaženi

- OCS *blažiti* is derived from *blagŭ* ‘good’ < CS **bōlgŭ*, cf. substantivised neuter **bōlgo* > Ru. dial. adv. *bólogo* ‘well, good’, Cz. *blaho* ‘bliss’, Po. *blogo* ‘good, happiness’, BCMS *blāgo* ‘wealth, money’
- the root **bōlg-* has no clear etymology

jegda

- from relative stem PIE **ĵe/o-*; cf. CS **kogda* adv. ‘when?’, from PIE **k^we/o-*; and CS **togdā* adv. ‘then’, from PIE **te/o-*
- the Slavic **g* is unexpected; cf. Lith. *kadā* ‘when; because’, Ved. *kadā́* adv. ‘when?’; however, Lith. *kadā* originally contained a final nasal, as shown by *kadángi* ‘as, because’, East Lith. dial. *kadù*, OPr. *kadan* ‘when’ (Derksen 2002: 11)
- according to Derksen (2008), 227, the suffix is CS **gŭda*, which may be from **goda*, GEN.SG of **gōdŭ* ‘(right) time’

ponosęťũ

- CS **po* < PS, PBS **pa* is perhaps from PIE **h₂po*, ablaut variant of **h₂apo* in Ved. *āpa* adv. ‘away, from’, Gk. *ἀπό* prep. ‘from’, Lat. *ab* prep. ‘from’, Goth. *af* prep. ‘from’
- CS **nosi-* < PS **nasej-* < PIE **h₁nok-éje-*
- iterative formation (6.8) from CS **nes-* ‘carry’ < PS **nes-* < PIE **h₁nek-* -PIE **h₁nek-* also in Lith. *nėsti nešũ* ‘carry’; OAv. subj. *nīš nāšāmā* ‘they will carry out’; Gk. *ἐνεγκεῖν* ‘bring’

všęķũ

- from CS **všakũ*, from PS **ui'xāku* via the Second Palatalisation

iz

- Gk. *ἐξ* prep., Lat. *ex* prep.
- **i* in Balto-Slavic is unclear

iždenęťũ

- OCS *žd* from **zg* by the First Palatalisation (3.4.1) is regular and indicates that PS **g* was palatalised to **dž*, which then became CS **ž*; cf. PS **drazg(i)j-* (CS **droždž(i)j-*) ‘yeast’ > OCS *droždie* PL.F, Bulg. *droždje*, Ru. *drožži* N, Ukr. *driždži*, Po. *drożdże* PL.F
- CS prs. stem **žene-* < PS **gene-* with **ž* from **g* by the First Palatalisation (3.4.1), thematicised from PIE **g^{wh}en-* ‘slay’
- CS inf. **gũn-(ǣ-)* < PS **gun-* < PBS **gun-* < PIE **g^{wh}η-*, originally the preconsonantal variant, with development of PIE **ŋ* to PBS **un* (not **in*, the normal development) (3.2.6)
- Lith. *genũ giñti* ‘drive, urge’, OPr. *guntwei* ‘chase, drive’, PRS.1PL *gunnimai*; Skt. *hánti* ‘strike, slay’; Gk. *θείνω* ‘kill’

zũlũ

- probably related to Lith. (Žem.) *atžũlus* (a.p. 1) and *atžũlũs* (a.p. 3) ‘rude’, although PS **u* vs. PBalt. **ũ* requires an explanation

glagolũ

- reduplicated version of the root **gol-*, also in CS **gõlsũ* ‘voice’
- Lith. *galsas* ‘echo’ (attestation?); OHG *kallōn* ‘chatter’; Welsh *galw* ‘call’

na

- Lith. *nuō* ‘from’, Latv. *nūo* ‘from’, OPr. *no*, *na* ‘onto, against’
- further etymology unclear; Vasmer compares Av. *ana* ‘upwards’, Goth. *ana* ‘on, at’, Gk. *ἀνά* prep. ‘on, up along’, *ἄνω* ‘upwards’

na vy

- in PS and CS the preposition was accented as a consequence of Šaxmatov’s Law (see 3.2.7)

lŭžqšte

- related to Latv. *lūgt* (long **ū*) ‘request, invite’; Derksen (2015: 295) suspects Lith. *lūgóti* ‘request, beg’ to be a loan from Latvian
- from (apparent) PIE **lugʰ-*, zero grade of **leugʰ-*, also in Goth. *liugan* ‘lie’, ONor. *ljúga* ‘lie’ etc.; the root is only attested in Balto-Slavic and Germanic
- with regular loss of the weak reduced vowel: Ru. *lgát’*, 1SG *lžú* etc.; Po. *lgac’*, 1SG *lżę* etc.
- in the suffix of the present active participle Slavic has generalised PIE **-ontj-*, originating in the feminine (e.g. GEN.SG **-ont-iah₂-s*), except in NOM.SG.M–N PS **uēdān* (CS **vedy*) < PIE **-ont-s* (see 7.4)
- the Baltic languages have also generalised **-ontj-* (e.g. GEN.SG.M *sùkančio*), except in some forms, e.g. NOM.SG.M *sukāš* ‘turning’, ACC.SG.M *sùkantj*, NOM.SG.N *sukā*
- in the *iē/o*-verbs, PS **ian* should have become CS **ję* (3.4.2), but this has been replaced with **jō* by analogy with the *e/o*-verbs, e.g. PS **uēdantjē* > CS **vedōtje*

mene

- the correspondence with OAv. *mā.nā*, YAv. *mana* points to PIE **méne*; cf. Ved. *máma*, with *-m-* by assimilation

radi

- probably a borrowing from Iranian; cf. OPers. *rādiy* ‘for the sake of’

10.3. OCS text reading 2: Matthew 5.12

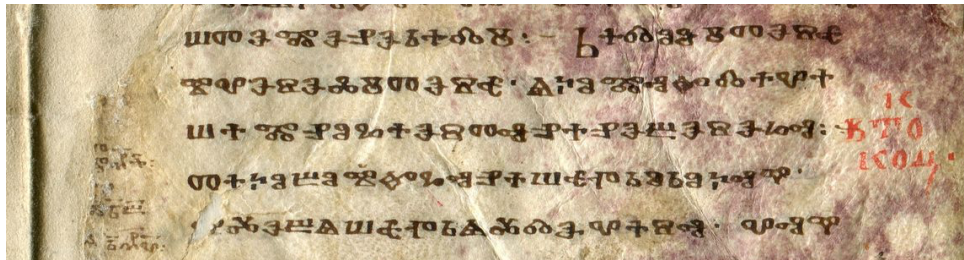


Figure 6: Matthew 5.12 (Zographensis)

10.3.1. Text reading 2: text

Glag.	б+аааааа	ра	и	в+аааааа	ра
Cyr.	Радуйте	а	и	Веселите	а,
translit.	<i>Radui-te=sę</i>		<i>i</i>	<i>veseli-te=sę</i>	
morph.	rejoice-IMPV.2PL=REFL.ACC		and	be:glad-IMPV.2PL=REFL.ACC	
lexeme	<i>radovati sę</i> IPFV			<i>veseliti sę</i> IPFV	
CS	<i>rādujite</i>	<i>sę</i>	<i>ì</i>	<i>veselīte</i>	<i>sę</i>
PS	<i>'rādāuīāīte</i>	<i>sēn</i>	<i>'eī</i>	<i>ūesele'īāīte</i>	<i>sēn</i>
PBS	<i>'rādāuīāīte</i>	<i>sēm</i>	<i>'eī</i>	<i>ūesele'īāīte</i>	<i>sēm</i>
PIE	<i>rohd-?-o-īh₁-te</i>	<i>sē+m</i>	<i>h₁éī</i>	<i>h₁ues-el-eī-o-īh₁-te</i>	<i>sē+m</i>
Gk.	χαίρετε καὶ ἀγαλλιᾶσθε,				
Eng.	Rejoice, and be exceeding glad:				

Glag.	а+а	в+а+а+а	в+а+а+а	в+а+а+а	в+а+а+а	в+а	в+а+а+а+а+а+а
Cyr.	ѣко	мѣзда	ваша	многа	ѣстъ	на	небесѣхъ
translit.	<i>ěko</i>	<i>mǔzd-a</i>	<i>vaš-a</i>	<i>mnog-a</i>	<i>jes-tǔ</i>	<i>na</i>	<i>nebes-exǔ:</i>
morph.	for	reward-NOM.SG	your-NOM.SG.F	big-NOM.SG.F	be-PRS.3SG	in (+ LOC)	heaven-LOC.PL
lexeme		<i>mǐzda</i> F	<i>vaši</i>	<i>mǔnogǔ</i>	<i>byti</i>		<i>nebo</i> N
CS	<i>jāko</i>	<i>mǐzdā</i>	<i>váša</i>	<i>mǔnòga</i>	<i>jěstǐ</i>	<i>nā</i>	<i>nebesǐxǔ</i>
PS	<i>īāka</i>	<i>miz'dā</i>	<i>'uāsīā</i>	<i>mu'nagā</i>	<i>es'ti</i>	<i>nā</i>	<i>nebesi'xu</i>
PBS	<i>īāka</i>	<i>'mīzdā</i>	<i>'uōsīā</i>	<i>'munagā</i>	<i>'esti</i>	<i>nō</i>	<i>nebesišu</i>
PIE	<i>ī-ah₂-k-od</i>	<i>misd^h-ós</i>	<i>uós-īah₂</i>	(loan)	<i>h₁ésti</i>	<i>nō</i>	<i>néb^h-es-i-su</i>
Gk.	ὅτι ὁ μισθὸς ὑμῶν πολὺς ἐν τοῖς οὐρανοῖς·						
Eng.	for great is your reward in heaven:						

Glag.	ѿѿѿѿ	ѿѿ	ѿѿѿѿѿѿѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿѿѿ
Cyr.	ѿѿѿѿ	ѿѿ	ѿѿѿѿѿѿѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿѿѿ
translit.	<i>tako</i>	<i>bo</i>	<i>izgŭna-šę</i>	<i>prorok-y</i>
morph.	thus	for	drive:out-AOR.3PL	prophet-ACC.PL
lexeme			<i>iz-gŭnati</i> PFV	<i>prorokŭ</i> M
CS	<i>tako</i>	<i>bò</i>	<i>jъz-gъnǎšę</i>	<i>pro-ròky ě</i>
PS	<i>tāka</i>	<i>'ba</i>	<i>iz-gu'nāxin</i>	<i>pra-'rakān</i>
PBS	<i>tāka</i>	<i>'ba</i>	<i>iz-gunāsin</i>	<i>'pra-rakōns</i>
PIE	<i>t-ah₂-kó-d</i>	<i>b^hó</i>	<i>h₁eǵ g^{wh}ŋ-ah₂-s-ŋd</i>	<i>pró-rok-ōms</i>
Gk.	οὕτως γὰρ ἐδίωξαν τοὺς προφήτας			
Eng.	for so persecuted they the prophets			

Glag.	ѿѿѿѿ	ѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿѿѿ
Cyr.	ѿѿѿѿ	ѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿ	ѿѿѿѿѿѿѿѿѿѿѿѿѿ
translit.	<i>iže</i>	<i>běš-ę</i>	<i>prěžde</i>	<i>vasŭ.</i>
morph.	who:NOM.PL.M	be-IMPF.3PL	in front of (+ GEN)	you:GEN.
lexeme	<i>i-že</i> rel. pron.	<i>byti</i>		<i>vy</i>
CS	<i>jīže</i>	<i>běšę</i>	<i>pěrdje</i>	<i>vásŭ</i>
PS	<i>īāige</i>	<i>bēxin</i>	<i>'pěrdja</i>	<i>'ūāsu</i>
PBS	<i>īai+s ge</i>	<i>bēsīm</i>	<i>'perdja</i>	<i>'ūōsu</i>
PIE	<i>ī-oi+s g^h/g^{wh}e</i>	<i>b^huh₂-eh₁-s-ŋd</i>	<i>pér-d/d^h-ī-od</i>	<i>'ūōs-om</i>
Gk.	τοὺς πρὸ ὑμῶν.			
Eng.	that were before you.			

10.3.2. Text reading 2: commentary

raduite

- from CS **rǎdŭ* ‘glad’
- also found in Germanic: OEng. *rót* ‘glad’, ONor. *rótask* ‘be glad’
- Lith. *rōdas*, *rodūs* indecl. adj. ‘glad, pleasant’ is borrowed from Polish or Belarusian
- apparently PIE **rohd-* or **rah₂d-*
- PBS **īāī* > **īēī* > PS **īī* > CS **ji*

sę

- in Slavic the reflexive pronoun (including possessive **svòjŭ*) refers to any subject: first, second and third person, and singular, dual and plural
- OPr. *sien*, encl. *-sin*, also contains a nasal and points to long **ē*, i.e. PBS **sēm*
- PIE perhaps had tonic **sŭé* and encl. **se* (as well as 1SG **mé*, **me* and 2SG **tŭé*, **te*), but the original distribution is not preserved anywhere

veselite

- from CS **věselŭ* adj. ‘happy’
- Latv. *vēselš* ‘healthy, whole’
- Ved. *vásu-* adj. (F *vásvī-*) ‘good’; OAv., YAv. *vohu-*, *vanhauu°* ‘good’; Gk. GEN.PL *ἐάων* ‘good things’, in the phrase *δωτῆρες / δῶτορ ἐάων* found in Homer and Hesiod, ‘giver(s) of good(s)’ (see [Barnes 2024](#)); OIr. DAT.PL *feib* ‘in excellence’; CLuw. *wāšu-* ‘good’, Pal. *wāšu-* ‘good, well’
- PIE **h₁uésu-*

jako

- NOM-ACC.SG.N of *jakŭ* adj. ‘which’
- contains PIE rel. pron. **jō-*
- formed like *tako* (see below)

mŭzda

- with *ŭ* for etymological **ī* (see [Vaillant 1964: 54](#))
- PIE **misd^hós-*, also in Ved. *mīlhá-* N ‘fight, booty, profit’; OAv. *mižda-*; Gk. *μισθός* M ‘hire, pay’; Goth. *mizdo* F ‘wages’

mnoga

- also *mŭnog-*
- in general, the reduced vowels are relatively well preserved in the *Codex Zographensis*, but they are sometimes omitted in weak position
- the word seems to be related to Goth. *manags* adj. ‘much’ and OIr. *menic* ‘often’
- according to Boutkan (and Derksen, Schrijver, Kroonen) we are dealing with a North European substrate word

nebesexŭ

- CS **něbo* is a neuter *s*-stem
- PIE **néb^hos*, also in Ved. *nábhas-* N ‘fog’; Gk. *νέφος* ‘cloud’; Hitt. *nepiš-* N ‘sky’
- Lith. *debesis* M-F *i*-stem (a.p. 3b) ‘cloud’ and Latv. *debess* F *i*-stem ‘cloud’ have unexpected *d-*
- the ending *-exŭ* from **-īxŭ* is the *i*-stem ending, which was introduced in the consonant stems

tako

- originally NOM-ACC.SG.N of *takŭ* adj. ‘such’

- PIE **tah₂-ko-*, also in Lith. *tóks* (F *tokià*) (a.p. 3; dial. a.p. 1) ‘such’; cf. Lat. *tālis* ‘such’

bo

- Lith. *bà* ‘for’; *bè* ‘for’
- Goth. *ba* ‘that not, if not’
- apparently PIE **b^hó*

tako bo

- Vasil’ev–Dolobko’s Law (see 3.2.7): CS **tâko* + **bò* → **tako bò*
- Čud. *táko*, *né tako*, *tako žè*, *tako bò*, *tako lì*, *tako tì*

izgŭnašę

- cf. *izdenŭtŭ* v. 11

proroky

- from *pro-rešti* PFV ‘to prophesy’
- calque from Greek *προφήτης*

iže

- *i-* < CS **i* < PS **iǝi*, from PIE rel. pron. **iō-*, with PS ending **-ǝi* < pre-PS **-ǝis* < PIE pron. ending **-oi* plus analogical plural marker **-s*
- *že* < PIE **g^h/g^{wh}e*, also in Ved. ptcl. *ha*

běšę

- perhaps from **b^hu-ē-*, consisting of PIE **b^huh₂-* ‘to be’ and stative suffix **-eh₁-* (cf. Vaillant 1966: 65–66)

prěžde

- comparative form of *prědŭ* prep. ‘before’, an extension of *prě-* prefix ‘over, very’
- Ru. dial. *peréz*; Cz. *příze*
- the *re* and *žd* of standard Ru. *prěžde* show that the word is a borrowing from Church Slavonic

- from PIE **b^houh₂-io-*, to **b^hueh₂-* ‘to become’

čimĭ

- the old instrumental singular form **či* (preserved as a particle) < **k^w-ih₁*, plus the normal instrumental singular ending **-mĭ*

ničĭsomuže

- formed on the basis of the genitive form, *če/ĭso*, plus dative singular ending *-omu*
- *česo* ‘of what?’ is the only Slavic form that preserves the old genitive singular ending **-eso*, also seen in Gk. (Hom.) *τέο*, Goth. *hvis*
- elsewhere in non-personal pronouns Slavic has CS **-ogo* < PS **-aga*, which may or may not be etymologically related to PIE **-osĭo*
- DAT.SG *-omu* goes back to PIE **-osmoeĭ*, cf. Ved. *tásmai*, with unclear loss of **s* in Slavic

bǫdetŭ

- CS **bǫdetĭ||ŭ*
- somehow from **b^hueh₂-*, but **n* and **d/d^h* are unexplained

ničĭsomuže bǫdetŭ

- ‘it will not be (good) for anything’ (Vaillant 1964: 188)
- in sentences containing a pronoun (or pronominal adverb) formed with *ni-* and *-že* the negation *ne* is obligatory if the verb precedes the pronoun (adverb) (e.g. *ne jęsomŭ ničesože* ‘we did not take anything’), but facultative if the verb follows the pronoun (adverb), as in this sentence

kŭ

- possibly related to Ved. *kám* ptcl. (after datives)

kŭ tomu

- ‘in addition; (here) but’

nŭ (Vaillant’s addition; not in manuscript)

- cf. OCS *nyně*, *nŭně* adv. ‘now’

- PIE **nú(h)*, also in Lith. *nù, nũ* ‘now, today’; Ved. *nú, nũ* ‘now’; Gk. *vv* encl. emphatic ptcl.; Goth. *nu* ‘now’; Lat. *nudiūstertius* adv. ‘three days ago’; Hitt. *nu* ‘now’

da

- perhaps from PIE AOR.INJ.3SG **dóh₃-d*, or AOR.INJ.2SG **dóh₃-s*; this requires analogical reintroduction of **ā* in Proto-Slavic, if one believes that pre-PS **-ās* > PS **-ā* > OCS *-y* (as per Olander 2012) – from PIE **deh₃-* ‘give’
- alternatively from PIE **do-h₁* and related to OEng. *tō* prep. ‘to’, OIr. *do* prep. ‘to’ (Derksen 2008: 94)

isypana

- from *iz-* and *sypati* ‘to pour, to strew’
- *sypati* is an iterative formation (6.8) to CS **súti* (*sŭpŭ sŭpèti*) ‘pour, strew’ < PS **sāup-tēi* (*sup-*); the acute tone of the infinitive indicates a laryngeal, but the root does not seem to contain one
- PIE **seup-*, also in Lith. *sùpti supù* ‘to rock’; Lat. *in-sipiō* ‘throw in’
- Lith. *súpoti* ‘to rock, cradle’ probably reflects an independently created lengthened grade

vŭnŭ

- originally accusative singular of a noun **vŭnŭ*, cf. CS *vŭně* ‘outside’, which looks like the locative singular of that noun
- perhaps related to Ved. *ván-* ‘tree’, YAv. *vanā-* F ‘tree’

popirajema

- iterative (6.8) from *po-pŭrati* (1sg *po-perŭ*) ‘trample, suppress’
- Rix et al. (2001): 585–586 with n. 9: PIE **sp^herh-* ‘kick’ has split in two in Slavic: OCS *prěti* (1sg *pŭrŭ*) ‘push’ and *pŭrati* (1sg *perŭ*) ‘step; tread’; related to Lith. *spirti spiriù* ‘kick’, Ved. *sphuráti*, Lat. *spernō* ‘despise’ etc.
- Derksen (2008), 427–428: identical with *pŭrati perŭ* ‘wash’ from PIE **per-*, also in Ved. *pŕt-* (F ‘battle; fight’ (considered to be of unclear etymology by Mayrhofer 1992–2001: 2: 160); however, in Rix et al. (2001): 473, PIE **per-* is considered to be a separate root also attested in Armenian (aor. *ehar* ‘beat’) and Baltic (*peŕti periù* ‘to beat’)
- the present passive participle CS **-om-*, **-jem-* from PS **-am-* probably reflects PBS **-mn-*, also in Lith. prs. pass. ptcp. *-ama-* (e.g. *něšamas*), OPr. *poklausīman-as* ‘being heard’, which reflects the PIE **-mh₁no-* participle (Nowak 2017)

člověky

- Bulg. *čovék*, Ru. *čelovék*, Po. *człowiek*
- CS **čilověkŭ* is perhaps from older **čelověkŭ*; there seems to be a tendency for unaccented **e* to become **i* in palatal environments (Kortlandt 2011b), although the precise conditioning is unclear
- often regarded as a compound containing **čel-* (related to CS **čeliadī* ‘servants’) and **věk-* (related to Lith. *vaikas* ‘child’)

10.5. OCS text reading 4: Matthew 5.14

10.5.1. Text reading 4: text

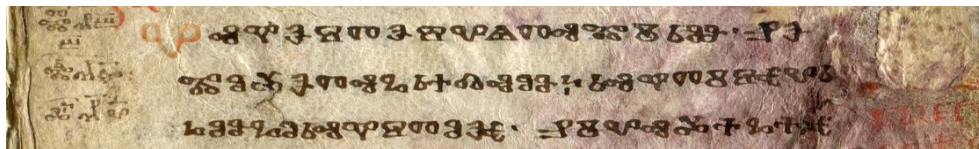


Figure 8: Matthew 5.14 (Zographensis)

Glag.	Ѯѣ	ѣстѣ	свѣтъ	мѣръ .
Cyr.	Еѣ	ѣстѣ	свѣтъ	мѣръ .
translit.	<i>vy</i>	<i>jes-te</i>	<i>svět-ŭ</i>	<i>mir-u:</i>
morph.	you:NOM	be-PRS.2PL	light-NOM.SG	world-DAT.SG
lexeme	<i>vy</i>	<i>byti</i>	<i>světŭ</i> M	<i>mirŭ</i> M
CS	<i>vŭ</i>	<i>jestě</i>	<i>světŭ e</i>	<i>mŭru</i>
PS	<i>uā</i>	<i>es'te</i>	<i>śuaītā</i>	<i>mēirāu</i>
PBS	<i>uōs</i>	<i>'este</i>	<i>śuaītas</i>	<i>mēirōi</i>
PIE	<i>uōs</i>	<i>h₁és-te</i>	<i>k_uojt-ós</i>	<i>mei_h-r-óej</i>
Gk.	Ἑμεῖς ἐστε τὸ φῶς τοῦ κόσμου.			
Eng.	Ye are the light of the world.			

Glag.	Ѡѣ	Ѡѣѣѣѣѣ	Ѡѣѣѣѣѣ	Ѡѣѣѣѣѣѣѣ	Ѡѣ
Cyr.	НЕ	МОЖЕТИ	ГРАДЪ	УКРЫТИ	СА
translit.	<i>ne=može-tŭ</i>	<i>grad-ŭ</i>	<i>ukry-ti=sę</i>		
morph.	NEG=can-PRS.3SG	city-NOM.SG	hide-INF		
lexeme		<i>mošti</i> IPFV	<i>gradŭ</i> M	<i>ukryti sę</i> PFV	
CS	<i>ne</i>	<i>mōžeti ŭ</i>	<i>gōrdŭ e</i>	<i>ukrŭti</i>	<i>sę</i>
PS	<i>ne</i>	<i>ma'geti</i>	<i>gardā</i>	<i>a_u-krūtēi</i>	<i>sēn</i>
PBS	<i>ne</i>	<i>ma'geti</i>	<i>gardas</i>	<i>a_u-krŭ-tēi</i>	<i>sēm</i>
PIE	<i>ne</i>	<i>mag^h-e-ti</i>	<i>g^hord^h-ós</i>	<i>h₂a_u kruh-tēi</i>	<i>sē+m</i>
Gk.	οὐ δύναται πόλις κρυβῆναι				
Eng.	A city cannot be hid				

Glag.	ѡѡѡѡѡ	ѡѡѡѡѡ	ѡѡѡѡѡ
Cyr.	ѡѡ[ѡ]ѡѡѡ	ѡѡѡѡѡ	ѡѡѡѡѡ
translit.	<i>vr[ŭ]xu</i>	<i>gor-y</i>	<i>stoj-ę</i>
morph.	on (+ GEN)	mountain-GEN.SG	stand-PRS.ACT.PTCP.NOM.SG.M
lexeme	<i>vrīxu</i>	<i>gora</i>	<i>stojati</i> IPFV
CS	<i>vīrxù</i>	<i>gorý ě</i>	<i>stojě ě</i>
PS	<i>uir'xāu</i>	<i>ga'rā</i>	<i>stajān</i>
PBS	<i>'uiršāu</i>	<i>ga'rōs</i>	<i>stajān(t)s</i>
PIE	<i>uīrs-ēu</i>	<i>g^wor-áh₂s</i>	<i>sth₂-i-onts</i>
Gk.	ἐπάνω ὅρους κεμένῃ		
Eng.	that is set on an hill.		

10.5.2. Text reading 4: comments

světŭ

- related to the Lithuanian verb *šviesti* ‘shine’, from PBS **śuait-*
- a similar formation to OCS *světŭ* is seen in Ved. *śvetá-* adj. ‘white; bright’

miru

- OCS *mirŭ* ‘world’ and *mirŭ* ‘peace’ are probably originally the same word
- a Baltic cognate is found in OLith. *mieras* ‘peace’, Latv. *miērs* ‘peace’; the accentuation of the Latvian word reflects a Proto-Balto-Slavic acute syllable (9.6.2), i.e. PBS **meīrā-*, indicating the former presence of a laryngeal
- PIE **meih-ro-* may belong to a PIE root **meih-* also seen in PS **mēilā* (CS **mīlŭ*) adj. ‘sweet; dear’, Lith. *mīelas* ap. 3 ‘nice; sweet’, Latv. *mīļš* ‘nice; sweet’, OPr. *mijls* ‘sweet; dear’; and in Lat. *mītis* adj. ‘soft; gentle’
- the different tones of CS **mīrŭ* (BCMS *mīr*) and CS **mīlŭ* (BCMS *mīo*) do not constitute a problem (pace Havlová, Erhart & Janyšková 1989–2018: 8: 478), but simply reflect the operation of Meillet’s Law (3.3.2) in **mīrŭ*
- the *o*-stem dative singular ending OCS *-u* goes back to PS **-āu* (CS **-u*), probably from PBS **ōj* < PIE **-oej* (cf. Gk. *ἀγρ-ῶ* ‘field-DAT.SG’)

ne

- the negation OCS *ne* < PS **ne* (CS **ne*) is inherited from PBS **ne* (cf. Lith. *nė*, Latv. *ne*) from PIE **ne* (cf. Lat. *ne-sciō* ‘I do not know’, *ne-quis* ‘not one’, Goth. *ni*, Ved. *ná*, YAv. *na-uua* ‘or not’)

možetŭ

- PS **mag-* ‘be able’ is related to Lith. *magėti* ‘please’ (3PS *māga*) and OPr. *massi* ‘be able’ [if not a borrowing from Slavic; see Derksen (2008): 321]

- the Baltic and Slavic forms go back to PBS **mag-* from PIE **mag^h-*, also seen in Ved. *maghá-* m ‘power’, Goth. 3sg *mag* ‘is able’ and Gk. *μάχομαι* ‘fight’, *μηχάνη* ‘instrument’
- some authors disconnect the Greek forms and reconstruct *o*-grade for Balto-Slavic and Germanic, explained from a former perfect form (Derksen 2008: 321)

gradŭ

- PS **garda* (CS **gōrdŭ||e*) (a.p. c) ‘fortification; town’ is from PBS **garda-* also seen in Lith. *gaĩdas* (a.p. 4) ‘enclosure’, from PIE **g^hord^ho-*
- PIE **g^hord^ho-* is found in Ved. *grhá-* m ‘house’, Go. *gards* m. ‘house’

ukryti

- the preverb *u-* is identical to the preposition *u* ‘by; at’
- it can be traced back to PBS **au-*, also in Lith. *au-* ‘away’, Latv. *au-* ‘away’
- from PIE **h₂au-*, also in Ved. *áva* ADV ‘down; off’, Lat. *au-* PREF ‘away’
- OCS *kryti* is related to OEng. PST *hrēad* ‘cover’, PTCP *hroden*, ONor. PTCP *hroðenn*, from PIE **kréu^h-d^he-*

vr[ŭ]xu

- written *vrxu*, but should be corrected to *vrŭxŭ* or *vrĭxŭ* (see 2.2)
- originally the locative singular form of PS **uīr'xu* (CS **vĭr'xŭ*) m *u*-stem (a.p. b) ‘top’
- identical with Lith. *viršūs* m (a.p. 4) ‘top’, Latv. *viršus* m ‘upper part; top’
- the *x* of Slavic and *š* of Lithuanian reflects PBS **š* from PIE **s* through the *ruki* change (3.2.3), triggered by the **r*
- the root **uīers-* is also seen in Ved. *vārṣman-* m ‘top’, OIr. *ferr* ‘better’, Goth. *wairs* ‘worse’

gory

- related to Lith. *girià* f (a.p. 2) ‘woods’ and Latv. *dziņa* ‘woods’, both with zero-grade of the root
- from PIE **g^wr-*, also in Ved. *girí-* m ‘mountain’

stoję

- while the exact formation of *stojati* is unclear, it is obvious that the verb is derived from PIE **steh₂-* ‘stand’, also in OCS *stati* ‘stand’

Abbreviations

- a.p.: accent paradigm
- Arm.: Armenian
- Av.: Avestan
- BCMS: Bosnian, Croatian, Montenegrin, Serbian
- Čak.: Čakavian
- CLuw.: Cuneiform Luwian
- CS: Common Slavic
- Čud.: Čudovskij New Testament (Old Russian)
- Cyr.: Cyrillic
- Cz.: Czech
- Da.: Danish
- Eng.: English translation
- ESL.: East Slavic
- Gk.: Greek
- Gk.: Greek original
- Glag.: Glagolitic
- Goth.: Gothic
- Hitt.: Hittite
- Lat.: Latin
- Latv.: Latvian
- Lith.: Lithuanian
- LSrb.: Lower Sorbian
- Mac.: Macedonian
- morph.: morphological
- OAv.: Old Avestan
- OCS: Old Church Slavonic
- OEng.: Old English
- OESl.: Old East Slavic
- OLith.: Old Lithuanian
- ONor.: Old Norse
- ONovg.: Old Novgorod dialect
- OPers.: Old Persian
- OPr.: Old Prussian
- Pal.: Palaic
- PBalt.: Proto-Baltic
- PBS: Proto-Balto-Slavic

- PBS: Proto-Balto-Slavic
- PIE: Proto-Indo-European
- PIE: Proto-Indo-European
- PIIr.: Proto-Indo-Iranian
- Po.: Polish
- Pre-PS: Pre-Proto-Slavic
- PS: Proto-Slavic
- PS: Proto-Slavic
- Ru.: Russian
- Slk.: Slovak
- SSL.: South Slavic
- Štok.: Štokavian
- TochA: Tocharian A
- TochB: Tocharian B
- translit.: transliteration
- Ukr.: Ukrainian
- USrb.: Upper Sorbian
- Ved.: Vedic Sanskrit
- WSl.: West Slavic
- YAv.: Young Avestan
- Žem.: Žemaitian dialect of Lithuanian

Reconstructed forms include transpositions (“Transponate”).

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