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The Baltic Languages

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The Baltic languages are usually divided into East and West Baltic. The East Baltic languages include the contemporary spoken Lithuanian, Latvian and the extinct Curonian, Zemgalian and Selonian. With minor exceptions the boundaries of the contemporary Lithuanian and Latvian republics correspond to the speech areas of these two languages. The Curonians lived along the coast of the Gulf of Riga (except for the very northern tip which was inhabited by the Finnic Livonians) and south almost to the mouth of the Nemunas (Ger. Memel) on the Baltic. Until the end of the sixteenth century historical sources state that the Curonian language differs from neighbouring languages. In the seventeenth century, however, we encounter testimony that the Curonians speak Latvian (Kabelka 1982: 68). A part of the Curonians adopted the Lithuanian language and there are traces of Curonian in Lithuanian Samogitian (Low Lithuanian) dialects just as there are traces of the original Curonian language in the Latvian Curonian dialect. East of the Curonians in the lowlands of the river which is known in Lithuanian as Müsa (and in Latvian as Lielupe) lived the Zemgalians. Most probably their language became extinct in the second half of the fifteenth century (Kabelka 1982: 77). The Selonians lived to the east of the Zemgalians and it is generally assumed that the northern part was Latvianized and the southern part Lithuanianized before the middle of the fourteenth century (Kabelka 1982: 83).

The West Baltic languages, all extinct, include Galindian, Jatvingian (also known as Sudovian) and Old Prussian (sometimes known simply as Prussian). The second century AD Greek astronomer and geographer Claudius Ptolemaeus in his work Geōgraphikè hyphégēsis mentions the Galindai kai Soudinoi, but we learn little from him except that their neighbours were Slavs, Germans and Finns. In the fourteenth century, the chronicler of the Order of the Cross, Peter Dusburg in his Chronicon terre Prussie wrote that the Galindians lived in the southern part of the Prussian land and that in the East the Sudovians were their neighbours (Kabelka 1982: 27–8).

A Slavicized form of the name Goljad (≪Balt. *Galind-) is found in the Russian chronicles. The Laurentian chronicle under the year 945 contains the first mention of a Jatvingian, namely, Jatvjagü, Gunarevū ‘Jatvingian for
Gunnar. Since the Poles were the southern neighbours of the Jatvingians the name of the latter frequently occurs in Polish sources written in Latin, for example, Jaczwingi, Jazwingi, Jathwingorum natio. In German sources the name is encountered less frequently, but to refer to the same people we encounter Latin Sudowite, Sudowenses, Sudowienses, German Sudawen, Sudawiter, etc. It is assumed that this is the same name as the name Soudinol used by Ptolemaeus mentioned above. The identity of the Sudovians and Jatvingians is posited because we find this stated directly in various historical

Map 15.1 Baltic tribes at the beginning of the second millennium AD
sources, for example, *Per terram vocatam Suderland alias Jattuen*, etc. (Kabelka 1982: 29–32; see Map 15.1).

In the twelfth and thirteenth centuries the boundaries of the Prussian people were approximately the following: in the north the Nemunas and the Baltic Sea, in the west the Vistula, in the south unstable borders with the Poles (Cassubians and Mosurians) and in the east Jatvingian–Sudovian and Lithuanian borders (Kabelka 1982: 42). In the beginning of the seventeenth century the Old Prussian language began to die out, but Mažiulis (1966: 26), thinks that there may have been a few speakers here and there until the very beginning of the eighteenth century.

**The Baltic People**

The Baltic people as a separate IE ethnic and cultural group was formed in the second millennium BC and spread to large areas of south-eastern and eastern Europe along the Baltic Sea, the Dnieper and in the upper reaches of the Volga and the Oka rivers. At this time the Finno-Ugric peoples were their neighbours in the east and north-east and the Iranians (Scythians) and Slavs were their neighbours to the south-east and the south. In the Bronze Age (sixteenth to sixth centuries BC) and in the early Iron Age (fifth to first centuries BC) the separate East and West Baltic cultural areas began to be delineated. One encounters characteristic West Baltic burial mounds of a certain structure with certain stone-covered burials and characteristic East Baltic castle hills (Lith. *piliakalniai*) with finds of the so-called brushed pottery. The territory inhabited by the West Balts included more or less an area bounded in the south-west by the lower reaches of the Vistula (Ger. *Weichsel*) and in the north-east by the lower reaches of the Nemunas (Ger. *Memel*) and the East Balts lived more to the north and especially to the east. According to Toporov and Trubachev (1962: *passim*), the prehistoric eastern boundary of the Balts is to be drawn through the upper reaches of the Volga, Moscow and Oka rivers and the southern boundary along the River Seim. In the west one encounters Baltic place-names even to the west of the Vistula. The northern boundary of the Balts and Finns has undergone no substantial changes (Kabelka, 1982: 15–18 see Map 15.2).

**Documentation**

Apparently the earliest written document in any Baltic language is the Basel epigram discovered by Stephen P. McCluskey in folio 63ra of ms Basel, Öffentliche Bibliothek der Universität Basel, F.V. 2. The text immediately follows the *Quaestiones super quattuor Libros Methodorum* of Nicole Oresme, dated 1369, and immediately precedes – and was clearly written prior to – the undated *Registrum quartium* [sic!] *librorum Methodorum*, which lists all the questions treated by Oresme. The two-line text bisected by
Map 15.2  Areas inhabited by Baltic peoples between the second millennium BC and the first millennium AD

a standing figure with a balloon has been tentatively transcribed as follows (with a tentative interlinear translation):

Kayle rekyse [figure with balloon] thoneaw labonache thewelyse
Health sir you are not good fellow

Eg koyte poyte [figure with balloon] nykoyte pênegak doyte
If you want to drink you do not want money to give

‘To your health, sir! You are not a good fellow, if you want to drink and do not want to pay money.’

Inside the balloon (in German) one reads the inscription: ‘Jesus, ich leid.’ In
the Middle Ages it was common to insert some short comment with humorous intent following a serious discussion. (Facsimile copies made from the microfilm are published in Schmalstieg 1974: ii; McCluskey, Schmalstieg and Zeps 1975: 160; Mažiulis 1975: 126.) According to McCluskey, Schmalstieg and Zeps (1975: 164-5):

an analysis of the text of Oresme's *Quaestiones super Methodorum* . . . indicates that the portion of Basel F.V.2 that contains the epigram can be associated with a group of codices that emanated from the University of Prague in the last third of the 14th c.

Since at that time Prague drew students from the whole of Bohemia, Germany, Poland and beyond, the presence of a scribe who knew Old Prussian is not problematic. It should be remarked, however, that although the text seems to be in Old Prussian it may actually be in some other now extinct Baltic language.

Also in Old Prussian is the Elbing vocabulary occupying pp. 169–85 of the so-called *Codex Neumannianus*, which dates from around 1400 and is apparently a copy of an original which was composed at the beginning of the fourteenth or the end of the thirteenth century. The Elbing vocabulary containing 802 German words and their Old Prussian glosses is typical of the conceptual dictionaries found in medieval Latin and German manuscripts according to Marchand (1970: 112). Its whereabouts is now unknown (Mažiulis 1966: 27).

Simon Grunau’s Vocabulary consists of about 100 German words with their Old Prussian glosses put by Grunau in his *Preussische Chronik* written between 1517 and 1526 to illustrate the Old Prussian language of which he claimed to have a small knowledge (Mažiulis 1966: 31). The original has been lost but several different copies of the vocabulary have survived. Valentin Kiparsky (1970: 219) described the recent discovery of another version of Simon Grunau’s Vocabulary in Helsinki, but the unusual feature of this version is that glosses of the Old Prussian words occur in Latin rather than German.

The main source of our knowledge of Old Prussian, however, derives from the three catechisms. The 1st Catechism was published in the press of Hans Weinreich in Königsberg in 1545 in an edition of about 197 copies. Luther’s Smaller Catechism published in 1531 in Wittenberg served as the basis for this translation. In the introduction to the 2nd catechism, printed in an edition of 192 copies also in Königsberg, we find the claim that this is a corrected version, presumably a corrected version of the 1st Catechism. The 3rd Catechism (or *Enchiridion*) published in 1561 in Königsberg at the press of Johann Daubman was translated into Old Prussian by Abel Will, the pastor of Pobeten (Lith. *Pabečiai*) on the basis of the German Small Catechism or Enchiridion.

Except for place-names and personal names and a few fragments there are
no other sources for Old Prussian. For place-names see Gerullis: (1922) and for personal names see Trautmann (1925). Recent works on Old Prussian include Toporov (1975–), Mažiulis (1981 and 1988).

The first known writings in Lithuanian (in the eastern Dzukish dialect) are a hand-written Lord’s Prayer, Hail Mary and Creed discovered in 1962 in a copy of the book, Tractatus sacerdotalis published in 1503. This text was written no later than the beginning of the sixteenth century and is probably a copy made of an older version translated from Polish. The first printed book in Lithuanian is Martin Mosvidius’ (= Lith. Mažvydas) Katekizmusa prasti žadei, makslas skaitima rašta yr giesmes ‘The Simple Words of the Catechism, the Art of Reading, Writing and Hymns’ published in 1547 in Königsberg in the press of Hans Weinreich (Kabelka 1982: 120–1). Although there may have been between 200 and 300 copies of this book (Ročka 1974: 54) the only known copy was kept in the Königsberg University Library and was bound together with various other books and entitled Catechismi vari. In 1956 another copy was discovered in Odessa and then transferred to the University of Vilnius where it is now.

The Latin book Origines Livoniae compiled around 1220 by Henry of Livonia contains Latvian place-names and one common noun draugs (draugum suum, id est consocium) according to Rūke-Draviņa (1977: 28). The first printed book in Latvian, a translation of Peter Canisius’ Small Catechism is the Catechismus Catholicorum published in Vilnius in 1585. Although the translator is not indicated in the text it is most likely E. Tolgsdorf (Kabelka 1982: 99).

In spite of the apparent relative simplicity of the Baltic phonological systems and their development, there are significant differences of opinion about them. One of the major problems is the interpretation of the orthographic evidence of Old Prussian. Germans, writing a language that they did not know very well, were prone to interpret the Old Prussian phonemes in terms of their native German speech habits. Since the Old Prussian–German cultural situation is similar to that of Latvian–German it would seem useful to draw a parallel here (Sabaliauskas 1986: 100–1).

Phonology of Common Baltic
The Common Baltic vocalic system seems to have varied little from that of Indo-European which can be set up in the following way:

(I) /i i:/ /u u:/
   /e e:/ /o o:/
   /a a:/

(see Chapter 2, p. 46 and cf. also Chapter 13, p. 388). After this IE system Balticists agree on only one change, namely the merger of (short) */o/ and */a/
producing the following Common Baltic vocalic system which I represent as:

(II) /i i:/ /u u:/
/e e:/ /o:/
/a a:/

In other words short */o/ no longer exists in this system. (Other Balticists picture the Common Baltic system differently, e.g., Kazlauskas 1962: 24).

Any apparent diphthongs which may have existed at period II can probably better be analysed as sequences of */e/ or */a/ (possibly */e:/, */a:/ or */o:/) plus semi-vowel */i/ or */w/, or plus sonant */l m n/. The canonically possible diphthongs with an initial short element were, consequently: */ej ew er el em en; aj aw ar al am an/. Possibly in early times the sequence */ew/ merged with */jaw/ . If the long diphthongs */ej éw ër ël êm én; aj ëw ër al ân âm/ ever existed, they were soon shortened and merged with the corresponding short diphthongs. If the long diphthongs */öj ow õr õl ôm ôn/ (posited by some scholars) ever existed, in my view the initial element was shortened and these merged with */aj aw ar al am an/. Differently from many specialists I do not see a contraction of Common Baltic */öj/ > E Balt. */uo/ > /ui/ or a contraction of */ön/ > E Balt. */uon/> */un (Schmalstieg 1968: passim).

The long vowels and the diphthongs could have either an acute or circumflex intonation, so that theoretically possible sequences included the following: */i é â õ ú; í ē â õ õ/ and */ei éw ër ël êm én; ej éw ër ël êm ën; ãj ëw ër al ân âm an/. In Proto-Baltic, as in Proto-Slavic, the acute intonation was a rising intonation and the circumflex intonation was a falling intonation; this is almost exactly the opposite of the situation in contemporary Lithuanian where the acute is falling (tvirtaprâdê, i.e. with a strong beginning) and the circumflex is rising (tvirtagâlê, i.e. with a strong ending). Some scholars think that Old Prussian gives evidence of the original situation in the representation of the diphthongs where sometimes the old circumflex is represented with a macron on the initial vowel of a diphthong, cf. OPr. acc. sg. ränkan ‘hand’ vs Lith. raîka (corresponding to the Latvian falling intonation, cf. rôku). The old acute may be represented in Old Prussian by a macron over the second element of a diphthong, compare acc. pl. kaulins ‘bones’ vs Lith. nom. sg. kâulas ‘bone’. In Latvian the old acute is represented either by the rising intonation (thus Latv. liêpa ‘linden tree’ = Lith. liepa), or, if the stress is shifted to an originally unstressed initial acuted syllable, by the ‘broken intonation’ (thus Latv. nom. sg. galâva ‘head’ = Lith. galvâ (acc. sg. gâlva)). According to Saussure’s Law the ictus is said to be shifted from an originally short or circumflex syllable to a following acuted syllable, thus *r’anka > *rank’a. In Lithuanian in word-final position original long acuted vowels (including the diphthongs /uo ie/) were shortened by one mora: *rank’a > rankâ, *galvâ > galvâ, *nesâ > *nesûo > nesû ‘I carry,’ etc. In principle the ictus is always on the initial syllable in Latvian.
The vocalic system described in II above could be that of Old Prussian. There is much, however, that is unclear about Old Prussian phonology, particularly the existence of */ö/ might be disputed since the usual reflex of the IE root for ‘to give’ is found in the Old Prussian 3rd Catechism in the infinitive form dät or dänwei (see Burwell 1970: 11–21). On the other hand in the same catechism we encounter no ‘on’ as the apparent cognate of Lithuanian nuo ‘from’ which must derive from *nö. It is reasonable to suppose that the phonology of the Pomesanian dialect represented by the Elbing Vocabulary was different from that of the Samland dialect represented by the three catechisms.

Under circumstances which are not completely clear (possibly in stressed syllables[?]) the diphthongs */ej/ (and possibly */aj/[?]) were monophthon­gized to */e₂/ creating the Common East Baltic vocalic system:

(III) */i, i:/ /u, u:/
/e₂:/ < */ej aj[?]/ /o:/
/e e₁:/ /a a₁:/

(Levin 1975: 151)

The above vocalic system lies at the base of all of the contemporary Lithuanian dialects, including standard Lithuanian which is closest to the southern variety (Kauniškiai) of Western High Lithuanian (Vakaruaukštaičiai) (Zinkevičius 1978: 25). The first step in the formation of this latter dialect was the creation of a new long /e:3/ in the sequence */ens/ (cf. kēsti ‘suffer’ < *kensti) and a new long /a:2/ in the sequence */ans/ (cf. e.g. šāsaja ‘connection’ < *sansaja). The new /e:3/ pushed the old /e:2/ into the position of the old /e:₂/ which in turn caused the old /e:₂/ to diphthongize to /ie:. In brief:

*/en[s]/ > /e:3/
*/e:1/> */e:2/
*/e:2/> /ie/

The new /a:2/ pushed the old /a:1/ into the position of the old /o:/ which in turn caused the old /o:/ to diphthongize to /ua/ (usually written as uo). In brief:

*/an[s]/ > /a:2/
*/a:1/> */o:/
*/o:/ > /ua/

Although many of the slots have different origins from that of Common East Baltic, the resulting vocalic system of standard Lithuanian is much like that of its predecessor:
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In Standard Lithuanian the /e:3/ above may also derive under unclear circumstances from a simple short */e/, compare mės ‘we’ (< *mes) thereby contrasting with mės ‘(he) will throw’. Similarly the /a:2/ may derive under unclear circumstances from a simple short */a/, compare mano ‘thinks’ (< *mano) which contrasts with māno ‘my, mine’.

The vocalic development from Common East Baltic to standard Latvian is somewhat similar, but in Latvian a new mid vs low vowel contrast deriving from earlier */e e:/ was conditioned by the following vowel. If there was an */i i: e e:/ or the diphthongs */ei ie/ in the following syllable, then earlier */e e/ received a higher or closer pronunciation, otherwise they had a lower or more open pronunciation, usually written as (short) ė, or (long) ėː, thus with high e we have vecis ‘old man’, vecene ‘old woman’, vs vecs < *vecas ‘old’ with low ė. The higher ė: vowel (derived from the allophone preceding a high vowel or diphthong) caused the diphthongization of the old Common Baltic */e:2/ to Latvian /ie/, giving a similar result to the Lithuanian (although for apparently different phonological reasons). Since Common East Baltic */o:/ was the back partner of */e:2/, this */o:/ underwent the same diphthongization in Latvian as in Lithuanian, that is, it passed to /uo/ or /ua/. Any unmonophthongized long /o:/ actually existing in modern Latvian is encountered only in loan words. Unfortunately the modern Latvian orthography uses the letter o to denote both the etymological */o:/ which was diphthongized to /uo/ and to denote the new borrowed long /o:/.

Therefore a word written as jods can denote either [juods] ‘devil’ or [joːds] ‘iodine’ (Kūcē-Draviņa 1977: 56). The Proto-Baltic sequence */en/ merged with Latv. */e:2/ and was diphthongized to /ie/ (cf. Latv. pieci ‘five’ beside Lith. penkti) and the Proto-Baltic sequence */an/ merged with /o:/ and was diphthongized to /uo/ (but still written as o; cf. Latv. rīka ‘hand, arm’ beside Lith. rankā).

Examples below show the IE reconstruction first and then related words in some Baltic and other IE languages (some words illustrate the development of several phonemes):

(a) *likʷ-: Lith. lik-ti ‘to remain, to stay’, Latv. lik-t ‘to put’, Skt rik-tāḥ ‘empty’, Lat. re-līc-tus ‘left’, Gk é-lip-e ‘he left’
(b) *gʷiw-: Lith. gvy-as ‘alive’ (Lith. orthographic y denotes phonemic įː),
    OPr. acc. pl. giw-ans, Latv. dzīv-s, Lat. viv-us, OCS živ-ɔ, Skt jīv-āḥ
(c) *medʰu: see (m), p. 464.
(d) *sedʰ-: see (i), p. 464.
(e) *dḥum-: Lith. dūm-ai ‘smoke’, Latv. dūm-i, OPr. dum-is, Lat. fūm-us, Skt dhūm-áh, Gk thūm-ós ‘soul’

(f) *lejkʷ-ò: see (c), p. 464.

(g) *dō-: Lith. dū-o-ti ‘to give’, Latv. dū-t, OPr. dā-t, Skt dā-dā-mi ‘I give’, Gk dī-dō-mi, Arm. ta-m

(h) *māṭe(r): Lith. mōtė ‘mother’, Latv. māte, OPr. (3rd Catechism) mūti, (Elbing Vocabulary) mothe, OCS mati, Lat. māter, Skt mātā, OIr. mādhir, Gk (Ion.) mētēr, (Dor.) mātēr, etc.

(i) *okʷ-: Lith. ak-is ‘eye’, Latv. acs, OPr. nom. aksis ‘eyes’, Skt ak-si ‘eye’, Lat. oc-ulus, Gk nom. dual ósse ‘two eyes’

(j) *aks-: Lith. aš-is ‘axle’, Latv. as-s, OPr. ass-is, Lat. ax-is, Gk āks-ōn, Skt aks-āh

(k) *leẉdh-: Lith. liūdis ‘people’, Latv. lāudis, OCS ljudbje, OHG liut

The syllable bearing IE sonants */r 1  m n/ for the most part developed the support vowel /i/ (but occasionally apparently /u/) in Baltic (as in Slavic). Thus beside Skt mrtrāḥ ‘dead’ we encounter Lith. mūtī ‘to die’, beside Skt vrkhāḥ ‘wolf’, Lith. vilkas ‘id.’, beside Goth. ga-gumps ‘assembly, synagogue’, Lith. gimti ‘to be born’, beside OHG gund-fano ‘war-flag’, Lith. gīnti ‘to chase’. The circumflex stress in these sequences reflects the etymological short sonant, but an acute stress would apparently reflect an etymological long sonant or short sonant plus laryngeal, compare Lith. pilnas ‘full’ (i is a way of writing the acute in sequences of i or u plus sonant) beside Skt pūṁnāḥ, Goth. fulls < *pln or *p|H-n; cf. Chapter 14, Laryngeals and Syllabic Sonorants, p. 426.

The Proto-Baltic consonantal system is presented in the following schema:

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<table>
<thead>
<tr>
<th>Labial</th>
<th>Dental</th>
<th>Alveopalatal</th>
<th>Velar</th>
</tr>
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<tbody>
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<td>stops</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td>p</td>
<td>t</td>
<td>k (&lt; IE *k and *kʷ)</td>
</tr>
<tr>
<td>voiced</td>
<td>b</td>
<td>d</td>
<td>g (&lt; IE *g and *gʷ)</td>
</tr>
<tr>
<td>continuants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td>s</td>
<td>š (&lt; IE *ǩ)</td>
<td></td>
</tr>
<tr>
<td>voiced</td>
<td>v</td>
<td>z</td>
<td>ž (&lt; IE *ǧ)</td>
</tr>
<tr>
<td>nasal</td>
<td>m</td>
<td>n</td>
<td></td>
</tr>
</tbody>
</table>
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Other resonants j, r, l

Latvian has merged Proto-Baltic */ʃ/ and */ʒ/ with /s/ and /z/ respectively, see below. The Proto-Baltic voiced stops seem to derive both from the IE voiced aspirates */bh ḍh g̣h g̣hw/ and the plain voiced stops */b d g g̣w/ (or in terms of the glottal theory proposed by Gamkrelidze and Ivanov the plain voiced stops */b[bl] d[bl] g[bl] g[blw]/ and the glottalized consonants */p′ t′ k′ k′w′/).

Examples below show the IE reconstruction first and then related words in...
Baltic and other IE languages (some words illustrate the development of several phonemes):

(a) *penkʷe: Lith. penkë ‘five’, Latv. pieci, OPr. penckts ‘fifth’, Gk pénte ‘five’, Goth. þinf, etc.

(b) *trejës: Lith. trës ‘three’, Latv. trës, Gk treís, Lat. trës, Skt tráyas, Goth. þria, etc.


(d) *krew-ː: Lith. kraü-jas ‘blood’, OPr. krau-ia, cf. Skt kravya-m, OCS krČu, Lat. cruor

(e) *dhub-ː: Lith. dub-ūs ‘deep’, Latv. dub-t ‘to sink, to become hollow’, OCS dúb-rō ‘gorge, ravine’, (with *-e- grade ablaut) Goth. diups ‘deep’ (< *dʰ⁴uub-)

(f) *dekm(-t-): Lith. dëšimt-s ‘ten’, Latv. desmit (note merger of Common Baltic *s/ with /s/ and metathesis of /i/ and /m/), OPr. dessimt-s ‘tenth’, Skt dáša, Gk déka, Lat. decem, Goth. tāthun, etc.


(h) *awg-ː: Lith. áug-ti ‘to grow’, OPr. aug-in nons ‘having grown’, Lat. augère ‘to increase’, Gk aük-sein, Goth. auk-an

(i) *sēd-ː: Lith. séd-ēti ‘to sit’, Latv. sēd-ēt, OCS sēd-ēti, with -e- grade root *sēd-, cf. Goth. sit-an, Lat. sed-ēre, etc.

(j) *kŋt-ː: Lith. šimt-as ‘hundred’, Latv. simt-s, Skt šat-ām, Gk he-kat-ōn, Lat. cent-um, Goth. hund, etc.


(l) *nizd-ː: (with substitution of l for original *n) Lith. nizd-ās ‘nest’, OHG nest, Lat. nāi-us, Skt nād-ā, etc.

(m) *medůː: Lith. medů-s ‘honey’, Latv. medu-s, OPr. meddo, OCS medů, Skt mādhu, Gk méthu ‘intoxicating drink’


(p) *rug-ː: Lith. rug-iai ‘rye’, OPr. rug-is, OCS r̥že-i, Old Icelandic rug-r

The shift of *k > ũ and *g > ū may not be thoroughgoing, compare such Lithuanian doublets as klūbas and šlūbas ‘lame’, etc.

In a sequence of two dental stops inherited from IE times the first dental becomes a sibilant and in regard to voicing (or lack thereof) is assimilated to the second dental: *ved+tei is represented by Lith. vēs-ti ‘to lead’ (1 sg. pres. ved-ū ‘I lead’), Latv. ves-t, OPr. wes-t; *met+tei is represented by Lith. mēs-ti
'to throw', (1 sg. pres. met-û), Latv. mest, OPr. met-is 'a throw' (see Chapter 2, Dental plus Dental, p. 40).

The Proto-Baltic sequences */tl dl/ are represented in East Baltic by /kl gl/ respectively (although the Old Prussian evidence is ambiguous), cf. Avest. aothrêm 'footwear', but Lith. auklê 'cord', Latv. àukla, OPr. auklë 'collar harness'. On the other hand, one encounters Lith. žênklas 'sign' vs OPr. ebsentliuâns 'designated', and OPr. addle 'fir tree', Pol. jodła correspond to Lith. ėglê 'spruce', Latv. egle.

The Proto-Baltic sequences of consonant plus */j/ plus non-front vowel led to various types of palatalizations in Lithuanian and Latvian. In Old Prussian the results of such sequences are ambiguous. In the Lithuanian sequence of labial plus */j/ the /j/ is pronounced in word-initial position, but elsewhere merely palatalizes the preceding labial (in Lithuanian the vowel letter -i- denotes the palatalization of the preceding consonant if it occurs before a non-front vowel). Thus, for example, Lithuanian bjaurûs (= /b'jaurûs/) 'ugly', but kòpiu (= /k'opû/) 'I climb'. In Latvian in word-initial position an epenthetic l is inserted, but elsewhere the /j/ is retained. Cognate with the Lithuanian words given above we encounter Latvian bāûrs 'angry, evil' and kapju 'I climb'. The pronunciation of Old Prussian piuclan 'sickle' (cf. Lith. pjûklas 'saw') is unknown.

Proto-Baltic */tj dj/ are represented by Lithuanian iç dž/ and Latvian /s ž/ respectively, thus Lith. vûkiečiai 'Germans' = Latv. vâcîesî (<*vâkietjai) and Lith. nom. pl. briëdziâi 'deer' = Latv. briêzi (<*briedjai). The pronunciation of Old Prussian words seeming to presuppose this sequence is not known, for example, median 'forest', cf. Latv. meûs 'forest', Lith. médžias 'wood'.

Proto-Baltic */s s z/ plus */j/ plus non-front vowel resulted in palatalized versions of /s z/ in Lithuanian, whereas in Latvian both voiceless spirants gave /s/ and the voiced one gave /z/. Proto-Baltic */s/ merged with */s/ and Proto-Baltic */z/ merged with /l/ in Lithuanian. Then Lithuanian */s/ > /s/ and */z/ > /l/. Thus */sjû-tei/ is represented by Lith. siû-ti 'to sew' and Latv. šû-t. Compare Old Prussian schuwikis 'shoemaker' which may reflect a pronunciation with initial /l/. Note also Latvian first-person singular present kâšu (< *kâšju < **kâšju) 'I filter' = Lith. kôšiu. Thus from Lith. eûûs 'hedgehog', Latv. eëis: the respective genitive singular forms are Lith. eëîos (< *eëjó) and Latv. eža (< *ezjâ < *ežâ).

Proto-Baltic */n l r/ plus */j/ gave the Latvian dorsal /l, r/ and palatalized /l/, and Lithuanian palatalized consonants (where the palatalization of the preceding consonant is rendered orthographically by a following letter -i-), compare the *jo-stem genitive singular forms Lith. ẑirmio 'of the pea', brôlio 'of the brother', pavâsario 'of spring' = Latv. zîrça, brâla, pavasâra, respectively. These same phonological sequences are apparently represented in the following Old Prussian words, but it is not known how they were pronounced: brunëos 'armour', kelian 'spear', garian 'tree'.

The Proto-Baltic sequences */kj gj/ and */k g/ before a front vowel are
rendered by palatalized /k ã/ in Lithuanian but in Latvian by /c dz/ respectively. The Old Prussian pronunciation of the reflexes of these sequences is unknown. Compare Lith. tikiû ‘I believe’, regiû ‘I see’ = Latv. tiku, redzu. Old Prussian dragios ‘yeast’ seems to contain an etymological sequence with */-gj-/. Lith. äkys ‘eyes’, OPr. ackis = Latv. acis; Lith. gérve ‘crane’, OPr. gerwe = Latv. dzérve.

In the Proto-Baltic sequence of consonant plus */j/ plus front vowel the */j/ was lost, compare the Lithuanian vocative singular svetê < *svetje. The */j/ is assumed here because the noun is etymologically a *jo-stem noun, compare nom. sg. svéčias ‘guest’ < *svetjas.

** Morphology of Common Baltic**

The contemporary Baltic languages have a nominal declension, in which the following cases derive from IE: nominative, genitive, dative, accusative, instrumental, locative and vocative. In addition Latvian and Lithuanian have cases created in Baltic times, namely, an illative, allative and adessive. Lithuanian also has an optional dual number, only traces of which are known in Latvian. The masculine and feminine genders are distinguished in the adjective and noun and there is a vestigial neuter in the Lithuanian and Old Prussian pronoun and adjective.

**Substantives**

The IE noun was characterized by a root (bearing the lexical meaning), a derivative suffix or suffixes (the meaning(s) of which may or may not be clear now) plus an inflectional ending (showing the function of the noun in the sentence). There are a number of different suffixes or stems used in the formation of the noun as there are in all the conservative IE languages. Here we have chosen for our example an *o-stem noun. This *-o-, the meaning of which is no longer clear, is also called the `thematic vowel` and is represented by Proto-Baltic */-i/-. Typically the nominative singular of these nouns ended in */-s/ and the accusative singular in */N (N = n or *m). Sample declensions of *o-stem masculine nouns in the three Baltic languages are given in Table 15.1.

There is fairly general agreement that certain cases derive from certain IE proto-forms: nom. sg. */-os/, acc. */-oN/, instr. */-ö/, voc. */e/, nom. dual */-ö(u); nom. pl. */-oi (originally a pronominal ending), loc. */-öse. The Lithuanian-Latvian genitive singular seems to derive from an etymological ablative */-ät/, cf. Skt abl. sg. vrk-ät ‘from the wolf’, whereas the Old Prussian genitive singular may derive from */-os/, cf. Hitt. gen. sg. antuḫš-aš ‘of the man’. The Lithuanian dative singular may derive from */-ö/ (< */-uo > */-u/) with the addition of */-i/ from other dative forms, whereas the Latvian dative singular is taken from the pronominal stems. The Lithuanian locative singular may derive from */-en/, whereas the Latvian is taken from the */ä/-stem loc. sg. If the reconstruction is correct the Old Prussian locative singular derives from */-oi/, also represented in some Lithuanian adverbs, for example, nam-ië (< */ê2
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Table 15.1 Nominal stems in \(-o\)-

<table>
<thead>
<tr>
<th></th>
<th>Lithuanian</th>
<th>Latvian</th>
<th>Old Prussian</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom. vilkas 'wolf'</td>
<td>vilks</td>
<td>Deiws (Deiwas</td>
<td>1x 'God'</td>
</tr>
<tr>
<td>Gen. vilko</td>
<td>vilka</td>
<td>Deiwas</td>
<td></td>
</tr>
<tr>
<td>Dat. vilku</td>
<td>vilkam</td>
<td>*Deiweu (?)</td>
<td></td>
</tr>
<tr>
<td>Acc. vilka</td>
<td>vilku</td>
<td>Deiwan</td>
<td></td>
</tr>
<tr>
<td>Instr. vilkü</td>
<td>vilku</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Loc. vilkė</td>
<td>vilkā</td>
<td>*Deiwea</td>
<td></td>
</tr>
<tr>
<td>Voc. vilke</td>
<td>vilku</td>
<td>Deiwe</td>
<td></td>
</tr>
<tr>
<td><strong>Dual</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom.-Acc. vilkù</td>
<td>(divu dārzu 'two gardens')</td>
<td>(austo 'mouth')?</td>
<td></td>
</tr>
<tr>
<td>Dat. vilkám</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instr. vilkam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nom. vilkaĩ</td>
<td>vilki</td>
<td>*Deiwea</td>
<td></td>
</tr>
<tr>
<td>Gen. vilkũ</td>
<td>vilku</td>
<td>*Deiwan</td>
<td></td>
</tr>
<tr>
<td>Dat. vilkãms</td>
<td>vilkëm</td>
<td>*Deiwan</td>
<td></td>
</tr>
<tr>
<td>Acc. vilkũs</td>
<td>vilkus</td>
<td>Deiwan</td>
<td></td>
</tr>
<tr>
<td>Instr. vilkais</td>
<td>vilkëm</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Loc. vilkuose</td>
<td>vilkös</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

< \(-oi\)' at home', compare Gk \(oîk-oi\) 'id.' (see p. 245). The genitive plural may derive from \(-on\) which passed to Proto-East Baltic \(-un\) under certain conditions, but to \(-an\) in Proto-West Baltic. The Lithuanian dative plural derives from \(-omus\) and the Latvian form is derived from the pronominal stems. The origin of the Old Prussian dative plural is unclear. The accusative plural may derive from \(-ons\) which passed to Proto-East Baltic \(-uns\) under certain conditions, but to \(-ans\) in Proto-West Baltic. The Lithuanian instrumental plural \(-ais\) is usually compared with Sanskrit \(-äih\), whereas the Latvian form comes from the Latvian dative plural. Although the \(o\)-stem noun is best attested in Baltic in the masculine gender, many think that there were \(o\)-stem nouns of neuter gender, quoting usually Old Prussian \(assaran\) 'lake' (cf. Russ. \(ozero\) 'id'), but this word, ending in \(-an\) may merely be the accusative singular of a masculine noun.

The Lithuanian and Latvian singular ending \(-n\) and the Lithuanian plural endings \(-sna\), \(-sne\), \(-sen\), \(-sin\), \(-sn\) are used for the illative case which usually denotes the final point of some motion, although sometimes the place where something is located. Compare Lith. \(eîti laukaĩ\) 'to go outside', Latv. \(kounan tapt\) 'to come into disgrace' (see p. 475). These have their origin in the accusative singular case followed originally by some postposition which has disappeared. An example of the illative plural is Lith. \(lieposna\) 'into the linden trees'. The allative was formed by adding the postposition \(-p(i)\) to the genitive case and was normally used with verbs of motion, compare Lith. \(jau viskas\)
ēina velniöp ‘already everything is going to the devil’. The adessive was formed by adding the postposition -p(i) to the etymological locative case and denoted a place near something, compare Lith. Dievieti ‘in the presence of God’ (Endzelins 1971: 166–7).

Adjectives

These agree in case, number and gender with the substantives which they modify and many of the stems known in the noun classes are known in the adjectives also.

An example of a Lithuanian *o-stem adjective is given below:

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>mäžas ‘small’ (&lt;*-os)</td>
<td>mažû (&lt;<em>-uo &lt;</em>-ô)</td>
<td>mažî (&lt;<em>-ie &lt;</em>-ë2 &lt;*-oi)</td>
</tr>
<tr>
<td>Gen.</td>
<td>mäžo (&lt;*-â[t])</td>
<td>like pl.</td>
<td>mažû (&lt;<em>-un &lt;</em>-on)</td>
</tr>
<tr>
<td>Dat.</td>
<td>mažâm (&lt;*-âmũi)</td>
<td>mažium</td>
<td>mažium(û)s</td>
</tr>
<tr>
<td>Acc.</td>
<td>mäžâ (&lt;<em>-an &lt;</em>-on)</td>
<td>mažû (&lt;<em>-uo &lt;</em>-ô)</td>
<td>mažûs (<em>-uns &lt;</em>-ons)</td>
</tr>
<tr>
<td>Instr.</td>
<td>mäžû (&lt;<em>-uo &lt;</em>-ô)</td>
<td>mažiêm</td>
<td>mažais (&lt;-âis?)</td>
</tr>
<tr>
<td>Loc.</td>
<td>mažâmê, mažaûn</td>
<td>like pl.</td>
<td>mažuosê (&lt;*-õsen?)</td>
</tr>
</tbody>
</table>

The *o-stem adjectives can be masculine in all the Baltic languages and traces of a neuter *o-stem have been retained in Lithuanian and Old Prussian; compare, for example, the predicative use of the neuter adjective in the Lithuanian sentence: män sälta (<*-o) ‘I am cold’ and the nominative singular neuter pronoun and adjective in Old Prussian sta wissa warge mien ‘this all bothers me’. The Latvian cognate mazs ‘small’ is declined exactly like vilks in Substantives, p. 466 above. In Lithuanian and Latvian masculine adjectives the endings of the demonstrative pronouns have been adopted in the dative and locative singular, the nominative and dative plural and the dative and instrumental dual.

In addition to the simple adjective there is also a definite adjective in the Baltic languages. Etymologically this was formed by the addition of the appropriate case ending of the third-person personal pronoun to the simple adjective. Thus one derives mažâsis Lithuanian ‘the small ...’ by adding *-is ‘he’ to mäžas. For the declension of *-is see Pronouns below. Note then the following definite declensional forms:

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>mažâsis</td>
<td>mažûoju</td>
<td>mažîeji</td>
</tr>
<tr>
<td>Gen.</td>
<td>mäžojo</td>
<td>like pl.</td>
<td>mažûju</td>
</tr>
<tr>
<td>Dat.</td>
<td>mažâ(m)jam</td>
<td>mažiê(m)jiem</td>
<td>mažîe(m)siems</td>
</tr>
<tr>
<td>Acc.</td>
<td>mažâjji</td>
<td>mažûoju</td>
<td>mažûos(iu)(û)s</td>
</tr>
<tr>
<td>Instr.</td>
<td>mažûoju</td>
<td>mažiê(m)jiem</td>
<td>mažaisiais</td>
</tr>
<tr>
<td>Loc.</td>
<td>mažâjam(e)</td>
<td>like pl.</td>
<td>mažiuõsiuos(e)</td>
</tr>
</tbody>
</table>
The Latvian definite adjective derives etymologically from the same principle, but since word-final syllables are more reduced in that language the etymological origin is not as immediately clear.

According to one theory the development of the Avestan relative pronoun into a definite pronoun is parallel to the Baltic (and Slavic) development. Thus in Avestan the phrase daēvo yō apaōšō ‘demon which (is) Apaōsa’ came to mean ‘the demon Apaōsa’ (for this and other theories see Schmalstieg 1987: 304–9).

**Demonstrative Pronouns**

The demonstrative pronouns nominative singular Lith. m. ĭtas, f. ĭta ‘that’, Latv. m. ĭtas, f. ĭta are cognate with the suppletive IE pronoun which has the nominative singular m. *so, f. *sä (cf. Goth. sa, sō, Gk ho, hē) but for which the stem in other cases is *t- (cf. Goth. m. sg. gen. ĭsī, Skt tasya, Gk tōū).

In East Baltic the t-stem has been generalized to all the cases. The Old Prussian definite article stas ‘the’ may represent a contamination of the stems *s- and *t-. Lithuanian šīš ‘this’, Latvian šīš, cognate with OCS sī, Proto-Gmc *hi (cf. Eng. he), and Lat. cis ‘on this side’ (< *kis) have a declension very similar to that of ĭtas. Since IE *k/i passes to Latv. /s/, the stem of the Latvian nominative singular must be analogical on the basis of some oblique case; compare, for example, the genitive singular masculine Proto-E *kjā > Balt. *šjā (cf. Lith. šīō) > Proto-Latv. *sjā > Latv. šā. Lithuanian also has the pronoun anāš ‘that (one over yonder)’ denoting a more distant point of reference; this is cognate with Slavic onš ‘that’ and perhaps somehow connected with Proto-Gmc *jainaz > Goth. jáins, Ger. jener, Eng. yon.

Various combinations of these pronouns are also known, for example from šīš and ĭtas one encounters Lithuanian šītas ‘this’, and so on.

**Interrogative Stem**

The IE interrogative stem *kwo- is represented in Lith. kās ‘who, what’, Latv., OPr. kas (= Skt kāh, Goth. kas). Lith. katrās (also katarās) ‘which one of two’ is cognate with Skt katarāh, Gk pōteros, Goth. hápar, OCS kotoryj šō ‘which’. Lith. kūris ‘which’, Latv. kūrš is formed by adding the third-person singular nominative pronoun jis ‘he’ to the adverb kur ‘where’. These pronouns may also have indefinite and relative meaning.

Old Prussian āins ‘one’ seems to derive from IE *ojnos and to correspond to Goth. āins, OIr. óin, Lat. ānus, whereas Lith. vienas ‘one’, Latv. viēns ‘one’ may derive from *ojnos with an excrescent initial *v-. The words for ‘one’ are declined like regular adjectives and agree with the word quantified in case number and gender. Lithuanian masculine duō ‘two’ probably derives from *dvuo < *dvō, cf. Skt dvā(u), Gk dūo, Lat. duo, Goth. twai, etc.; Lithuanian feminine dvi probably derives from *dvie < *dvai, cf. Skt dvē, OPr. m.-f. dwai. Latvian masculine-feminine divi probably derives from *dvi. For Lithuanian trūs ‘three’, etc. see (b), p. 464. Latvian četri ‘four’ (beside Lith. keturi ‘four’) is to be ascribed to Slavic influence, cf. OCS četyre, Skt...
catvāraḥ, Lat. quattuor, etc. For Lithuanian penkī ‘five,’ etc. see (a), p. 464. The second consonant of Latvian nominative seši ‘six’ seems to derive from some oblique case (e.g. gen. sešu = Lith. šešiū), whereas Lithuanian šeši has assimilation of the initial consonant to the second consonant, cf. Lat. sex, Gk ἕξ, etc. Lat. septem ‘seven’, Gk heptá, Skt sapta seem to presuppose an IE *septm which would give Lith. and Latv. *septin. The long -y- of Lith. septyni is probably analogical on the basis of the long vowel of aštunī ‘eight’; the -n of Latv. septīni derives from some oblique case, compare Latv. seši above. Skt aṣṭ(a)u ‘eight’, Gk oktō, Lat. octō suggest a Proto-Baltic *aštō. Actually encountered are Lithuanian aštunī and Latvian aštōni with the final syllable on analogy with the number for seven or nine. Lith. devynī ‘nine’, Latv. deviņi seem to have replaced an earlier *devin, in which the initial d- has replaced *n- (as in OCS devt̂ī), cf. Skt nāva, Lat. novem, etc. under the influence of the initial *d- of *dek̂ti-(t-) ‘ten’ for which see (f), p. 464. The Lithuanian and Latvian numbers from two to ten are declined.


**Pronouns**

The first- and second-person singular and plural personal pronouns have no gender distinction, but they do have a full declension: Lith. aš, eš ‘I’, Latv. es, OPr. as, es derive from IE *egh(-om), cf. Gk ego, Lat. ego, etc.; Lith. tū ‘thou, you (sg.)’, Latv. tu, OPr. tu, tū derive from IE *tū; Lith., Latv. mēs ‘we’ derive from Common Baltic *mes, cf. Arm. mek’; Lith., Latv. jūs ‘you’, OPr. ioūs are cognate with Avest. yūš and Goth. jūs. An old dual is represented in Lith. mū-du ‘we two’ and jū-du ‘you two’. A reflexive pronoun Lith. (acc. sg.) savė, Latv. sevi. OPr. (dat. sg.) sebbei which refers in principle to the subject of the sentence is known in all the Baltic languages.

The IE *is ‘he’ functions as the third-person personal pronoun in Lithuanian.

Note that the dual forms in Table 15.2 are followed by declined forms of the numeral dū ‘two’. The Latvian third-person pronoun (m. nom. sg.) viņš, (f.) viņa is still sometimes used in deictic function and may be connected with OPr. wīnna ‘out’ and OCS vāně ‘outside’. The Old Prussian third-person pronoun (m. nom. sg.) tānas, (f.) tānā is probably derived from a contamination of *tas and *anas.
Table 15.2 Third-person personal pronoun

<table>
<thead>
<tr>
<th></th>
<th>Masculine</th>
<th>Dual</th>
<th>Feminine</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>jīs</td>
<td>juō-du</td>
<td>jīē</td>
<td>ji</td>
<td>jīē-dvi</td>
</tr>
<tr>
<td>Gen.</td>
<td>jō</td>
<td>------</td>
<td>jūs</td>
<td>jūs</td>
<td>-------</td>
</tr>
<tr>
<td>Dat.</td>
<td>jām(u)</td>
<td>jēm-dviem</td>
<td>jiems</td>
<td>jāi</td>
<td>jō-dviem</td>
</tr>
<tr>
<td>Acc.</td>
<td>jī</td>
<td>juō-du</td>
<td>juōs</td>
<td>jā</td>
<td>jie-dvi</td>
</tr>
<tr>
<td>Instr.</td>
<td>juō</td>
<td>jie-dviem</td>
<td>jais</td>
<td>jā</td>
<td>jō-dviem</td>
</tr>
<tr>
<td>Loc.</td>
<td>jamē</td>
<td>------</td>
<td>juōsē</td>
<td>jojē</td>
<td>-------</td>
</tr>
</tbody>
</table>

Verbs

The Baltic simple present and future tenses continue the IE present and future, but in Baltic we encounter a simple preterite instead of an imperfect, aorist, perfect and pluperfect tense (known, e.g. in Greek). Lithuanian also has a newly formed imperfect tense. In addition to an indicative and imperative mood there is also a conditional. The forms of the old middle voice have been lost, but various middle meanings are expressed in the newly created reflexive forms. In addition to the infinitive (ending in *-tie > Lith. -ti, Latv. -t, OPr. -t, -twei) and the supine (*-tum > Lith. -tu) there are many participial formations, which may be used with auxiliary verbs to form various tenses. The dual number has been retained in Lithuanian.

The first-person singular is expressed by one of two possible endings, namely, *-ō > Lith. -uo (still written as -ō in Latvian) (for the ‘thematic’ verbs) and -mi (for the ‘athematic’ verbs). In both Lithuanian and Latvian the final *-uo was shortened to -u, giving us such first-person singular present forms as Lith. velk-ü ‘I drag’, Latv. vēlk-u, but the diphthong was retained when the ending is followed by the reflexive particle, thus Lith. velk-ūo-si ‘I drag myself along’, Latv. vēlk-ō-s. IE *-ō is well represented in Gk phēr-ō ‘I carry’, Lat. fer-ō, OHG bir-u, etc. The athematic ending -mi is encountered in Old Lithuanian es-mi ‘I am’ (= contemporary standard thematic es-u). A contamination of the athematic and thematic endings gives Lith. dialect es-mu and Latv. es-mu. Old Prussian as-mai ‘I am’ is unclear. Some think, however, that it results from a contamination of the active ending *-mi and the middle ending *-ai. The Lithuanian second-person singular ending (velk)-i, encountered in all verb classes, may derive from the athematic verbs, for example, Lith. es-i ‘you (sg.) are’ (< root *es- + athematic ending *-si (with simplification of the sequence of two *s’s)). There is no distinction of number in the third person, the same form serving to denote singular, dual and plural. Although the usual ending is zero (third person Lith. velk-a ‘drags’ (thematic vowel -a)) traces of the original ending third-person singular ending *-ti have been retained in athematic Lith. es-ti ‘there is, there are’ (cf. OPr. ast ‘is’, Gk es-ti, Skt ās-ti) and was well represented in Old Lithuanian. The Common
East Baltic first- and second-person plural and dual endings were probably those represented in the contemporary Lithuanian thematic verb (1 pl.) velk-a-me ‘we drag’, (2 pl.) velk-a-te, (1 dual) velk-a-va, (2 dual) velk-a-ta; the long vowels attested in the endings of the respective reflexive forms velk-a-mèš (< *-mèš-s), velk-a-tèš (< *-tèš-s) velk-a-vos, (< -và-s), velk-a-tos (< *-tà-s) probably have some analogical origin (Schmalstieg 1961: 371).

In Indo-European the thematic vowel had *-e- grade vocalism in the third-person singular, second-person dual and plural (reflected, e.g. in Gk 3 sg. phèr-e-i ‘carries,’ 2 pl. phèr-e-te, Goth. 3 sg. and 2 pl. bair-i-p) as opposed to the *-o- grade in the first plural (reflected, e.g. in 1 pl. Gk phèr-o-men, Goth. bair-a-m). The generalization of Baltic -a- is connected with the fact that in the sequence of consonant plus */j/ plus */e/ (see p. 466) the */j/ was lost such that before the thematic vowel *-e- there could be no contrast between simple thematic verbs and *-j-stem thematic verbs, thus first-person plural Heid-j-ame (> Lith. leidžiame ‘we let’), but third-person Heid-j-e > *leid-e. In order to re-establish the *-j-stem the thematic vowel was changed throughout the conjugation giving *leid-j-a (> Lith. leidžia). The thematic vowel -a- was then substituted in the simple thematic verbs also since the old form *ved-e was ambiguous with regard to its derivation (appearing to come either from *ved-e or *ved-je).

Some thematic verbs show root ablaut variation, frequently with *-e-grade ablaut in the present and zero grade in the infinitive stem (also in the preterite and future conjugations), thus, for example, *-e-grade present Lith. velk-ù, etc. but inf. vilk-ti, Latv. vilk-t (*vlk-tei, see p. 463). Thematic verbs employ either the *-ā- or the *-ē- suffix in the preterite, thus Lithuanian preterite 1 sg. vilk-āû (< *vilk-ā-u (with addition of primary ending -u and shortening of the suffix vowel *-ā-)), 2 sg. vilk-āï (< *vilk-ā- (with addition of primary ending -i and shortening of the suffix vowel *-ā-)), 3 (all numbers) vilk-o (< *vilk-ā (with zero ending)), 1 pl. vilk-o-me (< *vilk-ā (with ending -me)), 2 pl. vilk-o-te (< *vilk-ā (with ending -te)), 1 dual vilk-o-va (< *vilk-ā (with ending -va)), 2 dual vilk-o-ta (< *vilk-ā (with ending -ta)); from vèstti ‘to lead’ Lith. preterite 1 sg. vedž-iaû (< *ved-ja-u < *ved-ē-u (with addition of primary ending -u and shortening of the suffix vowel *-ē-) see p. 460), 2 sg. ved-eï (< *ved-ē- (with addition of primary ending -i and shortening of the suffix vowel *-ē-)), 3 (all numbers) vèd-ē (< *-ē (with zero ending)), 1 pl. vèd-ē-me (< *ved-ē- (with ending -me)), 2 pl. vèd-ē-te (< *ved-ē (with ending -te)), 1 dual vèd-ē-va (< *ved-ē (with ending -va)), 2 dual vèd-ē-ta (< *ved-ē (with ending -ta)). Possibly this Baltic ending is connected with the thematic aorist ending *-e (Schmalstieg 1965).

In addition to the thematic and athematic verbs there exist verbs with an -i-stem present and *-ē-stem infinitive (preterite and future) and frequently with a zero-grade ablaut of the root. This class of verbs, usually stative in meaning, shares much in common with Slavic verbs in *-i/-ē- (Leskien’s Class IVB). Compare Lith. minėti ‘to mention’, Latv. minēt (= Slav. mìněti),
Lith. 1 sg. min-iū (< *mn-j-ō), 2 sg. min-i, 3 (all numbers) min-i, 1 pl. min-i-me, 2 pl. min-i-te, 1 dual min-i-va, 2 dual min-i-ta, pret. 1 sg. miné-j-aiu, 2 sg. miné-jai, etc. like vilk-aū, vilk-ai above.

A third class of verbs has an etymological *-ā-stem in the present, usually *-i- in the infinitive and usually *-ē- in the preterite. Compare Lith. prašý-ti ‘to ask’, Latv. prasi-t, Lith. 1 sg. präs-ā-t, 2 sg. präs-ā-ti, 3 (all numbers) präs-o, 1 pl. präs-o-me, 2 pl. präs-o-te, 1 dual präs-o-va, 2 dual präs-o-ta, pret. 1 sg. präs-iau, 2 sg. präs-ei, like vedž-iau, ved-ei above.

The sigmatic future is formed on the infinitive stem and conjugated as follows: from dūo-ti ‘to give’ we encounter the fut. 1 sg. dūosiu ‘I shall give’, Latv. došu (< *dös-j-ō, cf. Skt dās-y-ā-mi, Gk dōsē), 2 sg. dūosi, 3 (all numbers) dūos, 1 pl. dūosime, 2 pl. dūosite, 1 dual dūosiva, 2 dual dūosita.

A specific Lithuanian imperfect is formed with the suffix -dav- plus the *-ā- preterite endings, thus 1 sg. vilk-dav-au ‘I used to drag’, 2 sg. vilk-dav-ai, etc.

The East Baltic conditional mood is derived by the addition of some form of the root *-bi- ‘be’ to the supine ending, thus Lithuanian *būtum-biau ‘I would be’ contracted to modern būčiau.

Latvian has a special debitive mood formed by prefixing jā- (probably the singular genitive or ablative of the pronoun *is, see Pronouns, p. 470) to the third-person present, the noun subject being in the dative and the object in the nominative: man (dat.) bērni (nom. pl.) jā-māca ‘I must teach children’ (Endzelins 1971: 241).

The Indo-European optative in *-oi- (cf. Gk 2 sg. phé-oi-s, pl. phé-oi-te ‘may you carry’, Goth. bair-ai-s, bair-ai-p) is represented in the imperative OPr. 2 sg. wed-ais ‘lead’, Lith. (usually with the prefix te-) 3 sg. te-sāk-ai ‘may he say’, te-dirb-iē ‘may he work’ (< *-ē2 < *-aj < *-oj), Latv. 2 pl. es-ie-t ‘be’ (< *-ē2 < *-aj- < *-oj-). The usual Lithuanian second-person imperative, however, is an innovation formed by the addition of (2 sg.) -k, (2 pl.) -kite to the infinitive stem, thus saký-k, saký-kite ‘say’! In modern Latvian the second-person singular imperative is identical with the second-person singular indicative, for example, es-i ‘be!’ (also ‘you (sg.) are’).

The Baltic languages have retained participles from Indo-European and have created some of their own. Thus one encounters (all forms in the nominative singular masculine unless otherwise specified):

1 Present passive participle, Lith. vēd-am-as ‘being led’, Latv. vēd-am-s, OPr. (f. pl.) paklausīmanas ‘heard’
2 Future passive participle, Lith. būs-imas ‘future’
3 Past passive participle, Lith. dūo-tas ‘given’, Latv. dūts, OPr. crixiti-ts ‘christened’
4 Special active participle in (Lith.) -damas, (Latv.) -dams, Lith. dar-ýdamas ‘doing’, Latv. darīdams
Participle of necessity in -tinas only in Lithuanian, e.g. abejótinas ‘doubtful, which must be doubted’

Present active participle in -nt-, Lith. vedās ‘leading’ < *vedants, Latv. dial vedas, OPr. (nom. pl.) skellántai ‘owing’

Future active participle, Lith. dūsūs ‘(will be) giving’, Latv. dialect došūs (cf. Skt dāsan)

Past active participle, Lith. likūs ‘having left’, Latv. licis ‘having put’, OPr. ĭdūns ‘having eaten’

Participles can be used to express reported speech (the indirect mood), compare Lith. jis mān pasākē, kā sūnūs dārās (dārēs, darydavēs) ‘he told me what his son is doing (did, used to do)’ (with pres., past and impf. act. participles respectively), Latv. kādam tēvam bijuši tris dēli ‘a certain father (it is said) had three sons’ (Endzelēns 1971: 246).

A wide variety of compound tenses can be formed from various tenses of the copula plus the participles, thus Lith. pres. perf. esū dirbēs ‘I have worked’, pluperf. buvāū dirbēs ‘I had worked’, frequentative perf. budavāū dirbēs ‘I had worked (at intervals)’, fut. perf. būsiu dirbēs ‘I shall have worked’, OPr. perf. kas ast teikīuns dagon bhe Semmien ‘who has created heaven and earth’, Latv. perf. viņš ir aizmūdzis ‘he has fallen asleep’.

The Lithuanian passive voice can be expressed only by participles (Ambrazas 1979: 17), for example, with the present passive participle masculine (pres.) esū mūšamas ‘I am being beaten’, (pret.) buvāū mūšamas ‘I was being beaten’ (frequentative past) budavāū mūšamas ‘I used to be beaten’, (fut. perf.) būsiu mūšamas ‘I shall be beaten’, (perf.) esū būvēs mūšamas ‘I have been beaten’, (pluperf.) buvāū būvēs mūšamas ‘I had been beaten’, (fut. perf.) būsiu būvēs mūšamas ‘I shall have been beaten’. All of the same tenses can also be formed with the past passive participle mūštās, for example, pres. esū mūštās ‘I am beaten’, etc. Latvian also has compound passive preterite forms, for example, pres. es ēsmu mācīts ‘I am taught’, etc. With a form of the auxiliary wirst a compound passive is apparently known in Old Prussian also, for example ... kas pērwans dāts wirst ‘... which is given for you’.

The aspectual system of Lithuanian is complex, frequently a prefix deriving a perfective from an imperfective, for example, jis daūg dārē, bēt niēko ne-pa-dārē ‘he did a lot, but accomplished nothing’.

Parts of Speech
The invariable parts of speech consist of conjunctions, adverbs, prepositions and postpositions.

The conjunctions Lith. ĭr ‘and’, Latv. ir ‘also’, OPr. ir may be cognate with Slavic i ‘and, even’ if the latter can be derived from *r(r). For the old ir contemporary Latvian has substituted the borrowing un for the meaning ‘and’.
A different ablaut grade of the same particle is Lith. ār and Latv. ār which mean first of all ‘also, in addition to’, but also can be used as an interrogative particle, compare Lith. ār girdžiai ‘did you hear?’ Latv. (older) ār tu jūti ‘do you feel?’ It can also mean ‘or’, compare Lith. šiaip ār tai ‘this way or that way’ (Endzelins 1971: 287). These conjunctions are probably cognate with Gk ἀρα ‘then’. Lith. ą ‘but’, Slav. a, are possibly cognate with Skt āt ‘then’. Lith. bet ‘but’, Latv. bet may be related to OPr. bhe ‘and’. Lith. be, be-i. Lith. be- may also be used as a prefix to mean ‘still, yet’, for example, ār besvei̇kas, ār begyvas? ‘Is he still healthy, still alive?’ Lith. jei, Latv. jā ‘if’ are probably derived from the pronominal stem *joe-.

The Lithuanian subordinating conjunction kąd ‘that’ is derived from the adverb kadä ‘when’, whereas Latv. ka ‘that’ may reflect an old singular-nominaive-accusative of the interrogative pronoun kas.


Many Baltic prepositions are cognate with prepositions in other IE languages, for example, OPr. en ‘in’, Lith. į (= Gmc in), cf. OPr. en wissans nautins ‘in all troubles’, Lith. eiti į miesta ‘to go into the city’, OPr. no, na ‘on’, Lith. nuo ‘from’, Latv. no (= Slav. na ‘on’), cf. OPr. na semye ‘on earth’, Lith. nulipti nuodārklio ‘to dismount from a horse’; OPr. per (translates Ger. för ‘for’ in the catechisms), Lith. per ‘through’, Latv. par ‘about, for’ (= Lat. per ‘through’), cf. OPr. dINKAMAI PER TWAIAI LABBASEGISNAN ‘we thank (thee) for thy kindness’, Lith. eiti per lai̇ka ‘to go through a field’, Latv. domāt par ko ‘to think about something’. Frequently the same words can function as verbal prefixes, for example, Lith. i-eiti į stotį ‘to enter (into) the station’, OPr. en-imt ‘to accept’, Latv. ie-brist ūdeni ‘to wade into the water’; Lith. per-eiti per gātvę ‘to cross the street’, Latv. par-vilkt ‘to drag over’.

**Word Formation**

As in all the conservative IE languages word formation plays an important role in the morphology of the Baltic languages.

One morphological category may be derived from another by suffixation, for example, the suffix *-tajo- (m.) *-tājā- (f.) derives agentive nouns from verbal stems, thus Lith. giedōtojas, -a ‘choir-boy, -girl’ < giedōti ‘to sing
hymns’, Latv. dziędātājs ‘singer’ < dziédāt ‘to sing’. A procedure dating from IE times is the formation of etymological *o- and *ā-stem nouns from verbal stems by means of the etymological *-o- (> Balt. -a-) ablaut grade of the root, for example, Lith. brādās ‘ford’ (Latv. brads) derives from the verb bristi ‘to ford’ (from the zero grade root form *brd-tei), 1 sg. pres. bred-ū (from the -e-grade of the root); Lith. rank-à ‘hand, arm’ shows the root vowel -a- deriving it from the verb riñk-ti ‘to gather’ (from the zero grade root form *rŋk-tei), 1 sg. pres. renk-ū (from the -e-grade of the root).

Like other IE languages the Baltic languages have copulative (dvandva), determinative (tatpurusa) and exocentric (bahuvrhi) compounds (see Chapter 4, p. 121). Copulative compounds are exemplified in Latv. kurlmēms ‘deaf and dumb’ (Latv. kurls ‘deaf’, mēms ‘dumb’), Lith. plaūčkepeniai ‘lungs (heart) and liver’ (Lith. plaūciai ‘lungs’, kēpenys ‘liver’). In the determinative compounds one element (usually the first) determines the other (usually the second): OPr. laucagerto ‘partridge’ (OPr. laucks ‘field’, gerto ‘hen’); Lith. viēškelis ‘highway’ (Lith. viēšas ‘public’, kēlias ‘road, path’); Latv. trešdiena ‘Wednesday’ (Latv. trēsais ‘third’, diena ‘day’). The exocentric compounds refer to something outside of the compound itself: nominative singular feminine Lith. juodāke ‘dark-eyed’, Latv. mēlnace (Lith. juodas ‘black, dark’, Latv. mēlns, Lith. akis ‘eye’, Latv. acs). For verbal prefixation see pp. 474–5.

**On Syntax**

We can learn little about word order from Old Prussian which shows, with some exceptions a slavish translation of German word for word.

For Lithuanian Ambrazas (1986: 98) writes that for the most part the word order shows that the modifier precedes the element modified, thus adverb + verb, adjective + noun, genitive + noun, particle + verb. The only exceptions are when a noun is modified by an instrumental and when the order is preposition + noun. The usual word order is S(subject) V(erb) O(object): Svečias nusivilko kūliniai ‘The guest took off the fur.’ On the other hand the object may precede the verb thereby emphasizing the object: Mykoliukas laimės nematė ‘Mike didn’t have any luck.’ If the object is a pronoun, its position before the verb is predominant: Visas miestas manė gérė ‘The whole city respected me.’ In the folk language and folklore the (S)OV order is more frequent: Dūbas dūbą vėja ‘Work chases away work.’ The more modern unmarked order (S)VO arose in literary Lithuanian after the preposition + noun constructions had already been established, seemingly giving rise to a certain disharmony according to the predictions of word-order typology.

Reflexes of very conservative IE case usage are well represented in the Baltic languages, as exemplified by Lithuanian examples in this paragraph. The nominative case is typically the case of the subject of the sentence: Mano namas (nom.) yra didelis ‘My house is big.’ Typically the genitive case
All denotes possession: *brūlio stālas* ‘brother’s desk’. The genitive also expresses the partitive as in many IE languages: *Mokinys* padarē *klaidių* (gen. pl.) ‘The pupil made (some) mistakes.’ In addition to such well-attested functions, one encounters the genitive as the object of a supine, or even an infinitive replacing a supine: *Jis atējo kārves* (gen. pl.) *piēktu* (supine) (*piēkti* (inf.)) ‘He came to buy a cow.’ Probably it is the suppression of the supine (or infinitive) in such sentences which has led to the creation of a genitive of goal: *atējāu dviračio* (gen.) ‘I came for the bicycle.’ The genitive case also expresses the agent of a passive verb and sometimes competes with an instrumental to denote the instrument: *Žēmē ēsti sniēgo* (gen.) or *sniegū* (instr.) *nuklotā* ‘the earth is covered by (with) snow.’ The genitive case interprets the snow as the agent covering the earth, whereas the instrumental case interprets the snow as the instrument with which the earth is covered. This use of the genitive is well attested in other conservative IE languages: Skt *pātyuh* (gen.) *krītā sati* ‘the wife bought by the spouse’, Lat. *attonitus serpentis* ‘astonished by the serpent’, etc. The dative case functions with the meaning of the indirect object: *Tēvas dāvē vaikui* (dat.) *ōbuoli* ‘Father gave the child an apple’ as in many other IE languages. An ancient syntactic feature is the use of the dative as the object of an infinitive to express purpose: *Pirkaū dalgi šīenui* (dat.) *pjauti* ‘I bought a scythe in order to mow the hay’. A similar construction is encountered in Old Czech: *Kūpichu pole pūníkom* (dat.) *hřěsti* ‘They bought a field to bury the pilgrims in.’ Compare also Hitt. *nu* SAL.MEŠ ūkturiya hašṭiyaš (dat.) *leššuwanzi pānzi* ‘The women go to the ukturiya to collect bones’. A dative absolute construction is also known: *Sāulei* (dat.) *tēkant, jis atsikēlē* ‘When the sun rose, he got up.’ The accusative case functions as the direct object of a verb: *Rasaū laīška* (acc.) ‘I am writing a letter.’ Typically the instrumental case denotes the instrument with which something is done: *Rašaū pieštukū* (instr.) ‘I am writing with a pencil.’ The instrumental case may be used as the predicate of the copulative verb when it means ‘to become’: *Jis būvo prezidentū* (instr.) ‘He was president.’ The locative case, as its name implies, expresses location: *Mēs gyvename miestē* (loc.) ‘We live in the city.’ The vocative case is used to address someone: *Tēve mūsū…* ‘Our Father…’.

Similar case usages are encountered in Latvian: *Zirgs* (nom.) *ir mežā* (loc.) ‘The horse is in the forest’; *nama* (gen.) *jums* ‘the roof of the house’; in Latvian the dative is used with the copula to express possession: *Saimniekam* (dat.) *ē ir zīrgs* ‘The farmer has a horse’ (lit. ‘to the farmer is a horse’); dative absolute: *Saulei rietot, mēs braucām mājās* ‘As the sun set, we drove home’; *Es lasu grāmatu* (acc.) ‘I am reading a book’ (Fennell and Gelsen 1980: 5, 11, 787, 39); *skaties abām acīm* (instr.), *klausies abām ausīm* (instr.) ‘look with both eyes, listen with both ears’. The vocative of *māte* ‘mother’ is *māt* ‘Oh, mother!’

One can conclude then that the Baltic case syntax is quite conservative, probably retaining more archaisms than any other contemporary IE language.
Note
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References
Toporov, V. N. (1975–) Prusskij jazyk (5 vols to date), Moscow: Nauka.