

A SOLAR CALENDAR FROM LATVIAN DAINAS¹

IRENA PUNDURE

Abstract

As ancient Latvians were engaged mainly in growing crops, they used the Solar Year as the basis for their time-reckoning system. Latvian *Dainas* (LDs) contain clear evidence that the four main seasonal festivals, recognized as the Annual Festivals (*Gadskārtas svinības*), correspond to the astronomical solstices and equinoxes:

Winter Solstice	– <i>Ziemassvētki</i> (Winter Festival),
Vernal Equinox	– <i>Lieldienas</i> (Big Day),
Summer Solstice	– <i>Jāņi</i> ,
Autumnal Equinox	– <i>Miķeļi, Apjumības</i> (Harvesting festival).

The four ecliptic points provided recognizable clues that could be observed in nature, thus laying the foundation for the division of the year into smaller units – *laiks* (time), the proper names of which were formed by adding a seasonal characteristic to the term *laiks* (see figure), e.g. *Ziemas laiks* (Winter-time), *Siena laiks* (Hay-time), etc. and *savaite* – a nine-day long period. By dividing the year in this manner, the ancient Latvian time-reckoning system established a Perpetual Calendar where a particular day of the *savaite* and the date it represented remained constant and unchanged.

In the reconstruction of the ancient Latvian Calendar, the Summer Solstice is most useful because it coincides with the Summer Festival personified by *Jānis* (pl. *Jāņi*) – *Dievadēls* (Son of God) that is celebrated for one day only when the night is the shortest in the year. The Latvian festivals, which formed an integral part of the ancient time-reckoning system, are still known by their original names (Grīns, Grīna 1992).

Key words: Latvian *Dainas*, annual (seasonal) festivals, Perpetual Calendar.

Introduction

The collection of Latvian folklore that began mainly in the second half of the 19th century, the period of national awakening in Europe, reveals a multi-faceted cultural heritage. It represents a rich source of information about ancient customs and religion as well as way of life, including the time-reckoning system. Through the ages until the 19th century, folk-songs were passed from generation to generation by oral transmission, and as a result some of the information contained in them has remained unchanged and can be traced back to the Stone Age. Latvian folk poetry and songs can be compared to the Vedas of India (Grīns, Grīna 1992).

Thanks to the lifelong efforts of Krišjānis Barons (1835–1923), some 300 000 folk-song texts were assembled and classified, and thus rescued from oblivion as they faded from people's memory. Because of his work as a folklorist, and especially his systematization of the folk-songs and his work in preparing the folk-song texts for publication in eight thick volumes "*Latvju Dainas*" (1894-1915), Barons is known as the "Father of *Dainas*" (*Dainu tēvs*). For the purpose of

organizing thousands of hand-written paper slips containing folk-song texts, he used the so-called *Dainu skapis* (Cabinet of Folksongs), which was built in 1880 from his own drawing in Moscow, where Barons and his family lived at that time. This "treasure chest" served him as a working tool. In 1893, the *Dainu skapis* with approximately 150 000 items in it at that moment was brought to Latvia, and now it is a widely acknowledged cultural symbol.

From 1856 to 1860, Barons studied mathematics and astronomy at the Imperial University of Dorpat (Kaiserliche Universität zu Dorpat) (Arājs 1985), now Tartu. At the time it was one of the largest centres of higher education and science in Russia, promoting the successful development of the LD classification system. Barons' life is even commemorated in celestial objects, e.g. asteroid No 3233 (discovered in 1977 by N.Chernykh at the Crimean Astrophysical Observatory): this is named after the father of dainas – *Krisbarons* (Laucenieks 1997).

On 4 September 2001, the Cabinet of Folksongs, a part of the Archives of Latvian Folklore, was included as documentary heritage in the UNESCO Memory of the

¹ Dainas (sing. *daina* in Latvian and *daina* in Lithuanian) are folk-songs. S.K.Chatterji (1890-1977) considers that this word is related to *dhēnā* in the Vedas meaning *speech, voice, words, song of praise, song* and to *daēnā* in the ancient Iran's Avesta meaning *human's inner substance, teaching, revelation* (Arājs 1985).

World Register¹ and since 2002, information from the Cabinet of Folksongs has been available on the World Wide Web (www.dainuskapis.lv).

Being well acquainted with folkloric materials, Barons considered some of the folk-songs to be very old mythological songs that had undeniably existed before the German entry into the Baltic Region, i.e. long before the 13th century (by which time singing by Latvian tribal soldiers is already mentioned in the Chronicles of Livonia) (Arājs 1985).

LD 33664-3

Es atradu uz celiņa Dieva jātu kumeliņu: Caur segliem Saule lēca, Caur iemauktu Mēnestiņš , Pavadiņas galiņā Auseklītis ritināja.	I found on the cart-road A God -ridden steed: Through the saddle the Sun was rising, Through the bridle the Moon was seen, On the tip of bridle-rein Auseklītis ^{*)} was rolling.
--	---

^{*)} *Auseklītis* – an evening and morning star

LD 33684

Lēni lēni Dieviņš jāja No kalniņa lejiņā; Saules meita vārtus vēra, Zvaigžņu cimdus rociņā.	Very slowly God was riding From the hill down to the dale; The Sun's Daughter was opening the gate, With her starry gloved hands.
---	---

We can only surmise about the subject of these picturesque *Dainas* for they are mainly mythological in character.

In this article, only a few folk-songs have been selected from more than 15 000 entries in the Chapter *Gada svētki un svinamas dienas* (Annual festivals and commemorative days) in *Latvju Dainas*. Their subject matter indicates the length of commemorative seasonal festivals and their place within the year.

Very Short Is *Jānis* Night

The Solar Legend (folk-songs about the Sun, the Moon, the stars and celestial phenomena) presents the oak-tree as the symbol of the year, and the Sun itself as various round objects – a pea, a disc, an apple, etc. In ancient times, the Summer Solstice or *Jāņi* (pl. of

Jānis, diminutive *Jānits*) explicitly marked the beginning of the year (Grīns, Grīna 1992).

LD 33142

Es pārsviedu zelta zirni Par sudraba ozoliņu , Lai tas krita skanedams Uz Jāniša cepurīti.	I flung a golden pea Over the silver oak-tree , So that it fell jingling On Jānits' hat.
--	--

Jāņi is a festival lasting one day (night) marking the shortest night of the year. The celebration of this summer festival starts on the eve of *Jāņi*.

LD 33200

Īsa īsa Jāņu nakts Par visām naksnīpām: Te satumsa, te izausa, Te Saulīte gabalā.	Very short is <i>Jānis</i> night, Shorter than all other nights: Now it's twilight, now it's dawn, Now the Sun is high above.
--	--

LD 33223

Gauši nāca, drīz aizgāja Ta lielāja Jāņa nakts: Ne bij dienu, ne nedeļu, Vienu pašu vakariņu.	That great <i>Jānis</i> night Tardily came, soon went away: It was neither a day, nor a week, One evening only.
--	--

LD 33223-1

Ilgi gaidu Jāņa dienas Gaidu visu pavasaru. Es domāju, ilgi būs, Būs jel kādu nedeliņu; Ne dieniņas nepalika, Vienu pašu vakariņu.	I waited long for <i>Jānis</i> day, I waited all the spring. I hoped it would stay long, To last for a week at least; It did not stay a single day, It lasted one evening only.
---	--

Jānits Came Annually

A year is the period of the Earth's revolution around the Sun. It is divided into four seasons, during which seasonal festivals are celebrated. Latvian annual festivals are held at astronomically significant points of the Tropical Year, which is the interval between two successive returns of the Sun to the Vernal Equinox. These circumstances were perceived by ancient people watching nature as changes in the length of daytime

¹ http://portal.unesco.org/ci/en/ev.php-URL_ID=22970&URL_DO=DO_TOPIC&URL_SECTION=201.html

and night-time, and these were often sung about by our ancestors.

Jāņi, celebrated at the Summer Solstice, is the seasonal festival to which the most splendid and magnificent folk-songs of praise are dedicated. Only a small sample of the several thousand grand *Jāņi* songs that evidently speak about the place and duration of this summer festival are presented in this article.

LD 32938

Jāņits nāca par gadskārtu	<i>Jāņits</i> came every year
Savu bērnu apraudzīt,	To visit his children:
Vaj tie ēda, vaj tie dzēra,	Were they eating, were they drinking,
Vaj Jāņiti daudzinaja.	Were they praising <i>Jāņits</i> ?

LD 32919

Jāņu diena svēta diena,	<i>Jāņis</i> Day is a holy day,
Aiz visām dienām:	More sacred than other days:
Jāņu dienu Dieva dēls	On <i>Jāņis</i> Day the Son of God
Saules meitu sveicinaja.	Betrothed the Sun's Daughter.

LD 33201

Īsa īsa Jāņa (Jāņu) nakts Very short was *Jāņis* night,
Par visām naktiņām: Shorter than all other nights:

Vienā malā Saule gāja,	On the one side the Sun set,
Otrā Saule uzlīgoja.	On the other it rose again.

The Autumn Festival is personified by *Miķeļi* (sing. *Miķelis* – a stout, prosperous man) or the Harvest Festival. In the Sun's apparent motion *Miķeļi* (the Autumnal Equinox) is confronted by *Lieldienas* (the Vernal Equinox) in such a way that those events are involved in the ancient Latvian time-reckoning system with strict accuracy:

LD 32278

Lieldienīņa liela sieva,	<i>Lieldienīņa</i> ^{*)} , a big woman,
Ta atnāca tukšu roku;	She came with an empty hand;
Miķelīts mazs vīriņš,	<i>Miķelīts</i> ^{*)} , a small man,
Tas atnāca pilnu roku.	He came with a full hand.

^{*)} *Lieldienīņa* – a diminutive for *Liela diena*; *Miķelīts* – a diminutive for *Miķelis* (pl. *Miķeļi*).

I
 ASTRONOMICAL AND COSMOLOGICAL KNOWLEDGE IN THE FOLK CULTURE

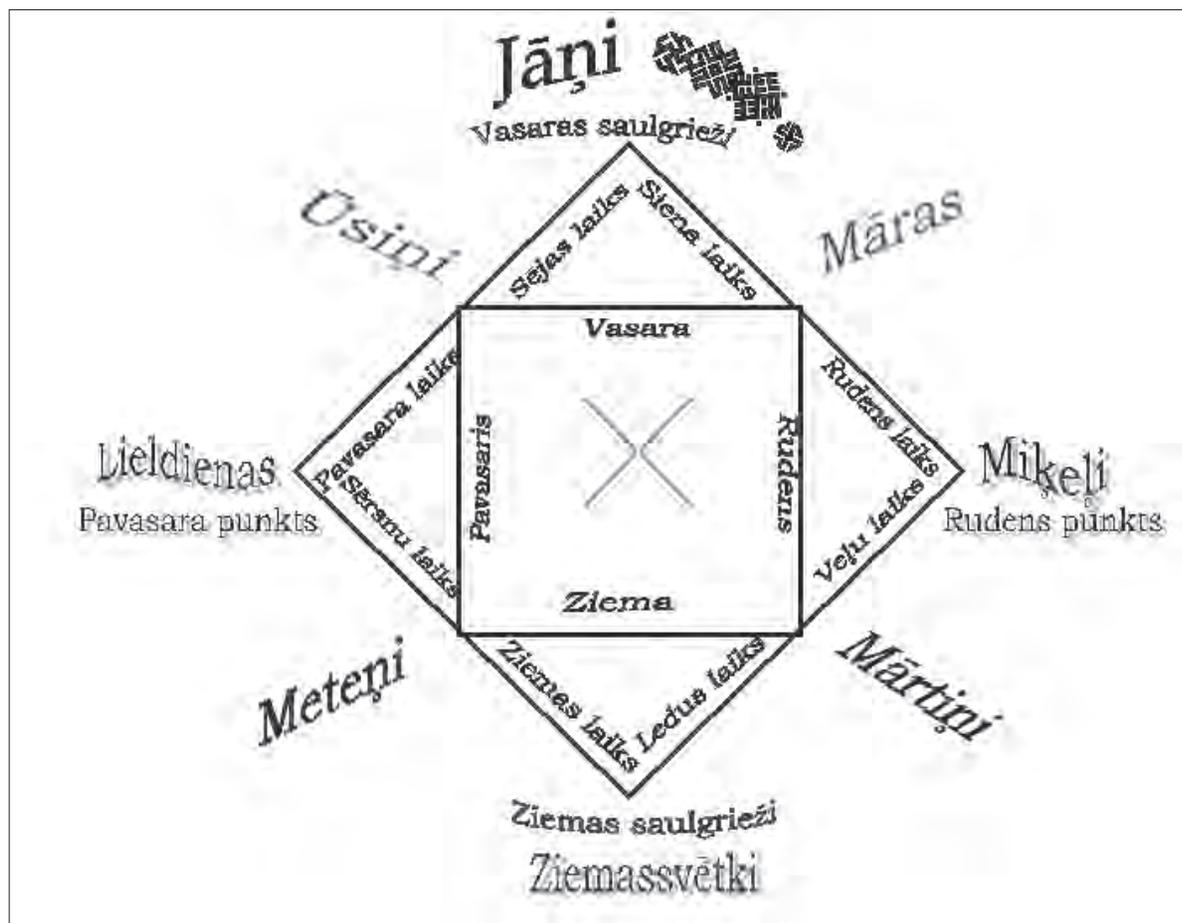


Fig. 1. The main Latvian Annual Festivals correspond to the astronomical solstices and equinoxes. The division of the year into smaller units – *laiks* (time). Illustrated by Gunta Jakobsone (Grīns, Grīna 1992; Pundure 2003).

LD 32240

Brāļi, brāļi, **Liela diena**, Oh, brothers, it's a **Big Day**,
Kur kārsim šūpulīti? Where shall we hang a swing?
- Aiz upites kalniņai - Across the river on the hill
Div' sudraba ozoliņi. Between two silver oaks.

For ancient Latvians the length of the daytime also determined the place of other seasonal festivals within the year. The Big Day (*Vernal Equinox* or *Liela diena*, pl. *Lieldienas*) is the day on which the Sun rises and sets exactly at the east and west points (it was punctually observed by our ancestors too), and the day and night are of exactly equal length. The Sun (as it appears to travel against the background stars due to the revolution of the Earth) crosses the celestial equator from the southern hemisphere to the northern hemisphere, and the length of the daytime increases. When the light of the day begins to gain over the darkness of the night, the ancient Latvians celebrated *Lieldienas* (the Big Day).

LD 33295

Ziemas svētki, Liela diena, Winter Festival and the Big Day,
Tie Dievam lieli svētki: Those are God's great festivities:
Ziemsvētkôs Dievs piedzima, In Winter Festival God was born,
Lieldienā šūpli kāra. On the Big Day the cradle was hung.

The predominant activity during *Lieldienas* is swinging. The mythical source of this custom, as suggested by *Dainas*, points to God's cradle which is said to have been hung on *Lieldienas* (the Big Day), while *Ziemassvētki* (the Winter Festival) is referred to as the time of God's birth.

Brahmans Came Together on the High Hill

The Tropical Year, which depends on the Sun's apparent motion through the celestial sphere on the Ecliptic and which determines the cyclical recurrence of the seasons (spring, summer, autumn, and winter), is about 365¼ days long (365.2422 mean solar days).

The civil year (in practice, counted only in full days), or simply the **year** in Latvian folklore, is quite frequently represented by *sacred numbers* located on branches, leaves, blossoms, and berries of the *cosmic*

tree, in other words, the *sacred tree* is a symbol of the year in the LDs.

The number *nine* most often captures both time and space (Kursīte 1999); "9" often indicates the minimal period of time – a week (*savaite*), which is a unit of time in the ancient time-reckoning system consisting of nine days. (Grīns, Grīna 1992).

LD 34075

Sajāja bramaņi	Brahmans came together
Augstajā kalnā,	On the high hill,
Sakāra zobenus	They hung up their sabres
Svētajā kokā.	In the sacred tree.
Svētajam kokam	The sacred tree has
Devīņi zari,	Nine branches,
Ik zara galā	Each branch at its tip
Devīņi ziedi,	Has nine blossoms,
Ik zieda galā	Each blossom at its tip
Devīņas ogas.	Has nine berries.

Sacred (cosmic) tree + 9 branches x 9 blossoms x 9 berries = 1 + 729 = 730

A high hill is an equivalent of the Universe's centre; the brahman (particularly priests who, among other things, engaged in renewing the time cycle at the cosmic tree) separate the old year from the new one with their sabres.

The Latvians belong to the Baltic group of peoples within the Indo-European family and ancient Indo-Europeans counted days and nights separately (Kursīte 1999). Thus:

730 is made up of 365 days and 365 nights of one year.

After Every Three Years in the Fourth Year...

The difference between a common year and a leap year (the latter falling in each fourth year) is clearly seen in the folk-songs. The course of events in the three-year period and the distinction in the fourth year are showed in the Solar Tale (Legend) folk-songs where the wedding of the Sun's Daughter is reflected (LD 34047 etc.).

LD 34047-4

Mēness savas zvaigznes skaita,	The Moon is counting its stars,
Vaj ir visas vakarā.	If there are all of them in the evening.
Ira visas vakarā,	Yes, they all are there,
Ausekliša vien nebija.	Except <i>Auseklitis</i> who is a-way.

<p>Auseklītis aizteceja Pār jūriņu Vāczemē, Pār jūriņu Vāczemē Saulē meitas lūkoties.- Saulē, meitu izdevuse, Lūdz pērkonī vedējōs. Pērkonīš aiziedams, Sasper zelta ozoliņu. Trīs gadiņus Saule raud, Zelta zarus lasidama. Visus zarus salasīja, Galotnītes vien nevaids. Ceturtdā gadiņā Atrod pašu galotnīti, Atrod pašu galotnīti Aiz kalniņa lejiņā.</p>	<p><i>Auseklītis</i>^{*)} is on its way Across the sea to Germany, Across the sea to Germany To propose to Sun's Daughter. - The Sun who married off her Daughter Asks the Thunder to be the best man. The Thunder upon leaving, Strikes the golden oak-tree^{**)}. For three years the Sun is weeping, Picking up the golden branches. Having picked all of them, She finds the top missing. In the fourth year She finds the top, She finds the very top Beyond the hill in the dale.</p>
---	--

*) *Auseklītis* – an evening and morning star – masc. gender in latv.

**) The oak-tree – a symbol of the year.

In the course of four years or summers (*summer* – here means a *year*) the difference in observations by ancient people accumulates and is likewise reflected in another folk-song:

LTdz 10015

<p>Trīs vasaras Saulīt' lēca Purvā lejas rāvienāi, Ceturtdāji vasarāji Lec ozola pazarē.</p>	<p>For three summers the Sun rose Down in the marsh-land, When the fourth summer came It rose through the lower oak branches.</p>
--	--

The fourth year, when the Sun “rose through the lower oak branches”, may symbolize the so-called leap year (*every fourth year has an extra day, i.e. it consists of 366 days*) and concludes the common cycle of three years (Kursīte 1996).

Conclusion

The main annual (seasonal) festivals (*Jāņi, Miķeļi (Apjumības), Ziemassvētki, and Lieldienas*) — celebrated at the two *Equinoxes* and two *Solstices*, four equidistant points on the Ecliptic, the apparent annual path of the Sun against the background stars on the celestial sphere — shaped the ancient Latvian time-reckoning system. This laid the foundations for a Perpetual Calendar where a particular day of the *savaite* (nine-day period) and the date it represented remained constant and unchanging (Grīns, Grīna 1992).

Acknowledgments

The author extends her gratitude to folklorist Habil. Dr Beatrise Reidzāne for useful comments on the translation of Dainas, to Dr Gunta Jakobsone for suggestions and assistance in the making of the poster, and to language specialist Maija Gulēna for editing the author's English, especially the translation of folk songs. The author also thanks the anonymous referee for his/her constructive comments.

References

- DAINU SKAPIS – Cabinet of Folksongs, 2001, Latvia.
http://portal.unesco.org/ci/en/ev.php-URL_ID=22970&URL_DO=DO_TOPIC&URL_SECTION=201.html
- DAINU SKAPIS KB – Krišjāņa Barona Dainu skapis (Krišjāņa Barona Cabinet of Folksongs). <http://www.dainuskapis.lv/>
- ARĀJS, K., 1985. *Krišjānis Barons un “Latvju dainas”* [Krišjānis Barons and „Latvian dainas”]. Rīga: Zinātne.
- GRĪNS, M., GRĪNA, M., 1992. *Latviešu gads, gadskārta un godi* [The Ancient Latvian Time-Reckoning System, Festivals and Celebrations]. Rīga: Everest.
- KURSĪTE, J., 1996. *Latviešu folklorā mītu spoguļi* [Latvian Folklore and Myths]. Rīga: Zinātne.
- KURSĪTE, J., 1999. *Mītiskais folklorā, literatūrā, mākslā* [The Mythical in Folklore, Literature, Art]. Rīga: Zinātne.
- LAUCENIEKS, L., 1997. Ar Latviju saistīto mazo planētu kopā salikums [Total of Minor Planets Connected with Latvia]. *Zvaigžņotā Debess*, Rudens, Nr.157, 16-19, Rīga: Mācību grāmata.
- LTdz – *Latviešu tautasdziesmas* [Latvian folksongs] III, 1981. Rīga: Zinātne.
- PUNDURE, I., 2003. *Parādies tu, Saulīte... (par senlatviešu dienas un gada sadalījumu)* [Appear thee, Sun... (on the ancient Latvians division of a day and a year)], http://www.liis.lv/astron/IE_version/Paradies/Saule.htm.

Received: 26 October 2007; Revised: 1 December 2008

SAULĒS KALENDORIUS PAGAL LATVIŪ DAINAS

Irena Pundure

Santrauka

Senovės latviai, būdami žemdirbiai, laiką skaičiavo pagal saulės kalendorių. Latvių kalendoriniai metai dalijami į 8 smulkesnius laiko vienetus – laiks (laikas): Žiemos laiks (žiemos laikas), Sērsnu laiks (šerkšņu laikas), Pavasara laiks (pavasario laikas), Sējas laiks (sējos laikas), Siena laiks (šienapjūtės laikas), Rudens laiks (rudens laikas), Veļu laiks (vēliu laikas), Ledus laiks (ledo laikas) (žr. 1 pav.). Kiekvieno sezono pabaigą ir kito sezono pradžią žymi svarbios metų šventės.

„Latvju dainas” (LD) mini keturias pagrindines metų šventes (Gadskārtas svinības), susijusias su astronomiņemis saulēgrīžomis ir lygiadieniais:

Žiemos saulēgrīža – Ziemassvētki (Žiemos šventē),

Pavasario lygiadienis – Lieldienas (Didžioji diena),

Vasaros saulēgrīža – Jāņi (Joninēs),

Rudens lygiadienis – Miķeļi, Apjumības (Pjūties šventē).

Latvių šventės buvo integrali laiko skaičiavimo sistemos dalis. Straipsnyje aptariamos tik kelios iš daugiau kaip 15 000 „Latvju dainas” rinkinyje pateikiamų ir kalendorinių švenčių ir atmintinų dienų temai priskiriamų dainų.

Vertė Jonas Vaiškūnas