

TIME AS A CATEGORY OF TRADITIONAL BESERMIAN WORLDVIEW

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Abstract

The traditional chronology of Besermians is a constantly developing and transforming system subject to various internal and external influences. As a part of a culture's worldview, time determines the rhythm of nature, lore culture, economic activities, and cycles of human life. A day covers the period from sunrise to sunset, a night the period from sunset to sunrise. Each part of the day was given a name. Midnight and noon were considered dangerous and special times. Weekdays were seen as positive (easy) or negative (difficult). The positive or negative nature of the day may have influenced the outcome of the work undertaken. The yearly system was based on the change of seasons. The change of seasons had a significant influence on the entire economic life, which, in turn, determined the community life, including family and practical rituals. Until the adoption of mechanical clocks, time has been calculated with various means at people's disposal. Observing the movement of the sun and the moon has been important. The Besermians have merged several traditional feast days, the tradition of commemorating the dead and other festivities with the Orthodox church calendar.

Keywords: year, chronology, Besermian, week, narrative lore, folk calendar, traditional holidays, feast days, nychthemeron

The Besermians (*Besermians*, *Besermans*) are a small indigenous group in Russia inhabiting an area in Northwest Udmurtia. According to the 2002 census, the Besermian population was 3,100. Before this census, the Besermians were regarded as an independent ethnic group only according to the 1926 census (which registered 10,035 people in the Viatka gubernya in the Udmurt Autonomous Oblast). From this point on until 2002 they were registered as Udmurts. The Besermians have preserved the ethnonym, ethnic identity, idiosyncrasies of tangible and intangible culture, and the Besermian dialect of the Udmurt language. Other commonly used languages in the area include Russian and Tatar (Shklier 1997a, 1997b).

Written sources have documented the presence of the Besermians in their present area already in the 16th and the beginning of the 17th century, noting their adjacency with the Udmurts, Russians and Tatars (Luppov 1931: 118–119). Scholars have speculated that

the Besermians arrived at the Viatka at the end of the 14th or the beginning of the 15th century after the fall of the historical state of Volga-Kama-Bulgaria around the confluence of the Volga and Kama rivers founded by Bulgars (Bolgars) and other peoples in the area (in the 10th–13th century). The final development into an independent ethnic group is dated to the period following the resettlement (Grishina & Vladykin 1982: 25–27). The history of research into the Beserbian mostly entails ethnogenesis and the early history of the ethnic group (further on this see Tepliashina 1970: 5–22; Popova 1997: 3–18, 2004: 4–12). Historians, anthropologists and linguists have mostly focused on the search of the Turkic (Bulgar) and Finno-Ugric (Perm) elements in the Beserbian culture.

TIME AND WORLDVIEW

The traditional chronology of Besermians is a constantly developing and transforming system subject to various internal and external influences. As a part of a culture's worldview, time determines the rhythm of nature, lore culture, economic activities, and cycles of human life. Contemporary Besermians regard time primarily as a pragmatic category, having still retained its sacred context. Time as one of the main categories and components of mythopoetic worldview, time and space, represents the primal order in the context of cosmos, averts the chaos brought about by creation and introduces the sacred parameters of time (Toporov 2000: 162).

There are no early records about the cosmogonic conceptions of the Besermians; contemporary sources are quite fragmentary and insufficient for an extensive reconstruction of all concepts, especially those concerning the time of creation of the mythical world and the emergence of culture heroes and humankind. The mythical time precedes the historical or empirical profane time and represents the first cause of the following events (Meletinski 2000: 252). While narrating about events of a very distant past, the Besermians usually use the phrases *dun'n'e vorz'ekon dār'ja* 'when the world was born'; *dun'n'e vorz'ekemlās' val'l'o* 'before the world was born'; and *so sâche kemalas' val, ku muz'em no eina val potemân* 'it was so long ago that even the world had not been born'. These utterances are used to emphasise the archaic origin of the events on which no spe-

cific traces can be found in human memory (e.g. famine, war, epidemics).

Past events are usually described with the expression *val'l'ona*, which stands for “very old and distant past”. The concept entails both the foregone times (also mythical time), as well as the past exceeding four or five generations, and is used to refer to people at and over the age of 80. Lists of the past events (in some cases from the mythical time) until the present day and future are quite clearly based on linear chronology.

Relatively few accounts concerning the end of the world *dun'n'e b̂ron*, literally ‘the fall of the world’, signifying the point at which the course of time is broken, are extant, and even the few existing ones indicate to the influences of the Bible, oral lore, and mass media. According to the earlier accounts “heard from older people,” *the world will be destroyed either in fire or through fire, everything will burn, or in water*. Unlike contemporary accounts, according to which the world will end in the year 2000 or around the turn of the century, the earlier texts do not mention certain dates or periods. The end of the world is perceived as the end of the linear progression of time: *Which time? There will be nothing*.

Past events reflect the conceptualisation of time as a linear progression and are interrelated with memories of genealogical nature: family tree, ancestors, parents and grandparents.

Such are, for example, historical and place or toponymic lore, which provide information on the time a settlement was founded, the first settlers, and the emergence of sacred objects (sacred groves, cemeteries, rivers, and springs). Inhabitants of the village calculate time starting from the time the village was founded and incorporating narratives about the ancestors of the inhabitants and foregone events. According to narratives, the ancestors who founded a village gave names to natural objects – springs, rivers, important places. The time during which a given environment is culturally accepted and the course of historical events is estimated since the moment the settlement was established. Many families are linked to the first settlers and through that with the distant past. Kinship ties are represented by the interrelation of the community from the events of historical legends until the present day.

The contemporaries, in turn, operate as a link between the past and future generations.

Conceptualisations about time and a year have been incorporated into concepts of the world beyond the grave.

It was believed that like in our world, seasons change also in the other world: ancestors carry out agricultural chores depending on the season; they require warm winter clothing, etc.

THE STRUCTURE OF A DAY

A day (*ui-nual* ‘nychthemeron’) is reflected in a system of numerous practical restrictions. According to popular perceptions, a day (*nual*) covers the period from sunrise to sunset, a night (*ui*) the period from sunset to sunrise. Each part of the day was, in turn, given a name. Thus, a day was made up of various parts: *chuk* ‘morning’, *obed pal* ‘lunch time’ or *nual shor* ‘noon’, *obed ber* ‘afternoon’, *zhât pal* ‘late afternoon’, *zhet* ‘evening’. The morning marking the transition from night to daylight was called *chuk pal* ‘forenoon’, the transition of day into night was called *uj pal* ‘afternoon / evening’. Midnight (*uishor*) marks the middle of the night, and the time before dawn was called *ui* (‘night’). The length of nocturnal and diurnal hours depended on the season. The parts of the day had different semantic meanings.

The period between midnight and predawn was evidently regarded as the beginning of the new period *ui-nual*, in modern times it equals a nychthemeron. Various conceptions and traditions, such as the beginning of new work, several norms of folk medicine and new production activities, are connected with this temporal parameter. According to popular conceptions, the day ended with the noon, which marked the beginning of a new day. It may be speculated that this view is associated with the sun passing the zenith and the popular saying that it “turned into a new day”, as well as with the prohibition of doing laundry or carrying out major laborious household chores immediately before Orthodox feast days or folk calendar holidays, because after midday the day was believed to lean to a new, more meaningful day. Restrictions concerning some chores, behaviour and clothing during festivities were somewhat mitigated

(especially during seasonal agricultural work) and during holidays the chores could be carried out even in the afternoon. Such deviation from the established rules was justified by the need to finish seasonal work by a set date, or that the day “ended” and time was turning into the next, already ordinary day.

The restrictions and orders connected with the parts of the day governed behaviour, household chores, customs, and ritual activities. The time of sunset and sunrise, noon and midnight, the first and second half of the day, morning and night were attributed great sacrality. The morning and the first half of the day was considered a good time for starting new chores and buying goods, as these times were regarded as positive and effective. Such forenoon activities included, for example, buying cattle, proposing marriage, beginning of the construction of a new house, or starting a long journey. It was believed that the purchase of cattle and proposing marriage would succeed, and the bought goods would “adjust” in the household if the transaction had been made during the “waxing sun” *shundê budon vâle* – during sunrise, the first half of the day.

The trip to buy cattle is undertaken in the morning. Otherwise loss and misfortune will follow. Will not procreate. The cow will not have a calf; the horse will not have a foal. Some do not observe this [custom]. Go and sell at any given time, but buy cattle for themselves ... only in the morning, before noon. Because it is forbidden in the afternoon. (PMA, 1999. ZZI, Gordino village)

If the cattle is bought in a household for keeping, not for meat, you have to go before noon. If done in the afternoon, the day will be lost. (PMA, 2000. KNA Filimonovo village)

Cattle is bought before noon, as people say that the day will turn. In the afternoon, shaitans are lurking about. This is what people and elders said” (PMA, 2000, KRM. Shamardan village)

These conceptions are associated with a belief that only things purchased during the rising sun will be effective: cattle will breed nicely, and sacrifice will be accepted. This is how the conceptions of the positive and negative aspects of the sacred nychthemeron were held in everyday life.

The parts of the day were associated with pure and impure, favourable and dangerous time. A day, for example, was divided in two – the day *nual* and the night *ui* were of different quality. The night was considered the period of activity of evil spirits and diseases, culminating at midnight. After sunset, people did not tidy up rooms, or leave children's clothes outside, as it was believed that the spirits of diseases and *shaitan* will enter these (PMA, 1995. MIK, Zhuvam village). For the same reason it was forbidden to return home and enter the room at midnight. The rule applied to both distant visitors as well as those who returned home from the same village:

Time, when it is past midnight, is referred to as 'nevrama'. It is forbidden to enter the house at midnight. Shaitan will join you then. (PMA, 2000. KNA, Filimonovo village);

'Nevrama' was held for about an hour [at midnight – author's note], around midnight. If you were leaving some place in the evening, you had to do it before midnight. After midnight and before one o'clock, you better not move. And you have to return before midnight. [—] You see, two or three o'clock is considered a good time. It was believed that time was leaning towards morning. It was said that Lud babam [Master of the Forest – author's note]. You see, people say that he goes back and forth before midnight (PMA, 2000. SMB, Shamardan village).

According to N. V. Braginskaia, this opposition of day and night, light and darkness is a simple semantic model, which links together almost the entire calendar and parts of the day, in which the solar/circadian and seasonal/agrarian cycles become interrelated and constitute, on the level of general semantics, the interaction of the good and evil principles (Braginskaia 2000: 613).

Lore texts reveal that in the afternoon, the north and the west were attributed totally different characteristics than the south and the east in the first half of the day. Household chores were also influenced by time: e.g. after sunset, people tried to avoid fetching water (PMA, 2000. SKM, Filimonovo village), it was forbidden to start a work (PMA, 1999. ZAP, Gordino v.), slaughter cattle (PMA, 1999. ZZI, Gordino v.), give out a loan, sharpen knives, take food or objects to someone else's household (PMA, 2000. JMS, Tylys v.). The negative connotation of the time after sunset becomes clearly evident in

the ritual treatment of diseases. If, for example, a disease was believed to have been caused by the person having “found it at an unfavourable time and in a dangerous place”, a sacrifice was taken there in the form of strips of cloth, wool, coins or food. Time and space occur in the same context and the violation of rules associated with these was believed to be the cause of the illness. Only sacrifice during the transition time (dawn and sunset) ensured and restored the original healthy condition of the person who had violated the taboo of time and space.

The sun is an important chronological and spatial marker. I will note that time and space, parts of day, the sun’s position relative to the horizon and shades of light are referred to in the same terms. For example, the phrase for the east, morning and sunrise is *shundê sâlton /shundêd’uzhan*, ‘the side where the sun rises’, *shundê zhuchekon pal* ‘the side where the sun ascends’; the end of the day, sunset, and the west – *shundê puks’on dâr* ‘the time the sun sets’, *shundêpuks’on pal* ‘the side of sunset’; the night and the north – *uishor* ‘middle of the night / midnight’, *uishor pal* ‘middle of the night’, *uipal* ‘the side of the night’. The parts of light and day may have also been referred to with the same terms: the north is *ui* ‘night’, the south – *nual* ‘day’, the east – *chuk* ‘morning’, the west – *zhât* ‘evening’.

The east and the southeast marking the first half of the day were considered positive, whereas the north and northwest were perceived as negative. For example, voices heard from the east and south during foretelling, rituals of calendar holidays and before sowing were considered as good omens of harvest and welfare, while voices heard from the north and west were believed to predict a year of famine and hardships (Tepliashina 1970: 278).

Modern conceptions about time and space have quite firmly established the association of the north with midnight and nighttime. Rituals connected with this part of the day entailed ancestor worship, removing of evil spells and exorcism. If a child insomnia was explained with the wrath of the ancestors, a sacrificial ritual was conducted after sunset and in the northern direction (Popova 1998: 70); funeral feasts *trapezy* and the last commemoration rituals of sacrificing the head and feet of a cow (horse) to the deceased person were also held in crepuscular evenings. At midnight or in com-

plete darkness, senior members of the society took the animal's head and feet towards the cemetery (Bianova 1946: 15), in the northern or north-western direction. It was believed that only then the offering would be accepted. The line between this world and the other world thus became conditional. In certain calendar periods, the invasion of the otherworld was believed to be particularly threatening: among the Udmurts and Besermians, the night before Holy Thursday is known as *kulem'ios poton ui* 'the night on which the dead appear'.

Beliefs in diseases which have "possessed" a person who happened to be in a place where these could be found at an unfavourable time *orod dâr / urod dâr* ('bad time') or *nevrama* ('wrong time') are still versatile and stable in folk medicinal practices. Such natural locations are well known among the local population. These include valleys, springs, crossroads, end of streets or places, which according to local lore have been associated with sudden death, or the burial places of prematurely born or non-baptised newborns. A violation of the taboos might result in a severe mental disturbance, susceptibility, dermatological disease, abscesses, which according to storytellers appear most often in the second half of the day, during the approaching darkness.

The most meaningful temporal boundary is midday. When the sun is at the zenith, it was not allowed to go swimming, walk on the field or in the woods, or start a long journey. It was believed that during this time one might easily encounter *Chashshakuzio / Ludkuzio* 'master of the forest' and *Mezhakuzio* 'master of field', who "come to inspect their premises". This might have resulted in a serious and drawn-out illness. The prohibition of taking a rest in midday along a forest path, sacred worship groves or near trees that are considered meaningful for some reason is also associated with possible encounter, as it was believed that these belong to forest or field fairies, who reside or rest there. Omens and taboos associated with this sphere of beliefs are also evident in contemporary narratives:

People say kezh-mezh, when you happen to be in a bad place at a wrong time, or are doing there something. During the sowing period we were resting under a fir tree at noon, but you shouldn't rest there. I stood up and my back turned sore at once. This place

is dangerous at other times too. The dangerous times are noon and night. (PMA, 1993. NZS, Zhuvam village)

The text samples indicate that the violation of the order of the day, or resting and working time might have broken the balance of nature and had a bad effect on people's health.

The morning twilight (*chuk akshan*), sunrise, and evening twilight (*zhet akshan*), or the time between sunset and the fall of darkness, played a special role in the daily cycle: these times were considered the transition between night and day and were semantically loaded. For instance, during the approaching twilight, one had to lie down and wait for the falling of darkness; it was forbidden to have dinner or start a work. Until quite recently, it was believed that breaking these taboos might have resulted in a long-lasting mania or mental illness or a sudden injury. During the transition time, as well as at noon, places of sacral meaning became dangerous:

In twilight you could hear a baby crying there [in the valley – author's note]. *Akshan – this was a bad time. If you happened to be in a place like this at a wrong time, you'll hear it, and later fall ill. During akshan you have to stay home.* (PMA, 1995. SFE, Tylys village)

While entering the house during twilight, it was advisable to touch the oven, to purify oneself of illnesses that one might have brought along. Analogous beliefs associated with darkness may have been encountered also among northern Udmurts. For example, before starting work in twilight or lighting a fire in the oven, hands had to be warmed (Pervukhin 1888: 57). Among the Besermians, the taboos concerning contacts with the external environment, starting new work and celebrating festivities, may be explained first and foremost through the increased activity of evil spirits and diseases during this period. According to popular beliefs, even curses uttered around this time always became a reality. Analogous beliefs have been recorded among Udmurts settled in various regions (Vereshchagin 1886: 27; Vladykin 1994: 223; Minniakhmetova 2000: 89). Morning and evening twilight is perceived as times quite different in quality. The moment the sun disc appeared at the horizon was considered particularly meaningful: it was believed that if lis-

tened very closely, one can hear a special crackling noise. The Udmurts believed that while crossing the horizon, the sun crackles like a hot splinter in fire, but it may be heard only by a strong and fiery steed (Vereshchagin 1889: 140). Dawn and the first half of the day was regarded as positive. People, for example, believed that water fetched from the spring during this time is healing; also, sacrifice was performed at sunrise.

The recurrence of day and night, the sun and the moon symbolises the stability and harmony in the world, as opposed to chaos. Any changes were seen as cataclysmic or foreboding of misfortune.

The cyclic nature of the day (dusk and dawn, morning and evening) is intriguingly reflected in spells. For example, many texts open similarly:

The night returned, the day returned, the sun returned. The moon returned. And may this [former condition or situation – author's note] return, too (Ui bertem, nual bertem, shundâ bertem. ĭolez' bertem. Ta no med bermoz) (PMA, 1996. ATI, Ezhevo village).

Let me emphasise once more that the recurrence and cyclic nature of the parts of day can be viewed as the guarantee of the stability and continuity of the world.

WEEK

The traditional names of weekdays have not been preserved in modern Besermian vocabulary, neither are these mentioned in earlier sources. The most stable terminology is that associated with days of sacral significance. These are Wednesday *arn'a shor* 'mid-week' or *viro / vironual* 'blood day', Saturday – *pominka nual* 'commemoration day'.

Relying on the relatively recent sources at our disposal, the week – *arn'a* – consisted of seven days. Weekdays were seen as positive (easy) or negative (hard). On the basis of this division, the days for major household chores, family rituals, first grazing of the herd and sowing were determined. According to popular belief, the positive or negative nature of the day may have influence the outcome of

the work undertaken. This explains the survival of similar beliefs among the village population today:

People try to let the cattle out on Friday. It is said that on Tuesday even the crow won't nest. On Tuesday it is forbidden to let the herd out. (PMA, 1999. ZSI, Gordino v.)

On Monday you should not let the herd out, people used to say. It was strictly observed. This was a corrupt day. Tuesdays were considered the same. It was said that even a bird won't nest on Tuesday. And there are also certain dates in May and June. It is forbidden to let the cattle out on these days too. Animals will become ill. (PMA, 1999. PMA, Korotai village)

On Wednesdays and Saturdays marriage proposals were not undertaken: Tuesday and Thursday were considered somewhat more successful (Zhuvam village, Ezhevo village). It was believed that Wednesday is a day of sacrifice, whereas Saturday is the day for commemorating the dead. On Sunday – *arn'a nual* 'week's day' – work was not done until noon; the day was considered a great day (*EEK nual*) on which work could be started only in the afternoon; the same applied to holidays, for example. Also, on Sundays and during holidays harvesting was never started; one could only help out on this day (PMA, 2000, 2003). It was feared that the crop will be burnt down by lightning and that violation of the taboo will lead to misfortune and bad weather.

In the mixed villages of Tatars and Besermians, the latter adopted the special attitude of Tatars towards Friday. Honouring the calendar traditions of their Muslim neighbours, the Besermians tried not to rinse laundry or clean the house on Friday, just like the Tatars (PMA, 1999. Gordino village). The attitudes towards Friday were shaped by various factors:

Monday and Wednesday were bad days. People talk about house spirit (Korkakuzio), yard spirit (Gidākuzio). On Thursday and Friday they were left [sacrifice – author's note]. Among us, Friday was not considered a bad day. Friday was a good day. Nothing special was arranged at home or outside. But among the Tatars, Friday was the most special day. This was the Tatars' day. They did nothing on this day. (PMA, 2000. ZEG, Turchino village)

The special attitude towards Friday in contemporary Besermian culture may be explained by their long-lasting contact with Muslim Tatars and the influences of Islam (Popova 1998: 178–179). Friday was also known as the day for visiting Muslim places of public worship and cemeteries among Tatars of Kirovo-Chepetsk.

Weekdays were assigned a positive marking if they coincided with a fair or a church holiday. While speaking about positive and negative weekdays, it must be remembered that there were regional idiosyncrasies. For example, for the Besermians of the Iundin-Gordino area the hard days were Monday, Tuesday and Friday, and the easy days were Saturday and Sunday. The Besermians settled in Lekma, Lema and Ubyt' often called Monday and Wednesday the hard days, and Thursday, Friday and Sunday the easy days. The attitudes towards weekdays have proved relatively stable, thus enabling to define the ethnic boundaries and even the ethnic processes in the region. For example, on the right bank of the Cheptsa river, in Lower-Sludka and Ust-Pyshkets, which were still recorded as the Besermian and Udmurt settlements in the first half of the 20th century, the Besermians have been distinguished from the Udmurts by their different attitude towards Thursday and Friday. Unlike the neighbouring northern Udmurts, who held family and communal funerals and commemorations on Saturdays, the Besermians started the preparations for the corresponding events already on Thursday and held these on Friday, but visited cemeteries on Saturday. On Thursday the dough for baking a bun was made, the sacrificial animal slaughtered, on Friday, the funeral procession passed the house. The northern Udmurts living in the same settlements slaughtered their sacrificial animals on Friday, and held a funeral procession and visited the cemetery on Saturday.

The Udmurts held funeral feasts on Saturday, while the Besermians did on Thursday. We also have funerals on Thursday. The Besermians here held it on Thursday. Only a few people have funeral feasts on Saturday. Everybody slaughters the lamb on Thursday [—] We bake the bun and shanghi. We commemorate it in Besermian style. (PMA, 1977. SLF, East Pyshkets village)

The same tradition is still followed in the listed settlements, especially in families of Besermian origin. In the second half of the 20th century, the Besermian of Lower-Sludka and East Pyshkets already

identified themselves as Udmurts, but they still observed this custom and have done so until recent times (PMA, 1997, 2000. Lower-Sludka village, East Pyshkets). The tradition of celebrating Thursday next to Sunday was preserved in the Yundin-Gordino grouping until the middle of the 20th century (Biianova 1946: 12).

The given examples prove that the attitudes towards weekdays among smaller, but also densely situated ethnic groups may display minor though important differences. Characterising the Udmurt views towards weekdays, T. G. Vladykina notes that all odd dates were considered difficult, whereas all even dates were considered easy (Vladykina 1998: 277–278). For example, the Udmurts beyond the Kama River viewed Monday, Thursday and Sunday as good days, and Tuesday, Wednesday, Friday and Saturday as bad or hard days (Minniakhmetova 2000: 94). While analysing the weekdays of Slavic calendar, Svetlana M. Tolstaia claimed that people have many criteria for categorising weekdays into good and bad, on the basis of which the universal binary oppositions like odd – even, man – woman, first – last, etc. are constructed (Tolstaia 1987: 168). In recent years, the Besermians have considered easy and hard days in folk healing, sometimes also while letting the herd out.

STRUCTURE OF THE YEAR

Preconceptions about time presumed the conceptualisation and systematisation of the chronological period of year *ar* which would cover the entire agrarian cycle. It may be speculated that the yearly system was based on the change of seasons: *tulâs* ‘spring’, *guzhem* ‘summer’, *siz’âl* ‘autumn’, *tol* ‘winter’. Fieldwork materials reveal that the line between seasons was quite tentative and the beginning and end of a season was often determined by the beginning and end of an agricultural work, phonological observations or the change of weather. There were two major periods in the agrarian year: spring/summer and autumn/winter. The first involved sowing and planting and taking care of the cultivation, letting the herd out on summer pastures, making hay; whereas the second period was associated with harvesting crop, driving the cattle inside, making firewood, and process flax and hemp for women. On either period, the calendar holidays and festivities had specific features. For exam-

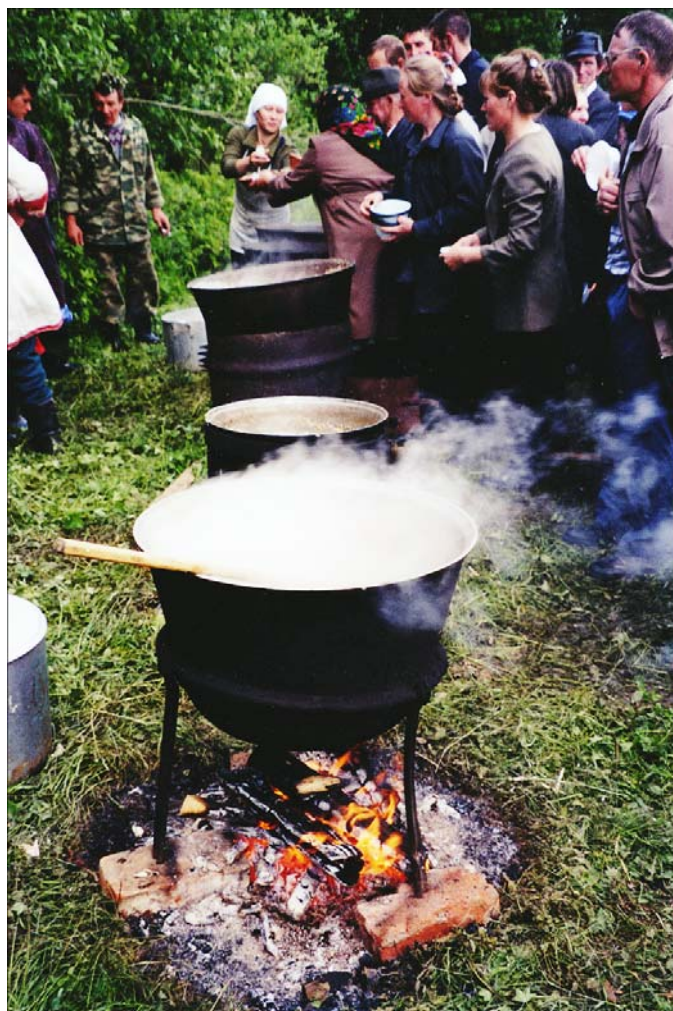


Figure 1. Preparing sacrificial cereal for summertime kurban ceremony in 2004 in Vortsa village, Yar district. Photo by Yelena Popova.



Figure 2. Besermian women of the Zhuvam village at communal prayer of kurban ceremony in summer 2004 in Vortsa village, Yar district. Photo by Yelena Popova.

ple, the spring/summer cycle entailed worship and prayers to deities, spirits protecting fields and forests; blessings for the forthcoming harvest, stability and abundance, and health were asked from ancestors. The rituals of the second half of the year, which covered the late autumn after harvesting, entailed sacrifice to praise for help at farmwork and a successful year. Spring and summer was considered the most appropriate time for ritual activity, and during this time the world was preparing for sleep or waking (Lvova *et al.* 1988: 47).

The change of seasons had a significant influence on the entire economic life, which, in turn, determined the community life, including family and practical rituals. According to the twentieth-century folk calendar, the spring cycle usually started with the Passion week rituals, which suggests that the folk calendar was adapted to the Orthodox calendar. Narrative lore and the analysis of various rituals enable to speculate that the period was regarded as the beginning of the new agricultural year. Activities for ensuring productivity, which mark the beginning of the new economic and life cycle, appear to be predominant in the rituals of the spring cycle. The



Figure 3. *Decorating twigs with catkins on Palm Sunday in 2000 in Zhuvam village, Yukamen district. Photo by Yelena Popova.*

Holy Thursday, and especially the eve of the Wednesday of the Passion Week is one of the most important semantic temporal markers. A number of rituals oriented to success in agricultural work, increase in crops and cattle, the ritual of lighting a new fire and bringing in fresh water were associated with the morning of the Holy Thursday. Summer referred to the period after Pentecost, from the communal prayer of *kurban* (*kârban*) to St. Elijah's day. The middle of summer was called *gerber* (lit. 'the time after ploughing'), which coincided with summer solstice.

Among us, gerber marked the middle of summer. After that, autumn is taking over. Haymaking was considered only after gerber. Scything had to be done by gerber. Hay would turn coarse. (PMA, 2000. BVN, Shamardan v.)

Autumn is defined as the period between St. Elijah's day until *pokrov* or Saint Mary's Patronage. After St. Elijah's day people did not eat summer berries, swim, or made birch whisks for the sauna. The taboo prohibited also eating summer foods and making chores associated with the passed season. It was believed that a violation



Figure 4. Vozho-“mummers” in 2001 in Zhuvam village, Yukamen district. Photo by Yelena Popova.

of the taboo may bring along an illness or a change of climate. Autumn sacrifice and prayers were tried to be finished by St. Cosmas and St. Damian’s day. Winter started on *pokrov* on which day the last commemorations of the year were held. After this day it was forbidden to herd cattle, since it was believed that “after *pokrov* the year turns to winter” and “*Chashshakuzio* who watched over the herd was asleep”. Winter was seen as the time at which nature sleeps: *muz’iem uz’e* ‘the earth is asleep’.

Scholars have noticed analogous calendar seasons in other agrarian cultures (Vinokurova 1994: 24; Chernykh 1999: 14–15, 16, 17). Here the principle of categorisation is not the change of seasons but the cyclic nature of agrarian works (Tokarev 1983: 4). Dividing a year into smaller periods reveals the different length of seasons. Winter was the longest season, and summer was the shortest, lasting a little over a month. Understanding time and seasons reveals the opposition of two half-years: the winter and the summer. This binary opposition has been indicated by winter and summer solstice and prediction of weather. It was believed that a snowy winter predicts rainy summer and warm winter predicts cold summer



Figure 5. Vozho-“mummers” in 2002 in Zhuvam village, Yukamen district. Photo by Yelena Popova.



Figure 6. Kuarnians baked for vozho-“mummers” in 2003 in Zhuvam village, Yukamen district.

and cold winter warm summer. The idea of a winter and summer half-year, the opposition of winter and summer solstice was also common among the Udmurts (Vereshchagin 1889: 71). Ethnographers have notices the ways of calculating time associated with changes in the surrounding environment and the division of a year in two half-years in different parts of the world (Zlatkovskaia 1983: 24).

Dividing a year into seasons required observation of weather and the height of the sun at the horizon in different seasons. A yearly cycle distinguished between winter and summer solstice and vernal and autumnal equinox. It must be remembered that the vernal equinox fell on March 20 (or 21), six months after the autumnal equinox on September 22 (or 23). Winter solstice is on December 21–22, which also marks the shortest day and longest night of the year. In summer, the sun is the highest above the horizon on June 21–22: around this time the days are the longest (see further Klimishin 1990: 37). The Besermians referred to the time of the winter solstice as *nual berekcheke* ‘the day withdraws’, i.e. becomes shorter.

As already mentioned, the summer solstice was called *gerber* or *nual berte* ‘the day returns’, i.e. arrives. Winter and summer solstices inspired several important calendar rituals, which reflected the idea of cyclicity, the return of time. The movement of time resembles rotation (Lvova *et al.* 1988: 54). The interrelation of two important agricultural periods is associated with the belief in mythological creatures. I will only give here examples about a belief concerning the winter and summer solstices, according to which a year was divided in *vozho* ‘winter’ and *guzhem vozho* ‘summer’, and the emergence of creatures *vozho* twice a year (at solstice). According to the twentieth-century materials, these days coincide with Shrovetide, and in summer with *gerber*. During winter, the *vozho* creatures are active from evening twilight until dawn, in summer the period of activity is noon. The creatures are particularly dangerous during this period, and especially if spatial-temporal taboos of a given period are violated. In winter, the *vozho* dwelled in threshing barns, saunas or abandoned houses, in summer they visited rye fields. They arrived and left along the river. Unlike the winter solstice, the summer solstice was viewed as the time of flourishing and a strong season. This was compared to a person’s success and physical maturity.

The yearly cycle governing agricultural and household chores, calendar holidays, feast days and ordinary days also determined the social life of the village community. The finest example here is organising weddings. Marriages were largely arranged in winter, mostly in January and the first half of February, and also in autumn – in October and at the beginning of November. The number of weddings fell considerably in summer and at the beginning of autumn, the main cultivation season. Weddings were not organised on calendar commemoration days, communal prayers and sacrifice, during fasting at Orthodox and congregation holidays. The yearly distribution of weddings according to parish registers (1916–1918) shows that 53% of weddings were held in January and February, 25.2% in the period between the end of April to the middle of July, and 10.1% in the period between the end of September and the beginning of November until the middle of November (Popova 1998: 115). Organising weddings in March, December and summer months was very rare. In winter, weddings were not held from Christmas

fasting until Epiphany, also during Lent and Easter, and during sowing, haymaking and harvesting. This also explains why weddings were not held in August and at the first half of September. The few summer weddings were held between the end of sowing and summer cultivation, which left open the fasting of St. Peter's day and the feast of Sts. Peter and Paul. At the end of the 19th and the beginning of the 20th century the situation was the same among the Russians at the Volga (Zorin 1981: 48–54). The situation remained the same more or less until the end of 1930s. Nowadays, village weddings are held at periods relatively free of agricultural work. The Orthodox calendar is only partly followed. Weddings may even be held during Lent, as fasting has been virtually abandoned. Still, having a wedding day at Easter or other important Orthodox holidays is generally avoided.

FOLK ASTRONOMY AND POPULAR CALENDAR

As a significant component of a traditional worldview, time was also reflected in ethnoastronomy. Constellations are elements of a world order constructed a long time ago on the basis of mythology, which is why many temporal parameters are associated with beliefs about lunar and solar phenomena.

The dividing of the light part of the day into chronological segments is associated with the position of the sun relative to the horizon. Similarly to other cultures (Vladykin 1994: 222–223, Vinokurova 1994: 15), within a day time was determined according to the movement of the sun at the horizon. The approach of twilight and sunset was explained as follows: “the sun disappeared behind the land”, “sank underground”, “the sun grew old”. As the closest relations of the Besermians, the Udmurts, for instance, believed that the sun hides itself beneath the earth or behind the high hills at the end of the world for the night (Moshkov 1900: 197). While speaking about sunset, the older generation used to say that the sun “rolls” rather than “sets” or “falls”. It was forbidden to point one's finger at the sun, or inspect it, or look at it in trouble. People believed that a violation of this taboo would result in arthritis, nail abscess or skin diseases.

Each unusual phenomenon in the movement of this heavenly source of light, such as, for example, eclipse, was interpreted as cataclysmic and a violation of the ancient world order. A partial or total solar eclipse, for instance, was explained by reasoning that a stellar body ages like a human being, and is later reborn (Moshkov 1900: 197); or the sun is stolen by the evil spirit *Ubir* (Vereshchagin 1889: 139). The Udmurts had also another explanation for solar eclipses: “the ruler drove off, and this is why the sun has rolled away” (Vereshchagin 1889: 139).

Predicting weather for the following few days was based on observations of sunrise and sunset and the weather of calendar feast days. For example, the red colour of the rising sun predicted rain (PMA, 2000. ZTV, Shamardan village), clear sunrise promised good weather for this day, whereas cloudy sunrise predicted rain (PMA, 2003. PVP, Zhuvam village). Several rainy summers in a row was explained by the changing and renewing of the sun – *shunde voshcheke*.

The observation of lunar cycles played an important role in the traditional categorisation of time. The chronological period equalling four phases of the moon was called a month – *tolez'*. The alteration of phases enabled to keep account of time and this was reflected in beliefs and economic activities. During the waxing of the moon, a thin crescent appeared in the sky, which had grown into a half-moon in about seven days. This period is called the first quarter. The moon becomes full in about eight days and in another seven days reaches the last quarter, and the moon, again, turns into a crescent, but this time it is waning (e.g. Klimishin 1990: 62). Several traditional chronological systems, known also by the Besermians, were based on the four phases of the moon. The most important markers of a calendar month were waxing crescent, first quarter, full moon and waning crescent. The alteration of the phases enabled to distinguish between four short periods of time, the names of which were the following: first quarter – *ïolez bude* ‘moon waxes’ / *vil' ïolez pote* ‘the new moon appears’; full moon – *pgolez' bâgâl' chekiz* ‘the moon is round’ / *târo pgolez* ‘full moon’ / *vil' pgolez* ‘waxing moon’; waning moon – *ïolez' bâre* ‘the moon disappears’ / *vil' pgolez' bâre* ‘the new moon wanes’ / *ïolez' peres'me* ‘the moon ages’ and the waxing crescent – *ïolez' vorz'eke* ‘the moon is born’ / *ïolez' vis* ‘the interval of

months'. Changes in the appearance of this celestial orb inspired riddles. During full moon it was called a plate, a round loaf of bread, and during waning or the first quarter it was called a trough tipped over, or a sickle.

The time when the new waxing crescent appeared was considered the beginning of the next chronological period. The alteration of the changes of the moon was explained by the aging and rebirth of the stellar body. This is also suggested in the vocabulary above. In terms of the phases of the moon, the most general terms of a life cycle are *young* and *newborn* for the waxing crescent and *old* for the waning crescent. It was believed that the waxing crescent is strong and the waning crescent weak. The binary oppositions here are adjectives *young – old*, *strong – weak*, just like the age gradation of humans young/strong, old/weak. Nowadays, the approach of the aging of the moon *ïolez' peres'miz* 'the moon grew old' and its birth *ïolez' vorz'ekiz* 'the moon was born' is much more common than the differentiation of the four phases of the moon.

Lunar observations were also reflected in folklore concerning the origin of the dark spots on the moon. The most common explanation is the motif of a person, a girl or a woman with yokes.

There's a man with yokes sitting there. The yokes are like this, heavily bent. [—] I have been asked how the man got there, but I have no idea how the man got there. There is a man with yokes. The yokes are bent on his shoulders, and there are buckets. Perhaps you have seen? He is clearly seen on clear winter nights. (PMA, 2000. ZTV, Shamardan village)

Once upon a time there lived an orphan. Her uncles felt no pity for her. Crying over injustice, the girl went to fetch water, and said while looking up on the moon: "If only the moon would have me!" Soon after a voice was heard from above: "It is very cold here, impossible to survive." The girl was not afraid of cold and asked Inmar to take her away from here. At once she disappeared from the mountain and appeared on the moon. Since then, the Besermians speak about a girl with buckets standing on the moon. (Antuganov 1920s: 130)

Analogous texts have been recorded at different times among the Udmurts (Potanin 1884: 222; Pervukhin 1889: 15–16; Vereshchagin 1886: 85) and in several other traditions (see e.g. Konakov 1996: 33–34; Toidybekova 1997: 100).

To estimate time during daytime, it was important to look at the position of the sun disc relative to the horizon. The phases of the moon were assigned a specific meaning; these determined the rhythm or household chores, rituals and everyday behaviour. Taboos, orders and omens related to the moon became particularly topical at the approaching of a new phase. The size of the waxing crescent was visually measured, sometimes against the width of fingers: this waxing was described as the moon being one or two fingers wide. The Besermians used to say that the moon is born, just like the sun, that it rises and dies or disappears in the final phase. People tried to spot the waxing crescent on their right, believing that this would bring them success. If, however, the moon was spotted on the left, it was believed to bring famine and illness and to avoid seeing the moon accidentally on the left people tried not to look in the sky at that time (PMA, 2003. PNE, Zhuvam v.). The older generation warned children not to look up in the sky at that time and encouraged them to look down. If the waxing moon was seen, it was important to pick up a piece of bread, money, or anything found inside the pockets. If the pockets happened to be empty, hands were tightly clenched into a fist, as if holding something. During the waxing crescent, people tried to have something in their pockets, carrying along money or bread. If the moon was seen, it was addressed and uttered: “May there be bread in life! May there be money in my life! *N’an’en med ulom, kon’d’onen med ulom*; “May our lives be like that! May there be life with money and needle! May there come life with bread and water! *Ten tatše med ulom, kon’d’onen med ulom, n’an’enbuen med ulom!*” (PMA, 2003. VLA, Zhuvam v.); “Bread and salt! *N’an no slal!*” (PMA, 2000. ZTV, Shamardan v.). Needles and water symbolised wealthy life, bread and salt signified plenty of food. It was forbidden to look at the appearing moon and comment it: such behaviour would result in excessive cost to food and bread during the forthcoming month. While the waxing crescent could be measured with one finger, people made a cross-sign towards the moon and asked for blessing for the month. The period of the waning crescent was considered unfavourable.

avourable, and this is why no new chore or construction work was started at that time: sowing or letting cattle out, women preparing the looms or weaving cloth, or shearing sheep was postponed, lest the wool would not grow long. The time of the new moon was considered almost void or a time of transition. It was believed that during this time even home-made liquor would turn out bad and was not endeavoured then (PMA, 2003. PNE, Zhuvam village).

Like solar eclipses, lunar eclipses were considered extraordinary events. Then it was said that the moon was ruined by *shaitan* or witches, and the eclipse was seen as the omen foreboding the end of the world. Analogous explanations have been recorded among the Udmurts, who believed that witches purposefully ruin the moon: “it shines and prevents them from eating people” (Moshkov 1900: 197).

The observations of the moon phases were common in folk meteorology. Changes in the moon’s appearance foretold the weather for the forthcoming week and month, harvest, and sowing time. If the waxing crescent turned large very soon, or the crescent was tilted, it was believed that the month was going to be rainy and the weather would be bad. A very common belief was that the turn of the moon’s phase always brought along misfortune: *When the rains began it was said that the moon was probably beginning to wane* (PMA, 2003. BZL, Ezhevo v.). As important elements of the world order the moon and the sun were also represented in Udmurt beliefs (Vladykin 1994: 67–69; Popova & Chernykh 2003: 281–283) which were quite similar to the traditions of the Besermians.

Time and weather was determined also according to stars *kiz’il’i*. The constellation of Ursa Major *Kobâ* (Kovš), *Siz’âm kiz’il’i* (‘the seven stars’) was usually observed. If the sky was starry in winter, the weather was going to be clear and cold, and in summer it predicted fine weather. A starry sky during Lent predicted good crop yield. The appearance and position of stars in the sky enabled to determine the onset of dawn and time. Many informants, however, mentioned that such foretelling has been abandoned by now, as they were used at the time when clocks were not available.

Violating the natural balance and the harmony established in the distant past brought along chaos and instability of the model of the world. Harmony with temporal parameter ensured the ideal stability of the environment. People believed that with their actions they are able to influence the quality of future (Lvova *et al.* 1988: 55). Nature and climate anomalies and bad weather was often regarded as foreboding the end of the world, the result of the violation of the prior harmony: “people have become evil and the world will be ruined”, “the weather is sulking – there is no order any more”, “will it really be the end of the world: the summer is cold this year”. This is how natural climatic conditions form the part of traditional conceptions about time and calendar.

WAYS OF CALCULATING TIME

Oral lore introduces various ways of estimating time. During daylight, time was determined visually by observing the position of the sun. In everyday life people referred to certain periods as follows: *šundâ tšuk palaja* ‘the sun is in the morning’, *šundâ obed palan* ‘the sun is at noon’, *šundâ obed šorân* ‘the sun is in midday’, *šundâ vâlân na* ‘the sun is still high’, *šundâ zhât pal koškiz* ‘the sun moves towards the night’, *šundâ puks’e n’i* ‘the sun sinks’. Such estimation of time was common in different traditions (Zhukovskaia 1986: 131; Sviatskii 1966: 103–104). The adoption of mechanical clocks introduced a new method: the firmament was tentatively divided on the example of the clock in equal intervals in which the highest point at which the sun was at the zenith corresponded to twelve o’clock noon. The same custom was recorded among the nineteenth-century Russian peasants by D. O. Sviatski (1966: 103).

The described methods of calculating time were associated with chronological units of nychthemeron and light-day. Determining seasons was based on observing the position of the sun in the sky and determining the points of its rise and setting. The position of the sun in the sky was observed at noon (high in summer, low in winter); the shifting of the points of sunrise and sunset to the north or to the south at different times a year: in spring the sun rises from one point, in autumn from another, and the point also changes in winter and in summer. In a farm, these observations were mostly



Figure 7. Estimating time by means of a shadow and grass in 2000 in Tylys village, Iukamen district. Photo by Yelena Popova.

carried out at a specific location. In spring, for example, the sun rose from atop of a certain tree or hillock, in summer the point had shifted to a valley, in autumn the neighbour's rood, in winter another tree or grove. This explains the popular phrase *šundâ berektšekiz* 'the sun turned/changed its place' used before and after summer solstice. If the change of the point of rise or sunset was clearly discernible, it was said that the sun rises/sets in a different place. The same methods for determining a season are used in the folk calendars of many other cultures (Klimishin 1990: 150). In daylight the time was measured by estimating the length of one's own shadow in steps, and the shortening and lengthening of the shadows of immovable objects (trees, buildings). The shadow was the shortest at noon, and the length increased towards the afternoon and evening. Measuring time with one's own shadow followed the same principle. This required standing in a way that the shadow would fall on a flat surface, and the spot where it ended was marked. Then its length was marked with steps or length of foot. Generally it was said that "it [i.e. time] is five steps", "the shadow turned", "time is noon – the shadow has become shorter". These methods were widely used during agricultural work.

The sun also shows time. The sun came out and after a while its shadow was measured. You have to see how long your shadow is: one step, two steps, three, four, five. It's the clock. The time was calculated by the sun. (PMA, 2003. NZS, Zhuvam village)

It was measured by the sun. Where the sun moved. Noon was determined by the sun. (PMA, 2003. BZL, Ezhovo v.)

There was another way that children nowadays use for fun, although a little while ago it was used by adults. For this a stick or a grass culm of the length of the little finger is taken and pressed between fingers. The palms are held together and the stick is placed perpendicularly between the fingers. The method follows the principle of gnomon: it is looked how many fingers cross the shadow of the stick. This method was primarily used by herders and peasants on the field. Later the principle was adjusted to the mechanical clock: the length of one or two and a half fingers equalled one o'clock in the afternoon. Peasants constructed far more complex devices based on the above principles. For example, villagers of Filimonovo in Iukamen district still remember the clock made by the village

blacksmith. The smith pinned nails on his workshop's window at such an interval that the shadow of the nail in the middle functioned as the hand of a mechanical clock: the shadow moved according to the sun's movement and fell on the face of the clock. The interval of nails hammered around the face corresponded to the hourly division of a mechanical clock. The understanding of the clock and wise calculation enabled the blacksmith to construct his own clock (PMA, 2000. ZNA, Filimonovo v.). A sundial made of a small stick and table with notches has been encountered among the Russian peasants of the Central Urals (Chagin 1998: 64) and Komi-Permyaks who used a wheel instead of the face (Chagin 2003: 417).

In daytime, the movement of the rays of the sun along the floor or relative to furniture was observed: "the sun is in the middle of the room, it is almost noon", "the sun fell on the oven (bench), soon the cattle will be driven home", "the sun fell on the bed, it is time to heat the oven". This method is often referred to by informants.

The sun reaches the window from the direction of day [south – author's note] – it is time to prepare lunch. Parents will be soon home for lunch. How would we know the time? There was no clock in the village. (PMA, 2003. NZS, Zhuvam v.).

According to the tradition, the façade of the houses was mostly directed towards south or southeast. This ensured that the house was full of light throughout the entire day and the position enabled to follow the movement of rays from morning till night. Depending on the idiosyncrasies of individual buildings, of course, the observing of the light varied. Estimating time according to the movement of the sun also depended on the season: in summer the period of daylight was longer, in winter it was shorter; the seasons also determined the angle of the sun on the horizon; and the effectiveness of the "sundial" was limited by bad weather. In the 1930s-1960s, it was customary to toll the fire bell according to the number of hours. Villagers also counted time by the planes of local airports, which often set off at a fixed hour every day: "we knew the time because of the plane", "the plane has not set off – it is too early for lunch", "when the plane starts off – around four o'clock, it is time to feed the cattle".

At night, time could be told by the crow of roosters. It was assumed that roosters crow at noon, about three hours later, at midnight, in the middle of the night, and before dawn, or at all hours of the day. It was believed that “they know when it is time to crow” and “when they feel itchy under feet it is time to crow”. A rooster crowing at a wrong time was considered a bad omen. The Udmurts believe that the bird has a very sharp hearing and it opens its beak only to imitate the crow of the underworld roosters (Vereshchagin 1889: 140). In recent times, the Besermian have started to believe that the old world order (traditions) has been broken, and this is why roosters have been led astray and they no longer crow at as exact times as before. Transition to summer and winter time, which is no longer in harmony with the time of nature also “misled the crow of roosters”. The Udmurts explained the change in the rhythm of roosters’ crow as follows: “It is said that while before rooster sang at ten, they now sing at eleven o’clock; we believe that his superstition has been adopted from the Russians, who said that roosters began to crow later ever since people were recruited to the army” (Vereshchagin 1889: 71). Thus the social factors affecting the life of peasants may have ruined the normal course of time.

Peasants also estimated time on the basis of periodically occurring events and intervals spent for doing some chores. Such are, for instance, the time that it took to bring water to boil in an oven pot was called *vu berektitchoz’*, in samovar *samovar berektitchoz’*, the time to prepare soup *shāb vuitchoz’*, the time after which logs were burned in the oven *gur zhuatchoz’*, the time it took to bake bread *n’an’ pāzhittchoz’*, milk a cow *skal kāskitchoz’*, burn a splinter *chag zhuatchoz’*, smoke tobacco, or plough a field. The estimation of time may have also been based on a time required for fulfilling a certain task. A brief moment, for example, was referred to as *shokchitchoz’* ‘while you inhale’, *kān’āshtitchoz’* ‘in the blink of an eye’. Intervals connected with bringing water to boil in a kettle, smoking tobacco or preparing a simple meal have been used also in other cultures to estimate time (Petrova 1937: 111; Zhukovskaia 1986: 132; Sokolova 1990: 87). The Besermians know such units of time as the time for preparing soup and tea, and the time for baking bread. These were units of length that were experienced by many. These tasks were often performed many times a day, and the time it took to perform these tasks could be well established. Remarkably, historical nar-

ratives, recounting the events of the distant past and the land inhabited with heroes, often make use of units of length associated with preparing a meal, cooling down bread, burning of fire and bringing water to boil. These examples can be encountered in Udmurt folklore, especially in heroic tales (Bogaevski 1892: 173–174; Kralina & Pozdeev 1971: 102, 128). Time, especially a short interval (“so fast that even water had not come to boil”, “even bread was still hot”), on the one hand emphasises supernatural powers and on the other hand is used to measure speed and distance. The described methods of calculating time have been retained in the colloquial vocabulary, narratives and ballads interrelated with traditional mythology of the Besermians, and emphasise the sacrality of the narrated plot and its difference from everyday sphere.

Major events, the time of which was calculated throughout the year, were Orthodox feast days, festivities, rituals and seasonal chores. The estimation of a longer period of time (century, human life) was based on the chronology of major historical events and natural calamities (draught, hail, cold summer) or harvest years. Within a family or among kins the markers of time included someone’s birth, marriage, death, moving, fire. Other markers of time included community or societal events that influenced the everyday life in the village. This includes the most important events of the 20th century, which have been remembered as specific markers of time: civil war, collectivisation, the onset and end of the Great World War, consolidation of collective farms and wiping out what were called “vilages without future”, also restructuring or *perestroika*.

Julian and Gregorian calendar were introduced in the everyday life of the Besermians mostly by mediation of official institutions and the Orthodox culture. The Christianisation of the Besermian which started in the middle of the 18th century and their first contacts with Orthodoxy appears to have introduced important innovations in the traditional chronology and worldview of the Besermians. The Orthodox culture introduced the chronological concept of *calendar*, in which the estimation of time is based on calendar months, established dates, including also the Orthodox feast days and Lent which later became to be used as more or less fixed markers of time along the traditional estimation of time among the Besermians.

The need to adopt the civilian calendar increased after the village was incorporated into the governing system and because of the need to solve administrative issues with the expansion of international contacts. The notion of time as a category of a traditional worldview changed considerably after the contact with calendar and Orthodox traditions. Without going further into the adoption of Orthodox feast days, services and rituals, or the influence of Biblical motifs on the worldview and mythology of the Besermians, it should be noted that the contact with the Orthodox calendar introduced the concept of movable feasts associated with Shrovetide, Easter, Passover and the Epiphany. Such movable feast days which were not fixed to any certain date were referred to as *nunalez kâstas'ke* 'the day/the date is drawn out'. These, as well as the immovable feast days of the Orthodox calendar became the basis for the new chronology: "three days before *pokrov*", "a week after Easter". In the changed historical and cultural situation, the traditional system failed to provide the necessary chronological markers.

Contrarily to the general opinion that the traditional chronology has undergone a major change and is disappearing, it needs to be emphasised that fieldwork materials also point to the survival of several archaic elements. Cultivation of land required the skill to determine the natural and climatic conditions for starting seasonal work and the related household chores. This explains the significance of knowledge about flora and fauna, meteorological observation, and agricultural experience in the system of temporal and chronological understanding.

Manuscript sources

Antuganov 1920s = *Besermians*. Russian Academy of Sciences' Uralic Department's Udmurt Institute of History, Language and Literature's archive, list 2N, item 391.

PMA = the author's (= Yelena Popova) fieldwork collections (informants identified with initials).

Biianova 1946 = *Istoria naroda besermian* [History of the Bessermian Peoples]. Russian Academy of Sciences' Uralic Department's Udmurt Institute of History, Language and Literature's archive, list 2N, item 391.

References

Bogaevski, Petr M. 1892 *Materialy dlia izucheniia narodnoi slovesnosti votiakov* [Materials for the Study of National of Literature of Votiaks]. *Etnograficheskoe Obozrenie*, 4.

Braginskaia, Nina V. 2000. *Kalendar* [Calendar]. Tokarev, Sergei (ed.-in-chief). *Mify narodov mira*, 1: A–K. 2nd edition. Moscow: Bolshaia Rossiiskaia enciklopediia, pp. 612–615.

Chagin, Georgi N. 1998. *Okruzhaiushchii mir v traditsionnom mirovozzrenii russkikh krestian Srednogo Urala* [The Surrounding World in the Traditional World View of Russian Peasants in the Central Urals]. Perm: Permskii gosudarstvennyi universitet.

Chagin, Georgi N. 2003. *Vzgliad komi-permiakov na prostranstvo i vremia* [The View of Permian Komis on Spaces and Time]. Zhuravlev, Vitali A. (ed.). *Etnos – Kultura – Chelovek. Materialy mezhdunarodnoi nauchnoi konferencii: K 60-letiiu doktora istoricheskikh nauk professora V. E. Vladykina*. Izhevsk: Izdatelstvo ANK, pp. 413–418.

Chernykh, Aleksandr V. 1999. *Etnokulturnaia istoriia Iuzhnogo Prikam'ia po materialam traditsionnoi kalendarnoi obriadnosti v konce XIX – nachale XX vv* [Ethnocultural History of Southern Prikamie Based on Materials on Folk Calendar Customs in late 19th – Early 20th century]. Avtoreferat dissertatsii kandidata ist. nauk. Izhevsk: Udmurtskii gosudarstvennyi universitet.

Grishkina, Margarita V. & Vladikin, Vladimir E. 1982. *Pismennye istochniki po istorii udmurtov 9–17 vv*. [Written Sources of Udmurtian History in the 9th–17th Century]. Atamanov, Mikhail G., et al (eds.). *Materialy po etnogenezu udmurtov*. Izhevsk: Nauchnye issleodvania instituta pri Sovete Ministrov UASSR, pp. 3–43.

Klimishin, Ivan A. 1990. *Kalendar i khronologia* [Calendar and Chronology]. Moscow: Nauka.

Konakov Nikolai D. 1996. *Traditsionnoe mirovozzrenie narodov komi. Okruzhaiushchii mir. Prostranstvo i vremia* [Traditional World View of the Komi. The Surrounding World. Space and Time]. Syvtyvkar: Komi nauchnyi centr & Institut iazyka, literatury i istorii.

Kralina, Nadezhda P. & Pozdeev, Petr K. (comp.) 1971. *Vatka no Kalmez: Udrodnye legendy i predania* [Vatka and Kalmez: Udmurtian National Legends and Oral Heritage]. Izhevsk: Udmurtiia.

Lupov, Pavel N. 1931. *Severnnye udmurty v 16–17 vv*. [Northern Udmurts in the 16th–17th Century]. *Na udmurtskie temy: Sbornik statei. Uchenye zapiski NII narodov Sovetskogo Vostoka*, 2. Moscow: Centrizdat, pp. 112–144.

Lvova, Eleonora S. & Oktiabr'skaia, Irina V. & Sagalaev, Andrei M. & Usmanova, Mariam S. (comps. & eds.) 1988. *Traditsionnoe mirovozzrenie tiurkov Iuzhnoi Sibiri. Prostranstvo i vremia. Veshchnyi mir* [Traditional

World View of Turks in Southern Siberia. Space and Time. Material World]. Nobosibirsk: Nauka.

Meletinski, Eleazar M. 2000. Vremia mificheskoe [Mythological Time]. Tokarev, Sergei (ed.-in-chief). *Mify narodov mira*, 1. A-K. 2nd edition. Moscow: Bolshaia Rossiiskaia enciklopediia, pp. 252–253.

Minniahmetova, Tatiana G. 2000. Kalendarnye obriady zakamskikh udmurtov [Calendar Rites of the Udmurts Beyond the River Kama]. Izhevsk: Izdatelstvo Udmurtskogo instituta istorii, iazyka i literatury.

Moshkov, Valentin A. 1900. Mirosozercanie nashikh vostochnykh inorodcev votiakov, cheremisov i mordvy [World Concept of Our Eastern Kin, the Votiaks, Cheremisses and Mordvins]. *Zhivaia starina*, 10 (1–2), pp. 194–212.

Pervukhin, Nikolai G. (comp.) 1888. *Eskizy predanii i byta inorodcev Glazovskogo uezda*, 1. *Drevniaia religia votiakov po ee sledam v sovremennykh predaniakh*. [Sketches about the Oral Heritage and Customs of Endemic Peoples of the Glazovodsk Uezd, 1. Ancient Religion of the Votians Based on Signs in Contemporary Oral Heritage]. Viatka: Izdatelstvo Gubernskogo Statisticheskogo Komiteta.

Pervukhin, Nikolai G. (comp.) 1889. *Eskizy predanii i byta inorodcev Glazovskogo uezda*, 4. *Sledy iazycheskoi drevnosti v obrazciakh ustnoi narodnoi poezii votiakov*. [Sketches about the Oral Heritage and Customs of Endemic Peoples of the Glazovodsk Uezd, 1. Ancient Linguistic Signs in Examples of Oral Folk Poetry of Votiaks]. Viatka: Izdatelstvo Gubernskogo Statisticheskogo Komiteta.

Petrova, Tatiana I. 1937. Vremiaisчисlenie u tunguso-manchzhurskikh narodnosti [Time Reckoning among the Tungusian-Manchurian Peoples]. Meshchaninov, Ivan I. (comp.) *Pamiati Vladimira Germanovicha Bogoraza (1865–1936)*. *Sbornik statei*. Moscow & Leningrad: Akademia Nauk SSSR, pp. 79–121.

Popova, Elena V. 1997. Besermiane (kratkii istoriograficheskii obzor) [Besermians (A Short Historiographic Overview)]. Skliaev, Georgii K. (comp. & ed.). *O besermianakh*. *Sbornik statei*. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdeledniia Rossiiskoi akademii nauk, pp. 3–18.

Popova, Elena V. 1998. *Semeinye obychai i obriady besermian*. (*Konec XIX – 90-e XX vv.*). [Family Traditions of the Bessermians. (End of the 19th century till the 1990s.)]. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdeledniia Rossiiskoi akademii nauk.

Popova, Elena V. 2004. *Kalendarnye obriady besermian* [Besermian Calendar Rites]. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdeledniia Rossiiskoi akademii nauk.

Popova, Elena V. & Chernykh, Aleksandr V. 2003. Predstavleniia o prirodnykh iavleniakh v mirovozzrenii kuedinskikh udmurtov [Concepts of Natural Phenomena in the World View of Udmurts of Kuedinsk Region].

Zhuravlev, Vitalii A. (ed.). *Etnos – Kultura – Chelovek. Materialy mezhdunarodnoi nauchnoi konferencii: K 60-letiiu doktora istoricheskikh nauk professora V. E. Vladykina*. Izhevsk: Izdatelstvo ANK, pp. 281–288.

Potantin, Grigori N. 1884. U votiakov Elabuzhskogo uезда [Visiting Votiaks of the Elabuzhsk Region]. *Izvestiia Obshchestva arkhologii, istorii i etnografii pri Kazanskom universtitete*, 3. Kazan, pp. 189–255.

Shklyae, Georgi K. 1997a. Kratkaia socialno-demograficheskaia kharakteristika besermian [A Short Social Demographical Characterization of the Besermians]. Shklyae, Georgi, K. (comp. & ed.). *O besermianakh. Sbornik statei*. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdelennia Rossiiskoi akademii nauk, pp. 101–109.

Shklyae, Georgi K. 1997b. Besermiane: Opyt etnostaticheskogo obsledovaniia [Besermians: Attempt at An Ethnic-Statistical Review]. Shklyae, Georgi K. (comp. & ed.). *O besermianakh. Sbornik statei*. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdelennia Rossiiskoi akademii nauk, pp. 110–120.

Sokolova, Zoia P. 1990. Vremischislislenie u obskikh ugrov [Time Reckoning among Ob Ugrians]. Guvrich, Ilia & Sokolova, Zoia P. *Tradicionnaia obriadnost i mirovozzrenie malykh narodov Severa*. Moscow: IEA RAN, pp. 74–103.

Sviatski, Daniil O. 1966. Ocherki istorii astronomii v Drevnei Rusi [Overview of the History of Astronomy in Ancient Russia], 2. *Istoriko-astronomicheskie issledovania*, 7. Moscow: Nauka, pp. 11–124.

Tepliashina, Tamara I. 1970. Iazyk besermian [The Besermian Language]. Moscow: Nauka.

Toidybekova, Lidia S. 1997. *Mariiskaia iazycheskaia vera i etnicheskoe samosoznanie* [Mari Pagan Religion and Ethnic Self-Awareness]. Joensuu: Joensuun yliopisto, Karjalan tutkimuslaitos.

Tokarev, Sergei A. (ed.) 1983. *Kalendarye obychai i obriady v stranakh zarubezhnoi Evropy. Istoricheskie korni i razvitie obychev. Sbornik statei* [Calendar Tradition and Customs in European Lands Abroad. Historical Roots and Development of the Tradition. Collection of Articles]. Moscow: Nauka.

Tolstaia, Svetlana M. 1987. K sootnosheniiu khristianskogo i narodnogo kalendaria u slavian. Schet i ochenka dnei nedeli [On the Relations of Christian and Folk Calendar among the Slavs]. Uspenskii, Boris A. (ed.). *Iazyki, kultury i problemy perevodimosti*. Moscow: Nauka, pp. 154–168.

Toporov, Vladimir N. 2000. Model mira. Tokarev, Sergei A. (ed.-in-chief). *Mify narodov mira*, 2. *K-Ia*. 2nd edition. Moscow: Bolshaia Rossiiskaia enciklopediia, pp. 161–164.

Vereshchagin, Grigori E. 1886. *Votiaki Sosnovskogo kraia* [Votiaks of the Sosnovski Region]. Zapiski Imperatorskogo Russkogo geograficheskogo obshchestva po otdeleniiu etnografii, 14 (2). St. Petersburg.

Vereshchagin, Grigori E. 1889. *Votiaki Sarapul'skogo uezda Viatskoi gubernii* [Votiaks of the Sarapul'sk Uezd of Viatsk Gubernia]. *Zapiski Imperatorskogo Russkogo geograficheskogo obshchestva po otdeleniiu etnografii*, 14 (3). St. Petersburg.

Vinokurova, Irina Y. 1994. *Kalendarnye obychai, obriady i prazdniki vepsov (konec XIX-nachalo XX v.)* [Calendar Tradition, Customs and Festivities of Vepsians (Late 19th – Early 20th Century)]. St. Petersburg: Nauka.

Vladykina, Tatiana G. 1998. *Udmurtskii folklor. Problemy zhanrovoi evoliucii i sistematiki* [Udmurtian Folklore. Problems of Genre Evolution and Systematics]. Izhevsk: Udmurtskii institut istorii, iazyka i literatury Uralskogo otdelennia Rossiiskoi akademii nauk.

Vladykin, Vladimir E. 1994. *Religiozno-mifologicheskaja kartina mira udmurtov* [Religious-Mythological Map of the World of Udmurts]. Izhevsk Udmurtiia.

Zhukovskaia, Natalia L. 1986. *Prostranstvo i vremia v mirovozzrenii mongolov* [Space and Time in the World View of Mongols]. Zhukovskaia, Natalia L. (ed.). *Mify, kul'ty, obriady narodov zarubezhnoi Azii*. Moscow: Nauka, pp. 118–134.

Zlatkovskaia, Tatiana D. 1983. *Istoricheskie korni Evropeiskogo kalendaria* [Historical Roots of the European Calendar]. Tokarev, Sergei A. (ed.). *Kalendarnye obychai i obriady v stranakh zarubezhnoi Evropy. Istoricheskie korni i razvitie. Sbornik statei*. Moscow: Nauka, pp. 24–39.

Zorin, Nikoai V. 1981. *Russkaia svadba v Srednem Povolzhe* [Russian Wedding in Central Volgan Region]. Kazan: Kazanskii universitet.