

## WOODEN CALENDARS FROM THE CENTRAL RHODOPES

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**Abstract.** Four wooden calendars from the village of Polkovnik Serafimovo, Smolyan region, in the Central Rhodopes are presented here, and three of them - for the first time. The shape and size, the kind of the signs and structure of the calendar record bear the characteristic features of the rest of the Bulgarian wooden calendars. The short notches on the edges represent the days of the year in the Julian (solar) calendar. The special signs on the sides mark the fixed festivals of the Orthodox Church calendar and are also influenced by the local tradition. The type of the signs confirms that the wooden sticks belong to the group of calendars from the Central Rhodopes. According to the beginning date of the calendar record on the sticks, two of the calendars are of the April (May) or October (November) type which corresponds to the very popular economic division of the year in the folk calendar into two periods – warm and cold. The other two sticks, which are very similar to each other, make an exception in this respect among the rest of the Bulgarian wooden calendars. The months are divided into four groups (seasons) on each of the four edges of the stick (only one calendar from Burgas region has the same structure). The most interesting thing about the two sticks is that this is the only case among all known Bulgarian calendars that the beginning of the calendar record coincides with the beginning of the civil year on 1<sup>st</sup> January (January type) like some wooden calendars from Western Europe.

Nowadays it is getting harder and harder to find wooden calendars in Bulgaria and in the neighbouring Balkan countries. The thorough knowledge about them could be helpful in various scientific fields, e.g. history of religion, ethnology, history of astronomy and mathematics, as well as semiotics.

## 1. INTRODUCTION

The ethnographic research of the Bulgarian wooden calendars began after the Liberation of the country from the Ottoman rule in 1878. The first wooden calendar was registered in the collection of the National Museum in Plovdiv at the end of the 19<sup>th</sup> c. (1883). It was from the village of Karaorman (later named as Chernogorovo), Haskovo region. This calendar was published in 1896, by Stoyan Argirov (Аргиров) 1896), who was the head of the National Library and Museum in Plovdiv at that time (Table 1). Later Dimitar Marinov (Маринов 1907) published new data about this sample. He reports about other similar calendars both in the Haskovo region and in the town of Chirpan and Stara Zagora. Thus the ethnography in the newly liberated



*calendarists*, often coming from priest families, and were meant to serve both economic and religious needs (Маринов 1907). The calendar sticks substituted the hand-written and printed calendars, which the illiterate population could hardly get and use. Since the calendar sticks were made of solid wood they had a very practical application: they were used as crutches or walking sticks, to support loads (on the back of the horses), to stir up the yarn while dyeing it. Shepherds and masons carried *rabosh* calendars with them when they had to travel far away.

## 2. 2. DISTRIBUTION OF THE WOODEN CALENDARS IN BULGARIA

As a result of regional and national ethnographic expeditions during the second half of the 20<sup>th</sup> c. and in the first years of the 21<sup>st</sup> c. a lot of calendars were found mainly in the southern part of the country (Fig. 1). These regions were liberated from the Ottoman rule only in 1912. At present, some of these calendars are preserved in museum collections, others are a private possession Колева Е. 1967, Колева Е. 1971, Koleva V. 1996, Керелезова 2002, Koleva V. and Georgiev 2006, Koleva V. 2007, Колева В. 2007).



Figure 1: Map of Bulgaria and the regions where wooden calendars have been found. The region of Polkovnik Serafimovo.

The samples found in the Central Rhodopes compose the most numerous group of about 20 sticks among the 30 known Bulgarian wooden calendars (some of them have not been published yet). Further we will mark the calendars from the different

regions in the following way: "H" for the Haskovo region, "K" for the Kyustendil region, "B" for the Burgas region and "S" for the Smolyan region.

### 3. CALENDARS FROM THE VILLAGE OF POLKOVNIK SERAFIMOVO, SMOLYAN REGION

Our present study examines four *rabosh* calendars (Fig. 2), three of which are presented for the first time. They come from the village of Polkovnik Serafimovo in the Central Rhodopes. It is located about 10 km to the southeast from the town of Smolyan (Fig. 1). The old name of the village is *Alamidere*. The village was later named after the hero from the First Balkan war Colonel Vladimir Serafimov (1860 – 1934), whose regiment liberated the Smolyan region from the Ottoman rule in 1912.



Figure 2: Four calendars from Polkovnik Serafimovo, Smolyan region (Photos: V. Koleva and D. Kolev).

The examined calendar sticks are further referred to as S1, S2, S3 and S4, in order to mark that they belong to the group of wooden calendars from the Smolyan region. The calendars are made of well processed hard wood. Their shape and size, the kind of the signs and structure of the calendar record correspond to the characteristic look of the Bulgarian wooden calendars.

The first two (S1 and S2), just like the calendar from the village of Lyulyakovo (Burgas region), make an exception with respect to their structure (Koleva V. and Georgiev 2006, Koleva V. 2007). The months, grouped by seasons, are marked on each of the four edges of the stick. This significantly reduces the length of the sticks. They are around 50 cm long. The other two calendars (S3 and S4), just like the majority of the Bulgarian calendar sticks, are around 80 cm long and 2 or 3 cm wide. The months are divided into two groups of six and are incised on two opposite edges of the stick.

The 365 or 366 day notches, including the leap day, are distributed in months according to the Julian (solar) calendar. The months are divided by a greater distance (S1 and S2) and by a deeper groove (S3 and S4) from one another. The special signs on the sides mark the fixed festivals according to the Orthodox Church calendar and are often influenced by the local tradition (Fig. 9) and (Table 2). The type of the signs confirms that the wooden sticks belong to the group of calendars from the Central Rhodopes.

The reading of the examined calendar records goes from one side to the other without interruption, for example from left to right on one side and then from right to left on the other side, i.e. *boustrophedon* way, as is typical of most of the Bulgarian calendars. There are no letters as special signs which could point to the beginning date of the calendar year and to the direction of the reading. The key to the correct way of reading is the user to be familiar with the Julian calendar, the feast system used and the combinations of feast signs.

### 3. 1. THE TWIN CALENDARS FROM POLKOVNIK SERAFIMOVO (S1 AND S2)

We called them *twin calendars* because of their striking resemblance. It is obvious that they were made by the same hand (Fig. 3 and Fig. 4).



Figure 3: The first wooden calendar from Polkovnik Serafimovo (S1).

The first one is kept in the National Museum of History in Sofia and is registered under No 32434 (Fig. 3). It was published in 2002 by Vera Kerelezova, an ethnographer at the museum (Kerelezova 2002). The author has accurately described the calendar stick. She pays attention to the unusual structure of the calendar record (the distribution of the months into four groups on each of the four sides of the stick); to the lack of special signs dividing the day notches in 7-day periods as in the case of the calendar from the village of Karaorman, Haskovo region (Аргиров 1896, Маринов 1907), and to the presence of some signs with ‘unclear’ function: tiny long scratches among the feast signs, as well as the letter ‘H’ close to some of the small round grooves above the day notches. Inscriptions are found very rarely on the Bulgarian wooden calendars. Fortunately, in this case the year ‘1897’ is incised as well as the letters ‘’ (they are most probably initials) on one of the ends of the stick.

Some of the feast signs have a little round groove on the top of the straight lines (forks or tridents) (Fig. 9). Similar signs are also found on three calendars from the Rhodopes: S6, S7 and S8 described by Elena Koleva (Koleva E. 1971). This allows Kerelezova to suppose, that calendar S1 is ”from the region of the town of

Plovdiv, or from the north slopes of the Rhodopes”. As far as the calendar’s origin is concerned, it is only known that in 1993 a certain Asen Georgiev Lukov handed it to the museum and according to this man ”the calendar is found in the region south of Plovdiv” (Керелезова 2002: 228).

The additional research I did showed that if one reads the signs without interruption, e.g. *boustrophedon* way, some discrepancies in the previous study can be resolved. The inclined line after ”30<sup>th</sup> June”, as Kerelezova reads it (Керелезова 2002: 224), is in fact a sign before 1<sup>st</sup> April because the signs on the second side must be read from right to left (Fig. 3; Fig. 10). There is a similar short line after 31<sup>th</sup> October as well. It is highly probable that these two inclined lines point out the warm part of the economic year.

The leap day according to us is marked with a groove after the day notch for 28<sup>th</sup> February. Besides, the ”lack” of a sign for the very important Church feast 25<sup>th</sup> December is due to the erroneous interpretation of December on the fourth side of the stick – Kerelezova interprets it as October because of the wrong initial way of reading (from left to right on each side) (Керелезова 2002: 224-225). When read correctly, it turns out that the number ‘1897’ is incised above the day notches at the beginning of December and not between October and November (Керелезова 2002: 225). The number really points to the year 1897 CE, but what is interesting and easy to notice here is that the last digit has been modified, which confirms the repeated usage of the object.

The sporadic dates marked with tiny scratches or round grooves made with some sharp tool can be defined as „auxiliary”. They are not required by the canon and are rather used to make calendar calculations in order to determine the Sundays and the movable feasts, for instance. They are most numerous in the period March – April (Koleva 2007: 103). It is possible that the Cyrillic letters ‘H’ on this calendar stand for the Bulgarian word *неделя* ‘Sunday’.



Figure 4: The second wooden calendar from Polkovnik Serafimovo (S2).

The second calendar is currently kept in a private collection. About twenty years ago an old man from Polkovnik Serafimovo offered the calendar as a gift. It is an exact replica of the first calendar (S1) as can be seen in the picture (Fig. 4). With very few exceptions the feast signs on both sticks fully coincide and this could indirectly provide an answer to the question about the origin of the first calendar.

On this calendar a short notch marks the leap day. There is also a group of 3 (4?) lines on the left end of the edge of the fourth side.

The S1 and S2 calendars are the only ones among all known Bulgarian calendars where the beginning of the calendar record coincides with the beginning of the civil year on 1<sup>st</sup> January (January type) like some wooden calendars from Western Europe. We can assume that the master's wish was to make an *everlasting* calendar whose beginning is the same as in the Gregorian calendar. The latter was known from the printed calendars of that time as *the new style*.

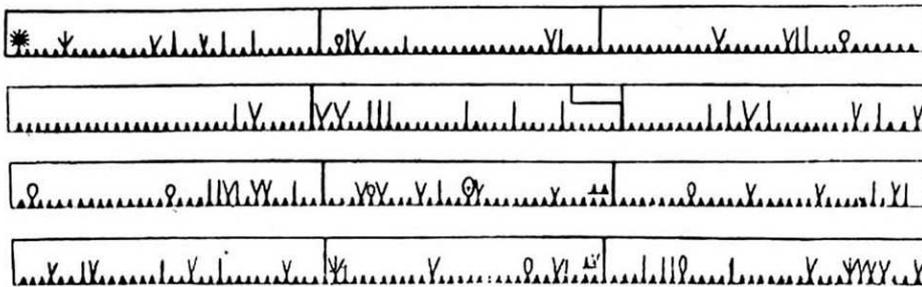
A very close parallel to our *raboshes* is a Croatian wooden calendar (*ragoš*) from the Dalmatian island Olib (Fig. 5) with a four-fold structure of the calendar record and a beginning on 1<sup>st</sup> January (Stipa 1966).

The first difference, however, is in the direction of reading. Here we read the calendar record one-way only (from left to right), i.e. the reading is interrupted. The second difference is in the feast system used, because the Croatian calendar reflects the liturgical calendar of the Western Church.



Kerbkalender (*ragoš*) von der Dalmatischen Insel Olib.

Foto: M. Gavazzi in: Narodna starina, IX, Zagreb 1930, S. 333.



Schema der Kalenderrechnung eines Kerbkalenders von Olib nach M. Gavazzi in »Kalender Sv. Ante«, Zagreb 1939.

Figure 5: Wooden calendar from Croatia (after: Stipa 1966).

## 3. 2. THE THIRD WOODEN CALENDAR FROM POLKOVNIK SERAFIMOVO (S3)

Fig. 6 presents the four sides of the third examined calendar. Its owner was a chief shepherd (*kehaya*), named Hubcho Kehaya. It is also kept in a private collection. The length of the stick is about 80 cm. The day notches of the year are divided into two groups of 6 months incised on two opposite edges of the stick. The months are separated from one another by a wide groove. The beginning of the calendar record is 1<sup>st</sup> May on the first side and 1<sup>st</sup> November on the second side. The reading goes from one side to the other without interruption.



Figure 6: The third wooden calendar from Polkovnik Serafimovo (S3).

The calendar has a well formed handle with a hole in it to hang the stick by. There is also another hole on the very top of the handle, as well as Christian symbols, anthropomorphic and zoomorphic figures on its sides.

The calendar record is corrupted on the opposite end of the stick so the last 2-3 day notches of October on the first side and the first 2-3 day notches of November on the second side are missing.

The leap day is not marked on this calendar.

## 3. 3. THE FOURTH WOODEN CALENDAR FROM POLKOVNIK SERAFIMOVO (S4)

The fourth calendar from Polkovnik Serafimovo is kept in the History Museum in Smolyan and is registered under No 4931 (Fig. 8). During an ethnographic expedition in 1984 it was handed in by Dobra Donkovska, then 81 years old. She inherited the calendar stick from her mother and, just like her, knew how to use it. Dobra Donkovska's mother was from the famous clan of Hubcho Kehaya, and her husband was a mason and worked both in neighbouring villages and in the White Sea (Aegean Sea) region. Alamidere (now Polkovnik Serafimovo) was famous for its good masons, and masonry and shepherd's trade were the main means of living of the local population.

The stick does not have a handle. The day notches of the year are divided into two groups of 6 months incised on two opposite edges of the stick. The months are also separated from one another by a wide groove. The beginning of the calendar record is 23<sup>rd</sup> April on the first side and 21<sup>st</sup> October on the second side. The reading goes without interruption, i.e. from left to right and back from right to left.



Figure 7: Figures engraved on the four sides of the handle.

The calendar also has one special feature. A very big groove is incised between the months of February and March. Maybe the date 1<sup>st</sup> March was important for some calendar calculations. Probably the parallel scratches on certain places (in May, June, July and August) are "auxiliary" signs marking some important moments in the feast and/or economic cycle.

The leap day is marked with a thin long line.

#### 3. 4. THE FEAST OF SS CYRIL AND METHODIUS ON THE CALENDARS FROM POLKOVNIK SERAFIMOVO

The age of a calendar can be estimated roughly based on the presence or lack of the feast of SS Cyril and Methodius, which was officially introduced in the printed calendars in 1855. This criterion was first suggested by Stoyan Argirov (Аргиров 1896). Such a sign is missing only on the second calendar from Polkovnik Serafimovo. Therefore we can be quite sure that the remaining three calendars were used after 1855.

#### 4. SIGNS

The important fixed feasts of the Orthodox liturgical calendar are marked with big and varied signs on the sides of the sticks. The main signs are the straight line, the



Figure 8: The fourth wooden calendar from Polkovnik Serafimovo (S4).

fork and the trident. Their more complex and ornamented variants mark the more significant feasts. The first four columns in Fig. 9 present the different types of signs on each of the reviewed four calendars. The type of signs used confirms that the wooden sticks from Polkovnik Serafimovo (S1, S2, S3 and S4) belong to the group of calendars from the Central Rhodopes (Smolyan region).

We have included for comparison signs from the Smolyan (S), Haskovo (H), Kyustendil (K) and Burgas (B) regions (see the references in Table 1) as well as from Croatia (Stipa 1966), Komi (Russia) and Finland. The signs in the column "Komi 2" belong to a wooden calendar from the village of Vizinga, Sysolsk area of the Republic of Komi in Russia. Now the calendar is kept in the National Museum in the town of Syktyvkar. It is registered under No 1171 and is first published by Vladimir Lipin (Липин 2006). The signs in the column "Komi 3" are from the wooden calendar published by P. I. Savvaitov (Саввайтов 1869). The signs in the columns "Finland 4" and "Finland 5" belong to the Orthodox wooden calendars No 741 and No 2218:212 kept in the Finnish collection of the National museum in Helsinki (Koleva S., Koleva V., 2006, p. 156, Fig. 6).

The Balkan tradition (Bulgaria and Croatia) in calendric signs stands out in comparison to the more northern cultures of Komi and Finland. Only the four-sided calendar of Vizinga ("Komi 2") makes an exception. Günter Stipa drew special attention to it because he found a close resemblance to the Bulgarian calendars (Stipa 1966). Really, similar signs are used for the feast days and the calendar record is divided into two parts on two neighbouring sides. The reading is uninterrupted – from 1<sup>st</sup> January to 30<sup>th</sup> June and from 1<sup>st</sup> July to 31<sup>st</sup> December (Липин 2006, Fig. 2).

We can compare the distribution of the various feast signs on the four calendars with the help of the scheme on Fig. 10. In order to compare the signs used for a particular feast day, the dates in each month are read from left to right on the scheme, although on the calendar stick some of them will be read in the opposite direction.

The scheme shows that there is some canonical rule to mark the important feasts with bigger signs. It is also quite obvious that there are some peculiar features and reciprocal influence of the local calendar makers.

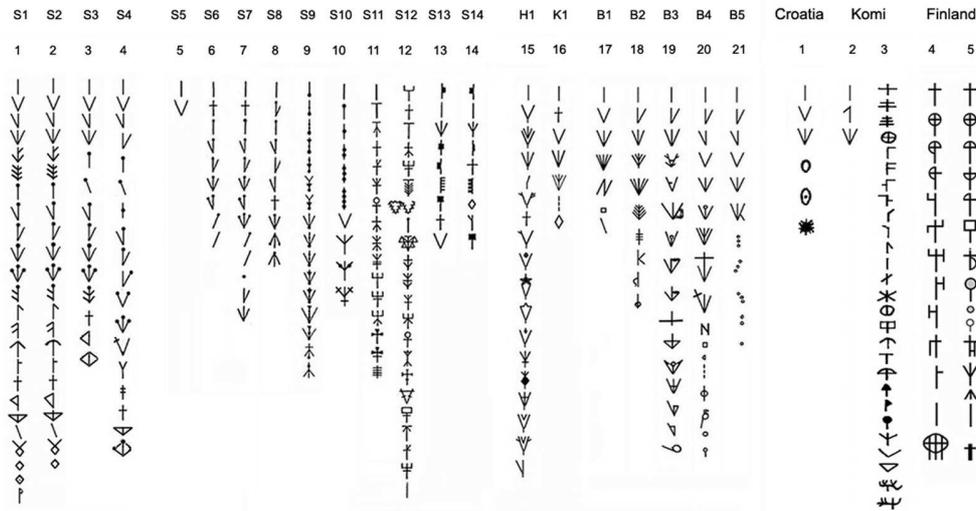


Figure 9: Signs on 21 Bulgarian calendars from the Smolyan (S), Haskovo (H), Kyustendil (K) and Burgas (B) regions in comparison with 1 from Croatia, 2 from Komi (Russia) and 2 from Finland. The signs in the first four columns are from Polkovnik Serafimovo.

### 5. CALENDAR TYPOLOGY OF THE BULGARIAN WOODEN CALENDARS

The starting day of the year determines the *year style* of the calendar. We suppose that the different beginning of the record on the calendar sticks is not accidental and it defines three types of the Bulgarian wooden calendars (Table 1).

*September type:* found on 8 calendars. The starting date, 1<sup>st</sup> September, is marked with a feast sign on one end of the stick. In the Orthodox calendar the New Church Year (*the Ecclesiastical year*) begins on this date.

*April (May) or October (November) type:* found on 11 calendars. The record on each side of the sticks begins in *April* or *May*, and respectively in *October* or *November*. Here is a list of the registered starting dates: 1<sup>st</sup> April – 1<sup>st</sup> October (on 1 calendar), 20<sup>th</sup> April – 26<sup>th</sup> October (2), 23<sup>rd</sup> April – 21<sup>st</sup> October (1), 23<sup>rd</sup> April – 23<sup>rd</sup> October (1), 23<sup>rd</sup> April – 26<sup>th</sup> October (1) and 1<sup>st</sup> May – 1<sup>st</sup> November (5). Not always the starting date is underlined by a special sign, but the big feasts 23<sup>rd</sup> April and 26<sup>th</sup> of October are always somewhere nearby.

In the folk economic calendar these dates divide the year into a winter and a summer halves. Such a division is typical of many archaic calendars as well as of the so called ‘shepherd’s year’, very popular in the Central Rhodopes till the 19<sup>th</sup> c. (Дечов 1903). May be this is the reason this division to be predominant in the wooden calendars from this region as well.

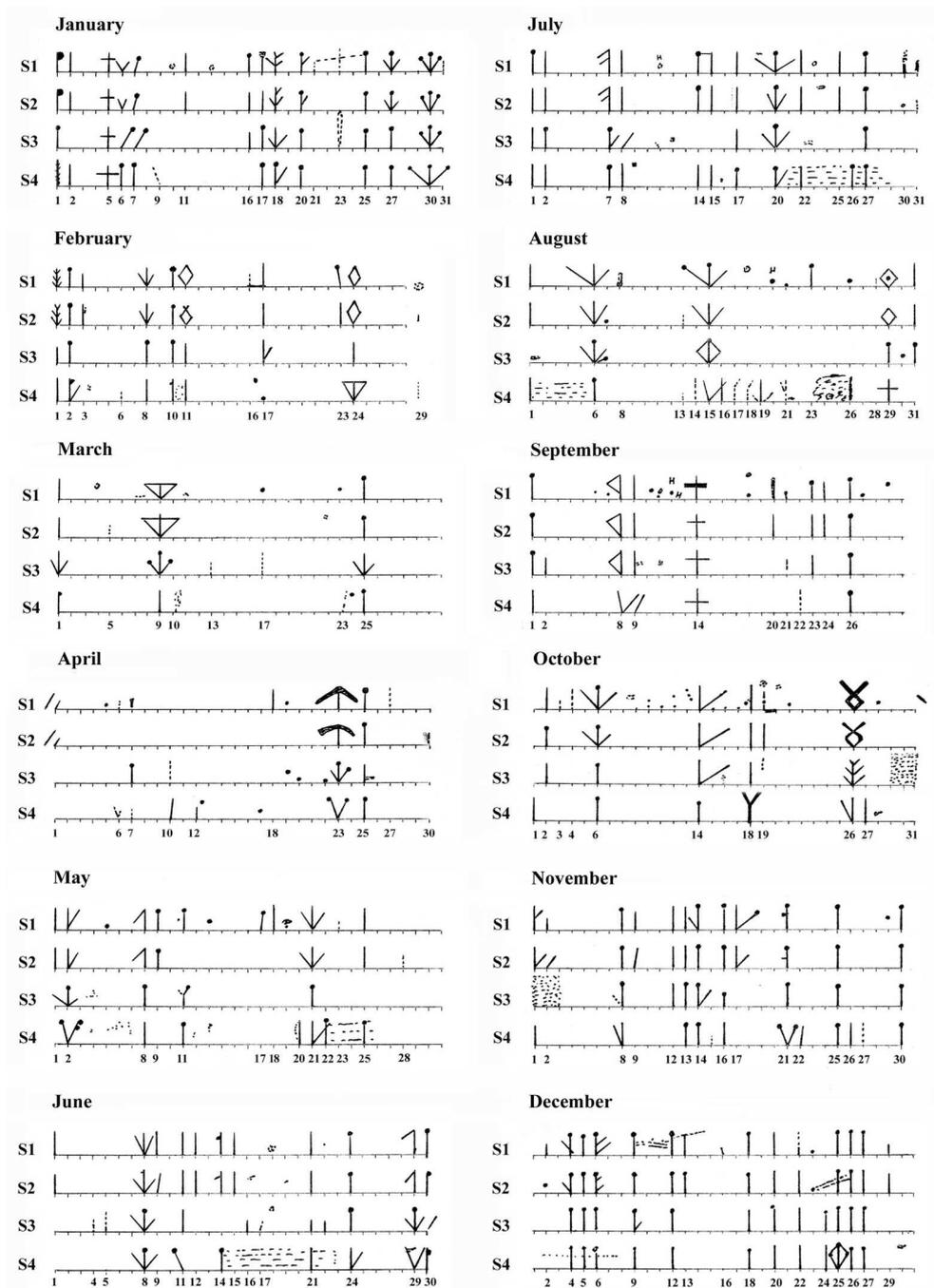


Figure 10: Comparative scheme of the distribution of the various feast signs on the four calendars from Polkovnik Serafimovo.

Table 1: Calendar typology of the Bulgarian wooden calendars.

<b>Calendar type</b>	<b>Site of origin of the calendars (Abbreviation)</b>	
<i>September type</i>		
1 <sup>st</sup> September	Karaorman, Haskovo region ( <b>Аргиров 1896, Маринов 1907</b> )	H 1
1 <sup>st</sup> September	Tishanovo, Kyustendil region ( <b>Захариев 1929</b> )	K 1
1 <sup>st</sup> September	Ustovo, Smolyan region ( <b>Колева Е. 1971</b> )	S 7
1 <sup>st</sup> September	? Smolyan region ("1783") ( <b>Колева Е. 1967</b> )	S 12
1 <sup>st</sup> September	Primorsko, Burgas region ( <b>Горов 1997</b> )	B 2
1 <sup>st</sup> September	Lyulyakovo, Burgas region ( <b>Koleva V. and Georgiev 2006</b> )	B 3
1 <sup>st</sup> September	Malko Tarnovo, Burgas region ("1850") ( <b>Koleva V. 2007</b> )	B 4
1 <sup>st</sup> September	Malko Tarnovo, Burgas region ( <b>Koleva V. 2007</b> )	B 5
<i>April (May) – October (November) type</i>		
1 <sup>st</sup> April – 1 <sup>st</sup> October	Akhtopol, Burgas region ( <b>Вакарелски 1936</b> )	B 1
20 <sup>th</sup> April – 26 <sup>th</sup> October	? Shiroka Laka, Smolyan region ( <b>Колева Е. 1971</b> )	S 9
20 <sup>th</sup> April – 26 <sup>th</sup> October	Stoykite, Smolyan region ( <b>Колева Е. 1971</b> )	S 14
<b>23<sup>rd</sup> April – 21<sup>st</sup> October</b>	<b>Polkovnik Serafimovo, Smolyan region</b>	<b>S 4</b>
23 <sup>rd</sup> April – 23 <sup>rd</sup> October	? Shiroka Laka, Smolyan region ( <b>Колева Е. 1971</b> )	S 8
23 <sup>rd</sup> April – 26 <sup>th</sup> October	Varbovo, Smolyan region ( <b>Детев 1947</b> )	S 11
<b>1<sup>st</sup> May – 1<sup>st</sup> November</b>	<b>Polkovnik Serafimovo, Smolyan region</b>	<b>S 3</b>
1 <sup>st</sup> May – 1 <sup>st</sup> November	? Shiroka Laka, Smolyan region ( <b>Колева Е. 1971</b> )	S 5
1 <sup>st</sup> May – 1 <sup>st</sup> November	Shiroka Laka, Smolyan region ( <b>Колева Е. 1971</b> )	S 6
1 <sup>st</sup> May – 1 <sup>st</sup> November	Chepelare, Smolyan region ( <b>Колева В. 2007</b> )	S 10
1 <sup>st</sup> May – 1 <sup>st</sup> November	Stojkite, Smolyan region ("1818", "1878") ( <b>Колева Е. 1971</b> )	S 13
<i>January type</i>		
<b>1<sup>st</sup> January</b>	? Polkovnik Serafimovo, Smolyan region ("1897") ( <b>Керелезова 2002</b> )	<b>S 1</b>
<b>1<sup>st</sup> January</b>	<b>Polkovnik Serafimovo, Smolyan region</b>	<b>S 2</b>

*January type:* there are only two calendars of this kind, where the beginning of the year is on 1<sup>st</sup> January. The date is marked on one of the ends of the stick. This is the beginning of the year in the Gregorian calendar which was introduced by the Roman-Catholic church in the XVI century. In Bulgaria the Gregorian calendar (also known as *new style*) was introduced only in 1916 to replace the *old style*, i.e. the Julian calendar, in the official civil calendar. The Orthodox Church in Bulgaria reformed its liturgical calendar by introducing the so-called *New Julian Calendar* in 1968.

It is noteworthy that on all the calendars the dates 1<sup>st</sup> September, 1<sup>st</sup> January, as well as 23<sup>rd</sup> April and 26<sup>th</sup> October are marked as important feasts, irrespective of their location on the stick. This shows that people were familiar with the rest of the calendar types and used them according to their needs – religious or economic.

According to Table 1 two of the examined calendars (S3 and S4) belong to the most numerous group of April (May) type where all but one calendars are from the Smolyan region. The other two calendars (S1 and S2) form a new group of January type and they are the only examples there.

## 6. FEASTS

In Table 2 the marked dates on each calendar are identified with certain fixed Orthodox feasts. The table also shows the feasts distribution on the four calendars. The ‘+’ means that there is a sign for the given date on the respective calendar. The ‘+?’ means that this is a sporadic date marked with a tiny sign or small groove that we consider to be auxiliary.

The frequency of occurrence of the big Church holidays and of some feasts of local importance is very high, as opposed to the occurrence of the small Church holidays and the sporadic dates. There is a large number of folk feasts along with the ecclesiastic ones celebrated by the common people with folk rituals and magic acts. The users of the wooden calendars were able to count out the days from one feast to another, to determine the weekdays in each year and the related movable feasts.

## 7. CONCLUSIONS

The study of the four wooden calendars from the Central Rhodopes confirms the data so far and broadens our knowledge about the Bulgarian wooden calendars. Their comparison with calendars from neighbouring and more distant countries shows that there were some canonic rules and local traditions related to the usage of the liturgical calendar and its representation on the wooden sticks.

These objects are a good example of the continuity and functional combination of a people’s calendar tradition, based on the seasonal economic activities, and the new Christian practices reflected in the Orthodox liturgical calendar.

The structure of the Bulgarian calendars and the type of signs used speak for a pre-Christian and early Christian written script. Some of the signs have counterparts among the Proto-Bulgarian ideographic signs found also on archaeological artifacts from 7<sup>th</sup> – 10<sup>th</sup> c. in the old Bulgarian capitals and sanctuaries in Pliska, Madara and Preslav (Дончев 1971, Дончева-Петкова 1980, Сефтерски 2001). Similar signs are

Table 2: Identification of the marked dates with the fixed Orthodox feasts and their distribution on the four calendars (S1, S2, S3, and S4) from Polkovnik Serafimovo, Smolyan region.

Date	Feast in the Orthodox calendar	S1	S2	S3	S4
	<b>September</b>				
1	<i>Beginning of the Ecclesiastical New Year; Venerable Simeon Stylites</i>	+	+	+	+
2	St. Mamas of Caesarea, Martyr; St. John the Faster of Constantinople			+	
8	Nativity of the Virgin Mary	+	+	+	+
9	<i>Afterfeast of the Nativity of the Virgin Mary; SS. Joachim and Anne</i>	+	+	+	+
14	Exaltation of the Holy Cross	+	+	+	+
20	St. Eustathius, Megalomartyr	+	+		
21	<i>Apodosis of the Exaltation of the Holy Cross; St. Quadratus, Apostle</i>	+		+	
22	Prophet Jonah; St. Phocas, Martyr				+
23	Conception of St. John the Baptist	+	+	+	
24	St. Thecla, Protomartyr	+	+		
26	Dormition of St. John the Theologian, Apostle and Evangelist	+	+	+	+
	<b>October</b>	S1	S2	S3	S4
1	Feast of the Protective Veil of the Virgin Mary; SS. Ananias, Apostle and Romanus the Melodist				+
2	St. Cyprian, Martyr; St. Justina of Nicomedia, Martyr	+	+	+	
3	St. Dionysius the Areopagite of Athens, Martyr	+			
4	St. Hierotheos of Athens, Martyr	+			
6	St. Thomas, Apostle	+	+	+	+
14	Venerable Petka (Parasceve) of Turnovo; SS. Nazarius, Gervasius, Protase, Celsus of Milan, Martyrs	+	+	+	+
18	St. Luke, Apostle and Evangelist	+	+	+	+
19	Transfer of the Relics of Venerable John of Rila in Bulgaria; Prophet Joel	+	+	+	
26	St. Demetrius of Thessalonica, Megalomartyr	+	+	+	+
27	St. Nestor of Thessalonica, Martyr				+
	<b>November</b>	S1	S2	S3	S4
1	SS. Cosmas and Damian the Silverless of Mesopotamia, Miracle Workers	+	+		+
2	SS. Acindynus, Pegasus, Aphthonius, Elpidophorus and Anempodistus of Persia, Martyrs	+	+		
8	Synaxis of St. Archangel Michael	+	+	+	+

Table 2: continued.

Date	Feast in the Orthodox calendar	S1	S2	S3	S4
	<b>November</b>				
<b>9</b>	SS. Onesiphorus and Porphyrius of Ephesus, Martyrs	+	+		
<b>12</b>	St. John the Merciful of Alexandria	+	+	+	
<b>13</b>	St. John Chrysostom of Constantinople	+	+	+	+
<b>14</b>	St. Philip, Apostle; <i>Beginning of Nativity Fast</i>	+	+	+	+
<b>15</b>	SS. Gurias, Samonas and Avivos of Edessa, Martyrs				+?
<b>16</b>	St. Matthew, Apostle and Evangelist	+	+	+	+
<b>17</b>	St. Gregory of Neocaesarea, Miracle Worker	+	+		
<b>21</b>	Presentation of the Virgin Mary in the Temple	+	+	+	+
<b>22</b>	SS. Philemon, Archipus and Appia, Apostles				+
<b>25</b>	<i>Apodosis of the Presentation of the Virgin Mary</i> ; St. Catherine of Alexandria, Megalomartyr; St. Clement Pope of Rome, Megalomartyr	+	+	+	+
<b>26</b>	Venerable Alypius Stylites				+
<b>27</b>	Venerable Theodosius of Tarnovo (Bulgarian); St. James the Persian, Martyr				+?
<b>30</b>	St. Andrew the First-called, Apostle	+	+	+	+
	<b>December</b>	S1	S2	S3	S4
<b>2</b>	Prophet Habacuc	+	+?		
<b>4</b>	St. Barbara of Hieliapolis, Megalomartyr; Venerable John of Damascus	+	+	+	+
<b>5</b>	Venerable Sabbas the Sanctified	+	+	+	+
<b>6</b>	St. Nicholas of Myra in Lycia, Miracle Worker	+	+	+	+
<b>9</b>	Conception of the Virgin Mary by St. Anne	+	+	+	+
<b>12</b>	Venerable Spiridon of Trimythus, Miracle Worker	+	+	+	+
<b>13</b>	St. Eustratios, Auxentios, Eugene, Mardarios, and Orestes, Martyrs; St. Lucy of Syracuse, Martyr	+	+		
<b>16</b>	Prophet Haggai	+?			
<b>18</b>	St. Sebastian of Rome, Martyr; St. Modestus of Jerusalem	+	+	+	+
<b>20</b>	<i>Forefeast of the Nativity of Jesus</i> ; St. Ignatius the Theophoros of Antioch	+	+	+	+
<b>22</b>	St. Anastasia, Megalomartyr	+	+	+	+
<b>24</b>	<i>Nativity Eve</i> ; Venerable Eugenia of Rome, Martyr			+	+
<b>25</b>	Nativity of Jesus	+	+	+	+
<b>26</b>	Synaxis of the Virgin Mary	+	+	+	+
<b>27</b>	<i>Afterfeast of the Nativity of Jesus</i> ; St. Stephen, Apostle, Archdeacon and Protomartyr	+	+	+	+
<b>29</b>	14000 Holy Infants killed by Herod in Bethlehem	+	+		

Table 2: continued.

Date	Feast in the Orthodox calendar	S1	S2	S3	S4
	<b>January</b>				
1	Circumcision of Jesus; St. Basil the Great	+	+	+	+
2	St. Silvester of Rome	+	+		+
5	<i>Eve of the Epiphany</i> ; Feast of the Holy Cross	+	+	+	+
6	Epiphany	+	+	+	+
7	Synaxis of St. John the Baptist	+	+	+	+
9	ST. POLYEUCTOS OF MELETINE, MARTYR				+?
11	Venerable Theodosius the Great	+	+		
16	Feast of the Chains of St. Peter	+	+	+	
17	Venerable Anthony the Great	+	+	+	+
18	St. Athanasius the Great	+	+	+	+
20	Venerable Euthymius the Great; St. Euthymius of Tarnovo	+	+	+	+
21	Venerable Maximos the Confessor	+?			
23	St. Clement of Ancyra, Martyr	+?		+?	
25	St. Gregory the Theologian of Constantinople	+	+	+	+
27	Transfer of the Relics of St. John Chrysostom	+	+	+	+
30	Synaxis of the Three Hierarchs	+	+	+	+
31	SS. Cyrus and John the Silverless, Miracle Workers	+?			
	<b>February</b>	S1	S2	S3	S4
1	<i>Forefeast of the Presentation of Jesus in the Temple</i> ; St. Tryphon of Campsada, Martyr	+	+	+	+
2	Presentation of Jesus in the Temple	+	+	+	+
3	St. Simeon and Anne the Prophetess	+	+		
6	St. Photios of Constantinople				+?
8	St. Theodore the General, Megalomartyr; Prophet Zachariah	+	+	+	+
10	St. Charalampus of Magnesia, Martyr	+	+	+	+
11	St. Blaise of Sebastia, Martyr	+	+	+	+
16	SS. Pamphilus of Caesarea and Porphirius, Martyrs	+?			
17	St. Theodore Tiro, Megalomartyr	+	+	+	+?
23	St. Polycarp of Smyrna, Martyr	+	+		
24	1st and 2nd Discoveries of the Head of St. John the Baptist	+	+	+	+
29	Venerable John Cassian the Roman ( <b>in a leap year</b> )	+	+		+
	<b>March</b>	S1	S2	S3	S4
1	St. Eudoxia of Heliopolis, Martyr	+	+	+	+
5	SS. Konon and Joan the Bulgarian		+?		
9	Holy 40 Martyrs of Sebastia	+	+	+	+
10	SS. Kodratos and Galina, Martyrs				+?

Table 2: continued.

Date	Feast in the Orthodox calendar	S1	S2	S3	S4
	<b>March</b>				
<b>13</b>	Transfer of the Relics of St. Necephorus of Constantinople			+?	
<b>17</b>	Venerable Alexis the Man of God	+?		+?	
<b>23</b>	St. Nicon, Martyr	+?			+?
<b>25</b>	The Annunciation	+	+	+	+
	<b>April</b>	S1	S2	S3	S4
<b>1</b>	Venerable Mary of Egypt	+	+		
<b>6</b>	St. Eutychius of Constantinople	+?			+?
<b>7</b>	Venerable George of Melitene	+		+	+?
<b>10</b>	St. Terence and Pompeius of Carthage, Martyrs			+?	+
<b>12</b>	Venerable Basil of Parium, Confessor				+
<b>18</b>	Venerable John, Disciple of St. Gregory Decapolite	+			
<b>23</b>	St. George, Megalomartyr	+	+	+	+
<b>25</b>	St. Mark, Apostle and Evangelist	+	+	+	+
<b>27</b>	St. Symeon of Jerusalem, Martyr	+?			
<b>30</b>	St. James, Son of Zabedee, Apostle		+?		
	<b>May</b>	S1	S2	S3	S4
<b>1</b>	Prophet Jeremiah	+	+		
<b>2</b>	Transfer of the Relics of St. Athanasius the Great; St. Boris I (Michael), Prince of Bulgaria	+	+	+	+
<b>8</b>	St. John Theologian, Apostle and Evangelist	+	+	+	+
<b>9</b>	Transfer of the Relics of St. Nicholas, Miracle Worker; Prophet Isaiah	+	+		
<b>11</b>	SS. Cyril and Methodius	+		+	+
<b>17</b>	SS. Andronicus and Junia, Apostles	+			
<b>18</b>	SS. Peter, Dionysius, Andrew, Paul, Christina, Martyrs	+			
<b>20</b>	St. Thallelaeus the Merciful, Martyr				+
<b>21</b>	SS. Constantine, Emperor, and his Mother Helen	+	+	+	+
<b>22</b>	St. Basiliscus of Comana, Martyr				+
<b>23</b>	Venerable Michael of Synnada	+?			
<b>25</b>	3rd Discovery of the Head of John the Baptist	+	+		+
<b>28</b>	Venerable Nikitas of Chalcedon; Venerable Sofronij the Bulgarian		+?		
	<b>June</b>	S1	S2	S3	S4
<b>1</b>	St. Justin the Philosopher, Martyr	+	+		
<b>4</b>	St. Metrophanes of Constantinople			+?	
<b>5</b>	St. Dorotheos of Tyre, Martyr			+?	
<b>8</b>	Transfer of the Relics of St. Theodore the General, Megalomartyr	+	+	+	+

Table 2: continued.

Date	Feast in the Orthodox calendar	S1	S2	S3	S4
	<b>June</b>				
9	St. Cyril of Alexandria	+	+		
11	SS. Bartholomew and Barnabas, Apostles	+	+	+	+
12	Venerables Onuphrius the Great and Peter the Athonite	+	+		
14	Prophet Elisha	+	+		+
15	Prophet Amos	+	+		
16	St. Tychon of Amathus, Miracle Workers			+	
17	SS. Manuel, Sabel and Ishmael of Persia, Martyrs			+?	
21	St. Julian of Tarsus, Martyr	+	+	+	+
22	St. Eusebius of Samosata		+		
24	Nativity of St. John the Baptist	+	+	+	+
29	SS. Peter and Paul, Foremost of Apostles	+	+	+	+
30	Synaxis of the 12 Apostles	+	+	+	+
	<b>July</b>	S1	S2	S3	S4
1	SS. Cosmas and Damian the Silverless, Miracle Workers; Transfer of the Relics of Venerable John of Rila from Turnovo to Rila in Bulgaria	+	+	+	+
2	Deposition of the Robe of the Virgin Mary	+	+	+	+
7	St. Dominica (St. Cyriaca), Megalomartyr	+	+	+	+
8	St. Procopius of Caesarea, Megalomartyr	+	+	+	+
14	St. Aquila, Apostle	+	+		+
15	SS. Cyriacus and Julitta of Tarsus, Martyrs	+	+		+
17	St. Marina of Antioch, Megalomartyr	+	+	+	+
20	Prophet Elijah the Tishbite	+	+	+	+
22	St. Mary Magdalene the Myrrhbearer	+	+		+
25	Dormition of St. Anne	+	+		
26	St. Hermolaus of Nicomedia, Martyr; St. Parasceve of Rome, Martyr				+
27	St. Panteleimon, Megalomartyr; SS. Cyril and Methodius and their 5 Disciples	+	+	+	+
30	SS. Silas and Silvanus, Apostles	+	+?		
31	<i>Beginning of Dormition Fast; Forefeast of the Holy Cross; St. Eudocimus of Cappadocia;</i>	+	+?		
	<b>August</b>	S1	S2	S3	S4
1	Procession of the Holy Cross; Holy 7 Maccabean Martyrs	+	+	+?	+
6	Transfiguration	+	+	+	+
8	St. Emilian of Cyzikos	+			
13	St. Maximos the Confessor		+?		+?

Table 2: continued.

Date	Feast in the Orthodox calendar				
	August	S1	S2	S3	S4
14	<i>Forefeast of the Dormition</i> Prophet Micah				+?
15	Dormition	+	+	+	+
16	<i>Afterfeast of the Dormition</i> ; St. Diomedes of Tarsus, Martyr				+
17	St. Myron of Cyzicus, Martyr				+?
18	Dormition of Venerable Joan of Rila in Bulgaria; SS. Floros and Lauros, Martyrs				+?
19	St. Andrew the General, Martyr				+
21	Prophet Samuel				+?
23	<i>Apodosis of the Dormition</i> ; St. Lupus of Thessalonica, Martyr	+			
26	SS. Adrian and Natalia, Martyrs				+?
28	Venerable Moses of Ethiopia	+?			
29	Beheading of St. John the Baptist	+	+	+	+
31	Placing of the Precious Girdle of the Mother of God in Chalcostrateia	+	+	+	

also found among the *damga* signs and brands used by shepherds to mark the animals belonging to a particular owner (Манолова 1980). The comparison of the rabosh signs with older signs, such as the ones on Neolithic and Eneolithic ceramics, confirms their universality and strong local tradition on the Balkans.

Today it is more and more difficult to find wooden calendars most probably due to bad storage conditions or because their current owners do not realize fully their significance. The thorough knowledge about the wooden calendars can be of interest to many other scientific fields, including the history of religion and ethnology, history of astronomy and mathematics, as well as semiotics.

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### References

- Анастасов, В. и др.: 2002, *Български етимологичен речник*, том VI, Академично издателство "Марин Дринов", София, 136-137.
- Аргиров, С.: 1896, "Календар рабош", *Периодическо списание на Българското книжовно дружество*, година X, том LIV (54), 779-785.
- Лечов, В.: 1903, "Овчарска година и броение", в: *СбНУ, XIX, Среднородопско овчарство*, София.
- Детев, П.: 1947, "Един календар-рабош в Пловдивския народен музей", *Български народ*, том II, част 1, Издателство на българското народонаучно дружество, 10-13.
- Дончев, С.: 1971, "Писмеността на прабългарите и славянската азбука", *Исторически преглед*, 2, 96-109.
- Дончева-Петкова, Л.: 1980, *Знаци върху археологически паметници от Средновековна България, VII-X век*, София.
- Горов Г.: 1997, "Странджанският вечен народен календар – поп", *Море*, 9-10, 9-11.
- Керелезова, В. 2002, "Календар-рабош от фонда на НИМ", *Известия на Националния исторически музей – София*, том XIII, София, 223-228.
- Колева, Е.: 1967, "Народен календар-рабош от 1783 г.", *Музеи и паметници на културата*, 1, 20-23.
- Колева, Е.: 1971, "Народни календари-рабоши", *Известия на българските музеи*, том I (1969), 247-270.
- Koleva, S., Koleva, V.: 2006, The Finnish Wooden Calendars and Some Aspects of Folk Knowledge in the Middle Ages, in: *Proceedings of the Conference "Time and Astronomy in the Past Cultures"*, Toru, March 30 - April 1, 2005, A. Soltysiak (ed.), Warszawa - Toru, 149-166
- Колева, В.: 1996, "Три дървени календара от Историческия музей в Кюстендил", в. *Сборник с доклади, изнесени на Научна сесия, посветена на 100-годишнината от основаването на Астрономическата Обсерватория на Софийския Университет "Св. Кл. Охридски"*, 1994, София, 122-130.
- Koleva, V.: 1996, "Three wooden calendars from West Bulgaria", in: *Proceedings of the Second SEAC Conference, Bochum, 1994*, W. Schlosser, ed., 163-173.
- Колева, В.: 2007, "Българските дървени календари", в: *Доклади от Национална научна конференция с международно участие "20 години Съюз на учените в България – клон Смолян"*, 20-21 октомври, 2006, Смолян, ISBN 978-954-8329-87-3, 829-843.
- Koleva, V.: 2007, "Wooden Calendars from Southeastern Bulgaria", in: *Papers from the annual meeting of SEAC held in Kecskemet, Hungary in 2004*, edited by Emilia Pasztor, printed in England by Chalvingston Digital, BAR S1647, ISBN 978 1 4073 0081 8, 95-107.
- Koleva, V. and Georgiev, I.: 2006, "A Wooden Calendar from Southeastern Bulgaria", *Proceedings of the Balkan astronomical Meeting, 2004, June 14-18, Rozhen, Bulgaria, Aerospace Research in Bulgaria*, Vol. 20, 341-346.
- Липин, В.: 2006, "Деревянные резные календари-святцы в собрании Национального музея Республики Коми", *Арт*, 3, Сыктывкар, 120-128.
- Манолова, М.: 1980, "Родопските родови дамги – прабългарски писмени знаци", *Родопи*, 10, стр. 7, 24-26.
- Маринов, Д.: 1907, "Патерица", *Известия на Етнографическия институт*, година I, София, 11-14.
- Păun, S.: 1984, "Graphy of the signs of the Romanian *răboj* (notched stick) as compared with that of some ancient writings", *Cântarea Romaniei* 9, Bucharest, 18-20 (in Romanian).

- Савваитов, П. И.: 1869, "О зюрянских деревянных календарях и пермской азбуке изобретенной Св. Стефаном", в: *Труды первого археологического съезда*, Москва, 408-416.
- Сефтерски, Р.: 2001, "Древни писмени знаци върху български дървени календари от XVIII-XX век (Съпоставително изследване)", *Известия на Българската орда*, година VII, брой 2 (62), 2-15.
- Stipa, G. J.: 1966, "Zum Kulturbereich der syrjanischen Kerbkalender", in: *Finnisch-ugrische Forschungen*, Band XXXVI, Heft 1-2, 181-207.
- Вакарелски, Хр.: 1936, "Календар", в. *Бит у тракийските и малоазийските българи*, част 1, Бит, Духовна култура, София, 269-273.
- Захариев, Й.: 1929, "Календар-рабош", *Известие на Народния етнографски музей в София*, том VIII-IX, София, 242-248.