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The Jubilees Calendar in Practice¹

Abstract: The names of the months corresponding to December in the Gothic calendar – *jiuleis*, in the English calendar as described by Bede – *Giuli*, and in the Old Icelandic semester-reckoning (misseristal) calendar – *Ýlir*, are cognates. I suggest that this occurrence is not a coincidence. I propose that certain features found in those calendars raise the possibility they are descendants of the Jubilees calendar, as formulated in the pseud-epigraphical books of *1 Enoch* and *Jubilees*.

1 Introduction

It is generally agreed that the names the months *jiuleis*, *Giuli* and *Ýlir*, are cognates. While *Giuli* and *Ýlir* are closely parallel to the Julian month of December, it was assume that the Gothic *jiuleis* corresponded to November. However, as I have proposed (LANDAU 2006), this Gothic month is also parallel to December. I have also argued (LANDAU 2009) that the ultimate etymon of *jiuleis*, *Giuli* and *Ýlir* is the biblical term ‘jubilee’ in the sense of ‘Redeemer’ and, as such, these names are Christian terms. In this article I examine the structures of those calendars and endeavor to demonstrate that they may have certain features which indicate a common source – the Jubilees calendar.

2 The Jubilees Calendar

The Jubilees calendar² was first formulated by the author of *1 Enoch* and later adopted by the author of the *Book of Jubilees*. Both books were written during the Second Temple Era, probably around 200–100 Before the Common Era (B. C. E.). This calendar is based upon a symmetrical 364-day year. In such a calendar there are exactly 52 weeks. The year is divided into 12 months, each consisting of 30 days, and four extra days are added in certain intervals. In such a ‘perpetual’ calendar, each holiday is always

1 The author thanks Þorsteinn SÆMUNDSSON for his comments.

2 The calendar is also called the Enoch calendar, the Essene calendar, and possibly other names.

celebrated on the same date and on the same day of the week. One should remember that a solar year actually consists of a bit less than 365 days and six hours. This calendar has never been universally accepted, but during history there might have been several societies that adopted it, or a version of it. In this article I suggest that the Gothic calendar, apparently from the sixth century, the English calendar as described by Bede, and the Old Icelandic semester-reckoning (misseristal) calendar, still in use, are manifestations of that calendar.

3 The Old Icelandic Semester-Reckoning (misseristal) Calendar

According to HASTRUP (1985, 25), in the year 930 C.E. the Icelandic Althing was established and one of its first acts was to set up a method of reckoning time. The Althing was a kind of parliament where an important part of the population gathered once a year for purposes of legislation and justice. The system that was decided upon consisted of 52 weeks of seven days each, which made a total of 364 days. According to the Grágás, the legal code of medieval Iceland, the winter consisted of six months and the summer was made up of six months plus four days, known as *auknaetr* ('additional nights'), added before the midsummer celebrations.

The division into months, each consisting of 30 days, was not fixed until the 12th century and appears to have been a scholarly construction; the general public continued to reckon time by counting the weeks of summer and winter. The old calendar is still used nowadays for fixing the date of certain annual events. For example, Hólahátíð (a church festival associated with the old bishopric of Hólar) is nowadays held on a Sunday in the 17th week of the summer. The old month Góa always begins on a Sunday in the 18th week of the winter. People are aware of this calendar but seldom refer to it in their daily lives. The year of the old calendar did not end in December. Time was counted in summers and winters, not years. When referring to a year, people would usually speak of two semesters (tvö misseri) rather than a year (ár). The age of a person was expressed by the number of winters the person had lived. Thus people counted in winters rather than years. (Þorsteinn SÆMUNDSSON, personal communication).

The Icelanders switched to the Julian calendar at the end of the tenth century, following the acceptance of Christianity as their official religion. In practice, the old Icelandic calendar has been co-existing easily with the Julian and later the Gregorian calendars ever since. To make the old ca-

lendar compatible with the Julian and later the Georgian calendar, an extra intercalary week, *Sumarauki*, is added five times in a cycle of 28 years (($365\frac{1}{4}$ –364 days) = $1\frac{1}{4}$, multiplied by 28 years = 35 days = five weeks). This extra week is added after the four extra days in the middle of the summer, and that makes it altogether 11 days. To make the 364-day calendar compatible with the Gregorian calendar, a week has to be deleted every thousand years.³

Table 1 presents the starting and ending dates of the months of the Icelandic semester- reckoning calendar for the year 2002. In that year, *Ýlir* started on November 25th and ended on December 24th, on Christmas Eve.

Name of month	Started	Ended	Number of Days
Mörsugur	December 26, 2001	January 24	30
Þorri	January 25	February 23	30
Góa	February 24	March 25	30
Einmánuður	March 26	April 24	30
Harpa	April 25	May 23	30
Skerpla	May 25	June 23	30
Sólmánuður	June 24	July 27	34
Heyannir	July 28	August 26	30
Tvímánuður	August 27	September 25	30
Haustmánuður	September 26	October 25	30
Gormánuður	October 26	November 24	30
Ýlir	November 25	December 24	30

Table 1. The months of the old Icelandic calendar during 2002

BILFINGER (1899, 1), following the Icelandic archaeologist and scholar Finnur MAGNÚSSON (1781–1847), raised the possibility that the Scandinavians brought back the calendar from their Asiatic expeditions. According to the *New Encyclopedia Britannica* (s. v. Iceland) most of the early settlers, those who arrived to Iceland at about 870–930 C. E., came from Norway, but some came from other Nordic countries and from the Norse Viking Age settlements in the British Isles.

³ For extensive discussions concerning the ancient Icelandic calendar see BILFINGER (1899) and VILHJÁLMSOON (1991).

4 The Gothic Calendar

Already in the nineteenth century researchers became aware of the fact that of the two known months of the Gothic calendar which are successive, each contained thirty days. The calendar could not have been the Julian calendar because, then, one of those months should have consisted of thirty-one days. Neither could it have been a solar-lunar calendar because, in that case, one of the months should have lasted only twenty-nine days. But it could have been a Jubilees calendar, because in that calendar each month consists of thirty days. I argue that the Goths may have adopted a calendar which was used in Asia Minor by a sect of Christians – the Montanists. I also argue that Bishop Wulfila, the translator of the Bible into Gothic, was familiar with the work of Eusebius of Caesarea, who used Jubilees calculations in his chronological work, and therefore might have used related ideas.

The Gothic calendar is one leaf found among the Ambrosian manuscripts and is presently kept in the Ambrosiana Library in Milan. It is generally assumed that the Gothic manuscripts are, for the most part, from the sixth century C. E. The leaf includes the remaining dates of one month and a complete second month. Figure 1 presents the reconstruction of the calendar done by MAI/CASTIGLIONE (1819, 26). Like some other languages of antiquity (and even in Modern Hebrew), each letter and certain combinations of letters may serve for indicating numbers. In this manner, a = 1, b = 2, h = 8, i = 10, ie = 15, k = 20, kd = 24, l = 30, etc. The leaf after the calendar is empty, which means that the remaining leaf must have been the end of the calendar.

The calendar indicates dates for commemorating Gothic martyrs, the Apostles Philip and Andrew, Dorotheos – the Arian Bishop of Heraklea (later Antioch), and the Roman Emperor Constantinus II (337–361) – a friend and protector of the Arians (STREITBERG 1960 [1908] 472–474).

The Gothic calendar may have originated in Asia Minor. In his *Ecclesiastical History*, the fifth-century church historian Sozomenus wrote (Book VII, chapter 19):

The Montanists, who are called Pepuzits and Phrygians, celebrate the Passover according to a strange fashion which they introduced. They blame those who regulate the time of observing the feast according to the course of the moon, and affirm that it is right to attend exclusively to the cycles of the sun. They reckon each month to consist of thirty days, and account the day after the vernal equinox as the first day of the year, which, according to the Roman method of computation, would be called the ninth day before the calends of April.

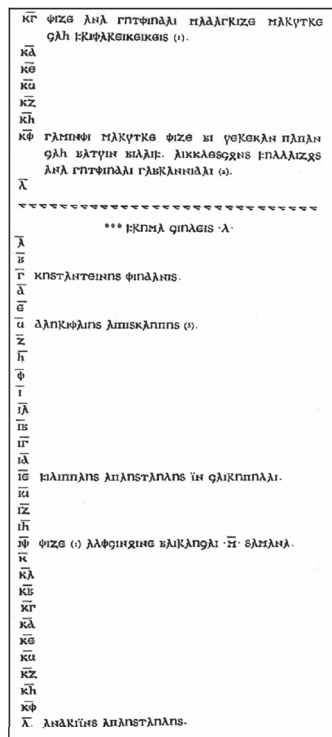


Figure 1. The Gothic calendar according to MAI/CASTIGLIONE (1819)

The Montanist movement was founded by Montanus in the second half of the second century in Phrygia, which is in central Asia Minor. By its own members, the movement was called the New Prophecy. Pepuzia was a small town in Phrygia. The calendar they used has some features that may identify it as a Jubilees calendar. For an extensive discussion on this matter, see LANDAU 2005.

In his article *Was Montanism a Jewish-Christian Heresy?* FORD (1966, 146) wrote:

According to Sozomen and Pseudo-Chrysostom the Montanists used the Solar calendar... We know that the writer of Jubilees, possibly the members of Qumran, the Samaritans and some of the early Christians used the solar calendar.

FORD wrote (152) that “while one cannot postulate a direct influence of either Qumran or Karaism or the Therapeutae on the Phrygian heresy, I

suggested that the rather heterodox Jewish background of Asia Minor, especially of Phrygia, provided material and practice which the Montanists could adopt and which, at first, went unsuspected by the Church." The Montanists were derided by the Church Fathers and eventually they and a great many of their writings, disappeared from the pages of history.

In the first part of the third century the Goths invaded Asia Minor and on their way back carried with them local captives. Some of these captives were Christians and eventually they and their descendants converted the Goths to Christianity. These events are told in the Ecclesiastical History of the fifth-century Arian historian Philostorgius. The original text did not survive but was summarized by Photius, Patriarch of Constantinople, in the ninth century:

While Valerian and Gallienus were administering the empire, a large multitude of Scythians, who lived north of the Ister, made an incursion into the Roman territory, and laid waste a great part of Europe by their predatory excursions; and afterwards having crossed over into Asia, invaded Cappadocia and Galatia. Here they took a large quantity of prisoners, among whom were not a few ecclesiastics; and they returned to their own country laden with spoils and booty. These pious captives, by their intercourse with the barbarians, brought over a great number of the latter to the true faith, and persuaded them to embrace the Christian religion in the place of heathen superstitions. Of the number of these captives were the ancestors of Urphilas himself, who were of Cappadocian descent, deriving their origin from a village called Sadagolthina, near the city of Parnassus. This Urphilas, then, was the leader of this pious band which came out from among the Goths, and became eventually their first bishop. (Book II, chapter 6. Trans. WALFORD)

According to the fourth-century Christian author Epiphanius of Salamis, there were Montanists also in Cappadocia (*Panarion*, chapter 48), which raises the possibility that the Goths received their calendar from captive Montanists.

The Gothic calendar includes names of martyrs who suffered deaths in the regions of the lower Danube, and therefore the calendar is generally attributed to that area. However, in it there are indications of links to Asia Minor; the saint of day *ie* [15] of the first month is the Apostle Philip of Iairupulai, which is identified as Hierapolis in Phrygia. Philip, one of the twelve Apostles, "sleeps at Hierapolis" (Eusebius. EH, book III, chapter xxxi: 3). For one reason or another, the Goths kept the memory of that place.

The Gothic calendar was obviously a religious one. For civil purposes the Goths might have used the Julian calendar.

There is at least one certain case in Christian history where the system of counting years in Jubilees was employed. Eusebius, the fourth-century church historian, used the Jubilees reckoning in the second part of his *Chronicle*, also known as the *Chronological Canons*. Eusebius' work was translated into Latin by Jerome and has survived extant in different versions to the present.

Eusebius used the birth of Abraham as year number one and from that time kept counting the years until the twentieth year of Constantine's reign, which, following this chronology, was the year 2345. In one manuscript in front of me (from 1658), I read (Figure 2) that during the eighty-first jubilee, the year of the two hundred and second Olimpiad, "JESVS CHRISTVS Filius DEI" was baptized.

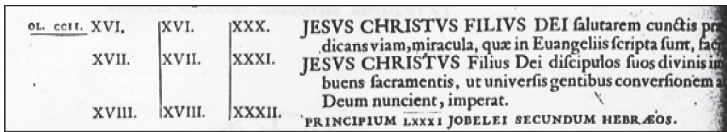


Figure 2. JOBELEI in Eusebius' *Chronicle*

Another accomplishment of Eusebius was dividing the Scriptures into chapters and also preparing reference lists where parallel verses in different parts of the Bible were indicated. The system is called *canons* and was used by Bishop Wulfila in his translation of the Bible into Gothic. (For a discussion concerning the use of Eusebian Canons in the Codex Argenteus see MUNKHAMMAR 1998, 160-1.) I suggest that Wulfila also adopted the idea of using the 364-day calendar following Eusebius' counting of Jubilees. In fact, he might have been familiar with *1 Enoch* and *Jubilees*, which were still well known at his time.

5 The Old English Calendar

Bede, the eighth-century scholar, while describing the English calendar, mentioned the month *Giuli* ('Yule') as December and another one, also *Giuli*, as January. In chapter xv, *The English Months*, of his work *The Reckoning of Time* he wrote:

In olden time the English people – for it did not seem fitting to me that I should speak of other nations’ observance of the year and yet be silent about my own nation’s – calculated their months according to the course of the Moon. Hence, after the manner of the Greeks and the Romans, [the months] take their name from the Moon, for the Moon is called *mona* and the month *monath*.

The first month, which the Latins call January, is Giuli; February is called Solmonath; March, Rhedmonath; April, Eosturmonath; May, Thrimilchi; June, Litha; July, also Litha; August, Weodmonath; September, Halegmonath; October, Winterfilleth; November, Blodmonath; December, Giuli, the same name by which January is called. They began their year on the 8th kalends of January [25 December], when we celebrate the birth of the Lord. That very night, which we hold so sacred, they used to call by the heathen word *Modranecht*, that is, “mother’s night”, because (we suspect) of the ceremonies they enacted all that night... The months of Giuli derive their name from the day when the Sun turns back [and begins] to increase, because one of [these months] precedes [this day] and the other follows. (Translated by WALLIS 2004).

It is puzzling that, according to Bede, the Angles counted their months after the moon’s course but still had their New Year Day on Christmas, and that the “The months of Giuli derive their name from the day when the Sun turns back [and begins] to increase, because one of [these months] precedes [this day] and the other follows.” TILLE (1899, 141) wrote that “this is a very strange record indeed, and it is not easy to take up the proper attitude towards it.” TILLE added that “it is quite plain that he could not have any direct information about their beliefs and rites, but simply inferred their views from what he knew about the Angles of his own time, either from direct observation or from hearsay.”

I suggest the possibility that the ancient Angles in Bede’s description used a 364-day calendar, or a version of it. By the time Bede lived (apparently 673–735 C. E.) the books *1 Enoch* and *Jubilees* were long forgotten. Bede was aware of the Enochite literature but from what he wrote in *the Reckoning of Time*, one may conclude that he had not read it:

We find that this Enoch wrote certain things of a divine nature, as the Apostle Jude attested. But as St. Augustine says: *Not in vain are these [books] not included in the canon of the Scripture which was preserved in the temple of the Hebrew people by the diligence of a long line of priests. For these books were long judged to be of doubtful reliability, nor could it be discovered whether these were the things which [Enoch] himself had written. Hence those things which are circulated under his name, and contain those fables about the giants – namely that they did not have human fathers – are rightly judge by the prudent as not to be attributed to him.* (Chapter 66: The six ages of this world, the year 622.)

The Angles, a Germanic tribe which invaded the British Isles during the 5th and 6th centuries, may indeed have used a lunar calendar. However, with the introduction of the seven-day week into their culture, they may have adopted a different kind of calendar, possibly following the Goths, another Germanic tribe. To make the newly adopted calendar follow accurately the Julian calendar accurately, an intercalary day might have been added each year for three years, and two every fourth year. Apparently that is what the Montanists did, as they considered the year to consist of 365 days. In this manner the calendar lost its symmetry but rather followed closely the equinoxes and solstices. In that manner the Angles could have kept their New Year Day on December 25.

The author of *1 Enoch* did not mention any method of intercalation and, as such, the calendar he proposed is unworkable as regards following the solar year. To make the calendar practical, one could either add an intercalary week in certain intervals, such as in the old Icelandic semester-reckoning (misseristal) calendar, or add one or two days to the basic number of 364. In the former manner the symmetry is preserved; in the latter one the calendar follows closely the equinoxes and solstices. It is impossible to maintain these two premises at the same time.

According to Bede, the Angles' year started on December 25. When Julius Caesar introduced the Julian Calendar in 45 B. C. E., December 25 was the date of the winter solstice. The custom of celebrating Jesus' birth on that date apparently has its origin in the 4th century.

There is a striking common feature shared by the English calendar and the Old Icelandic one. Bede wrote (chapter 15):

But originally, they divided the year as a whole into two seasons, summer and winter, assigning the six months in which the days are longer than the nights to summer, and the other six to winter.

The old Icelandic semester-reckoning calendar follows the same pattern. I suggest that such a division, which is not very common, is not a coincidence.

Theoretically, a 364-day calendar looks quite 'simple'; however it may have been quite hard for a society to maintain it and for its members to follow. As a matter of fact, a 364-day calendar is hardly ever accurate as far as the movement of the sun is concerned. Maybe this is one of the reasons why this calendar has never gained popularity. If indeed the ancient Angles used this kind of a calendar, by the time the oral tradition concerning it reached Bede's ears, it was grossly incomplete.

6 Discussion

I suggest the possibility that several terms in Bede's description have their origin in the calendar formulated in *1 Enoch*. The difficulty in resolving the etymology of the word *Giuli* ('Yule') led TILLE (1899, 7) to suggest searching for a solution in different places:

But the strange fact that no satisfactory Germanic or even Aryan etymology can be given for the oldest names of Germanic three-score-day tides, *Jiuleis* (Gothic), *Lida*, *Hlyda* (Anglo Saxon), and perhaps *Rheda*, *Hreda* (Anglo-Saxon), and *Hornung*, *Horowunc* (German), seems to point to the probability that these names, like the institutions they denote, have their origin beyond the world of the Aryan family of languages and nations, and were borrowed from Egyptian and Syriac, or some other Oriental language, together with the six three-score-day tides which formed the course of the year.

In the quoted paragraph TILLE suggested the possibility that "the institutions they denote have their origin beyond the world of the Aryan family". In fact, there exists a somewhat similar calendar – the Ethiopian calendar. It has twelve months of 30 days each, plus five or six extra days. NEUGEBAUR (1964, 51) cited three essentially different sources of the Ethiopic astronomical concepts: the shadow tables of Greek origin, the Jewish-Hellenistic concept of "gates" transmitted to Ethiopia with the Book of Enoch, and Islamic influence. In another place, NEUGEBAUR (1942) described a schematic ancient Egyptian calendar which had a year that was 365 days long, consisting of 12 months of 30 days each, plus 5 extra days at the end of the year.

However, as far as the study of the Montanist and the Gothic calendars is concerned, I suggest that the immediate source was the book of *1 Enoch* itself; after all, we are dealing with early Christian communities during the time when this book was still known. From the Montanists and the Goths the calendar was possibly adopted by others and migrated to other territories.

7 Conclusions

One undisputed common feature of the three calendars I deal with is that the names of certain months are cognates. I maintain that the meaning of those words: *jiuleis*, *Giuli*, and *Ýlir* is 'Redeemer', and the common deno-

minator is early Christianity. As two of those calendars have months consisting of thirty days each, the model for the calendars could have been the Jubilees calendar.

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Language revision: Andrew Chesterman