

Calendars(1)

John Carder

CALENDARS ARE related ultimately to the movements of the earth—its daily rotation and its annual orbit round the sun—and the orbit of the moon round the earth.

Perhaps the first thing we should remember is that the earth takes $365\frac{1}{4}$ days to complete one orbit around the sun. That is the solar year, the basic awkward fact that calendar-makers have to contend with. Fifty-two weeks of seven days total 364 days, leaving a day and a quarter to be somehow dealt with. A lunar year of twelve full moons takes $354\frac{1}{3}$, or fifty weeks and four and a third days, even more awkward.

Probably some of us know very little about the Hebrew calendars, ancient and modern, and what we do know makes them seem very peculiar. The calendar we use today is quite practical. It deals with the awkward astronomical facts we have just looked at well enough to last us through the present age without serious distortions. But, although we may feel 'our' calendar is the reasonable and 'proper' one, perhaps we should look at its origins and history to see how strange and pagan it really is. With this background we will then go on to consider the Hebrew calendar.

The calendar we use is a solar one, basically of Roman origin, though it has some features introduced by their Greek predecessors and other features derived from the German and Anglo-Saxon successors of the Romans.

Early Roman calendars

The very earliest Roman calendar had a year of only 304 days, divided into ten months. The year started with what we call March, though at first their months were merely numbered. Very soon two more months were added, naturally to the end of the calendar as it then was. A later change of the start of the year from March 1st to January 1st gave rise to a feature that is still with us. We are so used to it that we probably do not realise how grotesque it is. 'September' means 'the seventh month' (just as a septet is a musical group with seven players) but is now the ninth month; October means 'the eighth month' (an octopus has eight arms or feet); November means 'the ninth month', and December, from 'deci', or ten, we regard as the twelfth month.

The addition of those two months gave the Romans a basic year of twelve months but only 354 days. So every second year they added an extra, or 'intercalary', month of twenty-two or twenty-three days. (Regarding that word 'intercalary', our 29 February in leap years is an intercalary day.) Although the early Roman system averaged out at about 365 days a year, in time the calendar diverged from the seasons.

The Julian calendar

Julius Caesar asked the help of an Egyptian astronomer, or a Greek living in Egypt, by name Sosigenes, to bring the calendar back in line with the seasons. What is known as the Julian calendar was devised. The year we know as 46 B.C. was given 445 days to adjust the faults of the previous system. It became known, not surprisingly, as 'the Year of Confusion'.

The next year, 45 B.C., was the first of the Julian calendar. The years, beginning on January 1st, had 365 days, with the number of days in the months as we have them. There were to be leap years every four years, with an extra day, the same as our 29 February. That sounds very much like the present calendar, but that is not the end of the story.

In the course of time some of the months acquired names. One was named after the reformer of the calendar, July for Julius Caesar. The original sixth month, Sextilis, became August after Augustus, the first actual emperor, who reigned from 31 B.C. to A.D. 14. He was the grandnephew of Julius, who had adopted him and made him his heir. His actual name was Octavian. He is the Caesar Augustus of Luke 2:1 who made the decree which resulted in Joseph and Mary going to Bethlehem. 'Augustus' originally meant 'consecrated' or 'venerable'. Later the word was used for any ruling head of the Roman Empire, while the heir or the junior co-rulers were known as 'caesars'. Naturally the months of July and August had to have thirty-one days to reflect their important origins!

Later other months were named:

January is the month of Janus, the Roman god of gateways and beginnings. He is depicted as two-faced, having a face on the back of his head as well as the front. He thus looked

back on the past year and forward to the new year.

February is named for the pagan festival of 'purification', the Februa or Lupercalia, held at that season and which became an excuse for orgies.

March is named after Mars, the Roman god of war.

April is named for the opening of buds and flowers in spring. It is the nicest of the name origins, though even then there is more than a hint of fertility rites.

May is named after Maia, the mythological mother of Hermes, the messenger of the Roman gods.

June is named after Juno, the goddess of marriage and the wife of Jupiter, the chief of the Roman gods.

Thus the months of the year in our calendar are named after:

- two Roman gods, Janus and Mars
- two Roman goddesses, Maia and Juno
- two Roman festivals, Februa and Aprilis
- two founders of the imperial power structure, the dictator Julius Caesar and the first emperor, Augustus.

Four months are simply numbered, but the numbering is wrong by two months.

The days of the week

In the early Roman period the basic calendar unit was the month. The Biblical concept of a week ending with a day of rest, the sabbath, did not affect their calendar until much later. By the time the Jews and, especially, the Christians had introduced the concept of the week, the Western part of the Roman Empire was collapsing. The Germanic tribes were dominant in Western Europe, and they determined the names we have for the days of the week, though they in turn were influenced by contact with the Romans. Thus our names for the weekdays have a double origin:

Sunday is the day of the sun.

Monday is the day of the moon.

Tuesday gets its name from the Germanic god Tiu, who was related back to Mars, the Roman god of war.

Wednesday is the day of the German god Woden, or Odin, who was related to the Roman god Mercury.

Thursday is the day of Thor, the German god of thunder, which was the attribute of Jupiter, the head of the Roman pantheon.

Friday is the day of the Germanic goddess Frigg, or Freya, wife of Odin and linked back to the Roman goddess Venus.

Saturday seems to relate back directly to the Roman god Saturn.

Thus our names for the days are derived directly from the sun and the moon, three German gods and one goddess, and one Roman god unchanged.

But if we look back at their Roman derivations we find that all the days are named after the seven 'planets' as known to the ancient world. The word 'planet' means 'wanderer', that is, an object which moves noticeably against the background of the sky and its constellations of stars. The sun and the moon have the most obvious movements, and were counted as planets in ancient times. The other five are the planets, as we know them, which are visible to the naked eye (they were named many centuries before the invention of telescopes). In order from Tuesday to Saturday they are Mars, Mercury, Jupiter, Venus and Saturn. But we should remember that they were so identified when the ancients regarded them as deities, not simply as astronomical objects.

Perhaps our familiar calendar is by now beginning to seem more than a little strange and foreign, and not quite so 'proper' as we may have thought. We think of Deuteronomy 17:2,3: "If there be found among you [anyone who has] gone and served other gods, and worshipped them, either the sun, or moon, or any of the host of heaven . . .". But there is still more to come!

Easter

Christianity was proposed as the official religion of the Roman Empire when Constantine still had three co-rulers, two of whom disapproved. Proclamation of the toleration of all religions (done by the Edict of Milan) had to wait until they disappeared from the scene in A.D. 313. Immediately, the Church, which had been forced to keep fairly quiet until then, broke out into bitter public disputes over the nature of Christ and the doctrine of the Trinity.

In A.D. 325, the year after he became sole ruler, Constantine called the first General Council of the Church to try to settle those disputes. The Council, held in Nicea or Nice in what is now Turkey, decreed the method for calculating the date of Easter. Although Easter is basically a pagan festival, it retains a vague relationship to the Passover (*Pesach*). Passover occurs near the

spring equinox of the northern hemisphere (21 March), but, as its date is set by the Hebrew calendar, it does not fall on a set day of the week. Easter Day had to fall on a Sunday, the day of the resurrection, but otherwise it was to be like the Passover, a moveable date related to the spring equinox.

It was settled to be the Sunday following the first full moon after the Spring equinox. That decision did not take into account some factors of the lunar cycle, and nowadays the calculations for Easter are based on a formula independent of astronomical dating.

Dating the years

In ancient times, dating the years was by the reigns of kings, as in the Biblical books of Kings and Chronicles, or by other rulers. A later Biblical example is the dating given in Luke 3:1,2: "Now in the fifteenth year of the reign of Tiberius Caesar, Pontius Pilate being governor of Judaea, and Herod being tetrarch of Galilee, and his brother Philip tetrarch of Ituraea and of the region of Trachonitis, and Lysanius the tetrarch of Abilene, Annas and Caiaphas being the high priests, the word of God came unto John the son of Zacharias in the wilderness".

The earliest Roman system, especially in the Western part of the empire, was to date years by the names of the two consuls appointed each year to rule the state. That system continued even after there were emperors; thus the emperor Augustus died in the consulship of Sextus Pompeius and Sextus Appuleius. Later they devised a date for the founding of the city of Rome, and the years were numbered 'after the foundation', *ab urba condita* or A.U.C.

In what we now call A.D. 525 a Christian monk living in Rome, though of Scythian ancestry, related the traditional dating of Rome to the Jewish reckoning of the date of Creation to calculate the beginning of the Christian era. He fixed the foundation of Rome as what we now call 754 B.C., with the Creation as 3761 B.C. On that basis he established our B.C./A.D. dating, but wrongly, as it still is, because by his reckoning King Herod, in whose reign Jesus was born, died in the year 4 B.C.

The monk's name was Dionysius Exiguus. The name Dionysius was derived from the name of the Greek god of wine (among other things), and Exiguus means 'lightweight'. (I am not sure if his name is meant to refer to his personal characteristics or his lightweight performance in

dating the eras!) This monk, living two centuries after Constantine, shifted New Year's Day from 1 January to 25 March. He also confirmed Constantine's presumed choice of 25 December as the date for Christ's birth. In ancient times that date marked the victory of the Sun (S-U-N) by the lengthening days after the midwinter solstice in the northern hemisphere. Constantine had worshipped *Sol Invicta* (the victorious Sun) before he toyed with Christianity, and never seemed to make any clear distinction between the S-O-N and the S-U-N.

The B.C./A.D. system of dating was said to have been introduced into Britain about A.D. 596 by Augustine. He was a Benedictine monk sent by Pope Gregory I to replace the earlier Celtic forms of Christianity with the Roman forms. Augustine became the first Archbishop of Canterbury. The dating system was not well accepted until it was ordered to be so at the first English church council, held at Chelsea in A.D. 816—a mere 220 years to catch on!

The Gregorian calendar

Julius Caesar established the main features of our calendar in 46 B.C. By the Julian calendar every fourth year was a leap year. That was accurate only if the solar year was exactly 365 days and six hours long (that is, exactly one quarter of a day). In fact the solar year is about 11 minutes shorter than that. Eleven minutes does not sound very much, but over the course of centuries it gives rise to a discrepancy of several days.

In 1582 Pope Gregory XIII ordered a correction of ten days, needed at that time, by nominating 5 October to become 15 October. To avoid future calendar drift, he also decreed that the century years should be leap years only if their number could be divided exactly by 400 instead of by four. Thus the years 1600 and 2000 would be leap years but not the years 1700, 1800 and 1900. He also ordained that the opening day of the new year be restored to 1 January from 25 March.

The pope's decree was promptly adopted by Italy, France and Portugal, but Britain did not make the change until 1752, in the reign of George II. By that time an eleven-day increase was needed, and Wednesday 2 September was immediately followed by Thursday 14 September. New Year's Day was changed for Britain to 1 January by the same Act of Parliament. Curiously enough, the terms 'New Style' and 'Old

Style' referred to the change in the date of the new year more than to the change to the Gregorian calendar, which is, of course, the one we use today. However, many people were very upset, claiming that their lives were being shortened by eleven days.

Other countries and churches were even slower than Britain in changing to the Gregorian calendar. One of the last, if not *the* last, was the Eastern Orthodox Church, which includes the Russian, Georgian, Estonian and Latvian

Churches. This factor, perhaps surprisingly, affected the dating of the Russian Revolution of 1917. It is sometimes referred to as the 'October Revolution' as it was counted as starting on 25 October 1917 by the old dating. Nowadays it is celebrated, or perhaps only remembered, on 7 November, a difference of thirteen days, the changeover occurring in 1923.

In [Part 2](#) we will look briefly at the Islamic calendar before looking at the Hebrew calendar. [\(To be concluded\)](#)