



What Date Did You Say That Was?

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Birth dates, marriage dates, death dates; as good genealogists we strive to get the important dates in our ancestors' lives just right. We search indexes, look for certificates, scour early registers, hope to find tombstone inscriptions; anything to document the important dates in our family histories. Yet, many of us don't realize that we may never be entirely accurate in our dates, due to no fault of our own.

My great-great-grandfather, Yehoshua Tseitlin, was born on 4 July 1804. Seems straightforward enough, until you begin to consider some extremely important details of Yehoshua's birth. First, he was probably born in Sklov, then in "Russia;" now in Belarus; second, he was Jewish. Why are those facts of note? Simple. Whose calendar are we using to determine his birth date? Ah, as Shakespeare once told us, "There's the rub!" How many of us are even aware that there *were* multiple calendars in recent history? Well, in fact, there have been, and as you work on your own family, you will need to take that into consideration.

Although you are not very likely to trace your family into the Roman era, you will want to know that there indeed was a calendar at that time. The Roman calendar year started on 1 March and consisted of ten months and 304 days. This took the Romans into winter, in which they placed February and then January, giving the year 355 days. "In 450 B.C.E., February was moved to its current position between January and March."¹

The Romans took great liberties with their calendar. Some years saw an extra month tucked in; some years had twelve months; some thirteen. The number of days per year ranged from 355 to 378. It was the job of the priests to "keep track of the calendars, but they failed miserably, partly due to ignorance, partly because they were bribed to make certain years long and other years short. Furthermore, leap years were considered unlucky and were therefore avoided in time of crisis, such as the Second Punic War."²

Over time, this "put them in and take them out" system led to a serious problem of seasons being totally out of sync with the calendar. However, it was 700 years before a new calendar was developed by Julius Caesar.

The Julian Calendar

Caesar based his calendar on the solar year, the time in which the earth makes a complete revolution around the sun. That orbit consists of 365 and a quarter days. Hence, the Julian calendar had twelve months, 365 days, and a leap year with 366 days every four years, which added one day to the month of February. "This new calendar proved so much superior to the old republican calendar that many centuries passed before its very slight error of about eleven minutes each year became significant."³

Caesar's calendar began in the 708th year since the founding of Rome, which today is known as the year 46 B.C.E. The current designation of the years "Before the Common Era" (B.C.E.) or "Before the birth of Christ" (B.C.) was instituted in the early sixth century by the monk Dionysius Exiguus. He started the system of counting from the year he believed Jesus was born, but he miscalculated by several years. He did not include the concept of zero in his calculations, which erroneously makes the year 1 C.E. (Common Era) follow the year 1 B.C.E. (Some people use A.D. for the years after Christ's birth. A.D. stands for "*anno domini*," the year of our lord, in Latin.) We also know from the Gospel of Matthew that Jesus was born under the reign of King Herod the Great, who died in 4 B.C.E. It is, therefore, likely that Jesus actually was born around the year 6 or 7 B.C.E.

After adjusting for leap years, the Julian calendar consisted of years with a duration of 365 days and six hours. This was not correct, and that additional eleven minutes and fourteen seconds led to a ten-day discrepancy between the calendar and the actual seasons by the mid-sixteenth century. In 1582, Pope Gregory XIII corrected the difference between the calendar and the sun when he instituted the Gregorian calendar.

The Gregorian Calendar

Pope Gregory XIII made the following changes to the Julian calendar:

1. In order to rectify the error (eleven minutes and fourteen seconds per year) for almost 1600 years, he dropped ten days in October 1582: As a result, 5 October 1582 became 15 October 1582. This restored the vernal equinox to its proper date.⁴

2. To prevent this error from recurring, Pope Gregory decreed that there would be no leap year in century years, except those divisible by 400 (such as the year 2000).

3. The start of the new year was officially moved to 1 January from a variety of other dates.

It would have made sense for all countries to adapt these changes, but remember the world was a very different place four hundred years ago. This was a time of great division between Catholics and Protestants. The Reformation “had undermined the authority of the papacy. While Catholic nations readily embraced the church-sponsored calendar reform, Protestant countries rejected it as a threat to their independence from the Roman church.”⁵

Roman Catholic nations adopted the Gregorian calendar immediately, but Protestant nations were not willing to use the new calendar at first and did not accept it until the eighteenth century and beyond.

- France, Italy, Luxembourg, and Spain adopted the new calendar in 1582.
- Belgium, Germany, and the Netherlands adopted the new calendar in 1584.
- Great Britain and its colonies (including pre-Revolutionary America) did not adopt the new calendar **until 1752**. Adopting the calendar for the British Empire meant that 2 September 1752 was followed immediately by 14 September. George Washington was born on 11 February 1732, according to the Julian calendar then in effect. This became 22 February in the Gregorian calendar. Remember, however, that parts of the American colony were owned by France and Spain. Their calendars had already changed!
- Russia and other Eastern European countries did not adopt the Gregorian calendar until 1918.
- The Orthodox Greek church did not adopt this calendar until the 1920s.

For a list outlining exactly which countries adopted the Gregorian calendar at which time, go to this Web page: <http://www.tondering.dk/claus/cal/gregorian.php/>.

The Gregorian calendar is so accurate that the difference between the calendar and actual solar years is now only 26.3 seconds. This difference will increase by 0.53 seconds every hundred years, since the solar year is gradually growing shorter, so eventually, the calendar will need to be recalculated.

You can begin to see the problem in determining Yehoshua’s birth date. Is it 4 July in the Julian calendar of his birth in Eastern Europe or is it 4 July in the Gregorian calendar in use in New York when he arrived there in the mid-1880s? But wait, there is another complication . . .

Hebrew Calendar

Because Yehoshua and his family were Jewish, their birth dates may have been calculated according to the Hebrew calendar, which is not based entirely on the earth’s rotation around the sun, but also uses the moon’s cycles.

The Jewish calendar is luni-solar; i.e., **months** are based on the cycles of the **moon** while **years** are reckoned according to movements of the **sun**.

A lunar month has twenty-nine days, twelve hours, forty-four minutes and three and a half seconds. This is the time it takes the moon to move around the earth.

In the Hebrew calendar, each month starts with a new moon. The Jewish year has twelve months, alternating either twenty-nine or thirty days, making a total of 354 days, approximately eleven days fewer

than the solar year. In order to correspond to the solar year, seven leap years are added during a nineteen-year cycle, each leap year having one additional month.⁶

Hebrew months are as follows: Nisan–30 days, Iyar–29 days, Sivan–30 days, Tammuz–29 days, Av–30 days, Elul–29 days, Tishri–30 days, Heshvan–29 days, Kislev–30 days, Tevet–29 days, Shevat–30 days and Adar–29 days. In leap years, a second month of Adar with 30 days is added. In a twenty-year cycle, leap years occur in years three, six, eight, eleven, fourteen, seventeen and nineteen.

Since the holiest day of the year, Yom Kippur, may not fall on a Friday or Sunday, and Shabbat (the Sabbath) cannot precede or follow Yom Kippur, the Jewish new year, Rosh Hashanah, may never fall on a Sunday, Wednesday, or Friday. For this reason, days are either added or subtracted from Heshvan or Kislev, which may create years with either 353 (or 383) days (defective year) or 355 (or 385) days (perfect year). A year of 354 (or 384) days is known as a regular year.

In order to establish permanently the new moons and the times of festivals, Hillel the Second in the year 4119 (358 C.E.) established a constant calendar still used today.

“Jewish years are counted from the creation of the world,”⁷ so in order to determine a Jewish year, one must add **3,760** to the secular year (between Rosh Hashanah and the secular New Year **3761**). For a thorough discussion of the Hebrew calendar, try this website www.jewfaq.org/calendar.htm/.

When birth dates were recorded, Jews invariably followed the Jewish calendar, thus creating considerable confusion and situations in which different records may give variant dates. So, is Yehoshua’s birthday even actually close to 4 July or is it a re-calculation from the Hebrew calendar his family would actually have been using?

How about another wrinkle?

French Revolutionary Calendar

During the French revolution, the Jacobins wanted to abolish religion and the Sabbath. This was mainly directed against the Catholics, rather than the Protestant or Jewish minorities. The Jacobins wanted to strike a blow at the clergy and divorce all calculations from Christian association. Since the Gregorian calendar had been instituted by the church, it was no longer acceptable.

The French National Convention adopted a Revolutionary calendar, also called the French Republican Calendar, retroactive to 22 September 1792, the day of the founding of the Republic and the date of the true autumnal equinox.

A perpetual calendar, which would not vary from year to year, was instituted. The calendar consecrated agriculture. Each season had three months with thirty days; each month had three periods of ten days. The days were designated by numbers as follows:

1. Primidi, 2. Duodi, 3. Tridi, 4. Quartidi, 5. Quintidi, 6. Sextidi, 7. Septidi, 8. Oxtidi, 9. Nonidi; the tenth day, Decadi, was a day of rest (and not the seventh day as provided for in the Bible). The months were Autumn: Vendemiaire (vintage), Brumaire (mist), Frimaire (frost); Winter: Nivose (snow), Pluviose (rain), Ventose (wind); Spring: Germinal (seed time), Floreal (blossom), Prairial (meadow); Summer: Messidor (harvest), Thermidor (heat), Fructidor (fruits).

Twelve months of thirty days added up to 360 days, making a year five days short. To compensate, five additional days, all holidays (*san culottides*), were added at the end of each year. They were called Vertu (genius), Genie (labor), Travail (actions), Opinion (opinion) and Recompenses (recompense). An additional day known as *san culottide par excellence* was added to leap years; it was celebrated by national games. The French abolished this calendar on 31 December 1805, and reinstated the Gregorian calendar starting 1 January 1806. To read more about the French Revolutionary calendar, you can go to www.ortelius.de/kalender/fr_en.php/.

Much of Europe was under French rule between 1805 and 1807; since Yehoshua was born in 1804 when the French calendar was still in effect, was that 4 July birthday really *quartidi thermador*?

As you probe through those registers, indexes, and certificates in your quest for accuracy in dates, understand that accuracy may never be truly possible. You may find your ancestors, but you may need to be flexible in judging those vital records.

Some Things to Think About . . .

- Throughout the entire nineteenth century, the Gregorian calendar, which is in general use today, was twelve days ahead of the Julian calendar, which was still being used by many countries.
- In reviewing documents of pre-World War I Russia and other Eastern European countries, it must be understood that dates are probably based on the Julian calendar.
- If you are working with dates in North America prior to the American Revolution, be aware that part of the continent was on the Julian calendar (British) and part was on the Gregorian (Spanish and French).
- If your ancestors were Islam, Chinese, Indian, or another minority, they too had calendars that are not necessarily in sync with the Gregorian calendar. A simple Internet search will lead you to information on other ethnic calendars.
- There are many conversion tables available to help you go from one calendar date to another. Use the Internet or the library to locate calendar conversion charts.

Endnotes

¹ "The Christian Calendar." *Calendars Through the Ages*. <http://webexhibits.org/calendars/calendar-christian.html>

² Ibid.

³ Bruce Heydt, "Britain Adopts the Gregorian Calendar," *British Heritage* 24 (March 2003): 14.

⁴ Bill Hollon, "Gregorian Calendar," *It's About Time*: <http://www.12x30.net/gregory.html> [Website no longer online in 2016].

⁵ Heydt. "Britain Adopts the Gregorian Calendar," 14.

⁶ "Introduction to the Jewish Calendar." JewishGen. http://www.jewishgen.org/InfoFiles/m_calint.htm

⁷ Ibid.