

Changing Time

(Then, they used the Julian Calendar; today, we use the Gregorian Calendar – it is different by 10-days)

Dates matter – and we need to keep in mind that how we measure time, particularly how we note specific dates, changed between the time of the Mayflower and today.

The Pilgrims were using the Julian Calendar, which is 10 days behind the Gregorian Calendar that we use today. So, when they wrote a date down it related to the Julian Calendar, which are not the same dates that we use today (under the Gregorian Calendar).

As an example, the Mayflower Compact was signed on November 11, 1620 under the Julian Calendar (their time), which is now referenced as November 21, 1620 under the Gregorian calendar (our time.)

Calendars

Throughout history there have been numerous attempts to convey time in relation to the sun and moon. Even now the Chinese and Islamic calendars are based on the motion of the moon around the earth, rather than the motion of the earth in relation to the sun, and the Jewish calendar links years to the cycle of the sun and months to the cycle of the moon.

Today, Americans are used to a calendar with a “year” based the earth’s rotation around the sun, with “months” having no relationship to the cycles of the moon and New Year’s Day falling on January 1. However, that system was not adopted in England and its colonies until 1752.

The changes implemented that year have created challenges for historians and genealogists working with early colonial records, since it is sometimes hard to determine whether information was entered according to the then-current English calendar or the “New Style” calendar we use today.

Julian Calendar

In 45 B.C., Julius Caesar ordered a calendar consisting of twelve months based on a solar year. This calendar employed a cycle of three years of 365 days, followed by a year of 366 days (leap year). When first implemented, the ‘Julian Calendar’ also moved the beginning of the year from March 1 to January 1.

However, following the fall of the Roman Empire in the fifth century, the new year was gradually realigned to coincide with Christian festivals until by the seventh century, Christmas Day marked the beginning of the new year in many countries.

By the ninth century, parts of southern Europe began observing first day of the new year on March 25 to coincide with Annunciation Day (the church holiday nine months prior to Christmas celebrating the Angel Gabriel’s revelation to the Virgin Mary that she was to be the mother of the Messiah). The last day of the year was March 24. However, England did not adopt this change in the beginning of the new year until late in the twelfth century.

Because the year began in March, records referring to the “first month” pertain to March; to the second month pertain to April, etc., so that “the 19th of the 12th month” would be February 19.

In fact, in Latin, September means seventh month, October means eighth month, November means ninth month, and December means tenth month. Use of numbers, rather than names, of months was especially prevalent in Quaker records.

Gregorian Calendar

During the Middle Ages, it became apparent that the Julian leap year formula had overcompensated for the actual length of a solar year, having added an extra day every 128 years. However, no adjustments were made to compensate.

By 1582, seasonal equinoxes were falling 10 days “too early,” and some church holidays, such as Easter, did not always fall in the proper seasons. In that year, Pope Gregory XIII authorized, and most Roman Catholic countries adopted, the “Gregorian” or “New Style” Calendar.

As part of the change, ten days were dropped from the month of October, and the formula for determining leap years was revised so that only years divisible by 400 (e.g., 1600, 2000) at the end of a century would be leap years. January 1 was established as the first day of the new year. Protestant countries, including England and its colonies, not recognizing the authority of the Pope, continued to use the Julian Calendar.

Time of Two Calendars and Double Dating

Between 1582 and 1752, not only were two calendars in use in Europe (and in European colonies), but two different starts of the year were in use in England. Although the “Legal” year began on March 25, the use of the Gregorian calendar by other European countries led to January 1 becoming commonly celebrated as “New Year’s Day” and given as the first day of the year in almanacs.

To avoid misinterpretation, both the “Old Style” and “New Style” year was often used in English and colonial records for dates falling between the new New Year (January 1) and old New Year (March 25), a system known as “double dating.”

Such dates are usually identified by a slash mark [/] breaking the “Old Style” and “New Style” year, for example, March 19, 1631/2. Occasionally, writers would express the double date with a hyphen, for example, March 19, 1631-32. In general, double dating was more common in civil than church and ecclesiastical records.

Changes of 1752

In accordance with a 1750 act of Parliament, England and its colonies changed calendars in 1752. By that time, the discrepancy between a solar year and the Julian Calendar had grown by an additional day, so that the calendar used in England and its colonies was 11 days out-of-sync with the Gregorian Calendar in use in most other parts of Europe.

England’s calendar change included three major components. The Julian Calendar was replaced by the Gregorian Calendar, changing the formula for calculating leap years. The beginning of the legal new year was moved from March 25 to January 1. Finally, 11 days were dropped from the month of September 1752. The changeover involved a series of steps:

- December 31, 1750 was followed by January 1, 1750 (under the “Old Style” calendar, December was the 10th month and January the 11th)
- March 24, 1750 was followed by March 25, 1751 (March 25 was the first day of the “Old Style” year)
- December 31, 1751 was followed by January 1, 1752 (the switch from March 25 to January 1 as the first day of the year)
- September 2, 1752 was followed by September 14, 1752 (drop of 11 days to conform to the Gregorian calendar) (CT State Library)