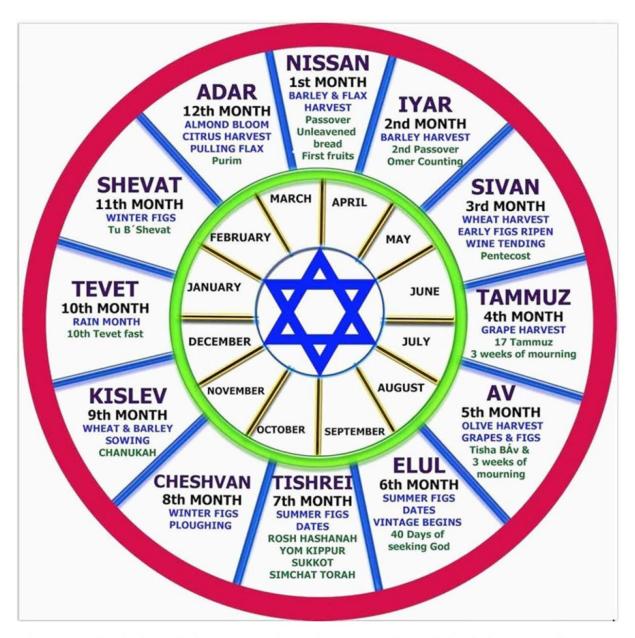
2023 Solstice Greeting

The Winter Solstice, immutable starting point of the Solar Year, occurs in 2023 on December 22 at 3:27 AM UTC which is 7:27 PM PST, December 21, 2023.



Unfortunately the Ancients did not receive such email reminder, so unless one had access to the sanctuary of Amun-Ra in Karnak Temple at Luxor (pictured above) or similar monolith, they just noticed that it was about the time when days stopped getting shorter and started to get longer. It was much easier to base calendars on the phases of the moon because everyone could look up in the night sky to follow the lunar progression.

However, Agriculture is based on the solar seasons. So, the lunar progression had to be adjusted to fit the agricultural seasons, the starting point of which in the Northern Hemisphere is the Winter Solstice.

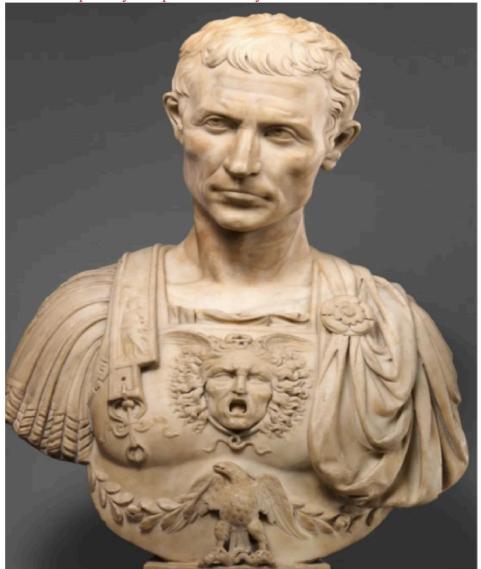


The Lunar Cycle is entirely separate from the progression of the Solar Year. The Lunar Cycle (month) is approximately 29.5 days, which multiplied by twelve equals about 354 days, thus requiring an adjustment of approximately 11 days per annum to fit the 365 days of the Solar Year.

The exact days of the winter festivals we have explored together over the past years vary in many cases because they may have been rooted in the Luni-Solar calendars of each respective culture. By example, the days on which Hanukkah is celebrated vary widely year to year in the modern calendar. Easter is the best known 'moveable feast', because its calculation also includes a lunar element.

As the Roman Empire expanded discrepancies in date became problematic as each culture had its own method of synchronizing its lunar calendar to the Solar Year. Furthermore, prior to the reform of Julius Caesar in 46 BC, the Roman Calendar was also Luni-Solar, with complex rules to align the phases of the moon with the Solstice and Equinox. It had become so complicated that Romans often did not agree what day it was. This was not an

efficient situation especially to a precise military man like Caesar.



Caesar's inspiration to create a more scientifically accurate Solar Calendar was a result of his time in Egypt (with Cleopatra). Acoreus an Egyptian Astronomer-Priest introduced Caesar to the Egyptian Solar Calendar, necessary for predicting the flood of the Nile. With the assistance of Sosigenes of Alexandra, Caesar established a twelve-month 365-day calendar with a leap day every four years, very much like the present Gregorian Calendar (a technical update by a later Pope) which we use today.