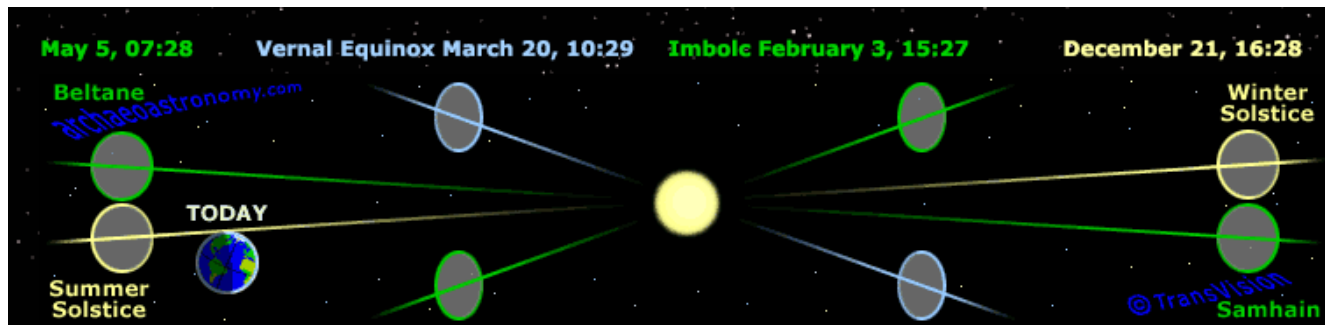


Archeoastronomy is...

...the study of how people in the past "have understood the phenomena in the sky, how they used these phenomena and what role the sky played in their cultures."



Earth's annual orbit is The Master Clock because the common yardstick of our lives is the **year**. Years are divided by the seasons just as calendars are segmented by months. Mechanical and digital timepieces measure intervals that split into hours, minutes and seconds each spin of our planet on its axis. Yet, it is the earth's regular, rhythmic loop around the sun that standardizes our timeframe of reference, regardless of geographic distances separating us from our acquaintances or generational distances separating us from our ancestors.

Our planet moves around the sun in an elliptical circuit deviating less than a second from one year to the next. Together we proceed through 8 significant, yet invisible, thresholds within each orbit. These spatial milestones mark the beginning, midpoint and end of each of our seasons. **Equinoxes**, **Solstices** and **Cross Quarters** are moments shared planet-wide, defined by the earth's tilt and the sun's position on *The Ecliptic* along 45° arcs.

To ancient civilizations fascinated and entertained by the cyclical motion of the heavens, the ability to fix these cusps *just to the nearest day* was highly-prized, even sacred knowledge. With modern measurements and calculators much better accuracy is possible for determining these moments.

This **grand octal** in the sky is largely ignored by most modern societies. **Equinoxes** and **Solstices** have become little more than footnote mentions on occasional weather reports. **Cross Quarters** are all but forgotten, in spite of having been observed and celebrated by Celtic people for centuries.

Archeoastronomy's goal is to understand how skywatchers of the past fashioned and refined systems for regulating their primitive calendars and for memorializing celestial events, both cyclical and unique. Often they relied on sunlight and shadow plays striking and passing across targets and designs aligned with **Equinox**, **Solstice** and **Cross Quarter** sunrises and sunsets. Sometimes the celestial cycles of the moon, Venus and Mars captivated their attention, too. However, knowing seasonal durations and transitions was vital to success in hunting migratory prey, planting crops and harvesting them. Archeoastronomy draws on several scientific disciplines, primarily astronomy, archaeology, anthropology, psychology and epigraphy, the decoding of ancient inscriptions.

Calendar 2017

| EVENT | Hawaiian Standard | Alaskan | Pacific | Mountain | Central | Eastern | Atlantic | Newf'nd | UT | Western Europe | Central Europe | Perth | Darwin | Sydney | New Zealand | |
|-----------------------------|----------------------|---------|---------|----------|---------|------------|----------|---------|-------|-------------------|-------------------|-------|------------|--------|----------------|--|
| Imbolc | February 3 | | | | | | | | | | August 7* | | | | | |
| | 05:27 | 06:27 | 07:27 | 08:27 | 09:27 | 10:27 | 11:27 | 11:57 | 15:27 | 15:27 | 16:27 | 15:40 | 17:10 | 17:40 | 19:40 | |
| Vernal Equinox | March 20 | | | | | | | | | | September 23 | | | | | |
| | 00:29 | 02:29 | 03:29 | 04:29 | 05:29 | 06:29 | 07:29 | 07:59 | 10:29 | 10:29 | 11:29 | 04:02 | 05:32 | 06:02 | 08:02 | |
| Beltaine | May 4 | | | May 5 | | | | | | | November 7 | | | | | |
| | 21:28 | 23:28 | 00:28 | 01:28 | 02:28 | 03:28 | 04:28 | 04:58 | 07:28 | 08:28 | 09:28 | 13:25 | 14:55* | 15:25* | 18:25 | |
| Summer Solstice | June 20 | | | | | June 21 | | | | | December 22 | | | | | |
| | 18:24 | 20:24 | 21:24 | 22:24 | 23:24 | 00:24 | 01:24 | 01:54 | 04:24 | 05:24 | 06:24 | 00:28 | 01:58* | 02:28* | 05:28 | |
| Lughnasad | August 6 | | | August 7 | | | | | | | 2/3 | | February 4 | | | |
| | 21:40 | 23:40 | 00:40 | 01:40 | 02:40 | 03:40 | 04:40 | 05:10 | 07:40 | 08:40 | 09:40 | 23:27 | 00:57* | 01:27* | 04:27 | |
| Autumnal Equinox | September 22 | | | | | | | | | | March 20 | | | | | |
| | 10:02 | 12:02 | 13:02 | 14:02 | 15:02 | 16:02 | 17:02 | 17:32 | 20:02 | 21:02 | 22:02 | 18:29 | 19:59* | 20:29* | 23:29 | |
| Samhain | November 6 | | | | | November 7 | | | | | May 5 | | | | | |
| | 19:25 | 20:25 | 21:25 | 22:25 | 23:25 | 00:25 | 01:25 | 01:55 | 05:25 | 05:25 | 06:25 | 15:28 | 16:58 | 17:28 | 19:28 | |
| Winter Solstice | December 21 | | | | | | | | | | June 21 | | | | | |
| | 06:28 | 07:28 | 08:28 | 09:28 | 10:28 | 11:28 | 12:28 | 12:58 | 16:28 | 16:28 | 17:28 | 12:24 | 13:54 | 14:24 | 16:24 | |

Equinox and Solstice data from the U.S. Naval Observatory, Washington DC. Cross-Quarter moments are interpolated as the midway points between the Solstices and Equinoxes measured in degrees along the ecliptic. Former NASA scientist Rollin Gillespie uses this

foot spatial method rather than simply splitting in half the time interval between a Solstice and an Equinox.

notes * Southern Hemisphere seasons are opposite those north of the Equator.

Source:
<http://www.archaeoastronomy.com/>