

THE GEO-SAMPLER

Sorry to spring this on you, but the days are about to get longer. The good news is that for most of us, the days are getting warmer and sunnier, too. After months of being stuck inside, we are finally sprung. Here in the lab, we especially like to see this time of year as opening season for outdoor activities. And, well, this is when interesting and innovative projects seem to spring up and into our doors every week. So, here at the *GeoSampler*, we celebrate the coming of a new season. Hopefully, it puts a little spring in your step.

HERE COMES THE SUN

Through those dark, cold, snowy nights of this year's long winter, it sometimes felt like this day would never come. No, not pitchers and catchers reporting (though that would be nice). We're talking about the true first day of Spring, the vernal equinox.*

So let's start by asking, what exactly is an equinox? (Obviously other than an excellent Styx album.) Simply put, an equinox marks a day with equal amounts of daylight and darkness. It's the day when the sun crosses the equator on its annual trip to the Northern Hemisphere (okay, the sun isn't actually moving north like geese for the summer; the earth's tilt towards the sun just makes it seem that way). The word equinox comes from the Latin words for "equal night"—aequus (equal) and nox (night). The term vernal refers to something of, in, or appropriate to spring. Hence, the first day of spring and our cause for jubilation.

For those who are sticklers for punctuality, the Official Vernal Equinox of 2022 will occur at precisely 11:33 am EDT on March 20. In that moment, the length of day and night will be nearly equal in all parts of the world. If you were standing

on the equator on that Sunday, the sun would pass directly overhead on its way north. It is one of only two times each year that the sun rises due east and sets due west for all of us on earth. Just think: something the whole world can agree on!

Meteorologically speaking, the official first day of spring is March 1, with the season officially lasting until May 31. The weather folks work on a Q1, Q2, Q3, Q4 system for statistical reporting purposes and, perhaps, in the highly unlikely case of paycheck bonuses for accurate forecasting. Remarkably, equinoxes are in no way governed by the appearances of any marmots, lions, lambs, or daffodils. There are, however, many other interesting ways to know that the vernal season has begun.

Since 2550 B.C., the Great Sphinx of Giza (you know, that famous, ancient Egyptian lion) waits patiently for every equinox arrival. On those days, and against its mother's dire warnings, it looks directly into the sun as it rises.

Closer to home, the Mayans began keeping track of the equinoxes by employing a huge

"Spring is when you feel like whistling, even with a shoe full of slush." —Doug Larson



Batter Up

"Spring is the time of year when the ground thaws, trees bud, income taxes are due and everybody wins the pennant." —Jim Murray

"Spring training should last one day. We should have our golf outing and then go north." —John Kruk

"I could wind up at second, I could wind up at third or I could wind up working at the snack bar." —Steve Sax, on being unsure of his status during spring training

"There are plenty of Hank Aarons in spring training." —Bobby Cox, on all the great prospects

"To tell you the truth, I couldn't stand to see us on the field any more." —Dick Williams, on arbitrarily deciding to end an Angels Spring Training game after eight innings

"I never threw an illegal pitch. The trouble is, once in a while I toss one that ain't never been seen by this generation." —Satchel Paige

"When you start the game, they don't say 'Work ball!' They say 'Play ball!'" —Willie Stargell

"A hot dog at the game beats roast beef at the Ritz." —Humphrey Bogart



pyramid at Chichen Itza around the year 1000 A.D. (is there a Yucatan/Giza pyramid connection or scheme here?). The structure is situated in such a way that the sun's light falls on it to signal the arrival of the seasons. On the spring equinox, it looks like a huge snake is slithering down the steps. Mayans called this day "the return of the Sun serpent." No word on whether margaritas and nachos are served in the serpent's shadows.

Still even closer to home, specifically near the banks of the Mississippi River in Illinois, just north of St. Louis, the Cahokia Woodhenge is thought to be a solar calendar, likely tracking the equinoxes for the timing of agricultural cycles and religious observances. The massive series of timber circles is believed to have been constructed by the Cahokia tribe around 1000 A.D. (just about the same time the Mayans were building Chichen Itza). Similarities with Stonehenge (thus the cool name) are numerous: both have entrances oriented approximately to the midsummer sunrise, and the diameters of the timber circles at Woodhenge and the stone circles at Stonehenge are similar. Woodhenge is not thought to have inspired any rock and roll stage sets (but it would be a natural for Styx).



You don't really need a massive structure to celebrate the equinox. Around the world, cultures have created traditions that include praying for good health. In one, folks would write their medical issues on a paper kite, and then cut the string when the kite was aloft. Thus, symbolizing the disease flying away. To this day, flying kites is a popular equinox tradition.

For the pagans and wiccans among us—you know who you are— the equinox is time to celebrate Mabon. Essentially a harvest festival, it includes a nod to the food of the dead: the apple. A surefire bit of Mabon magic goes like this: peel an apple, keeping the peel in one long piece. When the peel comes off, drop it on the floor. The letter it forms is the first initial of your true love's name.

In Annapolis, Maryland, boatyard employees and sailboat owners celebrate the spring equinox each year with the "Burning of the Socks" festival. Traditionally, the boating community wears socks only during the winter. These are burned at the approach of warmer weather, which brings more customers and work to the area. Officially, nobody then wears socks until the next equinox. Glad they're not here in the lab with us.

* Geotechnics fans in the Southern Hemisphere, welcome to Autumn.

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