

Winter Solstice Celebrations



The winter solstice is the shortest day, and the longest night, of the year. It's been celebrated by cultures around the world since our earliest history.

The winter solstice comes on or around December 21st—and 6 months later in the Southern Hemisphere. Leading up to it, the days appear to be dying.

The dawn comes later, the sunset earlier. Nights get longer and colder. In far northern and southern latitudes, this is very keenly felt.

Then on the solstice, things turn around. The day after is a little longer, and they keep getting lighter and brighter.

So the solstice has always been associated with rebirth—of the sun and of a new year.

Asian, Middle Eastern, North and South American cultures all had, and still have, festivals marking the rebirth of the sun.

The Romans, too, celebrated Saturnalia, dedicated to the sun god Saturn, characterized by charity and gift-giving.

In the 4th century when they converted to Christianity, they turned their festival of the sun's rebirth into a celebration of a *different* son's birth. This gave us Christmas, on December 25.

Later, when the Vikings became Christians, they brought Nordic solstice traditions: evergreen trees, holly, and mistletoe, all symbols of life in the dark winter.

So this holiday season, you might consider a solstice party.

It's the *astronomically* correct way to ring out the old year and welcome the birth of the new.

Sunrise at Stonehenge on the winter solstice.

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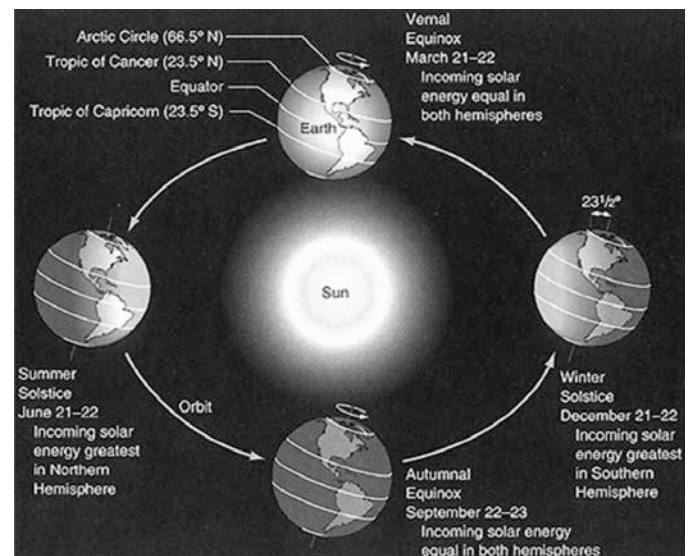


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Background: Winter Solstice Celebrations

Synopsis: The annual cycle of the sun has been monitored closely since prehistoric times. It drives our seasons, which are essential to our food sources and the cadence of our lives. One of the most important solar events each year is the winter solstice, which has been regarded for millennia with awe and hope, globally celebrated as a time of rebirth.

- In the Northern Hemisphere, the winter solstice occurs on December 21–22 each year. (In 2018, it will occur on Friday, December 21, at 5:23 PM Eastern Standard Time.)
 - In the Northern Hemisphere, the winter, or hibernal, solstice in December has the year's shortest day and longest night.
 - In the Southern Hemisphere, the opposite occurs in December: the summer, or estival, solstice occurs, with the year's longest day and shortest night.
 - The rest of this article focuses on the Northern Hemisphere; Southern Hemisphere readers can substitute "June" for "December."
- Earth has equinoxes, solstices, and seasons because the planet is tilted 23.5 degrees on its axis relative to its orbit around the sun.
 - Solstice, whether winter or summer, occurs at the same moment all over Earth.
 - As Earth makes its annual orbit around the sun, the hemispheres are illuminated at different times.
 - At the December solstice, the North Pole is as far from the sun as it gets, so the sun never rises there. At the same time, the South Pole is pointed at the sun, so the sun never sets there.
 - At noon on the day of the winter solstice, the sun shines directly over the Tropic of Capricorn—23.5 degrees south of the equator—and never goes any farther south.
 - Six months later, the noonday sun shines directly over the Tropic of Cancer at 23.5 degrees north latitude; the South Pole is dark and the midnight sun shines all night within the Arctic Circle.
- *Solstice* is derived from the Latin word *solstitium*, which means "point at which the sun stands still." At the winter solstice, the sun seems to stand still before reversing direction.
 - As the winter solstice nears, dawn comes later and later, sunset comes earlier, days grow shorter and colder, the sun drops lower in the sky, noonday shadows lengthen, and points on the horizon where the sun rises and sets migrate southward.



Earth has equinoxes, solstices, and seasons because it tilts on its axis relative to its orbit around the sun.

Credit: NASA

References: Winter Solstice Celebrations

Solstice Arrives December 21 | EarthSky.org
Winter Solstice | Wikipedia
The First Day of Winter | The Old Farmer's Almanac
How the Sun Illuminates Spanish Missions on the Winter Solstice | Smithsonian.com
Yule | Wikipedia

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Background: Winter Solstice Celebrations

- Primitive societies had to be acutely attuned to nature, in particular to the rhythm of the sun that brought them light and warmth for their survival.
 - Early agricultural societies depended on the regularity of shifting seasons to know the best times to plant and harvest crops.
 - Over many centuries, ancient humans studied the placement of the sun and moon in the sky, formulating calendars and using astronomical events to decrease uncertainty about what to expect in the future.
 - Some of our ancestors worshiped the sun, building monuments aligned with its annual path to help predict and honor the shift from shortening to lengthening days.
- The winter solstice—also known as midwinter, Jól, and Yule in Scandinavia and Northern Europe—was especially important to ancient man in pagan times.
 - The early months of the year, January to April, often brought starvation and famine in these northern climes.
 - Most livestock were slaughtered on the solstice so they would not have to be fed during winter.
 - The midwinter festival in these northern countries ran for a few days during and after the winter solstice—the last celebration before the depths of winter.
 - Meat was boiled, blessed, and served in temples with great fires in a pit on the floor.
 - Wine and beer were typically finished fermenting around this time, and ale flowed with toasts to Odin for victory and power, and to other gods for a good harvest and peace.
 - The Christmas tree, wreath, and Yule log are adaptations from this festival.
 - King Haakon the Good, a popular ruler who brought Christianity to Norway, is credited with shifting the dates of the celebration to coincide with the Christian celebration of Christmas.
- Our ancestors left behind a remarkable global record of their reverence for the solstice.
 - About 3200 BC, a knoll of dirt surrounded by stones and aligning with the winter solstice sunrise was constructed in Ireland. During each winter solstice sunrise, sunlight illuminates the carvings inside a chamber in the Newgrange mound for 17 minutes.
 - In southern England, the famous circle of stones, Stonehenge, was built around 3000 BC; its axis is aligned with the winter solstice sunset.
 - A burial ground and temple to celebrate the sun, Stonehenge was under construction for at least 1500 years.
 - Although modern solstice festivals take place at Stonehenge during winter and summer solstices, ancient bones and teeth from pig slaughters for large gatherings indicate that ceremonies took place in the winter. No ancient evidence of summer gatherings has been documented.
 - Machu Picchu was constructed on a mountain overlooking the Urubamba valley in Peru about 1400 AD.
 - Among its numerous astrological features is the Intihuatana, which translates from the Quechua language as “hitching post of the sun.” The Inca believed that this rock, which points directly at the sun during the winter solstice, held the sun in place.
 - Nearby, the Inti Mach’ay is a special cave for rites of passage to manhood. It has a window that only allows light to enter a few days before and after the winter solstice, when the rituals took place; the rest of the year the cave is dark.
 - The spiritual value of solar illumination was not lost on Spanish settlers in the American Southwest, Mexico, and Central America.
 - Many Spanish missions were deliberately oriented a few degrees off of the rest of their site plans so that sunlight would strike religious objects on the winter solstice. Some objects were oriented so that the same effect occurred on specific saints’ days.

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