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LIVING

Midsummer's magic

In recent years, people have started once again to celebrate the spiritual and symbolic dimensions of this event which is so full of meaning to all life on Earth

Sunset at South Bay on Stony Lake.

Tim Dyson, special to The Examiner

A pivotal celestial event takes place this week, one that unfortunately goes unnoticed by many. June 21 will usher in the longest day of the year and the first official day of summer, for this is the time of the summer solstice.

Sometimes known as midsummer, Litha, or St. John's Day, the summer solstice used to be celebrated with astonishment, joy and thankfulness by cultures all over the world. In recent years, people have started once again to celebrate the spiritual and symbolic dimensions of this event which is so full of meaning to all life on Earth.

The word "solstice" comes from the Latin sol, meaning sun, and sistit, meaning stands still. For several days before and after the summer solstice, the sun appears to stand still in the sky — that is, it rises in exactly the same spot on the northeastern horizon and sets in precisely the same position on the northwestern horizon.

If you were to watch a time-lapse movie of a year's worth of sunsets, you would notice that the sun appears to "walk" back and forth across the western horizon. The winter solstice marks the southern limit of the sun's journey and the summer solstice is the northern boundary. At each end of the walk, the sun pauses for a few days, before heading in the opposite direction.

The solstice is an appropriate time to consider why we have seasons in the first place. Let's begin by thinking of a globe. You have no doubt noticed that a globe is tilted, as is Earth. In other words, the imaginary line connecting the Earth's north and south poles is not vertical but on a 23.5-degree angle. Because Earth is also rotating on its own axis, this means that the northern hemisphere ends up being tilted towards the sun for part of the year — our spring and summer — and away from the sun for part of the year — our fall and winter. The main consequence of the tilting is a huge difference in the amount of heating of Earth's surface that occurs from one season to the next.

At the summer solstice, Earth cruises past



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the point in its orbit that results in the greatest tilt of the northern hemisphere toward the sun. At noon on the day of the solstice, the sun is directly over the Tropic of Cancer. From our perspective, we see the sun tracing its highest and longest arc through the sky. The sun both rises and sets at its furthest point north. At noon, it beats down with full force from almost directly above our heads. Since sunlight strikes our part of the globe much more perpendicularly now than at other times of the year, it heats the Earth much more efficiently. In December, on the other hand, the noon hour sun casts a weaker, angled light from its position much lower in the southern sky. Far less heating of the Earth's surface occurs.

The difference in heating between the summer and winter can be illustrated by pointing a flashlight at a table top. Summer is akin to shining the beam directly down on the table from straight above so that the light focuses on a small area. The table top will soon feel warm to the touch. For winter conditions, angle the beam to the side so that the light scatters over a larger area. Significantly less heating occurs.

Because the sun rises in the northeast now and sets in the northwest, its path through the sky is longer than at any other time of year. This, in turn, results in an extremely long day and a very short night. At the summer solstice, Peterborough receives an amazing 15 hours and 32 minutes of daylight. Compare this to the meager eight hours and 51 minutes we receive on the first day of winter.

The significance of June's long, warm days is profound. All life responds. Tree leaves, for example, are now catching the concentrated energy of the June sun and converting it into phenomenal growth. You've no doubt noticed the incredible amount of growth that has already occurred in your garden and on your shrubs and trees this spring. New sugar maple shoots can easily put on half an inch of growth in a single day right now, while white ash can grow by a full inch. Even the buck's new antlers grow

faster in June than at any other time of year.

In order to see the solstices as events worthy of praise and rejoicing, ancient cultures had to be acutely aware of the sun's daily progression through the sky, and how, for several days in a row each June and December, it would rise and set at precisely the same spot on the horizon. This "standing still" obviously had great significance. In winter, it meant that the sun was not going to disappear completely. In summer, it meant that daylight, warmth and growth were at their most abundant. In a time before formal science, it's not hard to imagine why the solstices were seen as such sacred events. In the opinion of some, their observance was a precursor to faith itself.

The period of time centered upon the summer solstice was also known as Midsummer. The "midsummer's night" of Shakespeare's play is actually the night of the summer solstice. There was a custom on this night of lighting large bonfires after sundown. It was even once believed that if you gathered fern spores at the stroke of midnight and rubbed them onto your eyelids, fairies would become visible. We can only imagine the rituals that took place at Stonehenge, where the rocks of the ancient circular monument align directly with the rising sun on the longest day of the year.

In the same way as Christmas, originally a celebration of the winter solstice, Midsummer, too, has been Christianized as the feast of Saint John the Baptist. Notably, unlike all other saints' days, this feast is celebrated on his birthday and not on the day of his death.

Five plants were thought to have special magical properties on the night of the solstice: rue, roses, vervain, trefoil and, not surprisingly, St. John's wort. These species, all of which are native to Eurasia, were inadvertently introduced to North America and are in bloom in the Peterborough area right now. Plan your own solstice celebration and make a wreath of these plants for the front door!

In Canada, June 21 is also National Aboriginal Day. The date was chosen because of the cultural significance of the summer sol-

stice to native peoples. For example, in the Big Horn mountains of Wyoming, Native Americans constructed a wheel of stones with 28 spokes and a clear summer solstice sunrise alignment. The Inca Empire celebrated Inti Raymi, or festival of the sun, in recognition of the sun god, Inti. Although it occurred in June, this was a celebration of their winter solstice since it took place south of the Equator. Although we may never recapture the complete meaning behind ancient solstice celebrations, by witnessing the solstice ourselves, we can easily imagine the power transmitted into people's lives at such ceremonies.

Local First Nation events on June 21 will include the Drumming Up a Storm variety show at St. Paul's Church at 7 p.m. as well as a celebration at the Whetung Ojibway Centre at Curve Lake from noon until 3 p.m.

The solstice is best observed from a height of land that provides an unobstructed view of the northeast. Armour Hill in Peterborough is an excellent observation point. There is also a large steel cylinder which precisely indicates direction. Try to note the exact point where the sun rises and, if you wish, where it sets. At the beginning of each of the other seasons, repeat these observations. You will be astonished at the difference in rising and setting points of the sun. The greatest noticeable change from one day to the next in where the sun rises and sets occurs around the fall (Sept. 21) and spring (March 21) equinoxes.

You can, of course, make these same observations from your own home or cottage. Knowing the exact north and south points of the sun's annual swing through the sky is just one more way to live more fully in the place you call home. With each passing year, there is a great sense of satisfaction in observing the endless circle of the seasons as you watch the sun advance to a specific point on the horizon — and no further — and then double back and retrace its steps in the opposite direction.

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