

VILLAGE VIEW

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Last January we took a look at the brilliance of the night skies in winter. At least the strong, the brave, and the people who love to star-gaze while lying on their backs on top of 16 inches of snow with a 40-MPH-wind blowing sub-zero blasts through their down-filled jackets did. Maybe, Believe me, I wasn't there. I was huddling as close to my woodstove as I dared get without singeing my woolies.

Now that winter's no more than a nasty memory, though, I might be tempted to bundle up in the same sort of clothes I usually don in January and spend 20 minutes looking at the night sky. It is awe-inspiring. It is exhilarating. And now that the full Pink Moon of April is on the wane, if the sky is clear, it's possible to locate many constellations, planets and stars and become familiar with the miracle of the firmament that sparkles overhead constantly, but that's visible to us only after darkness falls on a clear night.

Daylight Saving Time arrived on the last Sunday in April, so it's best to wait until after 9:00 p.m. for a good view of the heavens on a starry night in May. The earlier in the month you do your star-gazing, the more satisfactory it's apt to be. The moon will be full on the 19th of May; the Flower Moon, it's called. Looking for stars with a full moon shining is nearly as much a waste of time as trying to see them while the sun's in the sky. For good star-watching, a moonless night is best.

As in January, look first in the north to find the Big Dipper. At this time of year, the bowl of Dipper is partially inverted, and the handle hangs down toward the east (your right). As a part of the constellation Ursa Major (The Great Bear), the handle of the Dipper is the bear's tail.

Tracing beyond the curve of the Dipper's handle, further east, an approximate distance one-and-one-half times the handle's length, we come to a bright yellow star rising slightly north of due east. This is Arcturus. More than 1,000 times larger than our sun, Arcturus emitted the light that reaches us tonight over 40 years ago. That was about the time I was graduating from high school, and before the Japanese attack on Pearl Harbor!

Higher in the sky, and a bit further east, two very prominent "stars" shine down. The one on the right is the larger of the two and appears more yellow. This is the planet Jupiter; the left one is the planet Saturn. Saturn, though nearly as big as Jupiter (it's actually wider, including its rings), seems dimmer because it's nearly twice as far away. Jupiter is slightly under 500 million miles from Earth; Saturn, about 900 million miles away. Light from Jupiter takes nearly an hour-and-twenty-minutes to reach Earth.

If you look at Jupiter through good field glasses, four of its ten moons can be seen running in a line from eight o'clock to two o'clock. These four moons are approximately the same size as our Earth moon.

Swing around in a half-circle, now, to see the constellation Orion, the Hunter, before it sets in the southwestern sky. Orion is distinguishable by its "belt" which points, if you follow a line to the left (south), to a very bright blue-white star, Sirius. This sparkling star follows Orion, the Hunter, you'll recall, and is called the Dog star (Canis Major); the twinkle was interpreted by the Ancients as barking. Above both Orion and Sirius, and more to the right, is another bright blue-white star; this one is Procyon, the Little Dog star (Canis Minor).

Looking at Orion, the large red star above and left of the belt marks Orion's left shoulder. This is Betelgeuse, a "red giant" so large that if its center were at our sun's, the Earth would be inside it. A white star marking Orion's right shoulder is Belatrix; below the belt and further right is another blue-white star, Rigel, Orion's right knee.

If we were to observe the movement of Orion across the sky from the time it rises in the east until it sets in the west, we would have a clear demonstration that the stars do not

turn around the Earth but that the Earth rotates on its axis. Gallileo was right. When Orion rises, Betelgeuse is above the belt; when Orion sets, Betelgeuse is still above the belt. If Orion were moving around the Earth, Betelgeuse, having risen first, would be first to set. This, however, does not happen. The Earth Turns. Q.E.D.

While Orion sets in the southwest, we can turn slightly right (north) and look quite high in the sky for a bright yellow star. Just below it is a slender triangle of three stars with the sharpest point at the right. This is part of the constellation Auriga, the Charioteer. The bright star is Capella, the Goat star, and the three small stars just below it are the "kids." Capella is moving away from us at a rapid rate, over a million miles a day.

Turn back south (left) again, and tip your head 'way back. Nearly overhead is a sickle-shaped constellation. The point of the sickle is at the top and points to your right; the handle is down, toward the south. At the handle's lower end is Regulus, another bright blue-white star. In November, the Leonids Meteor showers come from this direction. The Leonids take their name from the constellation, Leo (the Lion); the sickle itself represents the head and mane of the lion, its body is to the left (east), the large triangle, further left, forms its headquarters, and its forefoot is the handle of the sickle.

Seeing the constellations, as the Ancients did, (and recognizing the forms of man and beast, as they did), takes considerable imagination, but ever since they went to all the trouble of working out the relationships and mythology to support their views, the names they gave the groups and individual stars have been used in scientific circles, and the common ones are used by non-scientists. Once the groups of stars become familiar, though, they maintain their forms for untold ages and can be recognized as easily as the Big Dipper.

Between Auriga, the Charioteer, and the sickle, and higher than Orion, a fuzzy patch of light is visible. Use your field glasses again to view a circular cluster of thousands of stars. This is called the Beehive and forms the center of the constellation of Cancer.

If Orion has not yet set below the western horizon, you may be able to see the stars that make up the Hunter's belt. Actually the middle "star" is not a star at all, but a brightly luminous cloud of gas. This cloud is roughly 40 light years in length, and that is about the same distance that we are from the first star we found tonight, after we located its position relative to the Big Dipper. That was Arcturus, the brightest star in the constellation Bootes, the Herdsman.

And next time, we'll look at the stars of summer. Then's when I'll join you willingly. We'll take a big blanket, walk over to a hillside on the golf course in the softness of a late July or early August night, and star-gaze 'til the skunks come bumbling over to see what in the world we're doing. And should we be extremely fortunate, we might even see some Northern Lights!