

The Tao of Astronomy

While the world around him sleeps, **Kevin D. Dohmen** savors the quiet joy of gazing deep into the night.

Driving home from swimming at our YMCA, I overheard my seven-year-old son, Taylor, and his best friend, Samantha, discussing their fathers' idiosyncrasies.

Sammy said something about her dad yelling at the officials while watching football on TV. As their giggling subsided, Taylor said, "Yeah, well, *my* dad spends all night outside with his telescope."

"Yeah?" she asked. "That's weird."

"He gets excited about these fuzzy things," Taylor said. "What's *that* about?" They giggled some more. I just smiled and continued driving.

But it's a good question. What *is* it about astronomy? Why do we suffer sleep deprivation, insects, and hypothermia to stand around in dark fields and stare at faint fuzzies through a bunch of expensive equipment?

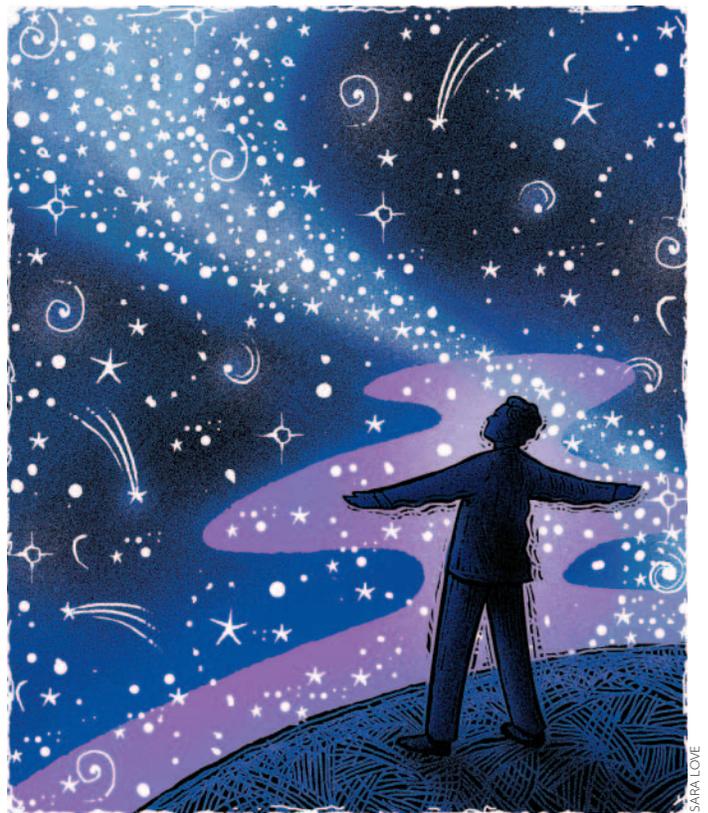
What we see through our gear looks nothing like the Hubble Space Telescope images found in astronomy magazines. Could it be, then, that the attraction is to the equipment? I don't know of any amateurs, after all, who are *not* into equipment. There is a pleasing feel to operating a precision telescope — the weight of the metal, the glide of finely machined and lubricated parts, the luminous look of high-quality optics.

Observing sessions at dark-sky locations with fellow members of the Northern Virginia Astronomy Club always begin with great attention to hardware. At dusk there is serious talk of eyepieces, focal ratios, cooling fans, Dobsonians, power supplies, refractors, and apertures. (Someone invariably remarks that "size really does matter.") And, truthfully, without telescopes and other sophisticated hardware, we could do very little astronomy at all.

As the night progresses, though, the mood changes. The chatter gradually quiets, and attention shifts to what people are actually seeing. Frank has the Sagittarius Starcloud in his wide-field refractor. It's an awesome sight — not because it appears in full digital color, which it doesn't, but because we're standing here under the open sky, looking at the real thing with our own eyes. Kim has Uranus in her 8-inch Schmidt-Cassegrain, the blue-green disk embedded in a slightly hazy background. Pete has his 24-inch Dobsonian trained on M13, and we can clearly make out the different colors of its stars.

Rick has the Ring Nebula in his 16-inch Dob. As with many people I've met at these informal sessions, he and I will discuss the heavens for hours tonight. But because I've never actually seen Rick's face, I wouldn't recognize him if we should happen to meet on the street. Every once in a while I visit Geoff, who is off by himself with his 14.5-inch reflector, working on his list of Herschel objects.

Mostly I sit with my 8-inch Schmidt-Cass, using a focal reducer and a long-focal-length eyepiece to observe the Andromeda Galaxy as it rises from the haze in the east. We comment quietly, almost to ourselves, on what we are observing, and drift around,



gravitating toward interesting reports of other views. A little after midnight some begin packing up for the hour-long drive back to the suburbs. There is work tomorrow. By 2:30 only three of us remain. We say little — only an occasional, beckoning "Psst."

Here we stand, on the edge of the universe, awake, looking outward at it all, while nearly everyone else in the hemisphere is sleeping. I'd have thought a moment like this would evoke a feeling of smallness, of insignificance. Instead I experience quite the opposite, a kind of foreground-background shift, and my usual frames of reference expand outward in stages.

First there is the visceral sensation of standing on a rotating sphere and of spinning eastward, at this latitude, at some 800 miles per hour. And then of revolving around the Sun in that same direction about 85 times faster. Then of the entire solar system traveling roughly northward, with the rest of the Orion Arm of the Milky Way, "upward" around the vast Ferris wheel of our galaxy. And of this galaxy, along with Andromeda and the other members of the Local Group, flying away from neighboring clusters of galaxies as the fabric of the universe expands. My mind understands that we're smaller than an atom in an ocean. But the feeling is of moving outward, enlarging to the size of the universe. Magnificent!

During the drive home I sing along with Louis Armstrong: ". . . the bright blessed day, the dark sacred night. And I think to myself, 'What a wonderful world.'"

At 4:00 a.m. I lie in bed, looking up through the skylight, and see Vega in the early dawn. I drift off to sleep, utterly happy to be here, now, on this planet, in this life.

That, my son, is why I stargaze.

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