

In the beginning... God created Heaven and Earth... so it would seem the observing field was first, and then came the star parties.

Winter Star Party, Texas Star Party, Stellafane... like running the bases, you keep returning home. I call it star party inertia, rocket fuel for amateur astronomers. Where have we come from? Where do we go from here? Looking back, and then ahead, the circle seems nearly complete – or perhaps it is only a distortion of my perspective. Let me explain.

About thirty years ago, the amateur astronomy community was very different. We hadn't put a man on the Moon yet, Voyager had yet to be launched, and ground based astrophotography had not yet been introduced to computer image processing. I was fortunate enough to live in Florida, where launches from the Cape were regularly visible. There was no Nintendo, only five or six channels on TV (three came in good), and air-conditioning was limited to room units (usually Mom and Dad's bedroom). Even from the city (with its mercury-vapor lighting), the skies were a puzzle of scattered stars, numerous enough to get lost in. In the early days of my astronomy career, I navigated those stars with 60 and 80mm telescopes, discovering Messier's treasures while my desire for a more comprehensive understanding grew. The first glass I polished took nearly two years to complete, (the following year I completed three others). Telescope mathematics, optical configurations, layout and design from rudimentary materials and plumbing supplies, these were sustenance for a hungry mind. While daytime hours were filled with telescope building (after school and homework), my nocturnal self awaited the darkness, armed to the teeth with charts, observing logs, and my trusty refractor telescope. Cloudy nights were an opportunity to catch up on articles and books set aside to be read, to organize my next observing session, or perhaps to evaluate the current figure of the glass I was polishing. There was always plenty to do, and I heartily immersed myself in my after-school education. Any other means to expand my astronomical horizons were investigated promptly. The circle of local ATMs was fairly well connected – I would ride my bicycle across the neighborhood to check out the progress of other telescope makers and optical artisans. When I was finally old enough to drive, I joined the local astronomy club and encountered another inner sanctum of telescope users. They spoke a similar language, but I wasn't yet privileged to be part of the dialogue on that higher plateau. Years passed and I continued to master my observing skills, but by the time I was ready to be initiated into the inner circle, I left my boyhood home and set out to find my future. Although I took a sabbatical from organized amateur astronomy for a few years, I never lost the desire to spend quiet time star gazing. A little solitude gave me the opportunity to reevaluate which direction I should choose this time around. I had a little more financial stability, a little less time, and an opportunity to awaken an astronomical community that had all but gone to sleep. It was intensely rewarding... I had learned my lessons well. Everyone was invited to the inner circle and encouraged to dine at our richly abundant observing table – the weather was perfect, for two years. Expensive telescopes and other high-tech gear issued forth as if from an endless spring. It was Camelot. Under starry skies we were in harmony with the wonders of the Universe. Together we located hidden celestial treasures, compared the potential of larger apertures, and played the accessory game with gleeful abandon. The camaraderie we shared

enriched the astronomy experience. While we were still in our formative years, Halley's Comet approached. We couldn't handle the public onslaught – or perhaps we chose not to. And a few years later, the old inner circle effect took hold. There were strangers among us. The weather soured, light trespass tightened its grip, the big toys got too unwieldy, pride crashed head-on with envy, complacency brought about self-importance, and good people started going back to sleep. Elapsed time from Camelot to Lost in Space – about five years.

The next renaissance era has emerged – 10-second TV commercials, laptop computers, the Hubble Space Telescope (with its new specs), space-age technology, information-age statistical data, and electronic age everything . . . From star-hopping to digital setting circles, from modern photographic emulsions to CCD images to computer enhanced conventional slides. From German equatorials to computer-driven alt-azimuth mountings. From Newtonian mirror-optic systems to who knows what? Amateur astronomy has encountered the philosophy of life in the fast lane, but what of the amateur astronomer? You have to decide if you're in it for the gadgets, for the view, or perhaps, for the bigger picture. Surrounded by all of this high-tech paraphernalia, there is still the need to commune with nature, under the stars, on nature's terms. We travel longer distances for dark skies and, for those of us who remember, reminisce about the dark skies we left behind. And when we gather under the stars, are we really so different than we were thirty years ago, or even ten years ago? In many cases, sadly, I think we are different.

For the uninitiated, this new renaissance era has usurped much of the wonder and satisfaction of discovery. You can buy your thrills today where not-too long ago you had to earn them. I don't know if that's wrong, but I think the sweet taste of victory once you've successfully star-hopped through the Virgo cloud can only be truly savored the hard way, one on one, the solitary observer at the helm of his (or her) own telescope. It's not supposed to be easy, and it's not supposed to be fast – it's a learning process that accompanies contemplating the vast space in which we live. We have to look deep if we are to exploit our potential vision. And vision is what it's all about. So what have we learned along the way?

There are some aspects of amateur astronomy we can't control or predict. Comets, meteor storms, supernovae – we are confined to the luck of the draw. Time should be on our side given the numerous apparitions of most celestial phenomena. We have to adopt a wait and see attitude, and we have to be prepared when the time approaches. Weather, on the other hand, is in such a constant state of flux that we probably should be more indifferent about it than we are – many good hours of early morning observing have surreptitiously snuck in under a cloudy evening. The unpredictable celestial event can be one of the most effective means of increasing public awareness, and has been the catalyst of many astronomy careers.

On the other hand, there is much within our control that enhances the time we spend under the stars. First on my list is education. Read – read everything you can get your hands on. Hit the bookstore and the local library, get a magazine subscription, and then start your own library. Learn the language, and climb the ladder – one step at a time. You can begin with the Moon, the planets, constellations, star names, the Messier catalog, and then on to more esoteric deep sky stuff. Don't forget rainbows, sundogs, haloes, and other atmospheric phenomena. Read about the different types of telescopes and observatories, homebuilt, commercial, and professional. Most magazines do product reviews which illuminate the prospective buyer about accessories, like a

Telrad finder, vibration suppression pads, or a Panoptic eyepiece. I've always had a particular affinity for maps, so I have several different star charts. The monthly Sky Calendar from the Abrams Planetarium is a good start for beginners – whole-sky planispheres can be found in the center of S&T or Astronomy magazine (but are woefully inadequate). A good set of star charts is a must for the practicing star gazer. And once you've seen the light, how best, do you get started in the dark? With both eyes open...

If all you ever see of the sky is the view in the eyepiece, your true field of view has been seriously confined. Use your eyes, and when you want a closer look, use binoculars. There's a lot to be seen at low power. When it comes time for a telescope, define your observing criteria. Refractors and long-focus Newtonians give superb planetary definition. Big apertures discern faint detail in deep sky targets, and folded optic systems travel easily. Watch out for aperture envy, not to be confused with aperture fever. It never ceases to amaze me that once detail is observed in a larger aperture 'scope it becomes discernible in the smaller 'scope – where it was previously unseen. Learn to look. Mirror kits and telescope parts aren't as inexpensive as they were 30 years ago, and in many cases a fully assembled 'scope can be purchased for less than what it costs to build one. Take your time and make thoughtful choices, a wrong move here and you could end up a strung-out telescope junky. Try not to worry about astrophotography until you've spent a year or two under the stars with the telescope of your choice, and then be prepared to go toe-to-toe with Mr. Murphy. No matter what telescope you choose, the site you observe from can set its own limitations. Maybe an observatory, or property 300 miles away, or... Capricious priorities can lead to unusual sacrifices. Big toys cost big bucks – the way to telescope nirvana can cost you dearly – even your vision. You need to keep in touch with your agenda.

When the opportunity arises, observe all of the celestial events you can. Eclipses, planetary oppositions, and meteor showers can be awe-inspiring. Most seasoned observers remember their first view of the Moon, Saturn, Jupiter, or a total lunar or solar eclipse. A view of Saturn's rings edge-on, or comets colliding with Jupiter could be the beginning of somebody's long journey into the night.

Once you're ready to take the plunge, should those first few steps be a solitary journey, or a group experience? It's your choice. Many people find the quiet isolation under a starry sky restful and thought provoking. Others choose to celebrate the cosmos and share the incomprehensible with everyone around them. Attitude, specifically the been there, seen it, done it, mentality, needs to be put away for good. We only get to see little bits of the heavens at a time, never all at once. So we learn something new each time we look. Patience and motivation are virtues of all real amateur astronomers. Whether you plod along methodically through your star charts or observe by the seat of your pants at light speed, the stars will always be there for you. You're likely to encounter ATMs and Power User types along the way, they're people too, though they may march to the sound of a different drummer. Astronomy clubs and star parties add more personalities to the idea bank, and a little hand-holding (without being pushy) has helped many of us to avoid reinventing the wheel. Tread cautiously when things turn political – what bothers me most is how we complicate things we should simply enjoy. Somewhere along the way, each of us makes our mark, however small (or considerable) it may be, our personal contribution to

the bigger picture. And we should not neglect the opportunity to share our enthusiasm with younger minds, thirsty for knowledge and primed for the unknown. They are our real legacy.

And when you've reached that lofty plateau, you've learned the language and paid homage to the dim fuzzies, you've earned the respect of your contemporaries... what next? Take a moment, watch a sunset and enjoy the cool breeze and peaceful solitude as night falls and the stars come out over a field full of telescopes. Listen to the quiet chatter as amateur astronomers speak the language of the stars. Take a long moment to look deeply into the eyepiece of a telescope and see something new. Celebrate your humanity, a bright star in the scheme of things most infinite.

We've come full circle again – the firmament is still a place of mystery and wonder, part of our home beyond our feeble grasp. Inquisitive by nature, we try...

Have fun, be nice, and remember to keep the vision...