

REFLECTIONS / REFRACTIONS

University Lowell
Astronomers

REFLECTIONS \ REFRACTIONS

May 2011

Volume 35 Issue 5

“Conversion Factor”

Norbert Vance

EMU Physics and Astronomy

A year ago I gave a few presentations about the conversion of an observational astronomer, yours truly, to that of planetarian, one who sells the idea of an artificial sky to the public. I found myself immersed in the construction of a rather unique astronomy teaching facility at Eastern Michigan University, a sphere that literally hangs four stories above an atrium, providing a 30 foot dome with seating for 37. With a few months under my belt, have I lost my observational soul and love of the real sky to the fancy bells and whistles of a computer-generated universe with Dolby 7.1? Naw! But it sure IS fun to play with! And as many a planetarian will contend, it may be zero degrees and cloudy outside but it's always cozy and clear under the dome.

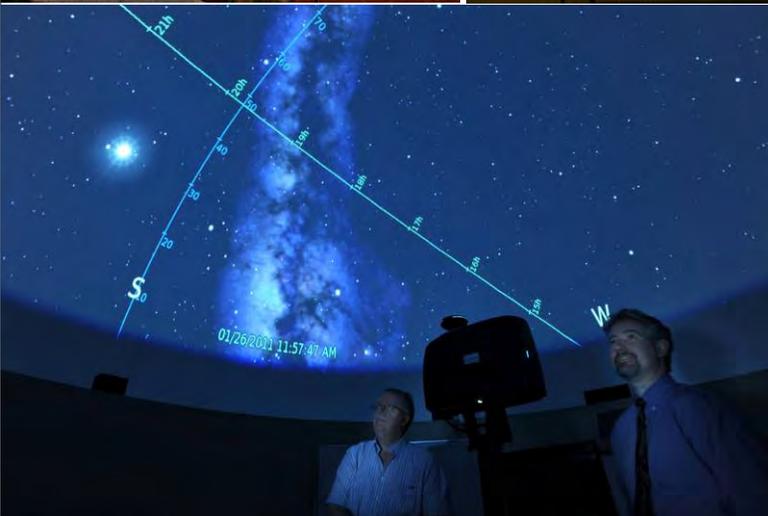
After opening in January in a big push to get up and running, we've spent the past couple months in what amounts to a shake down. Results? In my opinion - success. Is it the best design? Shhh... we HAVE a planetarium!! Could things have gone better? Sure, but given the extremely tight budget, the state economy, the schedule, and the fact that the University is in the process of renovating its two major classroom buildings simultaneously, things have been falling into place remarkably well. We look forward to getting a schedule of public programs up and running beyond what we've been doing for introductory astronomy classes the past few months. I count myself very lucky.

As an instructor at an institution that prides itself on the education of teachers, one of the most prolific in the country at that mission, I always felt strongly that EMU should have a planetarium to cement ideas and concepts in astronomy. Many of these teachers would potentially go on to schools that have their own planetariums. When news of the renovation and enlarging of our primary science building appeared a few years ago I suggested we push for a lab with a domed ceiling to replace our quaint umbrella in Sherzer. Be careful what you ask for! I've had help from folks in the Great

Lakes Planetarium Association (GLPA), two very supportive and excited department heads (I've managed to convert a plasma physicist to an astronomer in short order), some dedicated student assistants, and financial support from current and emeritus faculty in the Physics and Astronomy Department to provide seed money.

The modestly priced Digitalis Digitalium Epsilon projector is hardly the best on the market but dollar for dollar it's not bad. The simulations are surprisingly convincing and full dome effects as good as those I've seen in other facilities with far more expensive projectors. Some will mumble "there's pixilation" but then take any HD projection and spread it across a 30 foot dome and you'll see that. I hear plenty of "ooh's" when we zoom on a planet or run forward from a day sky into a star-filled night. Frankly, spending hundreds of thousands, even millions of dollars for some of those systems I've seen, hmmm... The controller is essentially a hand held TV remote-like paddle that can turn, well, a plasma physicist into a planetarian in seconds. Even a veteran like me finds it so EASY to use. It packs a technical punch. And the point is to teach astronomy, for all of our staff. The Nightshade-based system does that remarkably well. I'll let the Low-brows judge for themselves when they visit in July. I look forward to that meeting.

Sherzer Hall, home of Sherzer Observatory, is now undergoing replacement of its aging HVAC system which will close our astronomy lab and historic artifacts room for the next few months. The umbrella is down but may return. We will still have access to the observatory and roof level, and the planetarium of course will continue to demand my attention. But I can almost hear the 10-inch apo crying from across the courtyard, "where are you... where are you?" Worry not ye faithful telescope, Saturn still beckons... the REAL Saturn! - NLV



Why Astronomy? Part III

By Mark S Deprest

Hello again, this is part III of a multi-part series of articles that is being put together from a packet of 3x5 cards that were handed out by Norbert Vance to all of the attendees at our July 2010 meeting held at EMU. Norbert did a great talk about all the things that lead him to a career in teaching astronomy at the college level (sometimes I think its not that much different than teaching it at third grade level), and then asked all of us to write down what was the inspiration that brought us to astronomy. Norbert then collected the cards, handed them to me and challenged me to put an article together for our newsletter with them. After reading through them numerous times I found a number of different factors led people to astronomy. So, I began to categorize them and this has produced at least 6 different articles. Here I present Part III, formal education or planetariums. Enjoy.

One of our fellow lowbrows wrote very simply, "my high school science teacher had a 'star party' at school on the rooftop when I was 16 or so. That got me hooked." Another member wrote that Cranbrook School & Bill Shultz their Physics teacher ran the planetarium was the spark that lit the flame in their astronomical heart.

George Ferrier, whom will hear more about in part VI, wrote that going to the Abrams Planetarium in Lansing, MI was instrumental in his love of a starry night. Dave Snyder found a similar inspiration at the Abrams Planetarium and along with monthly astronomy talks by Jim Loudon at U of M and his brief job with astrophysicist, Dr. Hegyi to lead him to the Lowbrows.

Jason Maguran wrote that his inspiration in astronomy was going to the planetarium in elementary school. He used to check out books from the library about the planets and during his time in middle & high school he would look for the planets in the night sky. But the most elusive one was Mercury and he recounted that he only found it many years later.

Many of you reading these little anecdotes are probably thinking that is how I got my start or you can relate similar experiences to the answer the question "Why Astronomy?". This is the end of Part III and if you feel you can contribute to future articles in this series, please send them along. I would love to keep this going as long as possible. Part IV will be about those inspired by Books and other media and if this sounds like you send me your story. Part V will be about those "first scopes" and the inspiration from "paying it forward." Part VI is very special and one that will touch many of you very profoundly, I hope you'll stay tuned.

I want to thank everyone who contributed and especially Norbert Vance who grabbed these up and passed them on!

The Love of Old Astronomy Books: or Time to Change Meds

By Rudi Lindner

We in Ann Arbor have the advantage of a few good used book stores – not as many as once was the case, but still enough to take up some time browsing. For some reason, astronomy books land on the shelves of the stores fairly regularly, and the inventory cycles through rapidly enough so that any given book won't be orphaned for more than a month or two.

Why should any free-spirited Lowbrow care? Charm is as good a first reason as any. Why was Sir John Herschel's 1846 astronomy textbook still in print in 1906? Why does a wonderful book of pictures claim, in 1930, that the spiral nebulae are certainly within the Milky Way? Why in God's name does a telescope making book in 1954 still recommend using a model T engine block as an equatorial head? Is it that nostalgia is part and parcel of an interest in astronomy? Or is it something psychologically more troublesome, like the persistence of 1956 rock-a-billy tunes as the Muzak at Kroger?

One of the nice things about these books is their proof that we have come a long way. Most of the space is taken up with the planets and nearby stars; usually about ten pages suffice for extra-galactic objects. Today's literature reverses the balance. What will readers think of today's hot astronomy books two generations from now? Or will print be relegated to museums of the oddities of the past?

Pick up one of these books and let your fingers do the walking through their yellowed pages. If the book was published in the first two generations of the twentieth century, there will be illustrations taken from Mount Wilson Observatory instruments. Take a close look at any of the nebular photos, the cutting edge imagery for half a century and more, and then realize that today's amateurs take better images, faster, more detailed, and still have time to get back indoors to see Letterman.

Take a look at pictures of Mars, little blobs with Rorschach test globules, even the best images taken with the fastest film at Mount Wilson or Lick or anywhere in Europe. And then take a look at any careful amateur's photos taken since the 1980s.

Finally, note that there is one unchanging note: awe at what we know and what we expect to know. The older books were less reticent than we are today: splendor, infinite, tapestry, miracle, God's handiwork, all these and more were part and parcel of the popularization of astronomy. The "aha!" moment is forever with us, -- if only our neighbor would turn off his fershlugginer garage light....

Here is an image that was taken via a remotely operated scope & camera system maintained and operated by the good people at Global Rent-a-Scope . This scope is located in southern New Mexico.

Mike Radwick is going to try the same image with his modest set-up ... we should see his efforts in an upcoming newsletter; I saw some of the raw images that he took at Lake Hudson and they looked very impressive ... I can't wait for the final results.

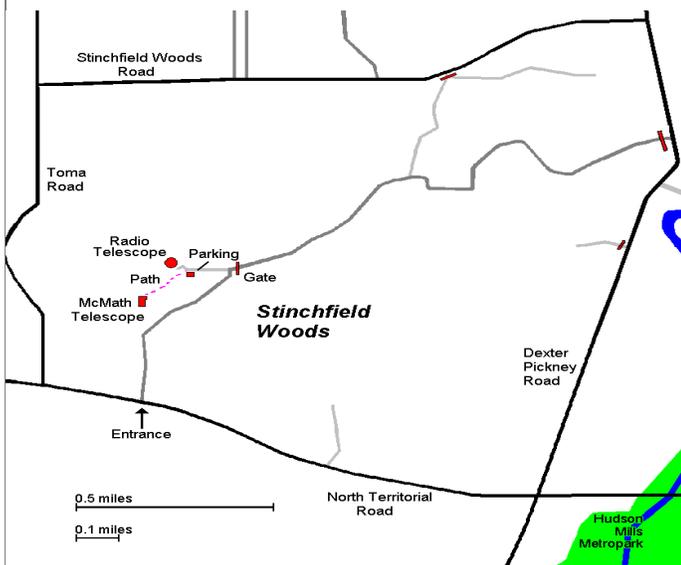


*NGC 2537, NGC 2537a & IC 2233 (Arp 6 Plus)
GRAS 003 - Mayhill, NM USA
2x360 seconds 1x1 binned
20101202
Remotely via Global Rent-a-Scope
Mark S DePrest*

Places & Times

Dennison Hall, also known as The University of Michigan's Physics & Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. Dennison Hall can be found on Church Street about one block north of South University Avenue in Ann Arbor, MI. The meetings are usually held in room 130, and on the 3rd Friday of each month at 7:30 pm. During the summer months and when weather permits, a club observing session at the Peach Mountain Observatory will follow the meeting.

Peach Mountain Observatory is the home of the University of Michigan's 25 meter radio telescope as well as the University's McMath 24" telescope which is maintained and operated by the Lowbrows. The observatory is located northwest of Dexter, MI; the entrance is on North Territorial Rd. 1.1 miles west of Dexter-Pinckney Rd. A small maize & blue sign on the north side of the road marks the gate. Follow the gravel road to the top of the hill and a parking area near the radio telescopes, then walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.



Public Open House / Star Parties

Public Open Houses / Star Parties are generally held on the Saturdays before and after the New Moon at the Peach Mountain observatory, but are usually cancelled if the sky is cloudy at sunset or the temperature is below 10 degrees F. For the most up to date info on the Open House / Star Party status call: (734)332-9132. Many members bring their telescope to share with the public and visitors are welcome to do the same. Peach Mountain is home to millions of hungry mosquitoes, so apply bug repellent, and it can get rather cold at night, please dress accordingly.

Membership

Membership dues in the University Lowbrow Astronomers are \$20 per year for individuals or families, \$12 per year for students and seniors (age 55+) and \$5 if you live outside of the Lower Peninsula of Michigan.

This entitles you to the access to our monthly Newsletters on-line at our website and use of the 24" McMath telescope (after some training).

A hard copy of the Newsletter can be obtained with an additional \$12 annual fee to cover printing and postage.

(See the website

<http://www.umich.edu/~lowbrows/theclub/>

for more information on joining the club).

Membership in the Lowbrows can also get you a discount on these magazine subscriptions:

Sky & Telescope - \$32.95 / year

Astronomy - \$34.00 / year or \$60.00 for 2 years

For more information contact the club Treasurer. Members renewing their subscriptions are reminded to provide the renewal notice along with your check to the club Treasurer. Please make your check out to: "University Lowbrow Astronomers"

Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest.



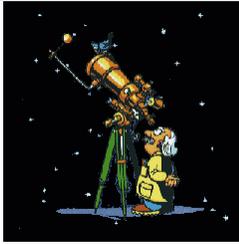
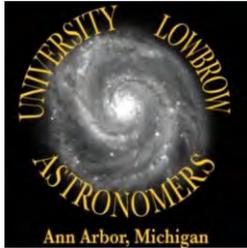
Lowbrow's Home Page

<http://www.umich.edu/~lowbrows/>



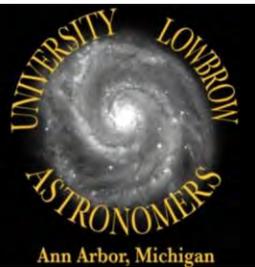
University Lowbrow Astronomers

Reflections & Refractions



Website

www.umich.edu/~lowbrows/



University Lowbrow Astronomers
P.O. Box 4465
Ann Arbor, MI 48106

Check your membership expiration date on the mailing label