REFLECTIONS AND REFRACTIONS

OF THE UNIVERSITY LOWBROW ASTRONOMERS

June 2004

Upcoming Events

June 2004

- **Saturday, June 26, 2004.** *May be cancelled if it's cloudy.* (Starting at Sunset.) Open House at Peach Mountain.
- **Friday, July 16, 2004.** (7:30PM). Monthly Club Meeting.
- **Saturday, July 17, 2004** *Space Day 2004* at the Royal Oak Public Library. Reservation suggested, call (248) 246-3725 for more info.
- **Saturday, July 17, 2004.** *May be cancelled if it's cloudy.* (Starting at Sunset.) Open House at Peach Mountain.
- **Saturday, July 24, 2004.** *May be cancelled if it's cloudy.* (Starting at Sunset.) Open House at Peach Mountain.
- **Saturday, August 7, 2004.** *May be cancelled if it's cloudy.* (Starting at Sunset.) Open House at Peach Mountain.
- **Saturday, August 13, 2004.** *May be cancelled if it's cloudy.* (Starting at Sunset.) Open House at Peach Mountain.

Venus Transit

Collected by Chris Sarnecki

page 2

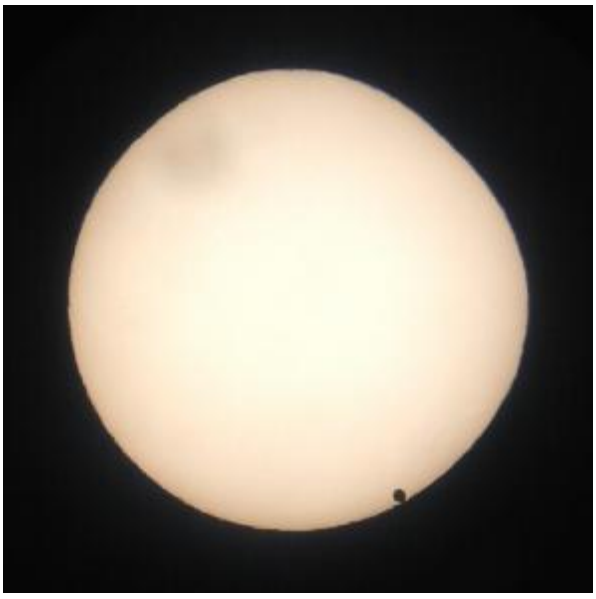


Photo by Doug Scobel. (See Page 3)

A Medley of Lowbrows Venus 2004 Observing Reports

A big Thanks to all who contributed in the first ever combined Lowbrow Newsletter article. As I read through these observation reports, I am struck by the varied personalities and extensive observing talent that make this such a great club. Everyone who witnessed the transit of Venus across the Sun on June 8, 2004 knows what a special astronomy event this was. Lets do this again, in say 2012. - Newsletter Editor Emeritus - Chris Sarnecki

Our Eastern Horizon - Peter Alway

Our East horizon here on Pittsfield is not the best, but the nearby Kroger store, on Carpenter, has an excellent view to the east. So just after 6:00 AM, I packed up the binoculars and some aluminized mylar and drove the epic half-mile journey in about three minutes. I found a parking spot in sight of the glowing red orb of the Sun, and got out. The humidity was nasty this morning, but that allowed me to look unfiltered for a minute or two. Through the binoculars, I could see the Sun glowing red, behind the power lines and trees, and there, plain as day, was Venus, suspended magically in front of the Sun. That sight sent shivers through me--like seeing the mountains the first time on a trip out west. I wasn't just looking at the solar system, I was there. I was taking in scenery that hadn't been taken in for 120 years. I could just make out the black dot of Venus with my naked eye. For once, Venus wasn't a glowing point of light in the night sky, it was another world, not so very far from our own.

Soon the Sun rose above the haze, and I needed my Mylar filter. I drove home and taped mylar over my binocular objectives. I walked up and down my street for a spot where I could see the Sun, and stared some more at that rare moment when the solar system looks like that comic-book version with overlapping spherical celestial bodies. The Sun was soon high enough to see from our doorstep. I setup my 8" Dobsonian on the front walk, and set up a folding chair. I projected the Sun onto a sheet of paper.

Riin joined me, eating her breakfast on the front stoop over a rare view of nature instead of her usual newspaper. I was really happy that she joined me in time for 3rd contact--the instant that Edmund Halley proposed to measure centuries ago, and the moment that gave us the size of the universe. As Venus moved, we looked at sunspots--there was a nice pair, and with Venus as a reference, we realized they were the sizes of whole countries. We saw the fine texture of granulation--the fine convection cells--the thermals. And Venus moved on, its silhouette shrinking to a half-circle, a little dent, and then gone. No longer that rare black dot, Earth's twin against the roiling Sun, Venus resumed its duty as the morning star. Riin rode her bike to work when I packed up the 'scope.

Life as Cinema - Jim Forrester

Life as cinema does not happen often, yet the minute the Sun popped above the trees at Leslie Park on Ann Arbor's north side, film seemed to be rolling before our eyes. The deep red-orange orb did not give off enough light to penetrate our filters at first, so the first ten minutes of observing was naked eye.

We had no idea we would be able to see Venus against the Sun without binocculars or a telescope, but to all of our amazement, there it was! A pair of image stablized binocculars was passed around. When I pressed the stabizing button, I saw the deeply colored Sun with a few dark wisps of clouds in front along with Venus at the lower right, then, incredibly, a flock of geese streamed through the field of view and transit across the face of the Sun!

The rest of the event seemed to pass in a blur as the Sun rose to where it was bright enough to penetrate the filters on our optics, and everyone went about the familiar task of tracking a celestial object. The morning was a brilliant success, providing one of my most cherished astronomical memories. I'm deeply grateful to all who were there, in whatever capacity.

Breakfast a'la Sol - Kathy & Kurt Hillig

We didn't go anywhere special to see the transit. Kurt and I got up a little earlier than usual. We got breakfast while waiting for the Sun to get high enough in the sky to see it from our front deck. Kurt got out his 4" Meade and homemade Sun-filter - the one we used for the solar eclipse so many years ago. He set it up on our deck and we viewed for about 15 minutes. It was getting close to third contact, but we had to pack it up and go to work. At least we saw it.

Photo by Doug Scobel

In the Shadow of Venus - Doug Scobel

I arrived at Lyon Township Community Park in New Hudson, around 5:15 am, about 45 minutes prior to sunrise. The lot was probably three fourths full already. I knew that this was the "official" transit viewing site for the Ford club (FAAC), so I was expecting a crowd, and that's pretty much what we had.

I decided to set up at the the south end of the parking area, so that I could flag down any Lowbrows thatmight arrive after I had.I was joined not five minutes later by Doug Nelle and his daughter Mira, and then by my neighbor Steve Szuminski, his wife Mary, and their three daughters. I was surprised to see that a number of observers made a family outing of the event, considering the hour of the day. Once things got under way, Steve and Mary's girls were a lot of fun to watch, they were so enthusiastic. They'd go between scope, binoculars, back to the scope, over and over. They seemed to have a lot of fun, plus they learned something (I hope).Doug had his nice homemade 5" f/5 refractor, some binoculars, and his camera.

Steve had his ETX 90 fitted with a solar filter he had purchased just the previous day. I brought my 8" f/8, 10x50 binoculars, and camcorder, all outfitted with Baader solar filter film.As the sixth hour approached, all eyes were looking to the northeast horizon. The Sun seemed to be "late" to rise, but after a few minutes we could see it, blood red, just peeking up above a very distant cloud bank. As it slowly climbed higher and higher above the obscuring clouds, we were all anticipating and wondering when and if we would be able to see the black dot that was Venus. Doug's daughter Mira then exclaimed "There it is!", and sure enough, there it was, easily visible naked eye. There was enough haze that the sun was still a dull red, so filtration was not necessary (or usable). It was an unforgettable view.

As the Sun gained altitude, it got brighter and brighter, until the filters had to be put on to observe safely. At first, the Sun was a dull red through the filters, but minute by minute it got brighter and brighter. It was surprising how large Venus's disk looked against that of ol' Sol, even though it was dwarfed by it. It helped visualize how enormous our star truly is, especially when you consider how much farther away it is from us than Venus.Once the transit was well under way we were greeted by Fred Schebor, who was set up at the far end of the lot with Jim Abshier. I went down to visit them a little later and Fred was clicking photos and using his (16x50?) binoculars, while Jim had a nice eyepiece projection system set up with a small refractor.I attempted to take a time lapse of the transit using the camcorder, by taking a few seconds of video every few minutes. It has a 20x optical zoom, so it seemed to make the Sun large enough on the screen. But it did not turn out, as I could not get a good enough focus with it. But I was able to get a few digital pictures simply by holding the camera lens up to the eyepiece. I've included a representative selection of the best ones here *(see the Lowbrows web page for Doug's fine photos - Ed*).

As contact III approached, you could almost see Venus creeping closer and closer to the Sun's limb. With the Sun being as low in the sky as it was, atmospheric turbulence made it difficult to determine exactly when contact occurred, but I think everyone was able to guess it within a few seconds of each other. After that, Venus's disk made it's slow, final migration off the edge. Contact IV was difficult to determine, mainly because the atmosphere was making the sun's limb wiggle and squirm.

Seemingly as soon as it started, it was all over. But what an impression it left behind! Enough to last, say, eight years, wouldn't you think?

Too soon the Fun was Over - Jim Abshier

For me, it actually started on Sunday. I dragged out a small home made spotting scope that I had originally built years ago to see Halley's Comet. Then I cut out and folded some stiff cardboard to make a projection screen for the scope. It seemed to work ok. It gave me a projected image about 2 to 3 inches in diameter for the Sun.

I Got up at 4:30 Tuesday and went out to Lyons Park near New Hudson. I was expecting to see a couple of Lowbrows there, which I did; but when I got there, the hill parking lot was nearly full with a solid line of cars and telescopes. It seems that the Warren and Ford Astronomy clubs were there too. Met Fred Schebor, Doug Scobel and Doug Nell there after setting up my little projection scope. Soon the Sun appeared out of a layer of clouds glowing red-orange with a little spot on it.

For a while it could be observed in binoculars, but these soon had to be abandoned as the Sun Brightened. The projection scope worked pretty well and allowed several people to view the transit at the same time. I, of course, forgot to pick up my camera on the way out of the house, so I don't have any pictures. All in all it was a wonderful experience. I got to see the transit in Doug Scobel's recently finished 8 inch. I was also impressed by Doug Nell's refractor mount.

Soon, however, the fun was all over and I had to go off to work.

Angell Hall Report - Dave Snyder

We didn't know what to expect at Angell Hall, would there be so many people that we couldn't handle it, or would no one show up? Starting shortly after 5:30, Shannon Murphy, Mario Mateo and Pat Seitzer from the U of M Astronomy Department, several Lowbrows and several SAS members were on the roof getting ready for the visitors.

At 6:00AM the time we scheduled to open, there was a steady stream of visitors. However there was a haze on the horizon, but soon a red sun rose above the haze and you could easily see a black dot on the Sun's disk. Dr. Mateo had a white sheet of paper, and was using eye-piece projection to display the sun. Dr. Seitzer also used eye-piece projection. This allowed a group of people to watch the transit at one time.

After a few minutes it was clear that we had just the right number of visitors, enough to keep us busy, but not so many that it was a problem. And that was true throughout the transit. It also was a good opportunity to get to know a few of the SAS members (which we normally don't do).

About the University Lowbrow Astronomers

The University Lowbrow Astronomers is a club of Astronomy enthusiasts which meets on the third Friday of each month in the University of Michigan's Physics and Astronomy building (Dennison Hall, Room 130 or 807). Meetings begin at 7:30 PM and are open to the public. Public star parties are held twice a month at the University's Peach Mountain Observatory on North Territorial Road (1.1 miles west of Dexter-Pinckney Road; further directions at the end of the newsletter) on Saturdays before and after the new Moon. The party may be canceled if it's cloudy or very cold at sunset. For further information call (734) 480-4514.

The Transit of Venus 2004 - Mark S Deprest

I don't know if I can say anything that hasn't already been said before, but I'm sure I can put my own twist to it and hopefully entertain your mind for a bit. Let me start off by saying to all the people that witnessed this event at sunrise on the 8th of June, 2004, "You are now part of an elite group, for until the Sun rose and Venus made first contact no one alive had seen this happen before. The Mayans, who used Venus to fine tune their calendar, would be proud of you! (or was it the Aztecs)." The geometry and physics of the solar system tells us that we will have another opportunity to see this happen again on June 5th 2012, but as of the writing of this article, I was unable to find out what the weather would be like then. I guess we'll have to check back a little closer to that date.

But getting back to the morning of June 8th 2004, I started earlier than most of the people that were at Leslie Park in northeast Ann Arbor, MI for this big event. I started at 1:30am, knowing that the sky was clear and steady, I figured to get in a little comet hunting before sunrise. I set out to observe, log and draw 4 comets that should have been visible at that time of the morning. Comet 2001 Q4 was low in the northwest, fairly bright and my first target, and then I turned my 12.5" f/5.6 Ruben scope toward the zenith to find the 6.8 magnitude C/2003 K4 (Linear) well placed in Lyra. That took care of the easy two, now it was time to move on to the more challenging 8.5 magnitude C/2003 T3 (Tabur) located near a number of bright stars in Perseus, this one took some time to find, but like all good things it was worth the hunt. William Bradfield's latest discovery C/2004 F4 was lurking in a rather rich field just about 3 degrees east of Marfak, a.k.a. mu Cassiopeia but was reported as only 11.5 magnitude, and like Mickey Redman says, "that was a tuffy!"

So, by 4:30am I had bagged 4 comets and the first signs of dawn were just becoming apparent in the east. I was time to put away the big scope and concentrate on the setting up the 5" f/5 refractor, which is the only one of my scopes that I have a solar filter for. It was about 5:00am when I got the 12.5" put away and 5" set up and just about then Bernard Friberg showed up. We chatted for a little bit and a few minutes later Jim and Jenna Forrester drove up and they began to set up too. Before long there were a half a dozen scopes set up on the top of the old toboggan hill and all of their objectives were pointed toward the east northeast waiting for Sol to show its full face above the horizon.

At 6:00am the first blazing orange-pink tip of the sun poked above the tree lined horizon and the twenty or so who had gathered here went silent, and as we watched the eastern skyline surrender the Sun to our anxious eyes. The morning ground fog and multiple layers of atmosphere rendered the Sun a glorious golden red and there in the lower right quadrant was the black circular blemish that all the hoopla was about, (big deal!) Just kidding, what an incredible sight, naked eye astronomy at its best! I was totally blown away; I removed the solar filter from my scope and snapped a couple of photos before the Sun became too dangerous to look at. By 6:10am the sun was high enough and bright enough too shine through the solar filters attached to the optical equipment that was perched atop this lofty vantage point in northeast Ann Arbor, MI and for the next hour and ten minutes we watched and photographed and discussed the first visible Venusian transit of the Sun in 122 years.

The "pizza box / bino projector" of Mike Garrahan's was quite the hit among the gathering and it was great to see all of the digital cameras burning up their batteries and memory on images taken a-focal (that is through the eyepiece of telescopes). As Venus neared the edge of the Sun, everyone near a scope looked to see the "black drop" effect and all were rewarded in kind. At 7:25:12am EDT Venus had finally broken free of its brilliant backdrop and was no longer visible to our eyes and scopes.

As this worthy group of observers started to leave the hill for work and home I took the time to shake each person's hand and thank them for sharing such a fantastic experience with me and for being a part of humanities' elite. Once again I have gotten way too wordy, but inspiration warrants explanation and that's just the way it is.

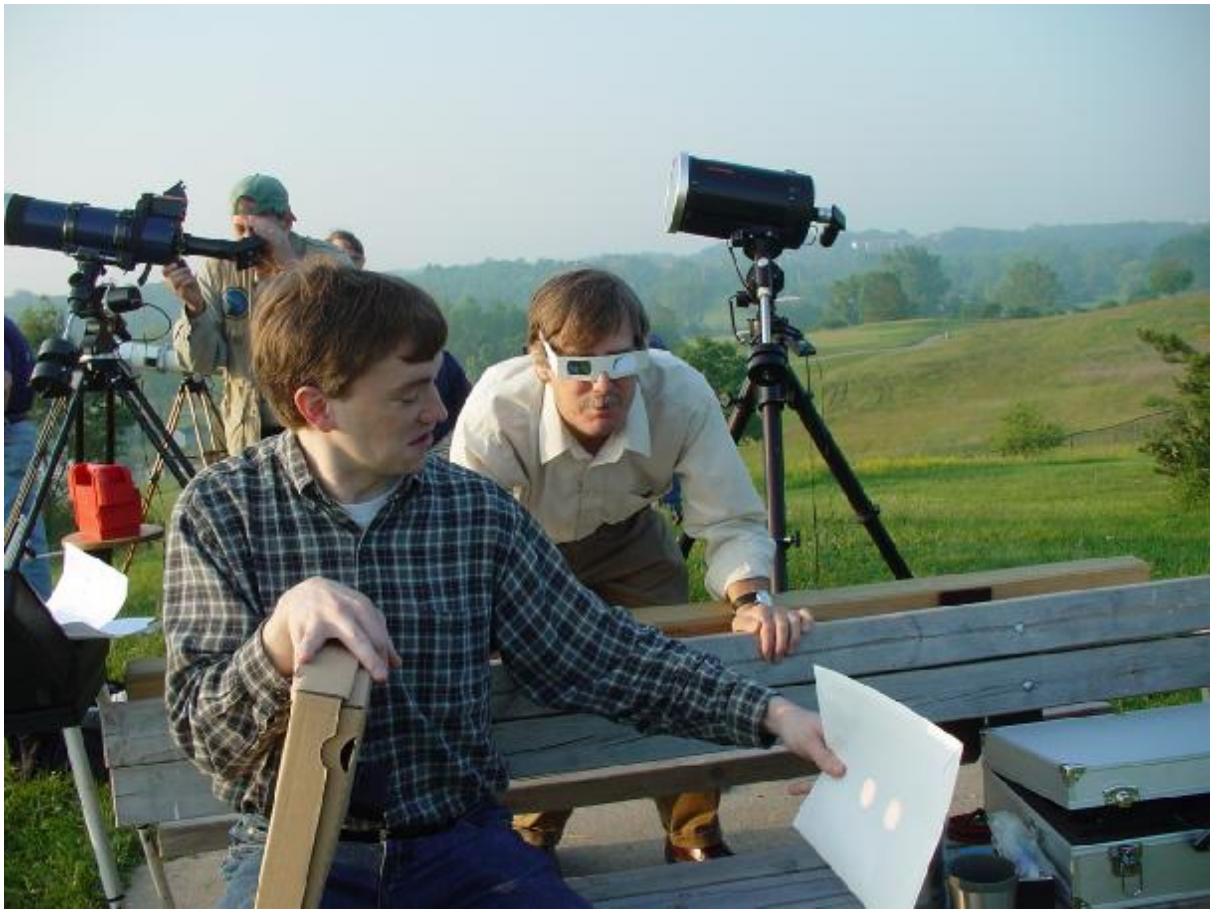


Photo by John Causland

Standing beneath the Shadow - Doug Bock

The alarm went out at 5:15. I dragged my weary body out of bed, took a shower, shaved, got dressed and headed downstairs. A quick coffee, then time to get the kids and wife up for an event they won't see again. Unless of course I drag them to Australia in 2012. NOT!

It was clear out, but I noticed a bit of haze on the horizon, so I figured I had an extra 15 minutes before I would actually see the Sun. I put the solar filter on the binoculars, for my family to use. I suggested to my wife, what to do, and to check the horizon starting at 6:00am for the Sun to rise. Then I left for work. As I drove down US-23, for about 15 minutes, I looked over my shoulder and saw the deep orange glow of the Sun through the haze. I called home, and let the family know it was up and time to go out and take a gander at the Sun. Since I haven't seen Venus on the surface of the Sun before, I hadn't really thought about how big it might be, but told her the binoculars should be enough power to see it.

I continued heading for work, and about 10 minutes later, I took my intermission exit, and pulled up to the South Lyon park, where I knew many of my fellow astronomers would be setup. There must have been about 40 people there, and many telescopes, cameras, computers, etc. all engaged in a single discourse. I parked my car and wandered over to the first group of scopes, and Doug Nelle cordially invited me a peek at the event. Much to my amazement, the planet looked huge against the Sun.

My last memory was of the transit of Mercury which was quite small, so Venus was like a black hole in the surface of the Sun. I continued down the line and looked at projections of the Sun, images on laptop screens, and H-alpha views. I chatted with many for about 15 minutes. Then I left to continue my journey to work, as Venus continued its journey around the Sun.

I thought to myself as I watched the Sun just off to my left, the remarkable opportunity we few just experienced, while billions hustle through their busy lives, oblivious to the universe around us. How fortunate I feel that I have the capacity to collect, understand and comprehend information about the universe, and act upon that information to enjoy what I've learned, even during the busy time of my meager life. It was a joy to stand beneath the shadow of yet another celestial body, and gaze at it's inexorable journey.

Thoughts from another Lowbrow - Ken Cook

I woke up about 5 AM and there were clouds on the horizon, so I wasn't sure we would be able to see the transit from A2. I started checking the internet for webcams and webcasts of the transit. The University of North Dakota had a team in India and their images showed a solar prominence. Do I wake up the kids just to watch Venus "move" across the Sun? Then the sun broke through at about 6:15 AM. I started getting Paul 6 and D'Arcy 9 ready to go. Both had said they wanted to see the transit - but that was yesterday.

It was still a bit hazy but the Sun was out from behind the clouds. We got in the van and drove down town. It is amazingly easy to park on Williams at State street at 6:45 AM. We saw some people walk out of Angell Hall, and I askedwhich door to use. They were very helpful and directed us to the elevators. It is a different view of Ann Arbor from the top of Angell Hall.We saw the final portion of the transit. Venus was on the Sun's disk. Each telescope gave a slightly different view. The shadow box type projector was very easy to use. There was far less detail on the Sun than I expected. This was the first time I saw the Sun through anything other than a pin hole shadow box. There were lines of people at the telescopes but things moved along. We were able to look through four different telescopes.

I kept thinking that this circle against the Sun was a planet nearly as big as the Earth. The scale of the solar system is impressive and difficult to really grasp. After all, the Earth looks pretty flat from ground level. And the distances we can see in a telescope are just mind boggling. So the Sun is really big and Venus is really far away. How can you explain to children and the general public how this system actually works?

We saw contact III and contact IV where Venus touches the edge of the Sun's disk (contact III) and when it exits completely from the suns disk (contact IV). Between contact III and IV you could sort of tell that Venus was in motion. For each glimpse through a scope Venus was in a different position. Contact IV happened at 7:25 AM per my cell phone clock. That was the end of the transit.

On the roof of Angell Hall they have a permanently mounted 16 inch scope that was aimed at the Moon. We saw craters on the Moon, I couldn't recognize which ones we were looking at. It was aimed into the shadow portion and the view was pretty nice. Both kids were tired but they said it was great to see Venus and the Sun.

The Transit of Venus Adventure- Tim Gearing

I have just posted my very first attempts in astrophotograpy in the photo section (T.Gehring). While I have seen far superior pictures, I'm very please with my results, especially considering I was using a borrowed digital camera (Nikon Coolpix 855) which was handheld over the E.P. Here are the details of my Transit of Venus Adventure.

I woke up at the crack of 5:30 AM EST and got ready for work. At about 6:15 AM I woke-up my son (3yrs old) and daughter (5yrs old)and started getting them ready for their day. After changing 1 poopy diaper (*Thanks for sharing that Tim - Ed*) I went downstairs and started making breakfast (oatmeal and coffee). While the oatmeal was cooking my wife came downstairs with the kids and I excused myself from our usual routine and grabbed my SV 85L and the digital camera and a couple of EPs and a barlow (UO 25mm Konig MK-70, Stellarvue 32mm Plossl & Stellarvue 2X Barlow.)

I took one step out the front door and aligned the stablelock mount roughly North and slewed my scope with a Baader Solar filter towards the Sun. The view through the UO EP was awesome I then snapped my first shot (Transit of Venus 1)with the digital camera (this was actually my first shot ever taken through the scope!) and I was treated to a excellent photo clearly showing Venus transiting the Sun. The view through the scope was good enough to get the family and have them view something relatively few have witnessed. The family, especially my wife and daughter, thought it was "pretty cool" (the 3 year old wanted to get back to eating!). They were amazed at the size of the sun compared to our sister planet venus.

I enjoyedthe view for a while longer and took 2 more photos (with a few misfires which were deleted) and then went inside to wolf down my breakfast and returned to the EP at about 7:15. I took couple of more photos (one with the UO Transit of Venus 4 and one with the SV and barlow -Transit of Venus 5)and just enjoyed the view.

All in all the Transit of Venus was fantastic, much more than I had anticipated and it has spurred my interest in Astrophotography (nothing like getting good photos from my first attempt). I will now have to get serious about getting my own digital camera! I hope everyone enjoys the photos I took, they will always be special to me.

Luna Pier Solar Observing - Gary Perrine

It seems that every year there's some special event to look forward to, or something unexpected that happens that makes the prime observing season one to fondly remember. For me, three years ago it was the magnificent aurora that we watched down at the hill (*That's Peach Mountain as a matter of fact. All 98 ½ feet of it - Ed*). Two years ago it was the big aurora that graced us and everyone else at Cherry Springs. Last year it was the intense meteor that lit the sky up enough at the Black Forest Star Party that you could see your shadow on the ground.

I, like pretty much everyone else in the club, had been anxiously anticipating the June 8th transit for a long time and planning for when the morning finally arrived. Monday evening Brian Knowls and I loaded up the van with our equiptment so we could spend more time sleeping in the following morning than rushing around trying to get everything together just before leaving. We were heading over to Monroe to watch the transit from Luna Pier on the shore of Lake Erie. On the way we were stopping in Dundee to pick up Jim Wadsworth, and Bobby G. (Gruszczynski) and Jonie were going to meet us at the Pier at 5:30am.

I was going to observe with my Coronado H-A scope piggybacked onto my Televue 85 and Baader solar film filter. Brian took his antique brass telescope that he made a Badder filter for (a great scope with killer optics). Jim was bringing his filtered binoculars and tripod. I brought along an 80mm Celestron refractor and glass solar filter incase he wanted to use more power than his binos would provide.

Monday night I decided to hit the sack at 9:00 for about an extra hour of sleep than I'm used to getting. I even put a new battery in the alarm clock just in case, and set it for 3:30am. The first time I woke up was 1:30am. Crap! I woke up the second time at 2:30 and tried to go back to sleep for another hour but laid there for 20 minutes and gave up. I got up and made myself a strong cup of mud and fought back the urge to call Brian and wake him up so we could leave earlier. I knew that he wouldn't appreciate that so I went out back with the dog and gave thanks to the astronomy gods that it was a clear morning.

Brian and I pulled out of Tecumseh at the agreed on time of 4:15 and headed east. Jim was waiting at the Shell station in Dundee when we got there and climbed into the van with his 80mm binos, tripod and various other odds and ends. We chatted on the way to Monroe and joked with Jim a little about how the park didn't open until 6:00am and we would be arriving at about 5:30 to set up for the transit, so if the police showed up, I had some rope in the back and as long as we were at a pier, well you've all seen those movies.

We arrived first and in about five or ten minutes Bob pulled in but Jonie was not feeling well so she wasn't with him. I wish she could have came too as I know she would have really enjoyed the transit.

After another few minutes another car pulled into the lot and I started to wonder how much it was going to cost me to get my van and everyone's equipment out of the Luna Pier police impoundment. But to our surprise, other astronomers from around the area started setting up their telescopes to view from the pier also. I met some folks from Hillsdale and even a couple from California who happened to be in Toledo visiting the man's father and came out to the pier to observe.

After we got set up, we stood around talking for a while and someone yelled out that the Sun was starting to rise. When I first saw it rising up from the lake it was just a sliver of red and it would have been an awesome sight even if there wasn't going to be a transit this particular morning. It took a while for me to find it in the telescopes at first as it wasn't very bright but someone said you could see Venus naked eye so that's what I did for the first few minutes. So anyway, we all watched the transit and I ended up taking some pretty nice digital photos.

I'm sure that this will be one of 2004's observing highlights for me. More than likely the #1 highlight of the year. But on the way home and after we got back home, I couldn't help but think to myself how these yearly events wouldn't be nearly as rewarding if I hadn't had people like my good friends Brian, Jim, Bobby and Jonie and all the rest of the club members that I've had the pleasure of experiencing the wonders that are out there in the universe with. Even though we weren't all together at one site on Tuesday morning, I know that we were all together in spirit and that's what makes the Lowbrows a great club to belong to. Thanks All

My First Venus Transit - Charlie Nielsen

For weeks the plans and communications went on. All this for little more than an hour of something very rare. Is this the right site, are we going to be overwhelmed with the public turnout, will everyone be safe, will the skies be clear? Through all the questions and emails, and being chased by the press; was this worth it, to see a little black dot crossing the Sun? So what if there is no one alive that has witnessed this before. Oh, how I underestimated.

It was sometime after 1:00 AM Tuesday morning when I awoke after having napped for a couple of hours. Of course I had to check the various Websites around the world that were covering the event. Just like they said, it was happening. The images I saw started to increase my interest and enthusiasm. Maybe this was worthwhile to witness after all. I thought about all the people around the world that were watching this, and the sunlight terminator was steadily approaching my part of the planet. I got another hour and one half or so of sleep before waking to head for Angell Hall. Already the birds were chirping and the sky was turning brighter.

I arrived at Angell Hall to find my choice of parking spaces right in front of the building--how unusual to see this. Even at this hour of 5:30 AM, there were people on the streets. I arrived at the same time as several other Lowbrows and we proceeded to the steps going to the roof. We had arrived before the doors were open, so we waited about ten minutes. Once we got to the roof the activity became hectic. We quickly set up telescopes and filters after selecting what we expected to be the best spots. The Sun had already risen but was obscured by a band of haze at the horizon. We did get ready in time and everyone stared to the east waiting to see the Sun rise above the haze.

The roof was packed with people when it happened. Suddenly the Sun peeked above the haze in a burst of orange glory. Swiftly it rose above the cloud line to reveal it's full circumference; and there it was. I was the first to exclaim that I could see our sister planet silhouetted against the ruler of our solar system. I was shocked by how easy it was to see. What did ancient peoples make of this? Certainly some must have seen this startling site. For a few minutes I was frozen by the splendor of the view. I heard many exclamations from the others present when they too could see this. First the other astronomers, then the guests, started to resolve that little hole in the Sun, who were obviously awestruck based on their remarks and gasps of amazement. I gained a sense of our position in the solar system and how vast the distances between its family members are. I gathered my senses to get the 90-MM refractor I was operating pointed at the Sun. This was difficult since the Sun was beginning to get bright enough to hurt one's eyes, but not bright enough to be seen easily through a solar filter. People with eclipse glasses were having the same difficulty. But eventually the image appeared in the eyepiece.

The sheer and perfect blackness of Venus was startling. At times it looked more like a hole punched in the Sun then an object in front of it. For the next hour around 200 people witnessed the event through various telescope and projection devices. Many were taking pictures of the crowd and the image with digital cameras. Everyone seemed very pleased that they had arrived at this early hour to bear witness to history. I think many, and certainly myself, were surprised at the beauty of it. Eventually Venus began to encroach upon the edge of the Sun. Would we witness the infamous black-drop effect? I timed it just right and looked into the eyepiece to behold the effect indeed. It really does exist; this bane of early astronomer's attempts to measure the distance to the Sun. No wonder their frustration trying to time third contact.

Now I surely felt the historical significance of what we were witnessing. I beckoned to all the astronomers in my area to come and witness this, right now. I waited for fourth contact with some resentment. I did not want this to end so soon, but end it must. Finally, the last little nibble filled in at the edge of the Sun, and it was over. Everything is now as it was. The Sun looks normal again, and Venus has invisibly left the building. Handshakes broke out and grins were to be seen everywhere. The toils of planning had paid off. The public left very pleased, and certainly happy they participated. The U of M people and the Lowbrows knew we did well. The weather cooperated, and of course our solar system colleagues did their part.

I had underestimated the visual and emotional impact of the transit, but now I know. I will be ready for 2012! What events will be memories between now and then we do not yet know, but this will be one of the grandest for me.

Photo by Doug Nelle

Photo by Gary Perrine

Venus and the Little Hill Observatory - Chris Sarnecki

I'm writing this report days after the now famous Venus Transit of 2004. Like you, I am once again up to my lower lip in water and wondering how, given the record rainfall we received before and after June 8th, that we were so lucky to have had the weather we did. It must be my pre-observing ritual - Don't think about the weather on the day of the critical event, especially don't talk about it (it's a lot like throwing a perfect game), just show up and the weather gods will perform their part, and clear skies will prevail. Well the weather was just about perfect. I arrived at this little hill, no bigger than a two car garage, on top of a bigger hill at the Leslie Park north of A2 to find a number of Lowbrows already set up and observing. At least that's what it looked like.

The Sun had just peaked over the tree tops and I thought, darn I shouldn't have gotten that extra wink earlier that morning. Everyone was excitingly exclaiming they had just seen Venus naked eye, plainly visible on the disk of the Sun. The Sun was now starting to brighten, so looking naked eye at the Sun was out of the question. I was packing light today. So I whipped out a pair of solar glasses expecting to see Venus on the solar disk, but no deal. The Sun wasn't quit bright enough for solar equipped scopes or folks to even find the Sun, let alone actually see it. This was not expected. Our observing task momentarily sidelined, Lowbrows are known to exhibit extensive socializing skills, which we did. With in a few minutes the Sun became faintly vissable though the solar screens and it was back to the scopes.

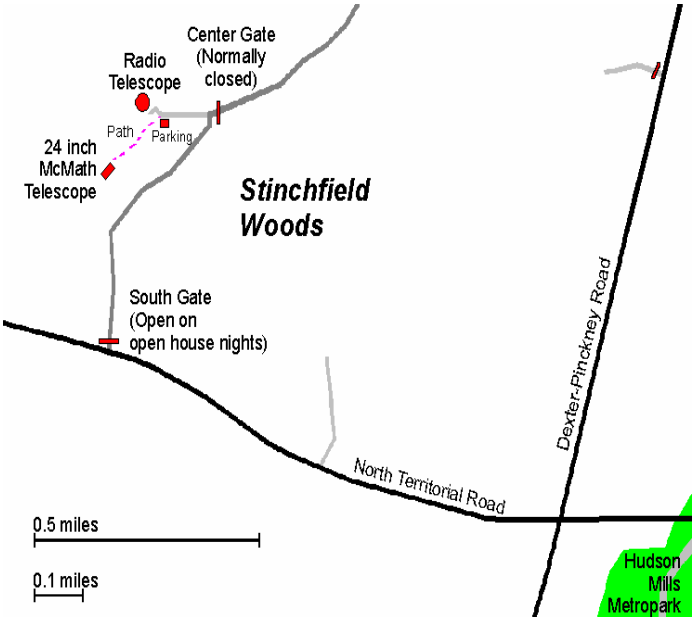
Venus on Sun was experienced in all the scopes present and everyone present went scope-to-scope enjoying the views. The views were truly out of this world. With digital and traditional photo film cameras snapping off countless pictures, all too soon third contact approached. Our local atmosphere experienced an lot of scintillation. The elusive black drop effect was, well elusive. The Sun disgorged the Venusian disk and our world was back to normal. With congrats all around, our Little Hill Observatory was no more as the collected masses folded having experienced the observation of a life time; weather pending in eight years of course.

Appreciative Lowbrow - Michael Huff

A couple days before the transit, Commander Bernard (Friberg) told me my 8" solar filter was unsafe. I was one very p'd off Lowbrow. I all most said chuck it, but I'm so glad I went to Leslie Park. Seeing Venus with the naked it eye blew me away. Then looking at it thru all the scopes and even a binocular mounted in a pizza box. That was so great, but the best was all of you guys sharing. That was the very best. Thanks to you all again. I was trying to think of a big word to use for everyone. You guys do rub off in a positive way. So here it is. Thanks again!!!

Places and Times

Dennison Hall, also known as The University of Michigan's Physics and Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. It is found in Ann Arbor on Church Street about one block north of South University Avenue. The meeting is held in room 130. Monthly meetings of the Lowbrows are held on the 3rd Friday of each month at 7:30 PM. During the summer months, and when weather permits, a club observing session at Peach Mountain 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 inch telescope which is maintained by the Lowbrows. The observatory is located northwest of Dexter. The entrance is on North Territorial Road, 1.1 miles west of Dexter-Pinckney Road. A small maize-and-blue sign marks the gate. Follow the gravel road one mile to a parking area near the radio telescopes. Walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.

Public Star Parties

Public Open House/Star Parties are held on the Saturday before and after each new Moon at the Peach Mountain Observatory. Star Parties are canceled if the sky is cloudy at sunset or the temperature is below 10 degrees F. Call 4332-9132 for a recorded message on the afternoon of a scheduled Star Party to check on the status. Many members bring their telescopes and visitors are welcome to do likewise. Peach Mountain is home to millions of hungry mosquitoes - bring insect repellent, and it does get cold at night so dress warmly !

Amateur Telescope Making Group meets monthly, with the location rotating among member's houses. See the calendar on the front cover page for the time and location of next meeting.

Membership

Membership dues in the University Lowbrow Astronomers are $20 per year for individuals or families, and $12 per year for students and seniors (age 55/+). This entitles you to the monthly REFLECTIONS newsletter and the use of the 24" McMath telescope (after some training).

Dues can be paid at the monthly meeting or by mail to this address:

Mike Garrahan
7676 Grand Street
Dexter, MI 48130

Magazines

Members of the University Lowbrow Astronomers can get a discount on these magazine subscriptions:

Sky and Telescope: $32.95 / year
Astronomy: $29.00 / year

For more information contact the club Treasurer. Members renewing subscriptions are reminded to send your renewal notice along with your check when applying through the club Treasurer. Make the check payable to "University Lowbrow Astronomers".

Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest. Call or Email to Newsletter Editor at: John Ryan (734) 662-4188 allegheny@mac.com to discuss length and format. Announcements and articles are due by the first Friday of each month.

Telephone Numbers

President:	Charlie Nielsen	(734) 747-6585
Vice Presidents:	Jim Forrester	(734) 663-1638
	Bernard Friberg	(734) 761-1875
	Jim Wadsworth	(734) 529-2766
	Doug Warshow	(734) 998-1158
Treasurer:	Kathy Hillig	(734) 663-8699
Observatory Director:	Mike Radwick	(734) 453-3066
Newsletter Editor:	John Ryan	(734) 662-4188
Keyholders:	Bernard Friberg	(734) 761-1875
	Charlie Nielsen	(734) 747-6585
	Mike Radwick	(734) 453-3066
	Fred Schebor	(734) 426-2363
Webmaster	Dave Snyder	(734) 747-6537

Lowbrow's Home Page

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

Lowbrows and members of the public enjoy the Venus transit at Little Hill Observatory at Leslie Park on the north side of Ann Arbor. Photo by Chris Sarnecki

UNIVERSITY LOWBROW
ASTRONOMERS

Kathy Hillig
7654 W. Ellsworth Road
Ann Arbor, MI 48103

Lowbrow's WWW Home Page:
www.umich.edu/~lowbrows/

Check your membership expiration date on the mailing label.