



PAStimes

Phoenix Astronomical Society

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December 2018

Volume 70 Issue 4

PHOENIX ASTRONOMICAL SOCIETY — ESTABLISHED 1948

Vincenzo Cataldo to Speak at Dec 6 Meeting "Ancient and Active Volcanoes Beyond Earth"

I have been involved in planetary science research since 1998, the time I was studying to obtain my Master's in the U.K. Despite having published several papers and abstracts, I decided to enroll on a PhD program only in 2013, and now I am about to complete my studies at ASU. I like to think of myself as both a geologist and an astronomer, and have been teaching Astronomy at the Phoenix College since 2016 while researching toward my doctoral degree. Although my main interest lies in scientific research, I strongly believe in the

importance of disseminating scientific knowledge. In doing so, it is paramount that the style of delivery be tailored to the specific audience and their knowledge of the subject.

Please join PAS in welcoming Enzo to the December PAS meeting. We'd love to have you attend and enjoy this fantastic guest speaker. Please bring a friend along with you. Bring a finger food snack to share. The snack table is at the back of the room.



Enzo Cataldo. Photo provided to PAS by Enzo.

Dinner at Chili's Before the December Meeting

By Terri, Event Manager

RSVP to attend dinner is needed by the day before the meeting. When you RSVP, please include the number in your party. Here's the link for PAS Members to RSVP.

The public can send an RSVP to Events@pasaz.org to attend dinner. It's a Buy Your Own dinner, but you are welcome to Meet and Greet our Guest Speaker

for the presentation this evening. <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2752&day=2018-12-6&c=1>.

November 1, 2018 PAS Meeting in Review

By Terri, Event Manager

This was a very busy and interesting meeting. Nine PAS Members had dinner at Chili's before the meeting. Then the meeting opened promptly at 7:30pm, and our Guest Speaker took the floor at about 7:32pm. There was a slight technical situation for about two minutes, but once Ted and William Finch resolved the issue, the presentation was spectacular!

Ted Blank was the guest speaker. Ted has been a member of PAS for about three years. He came to us on this night to give two talks. The first talk was about the Horizon Mission to Pluto. The images of Pluto and its five moons, plus all the moving

images and fun stuff Ted included in his presentation, was absolutely captivating. Then Ted talked about a few past occultations and the upcoming occultation. His presentation concluded around 8:30pm and Q&A lasted for a short while. Then the usual activities followed; upcoming events, the raffle (won by Stu), and the closing of the meeting at 9:00pm. A few members hung around after the meeting, chatting until about 9:30pm.

I wish to thank everyone who brought snacks to share. The candy was a nice addition and it will be brought back to the next meeting. Many thanks to Ted for his fantas-

tic presentation. We look forward to seeing everyone at the December 6, 2018 PAS meeting.



Ted Blank was our fantastic guest speaker of Nov 1st. Photo provided by Don Boyd.

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PAS Upcoming December & January Events

By Terri Finch, Event Manager

Check out these and other fun events on the PAS Calendar: <http://www.pasaz.org/forums/calendar.php>. RSVP where requested to Events@pasaz.org. On the PAS Calendar, "Private" means the event is for PAS members only. If you wish to become a PAS member and attend the private events, please download a membership form here: <http://www.pasaz.org/forums/downloads.php?do=file&id=129>

Dec 1 - 23 & 26 - 31: For the whole month of December (less the 24th and 25th), PAS is at the DBG Luminaria. Therefore, there is only one event in December listed here, and the rest of the events are for January. Enjoy!

Dec 6: PAS Meeting at PVCC Main Campus in LS-203 at 7pm. More details: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2752&day=2018-12-6&c=1>

Happy New Year 2019!!!

Jan 6: Free Telescope Workshop at

Bookmans from 3:30 to 5:30pm. Bookmans is at 19th Ave & Northern in Phoenix. RSVP required with Terri. More details at this link: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2734&day=2019-1-6&c=1>

Jan 12: Sidewalk Astronomy Event at Bookmans: 19th Ave & Northern Ave in Phoenix from 7pm to 10pm. It's a Public Star Party, everyone welcome! RSVP highly suggested. More details: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2665&day=2019-1-12&c=1>

Jan 17: PAS Meeting at PVCC Main Campus in LS-203 at 7pm. More details: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2727&day=2019-1-17&c=1>

Jan 23: School Star Party (Private)

Jan 24: FREE Telescope Workshop at PVCC Main Campus 7pm to 10pm in G-147. Bring your telescope and accessories.

This is an indoor/outdoor event (weather permitting) and RSVP is required with Terri. No public RSVP's could cancel this event. More details are here: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2730&day=2019-1-24&c=1>

Jan 25: School Star Party (Private)

Jan 26: Public Star Party at Tonto National Monument. Star Party is open to everyone. More details: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2713&day=2019-1-26&c=1>

Jan 31: Huge Public Star Party at Black Mountain Campus of PVCC from 6:30 to 9:45pm. More details: <http://www.pasaz.org/forums/calendar.php?do=getinfo&e=2715&day=2019-1-31&c=1>

At the time of completion of this issue, several more events were in the planning stages and could not be listed as "Scheduled" until they are definitely happening.

PAS Memberships Expire December 31, 2018

With the holidays coming up on us quickly, it is easy to forget to renew your membership with PAS. But, to make it easier on those of us who track your membership, give you access to various parts of the website and other fun stuff throughout the year, it is highly recommended that you get your membership renewed prior to December 31, 2018. This makes it a lot easier on our Treasurers; Eric, who is passing the position on to Rick, who is becoming familiar with the process and leaning on Terri, who until further notice is collecting and processing your membership in PAS for

Rick. So, plan to bring your membership form and cash or check to the PAS meeting in December, or another event that you might attend that Terri or Rick is also attending, and get your 2019 membership paid for, now!

Those who have their membership up to date have been thanked in a receipt email from me and copied to Eric and Rick. If you haven't received a receipt saying your 2019 membership in PAS is now current, then you should take care of this today. A few of you have informed me it may take until

January to get your check to me, and that is fine, as long as I know it ahead of time. All memberships end December 31, 2018, unless you have been informed your membership covers 2019. Over half of the current 2018 members have NOT yet renewed their membership for 2019. Receiving your membership renewals earlier rather than later is helpful to me and saves me time later. Have a super day and I hope you renew for 2019! Here is the link to the 2019 PAS Membership Form: <http://www.pasaz.org/forums/downloads.php?do=file&id=129>

The PAS Annual Swap Meet Date Has Changed

This year only, the PAS Annual Swap Meet has been moved from the PAS December 2018 meeting, to the meeting on January 17, 2019. Come early to set up your items along the walls of this room, for sale as either a Swap Meet or a Garage Sale set up.

The left side of the room, when you

enter, will be the Garage Sale side. Put an asking price on your item for sale and let the attendees enjoy purchasing from you.

The right side of the room, when you walk in, will be the Swap Meet side. For this, prepare a piece of paper with the following info on it: 1) List Item for Sale, 2) Include all accessories that go with this

item, 3) List a starting price, 4) allow attendees to bid on your item from 7:00pm to 7:30pm and then again after the meeting closes up to 10:00pm. All sales must conclude by 10:00pm. Happy Selling!

For more information see the article on page 5.

Telescope Workshop at PVCC September 13, 2018

By Terri, Event Manager

It was a wonderfully clear and warm, but not too warm evening for this event. We had a huge turnout! Luckily, the room at PVCC can accommodate many in attendance comfortably. Many thanks to Jenny Weitz who gave PAS access to G-147 on the Main Campus of PVCC for this event.

From PAS we had William and Terri Finch, Rick Cunningham, Rodney Fong, Calvin Vance, Bruce Wurst, Ray Adams, Stuart Brackney, Mek McClure, and Kim Hollingsworth and Jordan Eisgrou. The teachers for this evening were William, Rick, Calvin, Bruce, and Terri.

From the public, we had these RSVP's: Rafael Poza-Garza; Dawn and Terry Zecman, Shelby Miles, and Skip Miller. We

had two RSVP's from the public who didn't show up or let me know they weren't making it. Rafael came to find out what telescope to purchase. He and I had a great, long conversation which included input from William and Bruce. Before he left for the evening, he became a PAS member. Congrats Rafael! Jordan brought his Celestron 8" Evolution, and William and Bruce assisted him. Mel and her mom, Kim, attended with various smaller scopes. Most of the evening Calvin assisted them, but Rick helped collimate the larger scope. Dawn and Terri had help from Rick and then Bruce assisting with their Celestron 127EQ Powerseeker. Shelby had the advice of Calvin, and Bruce spent most of the

evening with Shelby. She brought a Celestron 114 LCM scope which was new in the box. She also joined PAS on this night. Congrats Shelby! Stuart said he came to learn about telescopes. At first, he was just listening in, but then he started asking questions and I discovered he does plan to purchase a scope after a lot of research. And Ray brought his 12mm scope, set up outdoors, showed everyone as many objects as he could from 7:00pm to about 9:40pm. Thank you, Ray, for helping everyone enjoy tons of great objects.

Many thanks to everyone who attended the event. This event was busy and the PAS members met some really great people at this event!

What's Up For December?

By Don K. Boyd, PAStimes Editor

Name	Date	Rise	Set
Mercury	12-15-18	05:43	16:058
Venus	12-15-18	03:50	14:51
Mars	12-15-18	12:22	00:03
Jupiter	12-15-18	06:14	16:20
Saturn	12-15-18	08:33	18:20
Uranus	12-15-18	14:07	03:11
Neptune	12-15-18	12:09	11:34
Pluto	12-15-18	09:12	19:18

All Times Arizona Time

Bold means the object is "visible" in the evening

December 15 2018

Sunrise: 07:25

Sunset: 15:22



New: December 07



Q1: December 15



Full: December 22



Q3: December 29

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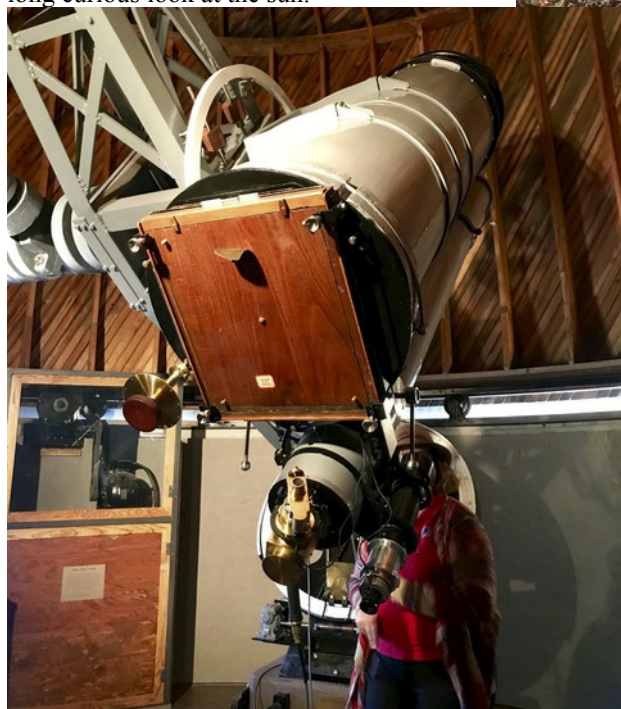
Two New PAS Members Head North to Learn More

By Stuart Brackney

Stu Brackney and Skip Miller, two new members of PAS headed north to Lowell Observatory on Friday November 2nd with our wives for a day of learning, and learning we did. First time visit for all four of us, we had a very small tour group, as we passed from one campus location to the other, enabling everyone to pose questions to our very articulate guide.

Our trip was encouraged by the recent presentation given to our club by Mr. Bruce Kosaveach, Philanthropy Manager for the Lowell Observatory.

A few pictures are provided, showing the Lowell Telescope and Skip taking a long curious look at the sun.



Las Noches de Las Luminarias 2016/2018

PAStimes Newsletter Staff

For 23 nights Between November 25th and December 31st, 2016, PAS provided telescopes for Desert Botanical Gardens' annual "Las Noches de Las Luminarias" program. These evening events involve the gardens being beautifully lit and available for the public to stroll through while enjoying the desert, sculpture, a variety of musical groups, and for the last couple of years, PAS telescopes at four locations and one PAS meteorite presenter throughout the facility, weather permitting.

Participating with telescopes in 2016

were: Roger Anzini, Don Boyd, Rick Cunningham, Terri Finch, William Finch, Sam Insana, Mark Johnston, Christine Mintzmyer, Pete Turner, Kevin Witts and Bruce Wurst. Mike Marron, Suzanne Morrison and Kevin Witts also provided meteorites and various interesting displays to enhance the experience and in some cases compensate for cloudy weather. It was an exhausting series of nights, but very satisfying to all given the opportunity to share the skies and telescope views with literally thousands of people from all over the country.

Detailed reviews of each Luminaria night are available on the PAS website at: <http://www.pasaz.org/forums/downloads.php?do=file&id=292>.

PAS is back to do this event again in December 2018 for 29 nights. We look forward to seeing you there! Please see the article in this newsletter named "Electric Desert at Desert Botanical Gardens" for more info about the exciting Luminaria event of 2018!!! For More details about this event see "Electric Desert" on page 7.

Special January 20, 2019 Planetarium Show & Lunar Eclipse

By Ron Walker, Director & Owner of the Star Barn

Those of you that might be interested to reserve a seat or two for the January, Sunday the 20th, 2019 total Lunar eclipse, the eclipse will be viewable during the evening hours rather than the more usual middle of the night presentation. Here are the times:

- Duration: 5 hours, 11 minutes, 33 seconds
- Duration of totality: 1 hour, 1 minute, 58 seconds
- Penumbral begins: Jan 20, 2019, at 7:36:29 pm
- Partial begins: Jan 20, 2019, at 8:33:54 pm
- Full begins: Jan 20, 2019, at 9:41:17 pm
- Maximum: Jan 20, 2019, at 10:12:14 pm
- Full ends: Jan 20, 2019, at 10:43:15 pm
- Partial ends: Jan 20, 2019, at 11:50:39 pm

- Penumbral ends: Jan 21, 2019, at 12:48:02 am

There will be at least one telescope available for direct viewing as well as a live projection in the planetarium and explanations of what is happening. There will probably be some other visuals presented as starting at the hour of partial eclipse. Things should get started around 7 pm. Since 2000, this date was cloudy 47% of the time so it's a coin toss as to what we will see, but either way, there will be visuals under the dome. Since these types of presentations tend to be popular, please only reserve seats if you have the intention of coming to the event. And if you need to cancel your attendance, please do so by the day before the event.

This event is a PAS Members, their families & friends, invite only. This is not open to the general public and more details can be found at this link in the Private Calendar on the PAS website: <http://www.pasaz.org/forums/calendar.php>

[?do=getinfo&e=2778&day=2019-1-20](http://www.pasaz.org/forums/download.php?do=getinfo&e=2778&day=2019-1-20). If this link doesn't give you access to the Private Calendar, please see your Welcome Kit - in your email, or drop Terri an email at the below email address to get your access to the Private Calendar upgraded.

If you aren't already a PAS Member, and would like to become one to be able to attend this event, please grab a copy of the PAS Membership form, send it and your check for \$25 to PAS and drop Terri an email at Events@pasaz.org to let her know you mailed your membership form and she should go get the mail. Then, wait for her email to say your check has been received which will then get you access to this event. Plan ahead, send your membership in today! Here's the link to the PAS Membership Form:

<http://www.pasaz.org/forums/downloads.php?do=file&id=129> or hand deliver your cash or check with the membership form at any public PAS event to Terri, Event Manager.

IMPORTANT Change to PAS Annual Swap Meet - January 17th

By Terri, Event Manager

At the November 1, 2018 PAS meeting, it was decided to postpone the PAS Annual Swap Meet from December to January, for this year only. So, officially, make a note in your calendar for the new date; the PAS Annual Swap Meet will be held during the PAS meeting on January 17, 2019. We hope to see you there.

For those of you selling items at the Swap Meet, the deadline has been extended to December 10, 2018, for you to send me your list of items for sale. Send only a list of items you plan to sell, as I will not include prices or who is selling the items in the article I write about the upcoming Swap Meet. The idea is to get those who might be interested in purchasing what you have for sale, to come to the meeting and bring cash for the purchase.

What should you expect at the Annual PAS Swap Meet at the January 17, 2019, PAS Meeting? Plenty of great items for sale!

I requested that PAS Members send me a list of items they have for sale so that I could include that information in the newsletter. I wish to thank the folks who provided the following For Sale items that will be

seen at the PAS Swap Meet:

- 4.5" Reflector Telescope with rings and Dovetail and excellent Mirrors
- 6" Reflector Telescope with rings and Dovetail and excellent mirrors and a finder scope
- Cell phone adapter that holds the phone camera steady to take astronomy photos through a telescope. It is adjustable to fit different size phones
- End caps for eyepieces in 1.25" and 2" (in Garage Sale side of the room)

Come to the Swap Meet and see these wonderful items for sale and many more that didn't get listed in this article.

This year's Swap Meet will be set up in this way:

- As you enter the room, down the left side of the room will be the items for sale in Garage Sale format. That means, you see an item you are interested in, you look at its price tag, you can talk with the owner, and make an offer. These sales can happen throughout the evening and do not need to wait until after the meeting closes to purchase or sell.

chase or sell.

- Down the right side of the room, we will have the Swap Meet. See Terri during set up of the meeting, 7:00pm to 7:30pm, for paper and markers. Each item being sold needs a sheet of paper, with a complete description of the item for sale, all accessories that come with it, and a starting bid. Then, during the evening, attendees of the meeting can make bids on the items for sale. Sales need to be completed before the meeting ends, and we need to vacate the room by 10:00pm. New owners should take away the items they have won the bid on or purchased.

I wish to thank everyone who provided the For Sale items listed in this article to give readers an idea of the type of items that may be available at the Swap Meet this year. Additionally, I want to remind everyone to bring enough cash for the items they may wish to purchase. I look forward to a successful SALE! One astronomer's junk is another astronomer's treasure. Come and enjoy an evening of giving old astronomical equipment a new home!



NASA Night Sky Notes:

Observe Apollo 8's Lunar Milestones

By David Prosper

December marks the 50th anniversary of NASA's Apollo 8 mission, when humans first orbited the Moon in a triumph of human engineering. The mission may be most famous for "Earthrise," the iconic photograph of Earth suspended over the rugged lunar surface. The photo inspired the imaginations of people around the world and remains one of the most famous photos ever taken. This month also brings a great potential display of the Geminids and a close approach by Comet 46P/Wirtanen.

You can take note of Apollo 8's mission milestones while observing the Moon this month. Watch the nearly full Moon rise just before sunset on December 21, exactly 50 years after Apollo 8 launched; it will be near the bright orange star Aldebaran in Taurus. The following evenings watch it pass over the top of Orion and on through Gemini; on those days five decades earlier, astronauts Frank Borman, Jim Lovell, and Bill Anders sped towards the Moon in their fully crewed command module. Notice how the Moon rises later each evening, and how its phase wanes from full on Dec 22 to gibbous through the rest of the week. Can you imagine what phase Earth would appear as if you were standing on the Moon, looking back? The three brave astronauts spent 20 sleepless hours in orbit around the

Moon, starting on Dec 24, 1968. During those ten orbits they became the first humans to see with their own eyes both the far side of the Moon and an Earthrise! The crew telecast a holiday message on December 25 to a record number of Earthbound viewers as they orbited over the lifeless lunar terrain; "Good night, good luck, a merry Christmas and God bless all of you - all of you on the good Earth." Just two days later the astronauts splashed down into the Pacific Ocean after achieving all the mission's test objectives, paving the way for another giant leap in space exploration the following year.

The Geminids, an excellent annual meteor shower, peaks the evening of December 13 through the morning of the 14th. They get their chance to truly shine after a waxing crescent Moon sets around 10:30 pm on the 13th. Expert Geminid observers can spot around 100 meteors per hour under ideal conditions. You'll spot quite a few meteors by avoiding bad weather and light pollution if you can, and of course make sure to bundle up and take frequent warming breaks. The Geminids have an unusual origin compared to most meteor showers, which generally spring from icy comets. The tiny particles Earth passes through these evenings come from a strange "rock

comet" named asteroid 3200 Phaethon. This dusty asteroid experiences faint outbursts of fine particles of rock instead of ice.

You can also look for comet 46P/Wirtanen while you're out meteor watching. Its closest approach to Earth brings it within 7.1 million miles of us on December 16. That's 30 times the average Earth-Moon distance! While passing near enough to rank as the 10th closest cometary approach in modern times, there is no danger of this object striking our planet. Cometary brightness is hard to predict, and while there is a chance comet 46P/Wirtanen may flare up to naked eye visibility, it will likely remain visible only via binoculars or telescopes. You'll be able to see for yourself how much 46P/Wirtanen actually brightens. Some of the best nights to hunt for it will be December 15 and 16 as it passes between two prominent star clusters in Taurus: the Pleiades and the V-shaped Hyades. Happy hunting!

Catch up on all of NASA's past, current, and future missions at nasa.gov

This article is distributed by the NASA Night Sky Network, a coalition of hundreds of astronomy clubs across the US dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, stargazing info and more.



Earthrise, 1968. Note the phase of Earth as seen from the Moon. Nearside lunar observers see Earth go through a complete set of phases. However, only orbiting astronauts witness Earthrises; for stationary lunar observers, Earth barely moves at all. Why is that? Credit: Bill Anders/NASA

Electric Desert at Desert Botanical Gardens

By Terri Finch, Event Manager

The Desert Botanical Gardens invited me to bring a guest to attend a preview of the Electric Desert light display on Oct 7, 2018. This was a wonderful night! I am writing about this event because the Electric Desert Display is worth seeing, plus you can combine it with your visit to DBG for the December Luminarias and PAS with Telescopes. The Electric Desert will be at DBG from Oct 12, 2018 to May 12, 2019.

What is Electric Desert? DBG has seven displays in which the lights dance on the desert plants to music. It is really awesome! I loved it. William and I were there from 6pm to 9pm to see and enjoy all of it. While there, we also got to see, around 7:30pm, the launch of a Space X rocket out of California.

I wish to thank DBG for the invite to

attend this fantastic event! This December, plan to come to DBG to see the Electric Desert, the Las Noches de las Luminarias and the Phoenix Astronomical Society with Telescopes and a Meteorite display for 29 nights in December. We would love to see you there! Stop by and mention to me that you read about this in the club newsletter. Happy Holidays!!!



The desert comes to life with music, patterns, dancing colors. It is really a wonderful thing to experience. Photo by Terri Finch.



One of the areas to visit during the Electric Desert is the Glowing Wall where a black light has been provided to enhance your drawing pleasure on the wall. Photo by William.



On the night we made the trip to DBG to see the Electric Desert, Space X had a launch from California. We captured its photo. Photo by William Finch.

ELECTRIC DESERT

A LIGHT AND SOUND EXPERIENCE BY KLIP COLLECTIVE

OCTOBER 12 - MAY 12 / AFTER DARK

Welcome to the Garden's newest exhibition, **Electric Desert | A Light and Sound Experience by Klip Collective**. This after-dark journey transforms the desert into a world of wonder and illusion, featuring mesmerizing compositions of light choreographed to original music.

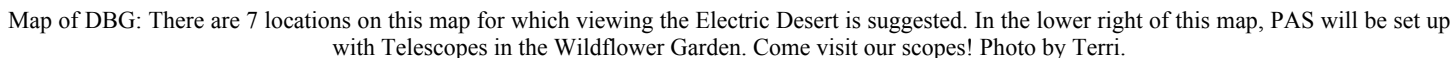
Using 3D projection mapping (a video technology that turns objects into a projection surface), Klip Collective fuses nature and technology to transform the Garden's plant collection into a living canvas. The organic forms and patterns inherent in the desert plants and landscape inspired each of the seven site-specific light installations created exclusively for Desert Botanical Garden.

Klip Collective is an experiential art group based in Philadelphia comprised of talented producers, lighting designers, audio engineers, programmers and composers. Led by creative director, Ricardo Rivera, they are renowned for their captivating displays for brands such as Nike, Target and Gillette, as well as the Philadelphia Art Museum and Longwood Gardens.

We hope you enjoy this immersive, sensory experience and invite you to share your photos and videos by tagging us on social media @dbgphx and #⚡🌵.



This sign says everything you need to know about the Electric Desert Event. Photo by Terri.



By Various Attending Telescope Team Members

Terri Finch writes: We had a great turnout at Rancho Gabriela on this evening. The evening forecast was for colder temps, so Storm and I brought extra warm clothing

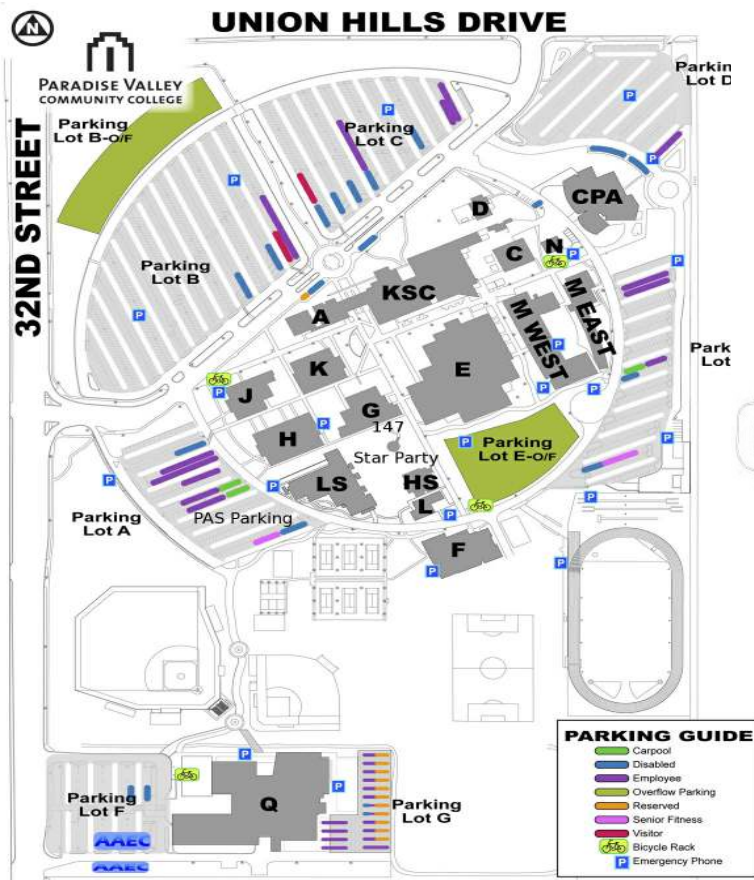
Attending this event from the PAS-times Star Tours team was myself with my 8" SCT scope (I brought the Doctor to this event), Storm Moon had her 8" SCT, Rick has his 8" Dobsonian, Mike had brought his meteorites and Ofelia Waters, and Paul Facuna had brought Don Boyd and Don's 8" scope.

da Galaxy. We switched a few times to other objects. The night was clear as far as clouds, however, the sky was mushy, like it had clouds we couldn't see, plus the light pollution was more than I'm used to working with, so finding anything to the East was a challenge.

I wish to thank Kisha Ferullo for having us at her wonderful star party. It was a lot of fun, cold, but a good time. I think we had about seventy people show up at this event. They didn't all arrive at one time and most of them got cold, and left after just looking through the scopes one time. PAS looks forward to doing this event again, next school year.

Map of PVCC Main Location

18401 N. 32nd Street | Phoenix, AZ 85032



Map of PVCC Black Mountain

34250 N. 60th Street | Scottsdale, AZ 85266



2019 PAS GUEST SPEAKER LINE-UP

By Terri Finch, Event Manager Events@pasaz.org

PAS Meetings are held at PVCC Main Campus on the first Thursday of the month in **Room: LS-203** unless otherwise noted. Do you have an idea for a guest speaker? Email Terri Finch, Paul Facuna, or Mike Marron the details (their email addresses are at the top of page 2 in this newsletter).

Here are the next scheduled guest speakers at PAS:

Jan 17: Mark Johnston: Topic: Exoplanets

Feb 7: Richard Hawshaw: Topic: Double Star Speckle Interferometry

Mar 7: Jim Renn: "The Vatican Observatory and the Big Bang"

More information at:

<http://www.pasaz.org/index.php?pageid=meetings>

PVCC Telescope Workshop November 15, 2018

By Terri, Event Manager

It was a very chilly night for a telescope workshop. We had three RSVP's. Later in the day, one RSVP cancelled their attendance, and then that night, another RSVP never showed. But we did have Peter and Rose come with their new Celestron Evolution 8" scope and Steve and Fay also attended to find out what telescope to purchase.

This was an informal but informative meeting. We started out in G-147 answering questions and just talking about telescopes in general with William leading the discussion. From PAS we had Rick Cunningham, William and Terri Finch and we also had a great lady from PVCC attend to write a story for the Puma Press about PAS and that was Becky. The class began about 7:10pm and continued until about 9:30pm.

William led the discussions, answers, and we all put our two cents into the mix as we discussed a lot of variables about tele-

scopes. I wish to thank Peter and Rose for their patience while we went through so many great questions and for their input since they had just purchased the C 8" Evo telescope a month or so prior. They were able to give some great input on the issues they were having as well as what they learned since it was their first telescope purchase. This great information was very useful to Steve and Fay.

After about an hour, we took Peter's scope outdoors and set it up, and we were able to view the moon and Mars. This impressed Steve and Fay.

There were many questions about how the club operates and Steve was saying that he attended a monthly meeting with a club in his previous location of residence, but did not feel that the club members were super friendly or inviting. He loved how PAS was inviting and full of information and sharing

everything and I told him about the Night Sky Training Workshops and many other facets of PAS. Then, he joined PAS!!! Congrats to Steve and Fay Crowell for becoming new members of PAS! I wish to thank Peter and Rose for attending and hope they join PAS as well.

Rick Cunningham and Rodney Fong were extremely helpful in moving the scope and helping to set it up, and provided great input during the event. Many thanks to Jenny Weitz who provided the room where the event took place, and thank you, Becky, for hanging out with us and taking notes on what we do at a Telescope Workshop; PAS members educate and advise the attending public seeking help with their telescopes or advice on which telescope to purchase. We are looking forward to the next Telescope Workshops at PVCC in 2019 on February 21, March 21, and April 11. Hope to see you there!