Senior Curator and Director of Outreach at the Denver Botanical Gardens, Panayoti Kelaidis, will present our program on **November 19**. We are meeting earlier in the month due to the Thanksgiving holiday. Pictured is part of the Denver Botanic Gardens xeric garden. *Photo by P. Kelaidis.*

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No meeting in December.
See details inside regarding the Holiday Party on December 10.
Deadline for the next newsletter is December 1.
With our rich bounty of succulents in the Southwest, we can sometimes forget that there is a passion for cacti and succulents around the world. Even central Arizona gardeners might be surprised at what is being grown not just in the great public gardens of Europe, but across Eurasia and in the Southern Hemisphere as well. We’re living in the “Age of the Succulent,” and cacti and succulents figure prominently in collections and public gardens around the world. I’ve been fortunate to visit quite a few of these over the decades, and will share some of those that interested me most in the talk.

Panayoti Kelaidis is a plant explorer, gardener and public garden administrator associated with Denver Botanic Gardens where he is now senior curator and director of Outreach. He has designed plantings for many of the gardens at DBG. He is particularly noted for the plantings of the Rock Alpine Garden. He has introduced hundreds of native ornamentals from throughout the Western United States to general horticulture. He has taken seven collecting trips to southern Africa researching the high mountain flora there, as well as travels to the Andes, Central Asia (Kazakhstan and Mongolia), the Himalaya (from both Pakistan and China), and travels throughout much of Europe, from Spain to Turkey and most recently, New Zealand.

Many of his plant introductions are available through Plant Select®, (a plant introduction program he helped launch along with staff from Colorado State University and nurseries across America). He has lectured in over 140 cities in twelve countries, and has been featured in dozens of television, newspaper and magazine pieces. He has published widely in popular and technical horticultural journals.

In recent years, Panayoti has been honored with the Boulder History Museum’s 60 Year Living History award in 2004, in 2003 by being inducted into the Garden Club of America as Member-at-Large, in 2002 he received the National Garden Clubs Medal of Honor, and in 2000 he received the Arthur Hoyt Scott Medal from the Scott Arboretum at Swarthmore College. He has received four awards from the North American Rock
Garden Society. In 2004 he was inducted into the Colorado Nursery and Greenhouse Association’s Hall of Fame. In 2009 he received the Liberty Hyde Bailey Award of the American Horticultural Society.

Cycads valley at Kirstenbosch National Botanical Garden, Cape Town, South Africa to be discussed at our program.

Be sure to visit CACSS on the web at: centralarizonacactus.org the Society’s web site. Facebook Central Arizona Cactus and Succulent Society CACSS Swap and Shop, a place to connect with members.

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HOW'D YOU GROW THAT PLANT?  Compiled by Tom Gatz

Echinocereus pacificus  
Grown by Pam Rush

Purchased: About 15 years ago from a nursery in the Kansas City area.

Pot: The current pot is a Mark Muradian pot that she bought specifically for this plant. Pam had to wait about five years for it to grow to fit the pot. Talk about patience and planning!

Fertilizer: Pam fertilizes with the club's Pro-Sol 3 or 4 times a year.

Potting Medium: She uses Black Gold Cactus Soil and adds pumice usually at about a 50/50 ratio.

Sun Exposure: This plant gets about eight hours of sun and then it's protected from the late afternoon sun.

Watering: Usually watered every 10-14 days when it's warm and no water during winter unless it accidentally gets wet.

Frost Protection: Pam lost her greenhouse when they moved last year, so this plant and the others survived on strategically placed racks and benches covered with plastic and flexible 1/8" Styrofoam sheeting. She said that it wasn't pretty, but it kept her plants warm and dry.

Special Needs: None. It can take a lot of direct sun and isn't particularly fussy.
Gasteria armstrongii
Grown by Pam Rush

PURCHASED: Two years ago from a vendor at Tucson Botanical Garden’s Weird Plant Sale.

POT: The Gasteria came in the current pot. Pam liked how the curve of the leaf on the pot complemented the Gasteria’s leaf.

FERTILIZER: She fertilizes with the club’s Pro-Sol 3 or 4 times a year.

POTTING MEDIUM: She uses Black Gold Cactus Soil and adds pumice, usually at about a 50/50 ratio. She hasn’t repotted this plant yet, but she said she would probably add a little more pumice.

SUN EXPOSURE: This plant gets maybe an hour of early morning sun, then it’s under 60% shade cloth for the rest of the day.

WATERING: Pam usually waters it every 10-14 days when its warm and mists it once a week during the winter and a little water once a month when inside.

FROST PROTECTION: This plant winters inside under fluorescent lighting and then goes back outside when it warms up.

SPECIAL NEEDS: No special needs. She just keeps an eye on it so it does not get too much sun.

Photos by Sue Hakala.
HOW I GOT HOOKED

By Pam Rush

I grew up out past the burbs of Detroit. My parents spent a lot of time at a local nursery chain called Frank's buying shrubbery and other less than interesting plants. Shrubbery held zero interest to a 6-year-old. Back then it was safe to let your kids roam alone in public. I was wandering around the nursery and discovered a table full of cactus. It was love at first sight! I couldn't decide which one I liked best but knew I had to have one. I ran off to find my parents and begged them to buy one for me. My mom's answer was of course, "No!" and "They are hard to grow and you will kill it!" My rebellious streak surfaced about then and I told her, "Just because you can't grow them doesn't mean I can't." After that, my parents always knew where to find me when they went to Frank's: at the cactus table. I finally bought my first cactus when I was around 12 and it thrived for around 15 years.

Since then I've moved slowly west, and with each move I've had to relearn how to keep my plants alive in different climates. I've also expanded what interests me from just cactus to succulents, adding Agave, Euphorbia, Gasteria and Haworthias, among others, to my collection.

ANNUAL SHOW AND SALE

Mark your calendars for our Annual Show and Sale at the Desert Botanical Garden. Plant drop-off is April 4, judging April 5, and plant pick-up April 8, 4 p.m. The Show and Sale is open to the public April 6-8. Jo Davis and Dan Smith are show co-chairs. We are looking for the sale chair. Please contact Beth Kirkpatrick if you are interested.

Aloe hybrid collection Best Succulent Collection grown by Gard Roper 2016.
All the *Haageocereus lanugispinus* I have lived through temperatures down into the upper teens (he keeps them bone dry). This is probably because they are grafted on *Trichocereus spachianus* and get the “anti-freeze” from the graft stock that keeps them from freezing. I do not know that for sure. I have given my plants lots of light and they have taken the 130F that the hothouses reached quite a few days over the summer.

I do not remember when or where I got my plant, but I’ve had it a long time. It was grafted and I did not like that. In time, the plant grew side stems and they detached very easily. Only a thread held the side stems to the main stem. I tried many times to get the stems to root, to no avail. I did graft more cuttings and kept the plants growing for many years. In time, I got down to only one plant.

Late last season, I took cuts and grafted them and now I have new plants from that one old, mostly dead plant. Several of them have bloomed this year. It is the first time I have seen a flower of the plant in close to thirty years.

Last year at a show/sale, I saw a crested plant without a name on it. In a wink of an eye, I knew what it was even though I had never seen a crested one before. The web says that the crested plant is more common than the normal stemmed plant. I took three cuttings using *Trichocereus spachianus* as the base stock (I find it is hardier than most other grafting stock), and now I have four crested plants. The grafted plants are larger than the one I bought. It will be interesting to see if the crested plants ever bloom. They have shown no signs of wanting to grow any buds.

There may be only one clone propagated worldwide. I tried to pollinate my plants with each other and it did not take.

The manner of growth of *Haageocereus lanugispinus* resembles that of *Mammillaria viperina*. It is a small grouping species with stems about 2/3 inch in diameter. It has
about 18 ribs with close-set, round, light-brown areoles about 1/10 inch apart. There are about 30 very fine pale reddish-brown spines about 1/10 inch long, more or less covering the whole body. Flowers are rose pink with outer segments a deeper pink. They are nocturnal flowering in summer. It requires a sunny position, normal cactus compost and a minimum temperature of 50F. It grows in the hills near the coast in the border area of the Peru states of Ancash and Lima.

Haageocereus lanugispinus crest

Haageocereus lanugispinus in spectacular bloom.
Terms from Gregg Starr’s *Agaves Living Sculptures for Landscapes and Containers* and Howard Scott Gentry’s *Agaves of Continental North America*.

Match the terms with the definitions below. Answers appear later in the newsletter.

1. **FILIFEROUS**
2. **OFFSET**
3. **PUP**
4. **SPATULATE**
5. **CROSSBANDING**
6. **TEETH**
7. **CLONE**

A. prickles along the leaf edge
B. spoon-shaped
C. having thread-like structures, as found along some *Agave* leaf margins
D. a group of individual plants reproduced asexually from a single original parent
E. a plant connected to the parent plant, usually by a rhizome or stolon
F. Horizontal color variation found on some *Agave* leaves
G. an offset

*Agave parryi* (left) and *Agave horrida* give clues to the answers.
CACSS Holiday Party

Sunday, December 10, 2017
1-3 p.m.

Tumbleweed Recreation Center
745 E. Germann Road, Chandler, AZ 85286

Please RSVP with your name and item you will bring to pass (main dish, appetizer, salad/vegetable or dessert). Please include a serving spoon/fork with the item you bring. We will supply plates, napkins, eating utensils and turkey and ham for all to enjoy. We will need volunteers to help set up and clean up at the end. We will have a plant exchange for anyone interested. If you bring a plant, you will get a ticket from Jo Davis. Jo will conduct the exchange during the meal, so please wait for your number to be called before taking a plant.

RSVP to Sue Glenn at 920-327-3137 or ekmglenn@hotmail.com by November 30.
If you were not able to make it to the October Silent Auction—boo on you! This year’s auction was in the comfort of Dorrance Hall (read air-conditioned). Maybe that put the attendees in better spirits so they did more bidding, but initial estimates make this our most financially successful auction ever. It would appear member satisfaction also scored high marks (present company excepted: I got outbid on most everything I was interested in).

Many thanks to all of those who volunteered and helped make the auction run as smoothly as it did. And many thanks as well to all those who were there bidding on what was an array of really great plants and botanical items. A big shout-out to all those who donated items for the auction, as without such great material we would certainly have not been able to do as well as we did. All in all, a great October event for CACSS and some great finds if your bid was last.
Steve Wierz supported the club in a big way by winning the heated bidding war on this spectacular *Adenium* for $300.

Special thanks to Heather Holst’s mystery friend who donated it.

Answers to Vocabulary Corner

1. C  5. F
2. E  6. A
3. G  7. D
4. B
FAVORITE TOOL

This “angle weeder” really comes in handy when I need to loosen a root-bound plant from a pot. Tom Gatz

I do have a favorite digging tool that is probably not of much use to most of us: the sharpshooter. Ours are custom made by welding shops as the commercial ones are laughably weak. One I bought from Home Depot years ago for $65 did not survive the first day on the job. The thin blade fractured when we hit a rock. The last sharpshooters I had made cost $100 each and are still being used after about 25 years. They are the perfect example of "value" versus "cost." The more expensive tool proved its worth in the second day and is still going strong. Jim Elliott, owner Arizona Cactus Sales, Chandler, AZ.
A few weeks ago, one of the former presidents of CACSS, passed away after a prolonged struggle with Alzheimer’s disease.

In 2003, Kathy, not yet a member, came to our Annual Show/Sale. She was fascinated by those little African plants called *Lithops*. She asked around to see if someone in the club was also very interested in these succulents. She was pointed my way, and the rest is history. Kathy and I developed a fantastic friendship, and she spent many fun times at my house as we transplanted countless *Lithops*.

She quickly became a member and active in the club. She went on many cactus rescues, helped with our Annual Show/Sale, and in fall of 2005, was elected to become our 2006 president. For several years, Kathy went on many Arizona hikes with me and others. We had a great time together.

In 2007, I invited Kathy to accompany me on one of my botanical exploration trips to Namibia. She was a real trooper, camping out and hiking every day. I still remember the photo I took of her lying on the ground south of Aus, Namibia, as she delighted in inspecting the *Lithops*. In her latter days, when her memory was failing, we could always talk with animation about the wonderful adventures we had in Namibia together.

Kathy was truly a great club member and a fantastic and dear friend. She will be missed.
Autumn is my favorite time of year. The weather allows us to enjoy longer hours outside. Halloween is a fun holiday. The DBG has their fall plant sale, and we have our silent auction which enables us to acquire new plants at great prices and make money for our society.

Our annual Mega Live and Silent Auction, on October 29, was a smashing success! Thank you so much to Mike Gallagher and his team for organizing it again this year and to Lee Brownson as our auctioneer. We were so fortunate to have been able to have it in Dorrance Hall, a great air-conditioned venue. My friend Judy Tolbert and I made a great day of it. We dropped off our donations at noon, had lunch at Gertrude’s and returned in time for the live auction. There were many very nice plants and pots in the live auction and I was fortunate to win a pot of seven very nice cardons (Pachycereus pringlei see photo). A couple Adeniums went for some big money! The silent auction had a wonderful variety of plants and the event was very well attended. It was great to talk to so many folks that I normally don’t get a chance to talk to because our regular meetings are a bit hectic for me.

I have spent the last couple days sitting on my back patio considering what I’m going to do to my garden next. I’m half way through planting a new Opuntia garden thanks to a lot of pads I acquired from Bob Torrest this past year which are now ready to put in the ground. Now I have to figure out what I’m going to do with my new cardons. I think I’ll plant them in a of couple groups. I told my husband, who is my hole digger and major garden supporter, that I wasn’t going to buy much as I was running out of room. Of course, he didn’t think I could resist, so wasn’t surprised when he hauled the cardons out of my car. I think I’m in very good company. I’m sure there were many full trucks and trunks leaving the DBG from our auction!
FACEBOOK
By Thom Young

The Central Arizona Cactus and Succulent Society (CACSS) Facebook (FB) page membership in October rose to a total of 3,175 members. This is a one percent increase from the month of September. Our FB page is an open forum on cacti and succulents (C&S) with questions and variety of commentaries sprinkled in along with requests for IDs. Our page has many informative posts associated with all aspects of growing C&Ss. Our page also offers the opportunity to post your favorite plant photos.

The following are the different C&S in flower posted on our FB page in October: Adenium, Albuca, Ariocarpus, Astrophytum, Cereus, Chamaelobivia, Cleistocactus, Conophytum, Copiapoa, Coryphantha, Cylindropuntia, Echinocactus, Echinopsis, Euphorbia, Ferocactus, Gymnocalyccium, Harrisia, Hoodia, Hoya, Huernia, Lithops, Leuchtenbergia, Loxanthocereus, Mammillaria, Matucana, Melocactus, Micranthocereus, Opuntia, Stapelia, and Tylecodons. The photos of our plants in flower are of great assistance in plant identification. You can find the beautiful photos here: https://www.facebook.com/groups/cacss2/ (copy and paste to your search engine).

Each month we feature a cactus and a succulent (non-cactus) photo from our FB members. This month’s featured cactus photo (right) is Mike Harris’ post of a Gymnocalyccium horstii in bloom. The featured succulent photo is from Pam Edsall’s post of Ariocarpus fissuratus v. lloydii in bloom. Thanks to Mike and Pam for posting their photos on the CACSS FB page.