

THE XEROPHILE

January - March 2019

President's Letter

Dear all you cactus lovers,

Here is our first Newsletter for 2019. And what a year 2018 was for the Cactus Society. We and/or the Members did about everything from world travel to travel across the USA. We were able to salvage a few cactus plants and plant a few. Our members were all over the place at other Society/Club Meetings and Flower Shows and at their special projects in Arizona, Utah, California, here in New Mexico and in Missouri. We especially enjoyed interacting with the new Cactus Club in Santa Fe, New Mexico. They are a good group of experts and enthusiasts.

As I did at the Christmas Dinner, I wish to compliment the hard work of Steve for our really good programs, Margaret Todd for all her hard work as Society Vice President and Pia for staying ahead of the game as Treasurer. These plus our other key persons kept the Society moving. With the same executives in 2019 as we had in 2018, I expect a greater and a more comprehensive success, especially from the plant experts we have in the Society. We should be publishing now every quarter valuable insights and articles about cacti, their propagation, growth and taxonomy. Our Newsletter needs to be newsy, but also technical. There are too many recognized authorities in our Society for us not to publish excellent authoritative articles. This letter got a little long on me. Enjoy your holidays.

Carl Hime, President



http://www.huntbotanical.org/admin/uploads/hibd-dangerous-beauty-title_OOL.jpg

Cactus & Succulent Society of New Mexico



"The object and purpose of the Society shall be exclusively for the study, appreciation, propagation and promotion of cacti and succulents among growers and collectors; the conservation and cultivation of native cacti and succulents, the exhibition of said materials whenever and wherever possible."

Mark Your Calendars

Friday January 18

Woody Minnich -
Cacti of Chile

Friday February 15

Speaker TBD

Friday March 15

Eric Gensler -
Echeveria agavoides

April 12-14

Show and Sale

Do you know the difference between thorns, spines, and prickles?

- A. arises from below the epidermis; is a modified leaf or stipule.
- B. small, sharp outgrowth of the epidermis or bark
- C. stiff, woody modified stem with a sharp point

Definitions from Harris and Harris' Plant Identification Terminology
Answers on page 8.

Editor's Letter

I always find the New Year to be a hopeful time. The days are starting to get longer. It's true that some of our colder weather is still ahead of us but that just means more hot chocolate with lots of whipped cream. If it's cold enough, there might be fewer insects in the garden the coming year. Hope springs eternal. Meanwhile, though Christmas is now passed, Steve Brack has provided us with an article and photographs about Christmas cacti (page 4). Their blooms may be gone for now, but it's always the right time to read more about them and about their care.

Steve has also been working to line up the monthly programs for 2019. The Mark Your Calendars box (front page) lists what we can look forward to over the next three months. As always, of course, check the website for updates.

Don't forget to start getting ready for the upcoming show and sale in April. Should your preparations for that event include repotting, be sure to read Katherine McCoy's article on page 6.

In the previous issue I wrote that I was looking forward to receiving articles, ideas, and photographs from YOU! With this issue I am very pleased to announce the start of a regular feature by Claire Ross (page 3). Claire, a most inspiring CSSNM member, needs no introduction. I'll just say that I'm very excited that she'll be working with me on a regular basis. I have a feeling that I'm going to learn a lot!

Please feel free to contact me with any ideas or suggestions you might have for me:
margaret@margaretmenache.com.

Margaret Ménache



Trichocereus paco. Argentina, 2002.
Photograph by Woody Minnich. Cover image for New Yorker article by Carolyn Kormann on The Strange Wonders of the Cactus, the Plant of our Times (27 July 2017).

Woody Minnich to speak at the January Meeting

Many of you will already know, or know of, Woody Minnich. If not, or if you just want a refresher, I quote from a December 2018 article from Mother Nature Network (<https://www.mnn.com/your-home/organic-farming-gardening/stories/why-black-market-cacti-succulents-booming>).

Minnich, a retired high school graphic-design teacher, became a serious grower of cacti and succulents in the late 1960s. In the ensuing 50 years, he has evolved from an amateur scientist to a devoted field botanist, becoming a rock star to the general membership of cacti and succulent clubs as well as specialist collectors because of his expertise, published works, photography and passion for these plants.

One of his plant passions is conservation and his belief "that the world around us contains the most magnificent, beautiful, amazing array of plants and animals and geology. It should be protected for the plants and animals themselves, but also for our human species, for our heritage, for our relationship with the total world and for our future generations."

It looks like we're in for a treat accompanied by beautiful images!

KACTUS KIDZ COLUMN

CLAIRE ROSS

When you look for cacti in the wild, do you think about the rocks they are growing in? Along with having a cactus collection, I also have a rock collection. When I was transplanting seedlings one afternoon, I realized that the seedling mix that Steve Brack, one of my CSSNM mentors, had given me was full of different minerals. I wondered why my *Ferocactus* seedlings would grow better in the seedling mix than regular, well-draining potting soil.

I asked Steve Brack how different minerals in the soil might affect what types of cacti grew there. He gave me the following examples. He said that lithops and argyrodemas only grow in quartz-rich soil because quartz reflects the sun's rays since it is usually white. Therefore, the argyrodemas and lithops don't get cooked by the sun. Steve also said that *Pediocactus Knowltonii* can only grow with a foliose lichen soil cover in calcite rich soil. The lichen uses the calcite in the soil to create an acid which breaks down rock. This allows the *Pediocactus Knowltonii* to grow. So, the next time you see a cactus in a mineral rich soil,

think about why it might be growing there.



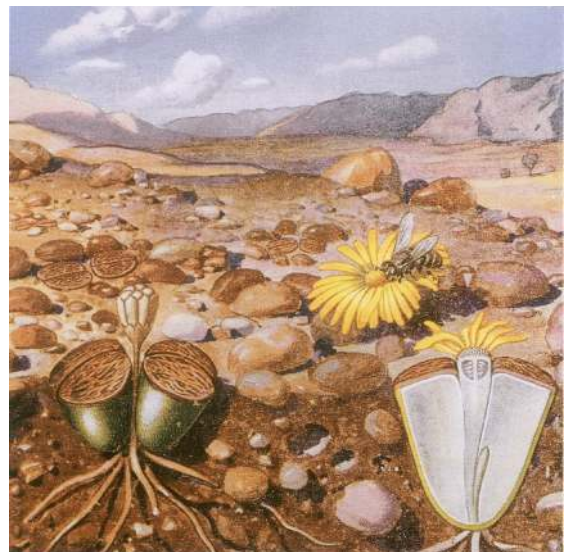
Photograph by Claire Ross

About the Author: My name is Claire Ross and I am twelve years old. I am a sixth grader at Mountain View Middle School in Rio Rancho. I first got interested in cacti and succulents when I was eight. I saw the cactus and succulent display at the State Fair. I got a membership to CSSNM for my birthday because of my interest. Now I enjoy growing cacti from seed.



Above: Copyright 2005 Robert Sivinski. *Pediocactus Knowltonii* is one of the most rare cacti in the United States. It is known to occur only on a small hill in San Juan County, New Mexico.

Right: Painting of Rudolf Marloth (1855-1931) of Lithops from his 'Flora of South Africa', 1929. Source: reproduction in book 'Lithops the Flowering Stones' by D. Cole and N. Cole, 2005.



Christmas, Schlumbergera Style

STEVE BRACK

After being a diehard desert cactus guy for almost 50 years, now cacti that can grow in the house are more appealing to me. In recent months I have seen 'Christmas Cacti' for sale in stores and thought I would grow a few. We have had a marvelous flower show now for a month already, and more buds keep coming.

A good first step to understanding a plant is to learn about where it comes from and the climate it prefers. These plants come from coastal mountains of Brazil, centered near Rio de Janeiro. The elevation range is great, from low coastal areas up to just over 7000 ft. The lower elevation habitats are typically mossy trees where plants grow in the moss, and it is very humid. The highest elevation species grow often in rock cracks where they have much more sun, and at night it can freeze a little.

This article will be about the *Schlumbergera truncata* group of hybrids. They have flowers that are not radially symmetrical (like a daisy), but have lower petals that are flared back toward the center of the plant. The flowers can have many colors and also be bicolored. They will flower for about 3 to 6 weeks from late November to early January (in the northern hemisphere).

Now, how to grow them to get a great flower show. Remember that often they are found growing on a branch in an old tree that is moss covered. There will be mottled light all day from the tree canopy. So it is not dark but there is bright diffuse light. I have grown them outdoors in the summer placed under a tree, so that at most they just get a couple hours of direct sun in the early morning. During our rainy season this is fantastic as nothing is better than falling rain water. I try to water them about once every 5-8 days when there's no rain. I keep them outdoors from May to about November 1st when freezing becomes more likely. From early spring until fall they like to have regular water: a good soak in a pot with drain holes to keep the soil fresh. I fertilize them often with a dilute concentration, and it is great to add a little bit of vinegar. Fertilize every time you water with about 1/50th of recommended dosage, and add about 1 tsp of vinegar to 1 gallon of water.

Light is very important as it regulates their growth and flowering cycle. Plants "read" the hours of sunlight during the day. When the days are getting longer, or well over 12 hours, it is time to grow stems. When late fall comes, the length of daylight decreases rapidly from day to day. This tells the plant that it is time to make flower buds. So if you always keep your plants in a well-lit room in your house, where you have lighting after sundown, the plant will lose track of the seasons. It has no way to tell if it is spring or fall. Try to find a room with good natural light that does not often have electrical lighting after dark.

I have been keeping the plants in an unheated porch after it started to get close to freezing at night outside. The porch has lots of windows so it is well lit from the sun. We do not use the porch after sundown so the plants just see natural day length. At night it often cools down to 45F overnight.

How is that working? Look at the photographs to judge for yourself!



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Cactus Up-potting Methods: A Survey

Katherine McCoy, Buena Vista, CO

This summer, as I was repotting a big batch of cacti with my usual methods, I started wondering if these were actually horticultural best practices. So I emailed a little survey to seven distinguished Colorado and New Mexico C&S growers, known for their exceptional plants. Here's a summary of their enlightening recommendations on some of the fine points of repotting, beyond those first concerns of soil recipes and pot materials, shapes and styles. Our contributors are Steve Brack (formerly of Mesa Garden, Belen, NM), Don Campbell (Grand Junction, CO), Mike Crump (formerly of Crump Greenhouse, Buena Vista, CO), Joyce Hochtritt (J&J Cactus & Succulents, Oklahoma), Sig Ludwig (White Rock, NM), David Salman (High Country Gardens, Santa Fe, NM), and Keith Woestehoff (Larkspur, CO). There's considerable consensus, but also some interesting contrasts. This reminds me of Steve Brack's response to a novice's question about the best potting soil: "Well, that's like asking what the best religion is!"

When removing a plant from its old pot, should its roots and soil be dry or moist?

Our experts nearly all prefer plant roots and soil to be dry when removing a plant from its old pot. David Salman feels dry soil minimizes root damage when unpotting a plant.

Mike Crump likes soil to lean towards the dry side but not dusty dry. Don Campbell opts for soil in the "Goldilocks Zone:" not too moist nor too dry. Joyce Hochtritt usually waters a plant about a week before repotting. Sig Ludwig prefers a dormant plant to be dry, but thinks a growing plant is fine either way.

Steve Brack mentions that on the rare occasions when a plant's roots are very difficult to clean, he soaks the old root ball and rinses it. Joyce says that when she finds it necessary to wash the soil off roots, she lets the roots dry for two or three days.

Do you remove old soil from the roots? Do you bare-root the plant? Or do you place the plant's intact root ball in a larger pot with additional soil?

David Salman says, "It is essential that cacti be transplanted bare-root, even seedlings. The soil should be dry to minimize any damage to the roots as one gently teases away the soil." Steve Brack also removes most or all of the old soil from the roots when repotting. Don Campbell likes to free most of the roots without doing too much damage in the process and to rearrange the roots to be compatible with the new pot's configuration.

Joyce Hochtritt, on the other hand, says that if the plant is healthy and has already been growing in her own mix, she only removes the old soil and gravel from around the neck of the plant, and then gently loosens the soil around the edges and bottom of the root ball. Keith Woestehoff also likes to retain an intact root ball, unless he's unhappy with the soil quality, or finds bugs or unhealthy roots. Sig Ludwig says, "Never mess with the root ball!"

Everyone agrees that it's essential to look for problems when repotting. Mike Crump removes old soil only if it has signs of bugs, or if he's changing to a different soil type. Also, if the plant has been in the pot for an extended time, Mike feels that removing some of the soil from the roots helps new roots move into the new soil.

Mike cautions that some cacti have very delicate root systems that should not be disturbed any more than absolutely necessary. Species that dislike having their roots disturbed include *Melocactus* that have begun to grow a cephalium, and also *Discocactus* and *Astrophytum*.

Do you immediately re-pot? Or do you leave the plant bare-root for the roots to harden off? If so, for how long?

Mike Crump, Joyce Hochtritt, Sig Lodwig and Keith Woestehoff usually re-pot their plants immediately. Don Campbell and Steve Brack both say a plant can be re-potted right away if the roots have not been damaged.

On the other hand, David Salman likes to set aside the bare-rooted plants in a shaded spot for a couple of days before re-potting. This allows air circulation to assist any cut or torn roots to callus over. Mike also lets a plant callus for a few days if it has been completely bare-rooted or has a sensitive root system. Steve agrees that if roots have been cut, leaving a wound, a plant should sit out until the tissue has callused. Joyce says that if roots have been severely damaged or have rotted and need to be removed, she washes the roots off and lets them dry for at least a week – and sometimes up to several months.

Do you trim the roots? If so, how much?

David Salman believes that trimming the roots is highly beneficial and helps increase the number and density of the roots. For seedlings, he trims off half of the fine hair roots, and for larger plants about a third of the hair roots. But he cautions NOT to cut a tap root, and to trim only the hair roots around a tap root.

Steve Brack likes to trim long very thin roots and roots that are less than about 1 mm thick, so that new roots can grow. For a plant with very thin roots, he suggests leaving an inch or so to start the new root system.

Joyce Hochtritt, Don Campbell, Keith Woestehoff and Mike Crump only trim roots that are unhealthy or damaged. Sig Lodwig says he prefers not to “mess with the roots.”

How dry or moist should the new potting soil be?

Steve Brack and Joyce Hochtritt both use dry potting soil because it flows better around the roots with no empty air pockets. Don Campbell likes his soil “on the dry side” for the same reason.

David Salman, Keith Woestehoff and Mike Crump all prefer slightly moist potting soil. Sig Lodwig feels either is fine for a growing plant, and dry is OK for a dormant plant.

How soon after re-potting do you water?

Joyce Hochtritt says she waters 98% of her cactus plants right after re-potting and Don Campbell generally likes to mist or lightly water the soil of a freshly re-potted plant. But David Salman waits a day or two before watering in the new transplant just to make sure there are no damaged roots that might become infected with pathogens.

Steve Brack feels that small seedlings can get a light watering soon after re-potting, but cautions that large or more mature plants should not be watered right away to avoid soggy soil that could cause root rot. He recommends just a splash of water on the body of a large plant in the first few days; then 3–7 days after re-potting, a good soak is beneficial, but only during the growing period. During dormant times, soaking the soil should be avoided.

Steve also recommends waiting a day or two before placing the plant back into a hot bright location; the root system helps cool the plant and needs a chance to acclimate to its new environment.

When should a plant be up-potted?

Joyce Hochtritt thinks that cactus grown in a greenhouse environment (rather than a windowsill) can tolerate more year-round horticultural activity, including repotting, propagating and pruning.

Sig Lodwig recommends fertilizing rather than up-potting. He up-pots only when he wants to grow a plant bigger for showing; to produce flowers and seed, he relies on generous fertilizing during the growing period.

Mike Crump cautions not disturb a plant's root system any more frequently than necessary: "Cactus do not necessarily like new digs as much as most humans!"

October

"You eat first with your eyes, then your nose, then your mouth," Jim Hastings told us as he whipped up a delicious prickly pear dish. We ate with our minds as well, thanks to his informative talk.



November

In addition to an informative ramble through great swathes of New Mexico presented by Steve Brack, Sig Lodwig provided some quick and fun facts about jade trees. From Steve I learned more about the beautiful and diverse cacti in our state; from Sig I learned that my jade tree would be really happy if I gave it more water!



A - spine; B - prickle; C - thorn.

December



The most that really needs to be said about the Holiday Potluck is YUMMMMMMM!



Though the holidays ended in January, I hope your celebrations, in whatever flavor they came, were enjoyable.



MEMBERSHIP APPLICATION

Name: _____

Address: _____

City/State: _____ Zip: _____

Tel No.: _____ E-Mail: _____

How do you grow? Greenhouse _____ Yard _____ Window _____ Other _____

Favorite genera: _____

Suggestions for a program: _____

Volunteer to give a program? _____

Volunteer for: Officer: _____ Co-Chair an Event: _____

Other: _____

Do you: Buy plants locally _____ Mail order _____ Raise from seed _____ Buy at our sale _____

For current information about the Society, including our email address, go to the Society's website:
<http://www.new-mexico.cactus-society.org>

Complete this application and send it to the address below with your check for \$10.00
made out to the CSSNM.

For more information, contact:

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Albuquerque, New Mexico 87154-1357

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President
Vice President
Recording Secretary
Treasurer
Executive board members

Carl Hime
Margaret Todd
Cheryl Haaker
Pia Louchios
Penny Hoe
Lee Graham
Ralph Peters

Key Positions

Program Chair
Webmaster & Show PR
CSSNM e-mail
Garden maintenance
Librarian
Representatives to CAGC

Affiliate CSSA Representative
Membership Chair
Newsletter
Spring Show
Spring Sale
Fall Show-State Fair
Fall exhibition-Botanic Garden

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Judith Bernstein
Steven Brack
Judith Bernstein
Margaret Todd
Oleg Lagutin
Lee Graham
Margaret Ménache
Daniel Finley
Steve Brack
Margaret Todd (info only)
Margaret Todd