



Central SPINE

CENTRAL ARIZONA CACTUS & SUCCULENT SOCIETY

President's Letter DECEMBER 2002

Our constitution specifies 1 year terms for officers and 2 year terms for directors. Further, there is a limit of three consecutive terms in one office. I am approaching the end of my third term as president and will step down at the end of 2002. Officers and directors are permitted to run for another post or they may sit out at least one term before running again. So long as I am Show Chair, I will not be willing to serve as director or officer.

Usually in a letter such as this people toot their own horns while trying to appear humble and shy, giving credit for doing the actual work to everybody from their first dog to their great grandparents. Instead I'm going to write what I tried to accomplish as your president and look at how I think we did. You will judge to what degree I succeeded. Then I'm going to finish with a challenge to the club.

I started with several assumptions:

1. Members of the CACSS want to learn more about how to grow our favorite plants, and about unfamiliar plants we would soon appreciate.
2. We want the general public to learn about these plants and how much enjoyment they bring.
3. We want opportunities to buy plants we can't get at KMart or Home Depot.

4. We like the Desert Botanical Garden (DBG), and we like meeting there.
5. We are affiliated with the Cactus and Succulent Society of America (CSSA), enjoy participating in its activities, and find this useful for growing our plants.
6. We are willing to do a little work to make things better and to further the aims of our club, the DBG, and the CSSA.

Then I tried to think of what I could do to make the club better for all of us and along these lines.

I tried at all times to convey how exciting and enjoyable I think it is to grow cactus and succulents, and that anybody can do it. I tried to draw our club experts into question and answer sessions and I tried to get them to write for the Central Spine.

I wondered what you actually want from the club. You might recall the questionnaire sent to all members at the beginning of my first term. Your board has read the results and we keep this in mind. I constantly encourage CACSS members to contact the board with questions, requests, complaints, suggestions - anything.

I asked at every meeting whether anybody wanted to bring up anything we had not discussed. Before closing any discussion I asked

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President's Letter Continued...

whether there were any more questions or opinions.

Your board and I tried to give you excellent, interesting, useful meetings. Cathy Babcock is our past president, which means she's still an officer of the club until I step down. She has been our program chair. She has done a tremendous job.

I lectured to several outside garden groups and always mentioned the CACSS and the DBG.

Representing the CACSS, I helped the DBG with a charity public relations dinner at the Arizona Biltmore Hotel, working on a decorative plant display. The DBG and the CACSS received prominent mention, and a lot of our brochures went home with attendees. The decorators arranging the event were happy to learn about the DBG plant shop. It is the sort of collaborative event that is great for all organizations involved.

I tried to get people interested in a school outreach program so we could bring our love of these plants and our love of gardening to youngsters, our future members.

I tried to help the editors of the Central Spine during my tenure to give you a better and better newsletter. Each of them is already a perfectionist. We have one of the best newsletters in the country, with almost no rerun material from article archives. It is 100% locally grown, the freshest C&S news available.

I pushed to get a club Web site. We have one. It is <http://www.centralarizonacactus.org>. It costs us around \$80 per year. It more than pays for itself in new memberships from people who find us on the Web.

I harangued all of you to volunteer at the DBG Plant Sale Festivals. This is one of the ways we pay our rent to the DBG and it is a lot of fun. Those of you who think you don't know much actually know a lot more than most of the people shopping at the sale. We give out several hundred membership brochures at each Sale, and more people join our club.

I pushed our annual Show very hard. This is a great opportunity to show strange and wonderful plants to the public. Many of them will see these plants and want to

grow them. Our Show is a tremendous opportunity to build membership. With proper publicity it will also draw many visitors to the DBG. Many new visitors to our show have joined both our club and the DBG for the first time. This is another way we pay our rent to the DBG.

I pushed even harder to hold a Sale in conjunction with our Show. Now we have one! The Sale helps our club and the DBG in many ways. Vendors from far away bring plants to sell we can't find around here, or even in Tucson. People look to botanical gardens for sales of rare, unusual, or hard-to-get plants; it's part of what we expect of a botanical garden such as the Huntington or Rancho Santa Ana. Over time and with proper advertising, it will become as well-attended as the Plant Sale Festivals, with much less effort on the part of the DBG staff or our membership, since the vendors do the talking and moving. The sale is another way to talk to people about joining the CACSS and the DBG. Finally, IT ADDS CASH TO OUR TREASURY, which we spend on library books, speakers, and a donation to the DBG, another way we pay our rent to the DBG.

I praised the CSSA at almost every meeting and told you to join. Almost all the cactus and succulent plants you are growing were brought back to the US by CSSA members, officers, or researchers with CSSA funding. Many were sold to the public for the first time via CSSA channels. Articles in the CSSA Journal told people how to grow these rarities for the first time. New information is always being spread at the biennial CSSA Conventions, and new plants offered for sale by the vendors there. The CSSA at \$35 yearly is the biggest bargain I can think of for a C&S lover.

I told you about what is involved in hosting a CSSA Convention. Over the course of two meetings, at which I did not push the idea strongly but merely offered information, you decided by a near-unanimous vote that the CACSS should host the 2005 CSSA Convention. This will be a great experience for us. We will get to meet people from all over the world, have meals with them, invite them to our homes, be invited to their homes and on expeditions, exchange cuttings and seeds, pump them for growing information -- and

on and on. We will bring people from all over the US and the world to the DBG, the first time for many of them.

I received the help of some very hard-working members this year.

Cathy Babcock was our liaison to the DBG. If not for her remembering to reserve space for us, we might be meeting in the parking lot. She has been program chair and delivered a great slate of speakers.

Pam Bass delivered newsletter labels on time every month during her tenure as treasurer, picked up the mail, wrote checks, and prepared our year-end statement for the Corporation Commission.

Muriel Beroza organized and catalogued our library, let us know of new books, and wrote book reviews.

Judy Brody helped assemble the newsletter each month and told her customers in the DBG plant shop about the CACSS and CSSA at every opportunity. More than a third of our current membership joined after talking to Judy.

Jim Davis worked on the newsletter month in and month out despite having to work with me. He found appropriate photos for articles, mostly from his own collection.

Jo Davis worked the phones tirelessly in search of volunteers for the Show and Sale, and the DBG Plant Sale Festivals. She sent cards to members feeling ill. She arranged busses for our buying trips. She always smiled and she told dirty jokes when she thought nobody was listening.

Richard Maxwell helped assemble almost every issue of the Central Spine for the past three years. He provided a voice of encouragement in most discussions, egging us on to do what we were nervous to contemplate, in pursuit of making the club better.

New presidential candidate Scott McMahon filled in detail work constantly. These invisible tasks made the club run very much better.

Joseph Orazio has taken up editing the Central Spine.

Paul Schueneman managed the move of our library from a secret undisclosed loca-

President's Letter Continued...

tion away from the President to the bookcases of Webster Auditorium. His monthly article in the Central Spine and the ease of access are contributing to a real stampede to check out books (and read them, I hope, rather than leaving them on the coffee table to impress visitors).

Ken Schutz has been very open to new thinking on how our club and the DBG can work together to further our aims. In other words, he lets us have a big sale!

* * * * *

How do I think we did? I think we did OK with room for improvement.

We do have a great and varied series of lectures. People are friendly and share knowledge and plants.

Phoenix, metropolitan population approaching 2 million, should have a much larger C&S club. We have just slightly larger membership than the Henry Shaw Cactus Society in St Louis, Missouri, which is not only located in the middle of cactus hell, but is a much smaller metropolitan area than Phoenix. I talk about the CACSS to people I meet at work, while traveling, at parties, charity functions, in the grocery store, at the nursery... all the time. I put a link to our club Web site in my signature block and it goes out in all my E-mails. It looks like this:

Leo A. Martin

Like cactus and succulents?
Central Arizona Cactus and
Succulent Society

<http://www.centralarizonacactus.org>

How about if you all start chatting up our club among YOUR friends and acquaintances? How about putting a link to our Web page on your own Web page, and in your signature block? Lots of people want to grow C&S here and would jump at the chance to join a club such as ours -- if they knew about it. Member Dr. Richard Maxwell put copies of our membership brochure in his waiting room. Why didn't I think of that?

Same goes for our Show and Sale. The bigger it is, the more interesting it is. The more people who buy plants, the more money we have for speakers and books. The more publicity we get, the more visi-

tors will come. It's all related. We have a crying need for somebody who knows how to do publicity (or can be taught) and will actually do it. Our Show and Sale really could attract as many people as do the DBG Plant Sale Festivals. Have any of you been to a CSSA Sale at the Huntington? I've never seen so many adults drooling in public.

One thing to note is that I cannot do everything related to running the club by myself. The President cannot do everything related to running the club alone. The ten or so of us who do all the work for the CACSS cannot do everything related to running the club alone, either. Our successors, whoever they might be down through the centuries, will not be able to do it all on their own, either. The level of membership volunteering in the CACSS is much less than I've seen at other C&S clubs and, to be honest, it's too low to support the club to which you've become accustomed.

I've heard the excuses. Among the few members who actually do all the work, most have long, difficult jobs. Some have significant health issues. Some have family commitments. All manage to volunteer to make the CACSS a better club. Taking on just a small task monthly might take an hour or two, but if 20 people do some small tasks, that means one or two others don't have to spend 20 hours each.

I am especially puzzled after each DBG Plant Sale Festival when I notice the number of volunteers from our club is fewer than the time before. In October of this year less than ten CACSS members volunteered to help. Imagine a CACSS which did not have the DBG as a resource. I think we need to do more.

* * * * *

I mentioned I would challenge you. I would like to challenge the CACSS membership to keep improving this club and building it into the biggest, most active, and best C&S club in the US. After all, we live in the largest US city located in cactus heaven.

I would like to challenge you to reach out to schools and children to teach them the joy of working with nature rather than television or video games. We need a formal CACSS program for this purpose. We

have plenty of members who could visit schools and show the kids how much fun it is to grow plants from seed or how to plant a cactus in the yard.

I would like to challenge you to put on a breathtaking 2005 CSSA Convention that will make everybody who attends talk about it for months or years, and wish they could move here.

All this will take is a little effort on the part of the members. Are you up to it?

Leo

DECEMBER ANNOUNCEMENT!

Our Holiday Party and Elections will begin Sunday, December 8, 2002, at noon, in Webster Auditorium. Jo Davis is coordinating the Holiday Party Potluck. Please contact her at 480-839-3792 about what to bring if you haven't spoken with her already. Remember, dress nicely so we fool anybody who stumbles into Webster. If we wear ratty old things with holes and Birkenstocks they'll think we're the Lophophora society. We will have a free attendance raffle if you don't already have enough incentive to go.

Announcing the 2003 CSSA Convention in St Louis, Missouri

June 14-19, 2003 at the St Louis Airport Marriott Hotel

Speakers:

- Roger Brown**, frequent contributor of cultivation articles to the CSSA Newsletter *To The Point*: **Pseudolithos** and **Pampering Cactus**.
- Alan Butler**, proprietor of Brookside Nurseries, UK, and editor of *Asklepios* and the *Sansevieria Journal*, publications respectively of the International Asclepiad Society and the International Sansevieria Society: **Sansevieria for the Connoisseur** and **Flora of Oman**.
- Joe Clements**, formerly of the Huntington Botanical Gardens in California and Director of the CSSA: **Growing Cacti from Seed**.
- Sheila Collette** of the UK, noted botanical explorer and a favorite at previous conventions: **Aloes of Arabia** and **Travels in Djibouti**.
- Hugo Cota-Sanchez**, Assistant Professor and Director of the Herbarium at the University of Saskatchewan: **Survival Strategies of Epiphytic Cacti** and **Epiphytic and Semi-Epiphytic Cacti You Can Grow**.
- Bob Harris** of the host Henry Shaw Cactus Society and the Bonsai Society of Greater St Louis: **Lecture / Demonstration: Bonsai Techniques for Succulents**.
- Tim Jackson** of California: **Winter-Growing Mesembs from Seed-It's Easy**.
- Bob Kent**: **Haworthias from Seed to Adult - Species and Hybrids**.
- John Lavranos**, CSSA Fellow, noted botanical explorer: **The Horn of Africa** in two parts.
- James Mauseth**, University of Texas at Austin, CSSA Fellow and co-author of *A Cactus Odyssey: Journeys in the Wilds of Bolivia, Peru, and Argentina*: **What Basic Cactus Botany Teaches Us About Better Growing** in two parts
- Peter Raven**, Director of The Missouri Botanical Garden: **Threatened Species Worldwide and the Missouri Botanical Garden**.
- Jon Rebman**, Curator of Botany at the San Diego Natural History Museum, author of the forthcoming *Atlas of Baja California Cacti*: **Cacti of Baja California** in two parts.
- Gideon Smith**, Director of Research and Scientific Services at the National Botanical Institute, Republic of South Africa, co-author of *Regions of Floristic Endemism in Southern Africa* and *Guide to the Aloes of South Africa*: **Southern Africa: Truly A Succulent Plant Paradise** and **What's Happening In Succulent Plant Systematics In South Africa?**
- John Spain** of Connecticut: **Beds and Containers for Hardy Cacti** and **Hardy Cacti You Can Grow in Beds and Containers**.
- Rob Wallace**, Iowa State University, Ames, Iowa: **What Is DNA And What Do I Do With It?** in two parts.

Program:

Saturday June 14, 2003:

Registration - Evening Welcoming Reception

Sunday June 15, 2003: Succulents Day One

Sales area open all day - Opening welcome - Smith: Southern Africa, Succulent Paradise - Lavranos: The Horn of Africa Part I - Collette: Djibouti - Brown: Pseudolithos - Butler: Sansevieria - Kent: Haworthia from Seed - Evening Banquet: Peter Raven: Conservation and the Missouri Botanical Garden - Presentation of Awards

Monday June 16, 2003: Succulents Day Two

Sales area open all day - Butler: Oman - Smith: South Africa Succulent Taxonomy Update - Jackson: Mesembs from Seed - Collette: Aloes of Saudi Arabia and Oman - Lavranos: The Horn of Africa Part II - Harris: Bonsai Succulents - Evening: Rare Plant Auction

Tuesday June 17, 2003: Field Trips

Sales area closed - Field trips. Choose one of three during the day; space is limited for the evening cruise: 1) Missouri Botanical Garden, Herbarium, and Library; 2) Forest Park tour, 1904 World's Fair Art Museum, Zoo, and newly-refurbished Jewel Box conservatory; 3) Cass Bonsai Garden with outstanding far-eastern plants and plant containers for sale. 4) Evening Riverboat Cruise, Prime Rib Dinner, Live Jazz

Wednesday June 18, 2003: Cacti Day One

Sales area open all day - Mauseth: Cactus Botany and Cultivation, Parts 1 & 2 - Rebman: Baja Cacti Part 1 - Cota-Sanchez: Epiphytic Cacti Survival Strategies - Clements: Cacti from Seed - Spain: Hardy Cactus Beds and Containers - Evening meetings: Affiliates; Newsletter Editors; cacti_etc

Thursday June 19, 2003: Cacti Day Two

Sales area open all day - Wallace: DNA Research Explained Parts 1 & 2 - Cota-Sanchez: Epiphytic Cacti You Can Grow - Spain: Hardy Cacti to Grow - Rebman: Baja Cacti Part 2 - Brown: Pampering Your Cactus - Closing Remarks - Evening Closing Banquet

For more information: www.cssainc.org/convent.html

CSSA 2003 Convention Registration Form

Marriot St Louis Airport, June 14-19, 2003

Please make reservations directly with the hotel before May 30 to receive special discount:

Marriott St. Louis Airport
 (314) 423-9700
www.marriotthotels.com/stlap
 Sales Fax: (314) 423-2221
 Guest Fax: (314) 423-0213

Please print out this form and type or print clearly. Be sure to fill out both sides, and total on back.

Name	Preferred nickname	Name of spouse (partner)
------	--------------------	--------------------------

Street address	Apartment or box number
----------------	-------------------------

City	State	Zip	Country
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Telephone number	Email address
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Are you the designated Affiliate Representative for your local club? **Yes** **No**

Primary club affiliation (list one only)

The Convention is open to CSSA members only. For your convenience, you may join the CSSA with your registration:

New CSSA Membership	Quantity	Cost	Amount
CSSA membership - USA	@	\$35.00	=
CSSA membership - non-USA	@	\$40.00	=
CSSA membership - non-USA - Airmail	@	\$80.00	=
CSSA Associate membership (spouse, etc.)	@	\$10.00	=
Subtotal this side			\$

Continued on other side.

Brought forward from other side

\$

Convention Registration (CSSA Members only - see other side for membership):

	Quantity	Cost	Amount
Weekly (includes Saturday social and Opening Banquet)		@ \$165.00 =	
Daily - Sunday (includes Saturday evening social and Opening Banquet)		@ \$100.00 =	
Daily - Circle desired day(s): Mon, Tue (includes day fieldtrip), Wed, Thu		@ \$50.00 =	
Late registration - after June 1, 2003		add \$50.00 =	

Mid-week Tours: Tuesday, June 17 (Only trips 2 & 3 include lunch)

Trip 1 Missouri Botanical Garden, Herbarium, and Library		@ \$35.00 =	
Trip 2 Forest Park, 1904 Worlds Fair Art Museum, Zoo, Jewel Box Conservatory		@ \$35.00 =	
Trip 3 Cass Bonsai Garden - Far-Eastern Plants and Containers		@ \$35.00 =	
Evening Tour: Riverboat Cruise, Prime Rib Dinner, Live Dixieland Jazz Limited capacity - if you register late, your money will be refunded		@ \$45.00 =	

Farewell Party (Thursday evening)		@ \$45.00 =	
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Total amount enclosed:

\$

Make checks payable to the CSSA.

There will be a \$50 cancellation fee on ALL refunds.

VISA and Mastercard may be used for payment.

VISA / MC

(circle one)	Number	Expiration Date	Signature
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Mail this form, along with your check or credit card information to:

Mindy Fusaro
CSSA Convention Registrar
PO Box 2615
Pahrump NV 89041-2615

Credit card users may FAX their registration forms to (775) 751-1357

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Plant of the Month December 2002 - Holiday Cactus by: Leo A. Martin

Schlumbergera (described by Lemaire in 1858) are sometimes called Thanksgiving or Christmas cactus, and *Rhipsalidopsis* (described by Britton & Rose in 1923) are often called Easter cactus, because of when they bloom. Both require special attention here in Phoenix, but they can be grown and flowered successfully. They are not as tolerant of forgetfulness as are other cactus, so don't expect great success with these if you're absent-minded, like I am.

This is a long article, and what I write may seem complicated, but it really isn't. It just takes a while to explain the few peculiarities about these plants. Once you realize what these plants want it doesn't seem all that complicated.

Schlumbergera now includes all species previously known as *Zygocactus* and some previously known as *Epiphyllum*. It contains around 8 species and several varieties of those species. *Rhipsalidopsis* was separated from *Rhipsalis* by Britton and Rose in *The Cactaceae*. It contains only 3 species and several varieties; some were previously included in *Epiphyllopsis*, *Epiphyllum*, and *Hatiora*. Few people grow the species; because the plants are easy to hybridize and grow commercially, thousands of hybrids have been developed. The species have red or purple flowers; hybridizers have extended this range to whites, pinks, picotees, and even yellows and oranges. *Rhipsalidopsis* will hybridize with *Aporocactus*, the rat-tail cactus.

Both are South American jungle cactus, growing on tree branches well below the canopy, and normally hanging downward in habitat. They never see sun, frost, humidity under 60%, or periods of drought. Both have stems segmented into flat pads vaguely reminiscent of a prickly pear, except there are no areoles on the flat surface of the stem segments. Areoles are found only on the edges of the segments, at the bases of the small notches. Most in cultivation have no visible spines. Spines are almost microscopic or are contained inside the body of the stem.

Schlumbergera often have soft teeth on the edges of segments, and *Rhipsalidopsis* lack these teeth. Flowers are different as well; *Rhipsalidopsis* flowers are radially symmetric, which means the flower has a straight tube bearing petals radiating out from the center equally in all directions, and looks about the same no matter how much it be rotated on the long axis of the flower (which

passes through the length of the flower tube). *Schlumbergera* flowers are **zygomorphic**; they have a swan-neck shape to the tube, and petals are unequal. They vaguely resemble a honeysuckle flower, which is also described as zygomorphic. There is not an axis but a plane of symmetry to them; the right and left halves of the flowers are mirror images of each other, and the flower has a clear top side and bottom side.

Schlumbergera are the easier to grow in Phoenix (and most other places). Let's begin with them. They come from wet forests of Brazil where temperatures are not quite so high as here in the summer, frost is unknown, but cool night temperatures are common. In nature their roots attach to tree bark and may be lightly covered with decaying leaf litter -- but then again, they may be bare and exposed. The roots are never dry for long because it rains or mists a lot, and humidity is high, so wet surfaces don't dry very fast. Stems are soft and succulent, but have few adaptations for drought. These plants grow in dense shade under the forest canopy, and stems are flattened side to side to imitate a leaf and maximize surface area for photosynthesis. Stems hang down from the trees. Pieces of stem may break off and root if they land on a suitable branch below.

This all adds up to a plant needing steady moisture, shade, and protection from drying out. Roots will rot if the soil is too heavy or so wet that air is excluded. Roots dry out and die if the medium dries out for more than just a few hours. They tolerate low humidity if they receive plenty of water. They cannot tolerate sun at all. They appreciate plentiful feeding along with plentiful water. These will not tolerate desert conditions.

Commercial growers grow them in humid greenhouses. Cuttings (2-3 segments) are placed in the shade until they shrivel slightly. 3-4 cuttings are placed in a 3"-4" pot using almost pure peat moss. The first segment is buried. Rooting and new stem formation occur only from areoles, at the indentations along the segments. They are kept on the dry side until rooted, but not allowed to dry completely, or the peat moss would be impervious to wetting. After rooting they are watered regularly and never allowed to dry out. Dilute fertilizer is applied with each watering. The greenhouses are cooled at night.

I haven't found a great way to root cuttings.

If I put them in small pots they rot. If I lay them on the surface of the soil and put a cut-down plastic bottle over them they rot. A few that dropped unseen into another pot rooted.

The trick in growing these plants is keeping the roots healthy. Roots die quickly if they dry out or lack air. Cuttings will not root in heavy soil, or when buried in wet soil; remember they root in habitat on top of branches that are always moist, and roots enjoy great air circulation at all times. Put a cutting into a pot with heavy soil, keep it wet, and you will see it rot in a few days. Sister cuttings left on your tabletop will be viable for months.

The most successful plants I have seen here in central Arizona have been grown in shade, in relatively cool spots, by people who remember to water regularly but who don't keep plants wet. I have seen nice ones outside on patios and inside the house. Interestingly, some of the nicest are grown by people who don't even know they are cacti, and who treat them like all their other houseplants on tables several feet from windows. These people don't get theirs to bloom, however, which I will address soon. I have had my best luck growing them inside the house during hot weather, and moving them outside when night temperatures cool in September. But Judy Brody grows hers outside all year under a patio overhang, and it is the best plant I've seen in Arizona.

Soil must drain very rapidly, retain some moisture, and be easily rewetted if it becomes completely dry. The peat used by the growers is not a good idea for hobbyists growing them outside humid greenhouses; forgetting to water for just a few days leads to totally-dry soil, which is impossible to rewet without an overnight soak under water. I am still experimenting to find a soil mix I like.

Heavy soils exclude oxygen, which is death for epiphytic roots. When the roots die the stems become grayish-green and shrivel slightly. Rootless plants will not re-root in heavy wet soil, so the plant usually dies at this point unless it is unpotted, has all the soil washed off, and is repotted in suitable soil.

The plants should grow vigorously all spring and summer, producing several new stem segments successively and new branches. They slow down as fall progresses.

To bloom these here, they must receive no

CACSS Movie Review

by Tom Gatz

Although somewhat irregular to discuss films in our newsletter, I hope you won't mind me taking up a little space in The Central Spine to share a movie tip with you. *Frida*, a truly wonderful film, is a vivid tapestry of Mexican artist Frida Kahlo's turbulent life, set to beautiful music, peppered with tastefully erotic imagery, and filled with vibrant color. Of special interest to CACSS members, however, is the use of cactus and succulents in the film as backdrop, art, symbolism and metaphor. Almost worth the price of admission alone are the living fences of *Pachycereus marginatus*, the dance scene, and the transformation of the family patio into a cactus and succulent paradise.

CACSS Book Review

by Muriel Beroza

The Botany of Desire by Michael Pollan. Random House, NY, 2001. 271 pp, \$13.95.

This book is an absolute delight. The author is a contributing writer for the New York Times Magazine, among other venues. His expertise seems to be science writing and, in this volume, botany. Pollan makes us look at the world from the plant's point of view. He suggests that we, as well as other pollinators, are brought into the propagation of plants at their behest.

He frames his theory using four plants to illustrate his thesis: the apple, tulip, marijuana, and potato. This seems like a weird bunch to gather together in one book. There is no outward relationship between them or us - or is there? It makes compelling reading. The apple was chosen for several reasons - the sweetness of its fruit and its capacity to end up in a cider operation and provide some much-appreciated beverages for the early settlers in the Midwest. The tulip was chosen for its attempts to attract our attention through the beauty of its blossoms. A whole incredible economy flourished in Holland with the spread of ever

Continued on next page...

Plant of the Month cont...

artificial light in the fall, or night temperatures must be low but not freezing. Bud formation in *Schlumbergera* is triggered by lengthening nights, or by night temperatures routinely dropping below 55 degrees. In this they are like *Euphorbia pulcherrima*, the poinsettia. Commercial growers manipulate night length to produce blooming plants at any time of the year. They do this by draping heavy black fabric over the plants in the afternoon and removing it midmorning. Forgetting to place the fabric even once resets the plants' clock and may make the difference between getting rich and going bankrupt for a poinsettia grower.

Inside the house, artificial light for just a few minutes, just one time, will prevent buds from forming. I have heard people tell me they have their grandmother's enormous plant in a barrel. It grows fine but never blooms, and it used to bloom heavily for grandmother every Christmas. Grandma didn't have electricity. The plant spent the summer on the porch, then was brought in before frosts, and put in the cool, damp basement under one of the tiny windows where it got only natural light. Now the adult grandkid leaves it in the living room window all year because they don't have a basement and they're too lazy to move it in and out. The artificial light inhibits bud formation because long nights are necessary. Few people allow their homes to drop below 55 degrees at night. So, the plant never blooms.

One more problem with these -- buds are fragile, and the plant often drops them all if moved while in bud. Best is to allow the buds to open, and then place the plant for display. While blooming, at night, put it outside to stay cool, and the flowers will last longer. But remember NO FROST.

Most people buy these plants in bloom in November or December. After blooming the plants will look stressed. They make so many flowers that the stems actually shrivel a little. At this point, in the dead of winter, they need a dryish rest, but don't let them go completely dry or the roots will die. Stretch out watering periods. A water meter will help a lot. I like to put them outside after blooming but don't let them freeze.

After about 4-6 weeks of dryish winter rest, temperatures will start to rise, and the plants will suddenly sprout new growth if you haven't killed the roots by letting them get too dry. For recently-bought plants, now is the time to repot. Wash off all the peat-

based soil with a garden hose, and replant into a slightly larger pot, using a mix with some organic matter but lots of air space. I can't be more specific because I haven't found a potting mix I think is excellent for the way I grow these plants. Some people use orchid bark mixed with pumice or perlite. Some use bagged potting soil, which has never worked for me. I always will forget to water them at some point, which is why I have to get rid of the peat. Besides, peat only lasts a year or two before it begins to break down and the root ball excludes air. Any plant is sure to die if this happens. If you use peat-based soils for these plants, or any other for that matter, you should repot every other year. Commercial growers repot every 1-2 years.

Water immediately after repotting and put in a cool spot. The plant should not be set back at all and should continue growing all summer. In the fall, remember the day length or temperature issue, and your plant is sure to bloom again.

Rhipsalidopsis are harder to grow. To start with, the plants are very fragile. Stem segments drop off with a slight bump. Mail-ordering plants produces a box full of pieces. As if to make up for this fragility, they do root easier for me than do *Schlumbergera* cuttings. The plants also require higher humidity and die quickly without it. And, they are sure to die if the soil dries out completely. My best results with these came from growing them in the bathroom where I had to look at them every day, or in the winter in my sunroom, which is quite humid.

To compensate for their greater requirements, they are not light sensitive, and if you can keep them alive until spring you will be treated to a great show of flowers.

A good time to buy *Schlumbergera* will begin around Thanksgiving at the Desert Botanical Garden plant shop. There will be a nice selection new and exciting hybrids. These are special-order items, propagated to order for the DBG, and Judy must order a year in advance. There will only be so many, and Judy will not be able to order more once they are gone. If you are really cheap, wait until just after Christmas, when grocery stores are dumping the ones that are done blooming. They usually go for less than \$3. Try a few this year.

CACSS Newsletter

by Joseph Orazio

The CACSS newsletter is the product of a lot of hard work by members of the club who volunteer their time to help bring the newsletter together every month. There are many things that must happen in order to make all this possible and I thought members might be interested in how it is done.

The first and most important piece of the project each month is the content. Without it, obviously, there would be no newsletter. Content usually consists of the president's letter, announcements, the calendar of events and meetings, the list of officers, and finally, articles about our favorite plants. The content is provided by club members each month but may also come from outside sources such as journals, books, other newsletters and the Internet, to name a few.

As you probably know, Leo and I, in the last couple of issues, have asked for contributions from our members. While content can be found outside our club from those sources mentioned above, our newsletter should consist mostly of content provided by our members. Again, please don't hesitate to send anything you might like to see in the newsletter. The more material we have from our members, the better.

The current goal is to try and accumulate as much material from our members and outside sources as possible. This would allow planning of what each future issue might include. Currently, this lack of material makes planning impossible and means that every month the newsletter is literally constructed "on the fly." We must wait until the last minute for any and all contributions to arrive before starting the layout of each issue. This is extremely difficult and can result in many complications, one of them being delays.

We have Leo to thank for providing most of the content in recent issues and he has done an excellent job! I would also like to thank the few of you who have also contributed recently and hope that you continue to do so. We would like to hear from all of our members! Don't be shy! Your experiences, ideas, techniques, observations, and anything else to do with our favorite plants are welcomed. If you have any questions about your contributions, don't hesitate to contact someone to help you.

There will be a deadline for each newsletter of twenty days before the next meeting. For example, the deadline for the January issue will be January 6th as our meeting is January 26th. This deadline is for

announcements and other small contributions. Articles submitted by members will be included in issues as space allows. If you would like to see one of your contributions in a particular issue, please contact me to make arrangements. I would be more than happy to accommodate you if possible.

The second part of the process is the layout of the newsletter. Once all the material that is to be included in a particular issue has arrived, it is edited to remove errors and extraneous spaces or characters that may have come from various email programs and document conversion. It is then imported into a graphics application to incorporate pictures and other elements that make up the overall structure.

The layout cannot be done without having all the material that will be included in a given issue. Each article must be arranged and placed into the newsletter with all the other articles and the space they will occupy in mind. Filling up an issue, if content is low, or fitting all the material in, if content is high, can be a real challenge to say the least.

As mentioned above, the best scenario would be to have a stockpile of contributions from members and outside sources. Again, this would make layout and planning of the newsletter much easier, not to mention enriching the content and making delays in production much less likely.

The third part of the process is proofreading and editing. The newsletter is completed and put in the structure that it will be when printed. A copy is emailed to Leo who proofreads it to check for errors and/or make small, last minute changes. These last changes are made and a final copy is again emailed to Leo.

That brings us to the fourth step, printing. Leo takes the final file to a printer to have it printed and the first fold made. The newsletter is usually four pages or one eleven by seventeen inch sheet folded in half. This is the fold that is made at the printer and is only one of two folds necessary to complete the newsletter so it can be sent in the mail.

That second fold is part of the fifth step in the process. After printing, a second fold is made. Volunteers painstakingly tape each newsletter closed, affix the address label, and apply the necessary postage.

Once this is complete, the last step is to drop them in the mail so they can be delivered to all of our members. As you can see, this is a difficult process requiring the col-

CACSS Book Review cont...

increasing gorgeous blooms. Marijuana was chosen for its capacity to intoxicate us with otherworldly visions of pleasure. It brings to mind the word rapture - this word to me has religious overtones - and certainly this plant has figured in many religious ceremonies in the past. The potato was chosen for its ability to allow us to 'control' Mother Nature. We are propagating this source of food in ever-increasing ways to feed huge populations as a basic source of nourishment. The author has an exquisite use of the language and he is well versed in all areas of the literary world. It is a pleasure to read.

This book reminded me of another book that is also available in the Desert Botanical Garden shop - *Sex in the Garden* by Angela Overy (Fulcrum Publishing, Golden CO, 1997, 119 pp, \$19.95). Both authors pursue the thoughts that plants develop characteristics to attract pollinators and that the primary goal of all living things is reproduction. Pollan expounds on what plants have done in a less obvious way than does Overy. Her book exploits the visual beauty with marvelous photographs of plants vis á vis humans with the same use of color and beauty to attract an appropriate response for the desired objective - procreation. Isn't it charming that the two authors are named Pollan & Overy?

For an even deeper dig into this trend of thought read *The Selfish Gene* by Richard Dawkins. I am looking at my plants through new eyes. Everything we do with our plants seems to be for our own pleasure. Can it really be that we are being led along a verdant trail and doing this at the provocation of the plants? Who's in charge of my garden anyway?

laboration of many people who volunteer their time and efforts to make our newsletter possible.

Help make this process easier, and more importantly, help make our newsletter better by contributing to it. The more our members share, the better our newsletter will become. Your efforts will be rewarded by the satisfaction of being a part of our newsletter while also helping to make it great.

Upcoming Events - CALENDAR

General meetings are at 2:00 pm unless otherwise noted. Board meetings are one hour earlier. Members are welcome to attend board meetings.

- January 26, 2003** Dylan Hannon of Rancho Santa Ana Botanical Garden - Socotra
February 23, 2003 Woody Minnich - Artistic Staging of Plants
March 30, 2003 John Trager of the Huntington Gardens - Photography of Cactus & Succulents
April 9-13, 2003 CACSS Annual Show and Sale, Dorrance Hall
May 18, 2003 Guided Tour of DBG Greenhouses
June 29, 2003 CACSS Member Gard Roper - Agave
July 27, 2003 TBA
August 24, 2003 CACSS Board Member Doug Dawson - CSSA Tour to Richtersveld & South Africa
September 28, 2003 CSSA President Duke Benadom - Echinocereus of Mexico
October 26, 2003 Silent Auction of Member's Plants
November 23, 2003 TBA
December 7, 2003 Holiday Party 12:00 p.m. - 3:00 p.m.

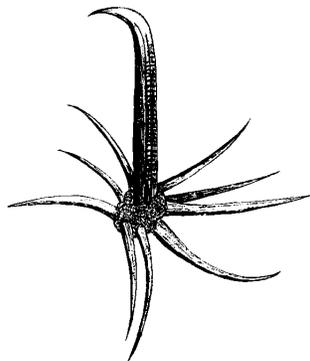
DEADLINE FOR NEXT ISSUE!

The deadline for material submission for the next issue of *Central Spine* is:

December 6, 2002

Please make a note of this!

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Central Spine is the newsletter of the Central Arizona Cactus and Succulent Society. All opinions are those of respective authors. Publication herein does not imply that CACSS or any CACSS members agree with any statements published.

Change of Address: contact our Treasurer, Pam Bass, with any changes of address.