

MAMMILLARIA THORNERI

# Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY  
Affiliate of the Cactus and Succulent Society of America, Inc.

TOMO NUEVE, NUMERO UNO

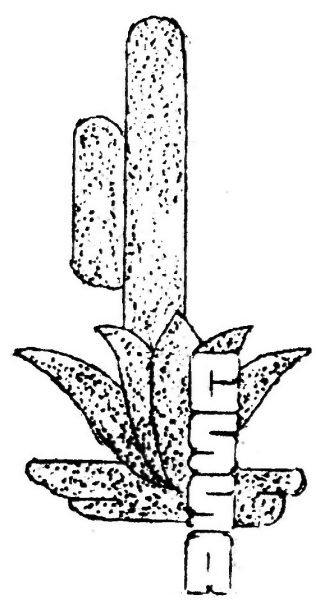
ENERO 1973

## C S S A S P E C I A L A C T I V I T Y

SAN DIEGO --- JANUARY 12th -- 1974 -- 1 PM  
Casa del Prado -- Balboa Park

### --- P R O G R A M ---

- William C. LOCKWOOD, Pres. CSSA (Pasadena) Opening remarks and introductions.
- Peter R. SHARP, Vice President CSSA (Alhambra) "Some Things Everyone Should Know about CSSA".
- Julianne RICE, Holtville, CA, for P L A N T O R A M A (Speakers are listed alphabetically, not necessarily in the order in which they will be called.)
- Jean and Leta HAPEMAN, San Diego: "REGALEMENTS" or Who Eats What, How **Much** and Why?
- Madelyn R. LEE, Grigsby's Cactus Garden, Vista: "Revelations about People and Plants in Africa."



Martin L. MOONEY Chula Vista, CAL "Melocacti--They're the Greatest" with some slides to demonstrate and prove their good points".

Pat MOONEY and Edith WERNER, Librarians: "Libraries on Wheels".

Dr. Leroy N. PHELPS: "Caudiciform Plants" --- Revelations of some of their Secrets.

ME ED "Espinas y Flores" and Who Writes What and the Funny-Sunny Side of Cacti.

## A U C T I O N S

Dr. Leroy N. Phelps and Dave Grigsby, Auctioneers

- 1) SPECIMEN CACTI -- the pride of San Diego County
- 2) CAUDICIFORM PLANTS --- Their roots are showing more and more.

The above two groups of plants are potted, staked and prepared for a ride to new homes. The cacti have vigorous root systems and would like living in the open ground. Some blooming in December. All plants will thrive on an abundance of TLC.

It was nice meeting with you on this 'Special' Occasion. Come back to SAN DIEGO again soon !!

ATTENTION GRABBING ITEMS

In "Ye Old Print Shop"

THE WEATHER and "Espinas y Flores":

A strange thing happened in the production of pages 1 and 2 of this issue. The day was overcast, the humidity was maximum, it was almost raining and the temperature was lower than normal in Ye Old Print Shop. The front page sheet came thru the mimeo-machine a bit faster than the ink would dry. Result: The back side of every page has (shall we say a 'messy') inky background.

Machines are temperamental sometimes. Some worse than others.

Ben Franklin (wherever you are) did you have problems like that with your "Gazette" back in 1729? NO ?? Then you weren't using a modern mimeograph called a "Rex Rotary".

No breath holding in February 1974.

"IN THIS ISSUE" page 3 of the bulletin you are reading, you are privileged to fill in line 2 in your own words and according to your own ideas. Ye Ed looked at it and gave up!

CHARLES GLASS gives official notice that beginning January 10, 1974, his new address will be:

1593 Las Canoas\* Road,  
Santa Barbara, CA 93105.

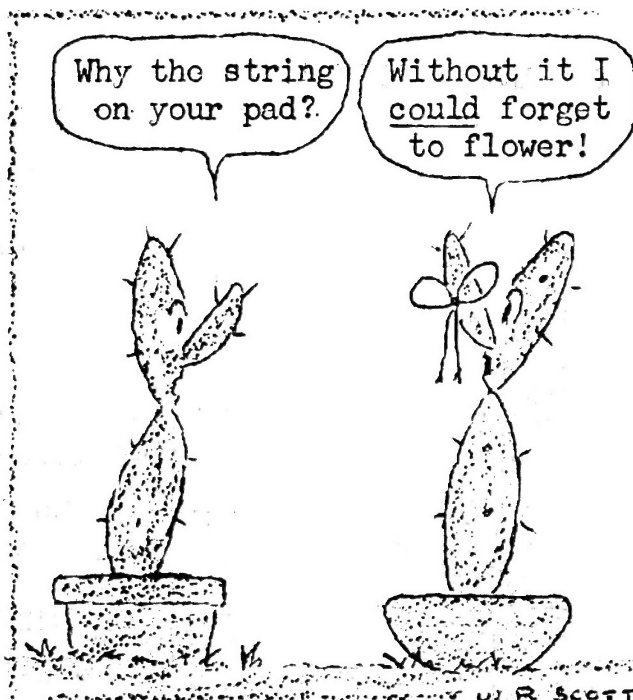
Abbey Garden in Reseda will be simultaneously closed as such. No information at this time is available about its future status. The grapevine has an odor of something brewing in the way of cactus and succulents. It may be a new "Plant Mart" in that area.

CHARLES BENBOW, the Club THANKS YOU!

Jean and Leta Hapeman and all the rest of their regalement crew were very much surprised and impressed with the handiwork and gift of six tea towels revealing the handiwork of "Charles B" in one corner---machine embroidered cactus designs.

Watch for them as decorative pieces on the regalement tables at future meetings.

It all goes to prove one never really knows or appreciates where talent lies in the Club's membership.



Memory aid.

"Jackson, Michigan  
October 1973

Espinas y Flores  
San Diego, CA

I read two issues of "Espinas y Flores" (July and August 1973). The Convention reports were very good.

Inclosed is my check for 1974 membership.

\*Canoas: canoes

Elmer THRUN, Jackson, Michigan"

FINE COLOR PHOTOS of SUCCULENTS

in "Better Homes & Gardens"

August 1973 . . . . Read on . . . .

An "Espinass y Flores" reader in Colorado sends a copy of the August 1973 issue of Better Homes and Gardens calling atten-

tion to some very fine and most realistic color photos of cacti and succulents on pages 38, 39, 40 and 41.

The first color photo on page 38, Parodia mairanana is so very realistic one has the urge to remove one of the pups for rooting or grafting. Some of the pots bring to mind Jeni Lee's ceramics (Whittier).

On page 54 is found simple and explicit, and illustrated, information on PESTS, METHODS OF PROPAGATION, SEED GROWING and GRAFTING. For example:

- 1: Potting mix: 1/3 humus, 1/3 perlite and 1/3 washed sand.  
Don't use vermiculite, it retains too much moisture.  
(Doesn't that ring a bell?)
- 2: Good drainage is essential !! (So true)
- 3: Because water goes out of the soil mix quickly, water cactus and succulents once or twice a week. . . .just enough to keep from drying out, but not enough to encourage new growth.
- 4: Feed cactus and succulents frequently but lightly. Choose a well-balanced 10-10-5 fertilizer, either dry or liquid.

Thank you Colorado reader, CMS . . . . . Ye Ed

Page

I N T H I S I S S U E

- |       |  |
|-------|--|
| 1     | CSSA "Special Activity", January 12th at Casa del Prado  |
| 2     |  |
| 3     | COLOR PHOTOS from "Better Homes & Gardens", by C.M.S., Colorado  |
| 4     | CONTRIBUTORS in 1973, A "Thank You" to, from Ye Ed   |
| 5/6   | Nibby KLINEFELTER "Nibby's Notebook"   |
| 6     | Paul BINGHAM, Irvine, CA, Cactus cartoon.  |
| 7/8   | Nibby KLINEFELTER "Anatomy of a Saguaro", "Cactus Comments",<br>"Ecology, Conservation & Cacti" and "The Artist in Nature".                        |
| 9/10  | CactoPhil CORLISS "How's your pH?" Continued on page 10.   |
| 10    | Minnie MOGIL submits "Weekend Magazine"  |
| 11/12 | Francis J. BORG, Malta "Arequipa" (Br. & R.) To be continued.  |
| 13    | Maria REEDER "Lección en español"; Cactus names; Cartoon.  |
| 14    | COMMUNICATIONS: David MATTERN, Sue BACHRACK, S D Ecology Centre  |
| 15    | PLANTS-OF-THE-MONTH 1974; "Exotics in Flower Shows"; DUES !!   |
| 16    | Ailsa BENNETT, New Zealand "I Love Dogs----BUT"  |
| 17    | OFFICERS and DIRECTORS<br>Jean and Leta HAPEMAN "¿Le gusta a Ud.? or "Regalement in January"<br>OBISPOGRAM, Billy-the-Kid Bishop, San Bernardo, CA |

"THANK YOU, CONTRIBUTORS in 1973!" . . .Ye Ed

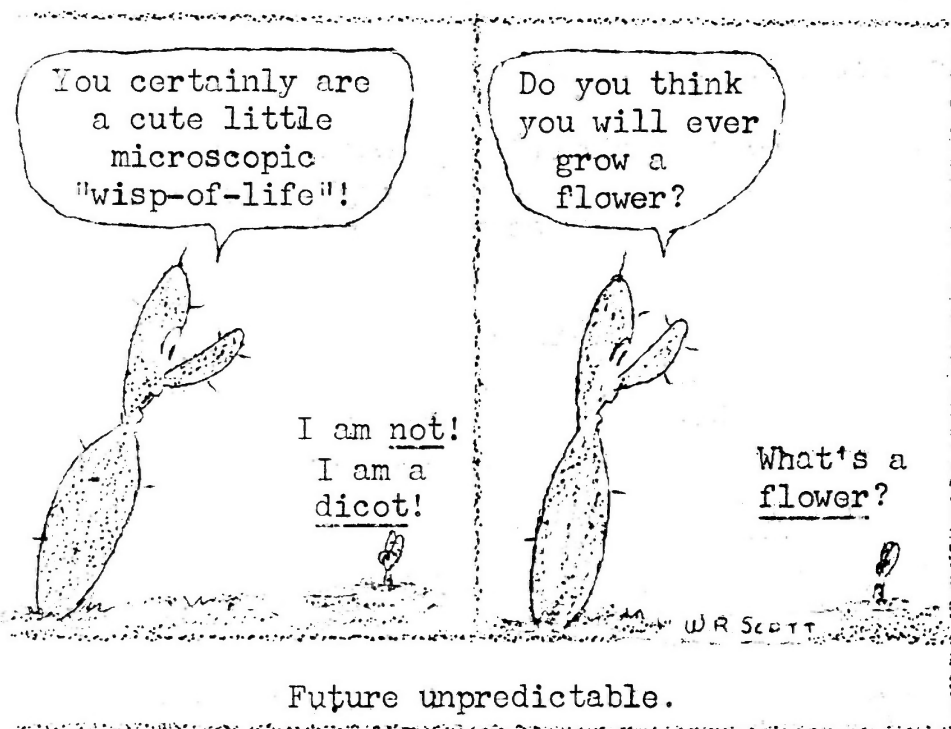
My very sincere appreciation and thanks go to many individuals who in 1973 provided much informative and interesting material to the pages of "Espinasy Flores".

The list is long, too long to list individual contributions, and some gave many pages, but it is well that all our readers should know that a bulletin is not an individual effort but the sum of efforts of a lot of individuals, whose efforts when combined make for a much better bulletin.

Names of contributors are offered in alphabetical order below, and should I miss any person's name, an apology is offered in advance.

BEAUCHAMP, R Mitchell, Bronx, New York  
BENBOW, C. L., San Diego  
BENNETT, Ailsa, New Zealand  
BORG, Francis J, Paola, Malta, Europe

BRUHN, Jan G., Stockholm, Sweden  
CORLISS, Dr. Philip G., San Diego  
D'ATTILIO, Anthony J., San Diego



Future unpredictable.

An anonymous contributor sends an 'idea for a cartoon' (left) which he believes may not penetrate a cactophile's resistance to points, but should penetrate a botanist's train of thought.

Thank you, Mr. 'X'. . .Ye Ed

'From dicot to flower!', would that be a way to measure time in botanical matters?

Any more 'Mr. X's' out there with ideas for Espinasy Flores?

GAY, Ed & Betty, Tarzana, CA  
HALES, John B., Phoenix, Arizona  
HEGYI, Helen, Escondido, CA  
HEYWOOD, Anita M., Glendale, MO  
KENDRICK, Ken W., Woodland Hills, CA  
KIMNACH, Meron, San Marino, CA  
KLINFELTER, Nibby, San Diego, CA  
KYZIVAT, Alice, Brookfield, Ill.  
LEONDIS, Paul E., San Diego  
LYONS, Gary, Altadena, CA  
McREYNOLDS, Kitty, Del Mar, CA  
MITICH, Dr. Larry W., Fargo, N. Dak.  
MOONEY, Martin L., Chula Vista, CA  
PELICON, Cecelia, San Francisco, CA  
REEDER, Maria, Spring Valley, CA  
RICE, Julianne, Holtville, CA  
RILEY, Patricia Anne, New Zealand

ROTHSTEIN, Les, New York, N.Y.  
SCHLOSSER, Hugo S., Montevideo, Uruguay  
SCHNEIDER, M., Toronto, Canada  
SCOTT, Floribunda, San Diego, CA  
SINGERS, Manny & Bert, Reseda, CA  
SOPP, Harriet K, San Diego, CA  
STEVESON, N. P. San Diego, CA  
TAYLOR, Bob & Suzanne, El Cajon, CA  
VAN NESS, Martha, Pacifica, CA  
VAUGHAN, Doc Reuben V., San Diego  
WELLS, W. L., San Diego, CA  
WERNER, Edith, San Diego, CA  
ZINK, Mildred T., Santa Clara, CA

May we hear from all of you, not once but often, in 1974. Thank you!

. . . .Ye Ed

# NIBBY'S NOTEBOOK

Accurately alliterative as the addition of NOSEY might be to the NOTEBOOK - no, Steveson, NO...

We are still filled with goodies and glowing with the glimmer of giving...still cheered with the charm of our plants in bloom...the million pinkish stars frothing the Jade Plant...the bright cone of yellow stars topping rosettes of Aeonium arborescens...orange rockets of Aloe arborescens lifting off as the Firecracker Aloe sputters out - saucy shaving brushes in miniature of the senecios - yellow and orange, red and white...and the bells the glorious satin-candy coral-yellow bells of Cotyledon orbiculata ringing for the holidays - oh, you SAN DIEGO SUCCULENTS - if you bloom like this in December, what the world can expect in May in '75! - Surely these years will be remembered as the Succulent Seventies...



Martin Mooney mentioned the donation of \$25 that our Society made to QUAIL GARDENS in memony of the founder, Julia von Preissig...what a lovely garden to have to leave...We'll all miss you.

Bill Nelson is one of the sweetest men in the world...our outgoing President went out as he came in - with love in his heart - to quote: "There was never anyone I called to do anything who didn't say 'yes' and see that it was done!" Bill said he would like to add several shelves to the kitchen lockers to better utilize the space...Oliver Loyland (who's another lovely man) offered to help...Sophie served "Open House Punch", refreshingly dee-licious...gave us the recipe, one of the two best collected this year...the other may not be for everyone but if you have to catch a number of pheasants not anxious to be caught, use Col. Anderson's advice and mix star-shaped cat food with cheap bourbon; after blending, quickly throw a net over all...allow to settle down before separating with strong men. (Note: blending includes the peacocks, of course.) These peacocks are the ones whose amorous activities were filmed by Don Kruzner...he's already given us two splendid programs...

Don't forget, Corliss Cactophil, you promised at the November Board Meeting to bring the long long awaited copy of your book on day lilies. ...For your "Goodie Bag", how about the marvelous map of the city by San Diego Transit Company? We'll bring one for you.

**Be an  
active  
member.**

***It's a whole new way  
to enjoy life!***

And the nearest quickest way this month to be ACTIVE would be to help Julianne & Jean & Leta Hapeman with the chuckwagon - they'll need a tremendous amount of food to serve to lunch to the nearby clubs coming for the joint CSSA Quarterly Meeting. Julianne is working in Holtville at the Imperial Valley Country Club & Inn...she says she's hard to get hold of...try 714-356-1641...otherwise the Hapemans. Was it Victor Turecek or Bub Gay who encouraged us to be ready - for "We're all coming!" Should be a great program, with lots of Flower Power.

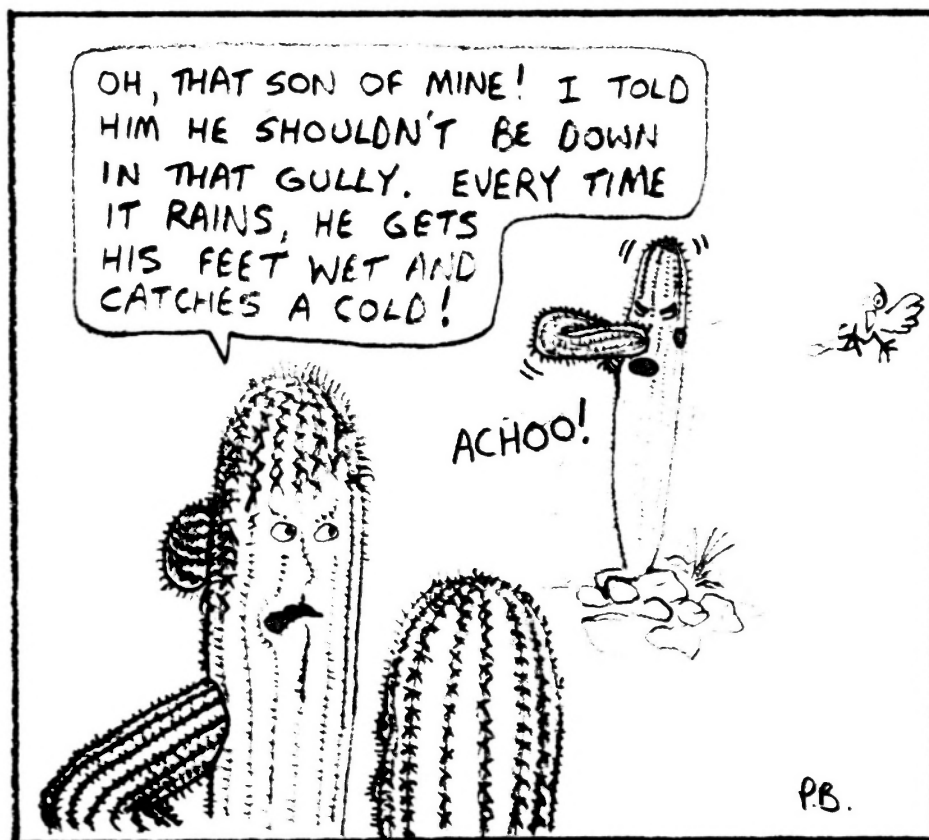
\* \* \*

It didn't take long to get down to the main business of the meeting - PLANTS - calling numbers and passing out and auctioning some of the choicest, healthiest, bursting-with-beauty plants the Taylors have ever supplied...When asked if the cries of pleasure, the oohs and aahs didn't make her feel good, Suzanne said, "I like to watch their faces and see how happy they look!" That's Suzanne Claus, you know...my notes are at home - I knew Augie chaired a successful Christmas party, that Rick & Warren Buckner & Martin Mooney & Loyal Joe Bibbey passed out plants...my notes knew who paid the most for what plant...that Madelyn Lee, a collector's collector, helped with the auction - not only as auctioneer, but as a busy buyer and what plants whetted her appetite...same with Lee Phelps who moved right along///One thing I didn't forget - that Doc Vaughan, a friend for five years saw me in the patio and asked questioningly, "Nibby?" and made the flat statement you've-gained'weight...Indeed...so my new year's pledge in print, I will lose weight...

Eve and Harry Warn will be wintering in Florida and summering in Michigan for awhile. However will you keep EyF up with them, Scotty?

My second pledge: To keep up with this column so that it does not burden Ye Ed - or to stop "writing" it.

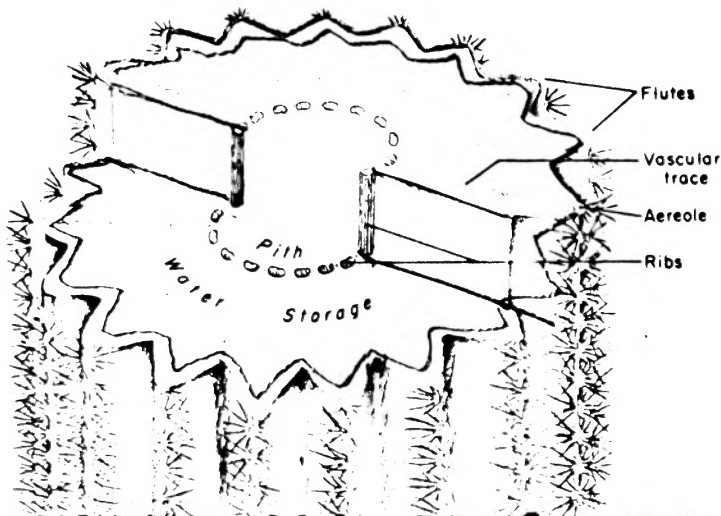
Betty & Ed Gay said that if post-Convention trips were left entirely up to them - FORGET IT. Now, we need leaders for at least one Baja trip. How about it?



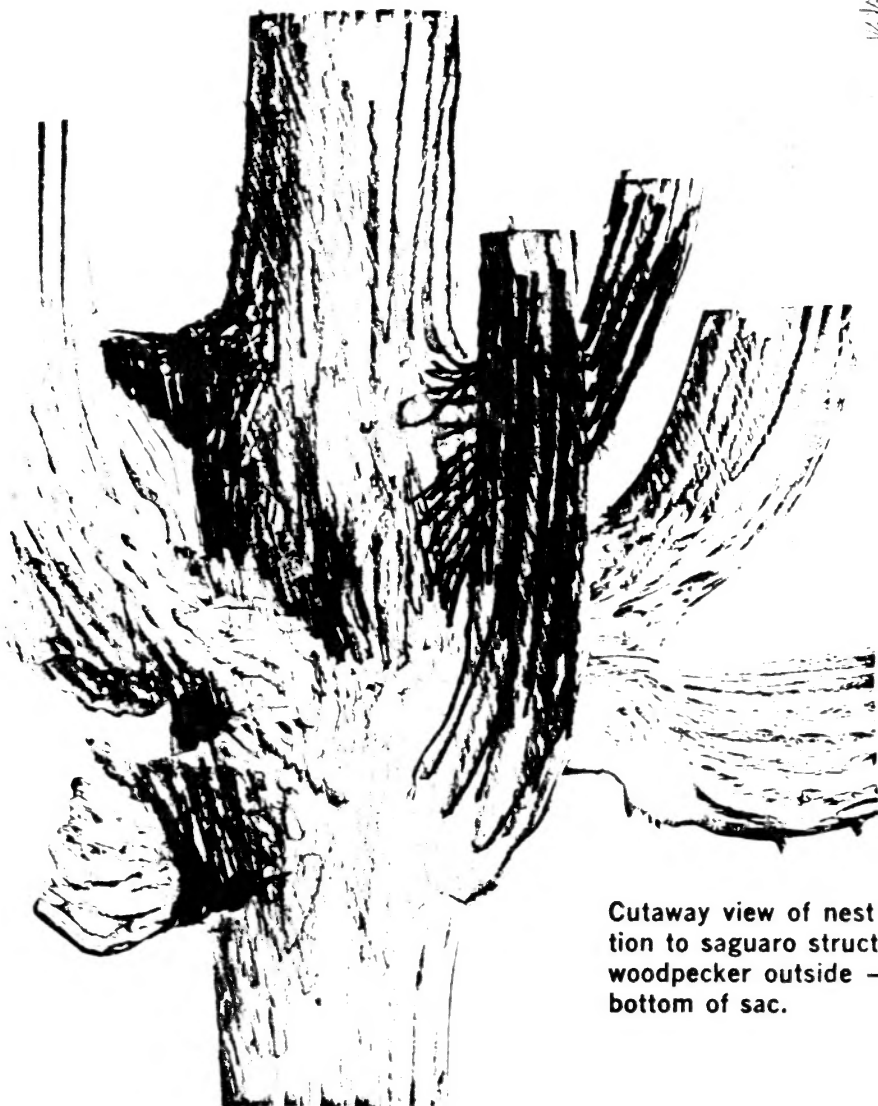
THE FIRST DREAM OF THE YEAR  
I KEPT IT A SECRET  
AND SMILED TO MYSELF  
Shō-u

# anatomy of a saguaro

Horizontal cross section and legend



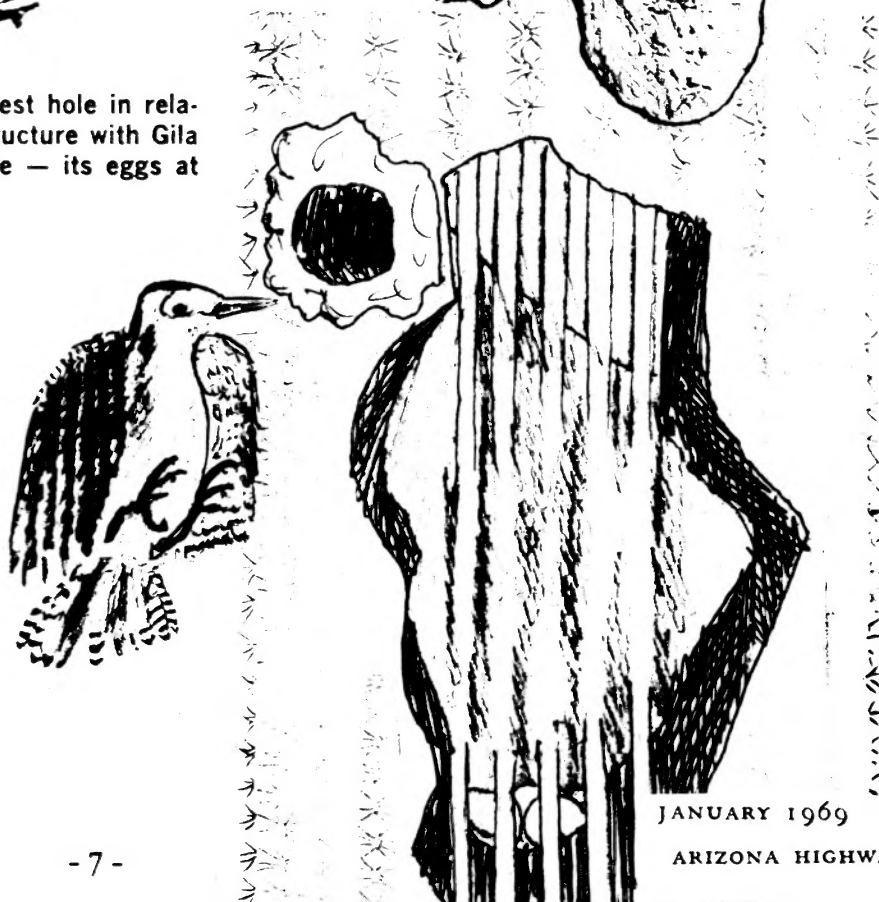
The specimens of saguaro anatomy shown on these pages came from a giant plant, at the peak of its growth cycle felled accidentally by



Callus from our specimen saguaro has two openings. The 24-inch sac is composed of several layers of dopamine, cork and melanin.



Cutaway view of nest hole in relation to saguaro structure with Gila woodpecker outside — its eggs at bottom of sac.



a construction bulldozer. Estimated to be more than 150 years old the multi-armed cactus measured approximately 27 feet from ground to topmost point. The main trunk section — the ribs of which are shown at left reduced to 84 percent of actual size — stood more than 7 feet from root to crown to a point some 12 inches below the arm-branch arterial nucleus pictured above.

# THE MAIL

## CACTUS COMMENTS



*The New York Cactus & Succulent Society Inc.*

AFFILIATED WITH THE CACTUS & SUCCULENT SOCIETY OF AMERICA, INC.

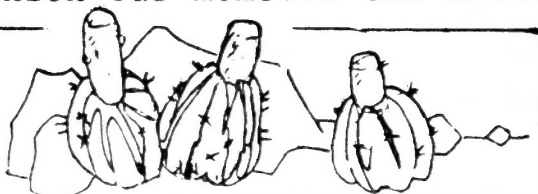
STEVE VALENTA  
44 West 75th St.  
New York, N.Y. 10023

"CACTUS COMMENTS" is again underway. The recent issues published their financial report, "Based on Review of Incomplete Records Submitted, Requiring Estimates and Uncertain Classification of Some Items." Now THAT is the most forthright statement ever accompanying a Treasurer's Report!

They, too, are quite solvent - despite a sizable disbursement for "Parking Refunds"...Their dues are \$15 which includes membership in CSSA & THE JOURNAL...which our members can match by sending \$7.50 to:

### CACTUS AND SUCCULENT JOURNAL

Charles Glass, Editor  
P.O. BOX 167  
RESEDA, CALIFORNIA 91335



New York C&S has to pay \$200 to meet at Snuff Mill...so consider ourselves lucky.

## SAN DIEGO DUES ARE NOW PAYABLE

## ECOLOGY, CONSERVATION AND CACTI

by Charles Morris

How many times have you read in the Journal: "that variety used to grow in such and such an area, but we don't seem to be able to locate it anymore?"

If we sit on our glochids without any thought of cactus conservation I am quite sure that twenty years from now people will be crying about the passing of the fifty-nine- and seventy-five-cent cactus. We cannot anticipate anything else if we permit our deserts to be hacked out by unscrupulous business. So we here in the north-east--several hundred miles away from what we call Cactus Country--should start the ball rolling.

A few lines reprinted from an excellent article in Nov '73 CACTUS COMMENTS

May

I, as an individual, offer the following program for us to promote:

- 1- Refuse to purchase field-collected specimens.
- 2- Refuse to purchase any cactus at all from firms who advertise "Some Field Specimens."
- 3- Obey all the laws of that particular area if we go collecting in the field.
- 4- Encourage more stringent laws and heavier penalties governing conservation and collecting.
- 5- Encourage the growing of plants from seed as much as possible.



## WHY JOIN SAN DIEGO SOCIETY OF NATURAL HISTORY?

Essays & Etchings by "our Tony"!

## THE ARTIST IN NATURE AND THE NATURE OF THE ARTIST

CONTRIBUTORS BY ANTHONY D'ATTILIO

Anthony D'Attilio is a native of Foggia, Italy and came to this country in 1912. He studied art at various schools in New York City, including the Beaux Arts Institute of Design. His work in technical illustration, children's book illustrations and decorative glass has been shown all over the world, winning a prize at the Paris World Exposition in 1937. He joined the Museum staff in 1969 as assistant curator of marine invertebrates.

### MEMBERS MEETING

Jan. 26 (Sat. 7 p.m.)—BAJA CALIFORNIA—lecture by Dr. George Lindsay. Open to members and guests. Refreshments will be served in the Main Hall. Lecture (at 8 p.m.) will be presented in the auditorium of the Casa del Prado following coffee. The Casa is directly across from the Museum's west entrance.

Dr George Lindsay!

### FLORIDA CANYONEERS

Regular Friday, Saturday, Sunday and Monday tours of Florida Canyon Nature Trail One and Two. Reservations for group tours should be made with Educational Activities Department for all Fri., Sat. and Mon. tours conducted at 10 and 11 a.m. No reservations necessary for Sunday tours at 1 and 2 p.m. Call 232-3821.

Florida Canyon!



## HOW'S YOUR pH??

CactoPhil CORLISS

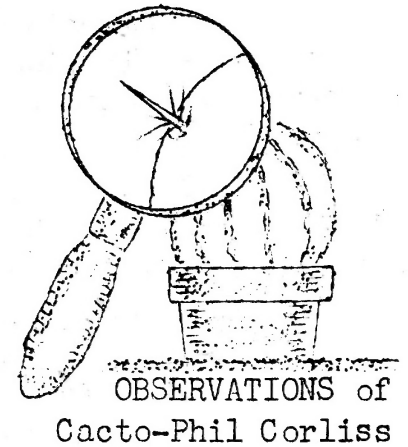
It has long been known that plants can utilize nutriment only in the presence of acid. Like so many other factors of plant life, this fact produces many paradoxes and questions. We have combed the cactus literature for articles on the importance of the acidity of soils and fertilizers and present here some of our findings for your consideration.

The degree of acidity is expressed by the symbol "pH". A pH of 7.0 is neutral. Readings above 7.0 are alkaline while those below 7.0 are acid. An article by Franz BORG of Malta (pages 13 and 14, Espinas y Flores, Sept. 1973) summarizes very well the findings of most of those who have studied the problem of optimum acidity of soils for cactus: A slightly acid pH reaction (from pH 6.9 to pH 6.0) produces the best growth response. Increase in acidity is accompanied by a corresponding decrease in response. Likewise, the growth response in media of alkaline reaction (above pH 7.0) becomes increasingly poorer as the pH rises.

It has long been known that Mammillarias grow best under acid conditions. Many studies have shown that this is true of ALL cactus genera. Why, then, are most Mammillarias, including all of those from Mexico, found in habitat soils with alkaline reaction? In fact, the pH of much of the cactus habitat in Mexico exceeds pH 8.0! It is a different story in South America where habitat soils of all cactus have definitely acid pH readings.

You may wonder how and why cactus will grow at all in regions where the soil pH is always on the alkaline side. My personal explanation is as follows: Despite the alkalinity of the soil, most cacti in these regions grow in small pockets of decomposing leaves, as in rock cavities or under shrubs, which develop acidic reactions. Rains, when they do come, reduce alkalinity and make acid salts available, if only briefly, to the plant. This explains why cacti in alkaline areas are notoriously slow growers.

What do these findings mean to amateur growers? If one wants growth and flowers (which usually come on new growth) he must provide an acid growing medium or an acidic fertilizer solution. If one waters with chlorinated tap water, which is on the alkaline side, he must provide an acid medium. Leafmold is the best ingredient to make the medium acid. It decomposes, providing of itself nutriment for the plants. Peat moss may be used as a substitute, but it is not a good one. Peat varies greatly in its reaction, depending on its origin. I was long ago taught that peat moss from Canadian sources was best, since it is acid, while peat from the southern United States is not. Garden soil ("loam") varies in reaction: If it contains much organic matter (which will decompose or which has already decomposed) it will be acid. I am sure that the best "soil" for raising cactus is "soil-less"! In other words, grow your plants in vermiculite (or other exploded rock) and sand with pebbles, granite dust, etc. Fertilize with a solution you know is slightly acid and which contains NITROGEN, PHOSPHOROUS and POTASSIUM in the relative amounts you consider best. In addition, you must supply the "minor elements" -- boron, zinc, iron, manganese, magnesium and copper. Vitamin "B" may possibly be added occasionally to stimulate growth. Organic growers will not like this, and I must agree with them that some organic matter in the potting mix does wonders for most plants. However, cacti are peculiar "animals" and subject to so many diseases that flourish in organic matter. I prefer to be on the safe side, which is soil-less, except for using heat-sterilized leafmold for less delicate varieties.



HOW'S YOUR pH??

CactoPhil CORLISS, continued:

The literature abounds with testimonials, especially from growers in England and on the Continent, attesting to superior growth when acid conditions are provided. Some failures in seed-raising have been corrected when acid medium was provided.

Following the suggestions of Putnam, I have been making my own fertilizer solution. This is the formula offered by E. W. Putnam in the National Cactus & Succulent Journal (VOL 18, NO 3, Sept. 1963):

|   |                             |
|---|-----------------------------|
| Potassium phosphate (Potassium dihydrogen orthophosphate) | . . . 5 oz.                 |
| Magnesium sulphate (Epsom salts)                          | . . . . . 2 oz.             |
| Calcium nitrate   | . . . . . $\frac{1}{2}$ oz. |
| Nitric acid (concentrated)                                | . . . . . 1 oz.             |
| Water, to make  | . . . . . 1 qt.             |

Use one tablespoon to each two gallons of water.

My own basic formula is as follows:

|                            |                  |
|----------------------------|------------------|
| Sulphate of potash         | . . . . . 8 oz.  |
| Ammonium phosphate         | . . . . . 8 oz.  |
| Nitric acid (concentrated) | . . . . . 2 oz.  |
| Water, to make             | . . . . . 2 qts. |

Use one tablespoon to each two gallons of water.

Minor elements and Vitamin "B" may be added occasionally. The phosphate salts are not very soluble and will remain in suspension in these formulas, but when the dilution is made for use, they apparently become completely soluble.

I think Putnam's formula will supply toxic amounts of magnesium if used regularly.

MINNIE MOGIL submits:

a copy of the VANCOUVER SUN'S Weekend Magazine dated Oct. 20, 1973 with a story titled:

"Canada, Where the Cactus Grows". The cover is a 9" high color photo of a Gymnocalycium mihanovichii (Red cap) with three pups. Inside is the story of "The King of the Cactus Growers" Ben Veldhuis, wholesale grower, "the biggest cactus grower in all North America", in Dundas, Ontario, who has fourteen greenhouses.

At one time Ben has more than one million cacti growing, all sizes, shapes and colors. Last year 4 million plants were set out, row after row, in flat trays. He reports a 20% germination failure with his attempt to grow seedlings. And he has other greenhouses in Leamington, Ontario, which will soon have more area under glass than in Dundas. In addition he has nurseries in Plymouth, Florida. Inside the feature story are color photos of "Brain", "Star", "Scarlet pincushion", "Black cap" and "Ruby dumpling" cacti as individual photos. The names add a bit of confusion as is always the case in naming.

Ben has a 'beef', the lack of training of nurserymen in Canada whereas in Holland and Germany there are horticultural high schools where youngsters take combination academic and horticultural skills. In 1972 he shipped three tons of cacti to his native Holland for "Floriades '73", the biggest flower show in the world where a separate greenhouse was set aside for his activities.

Until recently he has obtained seed from Mexico, Brazil, Peru and Argentina. President Joe---wouldn't this story give you an idea for a 2-stop bus trip in North America and possibly one additional stop with pontoons in Holland?

And Minnie, you are hereby selected to receive the "Red Cap Award of the Month" for the most interesting contribution to "Espinasy Flores" in January '74. And that's a good start! And you say "veldhuis" means "greenhouse" in Dutch?

## A R E Q U I P A (Br. & R.)

Francis J. BORG, Malta

The genus *Arequipa* (Br. & R.) is applied to a type of cactus with a rather limited distribution; in fact these plants grow only around the border between Peru and Chile, where high pasture gives way to desert in the Departments of Arequipa, Moquegua and Tacana in Peru and around Tarapaca in northern Chile.

The genus *Arequipa* (Br. & R.) was named for the town of Arequipa in Southern Peru. This place is well up into the mountains and plants from the genus have been discovered growing at altitudes of 11,000 feet. *Arequipa* itself receives an average of four inches of rainfall annually, and few other species or *Arequipa* are liable to receive much more than this in habitat.

The plants in this genus are slightly globular and more or less cylindrical in shape, with several ribs covered with spines completely covering the plant's epidermis. Some plants remain single, while others offset freely from the base. The spines color varies from a light brownish yellow to reddish black. The flowers appear from the plant's crown and they have a slim tabular form with white hair on the outside of the flower tube. The stamens protrude out beyond the petals which are a vivid red and zygomorphic. The seed is black. When still small, these plants can easily be mistaken for *Loxanthocerei* because of their form, but later the *Loxanthocerei* continues to elongate whilst all *Arequipa* remain comparatively shorter. There is also the possibility of mistaken identity between the flowers of the two species; thus the flowers of *Loxanthocereus hystrix* and *L. neglectus* are unrecognizable from those of *Arequipa* but this parallelism stops when fruitage is reached.

The first *Arequipa* discovered was *A. leucotricha*, published as *Echinocactus leucotrichus* (Phill.). It was discovered in Tarapaca in Chile, and Dr. Alferd Lau lately rediscovered it growing in its habitat and distributed it as *Arequipa Lau 805*. This is the only *Arequipa* which grows in Chile, and is distinguished from those growing in Peru by its smaller size and also by the fact that it generally offsets more freely than its Peruvian counterpart. In 1906 Guerke described also *Arequipa hempeliana* as growing in Chile, but Lau lately could only find it growing in Tacna in Peru. It is perhaps pertinent to point out that between 1884 and 1894 Tacna was administered by Chile as a result of the Treaty of Acona, and it is possible that at the time of its discovery, Tacna was in Chilean hands.

The genus most closely related to *Arequipa* is definitely *Matucana*. In fact even in their publication, Drs. Britton and Rose give the main characteristic of *Arequipa* as the slim tabular flowers, like all other *Borzicactus*, and add that the only thing which distinguished *Matucana* from *Arequipa* is that the fruit and the flower's tube are devoid of any hair, contrary to those of *Arequipa*. The name of *Arequipa* was given to these plants by Drs. Britton and Rose in 1922, and has been and is still accepted by such people as Backeberg, Borg, Buxbaum, Rauh and Ritter. However, when in 1960 Myron Kimmach reclassified most of the genera of *Borzicactus* (Buxbaum), he classified *Arequipa* under the subtribe *Borzicactus* and because of this, some do not consider the name *Arequipa* as valid any longer. Kimmach affirms that the shape of *Arequipa* and *Matucana* is very similar, and the flowers of both in their structure are indistinguishable one from the other. Kimmach thus attaches no importance to whether the fruit and the flower have or have not any hair.

In 1960, almost simultaneously with the publication of Kimmach's theory, Albert Simo and Stefan Schatzel, published a paper on the *Arequipa*-*Matucana* problem. (Continued overleaf)

A R E Q U I P A -- Continued:

After a detailed study of the flowers, they established a stypical form for the stigma base and the arrangement of the nectary in the genus *Arequipa* and *Matucana*. With *Arequipa* it was found that the stigma base is not enlarged and that the nectaries are predominantly in the nectary chamber wall or only slightly protruding from it. With *Matucana*, the stigma base is enlarged on the lower side of the diaphragm. Simo and Schatzel, after considering also the great variability which exists among South American plants, concluded that the genera *Arequipa* and *Matucana* are fully substantiated, especially on the basis of the generic characteristics quoted in Prof. Rauh's famous work "Contribution to the Knowledge of Peruvian Cactus Vegetation."

In 1963 the German Krainz in the publication "Die Kakteen" combined *Arequipa* and *Matucana* in the single genus *Arequipa*, by transferring the type-species of *Matucana*, ie. *Matucana haynei*, under *Arequipa* as *A. haynei*. This change was hardly given any acknowledgement since both *Arequipa* and *Matucana* were published simultaneously by Drs. Britton and Rose. *Arequipa* had much fewer species than *Matucana* in 1936, and hence on this basis Krainz should have retained *Matucana*.

Backeberg, in his "Kakteen Lexikon" classifies *Arequipa* in the tribe *Loxanthocerei*, under the subtribe *Brachyloxanthocerei*, together with *Denmoza*, *Matucana* and *Submatucana*. He maintains that the four have the same common characteristic: when small, these plants are globular, and it is only with age that they become somewhat columnar. On the other hand, the other *Loxanthocerei* grow in a cereioid form from the very beginning. In the Lexicon one finds this general description of *Arequipa*: low plants, somewhat columnar, slightly oblique, zygomorphic flowers, without ring of wool near base of style, fruit dry, opening basally thus releasing seeds.

It is this last characteristic that most distinguishes *Arequipa* and *Matucana* because while in *Arequipa* the fruit dehisces basally, in *Matucana* the fruit splits vertically. As regards the other characteristic that *Arequipas* do not have a ring of wool near the base of the style, this is considered as of little or no importance. In fact John Donald of England, in a commentary on *Borzicactus* published 3 years ago, explained that *Arequipa hempeliana* v. *subtilispina* does show a ring of wool, while *Arequipa hempeliana* apparently does not, or is very much reduced. Donald himself agrees with Kimmach and in a new classification transferred all *Arequipa* to the subgenus *Matucana* (Br. & R.) (emend. Donald) of *Borzicactus*.

Friedrich Ritter, who because of his continuous voyages in South America is the person with most experience nowadays, does not agree with Backeberg as regards the presence or absence of the ring of wool. In fact he proved that he himself found plants of *Matucana* and *Submatucana* of the same species and in the same habitat, some of which had the ring of wool and others did not. To Ritter the recognition points of the genus *Arequipa* are a longish fruit which opens when ripe by means of a hole in the base, whereby the seeds are emptied in the wooly apex of the plant. He considers *Arequipa* as a distinct genus from *Matucana* in which the fruit splits vertically. Because of this Ritter does not even accept Backeberg's genus *Submatucana* in which the fruit opens vertically, and places it with *Matucana*.

Although it appears that there is ample proof that *Arequipa* and *Matucana* are distinct, the setting up of genus *Submatucana*, which is gradually gaining recognition and which is characterized by the shining green epidermis of its plants and the beauty of its red zygomorphic flowers, is nothing but the missing link that joins *Arequipa* and *Matucana*. (To be continued)

- - - LECCION EN ESPAÑOL - - -

Maria Reeder

¿Le gusta a Ud.? or ¿Le gusta?\*

"As good as gold"\*

"Tan bueno como el pan"  
(as good as bread)

comer --- to eat  
comida --- meal

comestible --- food, eatable  
comedor --- dining room

¿Le gusta el taco? El taco, la tortilla, la tostada, el chile forman parte de la comida mexicana. No forman parte de la comida española. ¡No señor! La comida española es muy distinta (diferente). La comida española se parece la comida europea, es decir, la comida de Francia, de Italia y de Portugal. No comen tacos ni enchiladas. Comen pan y carne y vegetales. Usan garbanzos en vez de los frijoles de México. La comida favorita es paella, una combinación de pescado y arroz.

"Spanish" food as sold in most local "Spanish" restaurants or "eateries" is virtually unknown in Spain. It is more appropriately termed Mexican food and the difference is enormous because it is based on a different grain. The staple of Spain is wheat (trigo), the staff of life. The common foods are fish, meat (of all types), onions, garbanzos (chick peas) and olive oil. Paella, a succulent casserole of seafood, rice and poultry is probably the national dish.

The Mexican diet is based on maíz (corn) and frijoles (beans). There is an interesting story that maíz is the reason for the peregrinations of the Mayans. It was observed in exploring the Mayan pyramids in Mexico and Guatemala that frequently there was a smaller pyramid inside. It is assumed that an earlier settlement had existed at that spot. Corn depletes the soil rapidly, so when not enough corn could be produced, the Mayans moved to fresh soil, repeating the process as needed. It resulted in a sort of rotation of people rather than a rotation of crops.

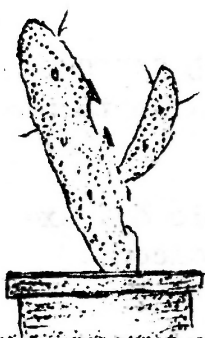
\*Incidentally, the Spanish version of our English saying "As good as gold" is "tan bueno como el pan" --- as good as bread.

\*\*Do you like?

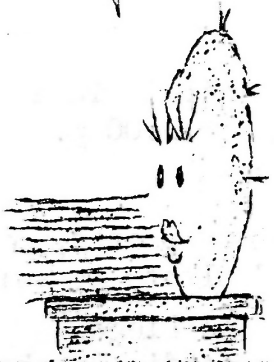
Maria: Gracias! Es excelente! Tengo mucha hambre! . . . . Ye Ed

A well-informed man is one whose views are the same as yours.

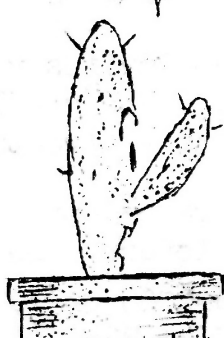
You're a real cutie! May I ask your name?



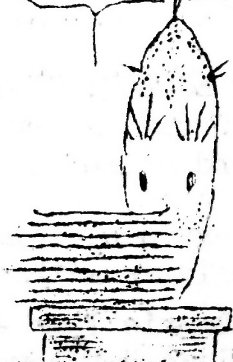
You're a flatterer! But your question is good!



You surely have many admirers! Isn't that your diary?



After a fashion! It's a stack of names I've been called!



W.R. Scott

C O M M U N I C A T I O N S

"CACTOPHILATELIC NEWS:

"Cactophile friends:

You may have already discovered that cacti are found in many dry areas, including the corners of envelopes. But for those who have never seen a cactus stamp, the enclosed list may come as a surprise.

Cacti have been blooming freely on my stamps for several years. I never water, fertilize or use insecticides on them! Paper cacti don't require a greenhouse or a soil mix. They are quite content displayed in a stamp album, or framed and hung on a wall. Once you become interested in them you will give them T.L.C.

To my knowledge I have become the world's only dealer specializing in cactus stamps. A price list, My No. 1 (1973) is available now. Lists will be sent to those who ask. Send a large self-addressed envelope (stamped). Additional lists will be prepared as new stamp issues become available. (Mention 'E y F')

If interest warrants, I will occasionally issue a "Cactophilatelist Newsletter" available for \$0.25 to \$1.00 depending upon length and cost of publication. News will include such topics as identity of plants on stamps, bibliographies, details of issue, number issued, reason for issue, designer, etc. and of course new issue news.

Your letters, articles and comments are welcome!

Cactophilatelically yours ---

*David Mattern*

David L. MATTERN (BONICO)

PO Box 103, Kent, OHIO 44240

P.S. Ye Ed has a 5-page copy of price list No. 1 (21 countries) which is hereby offered to the first cactophilatelist who calls 296-6022.

5071 55th Street  
San Diego, CA  
December 8, 1973

Dear Mr. Nelson:

Please convey to the members of the San Diego Cactus & Succulent Society the deep appreciation of the family of Julia von Preissig for their contribution to Quail Gardens Foundation in her memory.

A committee will work on just what form of lasting memorial will take, and you will be informed as plans crystallize.

Meantime, our sincere gratitude for your thoughtfulness.

Sue Bachrach (sister)

SAN DIEGO ECOLOGY CENTRE --- Invites you to participate in a PLANT-AND-GARDEN FAIR on Saturday, February 9, 1974 from 10:30 a.m. to 4:00 p.m. at Villa Montezuma Shephard House at 19th and K Streets, San Diego.

A fund-raising fair offers an opportunity to buy plants, meet people and exchange ideas with plant lovers. Donations of plants to sell are welcome.

Laurie Terr -- 235-0066 or 299-7040 -- San Diego

Jean Hanscom -- 274-1672

Pacific Beach

C A C T U S

- Jan. NONE (CSSA SPECIAL ACTIVITY)
- Feb. Ferocactus
- Mar. Gymnocalycium
  
- Apr. Notocactus
- May. Parodia
- June A newly described species,  
after 1967
  
- July NONE (ANNUAL PICNIC)
- Aug. Thelocactus
- Sep. Astrophytum
  
- Oct. A 'hairy' cereus species.
- Nov. Mammillaria
- Dec. Xmas-colored cacti.

Dr. George E. RADWIN of the staff of the San Diego Natural History Museum will describe the Cactus-of-the-Month.

S U C C U L E N T S

The names of Succulents-of-the-Month will be supplied to readers in the February 1974 issue of 'Espinasy Flores'. They will be described by no other than Julianne RICE.

Thank you, Julianne, your descriptions in the past have been so beautifully worded, most appropriate and true to life.

And why not? All the plants are so regarded by members!

And the plants say "Thank You" Julianne. They are waiting in the wings with fervored anticipation of all the nice things J.R. and G.E.R. are going to say about them. Listen for the applause.

EXOTICS AT FLOWER SHOWS

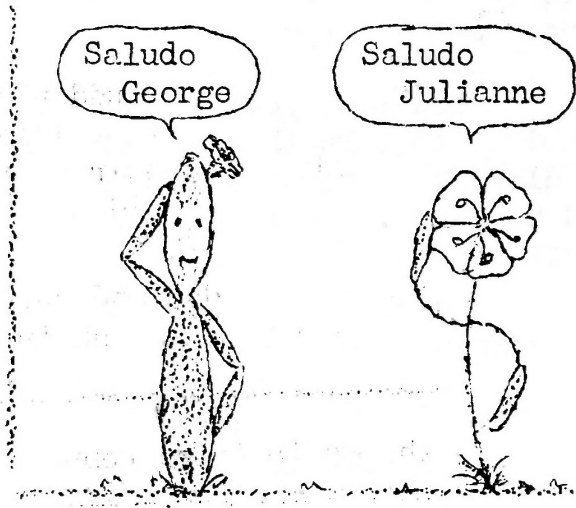
QUOTH Alfred Byrd GRAF:\*

"The International Flower Show in New York City Coliseum has always been anticipated by hundreds of thousands of professional and amateur horticulturists every year.

Never awed by competition of the larger exhibitors with their skilled gardeners and thousands of plants, hundreds of just plain plant lovers bring to the show their prized plants, and men and women alike in work clothes busy themselves all night tidying up their exhibits for the judges next day.

A wonderful spirit prevails amongst all those that work together in one common interest, to enjoy and appreciate the beauty of nature's creations!"

\*Exotic Plant Manual page 787.



1974 DUES are "due and payable NOW" - - -

You are here and now reminded that dues are now payable for 1974 in the amount of \$5.00 (up from \$3.00 in 1973). If you have not already taken care of this small detail, you should do so immediately. Send your check for \$5.00, payable to the "San Diego Cactus & Succulent Society" to:

Treasurer John A. KORVER, Route 2, Box 2001-C, Escondido, CA 92026

I LOVE DOGS ---- BUT

A new variety ? ??

During the summer months I always take my Echeveria carunculata out of its pot and plant it in the garden. Again in March it is potted up and returned to the safety of the glasshouse. The treatment produces a strong, bold specimen for me.



In February this year my niece called to show 'Aunty' her baby. Aunty is a bit past babies but made all the right noises and a cup of tea. Everything was cozy until their departure. I went out to wave goodbye. I nearly flipped!

Poodle carunculata,  
new variety!

They had tied their poodle to a pipe by the garden. The poodle had pulled E. carunculata out of the soil, and guess what? EATEN IT !! All that remained was a stalk, roots and some broken bits. Fortunately my reflexes are good, as was my recovery. I said to myself "Don't worry about it" -- all the while doing a slow burn. My farewells were rapid to say the least. I surveyed the remains of a once lovely plant.

Just then the poodle next door bounced into the yard and grabbed the stalk and took off. So did I! After an exhausting chase, and drained of emotion, I had the plant remains in my hands. I dropped a sad looking stump on the kitchen bench and took a pill.

Next day I potted the tattered remains and placed it out of sight, which also meant out of mind. With my aging memory aiding, I decided to come out of mourning and forget it.

Now it is July! Suddenly I remember! I find a firm stalk and two healthy shoots. To take them off or leave them on? I have to decide. Now you know what poodles may include in their diet and why my choice is Pekinese with crooked legs and no snout. He is devoid of naughty habits, just a loveable, useless bundle of fluff.

Perhaps a reader and succulent expert can advise me on my next move in "Operation E. carunculata" subtracting the presence of a poodle.

Thanks to Ailsa Bennett, The Cactus Chronicle, New Zealand .

#### RANDOM THOUGHTS --

Fossil remains of this day reveal vegetation growths that in some respects greatly dwarf the best we know today. Many plant species have come and gone in the interim.

Green plants enjoy a certain amount of 'dependence'. They use the sun's energy to combine CO<sub>2</sub> of the earth's atmosphere with water to form much of their tissues. Additional elements are obtained from the soil. The plants become self-sufficient.

There is 'welfare' in nature. Some plants have lost their capacity to develop chlorophyll. They have become 'parasites' which eek out their existence upon other plants, thus becoming dependent upon their hosts for their food.

Do plants remind you of people in some ways? What's new?



SAN DIEGO CACTUS & SUCCULENT SOCIETY

Affiliate of the  
Cactus & Succulent Society of America

OFFICERS 1974

PRESIDENT - Loyal J. BIBBEY, 490 Citrus Ave., Imperial Beach, CA 92032 . 423 5133  
1ST V. P. - Martin L. MOONEY, 97 K Street, Chula Vista, CA 92041 . . . . 427 6796  
2ND V. P. - Richard G. LATIMER, 5990 Lake Murray Blvd., La Mesa, CA 92041 463 1655  
TREASURER - John A. KORVER, Rte 2, Box 2001-C, Escondido, CA 92026 . . 1 747 7073  
SECRETARY - Frances LANGER, 4459 Texas St., San Diego, CA 92116 . . . . 298 6323  
PAST PRES - William NELSON, 4253 Maryland St., San Diego, CA 92103 . . . 298 3349

BOARD OF DIRECTORS

1-year: Dr. Leroy N Phelps                      Wilson L. Wells  
2-year: Oliver Loyland                              Ione Hubner  
3-year: H Warren Buckner                          August Pfeiffer

COMMITTEES for 1974 will be named by the President and names will appear in the February issue of Espinas & Flores.

MEETINGS

Society meetings are held on the second Saturday of the month (unless otherwise scheduled) in Casa del Prado, Room 101, Balboa Park, San Diego, CA at 1:30 p.m.

JANUARY MEETING a "SPECIAL ACTIVITY of CSSA". The San Diego Club and other Clubs (Palomar and El Centro) will be hosts to CSSA members throughout Southern California at the January meeting. A special program titled "PLANT-O-RAMA" is planned. It has been developed by Julianne Rice especially for the occasion.

The January meeting is scheduled a bit earlier than regular meetings. Program starting time is 1:00 p.m. following a noon hour luncheon for all who attend.

THE CSSA BIENNIAL CONVENTION is coming to San Diego during the week of May 12th 1975. Start making your plans well in advance. It is the finest of conventions.

¿Le gusta a Ud.? Food, FOOD and more Food !!  
We were hoping you would read this !!

On January 12th the CSSA Special Activity will include a very special regalement for all members, local and out of town, as well as visitors.

--- REGALEMENT HOUR is from 12 to 1 o'clock. ---

Really, you shouldn't have to be coaxed to participate in this activity. Your response should be automatic and enthusiastic, and filling.

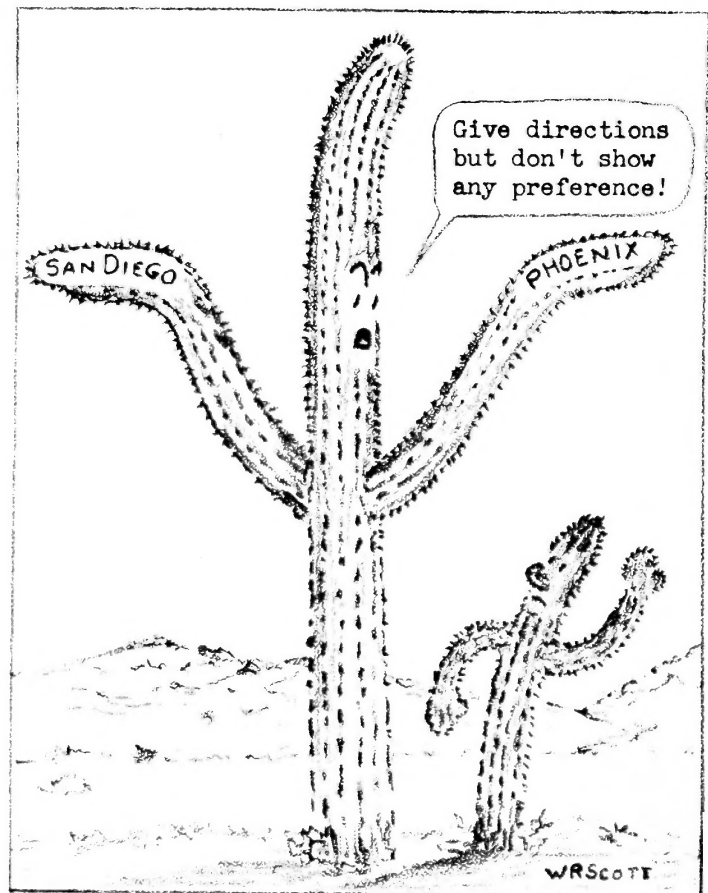
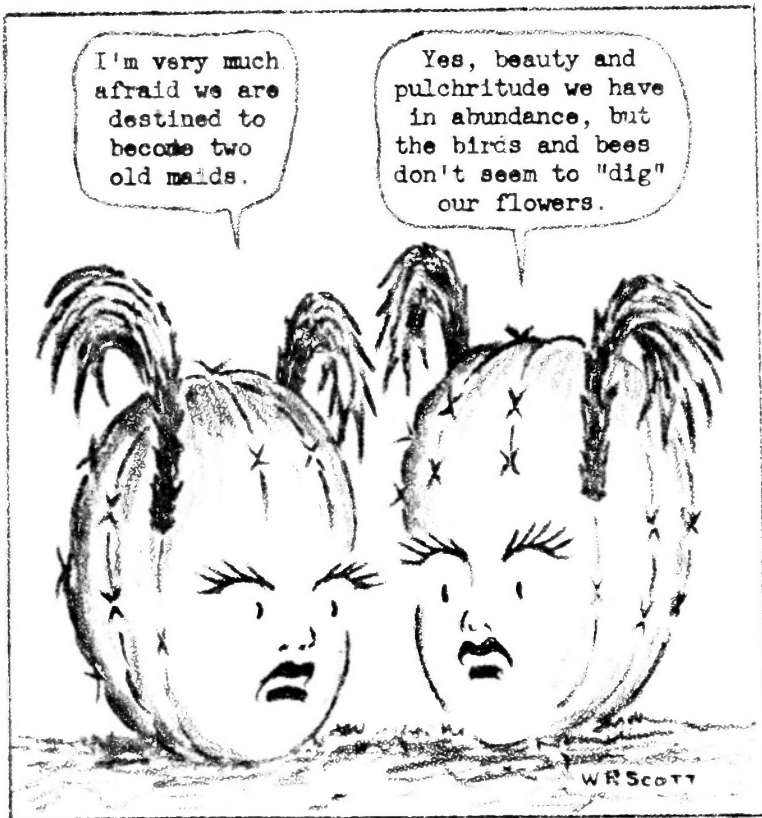
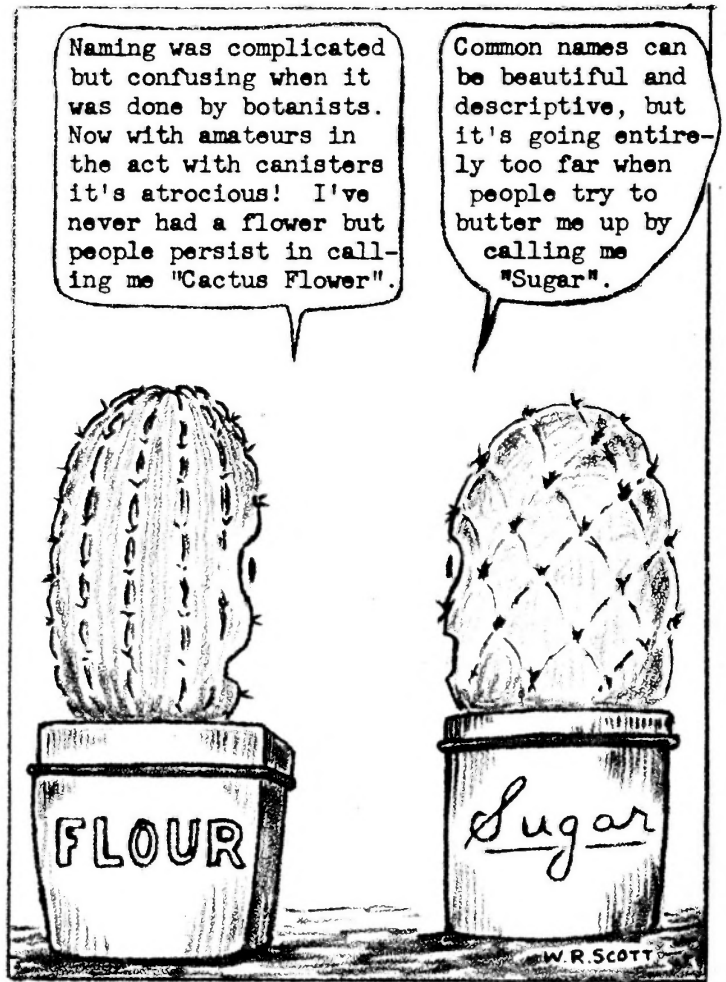
The regalement activity is being professionally managed by Jean and Leta Hapeman. They report a very generous response. They add that all who have been requested to prepare special dishes save their cash register receipts for ingredients, sign them, and pass them along to the Hapemans who will in turn submit them to the Treasurer for repayment.

OBISPOGRAM: "Two Italians, not masters of English, were admiring succulents.

Italia--1: "Is dat-a 'Euphorbia' ?

Italia--2: "No, dat a-not my Phorbia!"

Jan. 1974



**Walter R. Scott**  
**3430 Wilshire Ter.**  
**San Diego, Ca. 92104**  
**Return Requested**

**PRINTED MATTER**