

# Espinas y Flores

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

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TOMO OCHO, NUMERO SIETE  
.....

JULY 1973

SO. CAL. EXPO --- DEL MAR, CA.  
JUNE 22 thru JULY 4, 1973

.....  
S U C C U L E N T   G A R D E N  
.....

Nibby KLINEFELTER  
(General Chairman)  
Ione HUBNER



.....  
C A C T U S   G A R D E N  
.....

Bob MYERS  
Jim STALSONBURG



.....  
C O L L E C T O R S '   D I S P L A Y  
.....

(GRAFTS)

Loyal J. BIBBEY  
Dr. Leroy N. PHELPS



(See Judges' Point Scores and Comments, Pages 5, 6)  
.....

CONGRATULATIONS to Palomar Cactus & Succulent Society:  
Mildred GREGORY and Betty WOLLRICH!  
.....

EXECUTIVE BOARD ACTIONS

TREASURY BALANCE --- Treasurer Mooney reports "the balance is black". May and June expenditures exceeded income by a considerable margin. Cost of producing "Espinaz y Flores" exceeds total income from membership, postage a large item.

INHOLDINGS: The Club has thru the generosity and thoughtfulness of Dr. R. V. Vaughan and the initiative of the Board purchased "inholdings" in Anza Borrego Desert State Park to the extent of thirteen acres, as follows: 1972, 2 acres; 1973, 3 acres (Doc. Vaughan), 1973 8 acres, the Club. Little by little and acre by acre, Anza Borrego Park will one day be a 'whole' park.

PROPERTY INVENTORY: An inventory of Club property is in the making: Everyone in control or possession of Club property is asked to give a written report thereof to the President or Secretary....in June. That's this month!

FAIR MILEAGE: The Board has approved a 5¢-per-mile allowance for mileage (over 100 miles) necessitated for work on Cal. Expo. at Del Mar in 1973. Requests for payment in writing must be submitted to Nibby Klinefelter, Chairman (oops) Chairlady or Chairperson, by August 10th. Read that again if you're concerned!

PLANT EXCHANGE TABLE: The Board observed earlier this year that some plants or parts thereof had shown evidence of disregard of insect infestations, dirt, dropping parts, etc. when they were placed on the exchange table. That is to say plants were in poor condition, not free of pests or scale, etc. and some shed parts and dirt on the table top. Some individuals, we are sorry to say, do not practice cleanliness in plant handling. Some plants have not been a credit to the membership or the Club. Improvement is simple. Let's improve!

Rooted plants, or cuttings or parts may be brought to the table in containers of your choice, a pot, a can, a plastic bag, or whatever, but do look closely at your plants for infestation, white flies, mealy bugs, etc. The exchange table is not the place for them.

EXCHANGE PLANT POLICY: The plant exchange table is just that, an exchange table activated by number calling after the meeting. When your number is called, select the item you want. After all numbers are called, it is a free table. The table is at no time 'up-for-grabs' by unscrupulous 'grabbers'. Let's make it a point to practice personal responsibility.

The BOARD meets monthly, any member of the Club may attend the meetings. Your ideas and cooperation are solicited.

. . . . . 0 . . . . . 0 . . . . . 0 . . . . . 0 . . . . . 0 . . . . .

LIBRARY IS BENEFICIARY

Last month you may have noted a letter was received from member C. L. Benbow calling the Club's attention to the May issue of Scientific American in which there appeared a splendid article on 'Roots'. Also Lauron Lovelace forwarded his copy of the magazine to the Editor.

This month Mr. Benbow has followed thru by providing our Library and the Palomar Club's Library with copies of the publication. They are valuable additions to the two libraries.

It should be noted that Mr. Benbow has a very fine library himself.

The Editor says "Thank you Mr. Benbow and Mr. Lovelace for the Club and its members. Your courtesy and generosity are greatly appreciated!" . . . Ed

JULY PROGRAM

P-O-T L-U-C-K  
Saturday, July 7th  
at the TAYLORS

REPEATING:

WHERE? At Taylor's Cactus Garden, 1051 Tres Lomas Drive, El Cajon.

WHEN? Saturday, July 7th, 1973

WHAT TIME? Ten thirty on, but do get there in time to get your dish on the table.

POT LUCK !! Let's keep the record perfect! Bring a dish of your choice anticipating that there may be from 150 to 200 present. The dish you bring is your choice, make that which you like best and do best....everyone will agree with you and prove it by eating it.

COFFEE & PUNCH will be served. Regalement committee, please note bring the makings and remember the Club reimburses you. You who do the drinking will do well to bring your own cup.

TABLES & CHAIRS: If you want to be comfortable you'd do best by taking care of your own needs....that is bring your own table and chairs. And service. Find your own comfortable spot in the shade under a big eucalyptus tree, but swinging from the branches is a 'no, no'.

PLANT SALES at the Garden are a 'no, no' too until after lunch, altho there may be some sales at the picnic area.

NO PLANTS-OF-THE-MONTH.

Instead please read

Mr. Mooney's fine discourse on "The Cultivation of Happy Cacti" on another page in this issue...and learn something.

DINNER: "Nothing improves a dinner more than having missed the previous meal."

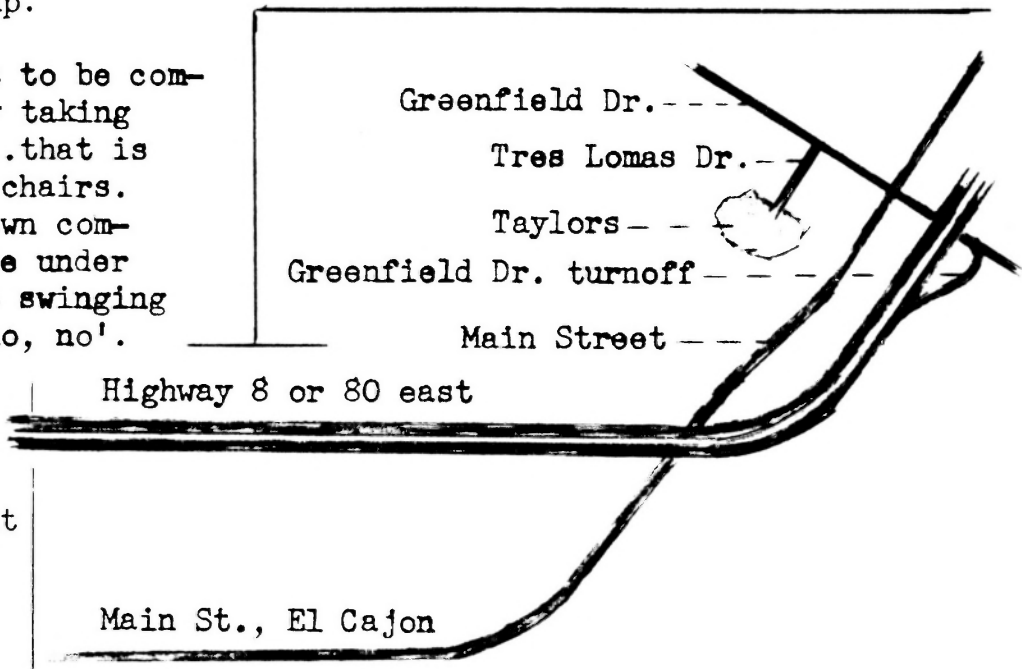
REPEATING: BRING A DISH, you've got lots of latitude there, meat (you've read about that recently and may have seen it in the butcher shops), followed by vegetables, salads, fruits, deserts, rolls, and many other dishes.

DIET: "A short period of starvation followed by a rapid gain in weight".

MEMBERS FROM OTHER CLUBS are cordially invited--under the same rules. Be our guests!

PROGRAM? We will leave that to Loyal Bibbey, he has provided six of the most exciting and interesting programs already in six months this year, so July will be no exception.

DIRECTIONS: "Directions are what you read after you become lost and find out you made the wrong turn." Ye Ed hopes you can figure out the above diagram, he can't. But then he already knows how to get there.



Spring Valley, CA  
20 de mayo, 1973

¡Ola, señor Scott!

The American cowboy would be in a fine fix without the contributions of the Spaniards who had settled our Southwest before he got there.

It was they who introduced the horse\* and the equipment for the vaquero (cowboy) such as the espuelas (spurs), sombrero (hat) y chaparreras (chaps) which were invented as a protection against the thick, entangling chaparral (scrub brush growth). He carried la reata (lariat) to make a lazo (lasso) with which to rope the steer for the corral or rodeo (roundup). And, if he misbehaved himself, the Spaniards had a place for him--the hoosegow, derived from el juzgado (a person who has been judged or sentenced).



Illustrations by Maria

Vamos al campo para visitar el rancho. En el rancho hay muchos animales. Hay caballos, que son masculinos, y caballas, que son femininas. Más tarde vienen (come) los caballitos. Hay vacas que dan leche y toros, que no dan leche. El vaquero es el pastor que cuida el ganado. Muchas vacas forman el ganado. Muchos caballos forman el ganado, también.

El vaquero usa el sombrero para protegerse del sol. También usa chaparreras para protegerse del chaparral. Usa la reata con los animales. Es necesario rodear las vacas para venderlas.

El vaquero monta a caballo. Es caballero. El rancharo también monta a caballo y es caballero. ¿Monta usted a caballo? ¿Si? Entonces usted es caballero, ¿verdad?

caballos...horses	protegerse....protect (himsel)	cuida...take care of
mas tarde...later	tambien.....also, too	vender..to sell, vend
vacas.....cows	monta.....mount, ride	
ganado.....herd	verdad?..... rue? Isn't that so?	

horse\* Do you recall the scene in the days of the explorations when the Aztecs lost a battle to Cortes because of their fright at seeing the strange, new animal "come apart" when the rider dismounted?

Vaya con Dios,

*Maria*



## JUDGES' POINTSCORE

**SUCCULENTS**

Possible Points 100	DESIGN 30	WORKMAN- ship 20	QUALITY 20	VARIETY & RARITY • 20	LABELLING 5	LIGHTING 5	TOTAL
SAN DIEGO C&S 96-90-83	30-27-25	18-19-20	20-19-20	20-19-10	5-3-5	3-3-3	89-2/3
PALOMAR C&S 96-92-88	30-29-25	18-19-20	20-19-20	20-19-15	5-3-5	3-3-3	92

JUDGES' COMMENTSSAN DIEGO C&S

#1 - Design using extreme elevation really show plants off to advantage. REALLY LOOKS LIKE A GARDEN ONE COULD WORK IN. Very natural looking.

#2. DESIGN JUST FINE. Plants excellent but somewhat crowded. Name list functional but not too esthetic. #3. BEAUTIFULLY DONE.

PALOMAR C&S

#1 - Most interesting and pleasing design - excellent work - each plant studiously placed, yet each complimenting one another. Quality of plants excellent; all in healthy growing condition. Outstanding color. #2 - Design excellent - top quality plants and fine execution. #3. Very excellent.

**CACTUS**

SAN DIEGO C&S 68-81-88	20-25-25	15-15-15	15-17-20	10-17-20	5-4-5	3-3-3	79
PALOMAR C&S 93-87-94	30-28-28	20-18-20	20-18-20	15-18-20	5-2-3	3-3-5	91-1/3

JUDGES' COMMENTSSAN DIEGO C&S

#1 - Needs some kind of ground cover. Plant choice good. DESIGN VERY GOOD.

#2 - LABELLING EXCELLENT. Needs sand or more suitable ground cover. Plant choices very good and I like hillside design. #3. Ground cover would enhance entire planting. PLANT CHOICES AND GROUPS AS TO SHAPES AND COLORS EXCELLENT.

PALOMAR C&S - #1 - Very interesting in every respect. #2 - Displays very appealing with effect of stream - choice & quality of plants excellent - fine execution. #3 - Design is most interesting with pathway along the choice of plants, shapes, sizes and colorings. Excellent use of groundcover.

**GRAFTS**

SAN DIEGO C&S 68-78-88	20-25-28	10-15-18	10-12-17	20-18-18	5-5-4	3-3-3	78
PALOMAR C&S 88-88-87	30-30-27	10-15-17	20-15-17	20-20-18	5-5-3	3-3-3	87-2/3

JUDGES' COMMENTSSAN DIEGO C&S

#1 - Stock for grafts poor - lack grooming and pruning. SCIONS VERY GOOD.

#2 - Design not too interesting but work good as applied. Odd pots, shapes and colors draw attention from plants. GOOD CACTUS SPECIES EXHIBITED.

#3 - NICE LAYOUT FOR EXHIBIT OF GRAFTED PLANTS. QUALITY GOOD, but why have suckers on understock?

(Cont'd on next page)

(JUDGES' COMMENTS cont'd)

PALOMAR C&S : #1 - Pots too varied, otherwise very lovely. #2 - Interesting design with use of elevation. Different types of containers detract somewhat - might have seen more of the pots... Excellent variety. #3 - Design not so cohesive. Pot choices less suitable. Like plant choices and quality.

NIBBY'S NOTEBOOK

Working in *our little corner of the Fair* we heard many nice comments about our exhibits from people passing by (as well as ourselves)...such as

**"So very good! Distinctive... great"**

"... a flair... **wonderful** ..it is beautiful.. **UNUSUAL** " ... But there is only one word for Palomar --

**"CONGRATULATIONS!"**

The pleasure was ours...we might have lost first place (WE SURE DID and three times over!) but we had a great time working together. Our goal: To involve as many people and plants as possible. Frances Langer said, "Just for ONCE I want to have the privilege of saying I've exhibited plants in the County Fair!" ... Helen Claydon was one of those who hated to go home because it was so much fun working...Paul Burton and his friend Fordy Ryan were first ones there and shoveled and contoured that great pile of soil for the Succulents...Bill Gunther rankled at being referred to as "a paper member when he came to take "before shots" - and made a second trip back LOADED...Nellie Kennett supplied coffee and conversation about visibility of infant praying mantids - as well as hauling plants & provisions & people AND Patty - Rose D'Attilio noted: "Have truck; will haul" which she did, packing plants with unequalled tenderness, you'll be pleased to know, Walt Greenwood...and I PROMISE not to let your Echeveria Curlylocks bloom while you're in Minnesota, Stevenson...Verna and John Pasek responded to a last-minute call to transport plants to the Fairgrounds...hope you're not too involved with roses and fuchsias to help us bring back same...We stuffed "windowboxes" with pinchable cuttings - Perlsso Lewis was one of the most generous donors + Haworthias by the score...

There were so many highlights and sidelights (and defective lights!)... The Loylands were indispensable as always...Oliver worked on our lighting ...Sophie's roast beef au jus is a delicious memory..."Here come de rolls" made Jean Hapeman much happier (am I forgiven?)...Jean and Leta (they married Hapeman brothers, you know) were overseers for the Sat-Sun potluck before the Fair opened...Mitch Beauchamp worked ALL OVER and everyone was delighted to see him...Helen Hegyi helped Mildred Gregory with Palomar's exhibits - those two are OUR members, too, don't forget...George and Margaret Evans each had an award-winning exhibit in the Hanging Basket category...Mary Birchell and Thelma O'Reilly together won TWO BLUE RIBBONS - one in Treasures of the Garden and the other in Potted Plants Display... Four people who should be in THE TALENT BANK in our club -- spectacularly beautiful plants most attractively display! [... AM SHORT ON SPACE, LONG ON HIGHLIGHTS - to be continued]- More than one commented that this year was more like the good old days ... **All in fun, and fun for all** who came and worked **Just for the fun...**

Isn't that right, Ione - Jim, Bob, Lee and Loyal Joe? That's the way it was for the general chairman - VERY SUCCESSFUL! Ruth + Bill Nelson agree.

CACTUS OF THE MONTH  
Martin L. Mooney

The Cultivation of HAPPY Cacti

There are five environmental factors that have a pronounced effect on the character and well being in the growth of a happy cactus. They are, in order of importance; light, temperature, soil, water and air. Let us look at the aspects of each.

**LIGHT:** Most cacti grow in full sun or in the slight shade of grasses of the thin sparsely colonized deserts of the world. Have you ever been in the desert on a summer day? Not only is it hot, but it is very bright, even in the shade of trees or rocks. Here too, we can see a marked variation in the appearance of the same plants growing in the open or in shade. We all have seen weak, elongated, off-colored growth. This is an unfailing indication of poor light. In nature, a particular species colonizes where their light requirements are satisfied. It is, therefore, important that we know what these requirements are, in order to have healthy growth. Potted plants placed in very strong reflected light is a far cry from good culture. Cacti are rarely damaged from too intense natural light.

**TEMPERATURE:** In their natural environment, most cacti are conditioned to low night and high daytime temperatures in the summer and low night and daytime temperatures in winter. I think we all worry too much about the cold in winter and not enough about the heat in summer. We tend to have too high temperature in winter and too low in summer. Most books tell us not to let Melocactus get below 50° to 60° F. I have no trouble down to 40° F. In fact, temperatures this low may be more important in the healthy growth and development of cacti than is realized. Summer heat is free and the more we can give our plants in the daytime and the less at night, the better. Experiments have shown that, for optimal growth, wide variation between day and night temperatures are very important, particularly for good flowering. The so-called summer lull in the growth of cacti may be due to the high night temperatures.

**SOIL:** For healthy growth, cacti need a good, well drained, nourishing soil. The soil should be loose and very well drained, not for water drainage so much as for the plant roots to breathe. Dense, close, soggy soil cuts off the air to roots. This has the same effect as smothering an animal. There is an untold number of soil mixtures and potting composts. Most everyone uses a different one. We won't go into that. I don't think the pondus hydrogenii, pH units, of the soil are as important as some think. The majority of cacti will do well in slightly acid to neutral soil. Fertilizing is a subject all its own and won't be discussed here.

**WATER:** Most writers think water has the most pronounced effect on cacti. I don't think so. Too much depends on the above factors. I think most of our watering troubles come from not having the right amount of light, heat, or a good soil. With all the light of a bright summer day, temperature of better than 100° F. and a well drained soil, an Ariocarpus will take ten times the amount of water most of us are willing to give it. Most do resent soggy wet soil, or "wet feet" but very few resent moisture. Most of our plants are living under artificial conditions in pots with restricted root room and need a great deal more water than in their natural environment. Cacti are designed to withstand adversity and long dry hot spells but this is

no reason for ill-treating them. They are like a camel. He will walk on the desert for weeks without water, not because he wants to, but because he has to. Let the same camel walk down a river for weeks and he will drink two or three times a day. It is my opinion that more cacti suffer from too little water than too much. Only experience can develop a sense of confidence in watering.

AIR: From the atmosphere, a plant gets its all important supply of carbon, which the plant turns into sugar, starch and cellulose. These are the raw materials of all plant structure. The carbon comes from the carbon dioxide in the air. The atmosphere is only .03% carbon dioxide by volume. So ventilation and air change is not only important in cooling or heating but also to keep up the supply of carbon our plants need. With this, we have little trouble.

I have read many books on the culture of cacti and they don't agree with what I have said. In fact, they don't agree with each other, so why should they agree with me? None the less, this is some of what I think. If it helps in any way to grow a happier cactus, this article has done its job.

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GARDEN LIFE IN NEW ZEALAND

From 'The Cactus Chronicle'  
Wellington

WINTER IS COMING! "To make sure your plants are snug for winter, move all indoors, particularly the frost-tender ones.

Now that your 'zygos' are budding nicely, they will respond if given a drink of liquid fertilizer. I use 'Alaska'. The aroma is fishy but the plants like it and so do the cats. . . . .

GOATS WILL BE GOATS! Our neighbors at the beach (a few doors away) keep a nanny goat. Last spring two darling little kids arrived. They were cute when they followed the children to the beach. While the children swam the goats leaped from rock to rock and stole the hearts of everyone. Naturally, they grew up and wandered away from home.

One day they 'discovered' our place. What a sight greeted me one weekend when I returned.

The two little darling goats gave the garden a thorough going over. Now I am an authority on 'goat menus'. Top of the list must be Echeverias...a whole bed of E. elegans simply disappeared. After Echeverias comes Graptoveria kaneii. One rosette remains. The 'epis' had big bites taken out of them which bites it appeared had been spat on the ground. I would infer that in a goats judgment they are bitter and undesirable. Put 'epis' far down on the goat menu. It could be the goats were full.

Aloes and euphorbias were ignoréd. The Portulacaria afra lost its tip growth. The Aeoniums were tasted but found 'tasty' in the goats' opinions. Maybe they don't taste like lettuce to a goat. Neither Crassula falcata nor the Haworthias were touched. But the poor guava and lemon trees! !!

We have a brand new fence!!!

Signed: Patricia Anne

(Patricia: Did the visitation 'get your goat'? And IF, IF, IF!! IF the new fence is wire; IF the goats eat tin cans as it is said, and IF the goats plan on a return call, you may be able to add 'wire fence' well down on your Goat's menu, IF the fence is intact when you return. . . . Ed)



COMMUNICATIONS --

-- -- E X C E R P T S -- --

SAN DIEGO -- Doc. R. V. Vaughan: "My compliments to you for such a readable bulletin...seems each issue is outstanding in attractiveness; educational articles are so well re-written. I note you too are using 'recycled' envelopes as many of my friends are doing."

"The Saguaro articles including info on birds, life cycles, insects, parasites, etc was a golden treasure for my mind to read and remember. When I was stationed in Arizona I found much to delight me when I wandered thru the desert and studied the saguaros, the Johnny-owls and saguaro blossoms."

("Saguaros" was thoughtfully presented by Nibby Klinefelter; it brought many favorable responses; it was 're-reading material'. . . . Ed)

CORPUS CHRISTI --- Judy Krueger: "The Coastal Bend C & S Society has disbanded as a formal society. As a result it will be necessary to discontinue our exchange of bulletins. We shall miss your excellent "Espinasy Flores."

(We're sorry, Judy; maybe at a future time a re-rooting will occur...Ed)

MONTEREY -- Billie Lucas: "All my cacti have been isotoped and most have been fertilized with 10-15-10. For the past two years I had been using 2-10-10 but found some plants, especially specimens were developing 'corkiness' and poor color. With one dose of 10-15-10 they showed tremendous improvement and they outgrew the 'corkiness' and developed good color."

(Billie: Someone in Las Vegas told me (I think they were pulling my leg) that their fertilizer formula was 0-7-11.....Ed)

ESCONDIDO --- Helen Hegyi: "Thanks to Perlso Lewis I was able to participate in the garden visits. I'll be on cloud nine for a long time. Each garden was so worth while, so much to observe, enjoy, learn--yes envy--with gracious hospitality. Thanks to you and your crew for the Bulletin, its arrival makes that day a 'red letter' occasion."

(Wilson Wells...take a bow! . . . Ed)

RIVERSIDE -- Leo Pickoff: "After reading 'Cactus are Not Unlike People' in the May issue of Espinasy Flores, paragraph 6 'flower children', we concluded some people, the flower children, owed cacti an apology."

(Amen! . . Ed)

NEW SOUTH WALES -- Vince Robson: "Thank you for the May Espinasy Flores--a wonderful bulletin--I enjoyed it. I asked Virginia Martin (CSSA) if she could find a 'cactus pen friend' for me. We have a local group and I have been President for three years. I have about 300 plants and have been collecting four years. A member returned from America and brot back about 60 plants and a heap of slides. What a wonderful place!"

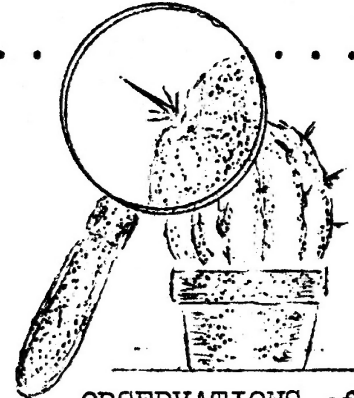
(Vince: Virginia tells me you are a member of CSSA and a Journal subscriber. You thereby are entitled to join a cactus robin and develop an instant group of cactus pen friends around the globe. I'd suggest you write to Gladys H. Panis, PO Box 505, Falmouth, Mass., USA and inquire about upcoming openings in a robin or robins of your selection.

(Let me know. . . . Ed)

ENROUTE TO GERMANY -- Joan Flear: "Inclosed is a translation of Josef Busek's letter. I will begin a 3-month charter trip to Germany about mid-June. I'll be doing a lot of travelling and I will be in Munich for a time and I hope to visit Wolfratshausen and meet and visit with Josef."

(Joan: Your letters are always delightful and informative. . . . Ed)

- 1 CACTUS FROM SWITZERLAND
- 2 SPINATION FACTORS
- 3 SEASIDE CACTUS
- 4 ECHINOCEREUS FRUSTRATIONS
- 5 SURFACE PEBBLES IN POTS



OBSERVATIONS of  
Cacto-Phil Corliss

1) I have just received a shipment of 67 cactus plants from Werner Uebelmann (Su-Ka-Flor, 5610 Wohlen, Switzerland). They were splendidly packed, exceptionally clean and healthy, and the grafted plants were on heavy stock. He has more business than he can handle but it is well worth while to solicit an order from his free catalog, the most extensive one I know.

2) Have you ever been surprised by the difference in spination between collected plants and propagated ones? Most cactus in habitat tend to have much heavier spines than cultivated ones. My Echinocereus rosei and E. stramineus, collected during the El Paso convention have in just two years of cultivation undergone changes in spination so great that it is hard to believe I had correctly labelled some of them. Collected lobivias hardly resemble the same species in cultivation. I had always thought the heavier spination was a defense mechanism of the plant to combat greater exposure to the sun in habitat. Shurly has said, however, that it is a mechanism whereby plants from arid regions take advantage of the condensation of dew on the spines, the drops of water travelling down the spines to be absorbed at the areoles--the more spines, the more water to be collected. I like this theory but am perplexed by the fact that many species have central spines which are neither porrect nor erect.

3) My garden is on the beach. I have been surprised that many cactus whose species' name is "litoralis" or "maritimus", meaning "of the shore" or "of the sea", do quite poorly for me. One exception is the genus maritimeocereus, which flourishes mightily. But Echinocereus maritimus, Mammillaria litoralis, Neoporteria litoralis, and others do very poorly even though I am supposedly providing conditions similar to their habitat. Hummel once told me that our conditions in San Diego are climatically equivalent to those of an altitude of 5,000 feet in the Andes; and I have indeed found that plants from such regions do very well for me while seaside species from hotter areas do not.

4) The large and long-lasting flowers as well as the attractively-spined plant bodies of echinocereus make it one of my favorite genera. It is most frustrating that the species which flower best (pectinatus, chloranthus, etc.) are easily lost while the most vigorous varieties (stramineus, rosei, etc.) are shy bloomers. I get longer life from grafted pectinatus types but they are such voracious growers that they tend to exhaust their stocks.

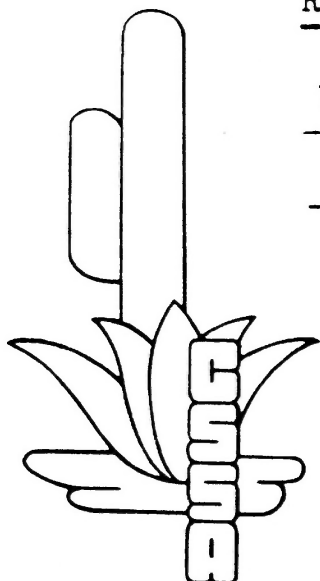
5) Shurly deplors the use of pebbles on the surface of potted cactus on the grounds that they mask the condition of the soil as to need for water. With some 2,500 pots to water, I cannot check each pot for water need and I have to rely on a schedule, subject to the weather. In addition, since I use city (hard) water and liquid fertilizers, there is a surface build-up of salts. Without the use of pebbles this crust may seal the soil surface and prevent aeration; removing the crust may expose or damage the roots of some varieties. The pebbles will also eventually be solid-crusting but can be removed and replaced without damage to soil or roots. I formerly used marble chips in white or colors but find that the brown "crest-lite" sold by the Hazard Block people gives a more natural look, is cheaper, and more uniform. Crest-lite is also good for incorporating in the soil mix although plants prefer perlite ("sponge-roc") which is also lighter in weight, a not inconsiderable factor in large containers or on crowded shelves. I use crushed brick for drainage in large pots that might be reached by thieves as it adds to the weight; for large pots on inside shelves I prefer black cinders which are very light.



RECENT CSSA SHOWS & EXHIBITS

In the Los Angeles Area  
William C. 'Bill' Lockwood

Floribunda, San Diego



Quoting the program: "William C. Lockwood has been a member of our Society for eleven years and he is currently President. He has made an outstanding contribution to the Society in his work in con-

nection with the annual shows and the exhibits at the Los Angeles County Fair.\* Whether your Club favors indoor shows or outdoor exhibits, you are sure to find much food for thought in this program.

How fortunate for Bill, he lives up the street (so to speak) from the Arboretum. What would he be doing if he wasn't preparing for a show, conducting a meeting or travelling? When does he get a day off? Even an hour? Or is he so engrossed in his hobby of succulent plants that he would rather be where they are. He has a point.

Bill took us via slides thru last years "Cactus Carnival" at the Arboretum where Senor Saguaro was head showman. The showing of exotic, unusual and well-groomed plants was revealing--the finest in the Southland. We must make an exception, some came south about 500 miles to make their entry, but they returned home again with ribbons.

If you think some people are carried away with canine shows--grooming, feeding, training (obedience) etc, you should see a plant show at the Arboretum. You will say to yourself, "you can't do that with plants" but it has been done, they are there to see. Besides there is no barking or woofing.

Perhaps one of the most intriguing sidelights of the show was a chess board adorned with real live "cactuses" from Cephalo the King and Hahniana the Queen, all the way across to the pawns. And when it comes to jumping, who or what has a better reputation than a cholla. You can't get some frogs to jump. Do they make jumping moves when you're not watching, Kitty?

That brings us right up to SUCCULENT SAFARI 73 at the Arboretum June 29 thru July 1, 1973. I'll wager a robusta against a minima that Bill and Kitty, maybe even the chessmen, will be there. It's an unbelievably easy and earthy education in plant life. We will see you there!

\*Note: The two words "outstanding contributions" would have been more appropriate wording in the second sentence above. Ye Ed

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FAMOUS EUROPEAN CACTUS AND SUCCULENT COLLECTIONS --- Les Rothstein, New York

Dear Les: Your showing and commentary on famous European collections was so unbelievably interesting and revealing we didn't see how we could report it with justice in this abbreviated Convention issue of "Espinasy Flores".

We think there may be a solution. At some time in the future could we prevail upon you to favor our readers with a description of the European collections in your words and style (a la Rothstein) for their enlightenment. They have no idea of the inadequacy of their information or of the width of that gap. We know this is a big order but we also know you are equal to it. Nor would we ask if we didn't think everyone would benefit. May we hear from you?

Sincerely, Walter R. Scott, San Diego, CA, Editor

(Reference: William C. Lockwood, Pasadena)

THE ODYSSEY OF DR. GEORGE ENGELMANN

Dr. Larry W. Mitich

North Dakota State University

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Floribunda, San Diego

George Engelmann was born in Frankfort-on-the-Main, Germany in 1809. He entered the University of Heidelberg at 18 to study medicine. At that time medicine was botanically oriented. Engelmann was always interested in plants. He was awarded the degree of Doctor of Medicine from Wurzburg University in 1831. His thesis was a morphological work based chiefly upon studies of plant monstrosities.

In 1832 he came to America to investigate land investment opportunities in the Mississippi Valley for his family. He established a medical practice in St. Louis in 1835 and continued until his death in 1884. He devoted his spare time to botanizing, collecting, studying, making sketches and taking notes and describing plants of that area and surrounding states.

In 1842 Engelmann's monograph on North American Cuscutineae was published. This firmly established his reputation as a systemic botanist. He sent many plant specimens of the area to Berlin, St. Petersburg and Harvard. He encouraged friends to collect flora in the south and southwest. The description of these plants further enhanced his reputation.

During the 1850's Engelmann started his private garden and received contributions from horticulturists all over the world. His best known work is "Cactaceae of the Boundary" published in 1859, with 76 steel engravings. He made more contributions to the taxonomy of cacti than any other American worker. He described the Saguaro, our most characteristic and endemic cactus in 1848.

Engelmann collaborated with Henry Shaw in establishing the famous Missouri Botanical Garden in 1858. His papers will be of lasting value and his name will be remembered thru plants he named and the taxa which commemorate him.

Dr. Mitich is a superb photographer and lecturer and a thorough researcher. He truly inspires his audience. Those of us who know so little about things botanical quickly recognized the depth and value of Dr. Mitich's painstaking efforts.

The above abbreviated sketch of Dr. Mitich's "Odyssey" of Dr. George Engelmann may be regarded as only a prelude to a more comprehensive presentation of it in future issues of "Espinaz y Flores". Thank you Larry. . . . Ed

"SPRINGTIME IN THE ROCKIES" - - - - - 0 - - - - - "CHRISTMAS IN LAS VEGAS"

An exciting side aspect of the Conv. came about from the thinking of the Denver Cactophiles--DOOR PRIZES. Some names drawn--space limits coverage:

'Lucky' Pat Barrett, Pinole, CA, redwood planter, six cactuses in gravel field with jasper and geodes. Planter handiwork of Sam & Mary Heacock, Denver.

Martin '\$' Mooney, Chula Vista, CA, bright green, zippered, 1-foot Astrophytum asterias, var. zipperias, set on mountain gravel waiting to root in goldminer's pan. Going in the growing shed? No! On the piano!

Hazel 'Floribunda' Scott, San Diego, CA, selected a golden barrel, Echinocactus grusonii, needlework on felt of Japan. It will be framed on the wall.

COMMENTS ON THE OCOTILLOS

Anthony D'Attilio

One of the Convention speaking and photo slide presentations in Las Vegas was entitled "Idria Happenings" by Virginia F. Martin. As far as it went it was most interesting for the photographs of Idrias, displaying the many varied forms of growth that this Baja California plant develops. Some of the shapes were both curious and weird indeed.

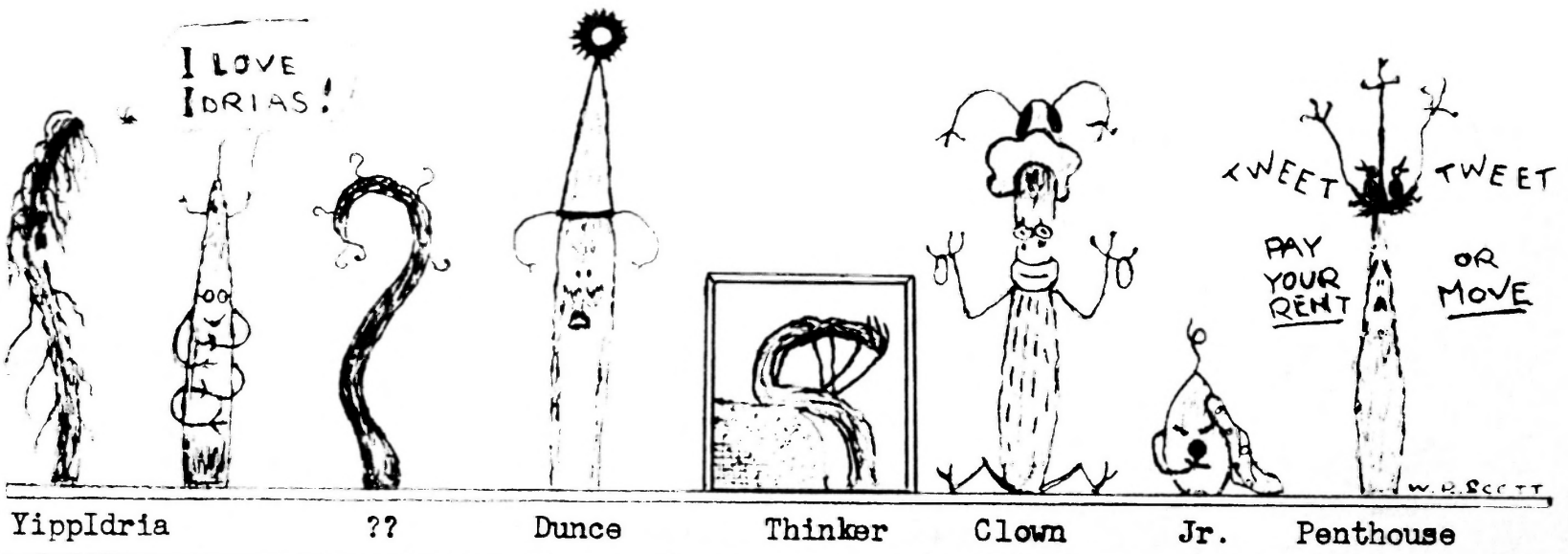
The genus Fouquieria (the ocotillos of amateurs) was reviewed by Dr. James Henrickson of California State University, Los Angeles, in the Cactus and Succulent Journal, VOL XLI, July-August 1969, No. 4. In the paper Dr. Henrickson places systematically, Idria columnaris in Fouquieria although he, at the same time, equivocates by keeping the name Idria for what taxonomic reason I don't know.

Be that as it may, the ocotillos vary in their water holding capacities, according to Dr. Henrickson from very little in most species to a somewhat larger amount in Idria columnaris, Fouquieria purpussi and Fouquieria fasciculata, the last two species are from South Central Mexico. The paper deals at some length with the structure of the trunks of these plants especially when studied by examining them cut into sections to reveal the water holding portions of the cellular structure.

Critically it may be pointed out that in the paper Dr. Henrickson refers to (p. 181) "succulent fouquierias and woody fouquierias" although one would gather from his first statement that ocotillos are all more or less succulent.

Well my knowledge of the subject goes no further so I'll stop right here, except that I do wish someone would answer for me this question in precise scientific terms, if possible. Why are not root succulents included in the so-called cactus and succulents cultivated by horticulturists? Certainly it would appear that the potato, onion, lily family mostly, daffodils, tulips and what not have the capacity to hold water for enough time until nature again gives them the signal to go ahead and send up their lovely leaves and entrancing flowers.

Strange Things That Happen to Idrias



PLANT ECOLOGY OF DEATH VALLEY NATIONAL MONUMENT

Pete M Sanchez, Resources Management Specialist

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How does an inexperienced reporter put Pete Sanchez in writing. I can't but I can relay some staggering statistics:

1 DVNM was established in 1933; it covers 3,000 sq. mi.; it is dry. What is there to compare with that? There was prohibition which was earlier, somewhat bigger but not as dry.

2 DV is a natural museum. All great divisions of geological time are represented in the mountains. They tell a story of endless changes in the Earth.

3 Average rainfall is 2"-minus. Do be careful where you spit in the Valley. You might cycle a plant.

4 DV is a closed valley. You will learn that when you enter and exit. You may ask where does all that water go? Why isn't there a lake? Stupid, it is a dry lake. Any more questions?

5 Plant communities are particularly responsive to elevations and moisture. They had no choice but they made the most of it. (See 3)

6 There is evidence of man in most parts of DV, and I kick myself for admitting this, but it's the truth. Miserable man, silly creature, he is the only animal that leaves "graffito" in his wake.

Signed:  P.S. I'll mail this.

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WORKSHOP ON CONSERVATION -- Gary Lyons

Gary Lyons is methodical, his direction is forward. He thinks in 'areas'. The areas he describes in conservation are:

- 1 WHY, he asks, do we want CONSERVATION?
- 2 WHAT areas of conflict do we find?
- 3 WHAT activities can we initiate in the field of preservation?
- 4 WHAT can be done NOW and in the FUTURE? Good questions!!

There are no quick answers. Everyone has to be made aware of Conservation. Perhaps one of the best things that has happened recently is the world wide shortage of fuel. There are definite limits to the world's supply of fuel. People are beginning to think (involuntarily) about its meaning and significance. It has been brought to their attention forcefully, and forcibly, by signs on gas pumps. "NO GAS TODAY" The sign brings the situation into focus, but quick.

Everyone likes to go his way and do his thing regardless of how it affects everyone else. That's why we must have laws and law enforcement. Conservation is mostly voluntary now but there may come a time when it will become mandatory.

It is going to take patience, planning, organizing and thinking to get everyone involved. A favorable note now is that progress is being made. When the facts of conservation are known to everyone and everyone in turn recognizes them, conservation will become a reality, not a hope.



"THE ICE AGES AND THE DESERTS"

or

"LAS VEGAS ON THE ROCKS"

Dr. Lyman Benson, Pomona College

Julianne Rice, Holtville, CA

On Monday evening at our Convention headquarters at the Sands an assemblage of varietal types of homo sapiens sat expectantly—almost reverently—awaiting a favorite lecturer who took them on a marvelous trip thru, over, around and between Las Vegas and the rocks. Dr. Benson's choice of title was certainly significant and his was a most enlightening dissertation about the 'Ice Ages and the Deserts'. Dr. Benson's arena embraced the earth.

Altho some of us not blessed with a scientific facet of being were probably hard pressed to follow subject matter of such depth, Dr. Benson's enthusiasm filled us with an incredible lightness of spirit

which had each of us hanging expectantly to each profound utterance. His slides were pure joy. The mountains molded ever so pleasantly in semi-swirls and steppes were so totally satisfying to see, and the next day on our Field Trip we saw areas with very similar geological markings. Some could have been the same. Dr. Corliss and I do not see eye to eye on things geological, his attunement leans toward the scientific, mine towards natural beauty but I must say Dr. Benson's presentation delighted us.

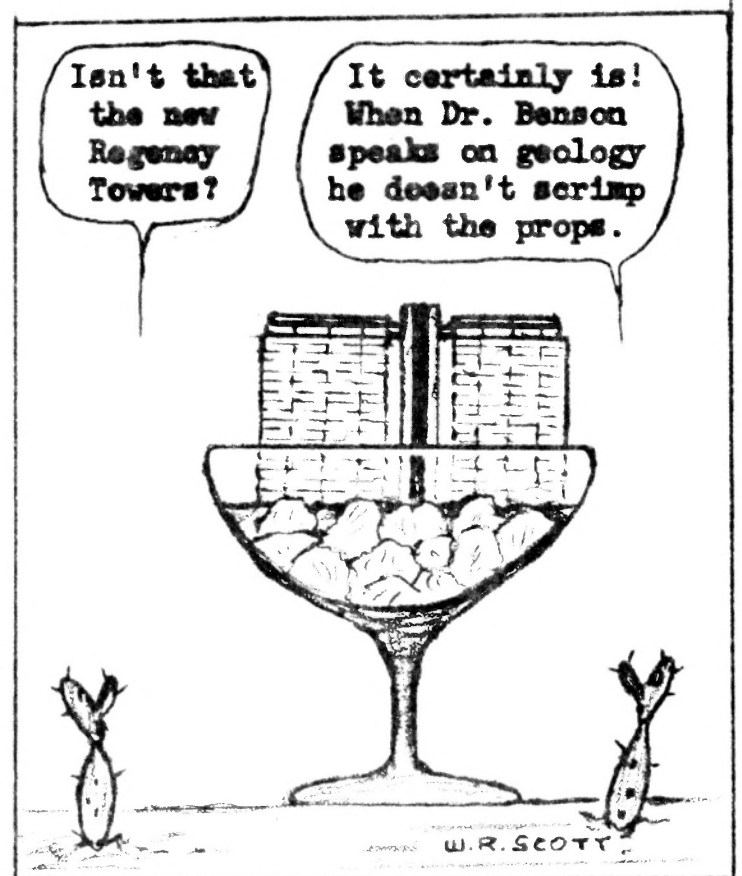
Personally the bit about the San Francisco Peaks with their alpine tundra on their tops with plants which migrated in glacial times was most appealing as in years past my eyes have beheld such magnificent arrays of bloom thereabouts. Those of us who were fortunate enough to sojourn to the CSSA Convention were exposed to facts of geology which are well nigh unbelievable. Too, we were fortunate to see slides of the Colorado Cactophile group and to experience geology in reality on our field trip.

Out of seven pages of notes scribbled furiously in near darkness, while trying not to miss a single word, there comes back to mind vivid remembrances of his discourse on Geological Time with its significant changes wrought down thru millions of years before, during and since the Ice Ages.

How can one possibly put such an enlightening and remarkable experience on paper. I hope I have at least passed along thoughts which will encourage study.

Dr. Lyman Benson is Head of the Department of Botany and Director of the Herbarium at Pomona College at Claremont, California. He has been President of many botanical organizations including the Cactus and Succulent Society of America. He is now a Board member. He has written many interesting works concerning our especial love—cacti, and of course other floras in which he is profoundly interested.

A new manuscript is soon to be published, its title is "The Natural Floras of North America". It should be joyfully exciting. (Library: Please make a note!) If you are a reader of the Cactus and Succulent Journal, the finest of its kind and the oldest continuous publication in the English language, you have seen many of Dr. Benson's writings. Plants of our beloved southwest are their subject matter.



'Regency' Cocktail

## EXCITING, EXOTIC, EXUBERANT ECHINOCEREUS

W. Hubert Earle, Phoenix, Arizona

Walter R. Scott, San Diego

As I read the Saguaroland Bulletin (Phoenix) I am pleased to find much factual info about the "Echinos", the "hedgehogs" of literature. They are my favorite genus and I have lots of company in my prejudice.

How many species are there? That's a good question. It's a matter of opinion among botanists. You tell me how many (cactus) botanists you know and I'll give you a close approximation of the number of species. Backeberg said: "up to 104" and he was a blower-upper. Borg said "88 with varieties", a soft approach, Britton and Rose said "60". Conservative! Earle says "about 75". I like that 'about'. That's what you're up against as a novice. When it comes to giving names to cacti, there has been too much giving. Whoever described *E. glochidiatus* must have been opuntia-minded, that's where the glochids belong.

Coming back to Earle's "about 75", that strikes a mean average for 1972. But there comes Ed Gay in 1973 with descriptions (above) "exciting, exotic, exuberant". Do you mean you have found three new species, Ed, like for example *E. excitus*, *E. exoticus* and *E. exuberantus*? From this article on, all unknown 'echinos' on Wilshire Terrace have their choice of three new and desirable names. Lee, you still have room for three or four echinos on Aragon Way, would you be interested in pups from three new species? That would be easier than going deep down into Baja.

Echinos are found all the way from Wyoming to Mexico City and from California to Oklahoma and Texas. My estimate of the plant count of echinos in Nevada runs into the millions. No matter where found they possess some of the most colorful, exciting and spectacular cactus flowers. And the stigma is green, so says the literature.\*

On our way to Nevada, and when collecting, the echinos proudly displayed their brightly colored, showy flowers from their bushy retreats. Those who were flower conscious couldn't help but get the signal. Other passersby may have had their minds on 'odds', 'one armed bandits', 'chips' and the like, or they were colorblind.

\*Green? Ed Gay says you can't believe everything you read and he has living proof to back up his belief.

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### THE FASCINATION OF CRASSULAS -- Mildred Stern

Mildred said "eight years ago I didn't have any crassulas" but she didn't say how many she has now. There are approximately 300 known species. Crassulas are recognizable generally by their manner of leaf growth--the leaves are 'opposing' on the stem of the plant.

"Sometimes you look at your crassulas and they look yellow or 'sick' and you will think they have had it, but they turn around and bloom. How are we to explain that? *C. arta* is the most interesting group and generally crassulas do better if grown in the ground. They are more compact and beautiful as ground cover. And like "Las Vegas on the Rocks" as Dr. Benson said, that is where crassulas seem to fit....crassulas and rocks go together.

Mildred demonstrated very effectively what a novice can do with a particular group of plants by becoming involved. Her photos were delightful.



CALIFORNIA NATIVE  
 CACTI and SUCCULENTS.  
 Warren McElroy  
 . . . . .  
 Ken W. Kendrick  
 Woodland Hills, CA.

Desert Cacti & Succulents of California" as presented by Warren McElroy, past President of the Mojave Desert Cactus Club who considers himself an

"Entrepreneur of Harebrained Ideas"\* is a resident of San Bernardino County and someday plans to retire in Mexico, gave us something new to think about.

His talk was delayed by electrical difficulties with the projector and there was a 20-minute delay of the evening lecture. Mr. McElroy gave an overall presentation of the Cacti of California. He says there are about 40 to 45 species in the state and about 35 of them in San Bernardino County, and about three or four new species.

One of Mr. McElroy's many projects has been "making like a bird" (don't look up) and scattering cacti seed in San Bernardino County in an attempt to make them 'natives'. Any cactus which can grow without man's help (irrigation) is a native. Over 40 species not previously native to California have been introduced by his seeding methods in the past few years in "Berdoo" County. He reports that most of them are doing nicely. For obvious reasons most of the seed has been scattered in areas which are not easily accessible and which is the "home of rattlesnakes", and in areas which are not publicized. Most of the plants which may be called "newly native" are Texas and New Mexico species, some of which appear to have become extinct in their habitats. One species is Escobaria sneedii which is reported to be doing very well. Parodias and other South American species are also being tried in the seeding experiment and they are doing better than anticipated.

Other cacti spoken of in the lecture are from Barstow, Dagget, etc. areas. Species included were Carnegiea gigantea which in California has been greatly overcollected. The California variety is usually less branched than their Arizona counterparts.

Chollas and Opuntias are used in abundance. Some Opuntias flower freely and make good landscaping plants for gardens, where they are increasing in usage. O. fragilis is limited in area (???) from Weed, CA to Mt. Shasta and on to Canada. O. oricola is a plant which has been observed for about 300 years, however no one got around to naming it until 1965. The species is found where winters bring 5° to 10° above zero temperatures.

A number of other cacti species were shown some of which would appear to be desirable for landscaping however they are not yet widely accepted by the public.

The only other succulent plants mentioned in the lecture were four species of Dudleya, all of which grow in very poor soil. D. pulmea is the smallest Dudleya in California. A picture of one was shown, it was a five-inch cluster and it contained forty plant heads. Others shown were D. saxosa, D. lanceolata, and a new unnamed Dudleya species.

After listening to Mr. McElroy's presentation I would not agree that his ideas are "harebrained". \*Harebrained: Foolish, flighty, giddy.



## CACTI AND OTHER STICKY THINGS

Edward S. Taylor, FCSS

Walter R Scott, San Diego

"Don't be surprised by the subject matter of this outstanding program" says the program. We say "look upper right at two outstanding stamps of MAGYAR (Hungary) origin." The Magyars are non-slavic peoples who migrated centuries ago from Asia to the plains of the Danube. They make their living from the soil, so quite naturally they would be interested in the exotic plants (cacti) they use on their stamps.



Stamp collecting may not date back as far as cactus collecting but surely the two make compatible hobbies. Wouldn't several series of our own stamps be much more attractive with exotic plants on them than a lot of other things we find? (That's my opinion)

Ted was very generous with his audience, many received packets containing unusual stamps. To be frank, I had never seen any of them although I buy a lot of stamps. How can one resist the temptation to be a cactus stamp collector? One has to have contacts with countries which take advantage of the beautiful for adornment of their stamps. It would be a special situation hobby.

It would seem the USPO doesn't have great imagination or an eye for beauty when it comes to some things (again my opinion) but let's not get involved in that tacky subject here. Postal deliveries? That's another matter which speaks for itself.

Ted's presentation, tho 'sticky' as he intimated, was fascinating and informative, much like its counterpart the 'sticky' hobby a lot of people enjoy.

### NATIVE CACTI & SUCCULENTS OF NEVADA

or "The Nevada Desert in Bloom"

Joe Mast

Floribunda, San Diego

The official program says: "Joe Mast is President of the Las Vegas C & S Society. This (program) will be your opportunity to learn about the surprisingly large number of different cacti and other succulents that are to be found in

the State of Nevada.\* Examples of Mr. Mast's photographs and paintings of native plants will be exhibited in the Hospitality room.\*\*

When the program was written, there was no way of knowing about weather factors intervening between that time and May 1973, or that they would be extremely favorable. Joe had 100%-plus cooperation. Natives telling about it said it was the 'best year in memory' and others said 'in the century'. In either case Joe was in a position to put on the "Best Flower Show on Earth" for the benefit of his co-conveners. Cooperation wasn't just good, it was so good that the pendulum of Joe's program swung to the once-in-a-lifetime reawakening of the long dormant flowering plants of the Nevada Desert. It was a spectacular. Julianne Rice would have been at a loss for words to appropriately describe it. Even Joe himself was carried away. Everyone had the opportunity to go into the mountain area adjoining California and see for himself and to live with it for a day. Will it ever be repeated? Are the rare flowering plants and shrubs due for another long rest period? Thanks for inviting us, Joe.

\* Understatement of the Convention: The area provided a botanist's field day.

\*\* Arts and crafts, mostly the easel type, in the Hospitality room would have provided the basis for a fine program. It represented participation and talent.

GRAFTING—THE EASY WAY

Dave Grigsby, Vista

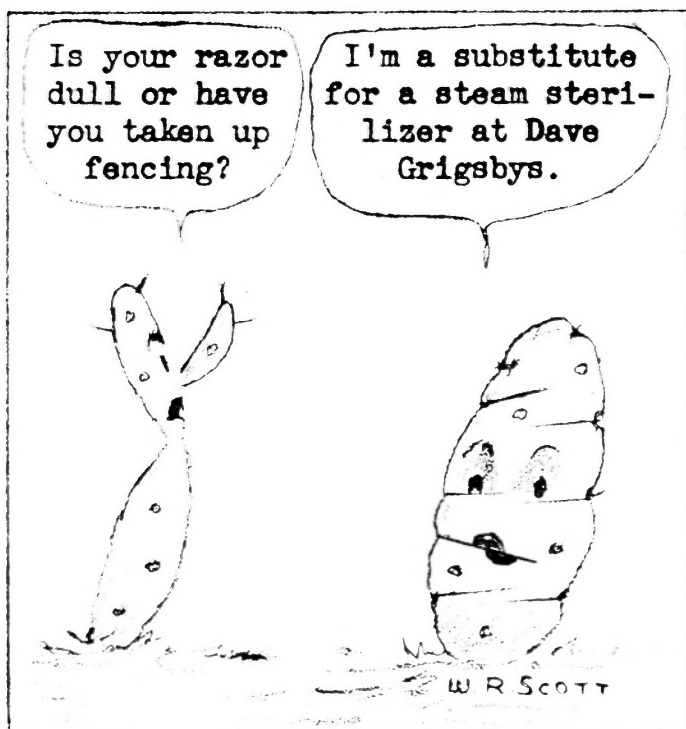
Walter R Scott, San Diego

Grafting? There's nothing to it. It's about what you make it, more or less. There are several kinds of grafters: the ones that comes to mind first are the big pros in politics followed by the prolific Gymnocalycium (non-chlorophyl type) which come from across the Pacific, a few novice, an occasional fun grafter, then the large cactus grafters like audiences at conventions.

First, you should be told there are two parts to a graft, a stock and a scion. Keep this in mind! Lot's of people get them mixed up. If you graft correctly, the scion is the part that ends up on top. And its always easy to remember stock, it's the thing that's always down on Wall Street.

The needs for grafting are simple. First, of course are the stock and scion. Then a knife, preferably a thin one, and a stone to sharpen it. Oil stones and oil are no no. That comes sharply to mind now that there's a fuel crisis. You don't have to wear a surgeon's mask and wear gloves, but remember sterile equipment takes the fun out of it for the bugs and fungi....everpresent.

Successful grafters outside of politics use opuntia pads, they draw their knives thru the O. pads. It seems to work and there have been no complaints from the pads. And what is more expendible than an O. pad?



the matching. It's like feeding a child. Let him spoon feed himself and he will put his cream of wheat in his eye. When you're all done hide the result from fungus spores, or try to, and how? Cover it with a paper bag and keep it out of the sun for a few days. That's time enuf to find out whether you have followed the above instructions. It's sort of like the old saw: "If at first you don't succeed, try and try again."

Good grafting to you!!

I never knew how much fun grafting was until I met Dave Grigsby!



Stock opinion

If you think your stock and scion may collapse as a result of the operation, you can brace the combination with coffee stirring sticks. That'll give the graft a 'lift' for a few days until the graft 'takes'. Then you can stir your coffee again.

Select a stock which is solid, softness indicates it may be compost material. Sever the top inch or so to be replaced without undue delay with the scion. Match up the vascular bundles of the two. That's something cactuses have which gives the appearance of a heart in a tree trunk, if you've ever sawed down a tree or looked at the end of a log. Match 'em up in stock and scion and the graft should do better. You've got to do



## FIELD TRIP

May 15th, Tuesday

--Cecelia Pelicon--  
San Francisco

The last time I visited a desert was at the El Paso Convention in 1971. The Texas desert looked like a desert, bleak and brown and forlorn. Texas

was experiencing a prolonged dry spell at that time.

Our field trip into the Las Vegas desert this year was completely different. Nevada had just experienced the wettest (most rainfall) season in "memory", some said "in a century".

We gathered early Tuesday morning at the Sand's parking lot, a caravan of about fifty cars, with the occupants in various costumes ranging from a bikini on one young nymphlet to high boots and a safari-like dress on others.

While the weather in Las Vegas was "steam bath hot", out in the collecting area at a higher elevation it was warm and pleasant with a gentle breeze. The desert was green! Not only was it green, but the whole area was a blooming natural garden of wild flowers, shrubs and cacti--Opuntias, Coryphanthas and Echinocereus and others--really a breath taking sight.

My friend and I, armed with trusty trowels, sauntered out into the "Veldt" to collect a few treasures. Neither of us "dummies" remembered to bring the boxes and we couldn't very well carry some of the sticky things in our pockets. We held a brief "how-to-do-it" conference, picked out a sizeable Joshua tree, then took a sighting on our blue car in the distance, then spotted our collected items beneath the Joshua, very cleverly we thought, then took off for the car to get our boxes. Alas! When we returned, the Joshua tree had somehow vanished, we never could find it again nor our cache of super choice plants.

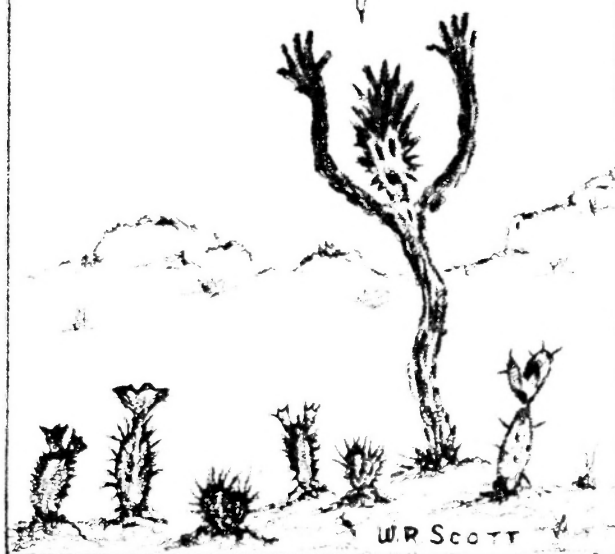
Several members of our caravan found some beautiful crests and their day was made. Of course those who were unable to find crests didn't seem to be too happy. We collected what we called "Agave something, sp.nova" which we thought was very attractive as well as large Ferocactus acanthodes and clusters of a medium sized barrel cactus with heavily spined ribs. Beautiful!

I hate sam handwiches, I mean ham sandwiches, and that's what we found in our lunch boxes, which made them overpriced as I figured it. Still we had a choice: ham, joshua, opuntia or yucca--I didn't eat ham.

The trip and the day were a real joy, even with the dust and rain squall--and lost plants. I was hoping we could have two collecting days, I think I could have found that Joshua, I'll always remember those handsome plants. Some of the programs at the Sands were excellent too, but when your mind is out in the desert under a Joshua you can't very well concentrate on the content of a lecture, no matter how appropo.

Looking to 1975, I wonder if there are any Joshua trees in the Borrego Desert?

I give up! I don't understand it! I never gamble yet I hit the jackpot!



Cecelia was there.

2,000 FAVORITES—CACTI

Anita M. Heywood, St. Louis

Walter R. Scott, San Diego

The St. Louis Post-Dispatch, December 29, 1972 carried the most exciting full-color page of all time with an accompanying story of the hobby of Anita M. Heywood, a CSSA member in St. Louis.

Anita was generous enough to provide this reporter with a copy of the section of the paper from which the following abbreviated information is obtained.

The story and photos disclose a true to life set of circumstances regarding an involuntary hobby with some of the elements of drama.

Her paradise is a hobby involving a collection of about 2,000 plants of a spiny exterior. When they flower she finds each new blossom more fascinating than all previous ones. The plants and flowers come in weird and wonderful colors, shapes and sizes. She finds that the plants provide a natural balance and harmony. They thrive on "monologues and they seem to do even better if given the sound of sweet, semiclassical, melodic music—no 'rock'."

Her reaction on first seeing cacti was totally negative and after a while she was able to tolerate them. She has done a 180° turn. On a visit to her native Germany she was surprised to learn that their growing was a multi-million-dollar industry, the market being 5-and-10¢ stores. Germans who are unable to travel in actuality to Peru, Mexico and Chile are able to travel in mind to those countries by purchasing and growing plants from the countries. The plants are grown in acres of green houses.

Speaking of visitors which have come from many places to witness her hobby, she says: "Visitors must be at least tolerant, they need not love the plants. If they are not understanding the atmosphere is bad and the plants feel it. They are very sensitive, they grow best with love."

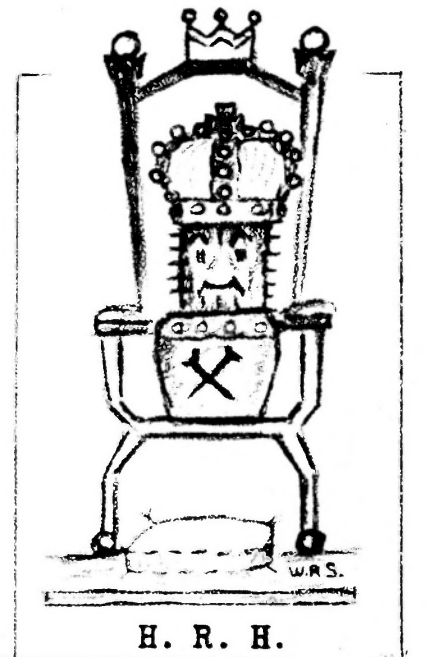
She grows her plants in clear plastic pots with holes drilled on the sides. She waters them by dipping the pots and in so doing she is able to observe upward penetration of the water in the soil, thereby avoiding over-watering. She collects and uses rain water.

She enjoys growing cacti in Missouri where there is more sunshine than in her native Germany. Cacti at first viewed negatively, and later tolerated, are now treated with devotion. The color photos and the story in the St. Louis Post-Dispatch confirm this switch very compellingly.

She says: "The true cactus lover is a bit eccentric. He's not the person who buys a cactus fully grown just to say to his friends that he has the biggest or best. He's a person who raises his own from seed because he wants to get to the bottom of the cactus mystery. Cacti can be more than a hobby, they can be a devotion."

Thank you, Anita, your hobby and devotion are shared by thousands of people around the world. Many will benefit by reading of your interests and experiences, and the plants themselves may be the greatest beneficiaries.

Circle the week of May 5-9, 1975 on your calendar, date of the next Convention in San Diego. The cacti of San Diego County will be waiting to meet a devoted friend.



WHAT YOU HAVE ALWAYS WANTED TO KNOW ABOUT SEX IN CACTI BUT NEVER DARED TO ASK!

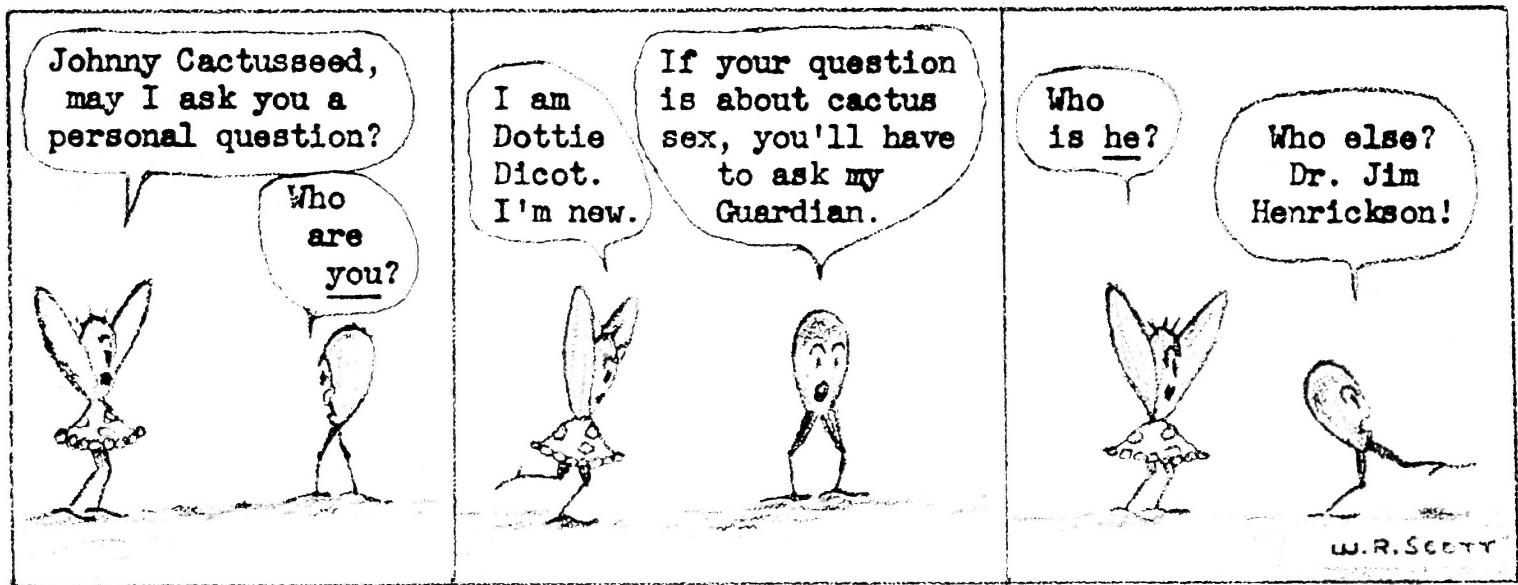
Dr. James Henrickson

Martha L. Van Ness, Pacifica, CA.

.....

Many cacti, like members of the animal kingdom, are self incompatible. Pollen from the same flower will not fertilize the stigma of that flower. Nature's sly way of population control.

The structure of particular cacti flowers are such that in many instances the cooperation of specific birds or insects are required before pollination can take place. The stamens (boys) are arranged in a circle around the pistil (girl). The stamens shed pollen but frequently that particular pollen does not reach the pistil at a time when it is receptive. Ovules of the flower are in some instances far below the pistil and stamens making the fertilization procedure difficult.



Nature has designed a specific affinity between certain species of birds or insects for a particular type of cactus flowers and in many instances only thru a combined effort of the two can fertilization be achieved. Opuntia flowers may be pollinated by a beetle or by bees and in so doing the insects spend a day or so on each flower. One such beetle with a long proboscis probes into the depth of the flower and then retracts his proboscis into a coil and thereby accomplishes the job of pollinating.

Echinocereus engelmannii is pollinated by tiny beetles or 'hop moths'. Saguaros are pollinated by bats, doves, bees and wrens. The wrens which inhabit the woodpecker homes dug deep into the stems of the saguaros enjoy an added comfort as the moist interior of the plant stem results in a cooler temperature.

Coryphanthas for the most part are pollinated by hummingbirds. Night blooming cacti usually depend on nocturnal bats and insects, which are attracted to the flowers by a heavy sweet fragrance in a similar manner to the carrion odor of stapelias which attracts blow flies which lay eggs in vain in the flower centers. Movement of the maggots may fertilize the flowers but they lose their lives as the flowers provide no nourishment for them.

Seeds of cacti are scattered by birds which ingest then carry and scatter the seeds in other areas. Rodents carry and bury seeds thus literally planting them elsewhere. Winds carry some seed and animals dislodge seed pods and scatter them thus aiding in the distribution of species to other growing places.



SAN DIEGO CACTUS & SUCCULENT SOCIETY

Affiliate of the  
Cactus & Succulent Society of America

"Espinass y Flores" monthly bulletin

Address: Room 104, Casa del Prado, Balboa Park, San Diego, CA. 92101

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EDITOR	- Walter R. Scott, 3430 Wilshire Ter., San Diego, CA	296	6022

Society meetings are held the first Saturday of the month in Casa del Prado, Balboa Park, San Diego, CA at 1:30 p.m. (This month, July, is an exception)

MEMBERSHIP dues are \$3.00 single, \$4.00 family, which includes "Espinass y Flores"

Current membership totals 244. More than 100 attended last month's program at which Charles Glass and Bob Foster of Abbey Garden and Editors of the Cactus & Succulent Journal appeared as speakers. A splendid program!!

Greatest activity this month is at Cal Expo '73 at Del Mar where the Society is preparing three exhibits under the leadership of Nibby Klinefelter as Chairperson. CAL EXPO will be open from June 22 thru July 4th. Probably the finest flower show in the land. Nibby tells in greater detail on pages 5 and 6.

A WELCOME TO NEW MEMBERS Join with us in the pursuit of a very constructive and interesting hobby, SUCCULENT PLANTS, which can be pursued in area from a window-sill to 'acres'.

Millie Carmody  
2855 Chillon Way  
Laguna Beach, CA 92651

Geoffrey (Audrey) Johnson  
1226 Citracado Parkway  
Escondido, CA 92025

Mrs. Alyce W. Martin  
3521 Union Street  
San Diego, CA 92103

Frank Mousseau  
5955 Lauretta Street  
San Diego, CA 92110

Sherry Schmidt  
548 Oleander Drive  
Los Angeles, CA 90042

W. Grant Standley  
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National City, CA 92050

Jeanie Merrill  
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La Mesa, CA 92041

Dr. George E. Radwin  
4341 Rodrigo Drive  
San Diego, CA 92115

Fran Simon  
1802 Drescher Street  
San Diego, CA 92111

FOOTNOTE: The June and July issues of "Espinass y Flores" carry a rather comprehensive report on the CSSA Convention which was held in Las Vegas, May 14-17 written by a number

of individuals. CSSA Convention programs are most constructive and interesting. The next Biennial Convention will be in San Diego in May 1975. CSSA membership includes all subscribers to the Cactus & Succulent Journal, approximately 3,800. It is recognized as the finest publication of its kind and it is the oldest in the English language, dating to 1929. Two CSSA Board members are from our Club.

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