

EXHIBITS
BY
SOCIETY

EX POST FACTO

by Jim Stalsonburg

It wasn't well organized competent leadership or just the Law of Averages that brought success to the garden exhibits presented by our Society at the Expo Flower Show. It was just a genuine effort by interested people who have been this route before. People who love succulent plants and who wanted to characterize that love for all who may be lucky enough to see their expression.

It was a revelation to witness the culmination of divergent thoughts and energies into a harmonious blend of color, texture and mass. It is obvious by the most appreciative judges that a compromising of ideas does not tender an art form sterile. True, it does reduce some of the dramatic impact and some unique effects. It also reduces some of the authoritarian obedience demanded by the creator, but in the main, the increased freedom given to fascination, kindredship and the tender touch will prevail over the drive for monetary rewards or ribbon color.

The prize monies attained by our exhibits at the Fair are without doubt the backbone of our Society...our plants form the flesh...our interest and love the soul that surges through the vitals of this organization. It is the exhibition of this SOUL that will put substance into this Society.

The "THANKS" due those who travelled the Rough and Rugged Road are best exhorted by our continued support; for they also serve who only stand and cheer...

PRESIDENT'S MESSAGE



July '71

by Ione Hubner

In looking at our exhibits at the Fair, I am again impressed by the beauty of the finished displays that have resulted from the combined efforts of many people working together toward one goal. Under the competent steering of Wilson Wells and his co-chairmen Bill Wier, Floyd Gable, the Scotts, the Nelsons, the Loylands and Jim Stalsonberg -- and all those other members whose efforts and plants were so generously donated -- three tremendous showings have been set up.

The diversity of creative ideas shared by the workers, when brought into focus, have culminated in three outstanding booths. BE SURE TO SEE IT FOR YOURSELF!

* * * * *

NO BOOKS WILL BE SIGNED IN OR OUT at the Taylor's picnic meeting. It would entail too much work for the Nelsons hauling them back and forth. No late levy will be made for those books due in July and returned at the August meeting.

*
* * * * *

COME TO THE FAIR: Each of the Fair Chairmen, Perlso Lewis and Ione Hubner will have a season ticket that can be shared with members* wishing to go to the Fair. Call any of us (remember, telephone numbers are listed on the back Information Page of this publication) -- the closest to you for convenience -- and arrange to borrow the pass. It must be RETURNED THE SAME DAY FOR SOMEONE ELSE TO USE THE NEXT DAY. Since the passes are very limited this year, make your arrangements in advance for the tickets. (*members who worked on the exhibits)

* * * * *

ANNUAL POTLUCK



by Walter Scott

Saturday - 10th of July - from 11 o'clock

FOOD - your choice of meat, salad, casserole, dessert or whatever

SOMETHING TO EAT IT WITH - your own silver and china

TABLE AND CHAIRS - if convenient. There will be tables and chairs but not as many as needed. It will help if you can provide for your own comfort -- but don't stay away on that account.

COFFEE and PUNCH courtesy of the Taylors. TAYLORS CACTUS NURSERY - 1600 East Main in El Cajon. See information page (back sheet) of EyF for map.

PROGRAM

DRAWINGS AT INTERVALS - y.o.u may be the one to select a prize? ! :

AWARDS - winners at the Southern California Exposition conducted by Wilson Wells*

AUDIENCE PARTICIPATION EVENTS to be called--expect the unexpected--but please join in--you may be a winner.

TOUR OF THE GARDENS -- after the Program. PLANT SALES TABLES - the Taylors (Note: Please do not ask Bob to get a plant from the garden before or during the setting-up period, dinner or program.)

Wilson Wells Reports

July '71

FACTS CONCERNING FAIR GROUNDS TICKETS

The three Chairmen

CACTUS - Wilbur Weir GRAFTS - the Scotts SUCCULENTS - the Nelsons
have passes for those who helped arrange the exhibits and for those whose plants they used. However, you as a worker or as a plant contributor must make the contact and advise them of the day you want to use the pass -- REMEMBER PASS MUST BE RETURNED IMMEDIATELY so that another can use it the following day.

GENERAL MEMBERSHIP may contact Perlso Lewis (583-1087) or myself (222-5141) for passes and tickets to be used by general membership. FIRST COME, FIRST SERVED basis -- there are not enough to go around.

We are sorry that we could not have given you this information sooner, but we did not know until Sunday, June 20th, how many tickets we would have.

The following people worked on the exhibits and/or contributed plants for display. If you helped and are not listed, please forgive me. The displays are all WONDERFUL and we are at this moment waiting for the blue ribbons. Words cannot describe the feelings of gratitude I have for the three co-chairmen and the wonderful people who contributed in every manner. THANKS TO EVERYONE, again!

Sophie & Oliver Loyland, Jim Stalsonburg and Floyd Gable particularly.

Eve & Harry Warn * Lee Phelps * Warren Buckner * Nellie Kinnett *
Ione Hubner * Elaine Niehaus * Edith Billmeyer * Ruth & Ben Purdy *
C. L. Penbow * Julianne Rice * Ed Miller * Nibby Klinefelter * Phil Corliss
Bob & Suzanne Taylor * Perlso Lewis * Evelyn Chatham * Augie Pfeiffer *
Bob Myers * Woody * Alice Wilson * Doc Vaughan * Ruth Cuzner *
Walt Greenwood * Minnie Mogil * Ruth Richardson * Suzanne Gillie *

SPECIAL BULLETIN -- ***** JUDGE'S COMMENTS *****
Courtesy of Jim Stalsonburg

CACTUS: (Judge #1 SDiego C&S) Name board much too large but system excellent. Fine plants. Less attractive design. (Judge #2) Label stand should be to one side - detracts from exhibit. Marvelous plants. (Judge #3) Smaller name board--covers too many plants.

SUCCULENTS: (Judge #1) Beautiful! (Judge #2) Beautiful job except for large obtrusion of name pedestal. (Judge #3) Would have liked smaller name board.

GRAFTS: (Judge #1) Excellent display! (Judge #2) Should cut off shoots. (On stock.) (Judge #3) Advise cutting off shoots on stock. Nice numbering system. Pleasing design.

Judges were Peter Sharp - Walter Fader - William Lockwood

Succulents

Comments PALOMAR - "Almost difficult judging." "Plant forms too crowded. Two chairs and one table too much. HARDIN - Needs more imagination in design. Do not like the numbers. No cohesion in design. Needs more natural plants and design. GRAFTS - Hardin: Not enough imagination. Needs large plant. Members vary from type. CACTUS PALOMAR: Excellent design. Fine plants. Would prefer natural color soil, better use of large plant material. HARDIN: Nice design. Emphasis needed in background. Need upgrade in plant material. Artistic design.

JUDGES' SCORES BY POINTS AT THE FAIR

DESIGN WORKMANSHIP QUALITY VARIETY LABELING LIGHTING

POSSIBLE POINTS	30	20	20	20	5	5
-----------------	----	----	----	----	---	---

S U C C U L E N T S

SAN DIEGO C&S <u>97</u> 97-97-97	30-03-30	20-20-20	19-19-19	20-18-19	3-4-4	5-5-5
-------------------------------------	----------	----------	----------	----------	-------	-------

PALOMAR <u>92-2/3</u> 95-94-89	29-28-27	20-20-20	19-19-17	19-19-17	4-3-3	4-5-5
-----------------------------------	----------	----------	----------	----------	-------	-------

HARDIN <u>73-2/3</u> 73-77-71	15-20-20	18-18-15	18-15-15	15-17-15	3-2-1	4-5-5
----------------------------------	----------	----------	----------	----------	-------	-------

C A C T U S

SAN DIEGO C&S <u>87</u> 83-81-78	18-15-21	18-18-18	20-20-16	20-20-18	3-4-2	4-4-3
-------------------------------------	----------	----------	----------	----------	-------	-------

PALOMAR <u>90-2/3</u> 90-92-90	25-23-25	18-20-20	20-20-18	20-20-20	3-4-3	4-5-4
-----------------------------------	----------	----------	----------	----------	-------	-------

HARDIN <u>75-1/3</u> 78-77-71	23-20-20	18-18-15	15-15-15	15-15-15	2-5-1	5-4-5
----------------------------------	----------	----------	----------	----------	-------	-------

G R A F T S

SAN DIEGO C&S <u>84</u> 86-82-83	20-20-18	20-18-19	18-17-18	18-17-18	5-5-5	5-5-5
-------------------------------------	----------	----------	----------	----------	-------	-------

HARDIN <u>64</u> 68-52-71	10-10-14	15-12-18	17-12-15	17-12-17	4-1-3	5-5-4
------------------------------	----------	----------	----------	----------	-------	-------



LIBRARIAN'S ANNOUNCEMENT: Ruth Nelson called while the press was rolling to announce that we will have a new book for use in August -- THE EDGE of a CONTINENT by Don Greame Kelly -- coastline from Aleutians to Baja.

Also, Ruth is ordering a very good book printed in English, published in Czechoslovakia - Subik's CACTI & SUCCULENTS with colored illustrations, 265 pages for \$3.41 plus tax. Call Ruth, pay Warren.

THE GROWING of CACTUSES in CZECHOSLOVAKIA
by Professor Ferdinand Plesnich

July '71

The growing of cactuses has a long tradition in Czechoslovakia. At the end of the 19th century cactuses were rare in our country. There were the collections of rich classes. It is due to A. V. Fric, a wellknown explorer and collector, who increased the knowledge of growing cactuses. He had been since his youth an admirer of exotic plants. He was enraptured by observation of night inflorescence of *Echinopsis eyriesii* -- stamen, stigma, he traced flies and bee, how they put pollen on the anther and the stigma. This quite changed him and he became cactusgrower, although he did not realize it at that time.

As a boy of 18 he went on his first voyage to South America. In the year 1900 he sailed to Matto Grossa and later he travelled in America seven times after short intervals. In the year 1923 he was in Mexico -- the richest land in cactuses. At that time the hothouses of great import firms in Europe were filled with new plants and the liking for growing cactuses became very fashionable. He brought a lot of known but always wanted kinds, as *Ariocarpus* and the healing power of which he attached importance, *Mammillarias* and *Pelecypores*, wonderful *Echinocereuses*, *Ferocactuses* and other treasures of Mexico and South America -- as *Astrophytum*, *Coryphantha*, *Turbiniformis*, et cetera. He also brought a number of quite new kinds and genera.

In the year 1926 Fric collected mainly in Argentina, Paraquay, Brazil and Uruguay. He described his voyages in many articles and even in foreign languages. He always traveled with the book by Britton and Rose. He well deserves credit for rediscovery of many cactuses.

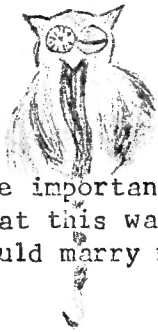
Growers in Czechoslovakia were organized after the first World War into two societies and they published magazines. During the Fascist Occupation all societies and magazines were forbidden. After World War II in the year 1951 all clubs and magazines were abolished in our country. The growers organized in social circles at various institutions and printed circulars. First in the year 1965 was a magazine and it was preceded in 1960 by cactus clubs again being allowed. At present there are 2,000 growers organized and there are perhaps several thousand more who are not organized in our country.

How do we grow cactuses in our country? We are growing cactuses in hothouses, garden-frames and flats. In large hothouses and botanical gardens are the town collections. In private we grow as amateurs in small hothouses and during the summer in garden frames and flats. Owing to our middle European climate, it is possible to grow cactuses outside or garden frames from the 15th of March until the end of October. After that they are kept in hothouses or on the windowsills where the temperature is about 12° C. During this time they are not watered. We grow them mostly on their own roots but the more difficult ones are grafted. They are planted in the soil, or of late in various substratum and watered with nutritive solutions. The seeds are usually sown at the beginning of February in so-called electrically heated hothouses.

What do we grow in our country? We grow practically all that is accessible. In our country we have groups of specialists who are mainly growing: *Gymnocalycia*, *Mammillarie*, *Notocactuses*, *Lobivie*, *Rebutie* and many of the Mexican cactuses. It is a pity that we cannot afford them more sun and warmth. In spite of this lack, however, many growers achieve fine results.

Today is accessible literature from Germany and America (although often under difficult conditions), so that we are acquainted with news about cactuses and problems of growing. Many growers exchange and import plants or seeds. The private trade with cactuses does exist in our country.

Some of our experts visited the American continent last year, both North and South America. We have a number of well known writers in our country and we have an active contact with cactus growers in Austria, Germany and America.



The Ol' Night Owl

In my last article appearing in "Espinass & Flores" I wrote of the importance of the atom CARBON in our life cycle. In the BEGINNING it was written that this was so and the molecule was given FOUR arms or tetravalency so that carbon could marry many other atoms and form that which is absolutely necessary to LIFE.

It matters not what you eat to sustain life, be it fruit, meat or garden truck, the base is carbon. Burn a roast of meat to a cinder and you have carbon. Sugar cooked turns to caramel and then to charcoal. Toast bread and the sugar dextrose is developed that came up through the wheat plant from the earth as a mineralized solute in a watery solvent.

In the humid soil the carbon atoms arrange themselves with hydrogen and oxygen atoms, which is water in the soil and form HUMIC ACID which dissolves and liquifies the sand and decayed organic matter. This solute is then carried by osmosis into the roots and up the cambium tissue to become new tissue or fruit, et cetera. Sixty carbon atoms combine with fifty-four hydrogen and twenty-seven oxygen atoms to become HUMIC acid.

When an aged tree crashes to earth in a winter storm after its life cycle is done, it mingles with the ephemeral flowers whereon birds drank deep of nectar that was born in the mouldering earth gave back the carbon atoms of death. The cycle is everlasting. Nature shuffles and rearranges the molecules and brings forth new flavors and odors to attract the insects and the birds. These we label sugars. Sugars are found in both the animal and vegetable kingdom. They are of the higher alcohol group and optically active. Dextrose sugars turn light to the RIGHT -- Levulose sugars turn light to the LEFT.

All artificial oils which man has made turn light RIGHT -- BUT all amino acids which are constituents of proteins in ALL living things are the LEVO-amino acids. The D-amino acids are readily formed in the laboratory, but NEVER found in the proteins of any known form of life! Why?

Oil of wintergreen in its PURE form is used for rheumatism and it turns light to the LEFT when viewed through a polariscope. While I was employed with the U. S. Government as an Inspector of drugs, we used the polariscope to test samples of oils to see if they were natural oil and found many imitations which had NO VALUE.

Nature still has a few hidden secrets...

Reuben V. Vaughan

(Professor Plesnich's article continued from page)

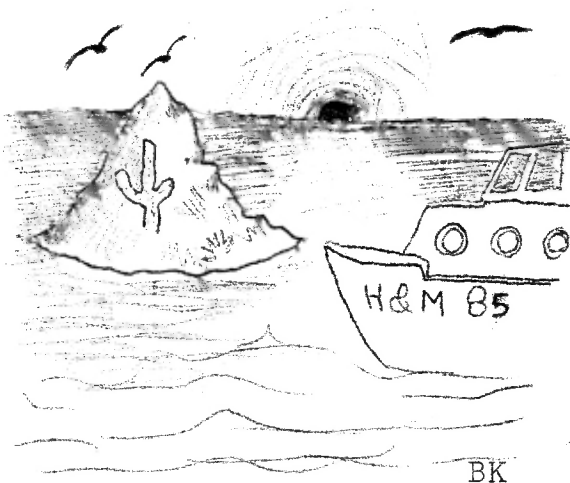
Among experts who lately visited America with the aim of studying cactuses was Karel Knize from the Botanical Garden of Karlovy University in Prague, and docent Dr. V. Habermann CSc. They wrote valuable articles about their voyages, enriching the knowledge of Czechoslovakian growers by their expert contributions. It is a pity that such voyages cannot be oftener realized.

(Doc Vaughan sponsored Prof. Plesnich and he has been a member for some three years. Mary McDowell visited with Prof. Plesnich during her trip in June 1970 to see relatives -- one cousin, in fact, lived in the same town as the professor. Mary was born in Czechoslovakia. She has a message -- "Have pictures to send Prof. Plesnich and will write soon." The pictures are of him and his family and their hothouse. Spines across the sea, for sure!)

July '71

BATA BY BOAT

After a series of fortunate events I landed the position of botanist for a semi-scientific expedition to Bahia Magdalena and various islands of the Pacific coast of Baja California. The trip was under the auspices of the San Diego Natural History Museum and was nine days in duration. The ship for the trip was the H & M 85, which, although not so large nor luxurious as the U.S. Naval destroyer to which I had grown accustomed during the past several years, did serve the purpose of the trip. There were about 20 members of the expedition, whose interests varied from fishing to driftwood collecting. My job was essentially to interpret the vegetation and name the plants.



The voyage began on 3 April at 0830. Due to heavy fog we were not able to view Los Coronados. The next morning at 0800, rocks off Isla San Benito Este came looming out of the gloomy gray to our portside, a very unsettling sight. The fog broke as we anchored off Isla San Benito Oeste and went ashore. The highest priority was the Elephant Seal rookery. After viewing these bizarre beasts I lead a small group up to the main plateau to see the lighthouse. I was quite depressed by the extreme aridity of the island and, as a consequence, plant collecting was poor. After reconnoitering the top of the island we went over to the north side to see the remains of the SOUTHERN PACIFIC, one of those terrible tuna seiners which got its just reward on the rocks. The beach was left a mess of splintered, oily wood.

Plants collected and/or observed on Isla San Benito Oeste include Lavatera venosa, Mammillaria neopalmeri, Agave dentiens, A. shawii var. sebastiana, Dudleya linearis, Euphorbia misera and Opuntia cf. prolifera.

The evening of 5 April we dropped the hook in Mag Bay, just inside the entrance near Punta Belcher, named so after the captain of H.M.S. Sulphur, a ship which stopped off in Bahia Magdalena in the early 1800's to collect plants which later turned out to be new to the botanical world. The next morning the ship moved southward across the bay entrance and anchored off the north end of Isla Santa Margarita. Ashore at 0900, the group began a walk up the gentle arroyo which finally terminated (or started) on a high promontory about 400' above the pounding surf of the Pacific side. The plants in the arroyo were faring a little better than those on the slopes. With all back on board by 1430 the captain began the trip up the shallow channel to the harbor facility of San Carlos.

A few of the plants seen on Isla Santa Margarita include Cochemia halei, Machaerocereus gumosus, Opuntia pycnantha, O. cholla, Fouquieria diguetii, Dudleya albiflora, Mammillaria hutchisoniana, Pedilanthus macrocarpus, Bursera hindsiana, Pachycormus discolor, Agave margaritae, Pachycereus pringlei, Asclepias albicans, and Maximowiczia insularis.

The night was spent anchored off San Carlos and early the morning of 7 April, with a slack tide, the captain carefully maneuvered the boat up to the pier for refueling. The launches were placed into the water and a group was landed ashore on an obscure sandy beach labelled Punta Edie, located just north of San Carlos.

BAJA BY BOAT - Continued

The vegetation around Punta Edie is a Mangrove Swamp. Having seen the Mangrove Swamps of the Philippine Islands, I was surprised to see the similarity of the vegetation which was represented here by different species. Fortunately, the tide was ebbing, and we were able to view the swamps from both sides. The low tide did present some difficulties for the launches as they came to retrieve us, but eventually everyone made it back aboard.

Plants observed at Punta Edie include the mangroves, Avicennia germinans, Laguncularia racemosa, and Rhizophora mangle; and also Machaerocereus eruca, Fouquieria diguetii, and Mamillaria hutchisoniana.

The morning of 8 April we transited southward through Mag Bay to Isla Magdalena. At the anchorage off Puerto Magdalena we were greeted by some of the local color who took the group ashore for a small can of grease. Again, due to the brief time allotted, the exploration covered only a small portion of the lower elevations of the island.

The only plant discovered on Isla Magdalena which we had not already seen on Isla Santa Margarita was Machaerocereus eruca, which was growing in association with M. gumosus. The small-flowered Echinocereus barthelowanus and Ferocactus townsendianus var. santa-maria were hunted but the lack of time prevented searching in the higher mountains and ridges.

The smooth departure from Bahia Magdalena was soon marred by not-so-smooth seas which dispatched many landlubbers to their racks. The arrival in the lee of Isla Asuncion on 9 April was a welcomed relief. Isla Asuncion is primarily a bird island and has only 5 species of plants, 2 of which are weeds, and none of which are of interest to the cactophile.

Once again on the rolling main we passed by Isla San Roque whose surging surf prevented landing in our small launches. The morning of 10 April greeted us with calm waters off Isla Natividad. The three hours on this last island of the tour were very rewarding. Some of the interesting plants seen on Isla Natividad were Cochemiae pondii, Pachycereus pringlei, Ferocactus fordii var. grandiflorus, Dudleya albiflora, Echinocereus maritimus and Mamillaria hutchisoniana.

Leaving the island at noon, the ship transited closely along the east coast of Isla Cedros where the beautiful Cedros Island pine, Pinus muricata var. cedrosensis could be seen high on the ridges. The following morning we passed close by Isla San Martin, a dormant volcano west of San Quintin. At dusk we cruised by the Todos Santos Islands and finally arrived in San Diego at 2200.

The treasures of the trip are now growing in the lathhouse at San Diego State College. So far there have been no casualties, but adapting these extremely dry-adapted plants to cultivation is sure to take its toll.

-- Mitchell Beauchamp

From Succulent of the Month by Bert Evans which appeared in KAKTOS KOMMENTS, AN EXCHANGE PUBLICATION FROM THE Houston C&S Society, Jan 1969.

BLOOMS of the EUPHORBIA: The blossom is actually a cluster of flowers called a cyathium. It consists of a cup, formed by the fusion of several bracts, containing several male flowers and a single female flower. In some species the male & female flowers occupy separate cyathia or even grow on separate plants. The fruit of E. ingens is a globose capsule with a single seed in each lobe which bursts explosively when ripe. In milder climates winter is the blooming season.

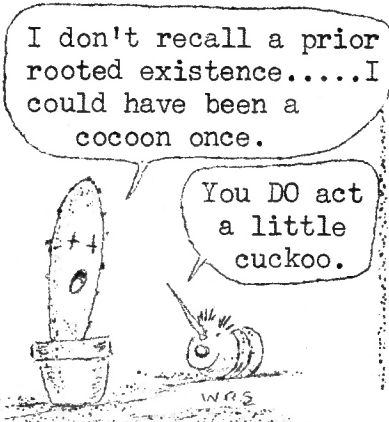
WHEN IT COMES TO ROOTS
A CACTUS HAS KNOW HOW.

By-----Walter R. Scott

Someone said "Cactus flowers are something to behold, they are the most beautiful and interesting in the plant kingdom." No one cares to dispute the statement, but the person who made it must have been looking only at the part showing above the ground. If you wish to be a witness to something extraordinary, something which will start you to thinking, look into the "rooting habits" of cacti. If their flowers are spectacular, their roots are amazing. One who is unfamiliar with plant rooting will be surprised at what a cactus does routinely with its roots, not only below ground level but above as well.



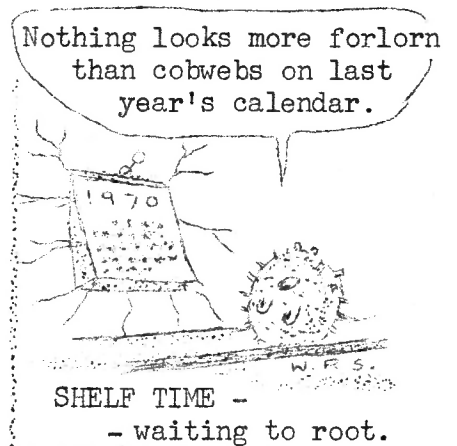
Ordinarily when one handles a plant, any plant, he is careful not to disturb its root system. Disturbance may have a detrimental effect and results may show quickly. When it comes to a cactus, roots and time seem to have little relevance, in fact it may benefit by a root change and a time lapse. Cacti seem to regard their roots with indifference, and they don't mind parting with them, they simply will grow new ones. A cactus actually is a storehouse and its root system in an unreliable supply line. Cut the roots off of most plants and the plants have "had it", they're material for the compost pile. Not so with a cactus, you may compost its roots if you like, the plant body can very well do without them for an extended period of time. That period in some instances may run into years. If you quoted a Boxing glove cactus, it would say: "Me? Throw in the towel? The answer is NO!" Roots are as expendible as last year's flowers, they serve a purpose but they're like Finnegan--off again, on again.



A cactus may be pulled up, neglected or even forgotten for an extended period of time. In the instances we are talking about here, let's stick with the small maneageable, one-man kind, not the huge ones like a Carnegie Gigantea that require a boy and a team of elephants to handle.

That size is impractical to work with although they might do everything we expect of them. Given favorable growing conditions and temperatures after it is uprooted and derooted, it will respond as tho it had been reincarnated, and it may grow even better than before. It is as tho it has been hypnotized and told it had no recollection of or connection with the past. It points always in one direction--to the future. It's like rebuilding the motor in your car and filling the gas tank, new life and added performance.

All the above sounds real simple, but it isn't. A cactus is a stubborn plant and its responses are unpredictable. Its timing is mysterious. It may not root when you think conditions are "go", and it may root when you least expect it. It isn't the cactus which is acting strangely--it is YOU which is mixed up in your thinking. You shouldn't expect the cactus to act as you think it ought to.



Let's look at some specific rooting peculiarities. And let's simplify procedures by using a kind without spines--Opuntia, Burbank's spineless--and save ourselves unnecessary distracting points. Since this is an exercise in root observations, let's use a smallish plant and work with minimums.

SHELF TIME -
- waiting to root.

Let's take up a plant, soil and roots, remove the soil, no need to use caution, sever the roots close to the plant, let the "plant ends" of the roots heal a few days, roughly a week, support it in an upright position on new soil, and it will root "shortly". But don't ask what is meant by "shortly", we can't be specific, there's the plant to consider and it may have ideas of its own. If you're impatient you may test for rooting occasionally by lifting gently to see whether it has "grown" to the ground. When growth begins the plant will appear to perk up and show signs of growth. Time is not critical on the part of the plant, patience on your part is necessary.

We may remove a "pad" from a growing plant by breaking it off, or cutting it off at a joint, cure it as before, support it on new soil, and the joint will produce roots and grow according to its own built-in time table. Success is practically assured.

We may remove a pad, cut it in halves crosswise, cure the cut ends, prop each upright, newly cut ends on the ground, and each will root, although not in the same manner. Don't try to promote a "race" between the two halves, they have different growth patterns, but root each will even tho you're an amateur. The outer half pad will grow normally while the inner half pad will tend to develop new outward growth at the cut end.

We may carelessly lay a pad on the ground. Roots will form at the areoles on the under or ground side and new growth will appear around the edges of the pad at the areoles. The pad may surprise you at an early stage, its ends may curl upward. Curling indicates loss of moisture on the upper surface and moisture gain on the ground side, resulting in unequal expansion of surfaces.

I can't put on a good rooting demonstration in a saucer.



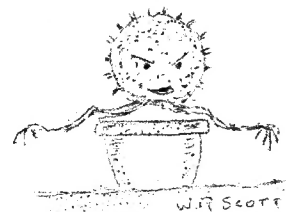
W.S.

And then there's the "package rooting plan" for quick rooting. Some globular cacti produce plantlets (pups) around the lower periphery of the "Mother" plant. A pup although attached at its base, is eager to grow and put on a show of its own, so it forms roots which are directed toward the ground. Plantlets may be easily detached and potted. The young new fresh roots assure rapid growth and give the plant a "head start". Strangely, "head start" in the plant world favors the privileged, unlike its counterpart in the world of man. Plantlets, altho for all practical purposes, are small reproductions of larger plants, they are not prepared to flower, they think big but act small.

Another way to root a cactus which would seem to be not unlike standing a child in a corner for misbehaving. That is to deroot it, clean it and support it in an upright position in a pot so that its lower extremity is a short distance from a water level maintained in the pot by a saucer or pan. The rootless plant will eventually get thirsty and reach for the water below and in so doing it will form a new root system, depending on how thirsty it thinks it is. When it shows suitable new root growth, it may be transferred to a pot containing soil, but in so doing take care not to damage the young roots. This last rooting technique causes one to ask: "Is darkness a factor in rooting, or is it the moisture?" The answer isn't forthcoming here, altho we are accused of talking to our plants, they don't (answer) talk back.

There isn't much you can do to make a cactus flower but you certainly can give its roots a strenuous workout, and that is only because you are using its "know how".

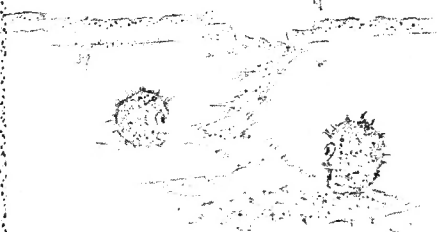
I don't wish to appear ungrateful, but this ought to demonstrate my disapproval of the potting mix.



W.S.

I couldn't get a good root hold up on the mesa.

My rootsies feel more comfortable in the sand down here in the dry wash.



W.S.



July '71

Dated May 18th - addressed to SD C&S, via our affiliate to CSSA -- Perlso Lewis -- from MISSOURI BOTANICAL GARDEN more familiarly known as Shaw's Garden in Saint Louis was the following letter (in part)

"It has come to our attention that your Society is publishing ESPINAS y FLORES and since we have here at the Garden one of the foremost experts on Cactaceae, we should like to add your publication to our library. We should appreciate very much if we might receive your publication ESPINAS y FLORES as a donation so it may be used for reference purposes here."

(signed) Carla E. Lange
Assistant to the Librarian

2315 Tower Grove Avenue · St. Louis, Missouri 63110

(We immediately bundled this year's issues off and will assemble (hopefully) previous issues from beginning of publication in December 1966 for a complete file.) Meanwhile feeling we have been honored.

CHANGE OF ADDRESS: Jack L. Ramay - to 122 "G" Avenue - Coronado, California 92118

From Josephine Shelby, Editor CACTUS CAPITAL CHATTER - Box 3723 College Station Tucson, Arizona 85722 - Please note the following as the correct mailing address for sending Tucson your EXCELLENT PUELICATION --

Lee H. Bowker requested change-of-address to Whitman College - Walla Walla, WASH 99362

Perlso rec'd another request from Judy Krueger of COASTAL BEND C&S SOCIETY, 777 Chase Drive - Corpus Christi, Texas 78412. "Would your club be interested in swapping publications with us? We publish a monthly newsletter in booklet form which also includes various other hobby clubs' acitivities here in Corpus Christi." (Our Board agreed that this exchange would promote our goal of stimulating interest in Cacti &.)

To the Editor dated June 13th from Charlotte K. Wittmeyer of the HENRY SHAW CACTUS SOCIETY (233 Avery Drive, Krkwood, 63122).

"Every issue is a treasure!" is stated on page 7 of your June issue, and to that I say 'Amen!' -- particularly that June issue. Could you possibly spare an extra copy of the June 1971 issue?" (Whereupon she enclosed money, a stamp and a label -- and we were pleased to comply.) (They put out a great paper, too, in which Lad Cutak (the authority mentioned above from Shaw's Garden) conducts a most interesting question & answer column.)

Our Treasurer Warren Buckner rec'd a note from Horst Kuenzler of NEW MEXICO CACTUS RESEARCH (P. O. Box 787 - Eelen, NM 87002)

"Mrs. Wm Nelson was kind enough to give me your address. Enclosed please find check for \$3 to cover membership." Our Librarian was on the job at the Convention--good for you, Ruth!

To the Editor dated Cinco de Mayo - from Billy (THE KID) Bishop - "I was disappointed not to see the name of RUSSELL AVERY in the North County list of Cactus Dealers that Dr. Corliss mentioned in his May EyF article. Russell Avery and his wife Bea gave up their general nursery business in order to specialize in Cactus, and their impressive collection of pottery. Their fine nursery is located two blocks west of junction of 395 & Grand in Escondido. They just returned from a week's collecting trip from way down in Baja and brought back some interesting specimens. You will find them very pleasant, knowledgeable, and their prices right."

13 June 1971
 39 Keehill Gardens
 Hayes, Bromley
 KENT, ENGLAND

Dear Editor EyF,

For 13 months now EyF has been coming to me as result of the generosity of Nellie Kennet and I would like to put on record, not only my thanks to her, but also my appreciation of EyF itself.

As I am for the moment Chairman of the Croydon Branch of the Nat'l CSS of Great Britian, your activities as reported in your paper are of much interest. You undoubtedly have a very lively club going!

Your meeting with Melocactus mantanzanus was of particular note. A large number of imported Melocacti have been arriving in England of late in various sizes. I have not spotted M. mantanzanus but have acquired and rooted half a dozen of the Peruvian varieties.

Glad you managed to persuade Billie Lucas to write about her Gymno collection. Through CSSA Robins many of your collections are known to us here and many of us have gained in knowledge and also by the exchange of bits and bobs over the water. I have never counted how many of my plant labels have "B.L." inscribed in the corner -- it must be dozens, and maybe a few of my plants sprout Stateside...

Most collectors here seem to specialize to some extent when they have been growing cacti & succulents for a number of years, and the South American varieties are currently popular. The large number of imports in the last couple of years have greatly increased the range. I must say that rerooting does not usually prove as difficult as sometimes suggested. The trick is to order quickly from new lists. Somehow the good ones seem to come out first. So far only five cacti have failed to root and grow on well for me -- three of these were North Americans, which always seem to be the more difficult.

Well, I do seem to have wandered off my original point but return again to congratulate you on an informative lively journal. Good wishes to all your members from

Ray Sharman

Dear Ray -- We are all delighted that you wrote to share some of your experiences and your letter will help pressure Nellie to write the promised article on Round Robins I have Flown...thank you so much.

* * * * *

May 16

"Dear Nibby" writes Billie Lucas

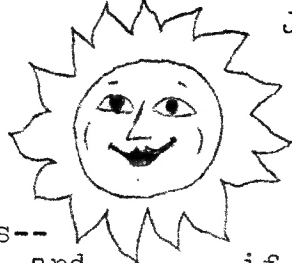
"Thanks so much for the copies of my Gymno article...N. M. Stow is correct in thinking that G. baldianum and andreae are closely related. Both belong to the ovatisemineae seed group. No doubt at least one of Stow's was actually G. baldianum x andreae or viceversa -- thus it is not surprising that yellow flowers cropped up in the progeny. G. baldianum is a true species but more and more accidental hybrids appear.

"A seedling I raised of G. denudatum bloomed for the first time this week with the most glorious salmon-pink flowers I have ever seen. They were large and almost double. Plant body is a typical G. denudatum with 5 ribs and closely oppressed spines. I kept one other seedling with browner, more outstanding spines, and now I'm anxious to see the flowers on this one -- it has a bud. My seedlings may be accidental hybrids, but how happy I am to have them!

Effects of two cups of luncheon coffee are wearing off at 11 pm -- that's pretty good for me. Last time I drank coffee I was repotting at 3:30 am.!"

N. M. Stow is President of CHRIST CHURCH C&S SOCIETY, New Zealand. He writes knowledgeably and lightly -- "Messing About with Seedlings" -- for their paper CACTOCHAT which is one of our Exchanges. They have an Editress: Mrs. L. H. McCausland:

NIBBY'S NOTEBOOK



Written so last-minute I can tell you all the mistakes-- for sa...if page 8 is numbered 7 and 7 isn't numbered, and if the vertical lines weren't done in the scoring chart, it still adds up to a GREAT LITTLE PAPER -- Just read what our marvelous contributors have written...Prof. Pelnich's article came in response to a spontaneous request made sending his paper; Doc Vaughan provided first-class postage. He asked me to make corrections but I wouldn't have been so presumptuous! Liked the cosmopolitan flavor of the widely-accepted correctness of "CACTUSES" and after you roll it around on your tongue, wager you'll agree...MEMBERSHIP ROSTER COURTESY OF SCOTTY, A MAN Who Gets Things DONE! They were done photo-offset which might be the way to go as Lauren Lovelace has so often encouraged us...Mitche's article on BAJA BY BOAT was particularly welcome as day blended into day, and island into island-- just a fast blur of birds & photos, sea lions & duddleyas--personally, I was most grateful because like the dodo bird, I wanted to know where I had been.

Is there ANYONE who can handle drawing on a stencil like Scotty? The delicacy and precision and purpose make this paper unique. Also want to credit my son Benjamin for some pretty large headlines (larger than the ol' mother-Editor wants but he's available for the hecticness of getting out EyF). He drew the seeds for the Gymno article, too. Back to Scotty who could be Our Man of the Year any year--no one puts more time and effort into our Society than he does.

The only additional comment to make about the Fair is that Eve Warn put in many hours on labelling Succulents--Ione and Sophie worked on getting plants in until midnight one night--oh, there was lots to be done and as Ruthey said so generously, EVERYone in the club helped!

Have been asked how big is the paper going to get? We reached the peak last year--Elaine Niehaus is already grumbling over how hard it is to staple--think of that, those little staples holding up production! We have so much going on with our group that only time & staples can inhibit...Ed Miller arranged a fine day for us the 12th...Daisy Dove Dale (who prefers "Dovie") helped him check everyone in--Ruth Richardson was on time so we left on time and were back before dark... What a garden! What a view! If you've never been to DESERT NURSERY, how sad! Ted Hutchison was there to welcome us with coffee & cookies...Julianne Rice and Nellie Kinnett lost out to THE TREASURER Warren Buckner for title of "Biggest Spender" -- he's fortunate for Virginia never bugs him with where-are-you-going-to-put-THOSE?...Helen Hegyi spoke impromptu on the bus on the medicinal uses of aloe vera...her guests were Dr. & Mrs. Krueger from San Marcos...if Helen doesn't write an article on aloe vera then perhaps Doc will...We enjoyed our nosebag lunches, sitting in the shade at a tremendous circular table with the BIGGEST lazy Susan we ever saw, as guests of DESERT NURSERY...the plants there, so clean & healthy, unique and most reasonably priced...The charming lady in blue who carried her parasol with elan and sat her stick with poise was my guest Veleda Sickels.....HUNTINGTON GARDENS is really the greatest...we were honored to have MYRON KIMNACH and GARY Wm LYONS both to lead us...Wow, did we admire plants! Why is it in someone else's garden that most of us become askers of such booby questions? Even the most ardent! With that question we'll leave you wondering and waiting for next month's EyF with our regulars back with us. And bless you, too, Joan Fleer!

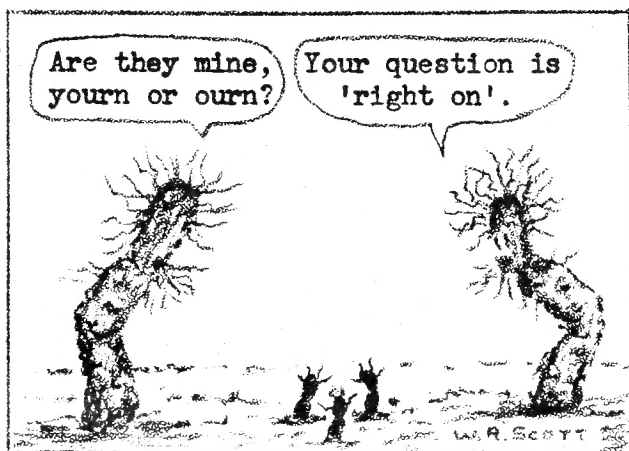
Cacti are becoming computerized! In Colorado, Gerald Arp used computer assisted cacti methods of comparison to show the relationships existing between certain species of native/ and their forms and varieties. Character analysis indicated that there are three very distinguishable varieties in the species Pediocactus simpsonii. They are P. simpsonii var. simpsonii, P. simpsonii var. minor and P. simpsonii var. robustior. Different populations exist in the var. simpsonii and they vary. Some plants are single headed while others form two heads but occasionally 30-40 headed specimens can be found. The variety minor is supposed to be restricted to the higher elevations of central Colorado but actually it cannot be distinguished as far as elevation, soil type or plant size is concerned. It is less spiny than var. simpsonii and the stem of the plant can be seen through the spines which is not true for var. minor. The var. robustior is a vigorous plant from Oregon and Washington and is so distinctive that it could almost be considered another species.

Pediocactus knowltonii was isolated from P. simpsonii during the climatic warming that followed the Ice Age and developed independently of that species.

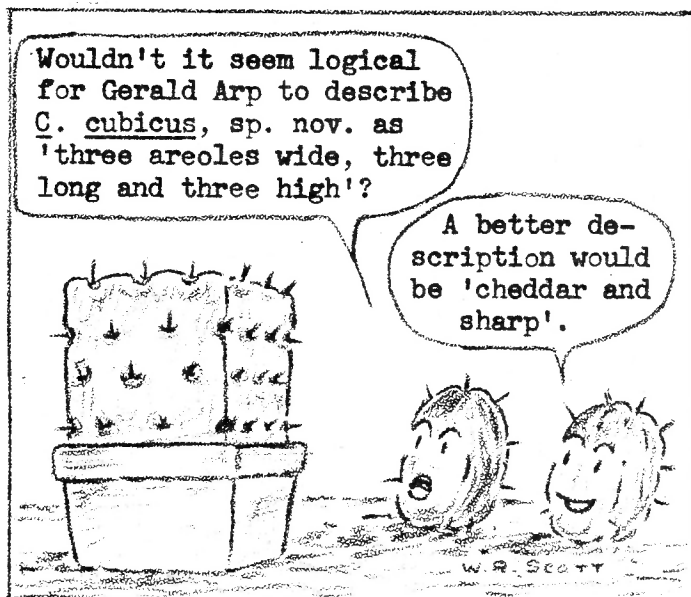
Mr. Arp also discussed root sprouting—a new mode of reproduction in the genus Opuntia. He first observed this in a dwarf form of O. polyacantha known as O. schweriniana and discovered that root sprouting exists in the species O. polyacantha and O. erinacea and their relatives to a greater or lesser degree. Surprisingly, root sprouting in the Cactaceae never had been reported in the literature. Root sprouting is a character that is discernible throughout an entire population yet is of no taxonomic value.

A vast population has evolved in the species Echinocereus triglochidiatus. Mr. Arp believes this complex contains two varieties that are ecologically distinct and a third variety that is a hybrid and is ecologically intermediate between the other two varieties.

Echinocereus triglochidiatus var. triglochidiatus grows next to tree trunks in deep shade while E. triglochidiatus var. goniacanthus is found at the dripline of the trees. The intermediate hybrid E. triglochidiatus var. hexaedrus of Bossevia (author of "Colorado Cacti") finds a home between the dripline and the trunk of the tree. It is the most common form in Colorado because of its more favored growing position.



ROOT SPROUTING



CACTUS CUBICUS var. COMPUTUS, sp nov.

The home of E. triglochidiatus var. triglochidiatus is in central New Mexico in the Wolf Creek Pass vicinity. Var. goniacanthus grows in lower and hotter areas. These two varieties overlap in Colorado and where this overlap occurs, var. hexaedrus is found.

Spination is induced by heat and light so is influenced by shading. Echinocereus triglochidiatus var. inermis is essentially a spineless form but all degrees of spination are found in this variety. Mr. Arp concluded that "no plant should vary that much".

"THE SOUTHWEST'S SOAP TREE--YUCCA ELATA" by Clark Champie (by Martha Van Ness, Pacifica)

When a man pursues one woman most of a lifetime, not much is thought of his fidelity but when a man pursues a plant ten years to discover its peculiarities, eyebrows are raised. Clark Champie has pursued Yucca elata ten years, photographing variations and recording findings. He began his program by showing a color slide of three 'perfect' plants, each with upright flowering stalks on well proportioned plants.

This was followed by slides of plants bearing stalks bent at many angles: 's' curves, parallel to the ground and with graceful arches. Stalk bending was the result of what Mr. Champie termed "neotropism" (neo--new; tropism--the inherent tendency of a living thing to turn or move in response to an external stimulus). Stalk bending was not the result of blossom or seed pod weight, but rather of what is believed to be genetic influences, partly by chromosomes and partly environment.

No microscopic check of stalk tissues has been made but bending appears to be controlled by other factors than gravity. Insect damage has not been observed.

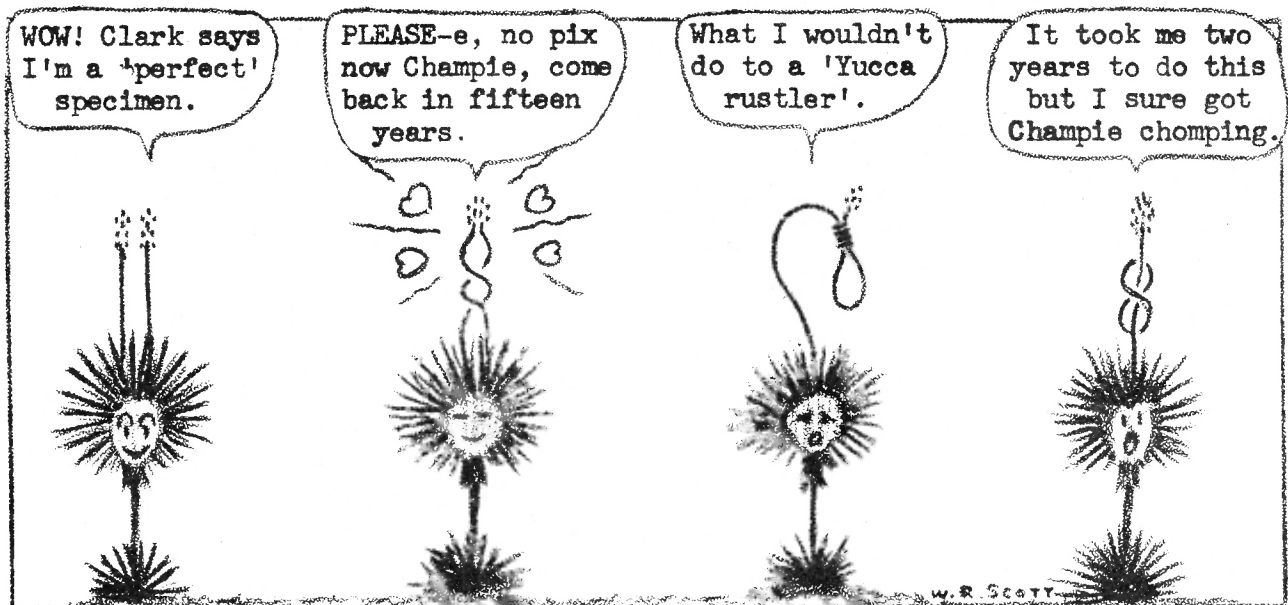
A plant may produce a flower stalk with a peculiar curve or angle, then for the next two or three years stalks produced follow the same curves or angles. Strangely, flowers on misshapen stalks do not always hang down along the stalk as one would assume. A horizontal stalk may have flowers hanging at a 90° angle to the ground. Oddly, when the seed pods form, they reverse direction and turn up 90° from the stalk and away from the ground. Turning is a natural characteristic of Yucca elata. A perfect specimen with a straight stalk bears flowers that are pendant like bells and seed pods that turn skyward.

Yucca elata normally flowers about the first of June. Heavy flowering and fruiting is not the answer to the angle of the flower stalk relative to the plant. The pattern was watched for six years. Clones show extended flowering periods, and flowers and fruit are produced simultaneously, sometimes five or six flowers and fruit to a dense inflorescence. Sometimes only the tip flowers and fruits and stalks appear flattened or club shaped.

Variations in the plant itself ranged from the clusters of green growth starting above the ground from one to four feet to total coverage from the ground up. Plant height varied from three to eight feet. Root systems penetrate the earth about four feet and wind shifting of desert sands is a depth factor.

Yucca elata requires five years from seed to first bloom so a study of deformities is a slow process. It is doubtful if there has been much germination of seeds over the past fifty years. Few young plants are observed. Heavy moisture is necessary for the thick coated seeds to germinate and grow.

"Our Lord's Candle", pollinated by a moth, greened by rains and covered by shifting sands perseveres and lifts its bloom stalk in beauty even tho bent at an angle, it reveals Nature's remarkable will to perpetuate its kind.



POST-CONVENTION FIELD TRIP

Impressions by Joan Fleer
 "To all of you who could not go"

We left El Paso Sunday morning, the 11th of May, going by bus via Juarez to Chihuahua. There were 28 of us from various clubs throughout the country plus two cactus friends from England. During the guided tour that afternoon we were impressed by the great number of beautiful homes on wide streets lined with flowering Royal Poinciana, Tulip and Silk-Cotton Trees. Here, like in most towns we visited, we found that Mexico is very much alive and prospering -- modern schools and universities as well as wide new streets still under construction but already provided with rows of iron benches and fountains.

Our hotel Fermont was quite luxurious with swimming pool on the second floor, adjoining dance floor, dining room and entertainment. We were fortunate to be there during a time of fiesta. Our 8th floor rooms overlooked the Cathedral and Plaza -- the latter was lined with salesbooths, and it was so picturesque, especially at night.

Our train "Chihuahua al Pacifico" left at 8:00 a.m. for the 12-hour journey to Los Mochis in the state of Sinaloa. The trip was lengthened some seven hours because of a derailed train ahead. Still, there was a holiday spirit in the air as we ate our way through the train's provisions and then started buying everything in sight from the nearby villages.

After only a few hours sleep at the Hotel Santa Anita in Los Mochis, we enjoyed sightseeing and marketday. There were big baskets of grains and fruits of all kinds--especially CACTUS fruits. Our guided tour of the city included the water purification plant. Most cities in Sinaloa are served from this plant so we felt that it was safe to drink the water here. We passed a huge sugar-refinery and acres of sugarcane on our way to the fishing village of Topolobampo on the Gulf, about one hour by bus from Los Mochis. Built on the slopes of the hills surrounding the bay the harbor reminded me of Ensenada.

Included in the tour package was a boatripe along the shores of the huge bay. We were all sure that our guide Juan only learned on this tour to notice that cacti even existed! On future tours he will probably tell his group of tourists about those cactus-crazed ones who searched the hillsides from bus, train and boat, showing great excitement every time another species was seen. Here we saw a multi-branched saguaro, opuntias and agaves.

The flaming-orange blossoms of the Royal Poinciana combined with yellow-flowering trees were a beautiful contrast to the deep brown color of the adobe homes in the typical Mexican villages that we passed returning to Los Mochis.

Wednesday morning we left by train via the "Earranca del Cobre", the Grand Canyon of Mexico. It was a comfortable trip with no delay. We so much enjoyed the beauty of the scenery, partly tropical but with alpine vegetation when we reached 8,000 feet. We saw women in the deep canyons washing their laundry in the trickle of water left from the winter rains. The main inhabitants of this area are the Tarahumara Indians, some of whom still live in caves. The caves visible from our train were being used as animal shelters. We had a short stop at the plateau to take pictures but I was too busy watching the goats grazing among the children as they sold small baskets woven from yucca fiber and copper ore from the mine there. These Indians are very shy and the children are so lovely. Five hours more of high bridges over canyon bottoms and many tunnels--arrived in Chihuahua for the night & back to El Paso by bus.

IT WAS AN EVENT-FILLED TRIP. Travelling with a group of people who not only came from different places but different ways of life, we shared the interest of growing, collecting and loving not just any plant--but CACTI. That was the greatest event of all!
See you all at the next convention!

ESPINAS Y FLORES

July 1971

Mailing address: Editor Nibby Klinefelter, EyF - 2201 Fairfield, San Diego, CA 92110
Treasurer: Warren Buckner - 1744 Englewood Drive, Lemon Grove, CA 92045 - Dues \$3 single \$4 family. Membership open to anyone interested in cacti and succulents.

OFFICERS

- President - Ione Hubner 444-3439
- 1st VP - Walter Scott 296-6022
- 2nd VP - Oliver Loyland 298-3093
- Treasurer - Warren Buckner . 469-1391
- Recs Sec - Harriet Sopp ... 281-8337
- Cont Sec - Perleso Lewis 583-1087

BOARD MEMBERS (Chairmen)

- Education - Floyd Gable 448-8041
- Exhibits - Wilson Wells 222-5141
- Editor - Nibby Klinefelter . 276-6517
- Librarian - Ruth Nelson 298-3349
- Hospitality - Julianne Rice. 234-5487
- Agreement - Hazel Scott ... 296-6022
- Historian - Ruth Richardson. 281-9267
- Past Pres - Jim Stalsonburg. 465-6661

ADDITIONALLY ACTIVE

- Cactivities Chairman Ed Miller
264-8552
- SAND & SOUL Chairman Augie Pfeiffer
282-0220
- Affiliate to CSSA - Perleso Lewis
- Rep to SD Botanical F'dtn - the Scotts
- Rep to Floral Ass'n) - Nibby K
- Affiliate to CALIF GARDEN)

TREASURER'S REPORT

Warren reports continued good weather financially -- 208 members -- and asks again if locals have picked up their membership cards - he has them for you.

ANNOUNCEMENT

Attention Epi People!
President Bob Nelson reminds you that the EPIPHYLLUM SOCIETY will not meet in July nor August. Starting in September meetings will be on the 2nd Wednesday.

BOARD MEMBERS -- no C&S board meeting in July.

ALL MEMBERS --- No plant-of-the-Month competition or Plant Exchange table at the July meeting at Taylors.

Plant-of-the-Month Winners in June were
Nellie Kennett - Oreocereus celsianus
ALICE Wells - Cotyledon orbiculata

NEW MEMBERS CORNER

Horst Kuenzler - NEW MEXICO CACTUS RESEARCH
P O Box 787, Belen, NM 87002

A NOTE OF SADNESS

It is with deep regret that we write of the passing of one of our members, Harlan Harrison, a retired Navy doctor. His wife Mary said that he enjoyed his plants to the very end, for he was working with them when his heart failed. Our sympathy to his family.

THOSE WHO

brought the goodies last month for the meeting were:

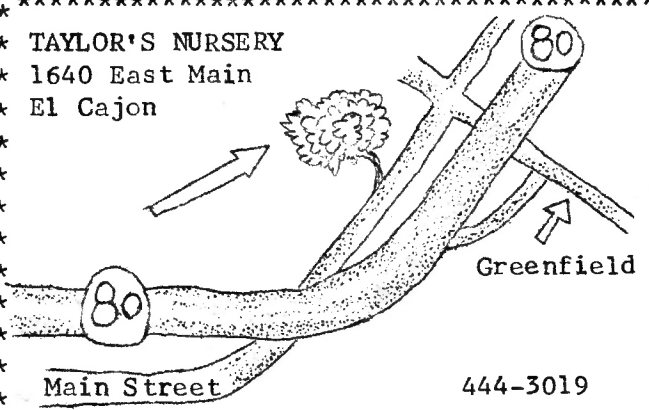
- Eve Warn
- Julianne Rice
- Lynne Nicholson
- Suzanne Gillie
- Mrs. Partridge
- Sophie Loyland
- Hazel Scott

Don't be bashful--bake a big batch & bring them in for August -- call Rose d'Atillio first. 281-9731.

OUR GOOD NEWS from the F A I R

- SUCCULENTS ----- First!
- GRAFTS ----- First!
- CACTUS -----Second!

TAYLOR'S NURSERY
1640 East Main
El Cajon



444-3019

Espinas y Flores
2201 Fairfield Street
San Diego, Calif. 92110



[Faint, illegible text]