

We had fun! Espinas y Flores

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

VOLUME XXVI NO 7 JULY 1991

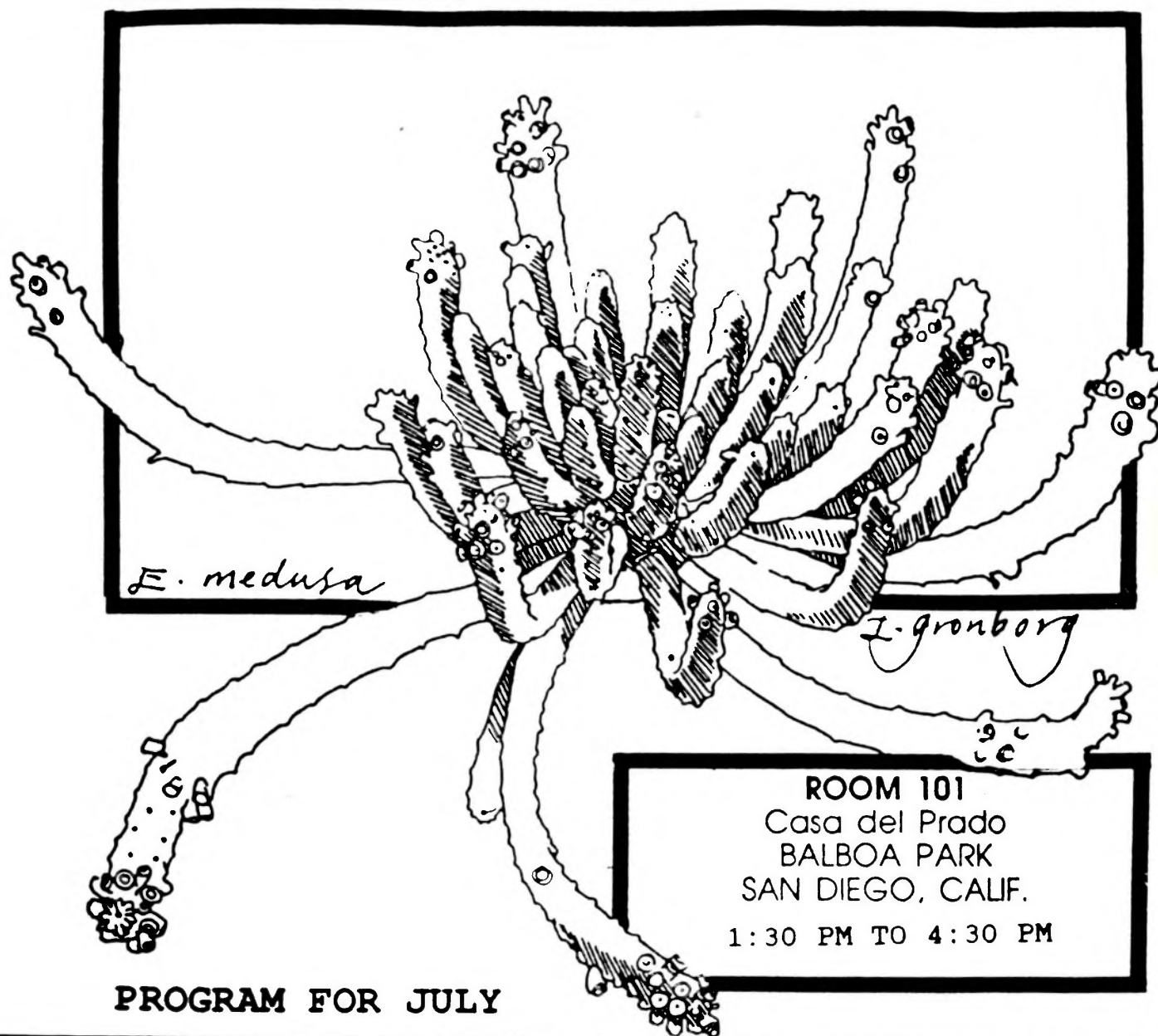
JULY MEETING

SATURDAY JULY 13, 1991

CONGRATULATIONS RIBBON AND TROPHY WINNERS ALL!

SAN DIEGO COUNTY DEL MAR FAIR EXHIBIT GREAT SUCCESS!!!

WINS "BEST IN CLASS: PLANT COLLECTION" AND "BEST NEW EXHIBITOR"



PROGRAM FOR JULY

CARL VOLKERS OF "C & J CACTUS NURSERY" ('C' FOR CARL AND 'J' FOR JIM KAMP-WIRTH) WILL PRESENT AN IN-DETAIL SLIDE PROGRAM ON THE INTRICACIES OF A CACTUS NURSERY FROM SEED TO FINISHED PRODUCT. CARL JUST RETURNED FROM THE NATIONAL CSSA CONVENTION WHERE THIS PROGRAM WAS RECEIVED WITH ACCLAIM. GREAT SLIDES, GOOD INFORMATION, AND EDUCATIONAL!!! DON'T MISS IT!! MANY OF OUR FINE AUCTION PLANTS FROM THE PICNIC, AS WELL AS MANY OF THE SHOW SALE PLANTS WERE FROM C & J. CARL WAS ALSO ONE OF OUR FINE JUDGES. SO IF YOU DIDN'T MEET HIM AT THE JUDGES LUNCHEON, COME MEET HIM NOW!

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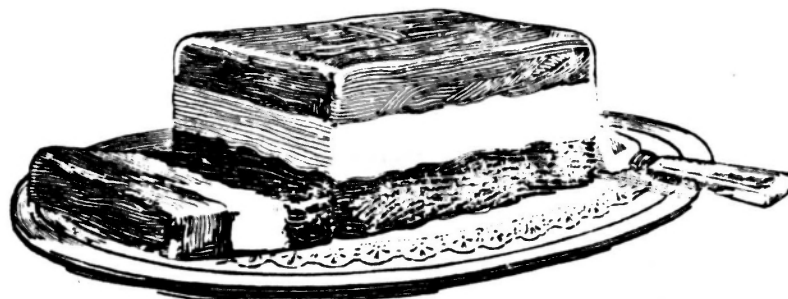
Refreshments for July Meeting

I didn't receive a list so any contributions will be appreciated ---- Mary

Deadline for the August Meeting ---- July 27

SHOW PROGRAM AND SCHEDULE FOR JULY AND AUGUST

July	7	S D Dahlia Society Speciment Show		Sun: 1pm-4:30pm
July	14	Convair Garden Club 41st Summer Show		Sun: 1pm-4:30pm
July 20 & 21		S D Bromeliad Sociaety 17th Annual Show	Sat: 1pm-4:30pm	Sun: 11am-4:30pm
July 27 & 28		S D Co. Orchid Soc. 5th Summer Show	Sat: 12pm-4:30pm	Sun: 10am-4:30pm
Aug. 3 & 4		S D Co. Dahlia Society Show	Sat: 2pm-5:00pm	Sun: 10am-4:30pm
Aug. 17 & 18		San Diego Fern Society 13th Show	Sat: 1pm-5:00pm	Sun; 10am-5:00pm
Aug. 24 & 25		S D Turt le e & Tortoise Soc. 17th Show	Sat: 10am-5:00pm	Sun: 10am-5:00pm
Sept.	8	Paintex Craft Show		Sun: 10am-4:30pm



1991 SDC&SS SHOW RESULTS

TROPHY WINNERS

Best Cactus (Phillip Corliss).....Joe & Susan Clements
 Best Succulent (Ruby Falk).....Beverly Kirkegaard
 Most Artistic Display (Walter & Hazel Scott).....Thu Tran
 Best Exhibit (Reuben Vaughan).....Rudy Lime
 Best Education Display (CSSA).....Alan Weiss
 Best Aloe (Barbara Jeppe).....Rick Latimer
 Best Echeveria (Oliver & Sophie Loyland).....Shirley Berry
 Best Epiphyte (William & Ruth Nelson).....Warren Buckner
 Best Euphorbia (Lydia Evans).....Michael & Joyce Buckner
 Best Graft (Bob & Suzanne Taylor).....Shirley Berry
 Best Mammillaria (Elibet Marshall).....Joe & Susan Clements
 Best Mesembryanthemum (Samuel & Adela Markey)
Michael & Joyce Buckner
 Best Mexican Plant (Dudley B. Gold).....Ed & Karla Nolan
 Best Pachycaul or Caudiciform (Warren & Virginia Buckner)
Michael & Joyce Buckner
 Best Pelargonium or Sarcocaulon (Wilna Johnson)...Rudy Lime
 Best San Diego County Succulent (Julianne Rice)
Michael & Joyce Buckner
 Best Sanseveria (Richard G. Latimer, Sr.).....Edmundo Maio
 Best Succulent Bonsai (Rudy & Teresita Lime)
Michael & Joyce Buckner
 Best Opuntieae (James & Shirley Berry).....Shirley Berry
 High Points for 50 or Less Plants (James & Shirley Berry)
Shirley Berry
 Sweepstakes (Dr. Ronald & Marcia Monroe).....Shirley Berry

EXHIBITOR KEY

AC.....Amna Cornett	JP.....Judy Pitre
AK.....Alberta Klinert	JQ.....Joe Quijada
AW.....Alan Weiss	JW.....John Williams
BG.....Bob Gaerlan	JWd.....Joe Wood
BK....Beverly Kirkegaard	KQ.....Kay Quijada
BM.....Bob Marder	MB.....Mitch Bahr
BT.....Bob Taylor	MH.....Marylyn Henderson
CA.....Chuck Adams	MJB.....Michael & JoyceBuckner
CD.....Carl Dykema	MP.....Marie Pearce
CF.....Cathy Frost	MSC.....Mark St. Clair
CP.....Carl Peterson	PF.....Phyllis Flechsig
DC.....Diane Crowley	PH.....Paul Henderson
DL.....Dorothy Larburg	RL.....Rick Latimer
DR.....Doris Rake	RLm.....Rudy Lime
EC.....Eileen Clause	RP.....Rick Plant
EdM.....Edmundo Maio	RSP.....Rose Pierce
EKN....Ed & Karla Nolan	SB.....Shirley Berry
EL.....Elinor Latimer	SF.....Sandy Frost
EM.....Elibet Marshall	SS.....Sara Schell
FG.....Floyd Gable	TD.....Tom DeMerritt
FJ.....Frances Johnson	TT.....Thu Tran
HS.....Herb Stern	WB.....Warren Buckner
JB.....Joey Betzler	
JC.....Joe Clements	

RIBBON WINNERS

1A: *Uebelmannia pseudopectinifera*(DL), *U. pectinifera*(SB),
U. pectinifera(JQ)
 1B: _____, _____, _____
 2A: _____, _____, *Parodia chrysacanthion*(DL)
 2B: *Parodia herzogii*(JQ), *P. aureispina*(MB), *P.*
penicillata(SB)
 3A: *Notocactus roseoluteus*(AC), *N. schlosseri*(AC), *N.*
apricus(MH)
 3B: *Notocactus neobuenekeri*(CA), *N. scopa v. murielli*(CF),
N. uebelmannianus(CA)
 4A: *Gymnocalycium sp.*(MH), *G. pungens*(DL), *Discocactus*
mammulosus(BK)
 4B: *Gymnocalycium cardensianum*(JC), *Discocactus*
pugionacanthas(DL), *G. damsii v. nova* "Mr.
 Prolific"(SF)
 5A: *Rebutia krainziana*(BM), *Rebutia heliosa x*
albiflora(SB), *Sulcorebutia rauschii*(JC)
 5B: *Rebutia perplexa*(SB), *Sulcorebutia arenacea*(PF), *S.*
menesesii kamensis(JC)
 6A: *Soehrensia uebelmanniana*(CA), *Echinopsis sp.*(MH), _____
 6B: *Weingartia pulquinensis*(DL), *Lobivia versicolor*(JC), *L.*
sylvestrii(DL)
 7A: _____, *Melocactus matanzanus*(JQ), *M. glacesens*(BM) & *M.*
coccineus(JC)
 7B: *Melocactus disciformis*(SB) & *M. glaucescens*(JQ)
 8A: *Copiapoa lauii*(JC), _____, _____
 8B: _____, *Copiapoa columna-alba*(JW), *C. hypogaea*(CD)
 9A: *Neoporteria gerocephala*(BK), *N. nidus v. senilis*(SB),
N. senilis(MH)
 9B: *Neoporteria wagenknechtii*(BK), *Pyrrhocactus curvispinus*
v. petorcensis(BK) & *N. napina*(BK), *Horridocactus*
marksianus(BK) & *Neochilenia nigriscoparia*(JC)
 10A: _____, _____, _____
 10B: *Matucana weberbaueri*(JC), *Oroya peruviana*(CP), *O.*
peruviana(SB)
 11A: *Thrixanthocereus senilis*(CA), _____, *Cleistocactus*
strausii(SB)
 11B: *Oreocereus celsianus*(FG), *O. celsianus*(RP), *O.*
trollii(CP)
 12A: _____, *Pilosocereus pentedrophorus*(BM),
Pseudopilosocereus superfloccosus(CA)
 12B: *Stetsonia coryne*(CD), *Weberauerocereus alba*(CD),
cephalocereus palmeri(MB)
 13A: *Echinocereus pectinatus v. rubrispinus*(PH) & *E.*
nivosus(JC), *E. pectinatus v. rubrispinus*(CP), *E.*
weinbergii(SB)
 13B: _____, _____, _____
 14A: *Turbincarpus schmiedickeanus v. schwarzii*(BK), _____,
Thelocactus schwarzii(DL)
 14B: _____, *Hamatocactus hamatocantha*(CA), _____
 15A: *Escobaria sneedii*(JC) & *Coryphantha elephantidens*(SB),
E. leei sneedii(EKN), *E. leei monstrose*(RL)
 15B: _____, _____, _____
 16A: *Mammillaria huitzilopochtli*(KQ), *M. nejapensis*(MB), *M.*
nejapensis(CP)
 16B: *Mammillaria celsiana*(MH), *M. formosa*(BG), *M. sp.*(SB)

- 17A: *Mammillaria geminispina* (MB), _____, *M. duwei* (JC) & *M. dehortiana* (DL) & *M. plumosa* (EKN)
- 17B: *Mammillaria plumosa* (JC), *M. magnifica* v. *magnifica* (SB) & *M. pilcayensis* (SB), *M. humboldtii* (BK) & *M. rekoii leptacantha* (JC)
- 18A: *Cochemia pondii* (DL), _____, _____
- 18B: *Cochemia setispina* (DL), _____, _____
- 19A: *Epithelantha micromeris* v. *polycephala* (EKN), *Aztekium ritteri* (BK), *E. micromeris* v. *unguispina* (EKN)
- 19B: *Ariocarpus retusus* (JC), *A. trigonus* (BK), *A. lloydii* (BK)
- 20A: _____, *Astrophytum asterias* (MB), *A. myriostigma* (MH)
- 20B: *Astrophytum ornatum* x *myriostigma* (SB), *A. ornatum* (DC), *A. capricornae* (FG)
- 21A: *Ferocactus chrysacanthus* (BK), *F. diguetii* (var.) (CA) & *Glandulicactus uncinatus* (CA), *F. schwartzii* (DL)
- 21B: *Ferocactus chrysacanthus* (JC) & *F. peninsularis* (RP), *F. longispinus* (RP) & *F. horridus* (CA), *F. gracilis* v. *coloratus* (BK)
- 22A: _____, *Echinofossulocactus hastatus* (DL), *E. multicostatus* (CP)
- 22B: *Echinocactus grusonii* (RP), *E. ingens* (DL), *Stenocactus longispina* (DL)
- 23A: _____, *Rhipsalis easter-cactus-rosea* pink (JW), *R. pentaptera* (WB)
- 23B: *Rhipsalis clavata* (WB), _____, *R. horrida* (JW) & *R. cassytha* (WB) & *R. pilocarpa* (DR)
- 24A: *Tephrocactus* sp. (FJ), *Opuntia microdasys* 'desert gem' (SB), *Pterocactus tuberosus* (DC)
- 24B: *Opuntia chaffeyi* (DL), *O. microdasys rufida* (EM), *O. pachypus* (JW)
- 25A: *Opuntia* sp. crest (SB), *Mammillaria perbella monstrose* (SB), *Mammillaria duwei* crest (DL)
- 25B: *Mammillaria elongata* v. 'Cristate' (BK), *Astrophytum myriostigma monstrosa* (SB), _____
- 26A: *Astrophytum capricorne varigata* (BK), *Gymnocalycium saglione varigata* (AW), _____
- 26B: _____, _____, *Opuntia vulgaris* 'Joseph's Coat' (RL)
- 27A: _____, *Alluaudia montagnacii* (MB), *A. ascendens* (JW)
- 27B: *Didierea trolli* (MB), *D. madagascariensis* (AC), _____
- 28A: *Lithops gracilidelineata* v. *waldroniae* (CA), *Aloinopsis schooneesii* (MJB), *Conophytum minimum* (CA)
- 28B: *Fenestraria rhopalophylla* (DC), _____, _____
- 29A: _____, _____, _____
- 29B: *Mestoklema tuberosa* (MJB), *M. arboriforme* (CD), *M. tuberosa* (EdM)
- 30A: *Mitrophyllum grande* (JB), *Nananthes transvaalensis* (JC), *Stomatium agninum* (MH)
- 30B: *Faucaria tigrina* (SF), *Hereroa* sp. (SF), *Mesembryanthemum crystallinum* (BM)
- 31A: *Portulacaria pygmaea* (AW), *Anacampseros alstonii* (MB) & *A. marlothii* (DC), *Ceraria pygmaea* (MB)
- 32A: _____, _____, *Kalanchoe* sp. (MP)
- 32B: *Kalanchoe* 'Fang' (JW), *K. thrysiflora* (RL), _____
- 33A: *Tylocodon buchholziana* (SB), *Adromischus herrei* (JB) & *T. luteosquamata* (SB), *A. leucophyllus* (SB) & *A. cristatus* (MB)
- 33B: *Tylocodon reticulata* (MB), _____, _____
- 34A: *Crassula pubescens* (EKN), *C. ausiensis* v. *giessii* (MB), *C. 'Tom Thumb' variegata* (MH)
- 34B: *Crassula arborescens* (MJB), *C. carymbulosa* (JWd), *C. obliqua* (JQ)
- 35A: *Aeonium smithii* (AW), *Monanthes polyphylla* (RL), *A. decoreum* (MH)
- 35B: *Sempervivum arachnoideum* (MH), *Aeonium tableforma* (RSP), *A. rubrotinatum* (DL) & *S. calcareum* (SB)
- 36A: *Sedum dasyphyllum* (MH), *S. treleasi* (MH), _____
- 36B: *Sedum aurfuraceum* (JWd), _____, _____
- 37A: *Tacitus bellus* (BK), *Graptopetalum petandrum* ssp. *superbum* (MH), *Pachyveria* cv. 'ivory' (MH)
- 37B: *Tacitus bellus* (DC), *Pachyphytum fittkaii* (MH), *Graptopetalum amystestinum* (JWd)
- 38A: *Echeveria minima* (SB), *E. lola* (MH), *E. purposum* (BM)
- 38B: *Echeveria colorata* (PF), *E. 'Alta May'* (MH) & *E. 'Afterglow'* (MH), *E. setosa* (SB) & *E. laui* (RLM)
- 39A: *Dudleya greenii* 'White Sprite' (DL), _____, *D. pachyphytum* (SB)
- 39B: *Dudleya brittonii* (SB), *D. pulverulenta* (EM), _____
- 40A: *Euphorbia loricata* (JC), *E. milii* v. *bosseri* (DC), *E. didierioides* (MB)
- 40B: *Euphorbia duranii* (RLM), *E. didierioides* (RLM), *E. didierioides hybrid* (JW)
- 41A: *Euphorbia francoisii* (MSC), *E. sepulta* (BK), *E. millottii* (AC)
- 41B: *Euphorbia aphylla* (MJB), *E. obesa* (MSC), *E. caput medusa* (JP)
- 42A: *Euphorbia bupleurifolia* (MH), *E. cylindrifolia* ssp. *tuberifera* (MB), *E. misera* (SB) & *E. cylindrifolia* ssp. *tuberifera* (JC)
- 42B: *Euphorbia stellata* (JC), *E. cylindrifolia* ssp. *tuberifera* (MSC) & *E. bupleurifolia* (DL), _____
- 43A: *Jatropha cuneata* (RL), *Monadenium ritchiei* (CP), *M. ritchiei* (JQ)
- 43B: *Jatropha cinera* (MJB), *J. cinerascens* (JC), *Monadenium invenustum* v. *invenustum* (MB)
- 44A: *Senecio fulgens* (MH), *Othonna retrorsa* (EKN), _____
- 44B: *Senecio fulgens* (SF), _____, _____
- 45A: *Pelargonium alternans* (MB), *Sarcocaulon* sp. (JC), _____
- 45B: *Sarcocaulon vanderietiae* (RLM), *S. vanderietiae* (RLM) *S. vanderietiae* (MB), _____
- 46A: *Pseudolithos migiurtinus* (BK), *Lavrania haagheral* (JB), *Echidnopsis ceriformis* (JB)
- 46B: *Caralluma socotrana* (BK) & *Stapeliopsis neronis* (BK), *Tavaresia grandiflora* (DC) & *Hoodia gordonii* (BK), *Stapelia glanduliflora* (JC)
- 47A: _____, *Ceropegia rendalii* (PH), _____
- 47B: _____, *Ceropegia fusea* (JQ), _____
- 48A: *Brachystelma barbarea* (AW), *Raphionacme zeherii* (MSC), *Fockea edulis* (CP)
- 48B: *Fockea edulis* (MJB), *Raphionacme flanaganii* (MJB), *Fockea edulis* (JW)
- 49A: *Pachypodium baronii windsorii* (MSC), *P. decaryi* (MSC), *P. rosulatum* v. *rosulatum* (BM)
- 49B: *Pachypodium leali* ssp. *saundersii* (EdM) & *Adenium obesum* (DC), *P. bispinosum* (EdM), *P. horombense* (JC)
- 50A: *Dorstenia crispa* f. *lanafolia* (JB), _____, _____

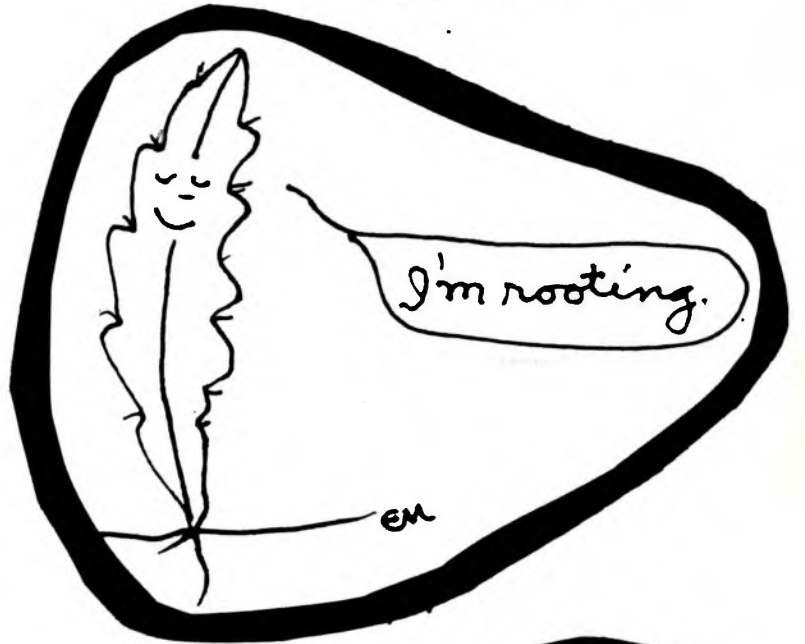
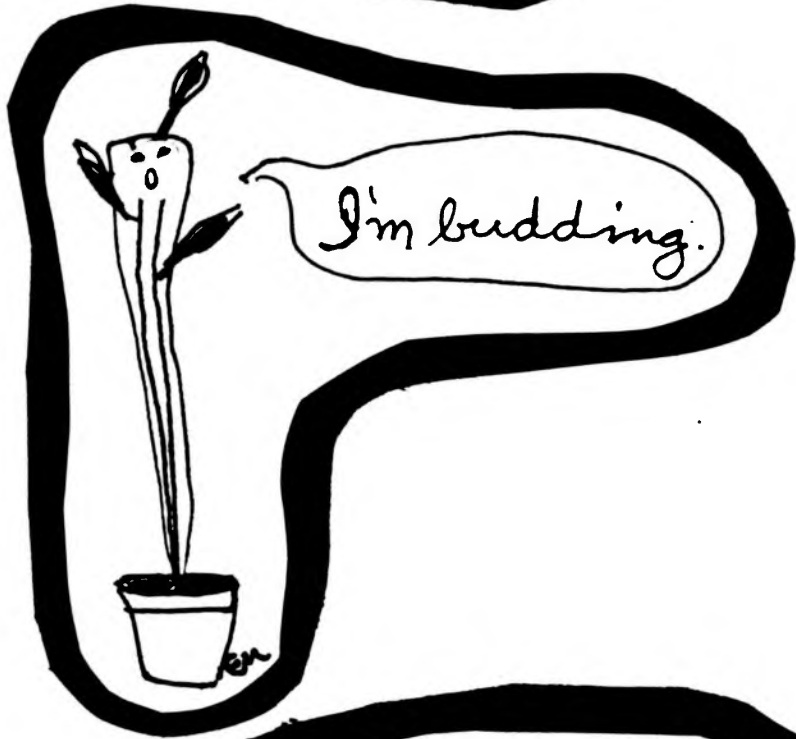
- 50B: *Ficus socatrana*(MJB), *F. petiolaris*(MJB), *F. palmeri*(AW)
- 51A: _____, *Fouquieria macdougallii*(WB), _____
- 51B: *Fouquieria purpusii*(RLm), _____, *F. splendens*(DC)
- 52A: *Kedrostis africana*(CP), _____, _____
- 52B: *Adenia glauca*(MSC), *Kedrostis africana*(MH), _____
- 53A: *Bursera fagaroides*(DC), *B. microphylla*(EKN), _____
- 53B: *Pachycormus discolor*(MJB), *Bursera fagaroides*(RLm), *B. fagaroides*(WB)
- 54A: *Sinningia leucotricha*(DC), *Ipomoea platensis*(MH), _____
- 54B: *Ipomoea blæckie*(MB), *Dioscorea elephantipes*(MH), _____
- 55A: *Aloe erinaceae*(SB), *A. haworthioides*(DL), *A. descoingsii* x *A. haworthioides*(JQ)
- 55B: *Aloe dorotheae*(RL), *A. dinteri*(DL), *A. ramosissima*(WB)
- 56A: *Gasteria* sp.(MH), *G. butesiana*(AC), *G. brevifolia*(JQ)
- 56B: *Gasteria rawlinsonii*(JB), *G. batesiana*(DR), *G. liliputana*(DL)
- 57A: _____, *Haworthia limifolia*(EM), *H. tessellata*(MH)
- 57B: *Haworthia magnifica* v. *white sloaniana*(DL), *H. pumila*(AC), *H. hybrid*(BG)
- 58A: *Sanseveria* 'Lillian Tue'(EL), *S. dooneri*(EdM), *S. singularis*(PH)
- 58B: *Sanseveria deserti*(EdM) & *S. mason-congo*(JQ), *S. patens*(EdM) & *S. patens*(EdM), *S. suffruticosa*(EdM) & *S. patens*(EdM)
- 59A: *Agave striata* 'Nana'(KQ), *A. filifera compacta*(JC), *A. pumila*(DL)
- 59B: *Agave macroacantha*(CA), *A. polyanthiflora*(JQ) & *A. schidigera* x *A. filifera*(CA), *A. sp.*(DR) & *A. utahensis nevadensis*(JC)
- 60A: _____, _____, _____
- 60B: *Calibanus hookeri*(WB), *Beucarnea recurvata*(JW), *Dracaena ombet*(AC)
- 61A: *Dyckia silverado*(JW), *Aechmea mcvaughnii*(CD), *Hechtia marnier-lapostolei*(CD)
- 61B: *Dyckia fosteriana*(CD), *Orthophytum* sp. nov. Pch8396(JQ), *Tillandsia xerographica*(KQ)
- 62A: *Uncarina madagascarensis*(JC), _____, _____
- 62B: _____, _____, _____
- 63A: *Euphorbia obesa* crest(BK), _____, _____
- 63B: *Euphorbia flanaganii* crest(JWd) & *Pachypodium lamerei* crest monstrose(EdM), *Euphorbia ingens* crest(RP) & *Pachypodium lamerei* crest monstrose(EdM), *Euphorbia mammillaris* crest(DC) & *Echeveria* sp. crest(RP)
- 64A: *Cotyledon ladismithensis* var.(MH), *Anacampseros rufescens* var.(BM), _____
- 64B: *Aloe brevifolia* var.(CA), *Haworthia cymbiformis* var.(CD), *Haworthia margartifera* var.(DL)
- 65: _____, _____, *Opuntia*(BM)
- 66: *Sempervivum*(SB), *Tillandsia*(DR), *Agave*(DR)
- 67: Arrangement(AK), Miniatures(EM), _____
- 68A: _____, _____, (RL)
- 68B: (RLm), (AC), (MH)
- 69: (RLm), (TT), (AW)

THANK YOU

I would like to thank everyone who contributed to making this show such a success. First I would like to thank all those who took the time and effort to exhibit plants in our show; without you there would be no show. I would also like to thank the many members who worked behind the scenes to make the show go so smoothly. The people who helped with the artwork for the program, the show photography, the judging and clerking, the judges' lunch, the publicity, the plant sale, and the plant sitting (and anyone else I forgot) are the ones who make putting on a show so much fun. I would especially like to thank those who stayed behind when it was all over and helped me clean up. Finally, I would like to thank Rick Latimer for trying to teach me all the things I needed to do. Rick, I forgot a few but I'll do better in 1992.

Chuck Adams, Show Chairman





FEROCACTI OF BAJA CALIFORNIA

Joe Clements

Ferocacti are columnar to globose cacti that bear ribs that coalesce into tubercles. Spines are variable from subulate to flattened and can be straight to hooked. Spine color may vary from white, yellow or red. In general spines are very impressive with their stiffness and size (to 12"). Flowers are funnel-form to bell shaped colored red, purple, orange, or yellow depending upon the species. Fruits are one celled berries with fleshy walls usually opening at a basal pore to expose black shiny seeds.

Follow along now as we take a Ferocactus tour of Baja California along Highway # 1.

Along the hillsides and mesas from San Diego Co. to near Colnet we see the flat globose *Ferocactus viridescens*, easily recognized with its yellow-green flowers and yellow fruits.

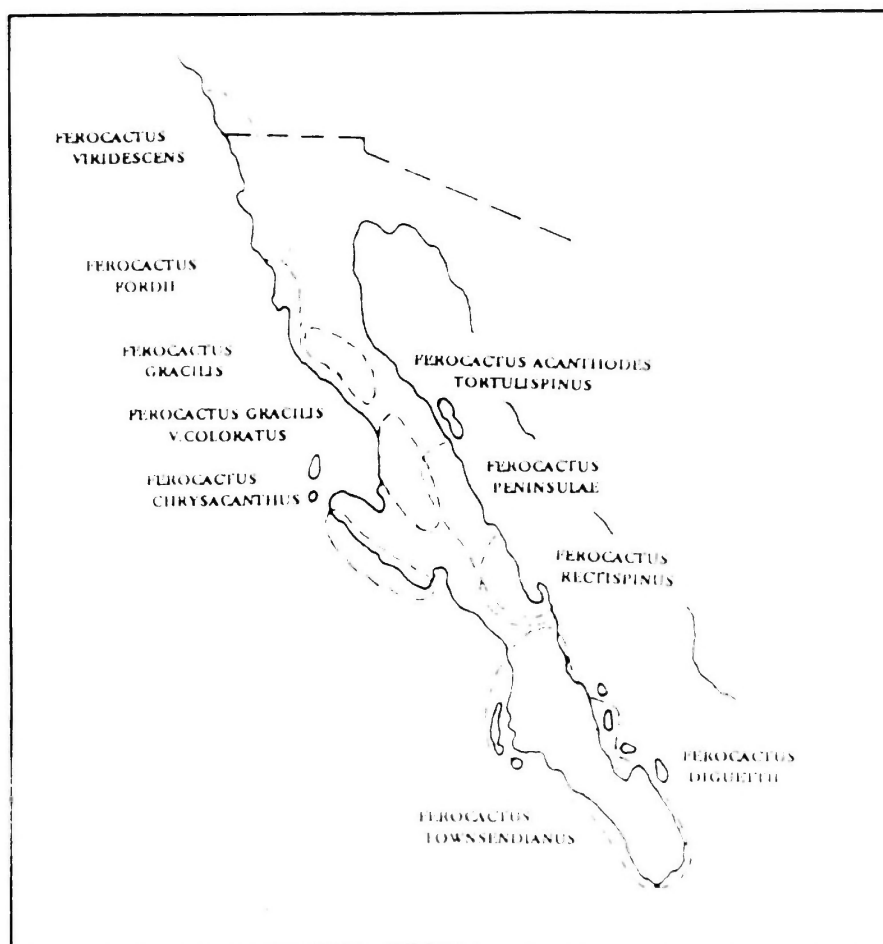
Below San Quintin near the small town of El Socorro there's a change in biotic community. We are at the northern edge of the Viscaïno Desert. Near here we find *Ferocactus fordii* similar to *F. viridescens* but with purplish flowers, flatter spines and growing very flat to the ground. *Ferocactus fordii* is a coastal species and has a range that extends to Punta Eugenia.

At El Rosario Highway 1 turns eastward toward the mountains, and it is within these mountains we get our first glimpse of the Boojum Trees (*Fouquieria columnaris*). Hey here's

a Fero growing here. It's *Ferocactus gracilis* with bright red spines and red flowers. Many spots along this part of the highway are just like gardens with *Pachycereus*, *Myrtillocactus*, *Fouquieria*, *Opuntias* and *Ferocactus gracilis* all growing together. As we proceed southward we reach Catavina where Elephant Trees, Boojums, *Ferocactus* cover spheroidally eroded rocks. Here's a nice place to camp near the Blue Palms (*Brabea armata*).

Like Willie Nelson we've got to be "on the road again". In less than 20 miles near Jaraguay Grade another biotic change occurs. *Ferocactus acanthodes v. tortulispinus* (yellow flowers & long tortulose spines) represents a part of the Colorado River Valley Biome that sweeps down the eastern flank of the Sierra San Pedro Martir to contact Highway 1 at this spot. Botanists feel that along the margins of different biotic zones one can find some different and strange plants. The Ferocacti of Calamajue Canyon and *Echinocereus lindsayi* are two examples found in this area.

As we near Punta Prieta we notice a most dramatic vegetation change. With the exception of *Fouquieria splendens* all the dominant plants are fleshy leaved (*Yucca valida*, *Agave cerulata*), fleshy stemmed (*Pachycormis*, *Fouquieria columnaris*), or succulent (*Pachycereus pringlei*, *Stenocereus gummosus*, *Ferocactus gracilis v. coloratus*). *Ferocactus gracilis v. coloratus* is similar to its cousin but has wider and shorter spines. It grades into *Ferocactus peninsulae* toward the Viscaïno Desert on the south and eastward to the mountains.



At Guerrero Negro we hook a round-trip flight(DC-3 \$27.00) to Isla Cedros. It's here we want to see *Ferocactus brysanthus* with its beautiful gold curved spines.

Returning to Guerrero Negro the highway heads eastward toward San Ignacio and an interesting side trip to the Cave Paintings. Along this bad dirt road into the Sierra San Franciscos we see more *Ferocactus peninsulae* but there's *Ferocactus rectispinus*, with its 12" spines, growing sympatrically together. *Ferocactus rectispinus* has red or yellow stout spines and a range that extends to Conception Bay.

Near Conception Bay these populations of Ferocacti become confused and all sorts of intermediates occur between *F. peninsulae*, *F. rectispinus* and *Ferocactus townsendianus*.

Ferocactus townsendianus appears to replace *F. peninsulae* in the South of Baja and the distinction between them is primarily of size, especially in respect of the stems, fruit and spines. In the south-west of the Cape Region, at the southern tip of Baja *F. townsendianus* shows considerable variability, particularly with spination and seed size.

One last side-trip, Mount your Pongas!, at La Ventana for a boat ride to Isla Cerralvo. Here we'll see *Mammillaria cerralvoa*, huge specimen *Ibervilleas* and massive *Ferocactus diguetii*(up to 12').

From here you're on your own.

Benson, Lyman. 1982. *The Cacti of the United States and Canada*, Stanford University Press.

Gates, Howard. 1957. *Distribution of the Cacti of Baja California*, *Cactaceas Y Succulentas Mexicanas*, p.69-77.

Taylor, Nigel. 1984. *A Review of Ferocactus Britton & Rose*, *Bradleya*. p.19-38.

Wiggins, Ira. 1980. *Flora of Baja California*, Stanford University Press. p596-598.

CACTUS-OF-THE-MONTH

THE GENUS FEROCACTUS

Dorothy Dunn

The genus Ferocactus was established in 1922 by Britton and Rose when they subdivided the huge and diverse Echinocactus genus, and at that time consisted of 31 species. Borg lists 34, and Lindsay, in his dissertation "The Taxonomy and Ecology of the Genus Ferocactus", discusses about 35 species and varieties, including two imperfectly-known species. Other genera now included under Echinocactinae range from the tiny Fraileas, through such dissimilar forms as Leuchtenbergia, Aztekium, Astrophytum, Ariocarpus, and Gymnocalycium, on up to the very large Echinocacti and Ferocacti. Also included are the beautiful South American genera of Notocactus and Parodia, as well as several others.

Ferocacti are commonly called "barrel cacti" or "visnagas", and the name Ferocactus means, literally, "Fierce" or "Ferocious Cactus". They are characterized by globular or cylindrical stems and thick prominent ribs. These ribs are an intrinsic mark of all Ferocacti; they allow for rapid expansion of the plant body, which permits a maximum intake of water when moisture is available. A system of shallow radiating lateral roots is the principal means of this moisture absorption, while a few short vertical tap roots apparently serve only to anchor the plants.

The spines of Ferocacti are very strong and stiff, with the central one generally being hooked. According to Lindsay "In a number of cactus genera, particularly Ferocactus, certain spines are modified for the production of a sweet secretion, and serve as extra-floral nectaries. These "gland-spines" appear during the blossoming period of the plant and attract large numbers of ants and insects. While these insects sometimes damage the plant, they also act as significant pollinating agents." The larger spines show a definite striation, with each tiny line indicating one days' growth.

Ferocactus flowers may be red, purple, white, yellow, or greenish-yellow (as in F. viridescens) and may vary within individual species, although F. gracilis always has red flowers and F. acanthodes var. tortulospinus always has yellow flowers. The flowers are produced by the younger areoles near the top of the plant and are apparently self-sterile.

Ferocacti are native to Mexico (including Baja California), Texas, Arizona, and California. They usually grow on rocky, well-drained slopes, and all species are relatively tolerant of basic soils. Their habitats are characterized by low and erratic rainfall, low humidity, high temperatures which fluctuate daily as well as seasonally, and strong winds. They are not in direct competition with plants which share their environment because their shallow root systems are devised to take up soil moisture rapidly when it is most plentiful; this they store in their expansible, highly succulent stems. Specimens have been known to survive without

water for as long as six years. Their geographical range is quite extensive. Lindsay says "The principal limiting factor for the southern distribution of Ferocacti is too much moisture. Most species grow where the annual rainfall is between 3 and 20 inches. When there is over 20 inches of rainfall, the specialized succulent storage system is unnecessary for water retention, and becomes a liability because of susceptibility to decay in a moist environment. Low temperatures prevent the northward migration of the genus. Barrel cacti can withstand 14° to 20° F. temperatures for short periods, but prolonged exposure to temperatures under 28° will cause their destruction. Plants turgid with water will damage more easily than flaccid, dessicated ones." This should provide a clue to their requirements under cultivation in our gardens.

All Ferocacti are easily grown from seed and this is the usual means of propagation as most species generally do not offset unless damaged. Seedling plants are very attractive and are well worth growing for their rugged forms and spinations alone, as most Ferocacti must attain some age and size before blooming (with the exception of F. fordii and F. viridescens).

The principal pests affecting Ferocacti are scale, and borers in F. fordii var. fordii. In the wild, ground squirrels often eat the flowers, and later cut off the top of the fruit in order to collect the seeds. However, man is really the most serious enemy. Since a mature Ferocactus is at least 50 years old, over-collecting by commercial dealers and the practice of some ranchers of uprooting and feeding barrel cacti to their livestock poses an increasingly deadly threat to the survival of these magnificent plants.

THE "BAJA BARRELS"

No article on Ferocacti would be complete without some mention of the often spectacular species which inhabit the peninsula of Baja California and its adjacent islands. One of these is F. gracilis, an exceptionally attractive red-spined "barrel" with red flowers and yellow fruit, which occurs from about the El Rosario area southwards to below Punta Prieta, where it intergrades with and is replaced by its variety coloratus and F. peninsulae var. vizcainensis in the northern Vizcaino Desert. F. gracilis was so named by Howard Gates because of its tall slender form; it is usually less than one foot in diameter, but may occasionally reach a height of nine feet. It grows in particularly arid sections from silt flats near the beach to rocky slopes. F. peninsulae, another very handsome barrel, and its variety vizcainensis occur further south in central Baja, from Bahía de los Angeles and the Sierra San Borja to the Cape region. F. acanthodes var. tortulospinus occurs in the Laguna Chapala Seca area and along the Jaraguay Grade, and has a very limited distribution; scattered specimens have also been found in the Calamajúe Canyon area. This barrel is impossible to mistake because of its very long (up to seven inches) and strangely-twisted lower central spine, to which the specific name refers. The plant body is always simple. The flowers and fruit are indistinguishable from F. acanthodes. F. acanthodes var. rostii is found much further north in the San Matías Pass area, along the road which connects Ensenada with San Felipe on the east coast. Superficially it resembles

the "Golden Barrel" (Echinocactus grusonii), but the body is a peculiar dull green shade and the spines are dull gold.

Another unmistakable - and very rare - barrel is F. rectispinus, which occurs at sea level along Conception Bay but may be found as high as 4,000 - 5,000 feet. The flowers are a brilliant clear yellow, and the extremely long central spines sometimes reach a length of 10 or 11 inches. This plant is now practically extinct in habitat. It apparently intergrades with F. peninsulae in the area where the two populations merge. F. fordii var. fordii grows in the coastal area of western Baja, particularly around El Rosario. It grows in coastal chapparal in association with Euphorbia misera, Echinocereus maritimus, Bergerocactus emoryi, and several species of Dudleya. Although it is one of the less attractive Ferocacti, it does have several unique features: the flowers are rose-purple to orchid as opposed to the usual red to yellow shades of Ferocacti blossoms, the plants bloom when very small, and they are subject to attack by borers, which is unusual in the genus Ferocactus. F. chrysacanthus is another very beautiful and very rare barrel, occurring only on Cedros Island, some 75 miles off the west coast of Baja and northwest of Scammon's Lagoon, where it can grow near the beach in loose sand or among rocks in arroyo bottoms and sides of canyons. It also grows on higher slopes of the island. The plant body is covered with a mass of yellow or red twisted spines, and the spine color can range from almost white to dull gold to bright yellow to red, with the bright yellow coloration being the most desirable.

Other noteworthy Baja Ferocacti include Ferocactus gatesii, known only from islands and islets at the mouth of Bahía de los Angeles (Smith Island group), where it grows on barren granite rocks in an area of extremely limited rainfall. It has large red flowers and enormous elongated fruit. Another rarity, F. johnstonianus, occurs only on Angel de la Guarda Island in the Gulf of California, where it grows among rocks. It has brilliant yellow spines which lose much of their bright coloration when removed to a damper climate. F. diguetii, the largest of the barrel cacti, is known only from a few islands in the Gulf of California, whereas F. townsendianus is quite a small plant which occurs farther south toward the Cape Region. As a group, these varied and striking "Baja Barrels" comprise a fascinating field of study in themselves.

Literature cited:

- Borg, J. Cacti
Lindsay, G. The Taxonomy and Ecology of the Genus Ferocactus

PTERODISCUS AND SESAMOTHAMNUS - THE SUCCULENTS OF THE MONTH

by Joey Betzler

The Pedaliaceae has two succulent genera, Pterodiscus and Sesamothamnus. The family is not often represented in succulent collections. Although few members are succulent most people are familiar with sesame seeds, sesame family is the alternate name for this group. This group is characterized by winged seed capsules that are very difficult to break open.

All the succulent, or more accurately, caudiciform members are from southern and tropical Africa. Pterodiscus (winged disk - referring to seed capsule) has about ten species. The members are rather small herbacious perennial that have underground turnip shaped tubers. The tender stem and green incised leaves are usually deciduous in the winter. The tubers can be raised and make handsome additions to succulent collections. Two species are more common in collections; P. speciosus and P. aurantiacus. Both have trumpet shaped flowers up to about three inches in diameter.

Sesamothamnus (literally - sesame shrub) has about five members in the genus. Although only one is commonly available, S. lugardii. These plants make excellent bonsai subjects and form quite thick above ground stems. In nature plants form small shrubs with trunks up to three feet in diameter are possible. These plants have very thin leaves borne on spine covered stems. The leaves fall in the winter and return in the spring or early summer.

Bibliography-

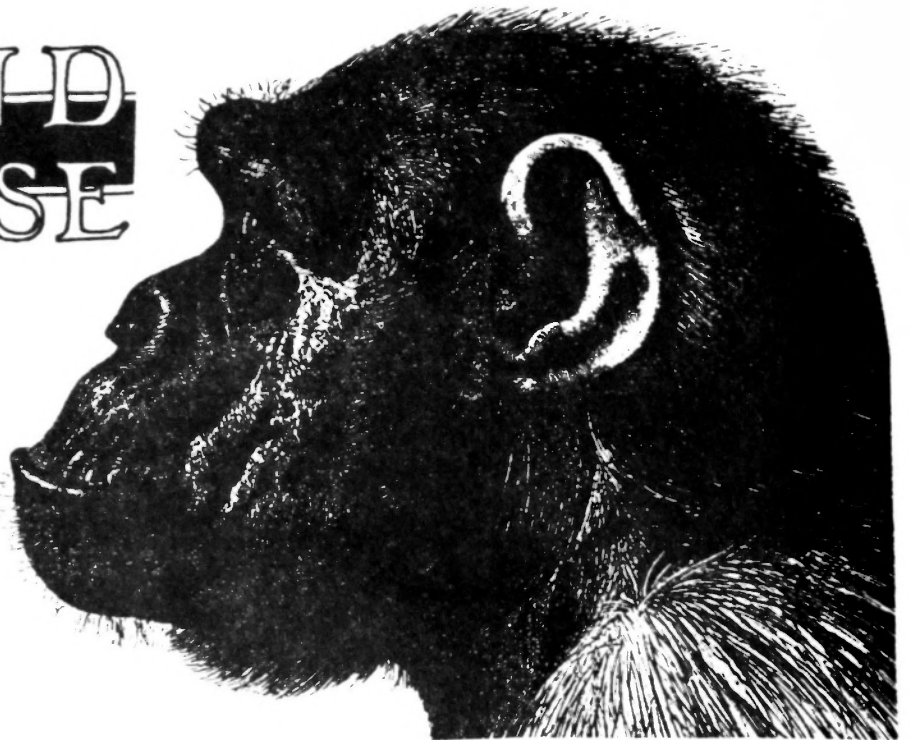
Rowley, G. 1978. The Illustrated Encyclopedia of Succulents.

CSSA Journal 1974:262, 1977:89, 1978:92 and 1987:75

PLEASE BRING IN YOUR PLANTS - - - - - I´VE ONLY GOT ONE, THANKS

WISE AND OTHERWISE

Michael Buckner



"PORTRAYED AMONG THE ANCIENT STONE CARVINGS OF MEXICO, WOVEN THROUGH THE LEGENDS OF THAT LAND, AND CENTRAL IN THE SEAL OF THE NATION ITSELF IS THE STRANGE THICK STEM OR THE SPINY JOINTED BUSH OF THE CACTUS. THESE PLANTS MUST HAVE BEEN PRESENT FOR THE PEOPLE OF THAT LAND, INTERESTING TO THEM AND OF SOME SIGNIFICANCE TO THEIR

LIVES AS FAR BACK AS WE CAN KNOW. HOW STRANGE TO REALIZE THEN THAT THIS FANTASTIC GROUP OF PLANTS HAD NEVER BEEN SEEN BY ANYONE IN THE SO-CALLED CIVILIZED WORLD UNTIL AFTER COLUMBUS DISCOVERED AMERICA. YET THIS MUST BE TRUE; FOR, EXCEPT FOR TWO OR THREE SMALL, INCONSPICUOUS, AND VERY UNCAC-TUS-LIKE SPECIES FOUND IN PLACES EVEN MORE UNKNOWN TO EARLY TRAVELERS IN THE JUNGLES OF MADAGASCAR AND CEYLON, THE CACTI GROW NATURALLY ONLY IN THE WESTERN HEMISPHERE. THEY ARE AS AMERICAN AS CORN, TOMATOES, TOBACCO OR POTATOES.

From CACTI OF THE SOUTHWEST by Del Weniger, University of Texas Press

"Disagreeing on the color of a banner hung between them, two knights fought viciously. One insisted the banner was Gold, the other that it was silver. Oddly, both were right. One side was Gold, the other Silver. Often, though convinced we are right, it pays to look again! See things from the other's point of view. One mark of the educated human is his ability to differ without becoming angry, sarcastic or disgruntled."

From THE ENCYCLOPEDIA OF JUDGING AND EXHIBITING by Esther Hamel

"BLACK DEATH" IN THE STAPELIADS, ESPECIALLY IN THE FALL AND WINTER, ONE OF THE MOST FEARED DISEASES APPEARS, "BLACK DEATH". IT IS NOT A VIRUS, BUT A FUNGUS, FOR WHICH THERE IS NO KNOWN CURE. IT IS RECOGNIZED BY A BLACK COLORATION OF THE EPIDERMIS. WHEN THESE SPOTS APPEAR IT IS ALREADY TOO LATE; THE PLANT HAS BEEN GIVEN A DEATH SENTENCE. THE FUNGUS ENTERS THROUGH THE ROOTS AND SPREADS THROUGH THE VEINS IN THE PLANT TISSUE. ESPECIALLY VULNERABLE ARE THE TOP OF THE ROOT AND THE PARTS OF THE MAIN SHOOT THAT TOUCHES THE GROUND SINCE THE FUNGUS EVIDENTLY NEEDS MOISTURE IN ORDER TO DEVELOP. PRECIOUS LITTLE IS KNOWN ABOUT ITS LIFE CYCLE.

From THE WONDERFUL WORLD OF SUCCULENTS by Werner Rauh, 1984

AFTER GOD SHOWED MAN THE UNIVERSE IN ALL ITS GLORY, MAN ASKED, "WHAT IS THE PURPOSE OF ALL THIS?"

"MUST EVERYTHING HAVE A PURPOSE?" REPLIED GOD.

"ABSOLUTELY NECESSARY!" MAN ANSWERED.

From CATS CRADLE by Kurt Vonnegut

"IN ALL THINGS OF NATURE THERE IS SOMETHING OF THE MARVELOUS."

ARISTOTLE. (384-322 B.C.)

... WISE & OTHERWISE ...

"Mexico's public transportation networks are so extensive that almost no point or area of the country is totally inaccessible to the traveler. The excitement of visiting remote villages is sometimes overshadowed by the experience of the bus ride to it. The condition of the bus and the road and the general condition of the other passengers makes each bus ride a unique adventure. There are two types of bus service: second class and first class. Second class buses vary from relatively comfortable to positively backbreaking..... some of the color has gone out of second class bus travel, but enough remains of the old feeling to overwhelm most tourists when they ride on these mobile adventures. The initial shock of being crammed into a rusty tin box with fifty other people, a variety of market goods and domestic animals, soon moderates to a feeling of warm brotherhood.

You smilingly agree to a woman's request that you hold her baby while she whips up a few tacos from ingredients extracted from a greasy piece of newspaper. When she's managed to assemble her lunch she takes the baby back and offers you a rag for the mess on your lap.

Beads of sweat are breaking out on your upper lip, but the window is frozen shut by years of rust. You take a deep breath or two and find a taco under your nose. You've been invited to eat.

You want to decline the invitation, but from thrusting motions she is making towards your mouth with the taco, you know that it would be grossly impolite to refuse. No matter, it turns out to be your favorite: steamed goat head with lots of chile pepper. The air being sucked through your tightly pursed lips sounds like ripping cloth and you attempt to cover your embarrassment at your reaction to the pepper by staring at your feet and then out the window.

Through tear-filled eyes, you gaze over a thousand foot precipice but the taco, stuck halfway down your throat, blocks your scream of fear.

The lurching of the bus is considerable, very similar to that of a boat foundering on a storm-tossed sea. The ringing in your ears almost drowns out the voice behind the hand that is holding a crude pottery mug under your nose. You look up, eyes filled with a plea for mercy, but the smiling face insists. You tip the mug back determined to do a chug-a-lug and have done with it. It is pulque, the fermented juice of the maguey plant and it is distinctly slimy. It hits your stomach like warm mustard water.

You are just about to go under when the bus lurches to a stop. Everyone piles out to see what's gone wrong and you gratefully stagger into the fresh mountain air.

A front tire has blown, the second flat of the trip, and there doesn't seem to be another spare. You wonder then about the motto painted on the front bumper, the one you and your friends laughed about before you left: "Guide me God, for I am blind."

From THE PEOPLE'S GUIDE TO MEXICO by Carl Franz, 1972



WISE & OTHERWISE 3

"THE WORLD IS SO FULL OF A NUMBER OF THINGS. I'M SURE WE SHOULD ALL BE AS HAPPY AS KINGS?" From Robert Louis Stevenson, A CHILD'S GARDEN OF VERSES.

"I am interested primarily in what Emerson called 'The Integrity of Natural Objects'. Natural places, too have integrity. They express wholeness and individuality, and it is this sense of place that is the foundation of my work.

I think of mankind as a part, but not necessarily the most important part of nature. Our activities sometimes seemed to be aimed at separating us from nature, as if that were possible. When I was beginning in photography, this tendency toward separation was manifested in an almost total preoccupation of photographers with human subjects, one form of which was a kind of apology when picturing the natural scene: the insertion of a person in the picture to give it "human interest", as though nature were incapable of standing alone. Fortunately, this is now out of fashion, and nature has better representation in the media, but we still have a distance to go. We need to understand better our dependence on the natural environment, if we are to survive our own efforts at reordering creation."

From IN DRYLANDS: THE DESERTS OF NORTH AMERICA By Philip Hyde

SCIENTIFIC INQUIRY MAKES ME LEARY!

by Michael Buckner

ME THINKS THESE BOTANICAL WONDERS
MUST BE GENETICAL BLUNDERS.
WHEN NATURE HAS GONE AWRY
MAKING FLOWERS THAT APPEAL TO THE FLY.
AND HOW DID THAT PLANT FIND ITS NICHE?
DOWN IN THAT DIRTY LITTLE DITCH.
AND IF YOU REALLY WANT A TREAT
VIEW THE STAR FLOWER, SMELL THE DEAD MEAT!
SO AS YOU ALL CAN PLAINLY SEE,
THIS IS A GREAT WONDER TO ME!



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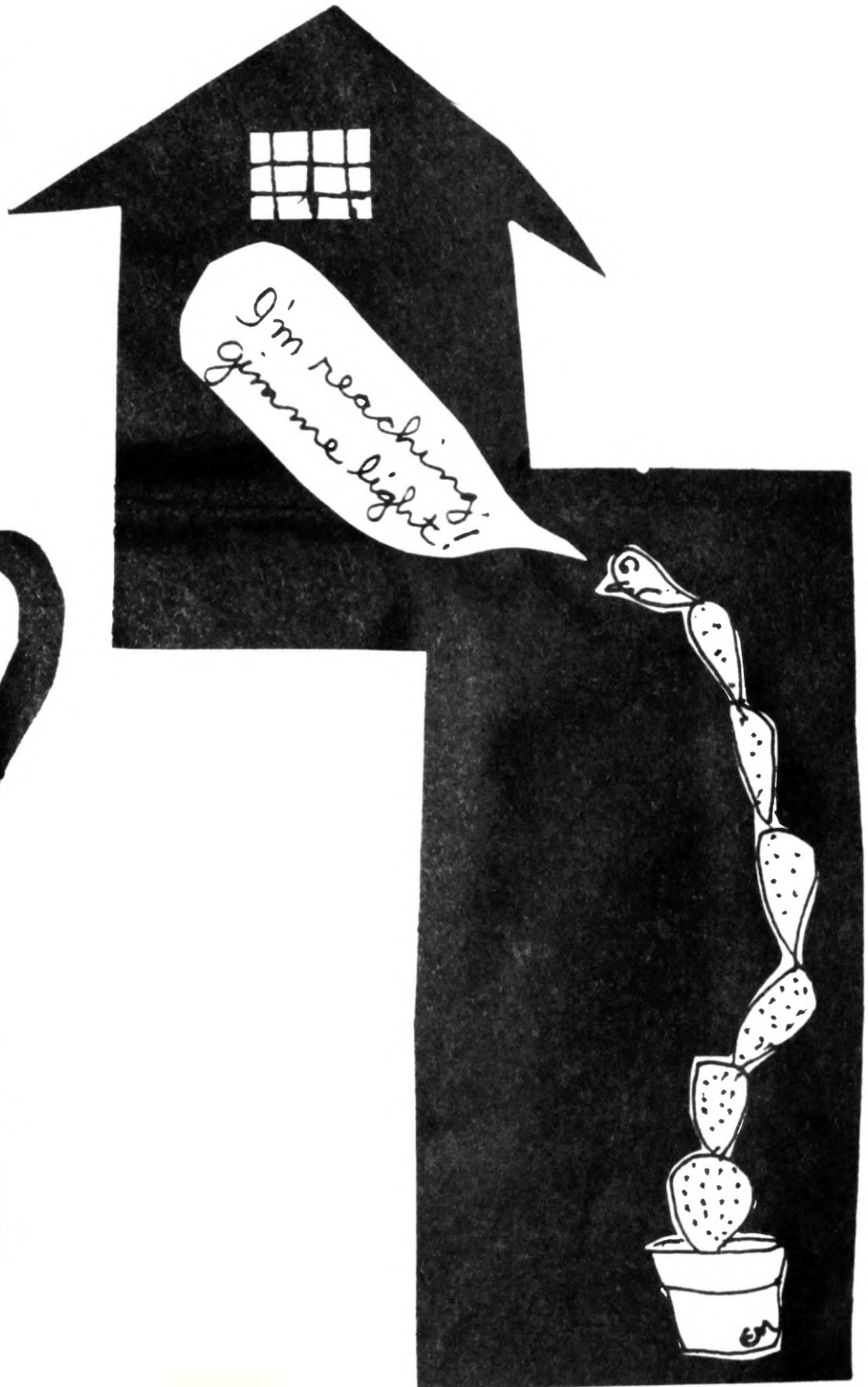
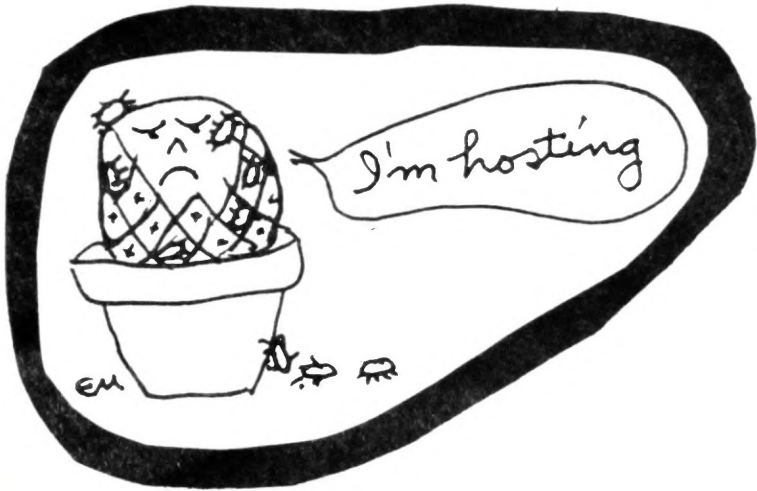
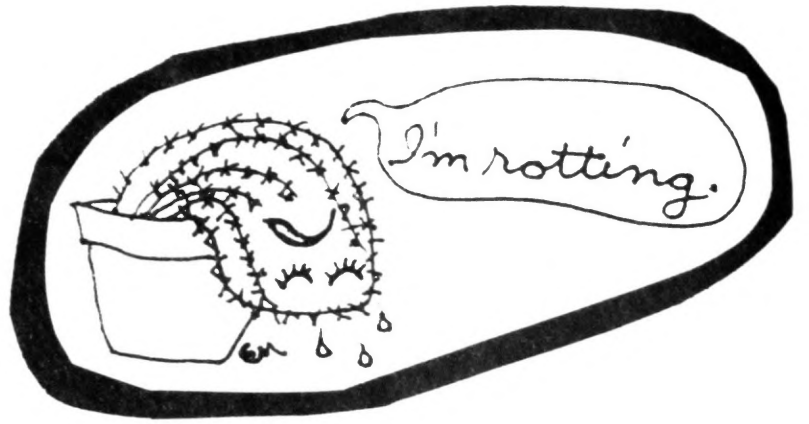
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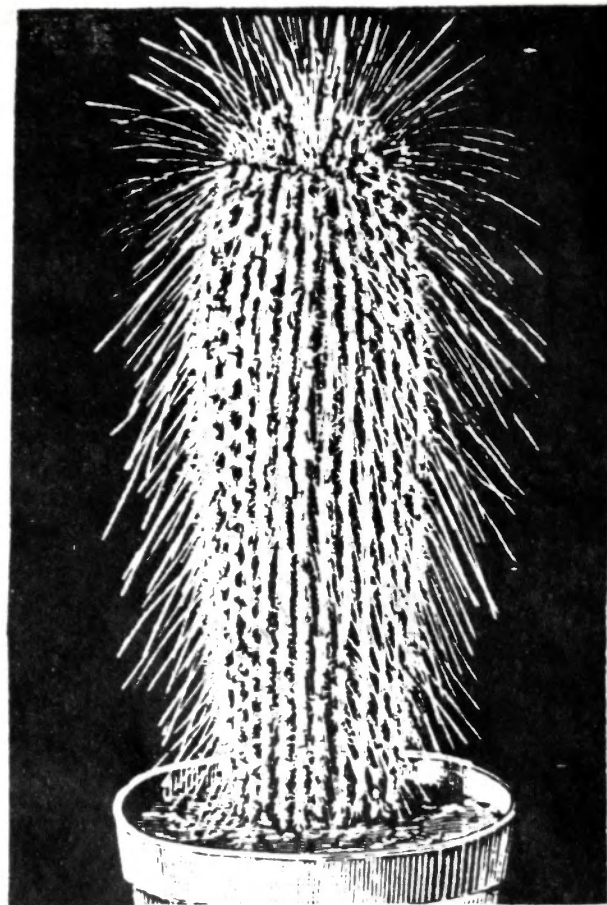
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