

Donated to the San Diego  
Cactus & Succulent Society by  
**Perlso S. Lewis** (Founding Member)

# Espinas y Flores

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

Volume XXIV, Number 5

May 13, 1989

## MAY MEETING

Saturday, May 13, 1989

1:30 P.M.

Casa Del Prado, Room 101, Balboa Park

## PROGRAM

### EPICACTI

by Rick Latimer

The topic of his slide presentation will cover the genera *Selenicereus*, *Hylocereus*, *Epiphyllum*, *Heliocereus*, *Disocactus*, *Phippsalis*, *Schlumbergera* and related genera.

Rick is a past president of our society and presently our Show Chairman, Librarian and Historian. He is, in addition, a member of IOS.

His program will enlighten those of us who know very little about the "Epicacti" as he is a superb grower of these plants.

---

## IN THIS ISSUE

Page

New books in the library. . . . .	2
Euphorbias by Dorothy Dunn. . . . .	3
Parodia by Phyllis Flechsig. . . . .	7
News. . . . .	8 and 9

---

Deadline for the June issue of E y F is MAY 27, 1989

Thanks Mary

NEW BOOKS IN THE LIBRARY

Ji Cheng, The Craft of (Chinese) Gardens  
Lynne Foster, Adventuring in the California Desert  
Carlo and Stefano Greco, Piercing the Surface X-Rays of Nature  
Warren T. Johnson & Howard H. Lyon, Insects that Feed on Trees and Shrubs  
George Seddon & Andrew Bicknell, The Complete guide to Conservatory Gardening

donated by Joan & Paul Johnson:

California Desert Conservation Manuals

various Cactus and Succulent Nursery Catalogues

donated by Sophie Loyland:

Espinas y Flores (these make up the Historian's copies)

donated by Ruby & Stan Winters:

Dr. Robert Atkinson, Vines in your Home  
Better Homes & Gardens, House Plants  
Brooklyn Botanic Gardens, Handbook on Bonsai:Special Techniques  
H. M. Butterfield, Amateur Rose Culture in California  
H. M. Butterfield, Fuchsia Culture for the Home Gardener  
Kaneji Domoto & George Kay, Bonsai and the Japanese Garden  
Charles Glass & Robert Foster, Cacti and Succulents for the Amateur  
Alfred B. Graf, Modern Foliage Plants  
Elda Haring, Begonias for Beginners!  
J. Lawrence Heinl, How to Grow and Bloom African Violets at Home  
George Hull, Bonsai for Americans  
James E. Gick, Cacti & Succulents from Mother Nature  
Tatsuo Ishimoto, The Art of Growing Miniature Trees, Plants, and Landscapes  
Eigil Kiaer, The Complete Guide to Indoor Plants  
Masakuni Kawasumi, Introductory Bonsai  
Oregon Camellia Society, Camelias:What to Do - 290 Questions and Answers  
Frances Perry, Simon and Schuster's Complete Guide to Plants and Flowers  
John W. Pilbeam, The First Fifty Haworthias  
Woodward Radcliffe, Bonsai  
Marlene Rainman, An Introduction to the Stapeliads  
Dick Raymond, Joy of Gardening  
Ortho Books, Cactus & Succulents(sic)  
Bill Seaborn, Bromeliads:Tropical Air Plants  
Ed Storms, Growing the Mesemb  
Sunset Books, Bonsai (2)  
Sunset Books, Bonsai (new ed)  
Sunset Books, Western Garden Book  
Peter Tobey, Pirating Plants  
Frank D. Venning, Cacti  
Dr. Louis Wilson & John Pike, Bromeliads for Modern Living

+ various CSSA Journals  
and C & S Nursery  
catalogues

---Rick Latimer, Librarian

2-

THE SUCCULENT EUPHORBIAS  
(Euphorbiaceae, or Spurge Family)

Dorothy Dunn

The Euphorbia family is one of the largest, most fascinating and diverse of all the families of flowering plants, distributed over the entire earth, and comprising about 250 genera and about 6,000 species of trees, shrubs, herbs, and weeds, all having an unpleasant milky sap called latex. Only those which are strikingly cactus-like and which are native to desert regions of Africa, Madagascar, India, the Canary Islands, and Mexico can be classed as truly succulent, and these 400 to 500 species are the ones which are of especial interest to us.

Euphorbias first gained recognition more than 2,500 years ago. The earliest reference to them is associated with Hippocrates, the Father of Medicine, and the few species known to the earliest botanists and physicians were of interest primarily for the purgative medicinal value of their latex. The popular name, Spurge, has been derived from this use of the plants. However, many native tribes, past and present, devised various other uses for the succulent Euphorbias, ranging from the practical to the amusing to the downright bizarre and even unmentionable!

The medicinal properties of certain species of Euphorbia have been well-known for centuries. Even today Euphorbias are still used in traditional native medicine. This seems contradictory in view of the fact that some of these same species are even better known for their exceedingly poisonous qualities; for example, E. tirucalli, one of the most poisonous, was supposedly used as a cure for gonorrhoea. It was also commonly planted on graves! - (possibly after it had contributed to the demise of their occupants?). It was also experimented with as a source of low-grade rubber during World War II, and more recently as a source of fuel. E. ingens was used by the Zulus as a purgative, and by the Sutos to treat dipsomania and cancer. Synadenium grantii, a close relative of the Euphorbias, was used by the Barotse to cure leprosy. At the other end of the scale, some Euphorbias are smoked in pipes by the Zulus in order to commit suicide.

The caustic latex, or sap, of Euphorbias is a common phenomenon in the genus, and is distributed through the plants by a series of tubes. Some species cause blistering of the mouth, diarrhea, pericarditis, and dropsy. The previously-mentioned E. tirucalli causes severe dermatitis. Its latex is extremely irritating to the eyes, and can even cause temporary blindness. The branches of this species are bruised and thrown into the water to stun and poison fish. E. virosa is known as the "venomous Euphorbia"; the poisonous latex of this plant was used by African Bushmen and Hottentots as an ingredient for their arrow poison. E. matabelensis was used as a source of bird-lime to catch small birds (as well as large crickets) which were then roasted and eaten. Some species, notably E. cooperi, E. marginata, and E. tetragona, attract hordes of bees when in flower, but the resultant honey is of no value - it is dark in color, and is extremely unpleasant to eat, being either sour, bitter, or as

hot as pepper. At one time this honey was used for treating sore throats, but since the remedy was usually more painful than the ailment this practice has long since been discontinued. E. antisiphilitica is a source of candelilla wax, which is found as a coating on the surface of the plant. The wax is obtained by immersing the stems in boiling water; the wax melts and rises to the surface. The refined wax was used (at one time) in the manufacture of phonograph records, celluloid articles, varnish, shoe-polish, floor wax, as an insulating agent in electrical equipment, and as water-proofing for tents. It is still sometimes used in the making of lipstick.

The Zulus used Euphorbias as an ingredient in their fly exterminators (unfortunately this priceless secret formula as not been preserved!), and some species were used in shampoos to "de-louse" the hair. E. ingens and E. balsamifera were commonly used as hedge material and for boundary markers.

Even non-succulent Euphorbias contain the irritating milky sap, one of the most notable being the common and obnoxious weed E. maculata ("spotted spurge"), which is widespread and practically in-eradicable throughout the southwest, and which causes severe itching, rash, and inflammation of the skin. Even insects will not touch it.

The "native" antidotes for the pain and irritation caused by Euphorbia sap are reputed to be the juices of Aeonium lindleyi and Senecio anteuphorbium.

The name Euphorbia was first applied to these plants by King Juba II of Mauritania who discovered a species (probably E. resinifera) growing on the slopes of Mt. Atlas and named it after his favorite physician Euphorbus. The word Euphorbus in Greek means "well-fed", and this probably seemed an appropriate name for these strange, thick succulents.

The succulent Euphorbias, which greatly resemble some cacti with their fierce spines and strange shapes, are actually far removed from that family, but the two have worked out water storage and heat resistance problems practically on the same principles. In the process of adaptation to drought and in almost every other way the succulent Euphorbias are to the Old World what cacti are to the New. This resemblance is one of the classic examples of parallel development in the plant world, and can be very confusing to the uninitiated. However, there are several important differences which will help in identifying the Euphorbias. First, all Euphorbias exude the milky sap, or latex, which has already been mentioned, while in the Cactus family this is a rarity, occurring only among certain species of Mammillaria. Second, the Euphorbias do not produce their spines from areoles as do cacti, but directly out of the stem itself. Third, the Euphorbias have a strange and complicated inflorescence, utterly unlike the simple and showy cactus bloom. Although Euphorbia flowers are usually small and insignificant, they are very intricately constructed. And finally, while the cactus fruit is a one-celled berry with the seeds simply scattered through it, the Euphorbia fruit is usually a three-lobed capsule, each lobe containing a single seed; it bursts explosively when ripe, sometimes hurling the seeds for several feet.

Euphorbias can be found growing anywhere from the very arid regions of southwest Africa to the tropics of the Belgian Congo, and at least one species has been found at an altitude of 6,000 feet. They range in size from tiny plants only an inch or two high to huge tree-like specimens which can attain a height of 60 or even 90 feet. For instance, E. ingens can easily reach a height of 30 feet or more; this plant is sometimes called the "cactus Euphorbia" and the specific name "ingens" means "huge" or "gigantic". Some Euphorbias have large tuberous roots such as E. squarrosa, E. ornithopus, E. knuthii, and E. tortirama, to name but a few, and can be made into interesting, almost bonsai-like specimens.

Most Euphorbias grow most vigorously during the hottest part of our summer, but many, once established, will continue to grow through the winter. They may be grown out-of-doors in almost any type of well-drained soil (the soil should be sandy and porous, yet nourishing). They need protection from frost and excessive rainfall. Good drainage is of vital importance. The species with leaves can be given plenty of water in the summer but the highly succulent species must be watered very carefully, especially in winter. Many species do better with at least partial shade, and most are frost-tender and prefer very warm conditions.

Pollination is usually by flies or small insects, or by the force of the wind, and propagation is by seed, cuttings, or grafting. The seeds are disseminated by ejection - a three-foot high plant of E. grandicornis has been known to expel its seeds a distance of twelve feet. All branched Euphorbias may be propagated by cuttings, and this should be done only in warm weather. The cuttings are often very slow to root; it is not unusual for a cutting to take a year or more to root. Also, cuttings of some species such as E. caput-medusae or E. bergeri may not at first assume the characteristic shape of the parent plant. Cuttings will bleed profusely, and should be dipped in dry clean sand or washed off with water to minimize this, then allowed to dry thoroughly. This can be a matter of days or even weeks in the case of larger-stemmed cuttings. The cuttings are then placed in very sandy soil or other porous rooting medium (I have had excellent results with pumice), which should be kept fairly dry until roots begin to appear. Whenever Euphorbias are grafted, the stock is usually E. mammillaris or E. cereiformis.

It is better to underpot these plants - the depth of the pot is more important than the diameter as many Euphorbias have large, long roots. Also, it's a good idea to re-pot about every other year with fresh soil in order to maintain good health and vigorous growth.

Euphorbias are remarkably free from pests, although some species seem particularly susceptible to a kind of mildew which generally attacks the new growth. I have found that plenty of fresh air can be a deterrent, and in some cases even a cure, for this problem. Also, root nematode may occasionally attack Euphorbias. Whereas this can be extremely detrimental to cultivated plants in your garden, according to one authority it can actually be beneficial to plants growing in the wild - "it causes the rootlets to swell out, and the bladder-like extensions thus formed act as reservoirs for water"!!!

A number of Euphorbias are native to Baja California, including E. misera (the most common, prolific, and wide-spread species), E. xantii, and E. tomentulosa.

Other closely-related genera include Pedilanthus, Synadenium, and Monadenium, which all contain the same milky sap.

Literature consulted:

<u>Cactus and Succulent Journal of America</u> , various issues	
Chidamian, Claude:	<u>The Book of Cacti and Other Succulents</u>
Haselton, Scott:	<u>Succulents for the Amateur</u>
Jacobsen, H.	<u>Lexicon of Succulent Plants</u>
Rowley, Gordon:	<u>The Illustrated Encyclopedia of Succulents</u>
White, Dyer, Sloane:	<u>The Succulent Euphorbieae</u>

(Note: Since this article was first written several years ago, other literature containing valuable information on Euphorbias has been published, notably the first five volumes of the beautiful Euphorbia Journal, published by Strawberry Press, and Gordon Rowley's Caudiciform and Pachycaul Succulents, also by Strawberry Press.)

BEFORE THE MEETING --- SUCCULENT BONSAI CLASS AND WORKSHOP --- 12:00 TO 1:00

Members who brought plants last month were:

Chuck Adams for his Ficus palmeri. Excess growth were pruned, leaving three major branches for future 3 trunk bonsai style. Also kept several minor branches in the rear to add depth when looking from the front.

Alberta Kelnert for her Portulacaria afra. I pruned mostly some itoliated stems. Advised placement in full sun and watering of no more than once in two weeks so the plant will develop a hard grown and aged effect. A very desirable characteristic of a bonsai.

Rachel Walsn for her Tricnodiadema bulbosum. Needed repotting in a bonsai pot. Advised the suitable size and shape of the pot she should procure. Will be repotted next meeting.

Vining Caudiciform ----- Succulent Bonsai this Month

Bring a plant that you think could be made into a bonsai and let me show you several possible bonsai styles for your plant and you select which one to have. We will sculpture-prune, wire-train the branches, rearrange the roots or tubers whichever is needed. We will repot in an appropriately selected size and shape of bonsai pot too. If you don't bring a plant come any way, you may get some ideas to aesthetically improve some of your plants.

This class continues every month before our regular monthly meetings as long as there are interested attendees.

RUDY LIME

Space and paper weight did not allow me to print the whole article. Hopefully at another time.

Mary

## CACTUS OF THE MONTH

### PARODIA

by Phyllis Flechsig

Parodia is one of the finest of the many kinds of beautiful South American cacti. Native to the mountains and foothills of the eastern Andes in northern Argentina, Paraguay, and Bolivia, parodias are small barrels, single-headed or sometimes clustering, with brightly colored flowers emerging from the top, which may be thickly covered with wool. The plants are ribbed; the ribs may be spiralled or tubercled, or both. The buds are furry, the seed pods are small and thin-walled, and the seeds are usually very tiny. The spines may be straight or hooked. The genus is named for a botanist, Dr. Domingo Parodi, who worked on the flora of Paraguay. The genus Parodia is very closely related to Notocactus, and the lines of distinction between the two are often rather blurred. The two have been separated in more than one way: for instance, Parodia is supposed to be an upland Andean genus, while Notocactus comes from lower elevations. Buxbaum divided the two groups by minute differences in seed structure; and notocacti usually have red stigmas, while parodias do not, but then some supposed notocacti have yellow stigmas! There is considerable logic in lumping the two groups into one genus, as some botanists have recommended, but in this essay we will deal only with Parodia in the narrow sense.

Backeberg lists 119 species of Parodia and a large number of varieties. Most of these are not in cultivation, and no doubt this unwieldy number will be greatly reduced as similar species are combined. Still, many distinctive and beautiful species are to be found in our collections. Some have bright yellow or white spines, and are very good-looking even out of bloom. Possibly because of their mountainous native habitat, they are a little harder to grow than are Notocacti, but will reward any effort with a fine show of yellow, red, or orange flowers. Popular species are P. nivosa, with shining white spines and bright red flowers; P. chrysacanthion, with straight golden spines and yellow flowers; P. aureispina, with hooked yellow spines and yellow flowers (this one clusters, while the preceding one stays single); and P. penicillata, with very fine straight spines that vary in color from white to reddish, and red flowers. The dwarf P. mairanana produces bright orange blooms while quite young.

Propagation of Parodias is usually from seed; seedlings may take several years to develop, as the seed is tiny and new plants are correspondingly small and slow. They need excellent drainage--remember their native habitat on volcanic slopes! While the weather is warm they can be watered generously, though they should not be watered often in cold weather. They will reward the grower with flowers all through spring and summer--sometimes even all winter as well. For example, in my greenhouse, Parodia chrysacanthion hardly ever stops blooming.

LITERATURE CONSULTED

Bleck, M. 1972. "Parodia Spegazzini." Cactus & Succulent Journal, v. 44, p. 106-107, 117.  
 Riha, J., and R. Subik. 1981. The Illustrated Encyclopedia of Cacti and Other Succulents. Octopus Books, London.  
 Backeberg, C. 1977. Cactus Lexicon. Blandford, England.  
 Cullmann, W., E. Goetz, and G. Groener. 1986. The Encyclopedia of Cacti. Alphabooks, England.

NEWS RELEASE

The San Diego Epiphyllum Society will have a Mini-Show and Sale on Saturday, May 13, 1989 (the day of our next meeting). It will be in the patio of the Casa del Prado from 10:00 am to 4:00 pm. Of course, the Mother's Day Show and Sale will be on Sunday, May 14, 1989, at the Casa del Prado. The cutting sale starts at 10:00am, and the Show will be open from 11:00 am to 5:00 pm.

Jeanette Dutton 239-8476 (H) 223-8191 (W)

BOX BRIGADE

Don't forget! We need good Sturdy boxes for the cactus show! Everyone show start collecting NOW!  
 Thanks- Warren C. Alexanderson



TROPHIES -----

All winners of trophies last year- Will you please bring them back.

Also, if anyone would like to start a trophy, get in touch with an officer or Board Member to see what is needed. There are still many catagories available.

SHOW SCHEDULE FOR MAY AND JUNE

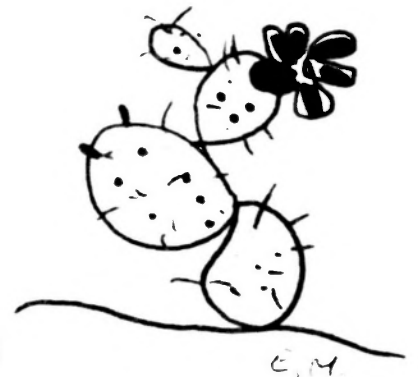
May 6 & 7	Balboa Park Bromeliad Study Group Show	Sat:11am-4:30pm	Sun:11am-4:30pm
May 14	San Diego Epiphyllum Society 19th Mother's Day Show		Sun:11am-5:00pm
May 20 & 21	San Diego Geranium Society 17th Show	Sat:12pm-5:00pm	Sun:10am-5:00pm
May 27 & 28	Heartland African Violet Society 8th Show	Sat: 1pm-5:00pm	Sun:11am-5:00pm
June 3 & 4	San Diego Cactus & Succulent Show	Sat: 1pm-5:00pm	Sun:10am-5:00pm
June 11	Southwest Hemerocallis Society 15th Show		Sun:Noon-5:00pm
June 24 & 25	San Diego Fuchsia & Shade Plant Show	Sat:12pm-5:00pm	Sun:10am-5:00pm





APRIL BRAGGING PLANT WINNERS.....

- 1ST PLACE . . . . . Leroy Phelps for his  
SINNINGIA CANESCENS
- 2ND PLACE . . . . . Dorothy Dunn for her  
MAMMILLARIA CANELEMENSIS
- 3RD PLACE . . . . . Phyllis Flechsig for her  
PARODIA AUREISPINA CREST

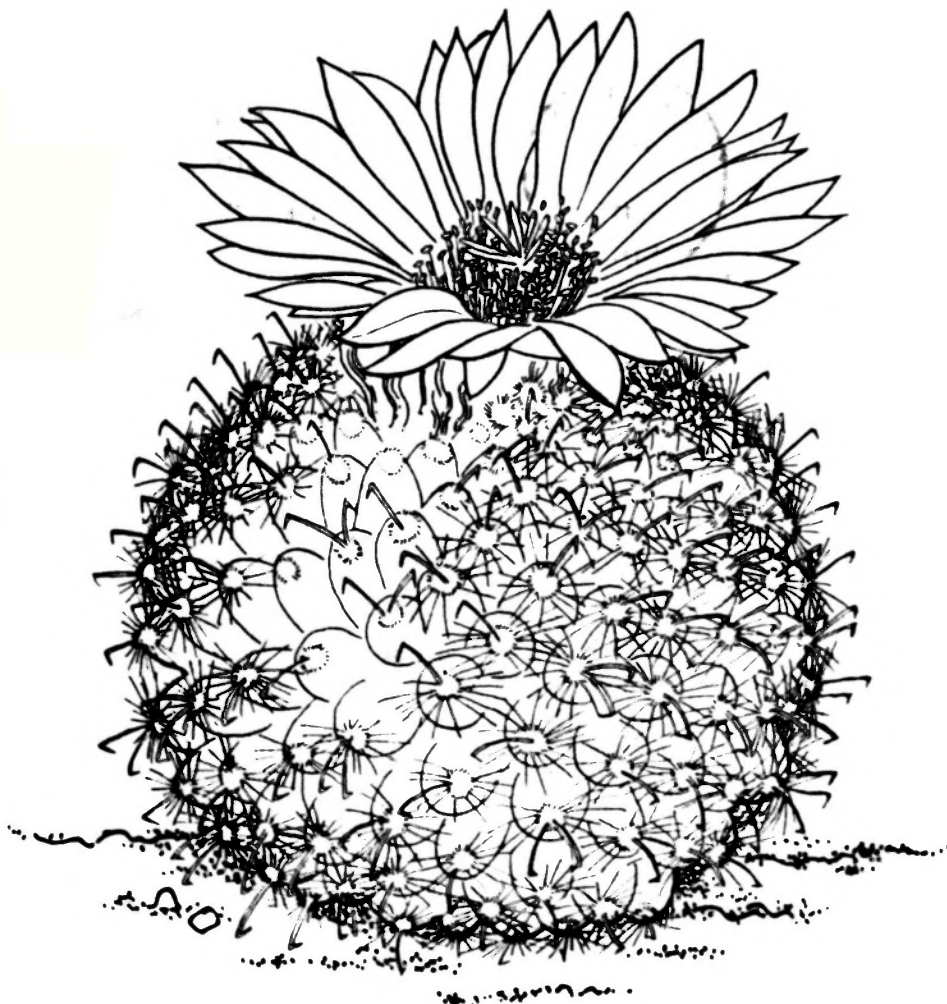


Those who have signed up for refreshments for May-----

Kathe Roberts  
Susan Clements  
Frances Johnson

Mary Ann Alexanderson  
Donna Couchman  
Judy Hannula

Francis Richardson  
Chloe Bajwa  
Anna Cornett



PARODIA SANGUINFLOA. Argentina. Another good species for a partly sunny indoor location, bearing large "blood-red" flowers in summer. Provide a rich, porous soil and average watering. In winter keep above 50° F. and

water monthly. All Parodias are attractive house plants with their yellow, orange or red flowers and interesting spine patterns.

# SAN DIEGO CACTUS & SUCCULENT SOCIETY

## OFFICERS

President - Chuck Adams  
7305 Rock Canyon Drive, San Diego 92126 530-2551  
Vice President - Mitch Bahr  
4945 Diane Court, San Diego 92117 571-0912  
Secretary - Jeanette Dutton  
1330 31st Street, San Diego 92102 239-8476  
Treasurer - Dana Adams  
7305 Rock Canyon Drive, San Diego 92126 530-2551  
Immediate Past President - Dr. Leroy Phelps  
4094 36th Street, San Diego 92104 280-9690

## BOARD OF DIRECTORS

Shirley Berry, Dorothy Dunn, Cathy Frost  
Madelyn Lee, Rudy Lime, John Pasek

## COMMITTEES

Auditor - James Berry  
Bragging Table - Madelyn Lee  
CSSA Affiliate Rep - Cathy & Sandy Frost  
Education: Cacti - Phyllis Flechsig  
Succulents - Dorothy Dunn  
Historian - Rick Latimer  
Membership - Susan Shepherd  
Picnic - Vacant  
Plant Exchange Table - Mmes. Lemrow & Larburg  
Plants & Supplies Table - John Pasek  
Show - Rick Latimer

Publications - Mary Aubuchon 427-3388  
Reception - Perlo Lewis & Ethel Standish  
Regalement - Diane & Bill Crowley  
Representatives:  
Balboa Park Desert Garden - John Pasek  
Quail Botanical Garden - Phyllis Flechsig  
S.D. Botanical Garden Foundation - Kathy Van Arum  
S.D. Floral Association - Elizabeth Glover  
Program - Joe Clements  
Bill Low  
Elizabeth Gomes

The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti or other succulents. Meetings are held the second Saturday of each month at 1.30 p.m. in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held after the general meetings. Annual dues are \$8.00 per single member per year, and \$2.00 for each additional member of a household with the family. Single copies of Espinas y Flores are 60¢.

Editor  
Mary Aubuchon  
1058 5th Avenue  
Chula Vista, CA 92011



FIRST CLASS

FIRST CLASS

FIRST CLASS