

UNIVERSITY OF CALIFORNIA BERKELEY

# Botanical Garden Quarterly



Friends of the Botanical Garden

Summer 1978

## History of the U.C. Botanical Garden

By Laurianne L. Hannan, Educational Coordinator

The botanical garden is celebrating its fiftieth year in its Strawberry Canyon location this year so what better time is there to discuss its long and interesting history. The garden's past can be divided into six major eras.

The first era begins with the founding of the original botanical garden on the Berkeley campus in 1891 by Reverend Edward Lee Greene of the Botany Department. The original garden was located in the swale between the modern day Moffatt Library and Haviland Hall. Reverend Greene retired from the post of director in 1892 and was replaced by Professor William Setchell. The prominent feature in the Botanical Garden was a Victorian glass conservatory (the twin of

the one still standing in Golden Gate Park): The conservatory was torn down in 1925 to make space for a parking lot. A few of the original plantings can still be seen.

The second era in the garden's history was marked by the movement of the garden to its present location in Strawberry Canyon. During the 1920's the campus was rapidly growing and new space for building was needed. Since the future of the campus-based botanical garden was threatened, the curator (and later director) of the Garden, Dr. T. Harper Goodspeed, proposed to the regents in 1926 that the Garden be moved to the University-owned land in Strawberry Canyon. The location of the new

Garden would be on the site of the old Stutt Dairy Ranch.

The Garden officially moved to its new site in 1928. The location was considered to be a choice one because the eastern flow of cool, mild maritime air coming in through the Golden Gate came straight into Strawberry Canyon. As the plans for the new garden were being made, Dr. Goodspeed suggested that the garden be laid out in a geographic arrangement rather than the traditional taxonomic arrangement; his suggestions met with approval.

The third era began when Dr. Goodspeed became director and set out to secure money for plant expeditions which would bring back material for the

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## African Hill and the New World Desert

By David Weed, Garden Staff

For many visitors, the most striking collections of plants in the UC Botanical Garden are those containing the cacti and other succulents. (The term "cactus" refers to members of the botanical family Cactaceae, while "succulent" is a general term referring to plants with obvious adaptations for water storage within their tissues.) When viewed as a whole, these collections present a bizarre and alien landscape — a rock stony hillside studded with the thick clumsy *Trichocereus*, patches of spiky gray-blue agaves, mats of iceplants, and everywhere an intricate patchwork of bristling forms.

In the spring and summer, the scene is splashed with the electrically bright pinks and reds of the iceplants and aloes, and the softer colors and textures of the

South African bulbs. After this display, the flowering of the cacti begins. Bright splotches of white and yellow appear on the thick gray-green trunks of these unlikely plants. In contrast to their spiked and forbidding appearance, cacti have surprisingly large, soft, and fragrant blossoms. The entire area is visited regularly by artists observing and recording the rich variety of form and color.

Not only is the "Succulent Patch" a visual treat, but it is fascinating from a scientific point of view, as well. For example, the plants from Africa and the New World were planted in adjacent areas so that it would be easy to observe the remarkable similarity of form between the two groups. This similarity demonstrates that botanically unrelated families of plants (such as the Cactaceae

and Euphorbiaceae) have been able to evolve almost identical appearances in response to similar environments — a phenomenon known as convergent evolution.

Dr. T. Harper Goodspeed, an early director of the garden, had a strong interest in cacti and other succulents, and initiated extensive collecting of plants in the wild during 1932-1934. Working with Dr. Goodspeed, and personally responsible for several expeditions to South America, was Dr. James West. These two men provided much of the groundwork for the collection, and their names appear on many of the older cards in the succulent file.

There have been constant additions to the collections in the past forty years, many from patiently grown seed, but the

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## garden history

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Garden. Various alumni groups at CAL sponsored several expeditions during Goodspeed's tenure. There were six expeditions to South America between 1935 and 1958 which greatly added to the Garden's succulent collection. Also during this time a large collection of rhododendrons was bought from Strybing Arboretum with money donated again by alumni groups. To enhance this collection, an expedition to China to collect more rhododendrons was planned and carried out in 1932. A rose garden (located where our current Australasian area is) and an herb garden (on the current Herb Garden site) were established. Goodspeed retired in 1954 but was pulled out of retirement to deal with pending financial crises at the Garden. The research-oriented garden was looked upon by the University as an unaffordable luxury. Looking back on Dr. Goodspeed's long tenure as director, we can justifiably say he was the true founder of the garden as we know it today.

The beginning of Dr. Herbert Baker's tenure as director in 1957 marks the beginning of the garden's fourth era. Dr. Baker's first move as director was to open the garden to the public. During Dr. Baker's tenure, East Asian Hill, the California area, and the iris test garden (on the site of the new economic area) were all begun. Twelve years of prosperity followed during Dr. Baker's term as director.

Also, some extraordinary natural phenomena occurred during Dr. Baker's directorship. From October 11 to October 13, 1962, fifteen inches of

rain fell in Berkeley. Strawberry Creek swelled out of its course and carried masses of rock, trunks, shrubs and silt down the Canyon, sweeping away the plantings along its banks and destroying the Rhododendron Dell pool. Extraordinarily severe temperatures were experienced in 1962 and again in 1963. Temperatures as low as 23°F were recorded in the garden on two successive nights in January of 1962. During the summer of 1962, the temperatures soared into the 90's and on several days reached into the 100's. The fire-adapted cones of the Monterey pines in the Garden opened up with rifle-like sounds.

Dr. Baker stepped down from the directorship in 1969 and was replaced by Dr. Watson M. Laetsch, thus marking the beginning of the Garden's fifth era. The financial crunch on the university was being felt again and the university was once again looking for reasons to justify the garden's existence. Dr. Laetsch began the education program to answer the need for public education at the Garden. His education program was primarily aimed at teaching students about plants through taped tours, visual displays, and stationary tape boxes (affectionately known as squawk boxes). Dr. Laetsch regained possession of the redwood grove (now called the Stephen T. Mather Redwood Grove) which was within the fences of Lawrence Berkeley Labs. Dr. Laetsch also approved the beginning of the Garden's docent program in 1972. The first group of docents was trained by past education coordinator Mrs. Ann Wharton.

Dr. Laetsch stepped down as director of the Garden to devote more time to

another facility of which he was director, the Lawrence Hall of Science. He was replaced by Dr. Robert Ornduff, thus ushering in the sixth and current age of the Garden. Three more docent classes have been held, bringing the number of active docents to sixty, forty of which serve as tour guides. Under Dr. Ornduff, grant proposals were written to augment the garden's budget. The docents have contributed to the budget by holding three plant sales a year, which have thus far been very successful. The "Friends of the Garden," the Garden's outside support group, was initiated in 1976 and has grown considerably since then. Credit for much of the initial organization of the "Friends" is shared by Dr. Ornduff and Mrs. Marjorie Gray, one of the garden docents.

Extensive development of new areas is rapidly going on. Some areas currently under further development are the Himalayan Area, the Economic Area, the Mexican Area, the European Area, the Redwood Grove, and the Mediterranean Area. Also, a new building was added to the garden this year; this is the Public Information Center which was financed by the docents and the Chancellor's Office.

Another recent addition to the Garden's ongoing projects is the linking of the education program with the U.C. School of Education's Instructional Laboratories. Through the labs, local teachers are being trained in the best utilization of the garden. Many other developmental and educational projects are underway or in the planning stages as the garden moves into its second fifty years in Strawberry Canyon.

## FRIENDS OF THE BOTANICAL GARDEN NOTES

**New format.** This copy of the *Quarterly* will be the final issue in its present form. The Friend's board will schedule periodic mailings to you, incorporating information about the garden which we are sure will enhance your enjoyment of the garden's programs and diversity. Please let us know of any particular interests you wish to explore.

Special thanks to editor Sharon Smorsten for her magnificent efforts on our behalf. Sharon has resigned and is starting in a new job. All good wishes for success in her new position. *Jerry Carlin, President.*

**Docent training class.** If you are interested in volunteering to conduct

guided tours at the botanical garden, contact Annie Hannan, Educational Coordinator (642-3352) as soon as possible to apply for the 10-week docent-training class in the fall. You do not need to have special training in botany. The class will introduce you to the major areas of the garden, and give you background information as well.

**Workshops for volunteers.** Want to help out at the new information center, or pot up plants for the plant sale? You can join an October workshop to prepare you for these activities by contacting Ellie Davies (for the information center) or Marney Ackerman (for potting) at 642-3352.

**Plant sale success.** Our May plant sale was held in the UC Memorial Stadium again this year. A large crowd turned out for the sale, and the final proceeds for the May sale and the Friends preview sale totaled over \$9,000.

**Slide show and lecture: China.** Dr. Bruce Bartholomew, curator of the botanical garden will present a talk and slide presentation titled "An American Botanist View of China Today. Time: September 22, 8 P.M. Place: Morrison Auditorium, Academy of Sciences, Golden Gate Park, S.F. Tickets: \$5 (tax deductible). Send a stamped, self-addressed envelope to Saratoga Horticultural Foundation, Box 1535 - Station A, Burlingame, Calif. 94010.

By Erika Kunkel, Biologist and Docent

Nine years ago, two small educational ponds were created in the botanical garden for a very special purpose. No larger than 2000 square feet in area, and no deeper than 3 feet each, they are tucked away in an unnamed area close to the Mather Redwood Grove.

You can reach the ponds by walking out the main entrance of the garden. Cross Centennial Drive, and continue through the open gate near the Humphrey Go-Bart bench. Walk past the greenhouses, and on your right just before the bridge, you will find the ponds.

The ponds have been created as a teaching aid for a program designed to enhance biology instruction in elementary schools. Children are led to discover basic ecological principles by observing the outdoor pond community, by culturing some of the organisms in the classroom, and by eventually stocking and maintaining their own "miniponds."

During the development of the pond courses, we feared that these garden ponds might be easily depleted. It turned out, however, that if organisms are sparingly collected for small miniponds (pint mayonnaise jars), even 20 to 24 annual classroom fieldtrips cause no harm.

Children identify with the organisms, whether they are waterfleas, mosquito larvae, guppies, snails, dragonfly nymphs, or water beetles. Once they "own" a creature, they are concerned with its survival. Capitalizing on this, the program is planned so that a series of crisis situations arise one after another, each of them demanding an immediate solution. Before each year-long program is over, the children live through a sequence of problems, each one related to the next, as in the chapters of a mystery book.

The first field trip initiates the children into the abundance of pond life as well as the precarious balance that is maintained among them. For example, in October 1976, we took children from Orinda's Wagner Ranch School on their

## cactus collection

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Berkeley climate has taken its toll. Although there are currently 3000 accessions in the garden, the total collected over the years is double that number. Winter rains, heavy clay soil, summer fogs, and winter cold have conspired against successful cultivation of desert plants.

Nevertheless, a few specimens have survived these onslaughts over the years. A couple of large *Cereus peruvianus*, var. *monstrosus*, and one *Opuntia robusta* date back to 1932, and are among the oldest plants in the garden. Mr. Al Irving, supervisor of the collection, has been planting areas of the succulent garden

first trip. Each youngster was told to fill his small jar with a bit of pond mud, a few sprigs of *Elodea*, and no more than 3 other organisms. This is very difficult to do, however, when one is confronted with an over-abundance of living things for the first time.

Although the children had been warned several times, they went haywire.

When, at the end of their 45 minutes at the pond, I added a shot of pond mud (using a baster) to each minipond, I had a chance to correct a few of the more blatant situations.

This was not the last crisis, however. By the time we were back in school (within 15 minutes) the nymphs had decapitated one or two fish. The overstocking of some miniponds caused the death of a number of organisms. The concepts of predator and prey, death, decay and pollution, and the need for a continuous food source became the sudden focus of everyone's attention.

The stage was set. The minipond inhabitants more often than not would become pets whose needs had to be met. They had to survive. Their feeding habits had to be understood and the relationships to other inhabitants of the pond had to be established. Tentative sketches of food chains, which later turned into more complex food webs, eventually found their way onto the blackboard, and the children began to understand some of the basic principles of ecology.

The original pond program has been expanded to many other schools, and to meet the increased demand for outdoor ponds, we have secured an additional larger pond through the City of Berkeley. However, the ponds in the botanical garden will remain the prototype for this "hands-on" environmental biology program. I would like to express my deep appreciation to Watson Laetsch, Anton Christ, Robert Ornduff, and the garden staff who made the whole project possible.

particularly densely as a hedge against future freezes and other natural disasters.

It would be remiss in any discussion of these collections not to mention the efforts of both supervisor Al Irving, and nurseryman Don Sujishi, who are responsible for maintaining the cacti and other succulents. They, along with others, have been keeping this area meticulously maintained. This is no mean feat, as anyone who has ever tried to weed a group of agaves can tell you. Their efforts have helped to keep these fascinating displays beautiful as well as inspiring.

Friends of the Botanical Garden  
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CA 94720

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Editor: Sharon Smorsten

### Publication Committee:

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Jerry Carlin  
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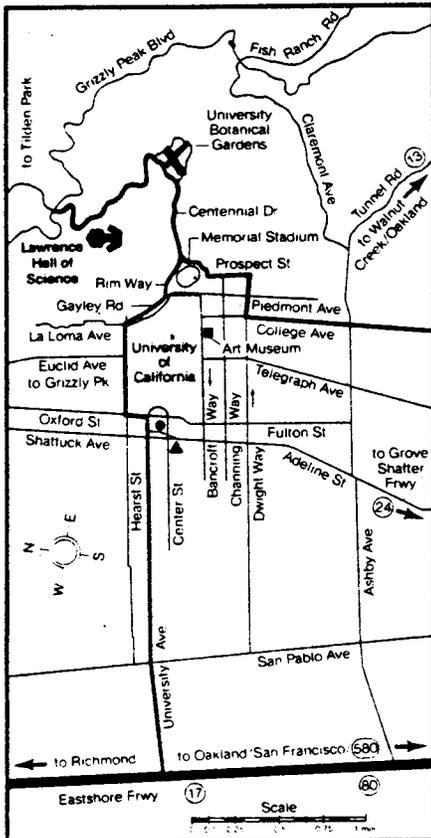
# Join Friends of the Botanical Garden

You are invited to become a member of the Friends of the Botanical Garden. This organization was developed to provide assistance to the botanical garden in improving and extending the plant collection, enriching the education program, and meeting general capital requirements.

Members, in return, are offered spe-

cial programs on plants and gardening, a 25% discount on selected UC Press books (such as *California Spring Wildflowers* by Munz), preview privileges for the annual sale of unique plants from the garden, and a quarterly publication which covers topics of general interest to plant enthusiasts as well as news of the garden.

Student and Senior Citizen memberships are discounted to \$5. Standard dues are \$10 for an individual, \$15 for a family. The Friends of the Botanical Garden function as a support group under the auspices of the UC Berkeley Foundation, and dues and gifts are tax deductible.



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