The Central Spine

THE CENTRAL SPINE APRIL 1991

PUBLISHED BY: THE CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY
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A DESERT GARDEN *of Distinction*

by George Lindsay
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Reprinted with the author's permission
from ***Desert Plant Life*** March, 1940

In any field of endeavor the results of some individuals' efforts seem to stand out above those of others. In such cases an embryo idea has been developed with infinite care and perseverance into a beautiful reality. An example of such a creation is the desert garden of Mrs. Gertrude D. Webster of Arcadia, Arizona, which, although comparatively new, certainly ranks with the finer collections which have appeared from time to time. It was from such a nucleus that the Huntington Botanical Gardens were developed.

The history of Mrs. Webster's collection should be of interest to all, and an inspiration to those plant collectors who sometimes despair when treasured specimens to not seem to respond to care. One would hardly suspect, while walking along paths between fine cereus plants fifteen feet tall, that all has not gone smoothly in developing the collection.

Mrs. Webster came to establish a winter home in Arizona in 1928. Long interested in garden club work in the east, she soon developed an appreciation and love for the beautiful but sometimes bizarre native plants of the desert. Choosing a beautiful eleven acre plot under Camelback Mountain, she supervised construction of her fine home, built in a style compatible with the early Mexican-Indian tradition of the country. Landscape work was directed personally, with the use of a great many species native of Arizona. A nice collection of local cactus was gathered together, but at the time the interest in these plants was not widespread, literature was not available, and cactus nurseries were much less common than today. As a result the collection of exotic types was not started for a time.

Mrs. Webster is now able to laugh at the tragic story of the first rare plants she acquired. It seems that while spending a summer in Switzerland she found a splendid collection of plants, all raised from seed, in a little hilltop nursery in Berne. Interest increased every time the hill was climbed to visit the garden, and as a result when she sailed for home a box containing 106 specimen plants sailed with her. The plants had already caused some worry, having been lost in Paris for some time, but the real problem arose when a U. S. Department of Agriculture inspector met her at the docks in New York with the explanation that the plants could not land, in spite of various bills of health issued by the horticultural inspectors of Berne. Arrangements were made for storing the plants in the Agricultural office until the matter was taken up with the department in Washington, which was done, but upon their release the plants

were missent to Mrs. Webster's home in Vermont, while she had already departed for Arizona! At long last the plants arrived, and upon the advice of "those who knew" were planted in the sandy bottom of what had been an arroyo. A lathhouse was built around that for protection from the strong sun the following summer, but upon Mrs. Webster's return that fall, she found that the plants had been so thoroughly watered as to fairly "steam" them, and of the 106 imported, 3 survived. That ended interest in exotics for awhile.

It was not until 1934 that, while summering in California, it wad decided to go ahead in actively gathering a collection of rare plants. Specimens were purchased from nearly all of the California nurseries and importations were made from Mexico through Dr. Lowry and Howard E. Gates. In 1935 more plants were imported directly from Mexican dealers. Collections were not restricted to *Cactaceae*, but were general, including representatives of nearly every family of succulent plants.

Beds for the plants were built up under a magnificent old saguaro near where the ill-fated Swiss plants had been placed, but this time loam, lime, Vermont leafmold, sand, bone meal, and silt all went into the soil mixture. Each summer a temporary lath shade was erected over the whole garden, which practice was continued until 1939.

The plants like Arizona! Specimens of *Cephalocereus polylophus* only four feet tall when imported are now six and one half an seven feet high, while a four and a half foot *C. senilis* has grown into a fine specimen over six feet tall. Cereus plants of the peruvianus type have grown to a height of up to fifteen feet from seed in five years. Constrictions of the fluted columns of *Pachycereus marginatus* show that it has raised its tips from five to twelve feet since 1935! I noticed robust stems of *Rathbunia alamosensis* four inches in diameter, while a specimen over half that size in the wilds is exceptional. Even the saguaros, *Carnegiea gigantea*, evidence the appreciation of care, plants which were moved only three years ago having reestablished, doubled in girth and increased six feet in height since. The patriarch of all, the old thirty-five foot specimen which was naturally in the garden, has an enlarged tip on each of its branches, a sign of revivification.

Night bloomers make a fine display nearly every evening from April on through the summer and early fall. Such night bloomers as *Cephalocereus Hoppenstedtii*, *C. polylophus*, *C. Palmeri*, *Cereus Childsii*, *Opuntia glomeriseta*, etc., all flower, some in abundance, while the more typical night bloomers among the peruvianus, climbing, and echinopsis types convert the garden into a fairyland of fragrant white luminous blossoms. Garden parties always center about the cereus flowers, whose breathtaking beauty is responsible for many converts. Small wonder when a single plant of Harrisia has had over sixty-five flowers open at the same time!

The phenomenal growth of her plants Mrs. Webster attributes to "good food and lots of water during the growing season." With characteristic farsightedness, she has provided that the collection will never be broken up, as has been the fate of so many of the finer collections. Many of the duplicate plants have already been moved into the collection of the Desert Botanical Garden of Arizona where Mrs. Webster has provided that all shall eventually find their home.

[The original article was preceded by one photograph and followed by four more of blooms, blooming plants, and general views of Mrs. Webster's garden.]

(I came across the above article quite by accident in early January. I found it quite interesting and thought that other CACSS members might also. I was able to learn that Dr. Lindsay was still alive from the DBG Librarian and from where he had retired. He responded to my inquiry for reprint permission with the following charming letter:

Jan 22, 1991

Dear Mr. Skirvin:

I have just returned from driving to Cobo San Lucas and find your letter of January 11 concerning reprinting and article "A Desert Garden of Distinction".

Of course you have my permission to reprint it.

In fact, I am honored that you'd find the story of interest 51 years later!

Mrs. Webster was a generous patroness and good friend. I think she would like today's Desert Botanical Garden, for which she was responsible -

Sincerely,

George Lindsay

Hope that this background about the Gertrude Webster who funded the auditorium in which the CACSS meets will have been of interest.

--Stan Skirvin)

PLANT OF THE MONTH

SANSEVIERIA

by Phyllis Flechsig

Most of us are familiar with plants of this genus used for generations as boring, miserable houseplants. But don't dismiss the whole group because you have seen one too many Sansevieria trifasciata and its many cultivars; if you have never seen a plant of S. pinguicula or S. singularis you are in for a pleasant surprise. In the past, the genus has been assigned to several different plant families; at present, the Agave family seems most appropriate. The plants are all native to tropical and southern Africa, Madagascar, Arabia, and India. The genus was named for an Italian scholar, Raimonde di Sangro, Prince of San Sevre.

The plants are usually rosulate or fan-shaped, spreading by means of rhizomes either under or above ground. They range in size from a few inches high to several feet. The leaves contain tough fibers that have been used to make rope; one of the common names for the genus is "bowstring hemp." The leaves may be narrow with a sharp tip, or flat and broad. Flowers are small, white to greenish, borne on long spikes; they may be fragrant, especially at night. In habitat they often grow in the shade of larger plants and trees, and may spread to form dense colonies, in turn offering shade to smaller plants and vines.

Sansevierias are generally easy to grow and propagate; in some species, a short leaf cutting will root and quickly produce a whole plant. They all need warmth and good drainage, with no frost, and since they outgrow small pots rather quickly, they should be given plenty of root space. Even so, those with underground runners may burst out the side of a pot; a solution is to plant in a hanging moss basket and let them burst out wherever they like. They are one succulent genus that appears to be impervious to mealybug or other pests, though low temperatures may cause them to spot. Rhizomes may be cut apart to form new plants; this is the only way to propagate the variegated forms of S. trifasciata; leaf cuttings invariably revert to plain green. These variegated plants are actually what is known as a chimera, that is, two plants growing as one.

One of the most interesting species is S. singularis. A newly started cutting has several short, channeled leaves; gradually, as years pass, these leaves elongate and become more cylindrical; the short leaves wither away, and after 20 years or so the plant is left with but one leaf (hence the specific name), cylindrical and more than seven feet long! In spite of my opening remarks I must say that some of the named cultivars of S. trifasciata are very attractive; the var. hahnii is a dwarf rosette with many forms with silver stripes, gold stripes, or nearly black all over. There are upright forms of the species that are silver all over, or striped dark green and white or yellow. They make excellent house plants, as they thrive in considerable shade.

THE SANSEVIERIA PLANTING AT KOKO CRATER BOTANIC GARDEN HONOLULU, HAWAII by ED EBY

Every few years there seems to be a particular cactus or succulent plant genus that collectors take fancy to that arouses more than usual interest. The last few years much interest has been evidenced in sansevierras.

Here in Honolulu, we have an outstanding natural planting of these plants at Koko Crater under the auspices of the Foster Botanical Gardens.

In 1905 the Foster Botanic Garden, the headquarters garden of the 6 Honolulu Botanic Gardens, received a collection of 13 sansivierras from the U. S. Crops Research Division, Cotton and Cordage Febers Research Branch, Belle Glad, Florida. Then in 1966, the U. S. Plant Introduction Station, Miami, Florida sent 29 species of sansevierra to Foster Gardens.

These plants were planted at Koko Crater Botanic Gardens and given Honolulu Botanic Garden accesion numbers.

These may be the most natural growing sansevierras outside their native habitat in Africa. Since being planted at Koko Crater the sansevierras have endured little or no rain for protracted periods, and too much rain at other times. They have competed with native grasses, weeds, brush and trees, three kinds of snails, mice and rats, thin almost non-existent soil in some cases, and they all made it as of February 1983.

The climate of Koko Crater is mild, the temperatures equitable the year around. The lowest temperature sould be close to 58 degrees Fahr. There is moderate humidity, persistence of northeasterly trade winds, remarkable differences in rainfall, and infrequent severe storms. There are only two seasons: summer between May and October when the weather is warmer and drier and the tradewinds more persistent: winter between October and April, when the sun is south. The weather is cooler and the tradewinds more often interrupted by other winds and by intervals of widespread clouds and rain. The average annual rainfall is 15 inches to twenty inches.

The soil ranges from tufa (or weed flow lava) with olivine-bearing sandy pockets to, in places, calcareous. It is thin from spot-to-spot and dries out quickly. The soil is from weathered volcanic rock and humus. The steepness of the terrain causes rapid run-off of the infrequent rains. The native plants there are of semi-xerophytic nature. The succulent sansevierras tolerate and thrive in the rugged conditions. The conditions under which they grow must be quite similar to the many locations in which they evolved in native Africa.

As you look deeply into any plant genus there are always plant "hangers on." They don't seem to clearly to this species or to that species. It is especially true of sansevierras because they sport tather freely and take on different appearances under different modes of culture.

This is both the fascination and the frustration of sansevierras. The difference between field-grown plants and greenhouse pot-grown plants is sometimes pronounced. The difference beteen shade-grown plants and full sun-grown plants is sometimes great.

These easily grown plants are accomodating, they will grow almost anyplace that is frost free, a fact that makes several species the most common of all house plants.

It is said there may be as many s 175 species of the genus Sansevierria. There are countless sansevierrias now only designated by numbers

--From the CACTUS AND SUCCULENT JOURNAL for MARCH-APRIL 1984.

DO YOU REMEMBER? by CAROL MUJCIK

Your very first cactus? Or Succulent?

The feeling of proud parenthood upon seeing your first cactus flower develop on one of your very own plants?

The first time you found out that cactus could sunburn?

Visiting your first Cactus Nursery and feeling like a kid in a candy store?

Discovering in horros your first spine-skeleton with the inside not only rotted out but altogether gone? Or finding your first cactus mummy and the guilt of not seeing what was happening sooner?

The high you felt when first seeing succulents in habitat, where they were not planted by anybody except God?

Your first glimpse of the Huntington Cactus Garden where our beloved plants run riot over every inch of space?

The first (and second and third) time you were stabbed and knew you really ought to have your tetanus vaccination checked and up-to-date?

Gagging on that first whiff od malathion?

Seeing your first real, live lithops?

Proudly showing your lithops to friends and family, who couldn't believe it was really alive and then were appalled to find

out it not only was alive, but that you liked it and spent good money for something so wierd , if not downright obscene?

The "I DID IT" feeling which came after you identified an unnamed plant? The feeling you got after you identified someone else"s plant?

Depoting a plant and finding ants living in the body itself?

Depotting another cactus in trouble and finding it attempting to re-root into its own decaying body? The combined feeling of awe and horror?

Drooling over your cactus catalogs and checking off the plants and books you would like to have?

The excitement of opening your first mail order package and feeling like it is your birthday?

Seeing your first amazing monstrose and crested plants?

The first time you did surgery on a succulent--gritting your teeth, re-reading the instructions, then cutting--and wincing?

The first time you realized that they were right about the horrors of euphorbia sap?

The first time you realized thay were also right about how easy it is to coat yourself with glochids--but how wrong all that advice about using scotch tape to remove them? (The author uses a disposable razor to shave them off.)

The surprise and pleasure you felt when someone whose opinion you value told you a plant was well grown?

The translucent and silky sheen and irridescent colors of your first echinocereus flowers?

The first (and last time) you foolishly added up how much you had spent on the hobby during the past year?

The first time a dormant plant leafed out just for you?

The moment you stood transfixed the first time a hummingbird visited one of your aloes?

The stunned disbelief when you peeled away entire sheets of detached tubercles on the lower portion of what seemed to be a healthy, happy Mammillaria--like it was shedding unwanted lower leaves?

Your first visit to a cactus club meeting or a fellow collector's home, when you found out you were not alone?

(From South Coast C & S Society Newsletter)

SO MUCH FOR PEAT MOSS & WATERING.

When they say peat moss holds water they are not kidding!

Once it is wet, peat moss (non-specific type) holds 6 - 15 times its weight in water; sphagnum moss up to 15 - 30 times its weight, and they hold tightly.

Water molecules adhere to the surface of ALL soil particles and co-here to each other, surrounding each particle with a microscopic film of water. Surface tension binds the water to the soil particles. When the moisture level gets very low plant roots cannot overcome the tension to get water. The soil won't let go of it when the film of water reaches a certain "thinness."

When the water reaches this level of high tension, the plant is dry and thirsty even though the soil may feel wet (non-succulents may wilt) especially in soils of high peat moss content.

Conversely, when it gets throoughly dry through evaporation, peat moss sheds water and resists re-wetting. Water runs through without adhering, causing tension in the waterer.

(From MID-IOWA C & S SOCIETY NEWSLETTER 1987.)

GORDON D. ROWLEY

Gordon, as he is known to so many people has been interested in cacti from the mid-thirties, from the point in time when he spent a full week's pocket money on a peculiar plant at Woolworth's, then almost the only source of cheap succulents. It was in fact a MAMMILLARIA, and who could have realized that this plant would lead him to write a book "FLOWERING SUCCULENTS" published in 1959 and only last year (1978) the "ILLUSTRATED ENCYCLOPEDIA OF SUCCULENTS."

He graduated at London University and lectures in horticultural botany at Reading University, belongs to numerous societies. His special interests within the field of succulents has been studying the possibilities of growing them out=doors. At one time he had a 200 padded OPUNTIA in his front garden in London, which attracted interest from passers-by. He has a number of the early named EPIPHYLLUM FAMILY, COMPOSITAE--that is SENECIOS, OTHONNAS etc. although the prospects of a monograph have not yet materialized.

Gordon has described a few new species, but his name often appears after many other plants, where as he put it "It was in need of editorial juggling, so as to bring "wrong" names into line with the current Code or with particular framework of classification.

(From the research material of the late LOU STEICHMAN. COURTESY OF ELAINE STEICHMAN.)