REFLECTIONS ON A RECENT HORTICULTURAL VISIT TO SOUTH AFRICA

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DURING the latter part of September and October of 1951, my wife and I had the rare privilege of exploring the horticultural and botanical wonders of South Africa, in pursuit of new species of flowering trees and shrubs which could be introduced into Southern California and add to the ornamentation and pleasure of living in that area. The trip was much too hurried (five weeks from starting to back home again) to see even a fair proportion of the plants which should have been seen, but after all, air travel makes a big difference. Johannesburg is only three nights and two days actual flying time from Los Angeles.

Through the excellent co-operation of our travel agents, Parry, Leon & Hayhoe, Ltd., Mr. A. F. Gunn, chief horticulturist of the South African Railways, Mr. L. Stewart, of Pan American World Airways, and others, we were able to meet many of the leading botanists and horticulturists and to see many interesting plants and much beautiful country. I particularly appreciated the privilege of speaking before and meeting the members of the Transvaal Horticultural Society.

We were particularly impressed with "The Wilds," in Johannesburg, the extensive planting of Jacarandas in Pretoria, which we saw in full bloom, the Caledon Wild Flower Gardens, the National Botanic Gardens at Kirstenbosch, and the remarkable farm of Mr. F. C. Batchelor at Stellenbosch, with sixty acres planted to Proteas, Leucospermums, Leucodendrons, Serrurias, etc. We saw many other beautiful places, and I am sure there were still many others, including some of the desert areas, which lack of time prevented our visiting.

The Transvaal Horticultural Society, the Arboricultural Society, the Botanic Gardens at Kirstenbosch and other botanical and horticultural groups are performing a most valuable service both to local residents and to visitors in studying, planting and conserving the wealth of indigenous floral material. On our last two days in South Africa, we learned of many beautiful flowering trees and shrubs growing in isolated areas in Northern Transvaal and Southern Rhodesia which apparently were known only to botanists and which apparently have not been introduced into cultivation, or if so, only to a very limited extent. It is to be hoped that these rare and beautiful plants will be propagated and that the species will not be allowed to be exterminated when some of these areas of limited habitat are opened to agriculture and the destructive influences of settlement.

It is also to be hoped that encouragement will be given to the more extensive planting of both indigenous and exotic flowering trees and shrubs, in preference to pines and other non-flowering or less showy species. Pretoria is a thrilling example of the use of flowering trees for city beautification, and its fame has spread far. I am wondering if many street parkways or highways are planted with Erythrinas, Calodendrons, tree Ochnas or other native species. They would certainly create much beauty, should thrive well in their own environment and would be of considerable interest to visitors.

The climate of Southern California resembles very much that of South Africa, especially the Cape Province. We have the so-called Mediterranean type of climate, with cool, moist winters and dry, warm summers, with the exception that our winters are not quite as moist as the Cape area and our summers are drier. The average rainfall in the City of Los Angeles is about fifteen inches and about twenty inches in the foothill suburbs, practically all of which falls in the winter season (October to March), with practically no rain for the warmer six months. There is very little frost near the coast, but a few miles inland the temperature may drop to freezing or even 26° in the colder areas and about once every ten years may go even lower. In the "average" areas we can grow Jacarandas, *Eucalyptus ficifolia, Bauhinia variegata,* Acacias, Poinsettias, *Lagerstroemia indica,* several species of Erythrinas, etc., *Hibiscus, Bougainvillea* and some of the more tropical plants will grow well in favoured locations and moderately well in "average" locations, but may be frozen back about every eight or ten years by a stiff frost. *Delonix regia* (Poinciana) cannot be grown here.

Many South African plants have been introduced into Southern California over a period of years, but probably more of the bulbs, succulents and perennials than flowering trees and shrubs. My chief interest has been in the latter class of plants which lend themselves well to civic beautification, which has been one of the off-shoots of my hobby and also includes the newly-established Los Angeles State and County Arboretum at Arcadia, California, near Los Angeles.

Leucadendron argenteum thrives well in this area, but is rarely seen, although it is now available at a few nurseries. There is an old and fairly large planting of them on a private estate in Santa Barbara, and we have a tree which is about fifteen years old and approximately twenty feet high which has withstood a

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temperature of about 25° and eight inches of snow three years ago. We also have a tree about eight feet high which I raised from seed.

There are a few specimens of *Calodendron capense* in the Los Angeles area, one in Elysian Park which is about fifty years old and blooms profusely every summer. One wonders why there are not more of them!

I have never seen *Virgillia* or *Podalyria calyptrata* in California, although they may have been introduced years ago and may have been lost. We have both of these species growing on our grounds, and *Podalyria* bloomed last year, although was slightly frosted this winter, but not seriously hurt. I have found Proteas and Leucospermums somewhat temperamental, although I have several established plants of *Protea susannae, P. compacta, Leucospermum nutans, L. Catherinae, L. Muirii* and several others in the family of *Proteaceae.*

We are able to grow a number of species of Erythrina or "coral tree," but there is much confusion regarding their classification, and I found considerable contradiction among botanical authorities in South Africa. We in California identify *Erythrina caffra* as having long flowers folding backwards along the stem and *Erythrina constantiana* as having flowers which are larger, more widely open and not hugging the stem so closely. No one in South Africa to whom I showed a Kodachrome transparency of one of these trees growing in California had ever heard of *E. constantiana.* Some identified it as *E. caffra,* but Dr. Pole-Evans said it was a species which he had seen growing wild in Central Africa in the Mountains of the Moon area and had apparently been introduced into South Africa; he was unable, however, to name it.

I was surprised to learn that there are over thirty species of Ochna in South Africa. Only one species, a shrub, *Ochna multiflora,* has been introduced into California, and it is proving very satisfactory and is most attractive with its yellow flowers and red and black fruits. We saw one species of tree Ochna in bloom in Queen's Park in East London, but were unable to identify the species.

Among the seeds which we collected on our trip I am happy to report good germination on many, and I am particularly gratified with the results in the case of a beautiful and apparently rare shrub from the Stellenbosch area having large spikes of cerise-coloured, pea-like flowers, which was identified at Kirstenbosch as *Hypocalyptus sophoroides.* Seeds of the bush type of Mesembryanthemum or a related species at Caledon Wild Flower Gardens are sprouting like grass. We are familiar with many species of "Mesems," but I had never before seen this bush type growing up to three or three and a half feet. All those who have seen Kodachrome pictures of it have expressed keen interest.

There are comparatively few spectacular flowering trees and shrubs indigenous to Southern California, most of our colourful wildflowers being annuals. *Fremontia californica* and *F. mexicana* are shrubs having large yellow flowers, *Carpenteria californica* is a shrub with white anemone-like flowers, and there are a number of species of *Ceanothus,* which are shrubs with flowers ranging in colour from white to blue to purple, slightly resembling *Ehretia hottentotica. Romneya Coulterii* with large white poppy-like flowers, *Dendromecon rigida,* or "tree poppy," *Mimulus* in several species are a few other outstanding flowering shrubs from Southern California. A good reference on this subject is "Flowering Shrubs of California," by Lester Rowntree, Stanford University Press, Stanford University, California.

As stated before, I have been especially interested in flowering trees and shrubs which would thrive in Southern California. Owing to similarity of climates, these same plants would probably succeed equally well in South Africa. Among the outstandingly beautiful flowering trees and shrubs which have been established here and which may not be familiar in South Africa, I will mention a few.

Thevetia thevetioides, from South America, is a small tree with large yellow flowers resembling Alamanda blossoms and tolerating a temperature down to about 26° without serious harm; also a smaller flowered fragrant species, *Thevetia nereifolia.*

Chorisia speciosa, from South America, is a large tree up to sixty or seventy feet, with large pink hibiscus-like blossoms; will tolerate slight frost but not a heavy freeze.

Many recently introduced small growing species of Eucalyptus from Western Australia, including *E. caesia* (pink), *E. macrocarpa* and *E. rhodantha* (large pink or red flowers), *E. eremophila* (large yellow or pink flowers), *E. Stowardii* (yellow), *E. erythronema* (red), *E. tetraptera* (red), *E. erythrocorys* (red bud, yellow flower).

Many new dwarf shrub Acacias (*A. decora, A. obliqua, A. trineura, A. gladiiformis, A. rubida*).

Many new bottle brushes, both Callistemons and Melaleucas in various sizes and colours (red, pink, yellow, green, white, purple, violet).

Fraxinus ornus or "flowering ash" is a moderate-sized hardy, deciduous tree with spikes of white plume-like flowers.

A number of Australian representatives of Proteaceae, such as Grevilleas, Banksias, and Hakeas have proven their value in California, but many species remain unknown.

Stenocarpus sinuatus, from Australia, is a Proteaceous tree with evergreen oak-like leaves and striking red, wheel or crown-shaped flowers and tolerates moderate frost.

Embothrium coccineum or "Chilean flame tree" grows well near San Francisco and is just being tried out in this area.

Brachychiton (*Sterculia*) *acerifolium* and *B. discolor* (red and pink flowers respectively), from Australia, are both very showy.

Calliandra Guildingii or "Trinidad flame bush" is fairly hardy. *C. inaequilatera* has larger, rose-coloured flowers and will stand temperatures down to about 27°.

Prostanthera (various species), from Australia, have lavender to violet-coloured trumpet-shaped flowers on moderate-sized to tall shrubs and are very beautiful. They have not had extensive trials in California, but at least one species, *P. nivea* var. *induta,* seems to be growing satisfactorily and is now in bud.

One could enumerate many more desirable plants, but to do so would almost require a book.

In closing, I would like to express again our appreciation for the warm hospitality and the many friendships which we made on our brief visit and for the wealth of new plant material which we were able to collect in the form of seeds to help beautify the California landscape. If we can reciprocate in any way, it will give us pleasure to do so.

A COUNTRY DIARY

Westmoreland, August 14.

Growing in a heap of road rubble among a tangle of scrub and weeds not far from here is a tiny cutting from a tree which some people consider the most remarkable in the world. The baby is about eighteen inches high but already it is straight and sturdy and one day it may become a great forest tree. Its golden leaves are delicately frilled, and the rough, stony patch—the least likely site you could imagine for a great experiment—is crudely fenced in with wire. The tender young sapling, as many of you will have guessed, is a Dawn Redwood, the legendary tree which the scientists said had been extinct for sixty million years or more until the Chinese found one growing in a sacred grove on the bank of a river with an unpronounceable name. Tiny shoots from the seed of the tree which the dinosaurs knew (and probably browsed on) have reached the Lake District and cuttings have been taken in a greenhouse in the heart of the National Park. The young tree I saw has been grown from one of these cuttings and in a plantation less than twenty miles from here there is an experimental half-acre of them. Botanists have known of the Dawn Redwood for many years, for its lovely leaves have been preserved in fossilised form deep down in the rocks throughout aeons of time. Now they know the colour of those leaves, but they can only guess how high the tree, which was thought to be extinct long before history began, will grow. A. H. G.

From *Manchester Guardian,* Aug. 20, 1953

EDITOR'S COMMENTS

The figurative and much maligned spinach has its figurative parallels. Statistical reports may be one of them; but they, too, build good fibres into constructive projects and are necessary at appropriate times. The winter issue of *Lasca Leaves* will, however, have left such behind, and will offer among other papers the following:

Botanical Gardens and Arboretums of the Past and Their Reconstruction, by Frans Verdoorn; *Two Interesting Yuccas from Mexico,* by Wm. Hertrich; *Francesco Franceschi,* by John M. Tucker.

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The International Biohistorical Commission, of the International Union of Biological Sciences (International Council of Scientific Union in coöperation with UNESCO) released, August 21, 1953, report of the *Current Organization and Activities of the Botanical Section, Subsections, Commissions, and Committees* of the International Union of Biological Sciences. The eight multigraphed pages were compiled by C. Skottsberg, President, F. Verdoorn, Retiring Secretary, and J. Lanjouw, Secretary, p.tem. Correspondence concerning the report should be addressed to the Botanical Secretary, p.tem., Professor J. Lanjouw, Botanical Museum, L. Nieuwstraat, Utrecht, Netherlands. Only material concerning the Biohistorical Commission and its Committees should hereafter be sent to Dr. Verdoorn, Waltham 54, Mass., U.S.A.

"Be still, my heart, these great trees are prayers."

RABINDRANATH TAGORE, Stray Birds