Welcome!

This guide is designed for the visitor taking a leisurely paced, self-guided tour following numbered stops through the arboretum’s various gardens. Each stop is marked with a sign in the pertinent garden location. Corresponding discussion is found under the same number in this brochure. The tour route, which is slightly less than one half mile, is illustrated on the map inside and starts at the arboretum Entry Garden. It follows the main path through the arboretum beginning in the Californian Garden and finishing at the arboretum Australian Garden.

While touring the gardens, we ask that you respect the following rules:

- Please take care to stay on the paths or the lawn; walking through the planting beds is not allowed.
- Dogs are not permitted in the arboretum except for guide dogs or hearing dogs.
- Smoking is not permitted in the arboretum.
- Do not pick flowers or fruits or take plant samples or seeds.
- Please keep children under adult supervision.

We hope you find your tour interesting and informative.
1 Mediterranean Patchwork Planting

This planting, developed and designed as a student senior project, demonstrates the arboretum’s theme of displaying plants from the five mediterranean regions of the world. These five regions are: the Mediterranean basin, southwestern South Africa, southwestern Australia, most of California (except the Sierra Nevada Range, southwest deserts and extreme northwestern portion of the state), and much of Chile. These areas are collectively termed the mediterranean regions of the world based on climactic and geographic similarities. Each of the mediterranean regions is characterized by warm or hot dry summers with little or no rainfall and cool wet winters. All five regions are located mostly along the western or southwestern coasts of continents. In total, the unique mediterranean climate occurs on only two percent of the world’s entire landform, yet supports a rich diversity of exciting plants suited to most California gardens.

2 California Buckeye

In nature the California buckeye, *Aesculus californica*, drops most of its leaves during the summer dry months leaving behind its silver trunk and showy, ornament-like fruit pods. Plants that enter dormancy triggered by the onset of the dry season are referred to as drought deciduous. This adaptation allows plants to reduce their water needs by dropping leaves, enabling them to survive the long dry summers common in mediterranean climate regions. At the onset of winter rains, California buckeye unfurls its new apple-green leaves, eventually producing striking plumes of creamy white or pink flowers in the spring.

3 Foothill Sedge

While it closely resembles a bunchgrass in form, foothill sedge, *Carex tumulicola*, is in fact not a true grass but a member of the sedge family, Cyperaceae. In shady locations, such as here in the redwood grove, its foliage stays bright and green year-round while in sunnier locations, such as the bunchgrass meadow a bit further on this walk, it may yellow somewhat during summer. Other than an occasional shearing, foothill sedge demands little maintenance.

4 Manzanita

Most people know plants in the genus *Arctostaphylos*, commonly referred to as manzanita, for their attractive, mahogany bark, showy clusters of waxy urn-shaped pink or white flowers, and fruits resembling small apples. These shrubs are possibly most admired for their contorted trunks and branches with peeling bark that sloughs off to reveal new sinuous and smooth bark beneath. While manzanitas vary in their form from the most prostrate of ground covers to large shrubs, almost all have tough, drought resistant leaves called sclerophyll leaves. Manzanitas are an important component of the chaparral plant community. Chaparral generally consists of dense thickets of woody shrubs with sclerophyll leaves or needle-like leaves. Having adapted to dry settings, most manzanita species and cultivars are intolerant of poorly drained soil and overhead watering during summer.

5 Ceanothus

With over 50 species and many cultivated varieties, ceanothus can be found not only with most any shade of blue flowers, but also in most any growth habit. Ceanothus may be small trees, rambling shrubs, or low growing ground covers, but are most commonly found as shrubs of moderate size. The arboretum’s extensive ceanothus collection features select garden worthy cultivars that are available in the horticultural trade. Ceanothus do well with little water once established and prefer full sun.

Be sure to walk down toward the turf plots to view the south-facing bank of the Californian Garden which showcases an extensive collection of ceanothus cultivars flowering primarily from late winter through spring.

6 Island Oak

Several specimens of *Quercus tomentella*, the island oak, are featured in the Californian Garden. This uncommon and lovely oak with glossy deep green leaves is endemic to the California Channel Islands and Guadalupe Island off the coast of Baja California. Fast growing, *Quercus tomentella* does best in coastal situations where it may be used in place of coast live oak, *Quercus agrifolia*. 
7 Deer Grass
In summer, two- to three-foot tall plumes rise above the foliage of deer grass, Muhlenbergia rigens, adding a new dynamic of movement to the garden as they dance and sway in the passing breeze. Deer grass is one of several low-maintenance native Californian bunchgrasses that can be used to add texture and movement in the garden. As demonstrated in several locations in the Californian Garden, mass plantings of deer grass can create a dramatic landscape effect. Tough and tolerant, deer grass does best in full sun but will accept light shade situations as well. To encourage new growth and a tidy appearance, deer grass and most of the other bunchgrasses in the arboretum are cut back annually in winter. The resulting “hay” is left in place where it acts as a natural mulch and encourages wildlife.

South African Garden

8 Aloes of South Africa
Few people realize there are nearly 325 species of aloes, many of which are native to the mediterranean region of South Africa. Two quite different looking aloes are featured in this garden: fan aloe, Aloe plicatilis, with strap-like leaves arranged in flat planes giving a fan-like appearance, and coral aloe, Aloe striata, with rosettes of thick succulent leaves edged in pinkish-orange. Both produce stunning flowers during the winter and spring and thrive in a sunny, well-drained location receiving minimal summer water.

9 Silver Tree
Here’s a plant that truly lives up to its name: Leucadendron argenteum. The word Leucadendron comes from two Greek words meaning “white tree,” and argenteum is from the Latin for “silver.” Combined, they refer to the spectacular silvery white foliage of this tree which is found native only in limited areas around Table Mountain near Capetown. The color comes from minute silver-colored silken hairs that cover the leaves and help reflect heat from the intense sun. During hot or windy weather the hairs lie flat, minimizing loss of water through the leaf pores, or stomates. In damp weather, the hairs stand more erect and help trap water droplets from the moist air. Silver tree is ideal for mild coastal gardens, especially in areas receiving full sun and where soil drainage is perfect. Mature plants reach no more than 30 to 35 feet in height.

10 Protea
Most people recognize proteas because of their colorful exotic-looking flowers, some reaching the size of a dinner plate when fully open. The actual individual long slender flowers are massed in the center of the head and are surrounded by conspicuous colorful bracts, which provide most of the show. A bract is a modified leaf at the base of, or surrounding, a flower. Also known as sugar-bushes, proteas are a major component of the South African plant community called fynbos, an Africaans term meaning “fine bush.” For success with proteas in most California gardens try to provide these conditions: full sun, well-drained acid soil, carefully controlled summer watering, protection from hard frost especially when plants are young, and finally, avoid fertilizers containing phosphorus.

11 Thatching Reed
This intriguing reed-like plant, Thamnochortus insignis, is referred to broadly as a “restio.” The leaves of adult restio plants are often reduced to a brown dried structure known as a sheath. The green stems, called culms, have taken over the function of photosynthesis, which in most plants occurs in the leaves. This restio is one of the primary sources of reeds used for making thatched roofs in many parts of South Africa.

Please visit our Chilean Garden up the steps and along the fence line. Most of this garden was planted in the fall of 2002.

Mediterranean Garden

12 Italian Stone Pine
As you enter the Mediterranean garden, stop and enjoy the atmosphere created by the overhead canopy of this short avenue of Italian stone pines, Pinus pinea. As these multi-trunked trees mature they will reach a height of nearly seventy feet and their crowns will broaden creating a wide, umbrella-like top. Italian stone pines are one of nearly thirty species of pines whose cones produce edible seeds commonly known as pine nuts or pignolas. Curiously,
small potted plants of this species are commonly sold during the holiday season as tabletop Christmas trees, which is how these trees were started.

13 **Rockroses**

Rockroses, in the genus *Cistus*, are found naturally in the low maquis plant community of the western Mediterranean, primarily in Spain, Portugal, and Morocco. Maquis is a plant grouping corresponding closely to chaparral of California and matorral of Chile. Rockroses range from low growing ground cover forms, to billowy shrubs, and types tall enough to use for screening. Nearly a dozen different species and varieties are displayed in the Mediterranean Garden. Not true roses, rockrose plants are known for their colorful springtime flowers mostly of white, pink, or magenta, some with a contrasting darker spot at the base of each petal.

14 **Cork Oak**

Cork oak, *Quercus suber*, is native to the western Mediterranean, especially parts of Spain, Portugal, and Morocco, and has been used for centuries by vintners and fishermen. Mature trees may reach fifty feet in height and can be harvested for their deeply fissured corky bark about every ten years without causing damage to the tree. Woodlands of cork oak have been harvested for centuries in parts of Spain and Portugal and cork harvesting remains a cottage industry in those areas to this day. While not yet of harvest size, the trees in the arboretum were planted in the early 1990s and are beginning to produce the typical deeply furrowed, spongy bark.

15 **Olive**

Olives and olive oil from *Olea europaea* have been a central part of Mediterranean diets since ancient times and have been mentioned repeatedly in mythological tales and in the Bible. The lifespan of a healthy olive tree may be several hundreds of years, and as olive trees age they develop a gnarled, twisted character, giving each plant a unique and picturesque form of its own. Olive trees, like so many other plants from Mediterranean regions, employ the water conserving adaptation of gray foliage.

16 **Aeonium ‘Zwartkop’**

This unusual looking succulent, with its fleshy, nearly black leaves, has its origins in the coastal regions of Morocco in North Africa. Other members of the *Aeonium* genus are displayed nearby in the arboretum and nearly all come from the Canary Islands or the island of Madeira. Aeoniums require well-drained soil and thrive in full sun in coastal areas, preferring a bit of shade in hotter, inland areas. Most produce large conical yellowish flower heads carried above the foliage during the spring and early summer months.

17 **European Fan Palm**

Sometimes referred to as the Mediterranean fan palm or the dwarf fan palm, *Chamaerops humilis* is one of only two palms native to Europe. It grows naturally in parts of Spain, Portugal, Italy, and Malta, as well as areas of northern Africa. Unlike most palms that have just one main trunk, European fan palm is often multi-trunked and forms a dense, almost shrub-like thicket.

18 **Maidenhair Tree**

*Ginkgo biloba*, commonly known as the maidenhair tree or simply as ginkgo, is actually a relict from prehistoric times and is considered a “living fossil.” Ginkgoes have distinctive fan shaped leaves often with a split in the middle, thus the name *biloba* that is Latin for “two-lobed.” The name *Ginkgo* is Chinese for “silver apricot” in reference to the ginkgo fruit.

The common name maidenhair tree refers to the ginkgo leaf’s resemblance to the leaf of the maidenhair fern. Ginkgo trees have a dioecious flowering habit producing male and female flowers on separate plants. In the United States and Europe, male plants are most often cultivated because the fruit produced by female trees is messy and smelly. In Japan and China, where ginkgo nuts (seeds) are part of the cuisine, female plants are more commonly cultivated.
Bottlebrushes make up one of the most commonly recognized groups of plants from Australia. The spike-like flower clusters of bottlebrush are comprised mostly of colorful stamens – the male reproductive parts. The name Callistemon comes from the Greek term kalli for “beautiful” and stemon meaning a “stamen”, referring to the beautiful flowers of these evergreen plants. As with many bottlebrushes, the flowers of the lemon bottlebrush, Callistemon citrinus, are intense scarlet red and are great for attracting hummingbirds. Flowers of other bottlebrushes may be pink, violet, pale yellow, or greenish.

Fern-leafed Banksia

As is true in South Africa, members of the Proteaceae family are also prominent in some Australian plant communities. Possibly the best known Australian members of the protea family are in the genus Banksia, a group of plants named in honor of Sir Joseph Banks, who collected the first banksia specimens during Captain Cook’s 1770 voyage. Banksias are often found in the Australian plant community known as kwongan, a plant grouping corresponding closely to chaparral of California, fynbos of South Africa, maquis of the Mediterranean, and matorral of Chile. Many banksias grow as shrubs or small trees, but the fern-leafed banksia, Banksia blechnifolia, creeps across the ground with its stems partially underground. As is true of most banksias, the fern-leafed banksia produces long cylindrical flower spikes. In this species the unusual flowers are rusty red with conspicuous yellow pollen. Banksias’ cultural requirements are similar to those of the proteas from South Africa.

Flat-leafed Wattle

Typical of many acacias, the flat-leafed wattle, Acacia glaucoptera, does not have true leaves, but rather phyllodes. A phylloide is actually a flattened leaf stalk, or petiole, which functions as a leaf. The thick, waxy composition of the phyllode anatomy is an adaptive feature that helps prevent water loss. Lending to the unusual appearance of the flat-leafed wattle are its canary-yellow pom-pom-like flowers typical of many acacias. These are borne on short flower stalks giving the impression they are attached directly to the phyllodes.

Bottle Tree

When looking at the different species of Brachychiton one suspects that maybe Dr. Seuss’ art was inspired by just these plants. These curious trees have a swollen trunk, possibly a water storage device, from which their common name of bottle tree is derived. Three species of Brachychiton are planted in the Australian Garden. As you end your tour, be sure to view the large trunk of the Brachychiton discolor specimen in the Entry Garden.

Thank you for visiting the Leaning Pine Arboretum, part of the Horticulture and Crop Science Department. We encourage you to return to the arboretum throughout the year to experience the gardens and plants in the different seasons.

If you have no further need for this brochure please return it to the box so others may use it.

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For additional information about the gardens please contact arboretum director Tom Eltzroth at (805) 756-2888. The arboretum is open Monday through Saturday from 8 am to 5 pm, and closed on Sundays and academic holidays.