

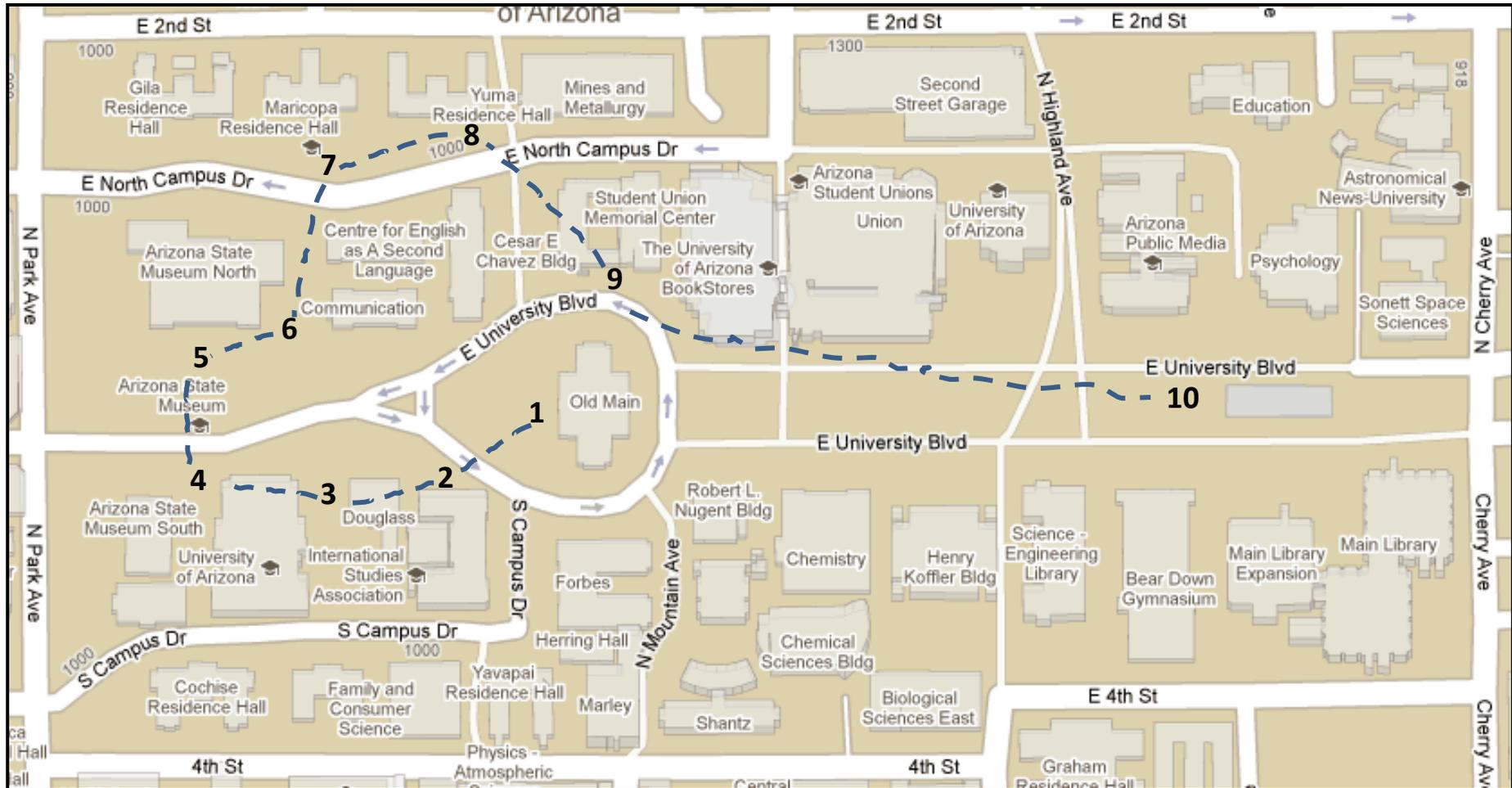


# COLLEGE OF AGRICULTURE & LIFE SCIENCES

CAMPUS ARBORETUM

## Campus Arboretum History Tour

*The University of Arizona Campus Arboretum is a living laboratory promoting stewardship and conservation of urban trees.*





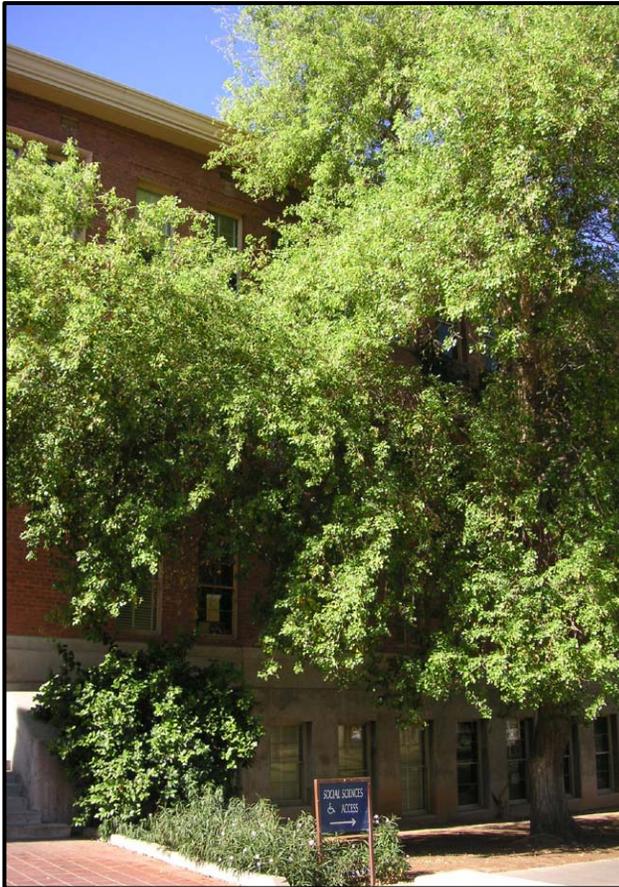
## 1. The UA Memorial Fountain.

Established in 1885 and open for classes in 1891, the University of Arizona is the Land Grant Institution for the State. It is the only one in the Sonoran Desert. As part of its mission to provide research and education to meet the needs of the state, UA faculty and staff have planted trees and shrubs and cacti for more than 120 years. These plantings created an “oasis” of learning and although, the landscape styles have changed throughout the years, the mission to create an environmentally and economically sustainable state has remained constant.

Old Main, once called “University Hall” was the first campus building. In 1891, Professor James Toumey, who later went on to found the School of Forestry at Yale University, established a cactus display garden where the fountain now sits. More than 600 species were collected and represented for study.

In 1929, the University President, Dr. Homer Shantz, a renowned botanist had the garden moved to the East of Old Main. This garden expanded to the East all the way to Cherry Avenue. Some of the original plants still remain in what is now the Krutch Garden.

This part of campus, the original 40 acres was designated as a National Historic District in 1986. All buildings, berms, walls and large trees are part of that designation by National Trust for Historic Preservation. The goal is to preserve the features of the 1891-1938 period.

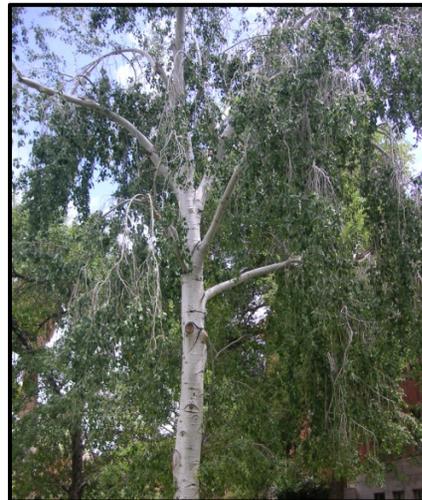


## 2. Changing Times.

Since the establishment of the cactus garden, the campus landscape has evolved. Many landscape styles are represented throughout campus, each demonstrating increasing awareness for natural resource conservation. Plants from all over the world have been chosen as trials for the Sonoran Desert. We see several trees flanking the South side of University Ave that reflect period plantings.

1930-1950

Lush plantings from east coast were popular. Trees, adapted to riparian areas, including the Sissoo and Poplars, seen north of Social Sciences building, were planted and established in flood irrigation berms using well water. The ample water these trees received by flood irrigation helped them produce deep roots and thrive for many decades. Grass planted during this period also provided supplemental moisture. When the UA switched to overhead/spray irrigation (watering just deep enough for the turf), some of the trees began to fail. The Deodar Cedars are examples of this problem.



Photos from top left to bottom right: *Dalbergia sissoo*, *Populus alba* and *Populus brandegeei*).

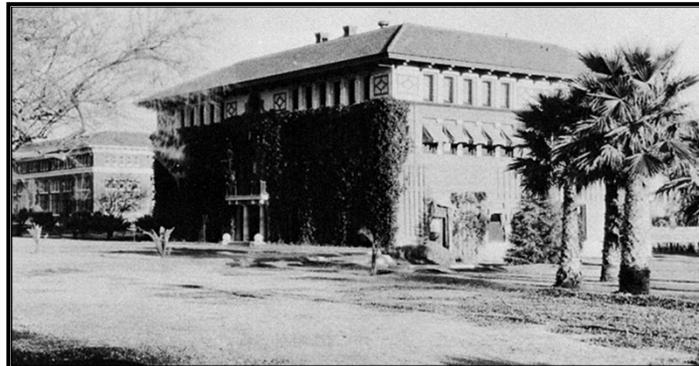


**Top left:** The view of Old Main from the Cedar Ramada at Douglass. **Center Left:** Photo of the Douglass Building ca. 1915 showing the Deodar Cedars and early Mexican Fan Palms. **Center Right:** Replacement Deodar Cedars planted in 2001.



### 3. The Cedar Ramada.

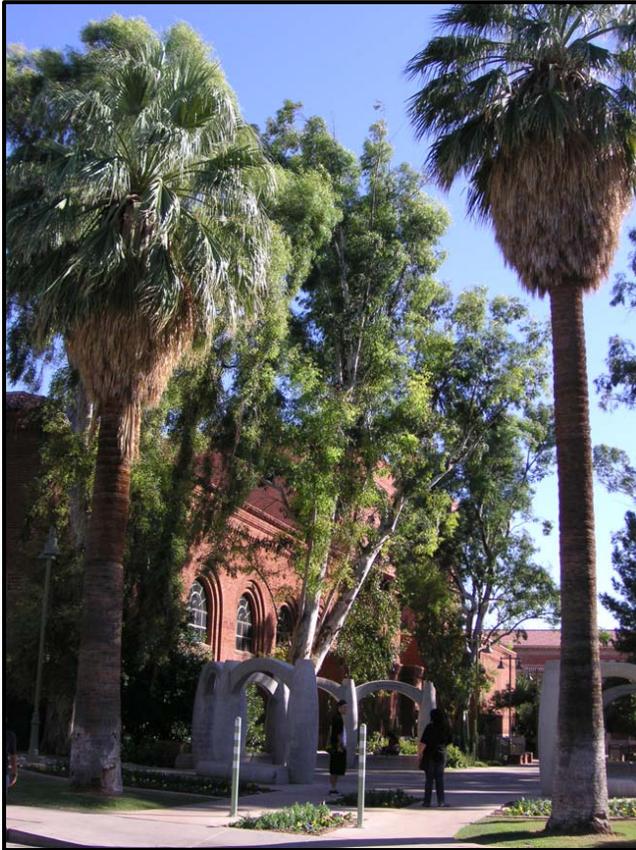
These deodar cedar trees (*Cedrus deodara*) were as tall as the building in the mid 1980s, with owls nesting in tops. Early photos show them lush and full in mid century. Due to the change in irrigation, and because they had grown so old, they began to fail in the 1990s. To honor them, this table, seats, and ramada are all made from the largest one. New ones were planted, but did not thrive without flood irrigation to assist in their establishment. In recent year, other conifers, consistent with historical preservation standards, have been chosen to replace them.



#### Palms.

The Desert Fan Palms (*Washingtonia filifera*) lining the University Ave. entrance were planted at the turn of the century. As a result of their longevity in this historic location, these trees are iconic of the UA campus as they provide a formal welcome to the main grounds.

Many other palm species can be found on campus. A few others observed from the Cedar Ramada include the very tall and thin (B.) Mexican Fan Palm (*Washingtonia robusta*), the feathery-leaf (C.) Canary Island Date Palm (*Phoenix canariensis*)



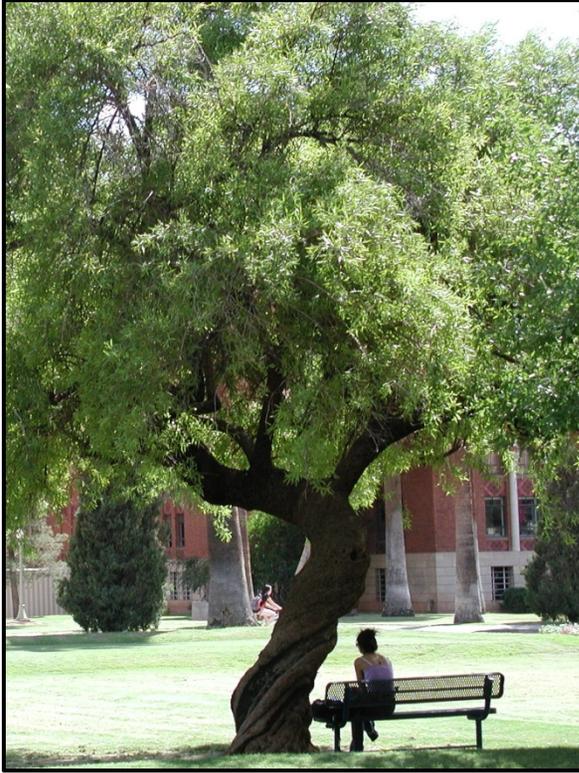
**Top left:** The view of the Women's Plaza of Honor looking south from University Avenue. The Plaza is nestled between Centennial Hall and The Arizona State Museum South.  
**Bottom right:** Brilliant orange flowers of *Justicia* and tufted white flowers of *Eucalyptus* from the Women's Plaza of Honor.

#### 4. Tree Planting and Preservation.

Women's Plaza was designed specifically to take advantage of these large *Eucalyptus* trees (*Eucalyptus camaldulensis*) growing on the site. These trees are affectionately called the "grandmother trees" as they watch over the plaza. The design used the mature overstory trees to create an inviting and intimate gathering space while still allowing enough space for their massive root zones and canopies.

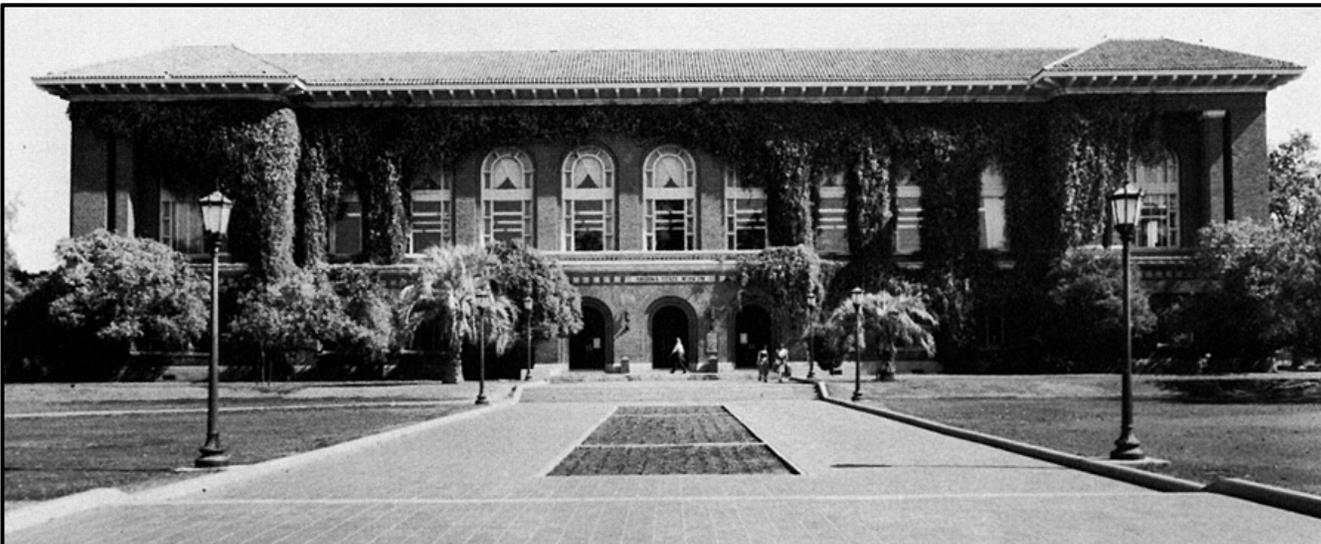
In the 1990s, campus construction resulted in an increase the loss of mature trees. Since there was no one dedicated to advocating for their preservation, many historic specimens were removed to make way for other structures. The Women's Plaza project was the first opportunity to use the resources of the newly established Campus Arboretum to assist in campus planning and design processes and to guide tree planting and preservation.





## 5. The Arizona State Museum.

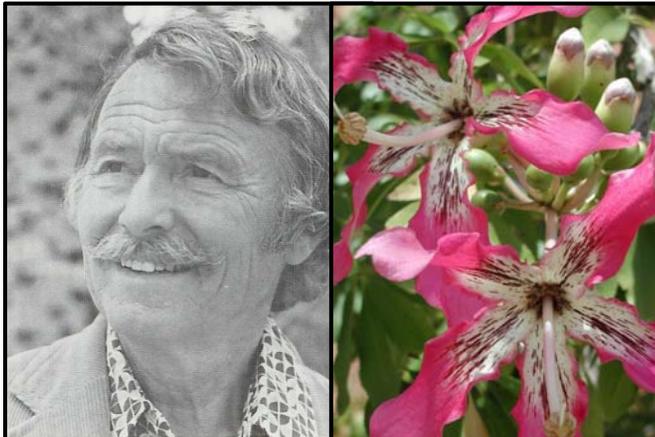
In an effort to identify landscape ornamentals adapted to the desert climate, UA President Homer Shantz planted the first African Sumac (*Rhus lancea*) in Tucson in 1928. The tree proved to be highly tolerant of the environmental stresses in this urban setting and was introduced into the nursery trade. For many decades, African sumac were very popular landscape ornamental tree for Tucson, however, they have since been found to be invasive and weedy. For better or worse, we have the oldest and most majestic specimens in the state and still admire them as a symbol of our commitment to sustainable horticultural research. In the 1940s, RB Streets, a faculty in the College of Agriculture, planted the two African sumac trees found today on either side of the Arizona State Museum (then, the library).



**Top left:** African sumac south of the Arizona State Museum. Dated ca. 1990.  
**Bottom left:** The Arizona State Museum in the 1950s showing the *Rhus lancea* planted by RB Streets.



**Top left:** A Great Tree of Arizona, the Chinese Pistache (*Pistacia chinensis*) on the SW corner of the Communications Building. **Bottom Left:** Landscape Architecture Professor Warren Jones, who dedicated his career to testing arid-adapted woody ornamentals. **Bottom right:** A *Bauhinia lunaroides* bloom, one of Warren's many contributions.



## 6. Biodiversity.

A primary goal of establishing a Campus Arboretum is to promote biodiversity. We aim to represent the native plants of the Tucson basin but also actively introduce arid-adapted plants from all over the world. The microclimates in our urban setting provide shelter for many unique specimens and afford opportunities to contribute to the biodiversity of a healthy ecosystem.

### Communications Building:

Many of our trees have special status. The University of Arizona has 20 Heritage Trees, with special significance to UA history and 10 trees designated as Great Trees of Arizona. Great trees don't have to be native to Arizona – just stately and beautiful. This Chinese pistache (*Pistacia chinensis*) by the Communication building, marked with the Great Tree label, is one of the 10 Great Trees of Arizona.

### Center for English as 2<sup>nd</sup> Language Building:

In the 1970s, environmental consciousness increased. As the constraints of urban development became obvious, there was an increased effort to evaluate plant selection and sustainable landscape management practices. Dr. Warren Jones, professor of Landscape Architecture made this goal his life's work, bringing seedlings from around the world to Tucson to test their fitness on the UA campus. As a result, almost 200 new taxa were introduced over his 30 year career. Some of his contributions shown here include the *Bauhinia variegata* on the SW corner – full of white "orchid looking" flowers in spring and the Sandpaper tree (*Ehretia anacua*).



## 7. Economic Sustainability.

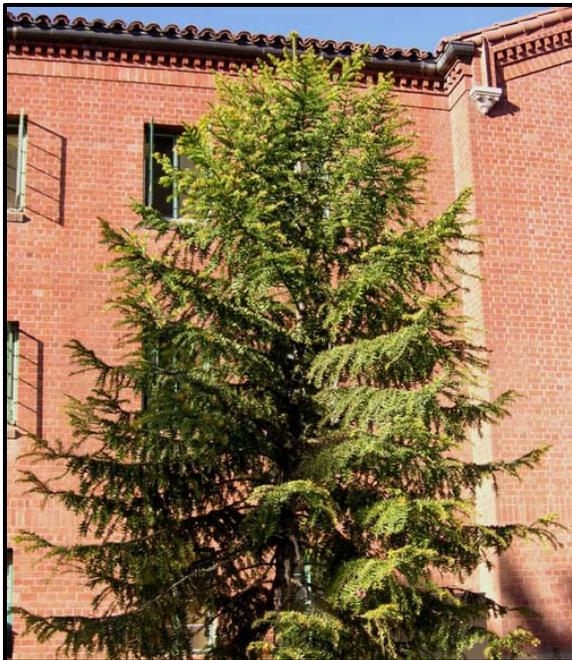
In 1891, Robert Forbes, the first head of the University of Arizona's Agricultural Experiment Station, was hired to determine which plants could be grown in the Sonoran desert as a cash crop. In fulfillment of this charge, Robert Forbes planted rows of Olives along Park Avenue and later, in 1895, along North Roger's Way. These research variety trials were planted in formal arrangements, similar to the European allees of the time so as to balance the research and aesthetic purposes of the landscape. More than 12 cultivars were proven successful and remain in their original location. They include: *Mission*, *Mevrelia (Morailo)*, and *Manzanillo*. These cultivars are well suited to Arizona and have graced this especially green location on campus for over 100 years.



**Top left:** Olives fruit ripening. **Bottom left:** Robert Forbes olive research on Park Ave. **Bottom right:** rows of benches on the Olive Walk sponsored to support the Campus Arboretum's preservation efforts.



**Top:** Fish Pond **Bottom:** Bunya Bunya Tree



## 8. Collection Development.

Along the western edge of campus, you will find many mature trees. This area, called the “green belt”, contains trees planted as early as 1895. Here, you will find an impressive diversity of trees including, Carob, Italian Stone Pine, Mulberry, Date Palms, Olives, Citrus and Chinese Jujubes. The green belt is also home to the fish pond, west of Gila Hall, on the former site of the college president’s house. Today, it still hosts fish, turtles, ducks, migrating herons and more.

Trees planted on the UA campus must conform to established standards written in the Campus Arboretum Collections Policy. Most trees are selected for their probable fitness for an urban desert setting and are then included after careful planning. However, very rarely a donated tree is accepted and planted. The Bunya Bunya tree is one such donation. It was donated, moved several times due to construction and then finally placed here. It had not performed well in previous locations, but has doubled in size within 5 years of transplanting as a result of its southern exposure and higher humidity on this lawn. This Australian native, related to Norfolk Pine and Cook Pine will produce very heavy, football-sized fruit at maturity.



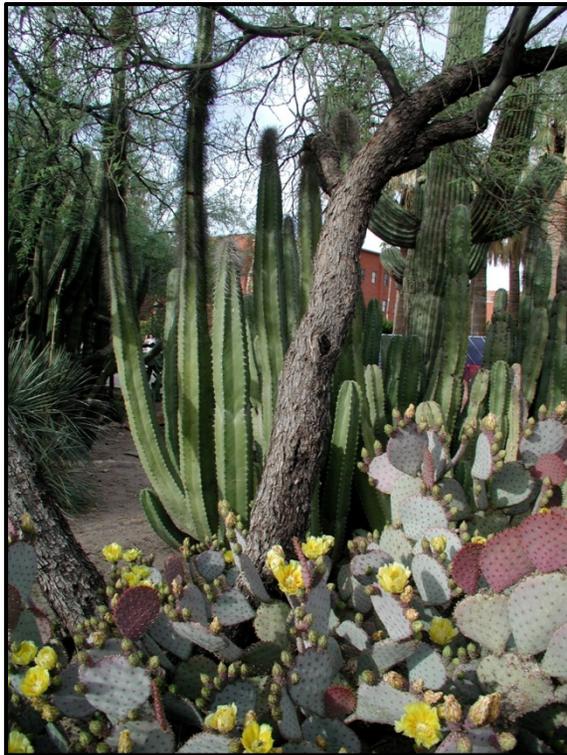
**Top:** Cork Oak. **Bottom:** Floss Silk.

## 9. Heritage and Great Trees.

**The Cork Oak (*Quercus suber*)** on the south side of the Engineering Building is the oldest on campus. Although the date of planting is unknown, a former faculty member recalled bringing his children to see it in 1950. As shown by the bronze plaque, it is dedicated as a UA Heritage Tree. It was adopted by a fraternity who used the tree to hide objects for scavenger hunts while they were students at the UA.

*The Floss Silk tree (**Chorisia insignis**),* from South America is common in the nursery trade and used as street tree in southern California. Its large, spiky trunk helps to hold water and its glossy leaves and large white flowers present a striking appearance. The fruit of this tree is the source of Kapok, used for life vest stuffing. Several others of varying ages and flower color can be found on campus, however, this one is a Great Tree of Arizona.

The multi-trunked date palm (***Phoenix dactylifera***) on the east face of Old Main is a UA Heritage tree. It honors Dr. Phillip Eckert, Dean of the UA College of Agriculture, who collaborated with the US Department of State and the US Department of Agriculture to develop the Agricultural College of Iraq at Abu Ghraib, near Baghdad. This was one of the first such collaborations between a US university and a foreign government. To honor and thank Dr. Eckert, Iraqi students planted this date palm from Iraq on campus.



**Top:** Boojum and Saguaro in the Cactus Garden's centerpiece ca. 1932. **Bottom:** The Krutch (cactus) Garden now.

## 10. KRUTCH GARDEN

Originally located on west side of Old Main in the 1890s, the University's cactus collection, consisting of over 600 species, was painstakingly moved to the mall side in 1929. The new Cactus Garden held everything from large saguaros to small night blooming cereus. It was embellished with winding walks and benches, and filled the area from Cherry Avenue to Old Main. The central oval, surrounded by lava rock, held the nicest specimens. Starting in the 1950s, grass replaced the cactus until only the centerpiece of the garden remained.

In 1980, the remaining island of desert plants was dedicated to writer and naturalist Joseph Wood Krutch. Over the years, new cactus species have been added, birds and lizards play, and wildflowers bloom. In 2004, the Krutch Garden was enlarged as part of the Alumni Plaza. It stands as the Campus Arboretum's most sustainable garden and a tribute to the UA's long history of dedication to landscape stewardship.



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Now that you've taken a tour of this very small portion of campus, we hope you're inspired to continue your botanical explorations of other areas. We invite you to explore the UA Arboretum again in person or in the cool dimly-lit environs of cyberspace via virtual tours offered on our website [http://arboretum.arizona.edu/tree\\_tours](http://arboretum.arizona.edu/tree_tours) The campus is open 7 days a week, absolutely free. Many trees are labeled, and more signs are being made.

During business hours M-F 8-4pm, you may pick up self-guided tour booklets of the UA Arboretum available for loan from Herring Hall. Pima Co. Master Gardeners also offer docent-guided tours several times each month throughout the academic year (August through April). There is much botany and a rich state history to learn from this living laboratory. We look forward to greeting you. Contact the UA Campus Arboretum for general questions regarding campus (or any) plants.



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