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A Native Garden Loquats Western Azaleas New NPA Border Bees Pitzer College Landscape



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A Surprising Landscape at Pitzer

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Last spring I took my daughter, then a high school junior, on a tour of California colleges. We started in Sacramento and headed south, visiting several small, liberal arts colleges, all with lovely campuses, vaguely reminiscent of those on the East Coast. However, when we got to Pitzer College in Claremont, Southern California's premier college town, we found an entirely different setting.

At Pitzer, our tour group was lead by a spunky young coed from Portland who talked about academics and life on campus. She toured us through the classrooms, the dining hall, and the cool new LEED-certified freshman dorm. Everyone craned their heads to see inside. Except me . . .

I craned my head in the other direction to look at the gardens and landscaped spaces. Never before had I seen a campus landscaped like Pitzer. Its buildings are surrounded by the most sophisticated and artfully presented collection of succulents, desert plants, and mediterranean-climate plants outside of a botanical garden.

Visitors to the admissions office, for example, are greeted by colorful, desert-derived plantings that include lacy, yellow-flowering palo verde trees (*Parkinsonia*), several kinds of aloes, blue purple prickly pears (*Opuntia santa-rita*), brilliant orange stems of *Euphorbia tirucalli* 'Sticks On Fire', creeping and undulating *Crassula perfoliata*. There are sunset-colored flapjack plants (*Kalanchoe thyrsiflora* and *K. luciae*), various agaves, and *Chitalpa tashkentensis* 'Pink Dawn', a hybrid of the native desert willow (*Chilopsis linearis*) and southern catalpa (*Catalpa bignonioides*) from the southeastern US.

In parking lot islands, colonies of golden barrel cactus (*Echinocactus grusonii*) are juxtaposed with variegated *Agave attenuata* and the liver-speckled mangave (\times *Mangave* 'Macho Mocha'). Towering overhead are the still young canopies of low-water deciduous trees, such as the Chinese pistache (*Pistachia chinensis*). Eventually the trees will shade cars and pavement during the long, hot Claremont summers. Come winter, their leaves will turn vermillion and gold before dropping.

I remembered a visit years earlier, when my dear friend Jan Smithen (author of *Sun-Drenched Gardens*, 2002) dragged me to see a wild and woolly section of Pitzer's campus that had been planted as a native garden. She also took me to their ethnobotanical garden, dedicated to the Gabrieleno Tongva, the Native Californians who lived throughout the Los Angeles basin as far back as 2500 BCE. Jan wanted me to see the potential for exceptional gardens at Pitzer. Since then, the college has taken tremendous strides to realize that potential, thanks to horticulturist Joe Clements.

From Huntington to Pitzer

For decades, Joe Clements cared for the world-renowned desert garden at nearby Huntington Botanical Gardens. In 2000, Pitzer hired Clements as grounds and arboretum manager. He immediately embraced the task of converting the campus's conventional, thirsty landscape into a sustainable one. He did it, in part, because it was the right thing to do and, in part,



Among the earliest plantings on the Pitzer College campus, a multi-trunked specimen of Texas ebony (*Pithecellobium flexicaule*) dominates the center of a bed, surrounded by pipe organ cactus (*Pachycereus marginatus*) and *Agave datylio vexans* on the left, a silvery century plant (*Agave americana*) in front center, and *Cylindropuntia cholla* and *Euphorbia rigida* on the right. Photographs by author, except as noted

Parking lot plantings: *Aloe striata* in the foreground, with various forms of jade plant (*Crassula ovata*) to the rear and 'Sticks on Fire' (*Euphorbia tirucalli*) against the rock; taller aloes dot the bed

Aloe dorothea on the left and *A. vanbaleii* behind red-edged flapjacks (*Kalanchoe thyrsiflora*)



because it helped fulfill the college-wide plan for overall campus sustainability.

On the Pitzer website, I learned that the college has sixteen theme gardens that together form the Rodman Arboretum. Intrigued, I called

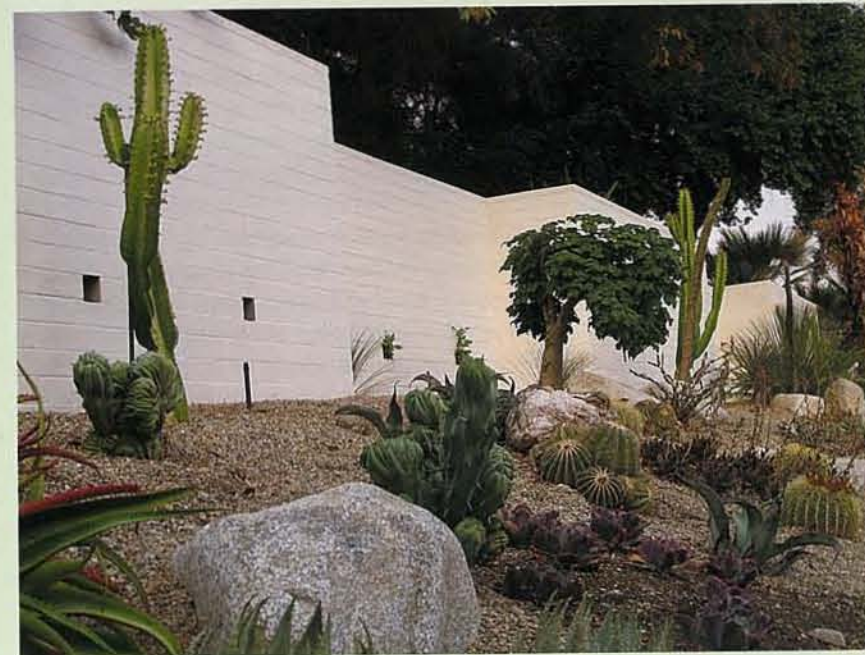
Clements, immediately, and arranged for a tour.

At one point, Rodman Arboretum consisted of individual gardens. Today, Clements told me, the arboretum encompasses most of the campus and is named for the late John R Rodman, a polit-

Dining hall plantings: tall columns of *Euphorbia obovalifolia* (syn. *E. ampliphylla*), silvery blue spears of *Yucca rostrata*, *Aloe camperi*, *A. suzannae*, and little *A. aristata* on the left, and a dwarf form of crown-of-thorns (*Euphorbia millii*) flowering in the center



Pitzer students building a dry streambed in the new garden they designed in front of two popular lecture halls. Photograph by Joe Clements



A sloping, gravel-mulched bed with an exceptional group of succulents: from left, a columnar euphorbia with two crested forms of *Mytillocactus geometrizans* in front; barrel-like *Parodia magnificus* and purplish *Echeveria 'Etna'* backed by a single trunked *Uncarina grandidieri*; *Agave gypsophylla* and golden barrel cactus (*Echinocactus grusonii*) to the right, with grassy *Dasyliirion longissimum* sporting a tall floral stalk to the rear

ical science professor who promoted a concern for the environment in Pitzer's early days. Supported by fellow faculty and an involved student body, Rodman established Pitzer's environmental studies department in the 1970s.

Clements began our tour by explaining his overall philosophy: "We look for plants from the Mediterranean, California native plants, succulent plants. . . . In our climate, these plants are sustainable, since they don't need much

water, fertilizer, or maintenance.”

Clements led me to the dining hall first, where he pointed out a flat, rectangular planting bed in front of a broad wall. Clearly, the space called for something tall to break up the expanse. Rather than a single tree in that spot, Clements planted several South African *Euphorbia obovalifolia*; their tall, columnar stems seem sculpted in multiple angles, each edged with a fringe of green leaves. Beyond aesthetics, he chose to use that species there because Claremont is at the edge of its cold tolerance. The large building creates a protective microclimate, at least for now. “Eventually,” Clements says, “they’ll get to be too tall, and we’ll have to move them. But, that’s easy to do since succulents have so small a rootball.” Surrounding the euphorbias, Clements arranged granite boulders, clumps of green aloes, rosettes of *Echeveria*, colonies of rounded green and bronze aeoniums, and *Yucca rostrata*, whose rigid, narrow leaves are silvery blue.

Secrets for Success

As we talked, Clements shared some secrets of his success. For succulents and mediterranean-climate plants, including most California natives, he and his crew assemble a well-draining soil mix. “Ideally” he says, “you want a third compost, a third pumice, and a third sand. Since we are on an alluvial fan, we have lots of sand, so we don’t need to add that much sand. We add more topsoil and compost, sometimes pumice, to create an open mixture.” The plants are all irrigated with low-pressure micro sprays or with drip emitters. The beds are mulched with gravel.

In an adjacent bed, critters (both two- and four-footed) had become a problem. Clements’s solution was to create a striking arrangement of rare plants that just happened to have spines or thorns. *Pereskia scharosa*, for example, is a shrub-like member of the cactus family, with deep green leaves and stems and surprisingly rose-like pink flowers. Its many spines make it a great “keep away” hedge. The planting also features several species of *Uncarina*, tall, fuzzy-leaved, sesame relatives, along with *Alluaudia*,

a Madagascar native that is the ecological equivalent of our Southwest desert ocotillo (*Fouquieria*). Both genera have tall, somewhat twisting stems lined in wicked spines and tiny green leaves.

“There are only about 20,000 kinds of succulents to choose from,” Clements says, somewhat facetiously, as he talks about his love for these low-water, low-maintenance plants. Among the succulents on campus are more than fifty kinds of agaves and a similar range of aloes. “I especially like aloes because they flower in winter,” he says. “Hummingbirds pollinate them here, but sunbirds do it in Africa . . . Aloes give you winter color, but some also bloom in other months. If you have enough of them, you can have year-round color.” He points out a mature *Aloe suprafoliata*, whose blue gray leaves are tipped in red and white.

Clements, his staff, and student volunteers produce many of the plants for campus, especially the succulents, from cuttings; some are taken from plants already on campus, others from his own garden. “We buy many of our plants,” Clements says, “and, once we have them, we can propagate more of them.”

Campus Guerrilla Gardening

Clements greets students by name as he drives us across campus on his electric cart. We stop by a young garden planted in front of Scott Hall and Broad Center, two large lecture halls. A few years ago, a group of students did a bit of guerilla gardening here in the middle of the night. Jane Philips, an art and environmental studies major, was part of the group. “We are supposed to be an active and environmentally friendly school” Philips said, “but we are wasting tons of water and resources. We live in a dry climate, so we shouldn’t be watering lawns we don’t use, not even as social spaces. We wanted a space that could be used as an outdoor classroom instead of a wasted space—a no-man’s land.”

The students’ actions caught the attention of faculty and administration, particularly Environmental Studies professor Paul Faulstich, a cultural anthropologist. He regards ecological

restoration as “the intersection of environmental degradation and human behaviors.” It is a way to be accountable for our actions. The idea is to embrace “a forsaken responsibility and restore the land to a healthier state. It isn’t just biological, it’s social as well.”

“Environmentalists have been accused of stopping progress,” Faulstich continued. “We want to start things, not lead them. We want to inspire the way we create shelters. Ecological design is intended to re-calibrate what humans do, based on what the world dictates; you can’t separate humans from the equation.”

What the students did in that act of guerrilla gardening intrigued Faulstich, though he was critical of their lack of any prior communication about their concerns. He, in turn, initiated a dialogue that, ultimately, led to community discussion about the landscape. The college responded with an offer for students to design a new garden on the site.

With Faulstich as their advisor, several students did an independent study project to develop a conceptual plan and plant list for the new garden. Then, forty students, including Philips, participated in a more formal class, where they actually created a detailed design. A professional landscape architect adapted their design for submission to Claremont’s planning department; the students shepherded the plans through the permitting process.

Once permits were granted, the students worked with Clements and a local landscape contractor to rip out the lawn, grade the space, and create the new gardens. Clements made sure that the students participated fully by digging, schlepping, even operating the Bobcat. Boulders and cobbles, dug out of Claremont’s alluvial soils, were recycled into a dry streambed. The students added broad, flat boulders for the outdoor classroom they had envisioned.

Now in its third year, the garden has six parts, each representing a nearby native habitat: riparian, chaparral, grassland, oak woodland, coastal sage scrub, and desert. Part of the lesson for the students is that gardens don’t happen immediately. “It takes four to five years until it really starts to look good,” Clements points out. “Then, you may still have to do some editing.”

More Student Involvement

Students participate in the campus landscape in a variety of other ways. In 2009, for instance, the Southern California Horticultural Society funded a student intern whose assignment was to map and label many of the plants on campus.

In 1994, a group of students, faculty, and staff, took pickaxes and jackhammers to an asphalt parking lot behind Grove House, a California bungalow that had been moved to campus about twenty years earlier to serve as a student gathering spot. They transformed the hardscape into the Farm Project Garden and Orchard, where, today, a platoon of students tend beds of fruits, vegetables, and herbs, a small orchard, and chickens.

Students also process mountains of compost made from landscape green waste and leftover food from the dining hall. Six students spend a few hours each week turning the piles. According to Dean Pospisil, an art and biology student and former compost manager, they process about seventeen tons of food waste each year.

Watching Clements help the students as they worked in the garden, I realized that Pitzer’s gardens are more than sustainable landscapes; they also serve to break down social, economic, cultural, and age barriers. That is exactly the point, says Pitzer President Laura Trombley: “Pitzer has always been known for its cutting-edge approach and engagement.” The commitment to a sustainable landscape, as a component of social equality, is a logical outcome of that thinking.

After our visit, I thought back to my daughter’s reaction to Pitzer. I had assumed that she, like the others on our tour, was focused on what our guide had to say. To a large extent, she was. “I could really see myself going to school here,” she told me. “I love the atmosphere and the fact that students are involved in making decisions on campus.” Then, to my amazement, she added, “and the campus gardens make it feel just like home.”



Visit www.pacifichorticulture.org to read about Nan Sterman’s own garden in San Diego County, featured in the July 2004 issue of *Pacific Horticulture*.