On a warm October morning Lance Birk and Brandon Tam are busy pollinating orchids in a humid Huntington greenhouse filled with 6,000 specimens of eye-popping color and beauty. Bearing a toothpick, the 17-year-old Tam gingerly extracts pollen—far smaller than a grain of rice—from the column of one *Paphiopedilum rothschildianum* and carefully inserts it into that of another. The veteran orchid enthusiast Birk instructs Tam on how best to spread the sticky pollen under the plant’s stigmatic plate.

“We’re making a sibling cross between these two randomly selected plants of the same species,” explains Birk. “With the seeds produced, we’ll grow about 50 plants.” Then, by comparing the offspring against one another, they can study the genetic diversity and variations of that particular species to understand its full and natural expression.

Thanks to the single-minded passion of a former stockbroker from Santa Barbara who spent decades amassing one of the world’s great orchid collections, The Huntington is on course to becoming an important center for orchid conservation. The late S. Robert Weltz, whose daughters donated his entire orchid collection to The Huntington after he died last spring, is also the inadvertent creator of an unlikely partnership; it pairs an orchid expert who has traveled the world searching for rare species with a bright and focused teenager who came to The Huntington as a volunteer and stayed as an intern.

Birk’s interest in orchids dates back to 1962, when he began trekking through Mexico, Indonesia, China, and the Philippines to uncover elusive species. He developed a specialty in paphiopedilums (commonly known as lady slipper orchids). At his home in Santa Barbara he built his own orchid collection, which he eventually
While Birk and Tam come from different worlds, they are bound by that inexplicable orchid fever.
Perhaps The Huntington’s orchid collection will forever be referred to as “Before Weltz” and “After Weltz.” Boasting beautiful and rare natural species as well as rare and unusual hybrids, the Weltz collection elicits such superlatives as “world’s best” and “one of a kind.” A great many of his plants have won top awards.

“Bob would get there first, and he paid the most and sought out the best,” says Birk. “His desire was for award-quality hybrids.” Indeed, Weltz spent countless hours in his greenhouse creating strange and even bizarre hybrids. His cross of a Paphiopedilum rothschildianum with a Paphiopedilum armeniacum produced the difficult-to-obtain Paphiopedilum dollgoldi ‘Laurie Susan Weltz,’ earning him a perfect 100-point First Class Certificate from the American Orchid Society. He even set up his office in his greenhouse, bringing in his Bloomberg machine, a computer system that helps to analyze the financial markets, so he’d never have to leave his plants. By all accounts, he was completely impassioned, driven by the desire to produce hybrids, a process that can require cross-pollinating thousands of plants to eventually create one significant specimen.

Before Weltz, The Huntington’s orchid holdings were scattered, “a smattering of some nice species,” says Folsom, explaining that they consisted of about 2,000 species and hybrids. “We had breadth but not depth, some great plants but nothing noteworthy. The Weltz collection is composed of spectacular species. It concentrates on slipper orchids and unusual hybrids, so overnight we have a notable, core collection.”

What The Huntington didn’t have in its collection, it made up for by cultivating an orchid culture that would support receiving this gift and an interest in orchids that stretched all the way back to Arabella Huntington, who loved and collected them. In fact, the Huntington’s San Marino estate was the first place in Southern California where cymbidiums were grown outside as landscape plants. But after Henry Huntington died in 1927 and following the stock market crash two years later, personnel managing the property needed to cut expenses. The gardens were trimmed back and the orchid collection sold.

But orchids found their way back in a variety of ways. They came through the knowledge of Folsom, who focused on orchid-related field taxonomy and evolutionary biology as a graduate student in botany, and through the long association with Orchid Digest magazine. The publication maintains its editorial offices in the Botanical Center, and Folsom is a member of its publication committee. In 2002, The Huntington received an endowment from the late orchid enthusiast David Nax that provides ongoing funds to support the orchid collection by perpetuating their cultivation, display, interpretation, and study here. More recently, Geneva and Charles Thornton made a promised gift of their San Marino home and garden, which includes a conservatory that will soon house 2,000 specimens from The Huntington’s orchid collection. And orchids also arrive every fall with great fanfare for the annual Southland Orchid Show, hosted by The Huntington.
in the Botanical Center and in The Rose Hills Foundation Conservatory for Botanical Science.

For these reasons, a cadre of orchid experts regularly congregate at The Huntington: Harold Koopowitz and Ernest Hetherington, who both serve on the board of Orchid Digest, are often found in the gardens or Botanical Center, just as scholars are found in the Library. Koopowitz is professor emeritus of ecology at the University of California, Irvine, and a Paphiopedilum expert who has traveled extensively to study orchids in the wild and to serve as an advocate for their conservation. He is the author of several books on horticulture and conservation. Folsom describes Hetherington as a guiding light for The Huntington for 20 years. “He’s one of the great orchid legends of the world, not just of Southern California,” says Folsom. “He ran Stewart Orchids for decades and has written extensively. He nurtured Orchid Digest and nurtured the connection with The Huntington. He’s a patriarch of the whole business.”

In fact, Hetherington served as a mentor to Folsom. “In the plant world, that is the way it happens,” says Folsom. “You’re really fortunate if you hook in to someone that has the same passions.” Coincidentally, Birk also served as a mentor to Dylan Hannon, the curator of conservatory and tropical collections at The Huntington. “He first knocked on my greenhouse door at the age of 13, asking for a job,” Birk recalls. Folsom now says of Hannon, “There is no better grower than Hannon—and he is more current on orchid identification than any of us.”

Perhaps The Huntington’s orchid collection will forever be referred to as “Before Weltz” and “After Weltz.”

Trekking through a jungle in Laos searching for wild orchids must seem like a faraway dream. But working with a world-class orchid collection at The Huntington is also a dream come true.

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More than 25,000 different species of orchids are believed to exist in the wild, making it the largest family of plants on earth. Though often associated with the tropics, where they tend to grow on the trunks or branches of trees, orchids appear in many climates, including cooler regions in North America. In fact, orchids can be found everywhere but the Arctic and the Antarctic. Orchids are also slow to grow, taking years to bloom, thus requiring delayed gratification from collectors. Indeed, the pollination that Birk and Tam are beginning now won’t yield a flower for at least five years.

Regarded as exotic, mysterious, complicated, seductive, and temperamental, orchids seem to stand alone in their capacity to capture collectors’ attention and stir their passions. They have inspired such artists as Georgia O’Keeffe to hail their beauty in paintings, and writers such as Susan Orlean, who explored their allure in her popular book The Orchid Thief. Eric Hansen’s book Orchid Fever details the lunacy and fervor of many of the world’s less-known orchidists, including Robert Weltz.

It wasn’t that long ago that orchids were hunted and collected in almost every part of the world by people fixated on their often-garish colors or fascinated with categorizing orchids and figuring out their pedigrees and unique pollination systems. These days collecting from the wild has become virtually impossible because of regulations imposed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). All wild orchid species are categorized as endangered, but some specimens can be collected with proper CITES permits, particularly for research purposes; CITES also allows for an exchange of wild-collected species between research institutions for scientific study. Collecting without proper permits, however, can result in fines and even incarceration.

But it’s not collecting that threatens orchids in the wild so much as the destruction of their habitats, which often results in the loss of their pollination system as well. “When an orchid exists only on five mountain tops,” says Folsom, “and it depends on an insect that itself might exist only on those five mountain tops, we risk losing the orchid forever if we start fracturing and changing the habitat.”

It’s Folsom’s vision that over time The Huntington will become a major player in orchid conservation, doing so, in part, by organizing a consortium of gardens that will collaborate on conserving as many kinds of orchids as they can. After reproducing rare orchid species here, The Huntington can send the extra plants to other institutions for study as well as for safekeeping and further reproduction of pure species.

“Orchids are a highly imperiled group, and a lot of gardens need to coordinate and maintain collections,” says Folsom. “We can grow orchids here pretty well, but one garden cannot manage the full range of biodiversity across orchids. Still, it’s important to do all that we can, because these are phenomenal examples of evolution that would otherwise be lost.”