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Registration Opens July 2018
THE JOURNAL OF THE AMERICAN PUBLIC GARDENS ASSOCIATION VOLUME 33, ISSUE 2, 2018

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Greetings Members:

I present myself to you as both the new Marketing and Communications Manager for the Association, and the new Editor in Chief of Public Garden.

Growing up in William Penn’s “Greene Countrie Towne” of Philadelphia and attending college at the University of Vermont, I have a long-standing appreciation for the beauty of nature and public engagement in horticulture. Philadelphia styles itself as America’s Garden Capital with over thirty local public gardens, including historic Bartram’s Garden and world-famous Longwood Gardens.

While I have yet to visit them all, I have frequently visited gardens across the United States including California, New York, North Carolina, and Washington, D.C.

Since joining the Association last November, I have developed an appreciation for the interconnectedness of the public garden world. My first activities were focused on the launch of the new and improved website features for our Association Communities where public garden professionals can interact with each other across the country.

And in my conversations with members of the three Association Communities I liaise with, the emphasis has always been put on the fantastically collaborative nature of this industry.

Then there was working on this month’s cover story about Naples Botanical Garden’s post-hurricane recovery: “It’s not just ‘What do you need?’ It’s ‘What do you need?’ and ‘We’ll be there on Monday’.”

After spending most of the past twenty years in the world of non-profit performing arts, I am happy to join the public gardens world and look forward to working with you all. Reach out to me on the Community Forums or via email, direct message, or the phone and I hope to meet a lot of you at Disneyland® this June for the annual Conference.

Best regards,
RAD
Richard A. Doran
While the year 2017 is one that many of the Association’s member gardens would probably like to forget, it’s one that they almost certainly never will—not only because of the disasters that affected dozens of Association members from the hills of California to Puerto Rico and the Virgin Islands, but also because of the outpouring of aid that many received from across the professional garden community.

Hurricane Harvey made landfall in Texas on August 25, drenching South Texas with unprecedented rainfall for more than a week and heavily damaging Mercer Botanic Gardens with eight feet of rushing, debris-laden floodwaters during a four-day period. Shangri La Botanical Gardens and Nature Center saw over fifty inches of rain in less than forty-eight hours and significant flooding damaged buildings throughout the garden. Both gardens remained closed for months following the storm.

Two more hurricanes—Irma and Maria—hit Florida and the Caribbean in September, causing extensive damage to Florida and Caribbean islands. Twenty-two Association members in Florida reported damage from the storms. St. George Village Botanical Garden in St. Croix, U.S. Virgin Islands, sustained minimal building damage, but Maria caused significant damage to the garden itself. Arboretum Parque Dota Inés on Puerto Rico fears that over 2,000 specimens in its collection were lost, and it remains in crisis months later.

Then, in December, the Thomas Fire in Southern California swept across the Ventura Botanical Garden and threatened Santa Barbara Botanic Garden and Lotusland. While some gardens escaped with relatively minor damage, others were forced to deal with the cleanup of significant debris, or were more severely impacted. There are important stories at every garden, but unfortunately to tell them all is beyond the scope of Public Garden. We encourage you to share your stories on the new Community Forums on the Association website.

This article focuses on the impact at Naples Botanical Garden and the response of its staff and the staff of many member gardens that came to their aid in a time of need.

On September 7, 2017, The National Weather Service issued a Hurricane Watch for South Florida and upgraded to a Warning the next day. On the afternoon of September 10, Irma made landfall on Marco Island, just south of Naples. The island recorded the highest sustained winds of the storm at 112 miles per hour. However, wind gusts as high as 142 miles per hour were recorded at Naples Airport, not far away.

Naples Botanical Garden—two miles south of the airport and around ten miles north of Marco Island—bore the brunt of Irma’s wrath.

“Not a single plant showed a sign that it hadn’t been through a storm,” Naples Botanical Garden Director of Horticulture Brian Galligan said. “It ranged from a burnt leaf to a broken branch to total catastrophic damage… It was overwhelming, seeing things you had grown from a seedling laying on the ground and destined for the [compost] pile.”
Naples Botanical Garden
Photos: Naples Botanical Garden

Naples lost a third of their plant material and more than 500 trees were topped, with 300 of them lost. One news report (Naples Daily News, 9/13/17) described the look of the Garden as a “bowl of chopped salad.” That debris pile grew to two football fields in length and ten feet high, much of which was eventually repurposed as compost to get nutrients back in the soil.

Most of the staff at the Garden were among the estimated 6.5 million Floridians who evacuated ahead of the storm, with just three members of the horticulture staff remaining in the area. After Irma made her way into Georgia, the Garden, like 7.7 million homes across Florida, found itself without power. The internet wasn’t working, cell towers were inoperable, and even land lines were down.

“I just remember that first day coming back,” Naples Deputy Director Chad Washburn said. “It was just kind of surreal. Brian and [Curator of Collections] Liz [Chehayl] and I have been with the garden since the beginning of planting our formal gardens. We planted these trees and worked with the design. It was really hard to come back and see that devastation.”

Despite the damage that touched every aspect of their lives, the staff at Naples was resolute in their approach: “It didn’t feel like despair,” Washburn said. “It was, ‘We built this, we can rebuild it.’” Administrative staff who typically worked indoors “brought their work clothes and got a taste of a typical Florida work day,” Galligan said. “We had a pretty good preparedness plan and luckily we had gone beforehand and gotten supplies we knew we would need.”

One of the most important things that the Naples staff quickly learned was that, despite the seeming isolation, they weren’t alone.

“No one missed the fact that we were hit,” Galligan said. “Luckily a lot of our peers who had power and social media said, ‘Let’s put something together.’” Executive Director Donna McGinnis became a conduit of information and luckily we had gone beforehand and gotten supplies we knew we would need.”

The Association’s Garden to Garden Disaster Response Center was an incredible response to crisis communication. All our peers knew immediately what we needed and where we were in our recovery.”

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People are so fascinated that that would happen,” McGinnis said. “We work together all the time, but the story is that we all help each other out and work together on a regular basis. It was immediate and it goes back to what we all in gardens know, which is that we know each other. We are linked together through the Association. We talk to each other and there are these relationships.”

McGinnis came to Naples from the Missouri Botanical Garden. “My first contacts were [MBG President] Peter [Wyse Jackson] and [Senior Vice President, Horticulture and Living Collections] Andrew [Wyatt] and they just said, ‘What do you need help with?’ They drove down here – eighteen hours straight – and stayed at my house. We never even had to ask. They just kept coming.”

Some of the arriving help were familiar with members of the Naples staff through professional contacts like the Association’s symposia and annual conferences. Others simply responded to their inner need to help. And that help wasn’t just in the aftermath of Irma – it continues into 2018 and has prompted discussions on how to work better together going forward.

“I was very familiar with the garden prior to the hurricane,” Richards said. “I previously lived in the southwest Florida area when the garden was just a design on paper. I have worked with and come to know many of the staff well over the years through mutual collaborations, and building plant collections.”

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Bok Tower Gardens, 150 miles north of Naples, lost power for eleven days after Irma and was closed for thirteen. Bok Tower lost several large trees and shared the Naples experience of having their understory plantings ravaged by the Florida sun. Garden Supervisor Ashley Stonecipher and her crew were one of the last groups that arrived before the Garden reopened and put their experience at Bok to work in Naples.

“We were impressed with how well they had been able to get up and running,” Stonecipher said. “We worked a lot on the ground cover. We were the final stage of putting it together—the colorful portion.”

“We still think about the people from Bok Tower,” Chereau said. “Strategies were to start planting so things look neat and orderly and draw the eye away from the damage. Now we have a wonderful design of annuals and bromeliads that the Bok Tower group had been able to get up and running, but until you’re a part of one, it is hard to describe the rollercoaster of emotions.”

Even as help arrived, the effects of Irma were still being felt. Under normal circumstances, many damaged plants could have been saved. But these were far from normal circumstances. The storm knocked down trees, exposing fragile understory plants to the blazing Florida sun. Many Garden areas needed to be made accessible before they could be recovered.

Most of the trees that remained needed the quick and effective intervention of arborists arriving from other gardens.

“For me, it’s seeing trees in the canopy that are there because other gardens came,” Washburn said. “We have a tree in the children’s garden, one of the centerpieces, and both the Missouri and Chicago crews helped to clean up the canopy and give it structure so that it would survive into the future. When I go past that tree, I think of them up in that tree.”

Just three weeks after near total devastation, the Garden re-opened on October 1. Much of the outer perimeter of the Garden still needed to be recovered and dozens of toppled trees were still on the ground, but thanks to the efforts of the staff and their fellow garden professionals the residents of Naples had their Botanical Garden back. There was even a wedding on site the day before the official opening.

Two days that were really emotional,” Washburn said. “The first day back seeing the garden. And then the first day the community returned to the gardens. I wasn’t sure the community would come—some people had not even returned yet and many people were busy taking care of their homes—but we had close to 2,000 people come out that day. It was great to just come together and take a breath.”

“The ‘worst’ thing we heard was ‘Wow, you guys didn’t hardly get hit hard at all!’” Galligan said. “A real bittersweet comment.”

END NOTE
Naples Botanical Garden still faces significant challenges, not the least of which is navigating the insurance claims and the process of applying for help from the Federal Emergency Management Agency.

“We’re in the process right now (February). Another good example of the collaborative experience of this profession,” McGinnis said. “I had multiple directors call about their experiences after Hurricane Andrew.

“There are things we wish knew at the beginning that would have made it easier. It is a very complex process that is a huge amount of work. We have a staff of about eighty and it is going to stretch us to the limit to put this together. We have to go to the level of detail that ‘Steve ran that chainsaw for that many hours’ for that detail of work.”

“We’re hoping we can be a model for Gardens (dealing with disasters) in the future.”

Another way that Naples hopes to act as a model is in helping other gardens. In February, Naples staff visited Puerto Rico’s Arboretum Parque Doña Inés, hit first by Irma and then slammed by Maria. The Arboretum remains in desperate straits.

“Ian Simpkins at Vizcaya reached out and sent photos of the arboretum,” Washburn said. “They were part of the [Garden to Garden] Disaster Response Center. We have very similar flora. He had a lot of plant material he asked if he could share with us. We’re going down to deliver and help.”

“We got the call from Puerto Rico and it was like, ‘Of course we’re going to do that,’” McGinnis said. 

[10,11]
COLLABORATION IN PLANT COLLECTING AND CONSERVATION:
THE 2017 COASTAL SOUTHEAST EXPEDITION

Jenna Zukswert, Sean Halloran, Cat Meholic, Ethan Kauffman, Tom Clark, and Jess Slade

MODERN-DAY PLANT COLLECTING
Western botanical history is filled with fascinating accounts from plant explorers who traveled the world in search of new, interesting species to bring back with them. Explorers like John and William Bartram traveled through the eastern United States extensively and shipped specimens of American plants to Europe where botanists like Linnaeus would examine them and inevitably name them as new species. Lady Dalhousie, of East Lothian in the United Kingdom, traveled in much of Canada, India, and the Cape of Good Hope documenting the species she saw; the rugged eighteenth-century travels did not deter her from carrying her notebook and watercolors to create detailed accounts of plants that also led to the naming of new species.

Plant exploration remains vital to many curation departments at public gardens today, but the purpose of collecting and participation in expeditions has broadened since the time of these earlier explorers. The Arnold Arboretum’s ten-year Campaign for the Living Collections, which began in 2015, exemplifies this transition. With a target list of over 395 taxa, the arboretum seeks to acquire mostly wild-collected material from across the temperate biome to broaden the diversity of their holdings, as well as play a role in ex situ plant conservation. As anthropogenic threats to plant habitats increase, plant collecting efforts by botanic gardens assist in conserving biodiversity.

Last October, members of several other public gardens joined the Arnold in a multi-institution plant collecting expedition along the coasts of North and South Carolina with the goal of expanding our living collections to further support ex situ conservation efforts. The success of this Coastal Southeast expedition, nicknamed COSE, and other modern-day plant collecting expeditions, depended on the collaboration of many individuals, from the planning stage to the planting stage.

PLANNING THE COSE EXPEDITION
The first step in planning a plant collecting endeavor is to identify target species to collect. For the Arnold, species are sought from all over the temperate biome, but the southeastern United States represents a hotspot due to the vast plant biodiversity of this region and potential hardiness of these southern plants in a changing climate up north. In 2016, the Arnold sent an expedition to the southern Appalachian region, and in 2017, it was time to start searching for their targets farther east, along the coast. Sean Halloran and Jenna Zukswert were chosen to represent the Arnold on the COSE expedition.

This diverse region is of interest to other botanic gardens as well. Due to similarities in desired acquisitions, the Morris Arboretum in Pennsylvania and the Folly Hill Arboretum in Massachusetts joined COSE also. Jess Slade represented the Morris, and representatives from Folly Hill included two former employees, who also collected on behalf of their current institutions: Tom Clark at the Mount Holyoke College Botanic Garden and Cat Meholic at the University of Delaware Botanic Gardens. Natural Lands’ Stoneleigh joined as well, given Ethan Kauffman’s experience in South Carolina and interest in acquiring native species for this new garden. The six members collectively represented six botanical institutions, and each contributed a unique background and skill set to the team.

Each expedition involves many tasks, from obtaining permission to collect and organizing travel, to collecting plant material in the field, to coordinating the transport of the obtained material. To accomplish these tasks efficiently, each member is assigned aspects of the trip for which they are responsible. Work can be shared, but each person is responsible for making sure that certain tasks are accomplished.

 Expeditions typically have a designated leader who delegates these roles and makes sure that the team has permission to collect the plants on their target list. Since the Arnold initiated this expedition, and Jenna had prior experience participating in expeditions, she served in this role for COSE. As an expert on the region, Ethan contributed information on target plant locations and permissions contacts.

Several of our intended locations included state parks, national forests, and private reserves, which often require collectors to submit permits stating exactly what they intend to collect and why. It is important for the future of plant collecting that our collections are made ethically, and that all aspects of how and why we collect this plant material...
are expressly permitted. The taxa list we shared in our permit applications included more species than we realistically anticipated expedition; Jenna led this effort and was assisted by Ethan, Tom, and Sean, as well as Robert Dowell, who provided support for the Arnold Arboretum’s 2017 expedition teams.

Once we started acquiring permits, we began planning our itinerary. Ethan, Cat, and Jenna determined a tentative itinerary, starting near Charleston, South Carolina, and working our way north. Cat secured two Airbnb houses, one near our collecting locations in South Carolina and the other in North Carolina.

The remaining roles related to herbarium voucher acquisition, germplasm (seed, cutting, or in rare cases seedling) collection, and documentation. Jess was our lead for the herbarium samples, and Sean for germplasm collections. Jess and Sean made sure we had enough supplies to collect these herbarium vouchers and germplasm. While all expedition members participated in the collection of samples, Sean and Jess held ultimate responsibility for overseeing these collections. Tom’s role as plant recorder meant that he meticulously collected detailed information about the plants we encountered in the field; these botanical observations and precise location and habitat details are just as important as the plant material itself. After all, seeds don’t always germinate, and seedling may correspond to provenance and location information can be important for planning future trips and sharing knowledge with other institutions.

COLLECTING IN THE CAROLINAS

Our group began in South Carolina at Moore Farms Botanical Garden, which graciously provided us with lodging, supplies, and advice during our short stay. After a short drive towards the coast, we met with Dr. Richard Porcher, a local botanical expert with whom Ethan had corresponded. Dr. Porcher first took us to private property and, after acquiring permission, we were able to visit, we made twelve target taxa collections on the first day of our trip.

Francis Marion National Forest was a major destination on our itinerary, occupying almost two entire days and accounting for about a quarter of our collections. Thanks to Ethan’s expertise and extensive planning by Jenna and Ethan, we visited diverse habitats, including bald cypress swamps, pocosins (evergreen shrub bogs), maritime forests, pine savannas, shell mounds, and pond cypress depressions. In these depressions, we collected the elusive *Pieris phillyreifolia* (climbing fetterbush), a little-known species in *Pieris* that we found climbing on *Taxodium ascendens*, or pond cypress. During our time in Francis Marion, Ethan pointed out and identified numerous herbaceous plant species, highlighting the value of having local experts on your team.

After collecting in Givhan’s Ferry State Park and Old Santee Canal Park, we traveled up the Atlantic coast and stopped at Brookgreen Gardens, which is a wonderful sculpture garden, zoo, and natural lands preserve near Myrtle Beach, South Carolina. We collected three species of *Carya*, and had the pleasure of seeing our first longleaf pine savanna, an important and incredibly diverse plant community reliant upon fire. Mike Ammons, natural lands manager at Brookgreen Gardens, explained to us the importance and challenge of educating the public about the benefits of fire, and we were awe at the almost extraterrestrial habitat Mike was showing us. We saw pines in all stages of development, from cone to mature tree, and saw the effects of fire on boles and regeneration of herbaceous plant material in a post-fire savanna.

Our now-seasoned group of plant explorers left South Carolina to join up with state botanists Andy Walker and Gary Kauffman in the Croatian National Forest in North Carolina. We spent the first day in Croatian primarily in pocosin, and Andy and Gary showed us where, and how, to find *Gordonia lasianthus* (loblolly bay), *Persea palustris* (swamp bay), *Zenosia puberulenta* (dufty zenoa), and *Magnolia virginiana* (sweetbay magnolia). They also showed us herbaceous plants, including carnivorous plants like sundews, pitcher plants, and *Vriesea flynnii*. The herbaceous layer is incredibly diverse in this habitat, and Andy and Gary explained how fire plays a key role in shaping the diversity of these ecosystems.

With increasing threats to plant habitat and biodiversity, conservation is critical. While efforts to conserve plants in their own native habitats are essential, responible ex situ plant collection is secondarily important and can help bolster these vital in situ conservation efforts. For instance, plants conserved ex situ may serve as emergency sources of plant material in the event of unavoidable habitat loss. Educating the public about these plants and the stories behind their acquisition, through our gardens, may instill in them the value of conserving these habitats.

The success of our efforts to conserve plant diversity ex situ in public gardens depends on the collaboration of many diverse individuals. Local botanical experts, plant collectors, botanists, propagators, horticulturists, scientists, and educators all have important roles in the future of biodiversity. The COSE expedition demonstrates how collaboration among multiple institutions can produce a successful plant conservation effort, and this collaboration will continue as our collections germinate and represent those wild populations in each of our landscapes.

CONCLUSION

While efforts to conserve plants in their own native habitats are essential, responsible ex situ plant collection is secondarily important and can help bolster these vital in situ conservation efforts. For instance, plants conserved ex situ may serve as emergency sources of plant material in the event of unavoidable habitat loss. Educating the public about these plants and the stories behind their acquisition, through our gardens, may instill in them the value of conserving these habitats.

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South Coast Botanic Garden is a superb example of land rehabilitation with little evidence of its “trashy” past. In 1951, Los Angeles planners seized an opportunity to solve waste management challenges with the help of an abandoned open pit mine in nearby Palos Verdes. The crater left by the mining operation was repurposed as a garbage landfill.

The trash was covered with a daily blanket of soil to prevent seagulls from making a mess of the neighborhood. The movement of dirt with bulldozers and trucks provided locals with an inspired idea—to create a public garden atop the refuse. With the future garden in mind, the trash was placed purposefully, like a sculpture molded from mixed media. Piles of scrap metal formed rolling hills; old tires morphed into meadows; and the mine’s base served as a lakebed.

Today, the trees have taken root and nature has grown in. The one-time garbage heap is a thriving garden. Collection highlights include the Banyan Grove, Desert Garden, and Fuchsia Garden. South Coast Botanic Garden is experiencing yet another rebirth with the recent unveiling of a show-stopping new Rose Garden and four new specialty gardens to follow in the coming years.

DANIELLE LACHARITE BROWN, CHIEF DEVELOPMENT OFFICER, SOUTH COAST BOTANIC GARDEN

South Coast Botanic Garden is one of the host gardens for the 2018 Annual Conference in Southern California.
Stanhopea and Gongora are pollinated exclusively by Euglossine bees—large iridescent bumblebee relatives widespread in the neotropics. The male bees are attracted to specific floral fragrances such as 1,8-cineole, benzaldehyde, methyl benzoate, and methyl cinnamate, and they collect the floral volatiles by scratching the surface of the orchid's lip with their front tarsal brushes (hair-covered patches located on the forelegs). Both orchid genera have “fall through flowers.” In the process of collecting the volatiles or in transferring the fragrances to the hind tibiae, the bee often loses his grip and falls from the flower's lip, such that his back strikes the column and the pollen masses are deposited on his thorax. In this way the bee picks up or deposits the polinia of the flowers and effects pollination. The orchids provide no reward other than fragrance and they attract no other visitors. Male Euglossine bee-pollinated orchids and their pollinators are often cited as an example of plant-pollinator coevolution.

Stanhopea and Gongora and other Euglossine bee-pollinated orchids have been the subjects of phylogenetic and fragrance research since the 1980s at the University of Florida (UF). Since 1989, ABG has received divisions of the plants from the research collections of Dr. Mark Whittem and Dr. Norris Williams at UF’s Gainesville campus. In addition, we have supplemented ABG’s collections with purchases and exchanges with botanical gardens and individuals.

**COLLECTION PROFILE**

The goal of ABG’s species orchid collection is a wide representation of taxonomic diversity within the Orchidaceae for display, research, and education. Euglossine bee-pollinated orchids are one of five core collections within the orchid collection that are cited in the Garden’s Collections Policy as the focus of more intensive development.

The value of the Stanhopea and Gongora collections resides in their taxonomic diversity and documentation. Data on their provenance, phenology, capsule maturation time, lab media, and lab transfers are collected along with dissection images and stored within the Garden’s plant records database; these records are continually updated. The Stanhopea collection currently includes 72 taxa, and 281 accessions of 53 species and comprises 372 plants. The Gongora collection currently includes 48 taxa, and 156 accessions of 46 species and comprises 210 plants. Goals for the future include linking accessions in the database to herbarium vouchers and DNA barcoding data.

**DISPLAY, EDUCATION, RESEARCH**

Stanhopea and Gongora are displayed year-round on a rotational basis or permanently installed in the 16,000-square-foot Fuqua Orchid Center, allowing educators and docents to introduce concepts of pollination biology, coevolution, and plant diversity to students and visitors. Stanhopea and Gongora are made accessible to an international readership in ABG’s orchid blog, The Orchid Column (www.theorchidcolumn.com).

Although Stanhopea and Gongora are exceptionally showy and have enormous potential as research and teaching subjects, they are not well represented in botanic gardens and university teaching collections. ABG frequently receives and fulfills requests for tours of the orchid collection and for divisions and seedlings. In 2016 ABG received Institute of Museum and Library Services (IMLS) funding for DNA barcoding of orchids of the southeastern US and ABG’s orchid collection. We actively seek opportunities to provide material to other institutions and have recently provided divisions to researchers at the University of California’s Davis and Riverside campuses, Harvard University, and the University of Florida.

Propagation is critical to the preservation, renewal, and augmentation of plant collections, and a micropropagation, or microprop, lab is an essential tool for an orchid propagation program. ABG’s microprop lab produces material for ex situ conservation and for augmentation and renewal of tropical orchid collections. High priority Stanhopea and Gongora species (those that are naturally rare, rare in cultivation, or have wild provenance) are pollinated for seedling production, data production, and distribution, and are propagated vegetatively for back up. Seed is stored in a -20°C freezer for short term use. Future goals include linking seedling production and distribution files to the plant records database.

Since 2015 ABG has distributed hundreds of orchid seedlings, including Stanhopea and Gongora, from our propagation program to fifteen botanical gardens and universities and has provided dozens of divisions to researchers at American universities. Distribution not only enriches teaching and research collections, it safeguards against unexpected losses at a single organization.

**Standhopea and Gongora now join Sarracenia, Acer, and Magnolia as Nationally Accredited Plant Collections™ at the Atlanta Botanical Garden. As our garden develops strategic goals for our collections, the Plant Collections Network’s Standards of Excellence will become a useful guide for setting goals and measuring success in our efforts to strengthen our collections and ensure that valuable germplasm is available for future generations.**

*Becky Brinkman has been Manager of the Fuqua Orchid Center at the Atlanta Botanical Garden since 2002.*

Discuss this article on the Plant Collections Community Forum on the Association’s website.
Enrique first came to New Orleans in 1929 and was the lead sculptor for the WPA during the 1930s, creating numerous pieces of public art in City Park and throughout the region. It was during this time that he created fountains, sculptures, and limestone relief in the Garden.

I was fortunate to work with Enrique here at the Botanical Garden from 1982 until his death in 1999. He completed his last piece here at the Garden in 1998 at the age of 97.

The mission behind the creation of this Sculpture Garden was two-fold: to display Enrique’s incredible works in an aesthetically pleasing landscape, and to tell the story of his connection to the WPA, the Botanical Garden, and his colorful personal life.

The Helis Foundation underwrites free Wednesday admission to the Botanical Garden for Louisiana residents. They also support our “Evenings with Enrique” program every April and October, where fire baskets are suspended from a large live oak tree and visitors enjoy Latin music, mojitos, and Latin food.

The Helis Foundation Enrique Alférez Sculpture Garden has been a tremendous addition to the Botanical Garden. It provides a unique and authentic experience for the visitor, and showcases the creations by one of New Orleans’ most famous artists—Enrique Alférez.

Photos: Crista Rock
Opposite page:
La Soldadera (Female Soldier) during an Evening with Enrique
This page, clockwise from top left:
Guests enjoy Latin music during an Evening with Enrique
Woman with a Shell
The fountain was constructed with recycled granite curbstones from the streets of New Orleans
Gymnast in the foreground, and Repose in the background
Arabesque in one of the garden arbors

Paul Soniat is Director of the New Orleans Botanical Garden.
Discuss this article on the Small Gardens Community Forum on the Association’s website.
Planned giving is a specialized but invaluable tool in the development field. Planned gifts are contributions that are arranged in the present and are often realized at a future date, helping donors create their legacy at the public garden they love. To help achieve this goal, a garden’s development department, the donor’s advisors—including an attorney, financial planner, or CPA—and a volunteer advisory committee work together to market and administer the array of legacy gifts available, including:

- **Bequests.** A bequest is the most common type of planned gift. It can be as simple as a single sentence in a donor’s will or trust, but has a powerful impact on a garden’s ability to sustain its mission for future generations.

- **Qualified Charitable Distribution from IRAs.** This useful tool—sometimes called an IRA charitable rollover—is available to donors who are 70½ or older and who would like to make a distribution of up to $100,000 directly from their IRA custodian to satisfy required minimum distributions without generating taxable income.

- **Beneficiary Designations.** Another simple option is to name a garden as a beneficiary or percentage beneficiary on a retirement plan, transfer-on-death account, or life insurance policy.

- **Complex Giving.** Charitable gift annuities, charitable remainder or lead trusts, and gifts of real estate can be more time-intensive, but can transform a garden.

At the Desert Botanical Garden, where I oversee the planned giving department, the donor’s advisors— including an attorney, financial planner, or CPA—and a volunteer advisory committee work together to market and administer the array of legacy gifts available, including:

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The Hazel Hare Center for Plant Science is an 85,000-square-foot horticulture campus that showcases a sustainable greenhouse used by Garden staff and researchers to grow and study plants, including many rare, endangered, and threatened species. Myrna’s legacy gift will fund construction of the future Myrna H. Berger Children and Family Garden, a three-acre “garden within a garden” that will inspire lifelong learning about the desert for children and families and will serve as a living memorial to Myrna and her love of the Garden.

Planned gifts can sustain your garden’s work for years to come and honor the people who take great joy in your success. Consider promoting these gifts at your garden and help garden friends create their legacy.
When it comes to war, plants don’t retreat. Rooted to the ground like stalwart castles of old, plants have evolved deadly arsenals in defense against their mortal enemies. Rancho Santa Ana Botanic Garden’s new exhibition, *Game of Thorns™*, focuses on the art and armaments of botanical warfare through the lens of HBO’s megahit television series, *Game of Thrones*. Just as mighty Houses duke it out in Westeros for control over the coveted Iron Throne, California native plants have long engaged in a floral arms race, producing stockpiles of protrusions: spines as sharp as samurai swords, glochids as ferocious as whaling harpoons, stinging hairs like hypodermic needles, and many more menacing barbs. The exhibition features these living fortresses and showcases their weaponry on massive scales, from giant scanning electron microscope imagery to the Grove of Thorns.

The Grove of Thorns, an installation of giant, crystalline sculptures, represents real thorns from the Garden—some magnified over 1,000 times! These artworks were created by (carefully) collecting spikes from beavertail cactus, desert ironwood, Nootka rose, and Joshua tree in our Garden, reflecting the four major houses of the *Game of Thorns™*—House Cactaceae, House Legume, House Rosa, and House Agave. The collected specimens were 3-D scanned, 3-D printed, and then cast in their final form in a New York City art studio. This surreal installation was made possible through a community of backers on Kickstarter. Invited to join a Major House, our backers became an intrinsic part of the experience. Backers proudly wore their respective sigils and had their names emblazoned on House banners—generating hype and camaraderie. Houses were selected for a gamut of fun and engaging reasons—some chose their favorite taxa while others picked the House that had caused them the most pain in real encounters. In fact, a whole wing of the exhibition came into existence from these vivid memories—the Hall of Pain.

Both *Game of Thorns™* and the methods used to fundraise for the original show are key examples of the Garden’s exhibition-driven initiative to connect its collections with themes and trends in contemporary culture. In building these bridges between the Garden’s California native plant mission and the general public, the Garden provides new visitors with a familiar entry point (in this case, the widely-popular *Game of Thrones* books and series) while offering returning guests and members the chance to see California native plants from a fresh perspective.
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http://www.timberpress.com/books/peony/michener/9781604695205
Submitted by Dorothea Coleman, managing editor, Public Garden

MONARCH CONSERVATION
The Great Milkweed Grow Out is a Desert Botanical Garden initiative that supports monarch conservation through the propagation of native milkweed species, outreach with the community, and research. In partnership with Brooks Community School Greenhouse and with funding from Monarch Joint Venture and the Bureau of Land Management, this program has an amazing impact!
As of publication, this program has grown 18,000 new native milkweeds, planted 70,000 seeds, collected 120,000 seeds, and created ten pollinator gardens in the community. I gifted desert milkweed to my mom and her backyard is now a beautiful butterfly stepping stone for monarchs!
www.dbg.org/milkweed
Submitted by Amber Ramirez, Program Director, Estate and Gift Planning, Desert Botanical Garden

TWIST CULTIVATOR
I love this terrific cultivator tool, not only for its elegant aesthetic but also its fantastic ability to break through and handle difficult soils. Designed by Sophie Conran for Burgon & Ball in the UK, it can be ordered directly from there, and has been available in the U.S. through Amazon.
www.Burgonandball.com
www.amazon.com/Sophie-Conran-Burgon-Twist-Cultivator
Submitted by Jenny du Pont, American Corporate Partners

MULTI-DISCIPLINARY
A NEW PARTNERSHIP INTRODUCES A NEW BUSINESS MODEL FOR A GARDEN EXHIBIT: RECOUPING EXHIBIT COSTS WITH SALES
Susan Crane
For most public gardens, finding the next new exhibit is a recurring challenge that can keep the best marketing and exhibit staff up at night. Ideally, an exhibit is one that will sound enticing to the press, give members an added incentive to visit, and attract new visitors as well—all while fitting into a budget with many other demands. The exhibit should also be a good fit with the physical space of the garden and, ideally, be mission-related. Visitors have come to expect something new each year, so balancing the ongoing promotion of a garden’s plant collection and permanent exhibits with something new presents a challenge.
Over the past eight years, Morris Arboretum has met this demand with a combination of both larger and smaller exhibits on alternate years. Spring/Summer exhibits typically open April 1 and run through Labor Day or into October. The larger exhibits have included the launch of the permanent Out on a Limb – A Tree Adventure Exhibit in 2010, David Rogers’ Big Bugs in 2013, and two different Patrick Dougherty stick sculptures in 2009 and 2014. The smaller exhibits have focused on themes that featured local artists. Take a Seat in 2012 invited artists to design Adirondack chairs placed throughout the garden. Our Feathered Friends at Morris Arboretum highlighted hand-crafted
Above: A ‘wind forest’ (artist Lyman Whitaker’s term) grouping of kinetic sculptures in Morris Arboretum’s Sculpture Garden.

Photo: Paul Dorrell

Right: A group of kinetic sculptures adorn the landscape of Morris Arboretum’s English Park.

Photo: Rob Cardillo

birdhouses, some functional, some whimsical. And in 2016 a fiber artist was invited to express her creativity with Wrapped Up, a yarnbombing exhibit of colorfully wrapped trees and Arboretum structures. Each exhibit served as the impetus for that year’s theme, which was extended to educational and event programming, overall promotion, and branded merchandise.

As Morris Arboretum approached Spring/Summer 2017 we wanted to celebrate the twenty-year milestone of the Garden Railway display, one of the garden’s most popular attractions, but add an exhibit for bigger impact. The idea of motion was explored as a theme to echo the Garden Railway’s loco-motion. Coincidentally, while I was on vacation in Santa Fe, New Mexico, I came across the work of an artist who designed kinetic wind sculptures—talk about motion! The artist was Lyman Whitaker, whose work was artistic and could lend itself to programming ideas. Morris Arboretum tracked down the artist, who referred us to Leopold Gallery in Kansas City. A partnership was born.

Leopold Gallery had exhibited Lyman Whitaker’s work in large public spaces, but not at a public garden, and they were interested in exhibiting in the Philadelphia market. Gallery owner Paul Dorrell proposed a different business model than Morris Arboretum had used for any of its previous exhibits. All sculptures would be available for sale, including Lyman’s entire collection through the gallery, and any purchase associated with the Morris Arboretum would benefit the Arboretum with a generous commission. Leopold Gallery would handle all sales transactions so that the Shop and staff at the Arboretum would not have to spend time selling. The cost for the exhibit was $25,000 for approximately 50 sculptures. This included a site visit several months prior to the exhibit to plan the layout of the installation with Arboretum staff, the installation of 53 sculptures in ‘wind forest’ groupings (installation took three days), removal of the sculptures at the end of the exhibit, brochures designed to our specs with sculpture pricing, and a training session for Visitor Services staff.

When the exhibit closed in December (extended by two months due to its popularity), 84 sculptures had been sold, some from Morris Arboretum’s collection and some directly from the gallery. Those sold from the garden collection were not available until the exhibit ended. Visitor response to the exhibit was very positive, as was press coverage. This included a piece by a local CBS TV affiliate, which aired a story about the exhibit on the evening news. Morris Arboretum earned $16,155 in commission from sales, recouping a good portion of the expense to bring the exhibit to the garden. Following Morris Arboretum’s success, Leopold Gallery and Whitaker Studios have partnered with other gardens including the Phipps Conservatory and Botanical Gardens and the Denver Botanic Gardens. Morris Arboretum considers this exhibit and its new business model to have been a success that could work for any public garden.

Susan Crane is Director of Marketing at Morris Arboretum of the University of Pennsylvania. She is pleased to announce that on May 5, 2018, Morris Arboretum opens its newest exhibit, Time in the Garden. This indoor and outdoor exhibit features eighteen artists’ work interpreting time and the role it plays in the garden. Time in the Garden will be on view through October 2018.

Discuss this article in the arts and Exhibitions Community Forum on the Association website.
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